"Synthesis Paper - Nutrition and Healthy Eating Strategies in Canada and Other Jurisdictions - 2004"

April 8, 2005

Nutrition Planning Group Report

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Executive Summary

Introduction

In March 2004, the Primary Prevention Action Group of the Canadian Strategy for Cancer Control (PPAG – CSCC) and the Chronic Disease Prevention Alliance of Canada (CDPAC) co-sponsored a meeting of key chronic disease prevention stakeholders to discuss the development of a national Nutrition Strategy Framework for Canada.

At this meeting, participants reached agreement on the need to develop a comprehensive *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention,* and an accompanying *Pan-Canadian Nutrition Mobilization Plan*. Some participants volunteered to continue to work together following the meeting and formed the Nutrition Planning Group[1] (NPG)

The NPG assumed that the strategy would describe the goals, priority strategies and activities comprehensively; i.e., actions that could be taken by government, non-governmental agencies and the corporate sector at the national, provincial, and local levels. They also assumed that the strategy framework would be a tool to enable intersectoral, collaborative planning at each of the national, provincial/territorial and local levels or more focused planning by any organization appropriate to its mandate and role in the collective effort.

The NPG acknowledges that the development of a *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention* is occurring at a time when much work is underway in Canada to develop national, provincial/territorial and regional/local strategies to address the epidemic of obesity, prevent chronic diseases such as cancer, heart disease and diabetes, as well as to promote health, wellness and healthy living. Many of these strategies include healthy eating and physical activity.

However, due to lack of investment and resources the NPG believes that, unlike other areas such as tobacco and physical activity, the area of nutrition and healthy eating has not had a comprehensive and coordinated approach. The aim of the NPG is to support and enhance the work related to healthy eating by bringing together the evidence about best practices, fostering the exchange of information and lessons learned, and creating links and mobilizing efforts to achieve outcomes related to a common set of population health goals, objectives and targets, which can be measured using accepted nutrition indicators.

Members of the NPG decided that an important first step in the development of a *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention* was to commission a review of current nutrition plans and strategies that exist in Canada (provincially/ territorially and nationally) and internationally, and assess their main components, priorities and gaps. This information was believed to be critical to the development of a comprehensive Nutrition Strategy Framework and an accompanying *Pan-Canadian Nutrition Mobilization Plan,* and to the successful engagement of national, provincial/ territorial and regional/local stakeholders.

[1] The Nutrition Planning Group is a coalition of representatives from leading government and non-government organizations that have joined efforts to develop a comprehensive approach to promote healthy eating in Canada.

The desired outcome is to foster the development of collaborative nutrition action plans, based on evidence and best practices, such as those outlined in the *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention* and a subsequent *Pan-Canadian Nutrition Mobilization Plan*.

Objectives of the Project

The objectives of this Project were to:

- synthesize the main components, goals, objectives and priorities, and the evidence on which they are based, of nutrition, healthy eating and chronic disease strategies and plans in Canada (at the national level and in the provinces and territories) and in other jurisdictions (New Zealand, Australia, United Kingdom, Finland and the United States)
- critically analyze these existing nutrition, healthy eating and chronic disease strategies and plans in relation to the NPG *strategic components for Developing a Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention*) and the WHO *Global Strategy on Diet, Physical Activity and Health* and to identify gaps in relation to the NPG Components
- identify lessons learned in Canada and internationally in developing and implementing nutrition, healthy eating and chronic disease strategies and plans
- make recommendations about a *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention,* based on the WHO *Global Strategy on Diet, Physical Activity and Health*, within the Canadian context and the NPG Components.
- present an outline for a potential P*an-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention,* including components and key content that is 1) based on available evidence and best practices in Canada and internationally, and 2) describes and builds on the key components that currently exist in Canada

Methodology

This review of existing nutrition, healthy eating and chronic disease strategies, and best practices, was guided by a list of questions developed by the NPG. The questions focused on processes used to develop strategies, barriers and opportunities for developing strategies, evaluations, barriers to implementation and indicators of success.

The methods used to collect information for the project included: telephone interviews with a sample of key informants from multiple jurisdictions, search on the World Wide Web, and a search of the literature, with a focus on systematic and best practices reviews.

Information about the provinces and territories was gathered from representatives of provincial and territorial government health departments and agencies, and from non-government organizations and alliances involved in nutrition, healthy eating and chronic illness prevention.

At the national level, information was collected from representatives of key federal government departments, non-government organizations and alliances, as well as research organizations, other organizations and foundations.

International information was gathered from health organizations in five countries including: New Zealand, Australia, the United Kingdom, Finland, and the United States, and from international organizations such as the World Health Organization (WHO) and the Organization for Economic Cooperation and Development (OECD).

A *Summary of Nutrition Strategies and Initiatives in Canada and Other Jurisdictions- 2004* has been produced and is available as a separate document on the Chronic Disease Prevention Alliance of Canada web site at www.cdpac.ca

Key Findings from the Review of Strategies

The information gathered about existing nutrition and healthy eating strategies and initiatives revealed that there is considerable variation in how nutrition and healthy eating are positioned in each jurisdiction and organization. For example:

- some jurisdictions and organizations have a number of nutrition and healthy eating initiatives underway, but do not have an overall nutrition and healthy eating strategy
- a few jurisdictions and organizations have nutrition and healthy eating strategies in place
- several jurisdictions have nutrition and healthy eating strategies under development, either through leadership of provincial or national governments, or of alliances and networks
- one jurisdiction has a nutrition and healthy eating strategy for children and youth in place
- some jurisdictions have nutrition and healthy eating strategies coupled with physical activity
- several jurisdictions have nutrition and healthy eating strategies, either developed or underway that are part of broader strategies such as population health promotion, public health, wellness, healthy living and cancer prevention.

This review also revealed that, in some cases, nutrition and healthy eating strategies and initiatives are championed by coalitions, networks and alliances with representation from government, non-government organizations and community organizations. In other cases, government is providing leadership and financial support.

One of the key objectives of this project was to compare existing strategies to the NPG Framework components and identify comprehensive nutrition and healthy eating strategies. From the information gathered, it was determined that nine comprehensive nutrition and healthy eating strategies met the definition of a Nutrition Strategy Framework outlined in the NPG Framework. These strategies are from Saskatchewan, Ontario (Cancer Care Ontario), Nova Scotia, Prince Edward Island, Newfoundland and Labrador, Canada (*Nutrition for Health and Agenda for Action, 1996*), WHO (The WHO *Global Strategy on Diet, Physical Activity and Health* (2004), New Zealand and Australia.

These nine strategies were compared to the NPG Framework components six strategic elements and characteristics. They were also reviewed to identify their goals, objectives and priorities. A number of

common concepts used in the goal or vision statements of the nine strategies reviewed include: 'healthy eating', 'access to nutritious and personally acceptable foods', 'physical activity' and 'maximize/improve/promote health and minimize/reduce disease'. The style of writing objectives varied considerably. Three strategies had objectives which defined measurable health outcomes and the remaining six strategies expressed their objectives as areas for action such as policies, research, behaviors, target groups and capacity.

Many of the priority action areas identified in the strategies were similar to those identified by the NPG.

Evidence and Best Practices

Following the discussion about existing strategies, the paper examines evidence and best practices related to public health, and nutrition and healthy eating interventions. It was learned that the nutrition strategies and initiatives reviewed are built upon the best *available* evidence in the literature. Much of this literature has been synthesized by international bodies, in an attempt to understand the links between diet and nutrition and overall health and chronic disease.
Several key informants indicated that their strategies were based on findings from reviews of evidence about the effectiveness of interventions and mentioned that a theoretical base was used in developing their strategies; for example, social learning theory and theories of organizational change. In addition, some key informants identified logic models and frameworks that guided their thinking and work in developing their nutrition strategies; such as, the logic framework developed for the Guide to Community Preventive Services of the United States Centres for Disease Control and Prevention.

A review of documents identified by key informants and the NPG**,** and of the literature revealed some common themes about the state of evidence related to public health interventions in general, and about the current state of knowledge about effective approaches to promote nutrition and healthy eating. Several themes are discussed in the report: the ecological model – a multi-level approach to social change, nutrition interventions - general, evaluation of nutrition interventions, policy interventions, nutrition interventions in schools, changes to the food environment and food advertising, and marketing – the role of media.

Lessons Learned

The paper present lessons learned from the literature, lessons learned and challenges identified by key informants, and lessons learned and opportunities identified by key informants.

Recommendations and a Proposed Outline

From this analysis, a *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention 2005-2015* was developed, including:

1. A Positioning Statement - background on the development of a strategy, and a brief description of a strategy
2. A Logic Model – inputs, strategic components, examples of outputs, examples of system outcomes for the short (1-2 years), medium (3 – 4 years) and long term (5 – 10 years), and health outcomes (beyond 10 years)

3. Strategic Framework Components - the overall mission, strategic elements, strategic goals, and examples of strategic activities and outputs
4. Examples of System Outcomes, Indicators, Indicators of Progress and Data Sources related to the strategic goals and examples of Health Outcomes, Indicators, Indicators of Progress and Data Sources for the longer term (beyond 10 years).

The *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention 2005-2015* is available as a separate document from the Chronic Disease Prevention Alliance of Canada web site at: www.cdpac.ca.

Introduction

In March 2004, the Primary Prevention Action Group of the Canadian Strategy for Cancer Control (PPAG – CSCC) and the Chronic Disease Prevention Alliance of Canada (CDPAC) co-sponsored a meeting of leaders in nutrition to discuss the development of a national Nutrition Strategy Framework for chronic disease prevention in Canada. At the meeting, participants acknowledged key nutrition milestones in Canada and the strong legacy that exists as a foundation for future efforts to promote healthy eating. (See Text Box *Key Nutrition and Healthy Eating Milestones in Canada)* They also reached agreement on the benefits of working together and invited volunteers to establish an ad hoc group to continue work on the development of a *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention.*

A Nutrition Planning Group[2] (NPG) (Appendix 1) was formed and work began on the development of the strategy. The NPG and participants of the March 2004 meeting agreed that a Nutrition Strategy Framework for Canada should be comprehensive in scope and be accompanied by a mobilization plan to garner support from a broad range of stakeholders.

As part of their discussions, the NPG reached a consensus on components *for developing a Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention*. (Appendix 2) The NPG Framework defines a Nutrition Strategy Framework as:

> "*a planning framework to guide action on nutrition, healthy body weight and related factors and issues (e.g. food security, access and social inclusion) relevant to chronic disease prevention*."

The NPG Framework includes six strategic elements, the characteristics of a strategy (which are based on a review of the state of evidence and current data), a rationale for why a strategy is needed in Canada and who should be involved in its development.

In addition, the NPG agreed that the WHO *Global Strategy on Diet, Physical Activity and Health* (Appendix 3) should be a reference point for a *Pan-Canadian Nutrition Strategy Framework for Health*

[2] The Nutrition Planning Group is a coalition of representatives from leading government and non-government organizations that have joined efforts to develop a comprehensive approach to promote healthy eating in Canada.

Promotion and Chronic Disease Prevention. The WHO Global Strategy defines national nutrition strategies as follows:

> "*National strategies on diet (and physical activity) describe the measures to promote healthy diets (and physical activity) that are essential to prevent disease and promote health, including those that tackle all aspects of unbalanced diets, including under-nutrition and over-nutrition. Nutrition strategies should include specific goals and objectives, and actions, similar to those outlined in the global strategy. Of particular importance are the elements needed to implement the plan of action, including identification of necessary resources and national focal points (key national institutes); collaboration between the health sector and other sectors such as agriculture, education, urban planning, transportation and communication, and monitoring and follow-up."* (WHO, 2004)

Key Nutrition and Healthy Eating Milestones in Canada

Canada has a long history of developing and providing nutrition guidance beginning with the first *Dietary Standard for Canada* in 1938 and the introduction of Canada's first food guide, *Canada's Official Food Rule,* in July 1942. The titles of Canada's food guides have changed over time, from *Canada's Official Food Rules* in 1942, to *Canada's Food Rules* (1944, 1949), then *Canada's Food Guide* (1961, 1977, 1982), and finally, *Canada's Food Guide to Healthy Eating* (1992). The food guide is currently under revision.

The scientific basis for current dietary guidance in Canada was provided by the *Nutrition Recommendations for Canadians (1990)*. These are a set of scientific statements outlining the desired characteristics of the Canadian diet. The *Nutrition Recommendations for Canadians* were based on a review of scientific literature on nutrient requirements and on the evidence linking nutrition and disease. This review also informed the development of the *Recommended Nutrient Intakes* (RNI's). The *Nutrition Recommendations for Canadians* provide the foundation for dietary guidance to Canadians on eating patterns that will supply recommended amounts of all essential nutrients, while reducing the risk of chronic disease.

The scientific findings in the *Nutrition Recommendations for Canadians* were translated into understandable guidelines, *Canada's Guidelines for Healthy Eating* (CGHE). CGHE were developed as the key messages to be communicated to healthy Canadians over two years of age. Implementation strategies were outlined in *Action Towards Healthy Eating (1990)* for action by governments, health organizations, the food industry, the food services sector, and the general public.

In 1996, *Nutrition for Health an Agenda for Action* was released by a Joint Steering Committee to ensure integration of nutrition considerations into health, agriculture, education, social and economic policies and programs. The report was developed in response to the 1992 *World Declaration on Nutrition* that was endorsed in Rome at the International Conference on Nutrition, a joint venture of the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) and participating countries, including Canada.

In September 2002, the Federal/Provincial/Territorial (F/P/T) Ministers of Health agreed to work together on an Integrated Pan-Canadian Healthy Living Strategy. The initial areas of emphasis for the Strategy are physical activity and healthy eating, and their relationship to healthy weights. The Healthy Living Strategy is an F/P/T initiative aimed at reducing non-communicable diseases by addressing their common risk factors, and the underlying conditions in society that contribute to them. The Healthy Living Strategy goals are to improve overall health outcomes and to reduce health disparities. In September 2003 the F/P/T Ministers of Health agreed to continue to work on an Integrated Pan-Canadian Healthy Living Strategy in order to improve the health of Canadians through all stages of life.

The Healthy Living Task Group, an F/P/T body, is working on this initiative and is currently developing an F/P/T action plan to address the recommendations endorsed by the Ministers of Health. The Ministers endorsed the following actions at their September 2003 meeting: the Healthy Living Strategy Framework; creation of an Intersectoral Healthy Living Network; action in the areas of research, surveillance, and best practices; exploration of options and models for an Intersectoral Fund; exploration of options for a communications/health information strategy; and, further dialogue with Aboriginal stakeholders, under the direction of the Advisory Committee on Population Health and Health Security (ACPHHS). Dialogue is also continuing with stakeholders. At their annual meeting In October 2005, the F/P/T Ministers of Health approved and released the Healthy Living Strategy.

Source: Health Canada's website under the Office of Nutrition Policy and Promotion. http://www.hc-sc.gc.ca/hpfb-dgpsa/onpp-bppn/index_e.html . Additional information on key nutrition and healthy eating milestones and products is available on this web site. Further information on the Healthy Living Strategy is available at: http://www.phac-aspc.gc.ca/hl-vs-strat/index.html

Review of Existing Nutrition Strategies

As an important first step in the development of a *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention*, the NPG agreed to undertake a review of existing nutrition strategies in the provinces and territories, at the national level in Canada, and in other jurisdictions, to assess their main components, priorities and gaps. The NPG recognized this step as critical to the development of a comprehensive pan- Canadian Nutrition Strategy Framework for Canada, and an accompanying mobilization plan, in order to engage national, provincial, regional and local stakeholders and to foster the development of collaborative nutrition actions plans based on the pan-Canadian strategy framework.

To this end, with support from the Primary Prevention Action Group of the Canadian Strategy for Cancer Control (PPAG – CSCC) and the Chronic Disease Prevention Alliance of Canada (CDPAC), the NPG commissioned a report which would critically assess existing strategies in Canada and other jurisdictions in relation to the NPG *Framework for Developing a Pan-Canadian Nutrition Strategy Frameworkfor Health Promotion and Chronic Disease Prevention* and the *WHO Global Strategy on Diet, Physical Activity and Health*. The NPG also requested that the report identify lessons learned and present a draft outline of a potential *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention* that is based on evidence and best practices.

Objectives of the Project

More specifically, the objectives of the Project were to:

- synthesize the main components, goals, objectives and priorities, and the evidence on which they are based, of nutrition, healthy eating and chronic disease strategies and plans in Canada (at the national level and in the provinces and territories) and in other jurisdictions (New Zealand, Australia, United Kingdom, Finland and the United States)
- critically analyze these existing nutrition, healthy eating and chronic disease strategies and plans in relation to the NPG *Framework for Developing a Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention* (Appendix 2) WHO *Global Strategy on Diet, Physical Activity and Health* (Appendix 3) and identify gaps in relation to the NPG Framework
- identify lessons learned in Canada and internationally in developing and implementing nutrition, healthy eating and chronic disease strategies and plans.
- make recommendations about a *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention*, based on the WHO *Global Strategy on Diet, Physical Activity and Health*, within the Canadian context and the NPG framework.
- present an outline for a potential pan-Canadian strategy framework, including components and key content, that is 1) based on available evidence and best practices in Canada and internationally, and 2) describes and builds on the key components that currently exist in Canada.

Methodology

The information gathered about existing nutrition, healthy eating and chronic disease strategies and plans, and best practices was guided by a list of questions developed by the NPG. (Figure 1) The questions focused on processes used to develop strategies, barriers and opportunities for developing strategies, evaluations, barriers to implementation, and indicators of success.

Figure 1. List of Question Developed by the Nutrition Planning Group (NPG) to Guide the Contractor

1. *What processes have been used to develop successful national nutrition strategies in other countries or successful provincial strategies in Canada?*

2. *What were the barriers to developing these strategies?*
   a) *How were these barriers overcome?*
   b) *Are there barriers that seem to have caused other nutrition strategies in Canada or internationally to fail?*

3. *To what extent have successful nutrition strategies been implemented in other countries or Canadian provinces?*
   a) *Do evaluations data exist that quantify any health gains associated with these strategies?*
   b) *What are the general barriers to implementation of nutrition strategies?*
   c) *What might be some obvious barriers in the Canadian context?*

4. *Drawing on other examples, what indicators (national, provincial or international) could be used to measure the success of a national Nutrition Strategy Frameworkin Canada?*

The methods used to collect information for the project included: telephone interviews with a sample of key informants from multiple jurisdictions[3], search on the World Wide Web and a search of the literature with a focus on systematic and best practices reviews.

In the provinces and territories, information was gathered from representatives of provincial and territorial government health departments who are Members of the Federal/Provincial/Territorial Group on Nutrition, from provincial and territorial government agencies such as the Alberta Cancer Board, Cancer Care Ontario and Cancer Care Nova Scotia, as well as from non-government organizations and alliances involved in nutrition, healthy eating and chronic disease prevention.

At the national level, information was collected from representatives of key federal government departments including Health Canada and Agri and Agri-Food Canada. From the non-government sector, information was obtained from representatives of key non-government organizations and alliances including the Chronic Disease Prevention Alliance of Canada (CDPAC), the Canadian Strategy for Cancer Control, the Canadian Cancer Society, the Canadian

[3] See List of Key Informants in Appendix 4

Diabetes Association, and Dietitians of Canada. Representatives of two research organizations were contacted from the Canadian Institutes of Health Research (CIHR) Institutes, namely the Institute of Population and Public Health (IPPH) and the Institute of Nutrition, Metabolism and Diabetes (INMD). Finally, information was gathered from other organizations and foundations, such as the newly created Canadian Council on Food and Nutrition and the Chagnon Foundation.

International information was gathered from health organizations in five countries including: New Zealand, Australia, the United Kingdom, Finland, and the United States. In addition, information was obtained about international organizations such as the World Health Organization (WHO) and the Organization for Economic Cooperation and Development (OECD).

Key Informant Interviews

The Consultant reviewed the questions developed by the NPG, proposed adjustments and additional questions and, based on discussions with members of the NPG, developed a questionnaire to guide interviews with key informants. (See Appendix 5)

The questions focused on four areas:

1) details of existing nutrition strategies
2) information about how they were developed
3) information about how they are monitored and evaluated
4) some general questions about nutrition strategies

To facilitate the key informant interviews, questions were emailed to individuals prior to the interview to allow time for respondents to prepare responses and maximize the gathering of information in a limited time frame. A total of 27 one-hour interviews were conducted from October 20, 2004 to November 5, 2004. Respondents were asked to provide additional information, in electronic or hard copy, to support the analysis.

Search on the World Wide Web

As a supplement to the key informant interviews, information was gathered from the World Wide Web by searching web sites of organizations known to be involved in nutrition, healthy eating and chronic disease prevention initiatives. Key search terms used included: nutrition plans/strategies/frameworks, healthy eating plans/ strategies/frameworks, obesity plans/strategies/frameworks, chronic disease plans/ strategies/frameworks and healthy living plans/strategies/frameworks.

Search of the Literature

A literature search was carried out, based on recommendations from the NPG and key informants. The key search terms used were similar to those used in the search of the World Wide Web.

Key Findings about Existing Nutrition Strategies

How Nutrition and Healthy Eating Strategies are Positioned

The information gathered about existing nutrition and healthy eating strategies and initiatives in Canada and in other jurisdictions, revealed that there is considerable variation in how nutrition and healthy eating are positioned in each jurisdiction and organization. For example:

- some jurisdictions and organizations, such as in the territories, New Brunswick, and the Canadian Diabetes Association, have a number of nutrition and healthy eating initiatives underway but do not have a nutrition and healthy eating strategy
- a few jurisdictions and organizations have nutrition and healthy eating strategies in place, such as The Joint Steering Committee's 1996 *Nutrition for Health an Agenda for Action*, Nova Scotia and Australia
- several jurisdictions, such as British Columbia, Manitoba, Ontario, and the United Kingdom, have nutrition and healthy eating strategies under development, either through leadership of provincial or national governments or of alliances and networks
- one jurisdiction, PEI, has a nutrition and healthy eating strategy for children and youth in place
- some jurisdictions, such as in British Columbia, Cancer Care Ontario, Newfoundland and Labrador and New Zealand have nutrition and healthy eating strategies coupled with physical activity
- several jurisdictions, such as Saskatchewan, Quebec, Newfoundland and Labrador and Health Canada, and non-governments organizations such as the Alberta Cancer Board have nutrition and healthy eating strategies, either developed or underway that are part of broader strategies such as population health promotion, public health, wellness, healthy living and cancer prevention.

An overview of the status of nutrition and healthy eating strategies in each jurisdiction is presented in Table 1 and 2. The information is presented by jurisdiction.

Table 1
- Provincial and territorial health departments
- Provincial and territorial health agencies, non-government organizations and alliances

Table 2
- Federal government departments
- National non-government organizations, alliances and other organizations
- International organizations

The information about the status of nutrition and healthy eating strategies, as defined by the NPG framework components, was obtained either from key informants or from the web sites of organizations. The characterization of the status of nutrition and healthy eating strategies in both Table 1 and Table 2 is presented according to the following categories:

- no nutrition and healthy eating strategy
- nutrition and healthy eating strategy developed
- nutrition and healthy eating strategy under development

- nutrition and healthy eating strategy focused on children and youth
- nutrition and healthy eating strategy coupled with physical activity
- nutrition and healthy eating strategy as part of larger strategies

A more detailed description of existing nutrition and healthy eating strategies and initiatives, in cases where strategies are not in place, for all jurisdictions is available as a separate document entitled *Summary of Nutrition Strategies and Initiatives in Canada and Other Jurisdictions 2004* on the Chronic Disease Prevention Alliance of Canada web site at www.cdpac.ca.

This review has revealed that in many cases nutrition and healthy eating strategies and initiatives are being championed by coalitions, networks and alliances with representation from government, non-government organizations and community organizations. Examples of these alliances are:

- the Nova Scotia Alliance for Healthy Eating and Physical Activity
- Manitoba's Alliance for Chronic Disease Prevention
- Alberta's Healthy Living Network
- British Columbia's Healthy Living Alliance.

In many cases, government is providing leadership and financial support; for example, in New Zealand, Australia, the United Kingdom, Newfoundland and Labrador, Nova Scotia, Quebec, Ontario, Saskatchewan and British Columbia.

Table 1. Characteristics of Nutrition and Healthy Eating Strategies (NHES) in Provinces and Territories in Canada

Jurisdiction	No NHES	NHES Dev'd	NHES Under Dev't	NHES Focused on Children and Youth	NHES Coupled with Physical Activity	NHES part of Larger Strategies
P/T Health Departments						
NU	x					
NWT	x					
YK	x					
BC			x		x	
AL	x					
SK		x				Population Health Promotion
MN	x					
ON			x			Public Health
QC			x			Public Health
NB	x					
NS		x				Chronic Disease Prevention
PEI		x		x		Healthy Living
NF & L		x			x	Wellness
P/T Government Agencies, NGO's & Alliances						
NWTNNA	x					
NU ADI	x					
BC HLA			x			Chronic Disease Prevention
AHLN			x			Health Promotion/ Disease Prevention
ACB		x			x	Cancer Prevention
SKPRR	x					
MAPCD			x			Chronic Disease Prevention
CCO		x			x	Chronic Disease Prevention
OCDPA			x			
OHEA			x			
AQSC	x					
HEPACNB	x					
NSAHEPA			x			Chronic Disease Prevention
CCNS		x				Chronic Disease Prevention
PEIHEA				x		Healthy Living
NL&LWS	x					Wellness

Table 2. Characteristics of Nutrition and Healthy Eating Strategies in Canada at the National Level, and in Other Jurisdictions

Jurisdiction	No NHES	NHES Dev'd	NHES Under Dev't	NHES Focus on Children and Youth	NHES Coupled with Physical Activity	NHES part of Larger Strategies
Fed Government						
HC-ONPP		x(a)	x (b)			x (a): Agenda for Action x(b): Healthy Living Strategy
PHAC			x (b)			x(b): Healthy Living Strategy
HC-FNIHB	x (a)		x (b)			x (b): Healthy Living Strategy
HC -FD			x(b)			x (b): National Food Policy Framework
AAFC	x (a)		x (b)			x (a):Canada Action Plan for Food Security x (b): National Food Policy Framework
National NGO's, Alliances & Others						
CDPAC	x					
CCS	x					
CSCC	x					
HSFC	x					
CDA	x					
DC	x					
CIHR-IPPH	x					
CIHR-INMD	x					
CCFN	x					
International Organizations						
NZ		x			x	
AU		x				
UK			x			Public Health
FI	x					
US	x					
WHO		x			x	
OECD	x					Nutrition indicators are part of Health Promotion & Disease Prevention Indicators

One of the key objectives of this project was to compare existing strategies to the NPG framework components and identify comprehensive nutrition and healthy eating strategies that are in place in Canada (in the provinces and territories and at the national level), and in other jurisdictions. From the information gathered about current strategies and initiatives, it was determined that nine comprehensive nutrition and healthy eating strategies met the definition of a Nutrition Strategy Framework components outlined in the NPG framework components. These strategies are listed below and grouped by jurisdiction in Table 3:

- *The Population Health Promotion Strategy for Saskatchewan* (2004)
- Cancer Care Ontario's *Nutrition and Physical Activity Strategy* (2004)
- *Healthy Eating Nova Scotia* of the Nova Scotia Chronic Disease Prevention Strategy (March 2005)
- *PEI Strategy for Healthy Living* (2003) and *the Healthy Eating Strategy for Island Children and Youth* (2002 – 2005)
- *Eating Healthier in Newfoundland and Labrador* – Provincial Food and Nutrition Strategy Framework (Draft September 2004)
- *Nutrition for Health an Agenda for Action* – A national nutrition plan for Canada developed by the Joint Steering Committee (1996)
- the WHO *Global Strategy on Diet, Physical Activity and Health* (2004)
- New Zealand's *Healthy Eating – Healthy Action Strategy* (2003)
- Australia's *Eat Well Australia* and *National Aboriginal and Torres Strait Islander Nutrition and Action Plan 2000-2010* (2000)

Table 3. Nutrition/Healthy Eating Strategies (NHES) Included in the Analysis

Provinces & Territories	National	International
Saskatchewan's *Population Health Promotion Strategy* (SK) Cancer Care Ontario's *Nutrition and Physical Activity Strategy* (CCO) Nova Scotia's *Healthy Eating Nova Scotia* (NS) *PEI Strategy for Healthy Living* and *Healthy Eating Strategy for Island Children and Youth* (2002 -2005) (PEI) *Eating Healthier in Newfoundland & Labrador* (NL&L)	The Joint Steering Committee's *Nutrition for Health an Agenda for Action* (NHAA)	WHO *Global Strategy on Diet, Physical Activity and Health* (WHO) New Zealand's *Healthy Eating – Healthy Action Strategy* (NZ) Australia's *Eat Well Australia* and *National Aboriginal and Torres Strait Islander Nutrition and Action Plan 2000-2010* (AU)

Strategic Components and Characteristics

The nine strategies were compared to the NPG's components for developing *a Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention*. A summary of this comparison is presented in Table 4. The analysis has shown that strategies developed by Cancer Care Ontario, Prince Edward Island, New Zealand and Australia have all of the strategic components and characteristics defined by the NPG framework components.

The PHPS for Saskatchewan, which was released in April 2004, does not have a public education component because it focuses on changing the conditions and environments in which people live, work and play, rather than on changing individual behavior. The strategy states that changing individual behavior is the focus of primary health care programs in the province. In addition, the PHPS has three of the characteristics defined by the NPG, (i.e. articulates population health goals and objectives, outlines a framework for population-based interventions - programs, policies and media - based on best practices, and provides an agenda for healthy public policy development). Moreover, because the strategy is in the early stage of development, the other characteristics are being developed as part of the development of implementation plans by Regional Health Authorities, in cooperation with their community partners. These plans are to be developed by December 2004, with implementation to begin in April 2005.

The strategies in Nova Scotia and Newfoundland and Labrador have all of the strategic components and all but one of the characteristics defined by the NPG. In both cases, the characteristic of delineating management and organizational structures for coordination, and clarification of roles for stakeholders has been identified as an area for further development, once the strategies have been approved.

The Joint Steering Committee's *Nutrition for Health and Agenda for Action (NHAA),* which was developed in 1996, refers to all of the six strategic elements in the NPG framework components, although some, such as public policy and research, are discussed in more detail than others, such as capacity building, surveillance and evaluation. In terms of the strategic components in the NHAA, several of those described in the NPG framework components are only partially developed. For example, the NHAA mentions training and skill development but does not elaborate on knowledge exchange and best practices, it includes four strategic directions and indicators but no targets, and it calls for shared responsibility for implementation by networks and the creation of a national multisectoral network but does not delineate management and organizational structures for coordination or clarify roles for stakeholders.

In the case of the WHO *Global Strategy on Diet, Physical Activity and Health,* all six strategic elements and most of the characteristics identified by the NPG are included. However, the strategy indicates that further work is needed to develop indicators and targets and to delineate management structures and clarify roles.

Table 4. Comparison of the Strategic Components and Characteristics of the Selected Nutrition and Healthy Eating Strategies to the NPG Framework

NPG Strategic Components	SK	CCO	PEI	NS	NL&L	NHAA	WHO	NZ	AU
Leadership and Coordination	x	x	x	x	x	x	x	x	x
Capacity Building	x	x	x	x	x	x	x	x	x
Monitoring and Surveillance, Evaluation and Research	x	x	x	x	x	x	x	x	x

Program Interventions	x	x	x	x	x	x	x	x	x
Public Education	-	x	x	x	x	x	x	x	x
Policy and Legislation	x	x	x	x	x	x	x	x	x
NPG Characteristics of Strategies									
Articulates population health goals and objectives	x	x	x	x	x	x	x	x	x
Outlines a framework for population-based interventions (programs, policies and media) based on best practices	x	x	x	x	x	x	x	x	x
Provides a foundation for research, monitoring and surveillance, and evaluation	under dev't	x	x	x	x	x	x	x	x
Provides an agenda for healthy public policy development	x	x	x	x	x	x	x	x	x
Identifies capacity building needs such as national level technical assistance and training, knowledge exchange and best practices inventory, and coalition development	under dev't	x	x	x	x	partially	x	x	x
Sets out a general logic model with relevant intermediate indicators and targets for use as a coordination and management tool	under dev't	x	x	x	x	4 St Dir Indic, No targets	under dev't	x	x
Delineates management and organizational structures for coordination and clarifies roles for stakeholders	under dev't	x	x	under dev't	under dev't	partially	partially	x	x

Goals, Objectives and Priorities of Selected Nutrition and Healthy Eating Strategies

The nine selected strategies were reviewed to identify their goals, objectives and priorities. It is worth noting that the strategies used different terms in their planning frameworks. For example, for 'goal(s)' some strategies did not refer to a 'goal' or 'goals', but rather used the term 'vision'. In the case of 'objectives', some strategies did use this term and others used the term 'strategic directions'. In the case of 'priorities', one strategy used 'principles' and 'effective strategies', another strategy used the term 'components', and some strategies used the term 'strategic directions'. Regardless of the term used to label 'priorities', the common factor in all strategies is that they all described strategic areas for action.

For simplicity, the terms 'goals (s)', 'objectives' and 'priorities' that were used by the NPG were also used in this review, and the specific information about the nine strategies was classified in these categories. An overview of this analysis is presented in Table 5.

Observations about Goal(s)/Vision

In the case of Saskatchewan strategy, the goal focused on one major aspect of healthy eating, accessible nutritious food, whereas the Prince Edward Island and Nova Scotia strategies were based on the broad health goals for the province. Strategies developed by Cancer Care Ontario, WHO, and Australia focused on the reduction of chronic disease as the ultimate endpoint. New Zealand's strategy focused on creating an environment and society that supports eating well, physical activity and attainment of healthy body weights. Two strategies, Cancer Care Ontario and Newfoundland and Labrador, specifically referred to food security issues (access to affordable, nutritious and personally acceptable food) in their goal(s). Two strategies included processes for programs and services in their goal(s); for example, *Nutrition for Health an Agenda for Action* mentioned the integration of nutrition considerations into health, agriculture, social, and economic policies; and, the Newfoundland and Labrador strategy referred to supportive, comprehensive network of food and nutrition services.

A number of common concepts used in the goal or vision statements of the nine strategies reviewed include:

- healthy eating
- access to nutritious and personally acceptable foods
- physical activity
- maximize/improve/promote health and minimize/reduce disease

Observations about Objectives

The style of writing objectives varied considerably. Three strategies had objectives which defined measurable health outcomes - Cancer Care Ontario, Nova Scotia and New Zealand. Nova Scotia categorized its objectives into medium-term and long-term. In terms of objectives, Cancer Care Ontario and Nova Scotia identified increasing fruit and vegetable consumption, whereas New Zealand's objective, improve nutrition, was more general. These three strategies identified reducing the prevalence of obesity or increasing prevalence of healthy body weights as an objective. In addition, Cancer Care Ontario had an objective related to alcohol consumption and Nova Scotia identified increasing breastfeeding rates as a medium-term objective, and increasing the rate of food security and decreasing the rate of diet-related diseases as long-term objectives. New Zealand included increasing physical activity as an objective.

The remaining six strategies expressed their objectives in relation to action areas, such as, policies, research, behaviors, target groups, and capacity. Examples of how objectives were expressed include: increase opportunities, reduce barriers, advocate for policies, increase healthy eating habits, increase nutrition education, promote healthy eating, increase access to safe & healthy foods, conduct research, support measures, support and promote research, reinforce practices, support nutritionally vulnerable groups, continue to enhance, reduce risk factors, increase overall awareness and understanding, encourage the development, monitor scientific data and key influences, support health gains, improve capacity, support improved nutrition, and provide target resources. In some cases, objectives could be strengthened if they were developed into statements that defined more specific and measurable end-points and were based on the "SMART" principles - "Specific, Measurable, Achievable, Relevant (to the goals they are supporting), and Timed". (Spasoff, 1999)

Observations about Priorities

Several of the strategies (Saskatchewan, Prince Edward Island, Nova Scotia and New Zealand) indicated that their priorities for action were guided by the Ottawa Charter for Health Promotion. (WHO, 1986) However, as mentioned previously, Saskatchewan's strategy focuses on environmental action and not personal skills. Prince Edward Island's strategy adds 'evaluate' and 'monitor' as action areas and New Zealand's strategy adds 'monitor, research and evaluate', 'communication', and 'workforce'. Nova Scotia's approach is based on the Ottawa Charter but different terms are used – 'community development and infrastructure', 'leadership', 'public policy', 'knowledge development and translation', and 'health communications'. Cancer Care Ontario's strategy identifies the following actions: 'community capacity building', 'intervention development', 'research', 'surveillance', and 'coordination and management'. The Newfoundland and Labrador's strategy is based on *Nutrition for Health an Agenda for Action.* The WHO priorities are defined in terms of the organization's international role in monitoring

progress in implementing the Global Strategy. Australia defines its priority areas for action in three categories: 'health gains', 'capacity building', and 'strategic management'.

In summery, many of the priority action areas identified in the strategies were similar to those identified by the NPG, for example:

NPG Framework Components	Priorities for Action
Leadership & Coordination	• leadership • coordination and management • effective communications and developing communication plans for strategies themselves • functioning alliances
Policy & Legislation	• public policy
Capacity Building & Infrastructure Development	• capacity building – human resources, technical support, infrastructure • community capacity building, community development and infrastructure, community action
Research, Evaluation, Surveillance & Monitoring	• research, surveillance, evaluation of effectiveness of policies and programs • monitor progress and evaluate strategies • knowledge development and translation
Program Interventions	• intervention development for population groups and in settings • reinforce healthy eating practices • support vulnerable populations • enhance the availability of foods that support healthy eating and improve food security
Public Education and Information	• health communications, social marketing

Table 5. Goals, Objectives and Priorities of the Selected Nutrition and Healthy Strategies

Strategy	Vision/Goals	Objectives	Priorities
SK	Accessible Nutritious Food	- Increase opportunities for people to enjoy nutritious foods in homes & community settings - Reduce the economic, geographic, social & cultural barriers that limit healthy eating habits - Advocate for food policies that promote & protect the health of SK residents	Based on the WHO Diet, Nutrition and the Prevention on Chronic Disease (2003). Defines policy principles & prerequisites for effective strategies e.g. leadership, effective communication, functioning alliances etc.
CCO	To create a provincial strategy that focuses on: - promoting food consumption & physical activity that maximize health & minimize cancer in Ont. - improving Ont'ians means to access affordable, nutritious & personally acceptable food	- Increase the percent of Ont'ians who consume 5 or more servings of vegetables and fruits daily - Decrease the percent of Ont'ians who are obese, as measured by BMI over 30 - Increase the percent of Ont'ians who follow the low-risk drinking guidelines set out by the Centre for Addiction and Mental Health in Ont.	- Community capacity building - Intervention development - Research - Surveillance - Coordination and management

Strategy	Vision/Goals	Objectives	Priorities
PEI	Optimal health for all Islanders Optimal nutritional health for Island children & youth	General health: - Slow the growth in the prevalence of preventable chronic disease - Reduce tobacco use & the harm it causes to the population - Increase the # of Islanders who participate in regular physical activity to promote optimal health - Improve healthy eating habits that support good nutritional health - Increase capacity for health promotion and chronic disease prevention Nutrition: - Increase nutrition education & promote healthy eating to students, parents, teachers & all those who have an impact on how children eat - Increase access to safe & healthy foods in all types of environments where children gather - Conduct research which increases understanding of: how children & youth currently eating, factors influencing eating habits, & how we can best improve their current eating behaviors through up-to-date & quality research	- Build healthy public policy - Increase collaborative action - Create supportive environments - Strengthen community action - Develop personal skills - Evaluate & monitor - Promote and support healthy eating - Build capacity & knowledge - Strengthen community action - Build healthy public policy - Support the development of health promoting environments - Conduct research and evaluation - Assist in knowledge transfer

Strategy	Vision/Goals	Objectives	Priorities
NS	Based on NS Health Goals: - Promote & improve the health of all NS'ians - Make NS a safe & healthy place to live - Support the efforts of ind's, fam's, & com's to lead healthy lives - Ensure that all resources needed to support health are managed wisely & fairly - Involve NS'ians in decisions that affect health - Ensure that all NS'ians have the opportunity to achieve health	Four priority areas: - Breastfeeding - Children & Youth - Fruit & Vegetable Consumption - Food Security Each priority has defined objectives	Five strategic directions: - Leadership - Community development & infrastructure - Public Policy - Knowledge development & translation - Health communications

Strategy	Vision/Goals	Objectives	Priorities
NF&L	All residents of Newfoundland & Labrador will have reasonable access to an adequate, nutritious & safe food supply & a supportive, comprehensive network of food & nutrition services.	Four Strategic Directions: - Reinforce healthy eating & physical activity practices - Support vulnerable populations - Enhance the availability of safe, high quality food which supports healthy eating - Support food & nutrition research Precise indicators and targets are defined for each strategic direction.	- Support measures which allow individuals & communities to achieve nutritional well-being through the reinforcement & promotion of healthy eating practices & physical activity - Support measures which allow access to an adequate food supply & access to appropriate nutrition services & programs so that the needs of vulnerable populations can be met - Support measures which promote the development, production, marketing & distribution of foods which are reflective of healthy eating practices, food safety & also supportive of environmentally & economically sustainable practices - Support & promote food & nutrition research efforts which provide credible information & data in matters relating to nutritional well-being, healthy eating practices & physical activity
NHAA	To ensure integration of nutrition considerations into health, agriculture, education, social & economic policies and programs	Four Strategic Directions: - Reinforce healthy eating practices - Support nutritionally vulnerable groups - Continue to enhance the availability of foods that support healthy eating - Support nutrition research	Key actions are identified for each strategic direction

Strategy	Vision/Goals	Objectives	Priorities
WHO	To promote & protect health by guiding the development of an enabling environment for sustainable actions at the individual, community, national, & global levels that, when taken together, will lead to reduced disease & death rates related to unhealthy diet & physical inactivity. These actions support the United Nations Millennium Development Goals & have immense potential for public health gains worldwide.	- to reduce the risk factors for non-communicable diseases that stem from unhealthy diets & physical inactivity by means of essential public health action & health-promoting & disease-prevention measures - to increase the overall awareness & understanding of the influences of diet & physical activity on health & of the positive impact of preventative interventions - to encourage the development, strengthening & implementation of global, regional, national & community policies & action plans to improve diets & increase physical activity that are sustainable, comprehensive, & actively engage all sectors, including civil society, the private sector & the media - to monitor scientific data & key influences on diet & physical activity; to support research in a broad spectrum of relevant areas including evaluation of interventions; &, to strengthen the human resources needed in this domain to enhance & sustain health.	WHO will report on progress re: - Patterns & trends of dietary habits & physical activity & related risk factors for major non-communicable diseases - Evaluation of effectiveness of policies & programs to improve diet & physical activity - Constraints or barriers to implementation of the strategy, & the measures taken to overcome them - Legislative, executive, administrative, financial or other measures taken within the context of the strategy WHO will work at the global & regional levels to set up a monitoring system & to design indicators for dietary habits & patterns of physical activity

Strategy	Vision/Goals	Objectives	Priorities
NZ	An environment & society where individuals, families, whanau, & communities are supported to eat well, live physically active lives, & attain & maintain a healthy body weight	Goal 1: Improve nutrition Goal 2: Increase physical activity Goal 3: Reduce Obesity	Based on the Ottawa Charter & 3 new areas: - Build healthy public policy - Create supportive environments - Strengthen community action - Develop personal skills (includes wider workforce involvement) - Reorient health services - Monitor, research and evaluate - Communication - Workforce Areas of priority: - Develop & implement communications plan - Promote nutrition, physical activity & obesity issues in preschools/schools/ primary care settings - Investigate options to improve food security in low-income families with children - Initiate development & implementation of a range of social marketing strategies to facilitate behavioral change - Develop & expand community action programs - Develop & expand strategy to increase capacity of professionals & community workers - Encourage food & physical activity industries to implement strategy - Develop a monitoring plan for the strategy

Strategy	Vision/Goals	Objectives	Priorities
AU	To improve the health of all Australians through improving nutrition & reducing the burden of diet-related disease	Broad Aims: - Support health gains in the context of the National Health Priority Areas - Improve the capacity of Australians to choose a healthy diet in line with the 'Australian Guide to Healthy Eating' & the NHMRC dietary guidelines - Support improved nutrition at all points in the food system, in partnership with stakeholders in relevant sectors - Provide targeted resources to those groups more vulnerable to poor nutrition - Monitor the food & nutrition system & seek opportunities for improvement	Health Gain: - Promoting vegetable & fruit consumption - Promote healthy weight - Promote good nutrition for mothers & infants - Promote good nutrition for school-aged children - Improve nutrition for vulnerable groups - Address structural barriers to safe & healthy food Capacity Building: - Invest in public health nutrition research - Improve the effectiveness of interventions - Build human resource capacity - Communication with the public Strategic Management: - Steering & developing *Eat Well Australia* - Develop nutrition policy & resources - Monitoring progress in food & nutrition

Analysis of Evidence and Best Practices

The nutrition strategies and initiatives currently in place in Canada and in other jurisdictions are built upon the best ***available*** evidence in the literature. Much of this literature has been synthesized by international bodies in an attempt to understand the links between diet and nutrition and overall health and chronic disease.

> *"Because the obesity epidemic is a serious public health problem calling for immediate reductions in obesity prevalence and in its health and social consequence, the committee believes strongly that actions should be based on the best **available** evidence – as opposed to waiting for the best **possible** evidence. However, there is an obligation to accumulate **appropriate** evidence not only to justify a course of action but to assess whether it has made a difference. Therefore, evaluation should be a critical component of any implemented intervention or change.'*
>
> *Committee on Prevention of Obesity in Children and Youth* Institute of Medicine of the (US) National Academies (2004)

The reports most frequently cited in the strategies and plans reviewed and by key informants include:

- *Food, Nutrition and the Prevention of Cancer: a global perspective* World Cancer Research Fund and the American Institute for Cancer Research (1997)
- WHO Technical Report no. 894 *Obesity: Preventing and Managing the Global Obesity Epidemic* (2000)
- WHO/FAO *International Obesity Task Force Report* (2002)
- WHO Report no. 916 *Diet, Nutrition and the Prevention of Chronic Diseases* (2003)
- WHO *Global Strategy on Diet, Physical Activity and Health* (2004).
- Institute of Medicine's report *Fulfilling the Potential of Cancer Prevention and Early Detection* (2003)
- Institute of Medicine's report *Prevention Childhood Obesity Health in the Balance* Prepublication Copy, (2004)

Although the number of systematic reviews on nutrition and healthy eating in Canada is limited, systematic and literature reviews related to obesity are beginning to emerge.

These obesity reviews include information about the state of evidence related to diet and nutrition. Examples of these obesity synthesis reports include:

- *Review of Nutrition Interventions for Cancer Prevention* by Tina Sahay, Irving Rootman and Frederick Ashbury, (Sahay et. al., 2001)
- *Developing Nutrition Interventions- A Synthesis of Evidence to Guide Planning* by Rae Clemens, (Clemens, 2001)
- *Evaluation of Nutrition Interventions – A Background Document* by Ursula Lipski and Esther Ignagni, (Lipski et. al.,, 2001)
- *Nutrition Monitoring in Ontario – A Background Document,* by Kinga David, (David, 2001)
- *Overweight and Obesity in Canada - a Population Health Perspective,* by Kim Raine, (Raine, 2004)
- *Improving the Health Of Canadians – Obesity Chapter,* by the Canadian Population Health Initiative, (Canadian Population Health Initiative, 2004)
- Three reviews related to *Integrated Approaches to Chronic Disease Prevention: a Focus on Promoting Healthy Weights and Preventing Obesity/Overweight,* (completed March 2004), funded by the Information, Analysis and Connectivity Branch, Applied Research and Analysis Directorate, Research Management and Dissemination Division Branch, Health Canada:
    - *Effectiveness of Physical Activity Enhancement and Obesity Prevention Programs for Children and Youth* (2004) by Helen Thomas et. al. (Thomas et. al., 2004)
    - *Are Integrated Approaches Working to Promote Healthy Weights and Prevent Obesity and Chronic Disease?* (2004) by Lindsay McLaren et. al. (McLaren et. al., 2004)
    - *Best Practices for the Prevention of Overweight and Obesity in Children: A Focus on Immigrants New to Industrialized Countries"* by Mary Flynn et. al. (Flynn et. al., in press)

Several key informants interviewed indicated that their strategies were based on findings from reviews of evidence about the effectiveness of interventions and mentioned that their strategies had a theoretical base. Sources mentioned were:

- *Health Behaviour and Health Education – Theory, Research and Practice* (3rd Edition, 2002) edited by Karen Glanz., Barbara K. Rimer and Frances Marcus Lewis, published by John Wiley & Sons Inc. (Glanz et. al., 2002)
- *Promoting Health – Intervention Strategies from Social and Behavioral Research* (2000) edited by Brian D. Smedley and S. Leonard Syme, published by the Institute of Medicine of the National Academy of Sciences (Smedley et. al., 2000)
- US Centres for Disease Control and Preventions *Resource Guide for Nutrition and Physical Activity Interventions to Prevent Obesity an Other Chronic Diseases* (US Centre for Disease Control and Prevention, online)

In addition, some key informants identified logic models and frameworks that guided their thinking and work in developing their nutrition strategies. For example:

- the logic framework developed for the Guide to Community Preventive Services of the US Centres for Disease Control and Prevention *Logic Framework Illustrating Conceptual Approach to Nutrition and Community Health* (United States Centre for Disease Control and Prevention, online)
- the causal web developed by the WHO/FAO International Obesity Task Force (Kumanyika, 2002)
- the draft Ontario Tobacco Strategy, *Designing Ontario's Tobacco strategy: Logic models, goals, objectives and indicators,* Draft, (Ontario Tobacco Steering Steering Committee, 2004)

A review of these documents and of the literature revealed some common themes about the state of evidence related to public health interventions in general, and about the current state of knowledge about effective approaches to promote healthy eating.

The Ecological Model - a Multi-level Approach to Social Change

Many reports identified the importance of interventions that are based on an ecological model and use a multi-level approach to foster change beyond individuals and achieve change at the level of society. Examples of the arguments for this approach and what it means are presented below.

In 1997, the WHO Technical Report *Obesity: Preventing and Managing the Global Epidemic* concluded that "global epidemic projections for the next decade are so serious that public health action is urgently required. Analyses show that merely concentrating on children and adults who have a high BMI and associated health problems will not stem the escalating numbers of people entering the medically defined categories of ill health. It is thus essential to develop new preventive public health strategies which affect the entire society. Without societal change, a substantial and steady rising proportion of adults will succumb to the medical complications of obesity; indeed, the medical burden of obesity already threatens to overwhelm health services." (WHO, 1997)

In 1999-2000, the Institute of Medicine (IOM) Committee on Capitalizing on Social Science and Behavioural Research to Improve Public Health examined a wide range of social and behavioural research designed to promote the health and well-being of individuals, their families, and their communities.

> *"To prevent disease, we increasingly ask people to do things that they have not done previously, to stop doing things they have been doing for years, and to do more of some things and less of other things. Although there certainly are examples of successful programs to change behaviour, it is clear that behaviour change is a difficult and complex challenge. It is unreasonable to expect that people will change their behaviour easily when so many forces in the social, cultural, and physical environment conspire against change. If successful programs are to be developed to prevent disease and improve health, attention must be given not only to behaviour of individuals, but also to the environmental context within which people live"*
>
> *Institute of Medicine (IOM) Committee on Capitalizing on Social Science and Behavioural Research to Improve Public Health*
> (Smedley et. al., 2000)

This IOM committee's review found "an emerging consensus that research and interventions efforts should be based on an ecological model. This model assumes that differences in levels of health and well-being are affected by a dynamic interaction among biology, behaviour, and the environments - an interaction that unfolds over the life course of individuals, families, and communities. This model also assumes that age, gender, race, ethnicity, and socioeconomic differences shape the context in which individuals function, and therefore, directly and indirectly influence risks and resources. These demographic factors are critical determinants of health and well-being and should receive careful consideration in the design, implementation, and interpretations of the results of interventions." (Smedley et. al., 2000)

The IOM Committee also observed that "the ecological model is best operationalized by a social environmental approach to health and health interventions. This approach places emphasis on how the health of individuals is influenced not only by biological and genetic function and predisposition, but also by social and familial relationships, environmental contingencies, and broader social and economic trends. The model also suggests that intervention efforts should address not only 'downstream' individual-level phenomena (e.g., physiological pathways to disease, individual and lifestyle factors) and 'mainstream' factors (e.g., population-based interventions), but also 'upstream', societal-level phenomena (e.g., public policies)." (Smedley et. al., 2000)

The committee summarized this aspect of its review in the following recommendation:

> "Recommendations 2: rather than focusing interventions on a single or limited number of health determinants, interventions in social and behavioural factors should link multiple levels of influence (i.e., individual, interpersonal, institutional, community and policy levels)."

In addition, the Committee called for interventions that:

- focus on generic social and behavioural determinants of disease, injury and disability
- use multiple approaches (education, social support, laws, incentives, behaviour change programs) and address multiple levels of influence simultaneously (i.e., individuals, families, communities, nations)
- take account of the special needs of target groups (based on age, gender, race ethnicity, social class)
- take a 'long view' of health outcomes, as changes often take many years to become established
- involve a variety of sectors in society that have not traditionally been associated with health promotion efforts, including law, business, education, social services, and the media

In 2002, the Working Group of the WHO/FAO International Obesity Task Force observed that "societal solutions are critical, especially for the long term. Societal-level solutions are the key to tackling the obesity problem in the population. Although they may take a long-time to put into place, and even longer to yield results, they can begin to counteract the powerful forces that lead to steady population gain:

- The vast array of factors impinging upon food intake and energy expenditure … and the numerous interactions between them, challenge the notion of individual 'free will' regarding food choice and energy expenditure. Indeed, many things that individuals do are influenced by factors 'upstream'.
- Societal policies and processes operating within and across a range of different settings and sectors influence individual diet and activity patterns, and hence population weight status.
- Interventions aimed at improving lifestyles, when conducted in isolation of societal intervention, tend to have limited success. They are most effective in motivating the socially advantaged who already have sufficient lifestyle options open to them. Over time, this may actually aggravate disparities between the more and less advantaged.
- No single aspect of the web of policies and processes can be addressed without potential impact on other areas – many of which have competing commercial interests. (Kumanyika, 2002)

The Action Agenda:

A comprehensive approach to obesity prevention should:

- *address both dietary habits and physical activity patterns of the population*
- *address both societal and individual level factors*
- *address both immediate and distant causes*
- *have multiple focal points and levels of intervention (i.e., at national, regional, community and individual levels)*
- *include both policies and programs*
- *build links between sectors that may be otherwise viewed as independent*

Working Group of the International WHO/FAO International Obesity Task Force (Kumanyika, 2002)

The importance of focusing on 'upstream' factors was also supported by the review and synthesis of literature conducted by Lindsay McLaren and colleagues. This group observed that 'upstream' factors (i.e. social, economic, political, and cultural circumstances) are rarely incorporated into intervention strategies, and interventions that target these influences are virtually absent in the health literature. Strong evidence of the importance of these factors is found in co-relational research, and there is an emerging consensus that incorporation of these factors will be crucial to improving our current health profile." (McLaren L et. al., 2004)

The National Cancer Policy Board (the Board) of the Institute of Medicine (IOM) and the National Research Council in the United States conducted a review of literature on the effectiveness of interventions to change behaviors. The results of this review were published in the report, *Fulfilling the Potential of Cancer Prevention and Early Detection.* In its review, the Board observed a recurring theme about multi-level approaches: "programs are most successful if they intervene at multiple levels. To effectively make population-wide improvements in the major behavioural risk factors, changes must occur on many different social levels." The Board developed policy recommendations which "aim to create a prevention-oriented environment that makes risk-reduction behaviors easier for individuals to choose and address barriers to change at the individual, community and societal levels." The Board observed that if "broad social movements of health behavioral changes are to be stimulated and sustained at a population level. … it is only through large-scale movements that barriers to healthy

behavior (including economic, social, political, cultural and psychological barriers) can be eliminated at the population level." (Curry SJ, et. al., 2003)

The Board also indicated its support for the 2001 Surgeon General's Call for Action to Prevent and Decrease Overweight and Obesity and the proposed framework, CARE: Communication, Action, Research and Evaluation to address the problem of obesity. The CARE framework recognizes the need for interventions at multiple levels and outlines needed action within five settings: families and communities, schools, health care, media and communications, and worksites. (Curry SJ, et. al., 2003)

In 2004, the Institute of Medicine Committee on the Prevention of Obesity on Children and Youth concluded that "changes at many levels and in numerous environments will require the involvement of multiple stakeholders from diverse segments of society. In the home environment, for example, incremental changes such as improving the nutritional quality of family dinners or increasing the time and frequency that children spend outside playing can make a difference. Changes that lead to healthy communities, such as organizational and policy changes in local schools, school districts, neighbourhoods, and cities, are equally important. At the state and national levels, large-scale modifications are needed in the ways in which society promotes healthy eating habits and physically active lifestyles. Accomplishing these changes will be difficult, but there is precedent success in other public health endeavors of comparable or greater complexity and scope. This must be a national effort, with special attention to communities that experience health disparities and that have social and physical environments unsupportive of healthy nutrition and physical activity." This IOM Committee called on governments to provide leadership and defined specific immediate action for federal governments, industry, media, state and local governments, health-care professionals, community and non-profit organizations, state and local education authorities, schools, parents and families. (Institute of Medicine, 2004)

This IOM Committee concluded that there are seven types of macro-level interventions that appear to have evidence supporting their effectiveness for multiple public health problems. These interventions are:

- community-wide campaigns
- school-based campaigns
- mass media strategies
- laws and regulations
- providing reminder systems
- reducing costs to patients
- home visits

This IOM Committee also observed that "based on the experience to date from the US Centres for Disease Control and Prevention (CDC) Community Guide to Preventive Services, it appears that comprehensive programs that involve communities, schools,

mass media, health provider, and laws and regulations are most likely to be effective for a number of health problems. It is reasonable to assume that some or all of the types of interventions way have utility in preventing childhood obesity". (Institute of Medicine, 2004)

Kim Raine's review of the current state of knowledge related to obesity and overweight also supported an ecological approach. The report stated that "the problem of obesity is complex. Ecological approaches to the promotion of healthy weights acknowledge this complexity and recommend action on many levels. Most strategies for promoting changes in dietary and physical activity behaviors to date have focused on individuals and groups. The review of the determinants of obesity, however, suggested a broader change in social environments." The report called for environmental strategies to promote healthy living which involve institution- and community-based interventions. It also observed that current evidence suggests that most effective interventions to change diet and physical activity patterns at the population level: 1) adopt an integrate, multidisciplinary, and comprehensive approach, 2) involve a complementary range of actions, and 3) work at the individual, community, environmental, and policy levels. (Raine, 2004)

The report also stated that "ensuring that programs are well resourced and integrated into existing programs and structures requires political support. Capacity to make large-scale, macro-system changes in the social environment that promote obesity depends, in part, upon political will." To this end, the report called for policy interventions. (Raine, 2004)

Nutrition Interventions - General

The WHO *Global Strategy on Diet, Physical Activity and Health* is widely recognized as a key document to guide action to promote healthy eating. (Appendix 3) This strategy has four main objectives:

1. to reduce the risk of non-communicable diseases that stem from unhealthy diets and physical activity by means of essential public health action and health-promoting and disease-preventing measurers;
2. to increase the overall awareness and understanding of the influences of diet and physical activity on health and of the positive impact of preventative interventions
3. to encourage the development, strengthening and implementation of global, regional, national and community policies and action plans to improve diets and increase physical activity that are sustainable, comprehensive, and actively engage all sectors, including civil society, the private sector and the media;
4. to monitor scientific and key influences on diet and physical activity; to support research in a broad spectrum of relevant areas, including evaluation of interventions; and to strengthen the human resources needed in this domain to enhance and sustain health. (WHO, 2004)

Sahay and colleagues conducted a review of the literature to identify effective and promising nutrition interventions. (Sahay, et. al., 2001) These authors found that the most effective interventions:

- used participatory models of planning and implementing interventions
- were grounded in theory, most notably social learning theory
- incorporated multiple strategies
- provided essential training and support
- were designed to target a person's stage of change
- involved the family as an important source of support
- were of adequate intensity and duration rather than being one-time events
- gave clear, strongly worded, simple messages
- considered the potential climate in which the intervention was being implemented
- kept the lines of communication open between the implementing body and other organizations

In a chapter that reviewed the current state of knowledge of obesity and what works to address the problem, *Improving the Health of Canadians* identified the "need to promote healthier diets and increase physical activity for children and adults in Canada." The report stated that "effective solutions include breastfeeding, regular school-based physical education, comprehensive school health programs, reduced television time and community-wide interventions." The report also pointed out that, to have maximum impact, community-wide programs designed to address unhealthy weights must be "accompanied by broader environmental changes in areas like urban design, transportation, and food pricing and advertising. For community-wide programs to succeed, local governments need to work with all sectors including businesses, non-government organizations and citizens, and with senior levels of government." (CPHI, 2004)

Evaluation of Nutrition Interventions

The review of strategies and approaches used in evaluating community nutrition interventions by Ursala Lipski and Esther Ignani (Kipski et. al., 2001) found that:

- emphasis was placed on outcome evaluations with little work being done on process and formative evaluations
- descriptive information on actual interventions was limited
- program planning, implementation and evaluation often occurs without explicit use or understanding of the social science theories to inform interventions
- research and evaluation that focuses on the needs and issues of minority populations is limited
- little has been published in policy interventions
- little research has been done on media strategies
- (nutrition) evaluation and research capacity in Canada is limited

Rae Clemens's review of the evidence of the effectiveness of interventions identified a significant number of gaps in evidence, including lack of information about interventions tailored to specific population groups and no description of successful programs in the home setting. Clemens also noted that there is limited information documented about nutrition interventions in Canada and limited time or resources for practitioners to evaluate and publish studies. (Clemens, 2001)

Policy Interventions

Shiriki Kumanyika, a member of the Public Health Approaches to the Prevention of Obesity Working Group of the WHO/FAO International Obesity Task Force, summarized, from the literature, some examples of policy and environmental interventions to address obesity related to food and eating. (Kumanyika, 2001) These include:

- labelling the fat and calorie content of foods in restaurants and take-out establishments
- setting and enforcing guidelines for the fat content of school and hospital meals
- 'silent' alteration of the content of restaurant foods or processed foods through gradual changes in food processing or food preparation
- banning some types of food advertising on television
- regulating television commercials in children's programming
- requiring nutrient content information as part of food advertisements
- using price supports to promote or discourage consumption of certain foods
- levying taxes on certain foods and using the revenues to support other health promotion activities.

In a review of evidence about the current knowledge about obesity, Kim Raine identified a number of gaps and policy options that are pertinent to the development of nutrition strategies. (Raine, 2004) These policy options are:

- develop a comprehensive, coordinated surveillance system to monitor ongoing rates of obesity, the costs of obesity, and impacts of interventions
- build upon current commitments to food and nutrition surveillance, including eating patterns and nutrient intake physical measurers, through the Canadian Community Health Survey, Cycle 2.2. Commit further resources to exploit opportunities for ongoing surveillance, data analysis, interpretation, and reporting so that the contributions of food intake and physical activity to obesity can be understood and acted upon
- develop a comprehensive, coordinated surveillance system to monitor physical activity in Canada
- exploit opportunities for analysis of currently available surveys and develop surveillance mechanisms to fill current gaps in data gathering to monitor social

trends such as recreation patterns, television viewing, food purchasing patterns, food supply, and marketing strategies related to food and physical activity that contribute to the understanding of environmental determinants of obesity
- conduct health impact analysis of social policies influencing income inequality and financial security to assist in developing and understanding of socioeconomic determinants of obesity
- develop policies supportive of weight management for individuals at risk for health problems due to obesity
- work with education ministries and school boards to promote healthy weights through schools
- work with private- and public-sector employers to develop a workplace environment that promotes healthy weights
- based upon extensive evidence from knowledge and experience with other health issues in Canada (such as tobacco) and from other countries, apply promising practices for populations-based policy change to promote healthy weights (see Text Box)
- evaluate and measure outcomes of programs and interventions using common indicators of success to increase evidence base for future public health initiatives

Policies to be considered to promote healthy weights:

- *implement community-wide public health campaigns (media, support groups, risk screening, partnerships with schools, worksites, local policy, etc.) to promote healthy eating and physical activity*
- *build upon successful policy approaches to the promotion of healthy eating and active living through dietary and physical activity guidance*
- *expand food and nutrition labelling to food service operations, including fast food*
- *examine means of GST/HST revenues from soft drinks and snack foods to subsidize the cost of low-energy, nutritious food and to fund health promotion initiatives*
- *support tax policy that promotes social equity to address low SES as a determinant of obesity*
- *regulate media promotion of 'junk' food by banning advertising to children during peak viewing hours, or by legislating equal time for promotion of healthy foods and physical activity*
- *regulate land use and transportation policy to promote active transportation, such as walking and cycling*

Overweight and Obesity in Canada A Population Health Perspective (Raine, 2004)

A review conducted by Lindsay McLaren and colleagues offered recommendations related to research and funding, and to policy, that are relevant to the development of a Nutrition Strategy Frameworkfor Canada.

Regarding research and funding, the researchers recommended:

- an investigation into the 'non-health' literature, to understand the impact on health of policies and practices in other sectors
- an investigation into economic incentives for diet and physical activity e.g., food taxation policies
- sufficient funding to ensure proper evaluation of health promotion interventions
- evaluation of social policy interventions
- a requirement that evaluation includes an assessment of distribution of impact
- continued funding for synthesis research, but with greater clarity and communication regarding the dissemination strategy
- establishment and maintenance of continuous, long-term population-level surveillance for key variables at the individual and environmental level, including: individual data on physical activity and dietary intake, macro-level trends and policies that have implications for food and nutrition, and macro-level trends and policies that have implications for physical activity
- funding for research and policy placements
- an investigation into how to facilitative intersectoral integration in government

In terms of policy, McLaren and colleagues recommended the following action, which they suggested should be based on a commitment to evaluation:

- regulation of advertising and promotion of foods to children
- improvement of the "walkability" of neighbourhoods
- fiscal policies to facilitate healthy lifestyle
- whole school interventions to facilitate health
- whole worksite interventions to facilitate health
- incentives for intersectoral integration in government

Nutrition Interventions in Schools

The National Cancer Policy Board (the Board) of the Institute of Medicine and the National Research Council in the United States called for the establishment of healthy eating habits at a young age and identified the important role of schools in implementing effective policies and educational programs. The Board indicted that it supports the CDC guidelines for schools health programs to promote lifelong healthy eating, including four attributes of effective school-based nutrition education programs:

1. help young people learn skills (not just facts)
2. give students repeated chances to practice healthy eating

3. make nutrition education activities fun
4. involve teachers, administrators, families, community leaders, and students delivering strong consistent messages about healthy eating, as part of a coordinated school health program

The CDC Guidelines provide schools with strategies to improve nutrition education programs through policies, curriculum, instruction, program coordination, staff training, family and community involvement, and program evaluation. (Curry SJ, et. al., 2003)

The systematic review conducted by Helen Thomas and colleagues concluded that:

- for school and high school students, multifaceted interventions (school curricula, mass media, parent mailings, and cafeteria changes) over at least 8 to 10 weeks show the most promise for altering food intake
- educational messages targeted to behavior change (as opposed to knowledge acquisition) and to specific behaviors (increase fruit intake and reduce fat intake, as opposed to general nutritional changes) are most successful in changing food behaviours
- multifaceted interventions require considerable planning and cooperation across many levels (teachers, cafeteria workers, parents, and media)
- interventions that are multifaceted (e.g., targeting students, school cafeterias, parents and community) are more effective than others - in reviewing school policies that could reduce obesity, all of these interventions should be implemented simultaneously and be given equal importance – the authors noted that these are complex interventions, involve several stakeholders, and require considerable planning and cooperation; and, in schools that choose to implement multifaceted strategies, additional resources must be available for planning, implementing, monitoring and evaluating the programs
- increasing the emphasis on the connection between healthy nutrition, regular exercise and obesity, improved health in health education classes
- introduce individual student goal setting in the areas of nutrition and physical education in elementary and secondary schools
- because environmental interventions can reduce the options available (to students), it is important that the opportunities offered are based on evidence; for example, if food choices are limited in a cafeteria where children eat most, the selections should be based on sound research

> *"Many environmental programs require the contribution of multiple groups in order to make them successful. School boards, government agencies, community organizations and the private sector are all necessary to make changes, such as strong policies that will fund schools adequately so that they do not rely on pop machines to make up for the shortfall, designing safe routes to schools, keeping schools open after hours, and coaching intramural sports. Incentives must be provided to intersectoral groups to collaborate in resolving these challenges. Governments should initiate the process."*
>
> *Thomas et. al. 2004*

Changes in the Food Environment

A number of issues related to food and the food environment were highlighted in various reports and in the literature; for example, issues related to food consumption, distribution and availability. (CPHI, 2004; McLaren L, et.al., 2004; French SA, et. al., 2001; Jeffery RW, et. al., 1998; Harnack L, et. al., 2003; French SA, 2003; Rolls BJ, et. al., 2002; Nielsen SJ, et. al., 2003; Young LR, et. al., 2002; Matthiessen J, et. al., 2003; Diliberti N, et. al., 2004; Mrdjenovic G, et. al., 2003; Giammattei J, et. al., 2003; Jeffery RW, et. al., 2002; French SA, et. al., 1997; and, Temple NJ, et. al., 2002)

A number of areas were identified as requiring attention in nutrition strategies designed to create environments supportive of healthy eating practices:

- the need to shift food consumption patterns towards those recommended in *Canada's Food Guide to Healthy Eating* and the WHO *Global Strategy on Diet, Physical Activity and Health*
- geographic distribution of retail food outlets
- consumption of foods away from home, especially in fast food outlets
- the rise in portion sizes
- increased consumption of soft and sweetened drinks
- the effect of food pricing on food choices
- the employment of taxation and subsidies e.g., taxing unhealthy food choices and subsidizing fruit and vegetables

Food Advertising and Marketing - The Role of Media

In February 2004, the Kaiser Family Foundation released a report on the role of media in childhood obesity. (Kaiser Family Foundation, 2004) The key findings from the review

of 40 studies were:

- the majority of research finds a link between the amount of time children spend watching TV and their body weight
- interventions that reduce children's media time result in weight loss
- most research indicates that time spent with media does not displace time spent in physical activities
- many studies indicate that children's exposure to food advertising and marketing may be influencing their food choice; for example, content studies document that children are exposed to a vast number of TV ads for food products such as sodas, cereal, candy, and fast food; other research suggests that exposure to food commercials influences childrens'preferences and food requests; and, that ads can also contribute to confusion among children about the relative health benefits of certain foods

The Kaiser Family Foundation review observed that "researchers have noted that while there are many contributing factors to childhood obesity, media use may provide promising opportunities to positively affect the problem. Leading policy options promoted by public health experts include: reduce or regulate food ads targeted to children, expand public education campaigns to promote healthy eating and exercise, incorporate messages about healthy eating into TV storylines, and support interventions to reduce the time children spend with media." (Kaiser Family Foundation, 2004)

Lessons Learned from the Literature Review

In a chapter on lessons learned, the Institute of Medicine Committee on the Prevention of Childhood Obesity in Children and Youth stated that " efforts to address contemporary public health problems are often difficult to evaluate for a number of reasons including the urgency and need for a rapid response, the lack of classical experimental design, often not having an unexposed control group, difficulty in measuring social factors, not understanding the dynamics between social factors and health behaviors, and other reasons." This committee concluded that 'environmental classifications' of types of intervention strategies may serve as a useful template to determine the utility of different public health interventions for the prevention of childhood obesity. More broadly, categories such as these may be useful in conceptualizing intervention strategies for various public health problems." (Institute of Medicine, 2004)

In terms of preventing obesity, the Committee identified a number of concluding principles and implications based on the lessons learned from their review:

- one of the greatest challenges . . . is to strike a balance between individual versus structural or environmental efforts

- the need to change social norms about food and physical activity e.g., super-sizing of foods
- learn from other public health experiences, but don't necessarily duplicate
- the role of food industry is critical but uncertain
- the problem (of obesity) is multifactoral and so must be the solutions
- need to consider the global dimensions

In a report for the European Commission by the International Union of Health Promotion and Education on the Evidence of Health Promotion Effectiveness, several observations were made about health promotion through nutrition:

- The potential impact of dietary change on the incidence of chronic disease is considerable. Randomized clinical trials in high risk individuals show impressive changes in cardiovascular disease risk factors.
- Multi-component nutrition interventions in community, schools, work sites and homes have had positive effects on nutritional behaviour, but they produce smaller effects on risk factors or the incidence of disease. There are opposing forces in the daily lives of targeted individuals, such as: time pressures; economic constraints; food advertisements; misconceptions of dietary fats, fruit and vegetables; the limited focus on short term benefits of a healthy diet; and; in some cases, the limited access, either economically or socially, to healthy food.
- Educational interventions should be complimented with structural measurers, such as pricing policies and regulations, along with health promotion aimed at achieving environmental and social changes that will facilitate and reinforce sustainable changes in behaviour of individuals throughout life.
- Involvement of the food industry is essential to produce changes in the composition of food products (healthy affordable products) labelling of food products, and economic incentives to eat a healthier diet.
- The formation of a community coalition may be an effective means for sharing resources, increasing awareness on the part of the public as well as decision makers, and building momentum for community change.

(International Union for Health Promotion and Education, 1999)

The experience in Australia with *Eat Well Australia 2000-2010 (EWA)* and the companion *National Aboriginal and Torres Strait Islander Nutrition Strategy Frameworkand Action Plan* was reported in FOOD*Chain*, the newsletter of the Strategic Inter-Governmental Nutrition Alliance (SIGNAL), in May 2004. This issue of the newsletter was devoted to a review of progress, possibilities and the pitfalls of the national nutrition strategy.

> "*From my perspective the important ingredient which we must not loose sight of is the need to grow and foster partnerships. One criticism that could be levied (in relation to EWA) is that, whilst our collaborative beginnings were good, we have not invested sufficiently in growing the intensity and coverage of our partnerships. There are many reasons for this and it may not be a lack of will or commitment – but nevertheless our report card in this area is mixed. … I suggest that the challenges and complexities facing us mean that a much more synergistic, cohesive and determined plan of action is required. This means that we need to work in different and more coordinated ways, which build on each sector's strengths and opportunities.'*
>
> *EWA Means Hanging Together- Not Hanging Separately* (Catford, 2004)

Catford observed that "partnerships for health bring together a set of actors for the common goal of improving the health of populations based on mutually agreed roles and principles. In the *EWA* context, partnerships mean a shared commitment to cooperate in the planning, advocacy, resourcing and implementation of healthy eating policies and programs." Catford called for stronger partnerships that enable:

- more effective platforms for action on public health nutrition
- shared vision, joint goals and more appropriate strategic tracking of indicators
- stronger and more sustainable approaches to tackling the underlying determinants of health
- better opportunities for reaching the community
- coordinated strategies which reduce duplication of effort and use resources more effectively and efficiently
- distinctive and valued roles and responsibilities of partners
- cross-fertilization of ideas and expertise, and staff exchange
- consistent health messages to the public thereby enhancing their impact and effect
- shared benefits and added value for partners

In his words, "2 + 2 = 5 or even 6!" (Catford, 2004)

Some of the principles or ground rules for improving partnership relationships identified by John Catford (Catford, 2004)	
Openness	to share timely, strategic and accurate information between partner organizations and with the broader community
Evidence	to develop plans on the basis of needs, cost-effectiveness, capacity and future trends
Empowerment	to share power with and enable informed decision-making by people, partner organizations and other players
Engagement	to encourage public participation, and strengthen community capacity and social capital
Equity	to ensure access by developing appropriate public health nutrition policy and services that assist those most in need and socially disadvantaged
Inquiry	to undertake research and evaluation which will help improve quality, effectiveness, and efficiency
Commitment	to support actively a plan of action framework for better health and allocate resources for a sustained program of work
Accountability	to make decisions transparently, measure performance and accept responsibility where appropriate

Lessons Learned and *Challenges* Identified by Key Informants

A number of common themes emerged in discussions with key informants about lessons they have learned and challenges they faced in developing nutrition and healthy eating strategies. These include:

- historically, Canada has produced high quality pan-Canadian nutrition strategies and action plans, however, there has been a lack of investment and resources to create the management and organizational structures and provide the resources needed to implement them, monitor progress and evaluate their impact and effectiveness
- high level political and bureaucratic support helps to move things along, however, this support does not always bring with it additional resources – often the expectation is that the work is to be done with existing resources, which creates pressure and stress for those involved
- frequent changes in leadership at political and senior bureaucratic levels create difficulties in getting support and formal adoption of nutrition and healthy eating strategies in Canada
- there is a lot of activity in Canada related to healthy living, chronic disease prevention, surveillance and monitoring, surveys etc. - coordination and collaboration is needed to avoid confusion and duplication of efforts and to maximize resources and impact

- although necessary to build support for a strategy and to engage many partners, broad-based stakeholder consultation takes time, resources and patience
- intersectoral partnerships are complex and create many challenges; for example, communicating and sharing information, and defining clear roles and responsibilities
- food industry is a critical player but there is a lack of agreement on its role
- capacity and expertise within organizations for nutrition advocacy needs to be developed at all levels
- nutrition is a complex issue - there are no 'black and white' answers for nutrition
- nutrition capacity, (i.e., human, financial and technical) in Canada needs to be enhanced and developed
- the unique needs of northern and remote communities and vulnerable populations, especially Aboriginal People, must be considered
- the links between research and practice in Canada must be strengthened - many strategies and interventions have lacked a conceptual framework and a theoretical base
- commitment to and investment in nutrition research, surveillance, monitoring and evaluation of strategies and interventions has been lacking
- mechanisms are need to share information about strategies and best practices

Lessons Learned and *Opportunities* Identified by Key Informants

Interviews with key informants and the review of literature revealed a sense of optimism and excitement about the current environment in Canada to move the nutrition and healthy eating agenda forward. There was strong agreement that the identification of obesity as an epidemic and as one of the major public health problems in Canada and around the world has brought recognition of the importance of nutrition and healthy eating. This attention has resulted in nutrition and healthy eating being identified as a key component in many national and provincial/territorial broad strategic health/wellness/ chronic disease/healthy living frameworks and plans.

Other opportunities frequently mentioned by key informants were:

- accountability processes established by F/P/T First Ministers related to health, and the requirement to produce annual reports based on a common set of indicators
- endorsement by F/P/T Ministers of Health of the *Pan-Canadian Healthy Living Strategy,* and their continued support for its development
- release of the WHO *Global Strategy on Diet, Physical Activity and Health*
- establishment of the Public Health Agency of Canada, its Collaborating Centres and the development of a Public Health Strategy and Network
- increased priority to public health, with additional resources, in some provinces

- collaboration between F/P/T Ministers of Health and Education in the development of a healthy school initiative
- collaboration between F/P/T Ministers of Agriculture and Health in the development of a National Food Policy Framework
- work of the F/P/T Group on Nutrition on a Food and Nutrition Surveillance System for Canada
- the Canadian Community Health Survey Cycle 2.2 – nutrition focus and the development of Canada's Health Measures Survey
- creation of Chronic Disease Prevention Alliance of Canada (CDPAC) and the network of provincial and territorial alliances for chronic disease prevention
- existence of strong alliances and coalitions for healthy eating
- collaborative working relationships between some provincial and territorial departments of health and regional health authorities
- inter-departmental structures within government, and intersectoral and multi-partner alliances, which facilitate action through improved communication and advocacy
- current programs, such as the federal funding programs (Canada Prenatal Nutrition Program, Community Action Program for Children, and two diabetes programs), the federal Food Mail System, and the Breakfast for Learning Program, provide critical resources in communities, especially in northern and remote areas
- increased media attention and coverage of nutrition and healthy eating, particularly in relation to obesity

A Pan-Canadian Nutrition Strategy Framework

As part of this review, the consultant was asked by the NPG to:

- make recommendations about a *Pan-Canadian Nutrition Strategic Plan for Health Promotion and Chronic Disease Prevention*, based on the *WHO Global Strategy on Diet, Physical Activity and Health*, within the Canadian context and within the NPG framework components.

Issues and Recommendations to the Nutrition Planning Group

1. The WHO *Global Strategy on Diet, Physical Activity and Health* serves as a good foundation for a pan-Canadian nutrition strategy framework. However, it is recommended that a more detailed and precise nutrition strategy, such as one based on the NPG framework components, be developed because of the unique situation in Canada, particularly in relation to current federal/provincial/territorial collaborative initiatives and the efforts of intersectoral coalitions and alliances.

2. The NPG framework components is a useful planning document and is compatible with frameworks used for strategies in other countries and in Canada, both nationally and in the provinces/territories. The strategic components in the NPG framework are articulated slightly differently than those, for example, in the *Pan-Canadian Healthy Living Strategy*. It is recommended that the NPG compare the two Frameworks to identify similarities and differences. The NPG could then determine if it wishes to make adjustments to its Framework and/or develop a rationale to explain the links and differences between the two Frameworks.

3. Some key informants raised questions about why a separate pan-Canadian Nutrition Strategy Framework was being proposed and how it would be linked to the *Pan-Canadian Healthy Living Strategy*. Clarification is needed about the relationship between the proposed outline for a pan-Canadian Nutrition Strategy Framework and the *Pan-Canadian Healthy Living Strategy*. Key messages about the relationship between the two strategies should be developed by the NPG. These messages should be used in communication with key stakeholders and the Intersectoral Healthy Living Network.

4. The NPG framework components identified the importance of management and organizational structures for the nutrition strategy. These structures, as well as mechanisms to promote effective communication, were also identified in this review as critical components of successful strategies. It is recommended that the NPG review and clarify its current management and organizational structures, including its membership, and its mechanisms for communications. After the necessary modifications are made, this information could be made available publicly, for example, by posting it on the CDPAC web site.

5. In this review, the importance of evaluation and monitoring progress of strategies emerged as a critical theme. It is recommended that the NPG develop an evaluation framework and plan to monitor progress and impact of both the pan-Canadian Nutrition Strategy Framework and mobilization plan.

6. Because the interviews with key informants sparked their interest in the development of the pan-Canadian nutrition strategy, it is recommended that the NPG communicates its plans to them and discusses ways to engage them in the development of a *Pan-Canadian Nutrition Mobilization Plan 2005-2015*. Discussions and consultation with a broad network of stakeholders from multiple sectors is a critical step in the development of the pan-Canadian Nutrition Strategy Framework and a mobilization plan. It is recommended that the NPG provide leadership by initiating these discussions to garner support for the strategy, engage partners in the development of the mobilization plan and build collaborative partnerships.

Proposed Outline of a Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention 2005-2015

Finally, the consultant was asked to:

- present an outline for a potential pan-Canadian nutrition strategy framework, including components and key content, that is 1) based on available evidence and best practices in Canada and internationally, and 2) describes and builds on the key components that currently exist in Canada.

The proposed outline for a pan-Canadian Nutrition Strategy Framework was developed in consultation with the NPG. The strategy is based on the NPG framework components and was developed for a 10 year timeframe of 2005-2015. The *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention 2005-2015* includes several parts:

1) A Positioning Statement - background on the development of the strategy framework, and a brief description of the strategy
2) The Logic Model – inputs, strategic components, outputs, examples of system outcomes for the short (1-2 years), medium (3-4 years) and long term (5 – 10 years) ans health outcomes (beyond 10 years)
3) The Strategic Framework - the overall mission, strategic components and strategic goals and examples of strategic activities and outputs
4) Examples of System Outcomes, Indicators, Indicators of Progress, Data Sources and examples of Health Outcomes, Indicators, Indicators of Progress and Data Sources for the longer term (beyond 10 years)

The *Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention 2005-2015* was prepared as a separate document and is available on the Chronic Disease Prevention Alliance web site at www.cdpac.ca.

List of Strategies and Relevant Reports Reviewed

Jurisdiction	Strategies
NF&L	*Eating Healthier in Newfoundland and Labrador:* Provincial Food and Nutrition Strategy Frameworkand Background Document (Draft September, 2004)
PEI	*Healthy Eating Strategy for Island Children and Youth 2002 – 2005* (2002) *PEI Strategy for Healthy Living* (2003)
NS	*Healthy Eating Strategy Nova Scotia* (Draft October, 2003) *Nova Scotia Chronic Disease Prevention Strategy* (2003) Healthy Nova Scotia – Strategic Directions for the Office of Health Promotion (2004)
NB	Healthy Futures: Securing New Brunswick's Health Care System – The Provincial Health Plan 2004-2008 ((2004)
QC	Programme National de Santé Publique 2003-2012 (2003) Santé et Services sociaux de Québec web site Institut national de santé publique de Québec web site
ON	Healthy Weights, Healthy Lives, 2004 Medical Officers of Health Report (2004) Cancer Care Ontario's Nutrition and Physical Activity Strategy (Draft 2004)
MN	Chronic Disease Prevention Initiative, Alliance for the Prevention of Chronic Disease (2003)
SK	"Healthier Places to Live, Work and Play – A Population Health Promotion Strategy for Saskatchewan (2004)
AB	Alberta Healthy Living Framework: An Integrated Approach (revised 2003) Alberta Health and Wellness - Framework for a Healthy Alberta (2003)
BC	Draft BC's Healthy Physical Activity and Healthy Eating Plan (Confidential PowerPoint Presentation) (2004) Health Goals for British Columbia (1997) A Framework for a Provincial Chronic Disease Prevention Initiative (2003)
HC	*Nutrition for Health an Agenda for Action* (1996) *Pan-Canadian Healthy Living Strategy* (2003)
AU	*Eat Well Australia – An Agenda for Action for Public Health Nutrition* (2000) *National Aboriginal and Torres Strait Islander Nutrition Strategy Frameworkand Action Plan* (2000)
NZ	*Healthy Eating – Healthy Action/Oranga Kai – Oranga Pumau* – A Strategic Framework and Background Document (2003) *Healthy Eating – Healthy Action/Oranga Kai – Oranga Pumau* – Implementation Plan 2004-2010 (2004)
UK	*Choosing Health – Making healthy choices easier* (2004) Consultation documents for the development of the Food and Health Action Plan (2004)
US	US Centers for Disease Control and Prevention web site USDA Center for Nutrition Policy and Promotion web site National Institutes of Health web site

Jurisdiction	Strategies
FN	Finland Ministry of Social Affairs and Health web site Finland National Public Health Institute web site
WHO	WHO *Global Strategy on Diet, Physical Activity and Health* (2004) WHO web site
OECD	OECD web site

References

Canadian Population Health Initiative, "Improving the Health of Canadians," (Ottawa: Canadian Institute for Health Information, 2004)

Catford J., "*EWA* Means Hanging Together – Not Hanging Separately," Issue no. 14 of Food*chain* (Western Australia: the Strategic Inter-governmental Nutrition Alliance, 2004) (on-line), Available from: [http://www.dhs.vic.gov.au/nphp/workprog/signal/foodchain/foodchain14.pdf]

Clemens RC, "Developing Nutrition Interventions – A Synthesis of Evidence to Guide Planning," (Toronto: Cancer Care Ontario, 2001)

Curry SJ, Byers T and Hewitt M (Editors), report of the Institute of Medicine, "Fulfilling the Potential of Cancer Prevention and Early Detection," (Washington DC: National Academy Press, 2003)

David K, "Nutrition Monitoring in Ontario – Background Document," (Toronto: Cancer Care Ontario, 2001)

Diliberti N, Bordi P, Conklin T, Roe L and Rolls B, "Increased Portion Size Leads to Increased Energy Intake in a Restaurant Meal," Obesity Research, 12: 562-568, (2004)

French SA, "Symposium: Sugar and Fat - From Genes to Culture," Journal of Nutrition, 133: 841S-843S, (2003)

French SA, Lin B-H, Guthrie J, "National trends in soft drink consumption among children and adolescents age 6 – 17 years: Prevalence, amounts and sources, 1977/1978 to 1994/1998," Journal of the American Dietetic Association, 103: 1326-1331, (2003)

French SA, Jeffery RW, Story M, Hannan P and Snyder MP, "A pricing strategy to promote low-fat snack choices through vending machines," American Journal of Public Health, 78: 849-851, (1997)

French SA, Story M and Jeffery W, "Environmental Influences on Eating and Physical Activity," Annual Review of Public Health, 22: 309-335 (2001)

Giammattei J, Blix G, Mashak HH, Wollitzer AO and Pettitt DJ, "Television Watching and Soft Drink Consumption," Archives of Pediatric Adolescent Medicine, 157: 882-886, (2003)

Glanz K, Rimer BK, and Lewis FM (Editors), "Health Behavior and Health Education: Theory, Research and Practice (third edition), (San Francisco CA: Jossey-Bass, 2002)

Harnack L and French S, "Fattening up on fast food," Journal of the American Dietetic Association, 1003: 1296-1297, (2003)

Institute of Medicine, "Preventing Childhood Obesity – Health in the Balance," Prepublication Copy: uncorrected proofs, (Washington DC: National Academy Press, 2004)

International Union for Health Promotion and Education, "The Evidence of Health Promotion Effectiveness Part Two – Evidence Book, A Report for the European Commission," (Brussels, Luxembourg: ECSC- EC-EAEC, 1999)

Jeffery RW and French SA, "Epidemic of obesity in the United States: are fast foods and television viewing contributing?" American Journal of Public Health, 88: 277-280, (1998)

Jeffery RW, French SA, Raether C and Baxter JE, "An Environmental Intervention to Increase Fruit and Salad Purchases in a Cafeteria," Preventive Medicine, 23: 788-792, (1994)

Kaiser Family Foundation, "The Role of Media in Childhood Obesity. Issue Brief, (February, 2004), (on line), Available from, http://kff.org/entmedia/loader.cfm?url=/common/security/getfile.cfm&PageID=32033

Kumanyika S, Jeffery R, Morabia A, Rittendbaugh C, Antipas AJ, "Obesity prevention: the case for action," International Journal of Obesity, 26: 425-436, (2002)

Kumanyika S, "Minisymposium on Obesity: Overview and Some Strategic Considerations," Annual Review of Public Health, 22: 293-308, (2001)

Lipski U and Ignagni E, "Evaluation of Nutrition Interventions – A Background Document," (Toronto: Cancer Care Ontario, 2001)

Matthiessen J, Fagt A, Biltoft-Jensen A, Beck AM and Ovesen L, "Size makes a difference," Public Health Nutrition, 6: 65-72, (2003)

McLaren L, Sheill A, Ghali L, Lorenzetti D, Rock M and Huculak S, "Are Integrated Approaches Working to Promote Healthy Weights and Prevent Obesity and Chronic Disease?," (Ottawa: Health Canada, 2004)

Mrdjenovic G and Levitsky D, "Nutritional and Energetic Consequences of Sweetened Drink Consumption in 6- to 13-year-old Children," The Journal of Pediatrics, 142: 604-610, (2003)

Neilsen SJ, and Popkin BM, "Patterns in Food Portion Sizes, 2977-1998", Journal of the American Medical Association, 289 (4): 450-453, (2003)

Ontario Tobacco Strategy Steering Committee, *Designing Ontario's Tobacco Strategy: Logic Models, Goals, Objectives and Indicators*, Draft, (Toronto: Ontario Ministry of Health and Long-term Care, 2004)

Raine K, report of the Canadian Population Health Initiative, "Overweight and Obesity in Canada – A Population Health Perspective," (Ottawa: The Canadian Institute for Health Information, 2004)

Rolls BJ, Morris E and Roe L, "Portion size of food affects energy intake in normal-weight and overweight men and women," American Journal of Clinical Nutrition, 76: 1207-1213, (2002)

Sahay TB, Rootman I and Ashbury FD, "Review of Nutrition Interventions for Cancer Prevention," (Toronto: Cancer Care Ontario, 2001)

Smedley BD and Syme SL (Editors), Institute of Medicine, "Promoting Health Intervention Strategies from Social and Behavioral Research," (Washington DC: National Academy Press, 2000)

Spasoff R, "Epidemiologic methods for health policy", New York: Oxford University Press, 1999

Temple NJ and Balay-Karperien AL, "Nutrition and Cancer Prevention: An Integrated Approach," Journal of the American College of Nutrition, 21: 79-83, (2002)

Thomas H, Ciliska D, Wilson-Abra J, Micucci S, Dobbins M and Dwyer J, "Effectiveness of Physical Activity Enhancement and Obesity Prevention Programs in Children and Youth," (Ottawa: Health Canada, 2004)

US Centres for Disease Control and Prevention, *Resource Guide for Nutrition and Physical Activity Interventions to Prevent Obesity an Other Chronic Diseases*, (online) Available from: http://www.cdc.gov/nccdphp/dnpa/pdf/guidance_document_3_2003.pdf

World Cancer Research Fund/American Institute for Cancer Research, "Food, Nutrition and the Prevention of Cancer: a global perspective," (Washington, DC: American Institute for Cancer Research, 1997)

World Health Organization, "Diet, Nutrition and the Prevention of Chronic Diseases," WHO technical report series no.916, (Geneva: World Health Organization, 2003)

World Health Organization, "Global Strategy on Diet, Physical Activity and Health," (Geneva: World Health Organization, 2004) (on line), Available from: http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R17-en.pdf

World Health Organization, "Obesity: Preventing and managing the global epidemic. Report of a WHO Consultation on Obesity, 3-5 June 1997" WHO technical report series 894, (Geneva: World Health Organization, 2000)

World Health Organization, "Ottawa Charter for Health Promotion," (Geneva: World Health Organization, 1986)

Young LR and Nestle M, "The Contribution of Expanding Portion Size to the US Obesity Epidemic," American Journal of Public Health, 92: 246-249, (2002)

Appendix 1

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Appendix 2

Components for Developing *a Pan-Canadian Nutrition Strategy Framework for Health Promotion and Chronic Disease Prevention*

What's a Nutrition Strategy?

A nutrition strategy is a planning framework to guide action on nutrition, healthy body weight and related factors and issues (e.g. food security, access and social inclusion) relevant to chronic disease prevention.

What are the Strategic Components[4] of a Nutrition Strategy?

1. Leadership and Coordination
2. Policy and Legislation
3. Capacity Building and Infrastructure Development
4. Knowledge creation and Exchange
5. Comprehensive Program Interventions

Based on a review of the state of the evidence and current data, the strategy:

- Articulates population health goals and objectives
- Outlines a framework for population-based interventions (programs, policies and media) based on best practices
- Provides a foundation for research, monitoring and surveillance, and evaluation
- Provides an agenda for healthy public policy development
- Identifies capacity building needs such as national level technical assistance and training, knowledge exchange and best practices inventory, and coalition development
- Sets out a general logic model with relevant intermediate indicators and targets for use as a coordination and management tool
- Delineates management and organizational structures for coordination and clarifies roles for stakeholders

Why is it needed?

Due to lack of investment and resources at the national level there is no comprehensive, integrated or cohesive approach to nutrition and chronic disease prevention. Resources are needed to create management and organizational structures for implementation, monitoring and evaluation. There are activities underway in various parts of Health Canada and other Ministries eg. Integrated Pan-Canadian Healthy Living Strategy, revision of Canada's Food Guide to Healthy Eating, CCHS cycle 2.2 - national level data on what Canadians are eating nutrition labeling.

Who should be involved?

Key decision-makers and influentials involved with aspects of Nutrition at the national level who can influence strategy development including: Health Canada and other relevant Ministries, CDPAC and their NGO partners; CCSC PPAG Nutrition Strategy FrameworkNetwork; Foundations such as Chagnon and National Institute of Nutrition, CIHR- Institutes of Population and Public Health, Cancer, and Nutrition Metabolism and Diabetes; CPHI-Obesity Initiative; Provincial/Territorial Nutritionists.

[4] See Definitions and Description on pages 65-69

Definitions and Descriptions of the Strategic Components[5]

Strategic Component	Definition and Description
Leadership and Coordination	• *Leadership* – the ability of a group (e.g. board members, senior management, Advisory/ Steering Committees) to steer an organization/system/sector in the direction of its vision over a long term • *Governance* – the overall processes and structures used to direct and manage the operations and activities of an organization/system/sector • *Accountability* - the requirement to explain and accept responsibility for carrying out an assigned mandate in light of agreed upon expectations. It involves: taking into consideration the public trust in the exercise of responsibilities; providing detailed information about how responsibilities have been carried out and what outcomes have been achieved; and accepting the responsibility for outcomes, including problems created or not created. • *Coordination* – involves formalized, defined relationships among organizations/systems/sectors
	From WHO *Global Strategy* • Governments have a primary steering and stewardship role in initiating and developing a strategy, ensuring that it is implemented and monitoring its impact • Governments have a central role, in cooperation with other stakeholders, to create an environment that empowers and encourages behaviour changes by individuals, families and communities, to make positive, life-enhancing decisions on healthy diets and patterns of physical activity • A combination of sound and effective actions are needed at global, regional, national and local levels • Bringing about changes in dietary habits and patterns of physical activity will require a multi-sectoral, multi-disciplinary and participatory approach that harnesses the combined efforts of many stakeholders, public and private, over several decades and involving all sectors of society • Strategies should be part of broader, comprehensive and coordinated public health efforts • Governments are encouraged to set up a national coordinating mechanism that addresses diet and physical activity within the context of a comprehensive plan for Non-communicable disease prevention and health promotion, Local authorities should be closely involved. Multi-sectoral and multidisciplinary expert advisory boards should also be established, including technical experts and representatives of governments agencies, and have an independent chair to ensure that scientific evidence is interpreted without any conflict of interest • National strategies should include specific goals and objectives, and actions, similar to those outlined in the WH O global strategy. Of particular importance are the elements needed to implement the plan of action, including the identification of necessary resources and national foal points (key national institutes); collaboration between the health sectors and other key sectors such as agriculture, education, urban planning, transportation and communication; and monitoring and follow-up.

[5] Definitions and descriptions are taken from documents from the Government of Canada Voluntary Sector Initiative, Milne, G, *Making Policy: a Guide to the Federal Government's Policy Process*, (Ottawa, 2002), CDPAC, CIHR and CHSRF web sites, Smedley BD, and Syme, LS, *Promoting Health Intervention Strategies from Social and Behavioral Research,* Institute of Medicine (2000),and the WHO *Global Strategy on Diet, Physical Activity and Health (2004)*

Strategic Component	Definition and Description
Policy and Legislation	• *Policy* – a plan of action/course or method of action that has been deliberately chosen to guide/influence future decisions; a clear goal and/or direction. It is the considered selection of one choice among competing difficult choices. Policy directs, but does not consist of, operational programs/details. It is best expressed as a vision with goals, strategy objectives, work plan and a program of activities, resources and leadership to achieve that choice. • *Legislation* - is the laws made in a legislature. It is a policy instrument, a way that governments choose to implement policies. An idea to make a new law or to change an existing law starts out as a 'bill.' Each bill goes through several stages to become a law. Once a bill has passed through these stages it is given Royal Assent and becomes law.
	From WHO *Global Strategy* • Health ministries have an essential responsibility for coordinating and facilitating the contributions of other ministries and government agencies responsible for polices on food, agriculture, youth, recreation, sports, education, commerce and industry, finance, transportation, media and communications, social affairs and environmental and urban planning. ➢ national food and agriculture policies should be consistent with the protection and promotion of public health ➢ promotion of food products should be consistent with a healthy diet ➢ fiscal policies – public policies can influence prices through taxation, subsidies or direct pricing in way that encourage healthy eating and lifelong physical activity ➢ food programs - many countries have food programs to provide food to population groups with special needs of cash transfers to families for them to improve food purchases, special attention should be given to the quality food the food items and to nutrition education as a main component of the programs. Food and cash distribution program should emphasize empowerment and development, local production and sustainability ➢ agricultural policies – have a great effect on national diets, governments can influence agricultural production through many policy measurers ➢ multi-sectoral policies are needed to promote physical activity – framing and review of public policies e.g., transport, urban planning, education, labour, social inclusion, and health-care funding ; community involvement and enabling environments ➢ school policies and programs should support the adoption of healthy diets and physical activity • Governments are encouraged to consult with stakeholders in policy • Governments are encouraged to draw up national dietary guidelines, taking account of evidence from national and internationals sources. such guidelines advise national policy, nutrition education, other public health interventions and intersectoral collaboration, They may be updated periodically in the light of changes in dietary and disease patterns and evolving scientific knowledge • National guidelines for health-enhancing physical activity should be prepared in accordance with the goals and objectives of the WHO Global Strategy and expert recommendations.

Strategic Component	Definition and Description
Capacity Building and Infrastructure Development	• *Capacity Building* - is the development of human and financial resources, technology, skills, knowledge and understanding required to permit an organization/system/sector to do their work and fulfill what is expected by stakeholders. • *Infrastructure development* –is synonymous with 'structural capacity' and addresses/applies to all of the examples described below
	• The goal of strengthening capacity is to enhance the ability of organizations/systems/sectors to achieve their missions, bring their visions to life, and fulfill their roles. • There are four dimensions to capacity which are linked: ➢ *financial capacity* -includes how well financial resources from all sources are mobilized for and within organizations/systems/sectors ➢ *human resources capacity* - refers to harnessing, motivating, nurturing, managing, and rewarding the individual and collective efforts of paid staff, volunteers, and board members. (This includes leadership, people resourcing, volunteer management, skills development and maintenance, and operations management). ➢ *knowledge capacity* - is the establishment, enhancement, management, and use of information. It is the ability to generate and amass information, and to assimilate the data into useful knowledge that contributes to informed decision-making. It is the ability to learn, create and apply knowledge derived from information. It includes formal research and performance evaluation, as well as, the knowledge required to effectively deliver programs. (this includes research, information and data collection, management and dissemination, and policy capacity) ➢ *structural capacity* - is a broad area that encompasses the systems, tools, infrastructure and mechanisms that give organizations/systems/sectors their form and function and allows them to constitute a distinct entity. (This includes physical assets, technology capacity, organizational capacity, administrative capacity, and legal capacity).
	From WHO *Global Strategy* • Institutional capacity – national institutions for public health, nutrition and physical activity play an important role in the implementation if national diet and physical activity programs. They can provide the necessary expertise, monitor development, help to coordinate activities, participate in collaboration at institutional level and provide advice to decision-makers.

Strategic Component	Definition and Description
Knowledge Creation & Exchange	• *Knowledge Creation* - is the establishment, enhancement, management, and use of information and research. It is the ability to generate and amass data/information, and to assimilate data/information into useful knowledge that contributes to informed decision-making. It is the process of learning, developing and applying knowledge derived from information/research. It includes formal research and performance evaluation, as well as, the knowledge required to effectively deliver programs. (This includes research, information and data collection, management and dissemination, and policy capacity) • *Knowledge Exchange* – is collaborative problem-solving between researchers, decision- and policy- makers, practitioners, communities, families and citizens that happens through linkage and interaction. Effective knowledge transfer and exchange involves interaction among parties and results in learning through the process of planning, producing, disseminating and applying existing or new knowledge in decision-making and research. • *Knowledge Translation* - is the exchange, synthesis and ethically-sound application of knowledge - within a complex system of interactions among researchers and knowledge users - to accelerate the capture of the benefits of research.
	From WHO *Global Strategy* • Research and evaluation – applied research, especially in community-based demonstration projects and in evaluating different policies and interventions, should be promoted. Such research (e.g., into the reasons for inactivity and poor diet, and on key determinants of effective intervention programs), combined with the increased involvement of behavioural scientists will lead to better informed policies and ensure that a cadre of expertise is created at national and local levels • Equally important is the need to put in place effective mechanisms for evaluating the efficacy and effectiveness of national disease-prevention programs , and the health impact of polices in other sectors • Programs to promote healthy diets and physical activity need to be evaluated and integrated into broader development and poverty-alleviation programs • Long-term and continuous monitoring of major risk factors is essential • Emphasis should initially be given to standards indicators recognized by the general scientific community as valid measures of physical activity, to selected dietary components, and to body weight. Data that provide insight into within-country patterns and variations are useful in guiding community action. Where possible, other sources of data should be used, e.g., from education, transport, agriculture, and other sectors • Monitoring and surveillance are essential tools – monitoring of dietary habits, patterns of physical activity and interactions between them; nutrition-related biological risk factors and content of food products; and the communication to the public of the information obtained, are important components of implementation. • Of particular importance is the development of methods and procedures using standardized data-collection procedures and a common minimum set of valid, measurable and usable indicators

Strategic Component	Definition and Description
Comprehensive Program Interventions	• <u>*Comprehensive Program Interventions*</u> - research has demonstrated that interventions are more likely to be successful when based on an ecological framework/model that recognizes that behaviors are influenced by multiple levels of influence, including *intrapersonal factors* (e.g., motivation, skills, knowledge); *interpersonal factors* (e.g., social support, social network, social norms); *institutional or organizational factors* (e.g., company, management characteristics, workplace policies); *community factors* (e.g., social capital, neighbourhood effects); and *public policy* (e.g., regulatory laws, taxes) comprehensive public health interventions involve multi-level interventions. This approach assumes that differences in levels of health and well being are affected by a dynamic interaction among biology, behaviour, and the environments, an interaction that unfolds over the life course of individuals, families, and communities. Public health evidence has shown that interventions are more likely to be successful when applied in coordinated fashion across multiple levels of influence (i.e., at the individual level, within families and social support networks; within schools, worksites, churches, and other community settings; and at broader societal levels.
	From WHO *Global Strategy* • Action plans should be based on the principles for action identified in the WHO *Global Strategy for Diet, Physical Activity and Health* • A combination of sound and effective actions is needed at global, regional, national and local levels, with close monitoring and evaluation of their impact. • Action plans to improve diets and physical activity must be sustainable, comprehensive, and actively engage all sectors, including civil society, the private sector and the media.

Appendix 3

The WHO *Global Strategy on Diet, Physical Activity and Health*	
Component	**Description**
Overall Goal	To promote and protect health by guiding the development of an enabling environment for sustainable actions at individual, community, national & global levels that, when taken together, will lead to reduced disease & death rates related to unhealthy diets & physical inactivity. These actions support the United Nations Millennium Development Goals & have immense potential for public health gains worldwide
Four Main Objectives	1) to reduce the risk factors for non-communicable diseases that stem from unhealthy diets & physical inactivity by means of essential public health action & health-promoting & disease-prevention measures
	2) to increase the overall awareness & understanding of the influences of diet & physical activity on health & of the positive impact of preventative interventions
	3) to encourage the development, strengthening & implementation of global, regional, national & community policies & action plans to improve diets & increase physical activity that are sustainable, comprehensive, & actively engage all sectors, including civil society, the private sector & the media
	4) to monitor scientific data & key influences on diet & physical activity; to support research in a broad spectrum of relevant areas including evaluation of interventions; & to strengthen the human resources needed in this domain to enhance & sustain health

The WHO *Global Strategy on Diet, Physical Activity and Health*	
Component	**Description**
Principles for Action	Strategies need to be based on the best available scientific research & evidence; comprehensive, incorporating both policies & action addressing all major causes of non-communicable diseases together; multisectoral, taking a long-term perspective & involving all sectors of society; & multi-disciplinary & participatory, consistent with principles contained in the Ottawa Charter for Health Promotion … & recognizing the complex interactions between personal choices, social norms & economic & environmental factors
	A life-course perspective is essential. It starts with maternal health & prenatal nutrition, pregnancy outcomes, exclusive breastfeeding for six months, & child & adolescent health; reaches children in schools, adults in worksites & other settings, & the elderly; & encourages a healthy diet & regular physical activity from youth to old age
	Strategies should be part of broader, comprehensive & coordinated public health efforts: - Diet - includes all aspects to nutrition (e.g. over-nutrition & under-nutrition, micro-nutrient deficiency & excess consumption of certain nutrients) food security (accessibility, availability, & affordability of healthy foods); food safety; & support for & promotion of 6 months of exclusive breastfeeding - Physical activity - includes requirements for physical activity in working, school & home life, increasing urbanization, & various aspects of city planning, transportation, safety & access to physical activity during leisure
	Priority should be given to activities that have a positive impact on the poorest population groups & communities. Such activities will generally require community-based action & strong government intervention & oversight
	All partners should be accountable for framing policies & implementing program that will effectively reduce preventable risks to health. Evaluation, monitoring & surveillance are essential components of such actions
	The prevalence of non-communicable diseases related to diet & physical activity may vary greatly between men & women. Patterns of physical activity & diets differ according to sex, culture & age. Decisions about food & nutrition are often made by women & are based on culture & traditional diets. National strategies & action plans should be sensitive to such differences
	Dietary habits & patterns of physical activity are often rooted in local & regional traditions. National strategies should be culturally appropriate & able to challenge cultural influences & to respond to changes over time

The WHO *Global Strategy on Diet, Physical Activity and Health*	
Component	**Description**
Responsibilities for Action by WHO	- facilitate framing, strengthening & updating of regional & national policies - facilitate the drafting, updating &implementation of national food-based dietary & physical activity guidelines - provide guidance to Member States on the formulation of guidelines, norms, standards & other policy-related measures - identify & disseminate information on evidence-based interventions, policies & structures - provide appropriate technical support - provide models & methods - promote & provide support for training of health professionals in healthy diets & an active life - provide advice & support to Member States, using standardized surveillance methods & rapid assessment tools
Responsibilities for Action by Member States	- The role of governments is crucial in achieving lasting change in public health. They have a primary steering & stewardship role in initiating & developing the strategy, ensuring that it is implemented & monitoring its impact in the long term. They are encouraged to build on existing structures & processes that already address aspects of diet, nutrition and physical activity - Health ministries have an essential responsibility for coordinating & facilitating the contribution of other ministries & government agencies - National strategies, policies & action plans need broad support. Support should be provided by effective legislation, appropriate infrastructure, implementing programs, adequate funding, monitoring & evaluation, & continuing research - Government should provide accurate information: education, communication & public awareness; adult literacy & education programs; marketing, advertising, sponsorship & promotion; labeling; &, health claims - National food & agriculture policies should be consistent with the protection & promotion of public health: promotion of food products consistent with healthy diet, fiscal policies, food programs, & agricultural policies - Multisectoral policies are needed to promote physical activity: framing & review of public policies; community involvement & enabling environments; partnerships; &, clear public messages - School policies & programs should support the adoption of healthy diets & physical activity - Governments are encouraged to consult with stakeholders on policy - Prevention in a critical element of health services: health & other services, & involvement with health professional bodies & consumer groups - Governments should invest in monitoring &surveillance, research & evaluation - Institutional capacity is needed for ministries of health & national institutions for public health, nutrition & physical activity - Financing national programs should be the responsibility of various sources

The WHO *Global Strategy on Diet, Physical Activity and Health*	
Component	**Description**
Responsibilities for Action by International Partners	- Contribute to comprehensive intersectoral strategies to improve diet & physical activity, including, for instance, the promotion of healthy diets in poverty-alleviation programs. - Draw up guidelines for prevention of nutritional deficiencies to harmonize future dietary & policy recommendations designed to prevent & control non-communicable diseases. - Facilitate the drafting of national guidelines on diet & physical activity, in collaboration with national agencies. - Cooperate in the development, testing & dissemination of models for community involvement, including food production, nutrition & physical activity education & raising of consumer awareness. - Promote the inclusion of non-communicable disease prevention & health promotion policies relating to diet & physical activity in development policies & programs. - Promote incentive-based approaches to encourage prevention & control of chronic diseases.
Responsibilities for Action by Civil Society & NGO's	- Lead grass-roots mobilization & advocate that healthy diets & physical activity should be placed on the public agenda. - Support the wide dissemination of information on prevention of non-communicable diseases through balanced, healthy diets & physical activity. - Form networks & action groups to promote the availability of healthy foods & possibilities for physical activity & advocate & support health-promoting programs & health education campaigns. - Organize campaigns & events that will stimulate action. - Emphasize the role of governments in promoting public health, healthy diets & physical activity; monitor progress in achieving objectives; & monitor & work with other stakeholders such as private sector entities. - Play an active role in fostering implementation of the global strategy. - Contribute to putting knowledge & evidence into practice.

The WHO *Global Strategy on Diet, Physical Activity and Health*	
Component	**Description**
Responsibilities for Action by Private Sector	- Promote healthy diets & physical activity in accordance with national guidelines & international standards & the overall aims of the global strategy. - Limit the levels of saturated fats, *trans*-fatty acids, free sugars & salt in existing products. - Continue to develop & provide affordable, healthy & nutritious choices to consumers. - Consider introducing new products with better nutritional value. - Provide consumers with adequate & understandable product & nutrition information. - Practice responsible marketing that supports the strategy, particularly with regard to the promotion & marketing of foods high in saturated fats, *trans*-fatty acids, and free sugars & salt, especially to children. - Issue simple, clear & consistent food labels & evidence-based health claims that will help consumers to make informed & healthy choices with respect to the nutritional value of foods. - Provide information on food composition to nutritional authorities. - Assist in developing & implementing physical activity programs.

Appendix 4

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Appendix 5

Key Informant Questionnaire

Key Informants name and affiliation:

Date of Interview:

Length of Interview:

Introduction:

Thank you for agreeing to participate in this interview. I have been contracted by the Nutrition Planning Group in Canada to gather information about *nutrition and/or healthy eating plans or strategies* that are in place in Canada, both at the national and provincial/territorial level, and in several other countries, including Australia and New Zealand. I wish to point out that, in the interview, I will use the terms "*nutrition*" and "*strategy*" to simplify language.

The Nutrition Planning Group is made of representatives of leading government and non-government organizations that have joined efforts to develop a comprehensive National Nutrition Mobilization Plan for Canada. Their goal is to build on the strengths of existing initiatives and the experiences of others to create a mobilization strategy that engages national, provincial and regional partners and foster the development of individual and collaborative nutrition action plans based on the overall strategy.

I will synthesize the information gathered through these interviews and other methods and prepare a report for the Nutrition Planning Group to assist them in the development of the mobilization strategy.

The interview will take approximately 45 minutes. The questions focus on four areas:

5) details of existing nutrition strategies
6) information about how they were developed
7) information about how they are monitored or evaluated
8) some general questions about nutrition strategies

Do you have any questions before we begin?

Details of the Strategy

1. Has a Nutrition Strategy Frameworkbeen implemented in your country/Canada/province or territory?

   If yes, proceed to question 2
   If no, proceed to question 16 - 19 for respondents from Canada
   to question 16, 17 and 19 for international respondents

2. Is the strategy unique or separate strategy or is it part of a larger strategy such as chronic disease prevention, obesity, healthy weights, healthy living or wellness? If the later, can you describe how nutrition is situated within the broader strategy?

3. In your view, what are the unique features of the Nutrition Strategy Frameworkor nutrition component of the broader strategy?

4. When was the Nutrition Strategy Frameworkor nutrition component of a broader strategy implemented? What is the time frame for the strategy? What stage of implementation is it at?

5. Who is responsible for its implementation?

6. How is it funded?

6. Can you provide me with/point me to any documentation [hard copy or electronic] about your nutrition strategy?
7.

How the Strategy was Developed

8. What process was used to develop the nutrition strategy?

9. Who was involved in its development?

10. How long did it take to develop it?

11. Were there any “opportunities” that supported or lead to the development of the strategy? If yes, what were they?

12. Were there any “barriers” or “challenges” to developing the strategy? If yes, what were they? How were they overcome?

Evaluation/ Monitoring of the Strategy

13. Do you have an evaluation/ monitoring component to the strategy?

14. Do data exist that shows progress on achieving the goals or objectives of the strategy?

15. Do data exist that quantify health gains associated with the strategy?

General Questions

16. What are the general “barriers” or “challenges” to the implementation of nutrition strategies?

17. Are there barriers that seem to have caused nutrition strategies in Canada [or in your country] to fail?

18. What might be some obvious barriers in the Canadian context?

19. What indicators (international, national, or provincial) could be used to measure the success of a Nutrition Strategy Frameworkin Canada?

Do you wish to add anything else?

Summary and Conclusion

Thank you very much for taking time out of your busy schedule to participate in this interview.