



***Dietitians of Canada***  
***Les diététistes du Canada***

## **Enhancing Public Health Nutrition Workforce Capacity in Canada: Situational Assessment**

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with Public Health Agency of Canada

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## **Introduction**

The situational assessment (SA) is a tool used in health promotion and strategic planning. ([http://www.allianceonline.org/FAQ/strategic\\_planning/what\\_is\\_situation\\_assessment.faq](http://www.allianceonline.org/FAQ/strategic_planning/what_is_situation_assessment.faq)) The SA phase of planning gathers and analyzes information in order to provide a comprehensive assessment of the state of a community, a discipline, or an organization. It examines stakeholder perspectives, evidence from relevant data, as well as the political, environmental, economic, social and technological (PEEST) influences on the situation at hand. Situational assessments differ from needs assessments in that they identify strengths and assets as well as gaps.

The purpose of this situational assessment is to identify current and future issues in public health nutrition practice in order to inform the development of public health nutrition competencies and other activities related to workforce enhancement within this field. The SA template developed by The Health Communications Unit (TCHU), University of Toronto, guided the development of this document.

Draft core competencies for all Canadian public health professionals have been developed. In addition, reviews of the literature, environmental scans and discipline-specific competency documents have been completed for a number of public health professions including community health nurses, public health inspectors and epidemiologists. Competency development specific to public health nutrition professionals however, has yet to be completed.

Funded by the Public Health Agency of Canada (PHAC) and in partnership with Dietitians of Canada (DC), this situational assessment, now part of a national effort, builds on the work initiated by a Pan-Canadian Public Health Nutrition Competency Advisory Committee, and will lay the groundwork for developing competencies that are unique to public health nutrition practice (Committee Terms of Reference, October 30, 2006).

This situational assessment draws on information from these three sources of information provided by the Pan-Canadian Advisory Committee: 1) *Competencies for Public Health Nutrition Professionals: A Review of Literature* (Chenhall, 2006), 2) *Public Health Nutrition Competencies: Summary of Key Informant Interviews* (Chenhall, 2006) and 3) ongoing input from the Pan-Canadian Advisory Committee members.

In June 2006 PHAC contracted DC to conduct a review of the literature on public health nutrition competency development to inform the work of the Pan-Canadian Public Health Nutrition Advisory Committee. A contracted consultant explored the English language literature on public health competency work and examined competency framework documents from Australia, the United Kingdom, The United States, Nova Scotia and Toronto. As well, interviews were conducted with 29 key informants in the field of public health nutrition practice to solicit their perspectives on various aspects of public health nutrition practice in Canada, including the roles and functions of nutrition professionals, trends in public health nutrition practice, challenges and concerns related to practice, their preferred vision for the future and suggestions for achieving that vision. Table 1 provides an overview of the key informant representation.

**Table 1 Key Informant Representation**

| Perspective   | Number of Key Informants |
|---|--------------------------|
| Provincial/Territorial Government                   | 12                       |
| Public Health Nutrition Manager/Team Leaders        | 4                        |
| Academic & Internship Programs                      | 2                        |
| Remote/Geographically Isolated/Aboriginal           | 2*                       |
| Front-Line Public Health Nutrition Professionals    | 8                        |
| Federal Government or Federally Funded-Organization | 1*                       |
| Total   | 29                       |

\* One respondent brought both the perspective of a public health nutrition professional working with aboriginal populations and with the Federal government.

**Stakeholder Perspectives**

Using data gathered through the key informant interview process, Table 2 outlines the various perspectives of identified stakeholders who have been involved in, or informed about, the initial stages of Canadian public health nutrition competency work.

**Table 2 Stakeholder Perspectives on Public Health Nutrition Competencies**

| Stakeholder           | Perspective  |
|-----------------------|--|
| Front-line PHNuts *   | Seek recognition, clarification, definition and validation of role. While recognizing current variation in roles, support greater standardization of practice, consistent with public health functions.  |
| Regulatory Bodies     | Establish standards of practice, quality of service, protection of public. Seem supportive of initiation of work related to public health nutrition competency development. Currently embarking on a national process to develop and/or validate competencies applicable to dietitians entering practice and for throughout a dietitian's practice career. |
| PHAC                  | PH workforce development, emergency preparedness   |
| PH Managers           | Clarify roles and facilitate expansion of roles consistent with public health functions, job descriptions, resource allocation, and performance management.  |
| P/T Government Public | Seek consistent role descriptions, support for roles,  |

| Stakeholder   | Perspective   |
|---|---|
| Health Nutrition Representatives  | Expansion of PHN workforce  |
| Dietitians of Canada  | Support and enhance role of dietitians on PH practice   |
| Dietetic Educators  | Curriculum and program design and development. While supportive, unsure of how competencies, once developed, will align with those required for accreditation by Dietitians of Canada and those being developed by the Alliance of Canadian Dietetic Regulatory Bodies. |
| Canadian Public Health Association & Provincial Public Health Associations                          | Support and advocate for PH workforce development, broadly defined.   |
| Provincial PHNut Groups and Associations (e.g. OSNPPH, Community Nutritionists Council of BC, etc.) | Similar to perspective of PHNut, PH managers, P/T Representatives and PH Associations.  |

\*PHNut = public health nutrition professional

### **Competency Development Processes**

From the competency sets reviewed as part of the literature review process, we learned that the formulation process or strategy is key to the successful development and use of competency sets or frameworks. Where reported the common process steps included:

- defining the practice area
- defining the intended use of competency statements/sets
- conducting a literature and document review, environmental scan, expert review (key informants and key users)
- communication and broad consultation with, and validation by, members of the specific professional group or discipline
- mapping to existing public health functions, competency and related professional standards documents.

Steps to ensure *consensus in perspective* (explicitly stated) was a key feature of the process used in two jurisdictions (Australia, the UK). Also within the Australian and UK processes, existing public health (core or generic) competency sets informed the development of the competencies for public health nutrition professionals within their respective jurisdictions. In addition, 'up front' consultation with various stakeholders to build consensus about the definition, roles and functions of public health nutritionists and public health dietitians within specific jurisdictions was identified as a key step. While our key informants were not asked specifically for their advice or perspective related to the development of competencies for public health nutrition professionals, the following development-related considerations were provided:

- Highlight the differences between public health nutrition and clinical nutrition practices to enhance preparatory training

- Position this work within the broad context of public health, public health core competencies, competencies developed for other public health professionals and those existing for dietitians; don't develop in isolation
- Ensure application of competencies within training contexts (broadly defined)
- Include both individual and organization level competencies within competency set
- Clarify purpose and process of competency use, who will administer them, and how they relate to other dietetic practice competencies
- Include all related formal and informal professional associations and representatives from academic groups in the development and implementation of competencies
- Develop mechanisms to monitor use/implementation of competencies, once developed
- Pilot application of competencies in various public health settings and develop and implement an evaluation framework which includes an assessment of the interdisciplinary aspects of the competency set
- Use a competency model which articulates levels of proficiency for different roles within the public health nutrition profession
- Solicit input from public health managers, decision-makers, professionals, partners and clients of public health nutrition professionals to inform competencies
- Build on existing competency assessment processes which could be put to more systematic use beyond licensing requirements
- Include individual and organization-level competencies
- Consider a variety of equivalency options for the acquisition of competencies (e.g. via formal graduate-level education, employment job experience)

In addition, informants identified current challenges and concerns to be considered and discussed in future stages of competency development.

- A need for increasing number of 'qualified' (i.e. graduate studies prepared with experience) public health nutrition professionals
- The need for public health nutrition professionals to acquire enhanced knowledge and understanding of the complexity of factors that influence nutritional health among populations, beyond expertise in nutrition science
- The continued desire for public health nutrition professionals to be registered dietitians
- The hope for more distinction between the roles of Masters trained and non-Masters trained dietitians working in public health as well as the differing expectation of entry level versus advanced level public health nutrition professionals
- Recognition of the existence of a continuum that exists in some jurisdictions and includes roles performed by lay individuals (e.g. skills training) to those performed by Masters prepared public health nutritionists (e.g. policy and program development, implementation and evaluation, etc.)
- An appreciation for the current variation in roles (i.e. direct service versus population health approaches) among public health nutrition professionals as a function of several factors within jurisdictions: the capacity of public health nutrition professionals (enhanced and reduced); dietetic and overall health services within a jurisdiction relative to community needs; level of understanding of decision-makers within employing

organizations related to public health; geography and related recruiting challenges; variation in mandates and programming guidelines

- Caution that efforts to identify the unique competencies of different public health professionals could be divisive versus supporting the enhanced capacity of the overall public health system
- Important to highlight what is unique about public health nutrition practice but also identify areas of cross-over with others which will assist with broad gap identification and facilitate multi-disciplinary public health action
- Caution between being inclusive and ending up with generic competencies
- Competency comes through practice; question whether a full set of competencies can be demonstrated following academic studies.

### **Intended Use for Identified Competency Sets**

Competency statements and sets are intended and developed to be used for a variety of human resource functions, including:

- role definition
- job description development
- curriculum development and evaluation
- skills enhancement/workforce capacity building
- licensure/entry to practice criteria (including practitioner recognition)
- quality assurance/performance management
- organization and system-level capacity assessment.

These issues are similar to the range of perspectives described in the stakeholder table above. While they presumably can be used for all of these functions, several of the competency sets or frameworks identified through the literature review process seemed to have a primary ‘purpose’ which, logically, seems connected to the nature of the publishing organization.

### **Common Competency Elements**

The common competency areas outlined across all public health nutrition-related publications and documents reviewed as part of the literature review process included the following:

- core public health and health system knowledge
- analysis (includes research), assessment and monitoring
- program and policy development and evaluation
- leadership and management
- nutritional science and health promotion (including social sciences)
- communication
- professionalism and ethics.

Competency areas not included within all, but detailed within several reports include those related to the following: culture; environmental, behavioural, social and economic sciences; specific ways of working; and individual-level approaches.

### **Definitions of Public Health Nutrition Practice Roles and Functions**

Definitions for the practice area of public health nutrition were reviewed across publications and reports included within the literature review. All generally described public health nutrition as the unique practice area (within the field of nutrition and dietetics) within which groups, communities and populations are the ‘client’ of interest and for whom an array of programs, policies and services are designed to prevent diet-related diseases and conditions and promote optimal nutritional and overall health.

Specific roles and functions of public health nutrition professionals cited include nutrition surveillance and monitoring; assessment of the nutritional health of groups, communities and populations; nutrition education and communications; program and policy planning and evaluation; leadership; and cross-agency and intersectoral collaboration. Related to roles and functions, two reports reviewed identified and articulated differences and similarities (including areas of overlap) between the roles and responsibilities for public health nutritionists and public health dietitians.

As part of the key informant interview process, respondents were asked to describe public health nutrition practice and common roles and functions of public health nutrition professionals. While key informants used varied terms (and in many cases, role and function statements) to describe or define public health nutrition, most generally expressed that public health nutrition involves promoting the improved nutritional health of the population through the application of nutrition science and knowledge of the determinants of healthy eating to communities and populations. While most did not, several key informants expressed that public health nutrition within their respective jurisdiction does involve direct service delivery and individual nutrition counseling, most often for specific target populations or groups (e.g. prenatal and postpartum women).

Building on the descriptors outlined above, common, major roles of public health nutrition professionals expressed by key informants, mainly as functions and/or strategies, included the following:

- nutrition assessment of groups and populations
- project and program planning, coordination, implementation and evaluation
- policy development and policy influencer (including standard setting)
- health promotion through awareness raising, education and skill building, supportive environments and policy development
- communication (including written and oral communication, media, social marketing) and public and professional education (including role as consultant and resource development)

- collaboration and partnerships (communities and those within and outside health sector); role as partner, collaborator and influencer
- community capacity building
- project management
- advocacy for accessibility to healthy, affordable, safe food and other issues related to healthy eating (internal and external to organization); representation of community to various levels of government
- research and evaluation (including interpretation and application within practice) to further nutrition knowledge and practice
- monitoring and support of nutrition programs; quality assurance
- facilitation
- consultant and advisor
- preceptor/mentor; education of upcoming dietitians and other health professionals.

Roles that were less commonly expressed by informants reflecting a more hands-on role for public health nutrition professionals included the following:

- skills training including food purchasing and preparation
- resource development
- direct service (community presentations, workshops, responding to public telephone inquiries)
- individual nutrition counseling/community-based clinical practice.

### **Workforce data**

Comprehensive workforce data on public health professionals employed within the publicly funded public health system, and specifically, public health nutrition professionals, is in limited availability nationally. The following table outlines available data provided by P/T Public Health Nutrition representatives in October-November 2006.

**Table 3 Public Health Nutrition Workforce Data by Jurisdiction**

| Jurisdiction  | Number of Public Health Nutrition Positions (FTE) | Job Vacancy Rates | Demand Projects   | Employment Demographics   |
|---------------|---|-------------------|---|---|
| Health Canada | 25  | None Currently    | Advocating for resource enhancement to support additional 8-10 positions. (Noted stimuli of childhood obesity and | At the national level, the workforce has been enhanced with some new graduates and several mid-career public health |

| Jurisdiction              | Number of Public Health Nutrition Positions (FTE)  | Job Vacancy Rates  | Demand Projects   | Employment Demographics  |
|---------------------------|--|--|---|--|
|                           |  |  | impact of environmental influences on healthy eating.)  | nutritionists. For work at the national level, some experience at the local / provincial level is a definite asset.  |
| Newfoundland and Labrador | 8.5 FTE across four integrated health regions; one FTE provincial position<br>1 FTE Federal Govt funded community nutrition position (Inuit focused) within Labrador | Provincial positions in Labrador region have been vacant for more than one year.   | An increase in the demand for R.D.'s is anticipated as the Provincial Food & Nutrition Framework & Action Plan is due to be released. As well, the newly released Wellness Plan in March 2006 identified a number of initiatives that would require R.D. expertise. |  |
| Nova Scotia               | 20.75 FTEs Public Health Nutritionist positions;<br>1.5 FTEs Public Health Dietitian positions;<br>2.0 FTEs Provincial Public Health Nutrition                       | 0.5 FTE vacancy in one District Health Authority (DHA);<br>2 FTE vacancies in one DHA (maternity leave and sick leave; not able to replace); | Lack of Masters prepared Nutritionists; Currently working at systems-level (not service delivery) but potential for role expansion exists as  | No formal system to track Public Health Nutrition workforce demographics. However, many nutrition professionals in Nova Scotia are new in their roles in the |

| Jurisdiction         | Number of Public Health Nutrition Positions (FTE)  | Job Vacancy Rates   | Demand Projects   | Employment Demographics   |
|----------------------|--|---|---|---|
|                      | positions  | emerging issues include salary scale and recruitment of Masters prepared nutritionists in rural areas of the province             | programs, policies, and initiatives are implemented at the local level; Need to delineate the roles of Public Health Nutritionist, Public Health Dietitian, and Community Dietitian | province, while there are a few who have worked in public health nutrition for a number of years. |
| Prince Edward Island | 6.4 FTE Community Dietitian positions, 0 FTE Provincial Government Nutritionist Positions, 0.5 FTE Dietetic Services Position (Regulatory Services Division) | Stated that any vacancy rates this year are more a function of system changes post health care restructuring than true vacancies. | No new positions are anticipated in the next 12 months.   | No formal system exists to track public health nutrition workforce demographics.                  |
| New Brunswick        | 24 Public Health Nutrition FTE's, 1 FTE Provincial Government Nutritionist Position  | Not aware of any at this time.  | No new positions anticipated for next 1-2 years.  | Data unavailable as PH Nut are now employees of regional health organizations.                    |

| Jurisdiction         | Number of Public Health Nutrition Positions (FTE)  | Job Vacancy Rates   | Demand Projects   | Employment Demographics   |
|----------------------|--|---|---|---|
| Ontario <sup>1</sup> | 98.96 FTE Public Health Nutritionists<br><br>110.60 FTE Public Health Dietitians   | 5.00 FTE Public Health Nutritionists<br><br>8.00 FTE Public Health Dietitians | Not available   | Only reported related to anticipated retirements:<br><br>Public Health Nutritionists - none reported<br><br>Public Health Dietitians - 3 FTE  |
| Manitoba             | 23 FTE Community Nutritionists<br><br>4.5 FTE Community Dietitians (Winnipeg RHA)  |   |   | Community nutritionists and community dietitians are employees of Regional Health Authorities.  |
| Saskatchewan         | 19.5 FTE, including provincial Nutritionist, regional positions, one with a school board and one with FNIB. Does not include positions with tribal councils. | Typically 1-2 vacancies at any given time.                                    | Increased demand not anticipated in the health regions in the short term. | No formal system exists to track public health nutrition workforce information. All are female. Some positions are job-shared. Time working in public health nutrition ranges from a few months to over 30 years. |

<sup>1</sup> Revitalizing Ontario's Public Health Capacity: A Discussion of Issues and Options. Interim Report of the Capacity Review Committee, November 2005.

| Jurisdiction           | Number of Public Health Nutrition Positions (FTE)  | Job Vacancy Rates                      | Demand Projects  | Employment Demographics  |
|------------------------|--|--|--|--|
| Alberta                | 42.35 - 45.35 FTE  | Only those related to maternity leaves | Increased, pending funding in majority of health regions           | Variable information provided by health regions. Generally, all female with the exception of one male. Majority is around 35 years of age and has 5-10 years experience. |
| British Columbia       | 66.27 FTE positions which includes 3 FTE at the provincial level                                     |  |  |  |
| North West Territories | Data not available.  |  |  |  |
| Nunavut                | 1 FTE Territorial Nutritionist<br>2 FTE Regional Nutritionists<br>1 FTE Territorial CPNP Coordinator |  | An additional regional nutritionist position has been recommended. |  |
| Yukon                  | 0 FTE positions  |  |  |  |

### **Educational/Training Requirements of PH Nutrition Professionals by Province/Territory**

While not necessarily in the form of written, formal policies, key informants in all provincial, territorial and regional jurisdictions indicated that to be employed as a public health nutritionist, an individual must have completed an accredited undergraduate and internship program. As well they must be licensed (or eligible for licensure) with the (or "a" in the case of the territories who don't have their own) provincial regulatory body. Many jurisdictions also require that applicants are members of, or eligible for membership with Dietitians of Canada. Exceptions, or additional requirements or preferences by jurisdictions are noted below.

Newfoundland: Masters degree preferred or some experience and/or additional, relevant study.  
Nova Scotia: Masters degree preferred or ability to demonstrate stated competencies for public health nutritionist required.

New Brunswick: Master's degree preferred or equivalent experience. Regional health authorities prefer one year experience.

Quebec: N/A

Ontario: Public Health Nutritionists must be registered dietitians with a master's degree from a Canadian university in nutrition/community nutrition (with various exceptions noted). Public health dietitians must be registered dietitians, with experience in public health preferred.

Saskatchewan: In Saskatchewan, a Bachelor of Science degree in nutrition is achieved by completing a five-year university program of study, including the practicum. Further postgraduate education and training in public health nutrition is necessary in order to undertake agreed upon roles and functions of public health nutritionists. Competencies are typically achieved through a master's degree in public health nutrition or closely related field, a community nutrition residency, or relevant independent study. At least three years of applicable education and/or experience, beyond that required to become an entry level registered dietitian, is recommended to provide the necessary competencies to fulfill the public health nutritionist's roles and functions.

Alberta: Several years (2-5 mentioned) experience preferred. Masters preferred within one region and 3 years experience.

British Columbia: Qualifications stated in opening paragraph - a minimum for employment.

Yukon: Currently there are not any public health nutrition positions within the Territory. Dietitians working in the hospital must have completed an accredited undergraduate and internship program. Dietitians are also required to be licensed with a provincial regulatory body ("in house" policy; the Yukon does not have its own licensing organization).

Nunavut: Qualifications as stated above, but depends on ability to recruit individuals to available positions.

### **Description of Current Internship Situation**

On average, there are 350 new graduate dietitians from Internship/Practicum programs annually, nationally. Program types include graduate dietetic internship (students apply through a DC competitive match process); internship integrated into undergraduate degree completion or completed at end of the undergraduate degree but is still part of degree program (fifth year model); and the applied Masters program that includes practicum training. Since the mid 1970's, Quebec has had a stage (integrated) program. In recent years, two provinces have moved to a model that integrates the dietetics education program with practicum training. These provinces are Saskatchewan (2001) and British Columbia (2006). Other provinces have been able to convert some positions into the integrated model, while remaining students compete through the DC internship selection process. These provinces include Alberta, Nova Scotia; New Brunswick, and Prince Edward Island. The remaining provinces/territories rely exclusively on the DC selection process (Manitoba, Ontario, Newfoundland and the Yukon).

**Table 4 Number of Available Internship Positions and Type of Program Model by Province (2005)**

| Province     | DC Selection Process | Integrated/Masters | Total      |
|--------------|----------------------|--------------------|------------|
| BC*          | 26                   |                    | <b>26</b>  |
| AL           | 8                    | 30                 | <b>38</b>  |
| SK           |                      | 20                 | <b>20</b>  |
| MN           | 16                   |                    | <b>16</b>  |
| ON           | 68                   | 19                 | <b>87</b>  |
| QC           |                      | 106                | <b>106</b> |
| NB           | 8                    | 4                  | <b>12</b>  |
| NS           | 11                   | 19                 | <b>30</b>  |
| PE           |                      | 7                  | <b>7</b>   |
| NF           | 4                    |                    | <b>4</b>   |
| YK           | 2                    |                    | <b>2</b>   |
| <b>Total</b> | <b>143</b>           | <b>205</b>         | <b>348</b> |

In 2006:

- All BC interns are part of the UBC undergraduate program and numbers have increased to 30. Further increase in numbers is expected.
- MN increased positions to 20
- ON increased positions to 80 and the Internationally Educated program was begun and the first intake of 21 have/are completing the program

For 2007:

- Funding for a new Northern Ontario Dietetic Internship has received verbal approval from the ON Ministry to support 10 new intern positions for 2007
- A further funding proposal, the Ontario Dietetics Practicum Consortium (ODPC) developed by DELFO, which would significantly increase the number of available position in ON by 60/year within 4 years (includes the Northern ON program numbers cited above) has been submitted to the ON Ministry and is awaiting response

Over the past several years, the DC national internship selection has matched about 50- 55% of graduates of undergraduate dietetic education programs with internship positions due to the shortage of internship programs. Although some gains have been made in numbers of internship program placements available, the number of eligible university graduates continues to be significantly greater than the number of internship positions available.

In total there are 36 internship/practicum programs. Most programs are 35 to 40 weeks in duration. Programs provide experience in the three aspects of dietetic practice, Clinical, Community, and Food Service, however, there is not usually equal weight applied to these various aspects. Many programs are either “housed” in large teaching hospitals or make use of a hospital based facility as their home base. There is an increased emphasis on developing community based partnerships and on exposing interns to experience in rural and remote health.

There is currently only one program that is sponsored by a public health unit and another where the public health unit is one of the key partners. Both of these programs are Ontario based.

### **Current Trends in Public Health Nutrition Practice**

As cited within the literature review, the development of the public health nutrition workforce has gained interest internationally over the past number of years. This interest is a result of a number of factors including the following:

- changes anticipated and occurring related to health system reform
- population trends in diet and nutrition-related diseases and conditions and resulting national health and healthy eating frameworks and strategies
- rapid changes within the agricultural and agri-food sector and the food industry
- the general workforce trend toward the development of competencies, competency standards and professional credentialing.

In addition to the workforce-related data presented above, key informants identified current trends in public health nutrition practice that included the following:

- enhanced accountability requirements for public health, including (outcome) evaluation of programs and services and health unit accreditation
- enhanced and broadened role for public health nutrition professionals (e.g. additional population groups) to respond to increased public demand
- evidence-based practice
- enhanced practice using approaches in population health, community development, upstream focus systems change (including enhanced program and policy focus and the creation of supportive environments)
- expanded role related to addressing the determinants of health and healthy eating, including policy-related actions to eliminate socioeconomic disparities and inequities
- greater emphasis on health promotion, social marketing and innovative communication technologies
- enhanced multi- and interdisciplinary practice
- increased availability of nutrition surveillance data
- less direct service and more direct service in some cases (including increased roles for public health dietitians for services currently being provided by public health nurses and roles for public health nutrition professionals within the context of primary health care reform).

### **Existing Mandates**

The initial purpose of the Pan-Canadian Advisory Committee was to develop strategic guidance and expert advice to a nation-wide initiative designed to produce two products- a literature review of discipline-specific competencies required for dietitians working in public health and an environmental scan of public health nutrition in Canada. The overall initiative was intended to lay the groundwork required to develop competencies that are unique to public health nutrition and will set the stage for strengthening the public health workforce in Canada.

In addition to the perspectives of stakeholders noted in Table 2 above, the development of public health nutrition competencies must consider regional and national policies and guidelines for the provision for public health services and for establishing standard of practice. Current policies, guidelines and directives related to public health nutrition practice are listed below.

**Federal & National:** Examples provided by key informants included Canada's Food Guide, Dietary Reference Intakes, Nutrition for Healthy Term Infants, Nutrition for Healthy Pregnancy, breastfeeding recommendations, Canada Prenatal Nutrition Program and Aboriginal Diabetes Initiative program guidelines, among others.

**Provincial/ Regional/Territorial:** Examples provided included provincial/territorial government strategic plans, public health program guidelines, provincial healthy eating and health promotion strategies, public health system review reports, and strategic plans and administrative policies of employers (regional health authorities), among others.

**Regulatory Bodies:** Licensure requirements and processes to demonstrate continuing competency.

**Professional Associations:** Accreditation guidelines for undergraduate degree and internship programs, Dietitians of Canada entry-level competencies, Dietitians of Canada Code of Ethics and Standards of Practice.

**International:** Examples provided included the new WHO Growth Charts and infant/breastfeeding guidelines.

In addition to the policies and guidelines outlined above, the mandates of the following organizations and groups may be informative to the process:

**Public Health Agency of Canada (PHAC):** The mission of the PHAC is to promote and protect the health of Canadians through leadership, partnership, innovation and action in public health. According to the PHAC website, *"The creation of the Public Health Agency of Canada marks the beginning of a new approach to federal leadership and collaboration with provinces and territories on efforts to renew the public health system in Canada and support a sustainable health care system."* The mission of the Public Health Practice division of PHAC is to increase the effectiveness of public health practice in Canada through a variety of programs, one of which is focused on workforce development.

**Federal/Provincial/Territorial Public Health Human Resources Joint Task Group:** Based on direction from the F/P/T Conference of Deputy Ministers of Health, a joint task group on Public Health Human Resources (PHHRJTG) was established under the leadership of the Advisory Committees on Health Delivery and Human Resources (ACHDHR) and Public Health and Health Security (ACPHHS). The mandate of the PHHRJTG is to focus on long-term planning, forecasting, research, education, and training related to public health human resources.

**Canadian Public Health Association:** The Canadian Public Health Association (CPHA) is a national, independent, not-for-profit, voluntary association representing public health in Canada with links to the international public health community. CPHA's members believe in universal and equitable access to the basic conditions which are necessary to achieve health for all Canadians.

### Vision

The development of an internal vision, goals and objectives to guide the ongoing work of the Pan-Canadian Public Health Nutrition Competency Advisory Committee was anticipated as an outcome of the November 20th, 2006 consensus meeting.

The goals and objectives for the group, now referred to as the Pan-Canadian Task Force on Public Health Nutrition Practice, are as follows (Source: Pan-Canadian Task Force on Public Health Nutrition Practice -Three Year Action Plan, Draft February 12, 2007):

**Goal:** To define, strengthen and promote effective public health nutrition practice within Canada.

### **Objectives:**

1. Secure resources for ongoing actions to enhance the public health nutrition work force.
2. Define public health nutrition practice in Canada.
3. Investigate and report on the need for discipline specific public health nutrition competency sets/frameworks.
4. Explore potential opportunities to gain and enhance public health nutrition knowledge, skills and abilities.
5. Disseminate information and plans and gather input from relevant stakeholders.
6. Identify mechanisms to link with other public health disciplines.
7. Explore an organizational structure that can provide leadership for public health nutrition practice issues in Canada.

### External Vision

As part of the key informant interview process, informants were asked to describe their preferred vision for public health nutrition practice in the next 5-10 years. Common aspects of a preferred vision included the following: (**N.B. bolded words at the end of each bulleted statement identify the “who/what” is needed as a basis to meet each vision**)

- increased/adequate number of public health nutrition positions to respond to increased demand and to have broad impact with a variety of groups and populations (direct service, population-based and broader public health, and policy roles); increased visibility – **funding and buy-in from employers (e.g. government)**
- increased number of public health professionals within leadership and management roles - **employers/human resources/ experiential training**
- solidification in use of systems, policy, population health, participatory and community development approaches (continued expansion of role) – **mandates and structures**

- enhanced support for public health nutrition professionals to allow for full implementation of role (e.g. clerical/administrative, professional development and continuing education, program funding, etc.); organizational and systems support to work where greatest potential for change exists - **employers/human resources/ experiential training**
- increased access to public health nutrition professionals having expertise in epidemiology and public health-related research; enhanced nutrition-related monitoring and surveillance - **increased practitioners trained for and involved in research**
- increased research and/or research opportunities to demonstrate efficacy and effectiveness of public health nutrition practice and related interventions; enhanced evidence-based practice; enhanced connections with academic institutions - **funding and buy-in from employers (e.g. government)**
- increased role for public health nutrition professionals within multi-disciplinary teams and integration of nutrition within public health programs and messages - **mandates and structures**
- development of competencies (including standards and practice guidelines) for public health nutrition professionals and development of processes that are flexible and accessible to demonstrate the same; position uniqueness, specialty - **educators, internship coordinators, provincial regulatory bodies, DC**
- enhanced communication skills using innovative technologies - **employers/human resources/ experiential training**
- changes within pre-service and professional development programs to reflect required competencies of public health nutrition professionals and health system trends (e.g. evidence-based practice); increased number of qualified public health nutrition professionals - **employers/human resources/ experiential training, educators, internship coordinators, provincial regulatory bodies, DC.**

### Changes Needed to Support Vision

In addition to the responses provided above, respondents identified the following changes needed to support their vision(s):

- provide/facilitate opportunities for public health nutrition professionals to explore expanded roles (i.e. reduce constraints imposed by existing positions; expand beyond direct service) - **employers/human resources/ educators, internship coordinators, provincial regulatory bodies, DC**
- empower and encourage greater number of public health nutrition professionals to assume decision-making roles within organizations - **employers/human resources/DC**
- create awareness and understanding that public health nutrition professionals have the required knowledge, skills, and abilities to perform in broader public health roles - **educators, internship coordinators, provincial regulatory bodies, DC, employers/human resources**
- support broad changes and investment required within public health system overall (across levels of government); public health nutrition will not flourish without this investment - **funding and buy-in from employers (e.g. government), PHAC, public**

- acknowledge and celebrate the variety of roles among public health nutrition professionals (i.e. those who predominantly 'do' and those who 'plan') - **employers/human resources/ educators, internship coordinators, provincial regulatory bodies, DC**
- facilitate changes within academic institutions, internships, licensing organizations and professional organizations to achieve vision; and clarify roles of each related to the same - **educators, internship coordinators, provincial regulatory bodies, DC, front-line public health nutrition professionals**
- educate employers and decision-makers related to envisioned role of public health nutrition professionals - **educators, internship coordinators, provincial regulatory bodies, DC.**

### **Political, Economic, Environmental, Social and Technological (PEEST) Analysis**

The following analysis considers the political, economic, environmental, social and technological assets, challenges, and issues associated with achieving the above vision.

#### **Political**

- Recent health threats to Canadians have sparked a renewal in the national, regional and local public health infrastructure. As part of this interest in enhancing public health capacity, the federal government established the Public Health Agency of Canada (PHAC) to serve as a coordinating body. PHAC is supporting the development of professional practice competencies across disciplines as part of its workforce development strategic direction.
- Several provinces have also recently completed reviews of public health systems with concluding recommendations that support the overall goal of enhancing public health capacity through workforce development, as one strategy.
- The structure, function and organization of publicly-funded public health services are primarily a provincial/territorial responsibility. With the exception of one, all P/T operate their health systems via regionalized health structures which are largely independent and autonomous from a health human resource perspective.
- While health services are considered to be a provincial responsibility, services for on-reserve aboriginal people are provided through federal government structures.
- Dietitians of Canada is the lead organization supporting the current initiative; whether provincial regulatory bodies and academic institutions formally support the development of competencies for public health nutrition professionals is unknown or unclear, likely given lack of information re implications, responsibility for implementation, etc.

#### **Economic**

- Some funds are available from PHAC to support the development of PH nutrition competencies as part of its workforce development strategy
- Funding to support the overall investments required to enhance the national (provincial/territorial) public health system has/has not been identified or committed.

Further to public health reviews completed within several provinces, investments have been either announced or anticipated.

- Public health nutrition policy is being influenced by food system policies and global trade trends within the food industry and agricultural sectors (political and economic influence).
- Food security continues to present health challenges to Canadians as the gap between rich and poor intensifies in many parts of the country. Public health nutrition professionals tend to be lead advocates for issues related to food insecurity within health systems and communities. Nutritional and overall health is influenced by economic disparities.
- Inequities in the cost of food; un- or less healthy food and beverages tend to cost less than healthier food choices and are more easily accessible and available.

## **Environmental**

- The prevalence of unhealthy weights and chronic disease in Canada presents major health challenges and necessitates the growing involvement of (demand for) PH nutrition professionals in health promotion initiatives
- The current obesogenic environment
- The lack of widespread recognition of PH nutrition professionals expertise in required environmental changes, policies and other population health/health promotion strategies - which are required to influence the growing prevalence at a population level. This lack of recognition of expertise could be related to placement and positioning of PH nutrition professionals within organizational structures
- The expected launch of a new food guide for Canadians enhances the demand for PH nutrition services to promote, interpret, implement and evaluate the guide and its related activities
- Recognition of the potential impact of school nutrition policy has increased demand for PH nutrition services
- Confusion regarding different roles of registered dietitians (regulated) and non-regulated nutritionists, nutrition consultants, etc.
- Increased availability of nutrition surveillance data and the view that the exploration of the evidence-base for effective interventions requires more attention
- Increased recognition of the importance of nutrition in several life stages
- The ongoing competency work for core and other discipline specific competencies. (see [http://www.phac-aspc.gc.ca/php-psp/core\\_competencies\\_for\\_ph\\_e.html](http://www.phac-aspc.gc.ca/php-psp/core_competencies_for_ph_e.html))
- Development of skills enhancement modules by PHAC.

## **Social**

Implications of all below on nutritional health of the population:

- Aging population
- Decrease in physical activity in some groups
- Changing work patterns
- Cultural diversity

- Increasing health care costs
- Aboriginal health issues
- Social gradient
- Increased public interest in nutrition
- New immigrant/refugee health issues
- Lack of time leading to ascendance of convenience foods.

### **Technological**

- Reliance on cars, computers negatively influencing physical activity
- Technology has enhanced volume of information available to many Canadians on health issues (accurate and inaccurate); current public health systems and communications strategies are not able to 'compete' within the current environment
- Influence of food advertising through electronic media.

### **Assets and Limiting Factors**

Through this analysis several factors that will further public health nutrition workforce development have emerged and factors that may impede progress have been identified.

#### **Assets (enabling factors)**

- Consensus that enhanced workforce capacity is needed for public health professionals, including public health nutrition professionals
- Commitment of a Pan-Canadian Advisory Committee to guide and lead the work
- Opportunity to dovetail with efforts of other public health disciplines
- Many identified stakeholders are either already aware of the current initiative(s) and/or involved
- Ground work completed (e.g. literature review and key informant interviews)
- Availability of existing models and experiences within the country and other international jurisdictions to learn from
- Potential for funding to continue/complete the work exists (i.e. PHAC)
- Existence of public health internship, residency programs and graduate programs in public health that provide opportunities for training specific to public health nutrition practice.

#### **Limiting Factors**

- A broad spectrum of roles and educational background exists among personnel performing public health nutrition work (e.g. the continuum includes roles performed by lay individuals, non-nutrition health professionals, to those performed by Master's prepared public health nutritionists)
- Provincial variations in jurisdictions, legislations, credential bodies, internship program models, graduate level training opportunities

- Variability in roles among public health nutrition professionals and variable minimum education and experience requirements across and within provinces and territories. While Masters degree-prepared individuals are preferred in most jurisdictions, limited availability of individuals with these qualifications and recruiting challenges in some jurisdictions inhibits ability to realize this preference
- Variability in position titles and confusion re: what roles go with which titles
- Limited roles for PH nutrition professionals; lack of advancement opportunities within PH nutrition; often advancement means leaving PH nutrition
- Limited access to continuing development and learning opportunities in areas relevant to public health nutrition practice.

### **Gaps Identified through the Situational Assessment**

Prior to the November 20, 2006 consensus meeting of the Pan-Canadian Advisory Committee, the situational analysis suggests that the following information is needed:

1. Inventory of pertinent international, national, provincial/territorial and regional policy documents, guidelines and practice standards
2. Data re public health nutrition workforce projections
3. Canadian health and demographic trends to inform workforce projections
4. Inventory of public health nutrition training programs (undergraduate, graduate, internships, practica)
5. Identification of other workers performing public health nutrition tasks/activities
6. Confirmation of support of academic institutions, provincial regulatory bodies, provincial/territorial governments, and regional health organizations for the development and implementation of competencies for public health nutrition professionals
8. A group vision and an external vision for the initiative.