Public Health Association of BC

CORE AND TECHNICAL COMPETENCIES FOR PUBLIC HEALTH IN BC

PHASE 1 – NEEDS ASSESSMENT
Final Report

December, 2008

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Prepared for
The Public Health Association of BC
Core and Technical Competencies for Public Health in BC
Project Advisory Committee

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EXECUTIVE SUMMARY

Purpose:
The main purpose of Phase I: Needs Assessment has been to identify the core and technical competencies most critical to implementing the BC Ministry of Health Framework for Core Functions in Public Health and to identify any competency gaps. This phase is designed to inform Phase II so that processes can be put in place to address the identified gaps in competency profiles and to recommend appropriate educational responses to public health competency needs. The aim of the overall project is to make a contribution to ensuring that the public health workforce in BC has a diverse mix of people who are equipped with the appropriate skills and competencies for the effective and efficient delivery of public health in BC.

The project is a partnership between the Public Health Association of BC, the BC Academic Health Council and the BC Ministry of Health, with the Public Health Association of BC managing the project, jointly funded by the Public Health Agency of Canada and the BC Ministry of Health. The Project Advisory Committee brings together public health practitioners, administrators, leaders and educators.

This final report for Phase I has an accompanying Technical Report that provides detailed descriptions of the public health core competencies that have been identified as critical to implementing the BC Ministry of Health Framework for Core Functions in Public Health.

Methodology:
A number of different methods were used to complete the needs assessment including: reviewing the model core program papers for Public Health in BC; reviewing key literature and relevant reports; consulting with regional health authorities to develop detailed competency profiles in their areas of special interest; holding discussions with Directors of Protection, Prevention, and selected public health program managers; attending meetings of special committees e.g. Health Authority Collaborative on Health Assessment and Surveillance, the Integrated Professional Practice Council, Fraser Health; linking with specific public health disciplines such as Public Health Nurses, Public Health Nutritionists, Medical Health Officers, Environmental Officers of Health; conducting a focus group with public health leaders from across the province to discuss leadership competency; connecting with work being done nationally and in other jurisdictions; and attending meetings with the educational sector e.g., Committee of Deans and Directors of Health Sciences and Continuing Education Directors of educational institutions across BC.

Key Findings for Phase I:

Public Health Core Competencies
Core competencies have been identified and defined for each of the BC public health core programs supported by a model core program paper. Results from Phase 1 indicate that the Core Competencies for Public Health in Canada: Release 1.0 are relevant and necessary to implementing the BC Ministry of Health Framework for Core Functions in Public Health. However, stakeholders within the BC context feel certain roles and responsibilities are unique to public health and necessitate additional core competencies

or a different focus on certain competencies identified in the Core Competencies for Public Health in Canada: Release 1.0.

The unique mandate of public health in terms of addressing population health and the social determinants and the growing need today and in the future to address health inequities requires, as identified in the *Chief Public Officer's Report on the State of Public Health in Canada,* a focus on priority areas such as: social investments, community capacity, inter-sectoral action, knowledge development and leadership.[1] The additional core competencies identified in this report are consistent with this viewpoint and include community capacity-building, enforcement to ensure compliance with regulations, inter-professional collaboration, applying new technology, knowledge translation/transfer/exchange, health literacy, research and health ethics.

Leadership
Stakeholder consultation consistently pointed to strong public health leadership capability as essential to creating the supportive environment and developing the critical system supports for effective application of the core competences and the overall implementation of the Framework for Core Functions in Public Health. Stakeholders believe that the essence of leadership in public health is the ability to focus externally on improving the health of the public using equity and social justice practices, political intelligence and best evidence to act or speak out against general opinion or stakeholder interests for the public good. This requires a strong foundation of public health sciences, the ability to translate a comprehensive set of leadership competencies into applied public health practice and the ability to apply ethical values that place emphasis on '*doing the right things'.*

The Population and Equity Lenses
Competencies required to apply the population and equity lenses across all core programs are seen as critical and contribute to the unique role of public health. Detailed analysis of competencies required to implement core programs in relation to new immigrants and refugees and the Aboriginal population have been documented in the Technical Report.

Public Health Strategies
Competencies required to implement public health strategies (Health Promotion, Health Protection, Prevention Interventions and Health Assessment and Disease Surveillance) across all core programs warrant further discussion. The competencies identified for the core programs appear to be applicable to the corresponding public health strategy, but because the strategies cut across all core program areas a more comprehensive set of advanced level competencies appear to be needed. Consultation suggests there may be a need for a different emphasis or balance of skills or greater knowledge of a particular specialty area.

[1] www.publichealth.gc.ca

Discipline-Specific Competencies
Consultation with a number of specific disciplines, including public health nutritionists, public health nurses and medical health officers, and review of competency work by public health disciplines indicates that the core and additional competencies apply but there are a number of unique discipline specific competencies that need to be recognized and these are outlined in the report.

System Capacity
Stakeholders identified the need for key system supports in terms of supportive attitudes, policies, processes and structures that are required to facilitate the effective implementation of the BC Framework for Core Functions in Public Health. To some degree these align with accreditation standards for the community health sector.

Training and Educational Needs and Gaps
Key gaps in continuing education opportunities for practicing public health professionals have been identified and include, for example: community capacity-building; knowledge transfer; health literacy; advocacy; how to apply the social determinants of health within a public health context; inter-professional collaboration; health assessment and disease surveillance; application of the population and equity lens to public health e.g., diversity and culture competency training and Aboriginal health training; and most significantly leadership training and mentorship.

In addition, the need for an enhanced basic undergraduate program and specialized post graduate education for environmental health officers, post graduate opportunities in public health nutrition, and expanded practicum programs was recognized.

Recommendations:
The identification and definition of the core competencies as reflected in this report is an iterative, progressive and ongoing process that would benefit from a broader, more comprehensive dialogue.

Phase 1 is the first step in a larger ongoing process of collaboration among public health practitioners, administrators and educators to ensure the public health workforce in BC has a diverse mix of people who are equipped with appropriate skills and competencies for the effective and efficient delivery of public health in BC.

The following twelve recommendations (not in order of priority) result from the findings of Phase 1 and set the stage for the Phase 2 work plan.

1. **Definition of Competencies**
   Undertake further discussions within and between Health Authorities and the Ministry of Health to validate the identified competencies, and to identify competencies required for programs where model core program papers have not been completed to date.

2. **Competency (proficiency) levels**
   Establish a process to identify (as appropriate) competency (proficiency) levels required by front line staff, middle managers and at an advanced or expert level.

3. **Self Assessment**
   Facilitate the development of self assessment tools to enable Regional Health Authorities, PHSA and the Ministry of Health to determine the current competencies of its public health workforce.

4. **Competency Mix**
   Facilitate the development of process(es) to determine the mix of competencies required in each health authority, PHSA and at the Ministry level to support the implementation of the core functions in public health.

   Determine best ways to recognize and optimize available competencies within the workforce.

5. **Leadership**
   Facilitate the development of a values/ethical framework for public health leaders in BC in order to establish a transparent foundation for decision-making and to enable leaders to '*do the right things'*.

   It is recommended that there be training for leadership in public health in BC and that this training include the following competency areas:

- public health sciences
- equity lens/social justice
- values/ethics
- historical and cultural awareness
- emotional intelligence
- political intelligence
- visioning and strategic planning
- partnership and coalition building
- community capacity-building
- knowledge transfer and advocacy
- public health law
- health economics
- change and societal management
- technology
- organizational leadership.

6. **Inter-professional collaboration**
   Consider, in collaboration with the College of Health Disciplines, the development of an addendum to the BC Competency Framework for Inter-professional Collaboration that identifies the unique features of inter-professional collaboration required within the public health context.

7. **Public Health Strategies**
   Engage in further dialogue within and between Health Authorities and the Ministry of Health about the intent and applicability of the four public health strategies across the core public health programs to inform the definition of competencies required to implement the BC Framework for Core Functions in Public Health.

8. Discipline Specific Competencies
Ensure that the discipline specific competency initiatives at the national level are integrated with the core competency work around the BC Framework for Core Functions in Public Health to minimize confusion and clarify the role expectations and training needs of public health practitioners.

9. System Capacity and Support
Promote the development of the public health infrastructure required to support implementation of the BC Framework for Core Function for Public Health that includes: ensuring expertise in health assessment and disease surveillance; policy development planning and community engagement; providing required training, education and mentoring support; creating an environment that has supportive attitudes, values, principles and ethical framework that fosters safety, cultural sensitivity and flexibility to support advocacy and decision-making; and most significantly ensuring appropriate leadership.

10. Public Health Agency of Canada-Related Initiatives
Link, where relevant, the future work on core competencies in public health in BC with the initiatives being supported by the Public Health Agency of Canada.

11. Educational/Training Needs and Gaps
Determine how to address the key education/training needs and gaps that have been identified in Phase 1, and how to develop the best collaborative response to these needs and gaps.

12. Public Health Collaborative Network
Determine the best way to develop an ongoing structure or process that will bring together public health practitioners/ leaders, administrators and educators in a network, table or forum on a regular basis.

This network would facilitate workforce development and be able to identify education/training needs and gaps in a timely manner, collaborate on the most appropriate educational strategies, minimize duplication, build consensus and maximize an overall systems response.

CORE AND TECHNICAL COMPETENCIES FOR PUBLIC HEALTH IN BC PHASE 1 – NEEDS ASSESSMENT

Final Report ***- December, 2008***

Prepared by Zena Simces and Sue Ross

1.0 PURPOSE

The main purpose of Phase I of this project is to identify the core and technical competencies most critical to implementing the BC Ministry of Health Framework for Core Functions in Public Health and to identify competency gaps. This will provide a basis for Phase II, to implement processes to address the identified gaps in competency profiles and to recommend appropriate educational responses. The aim of the overall project is to make a contribution to ensuring that the public health workforce in BC has a diverse mix of people who are equipped with the appropriate skills and competencies for the effective and efficient delivery of public health in BC.

This project is a partnership between the Public Health Association of BC, the BC Academic Health Council and the BC Ministry of Health. The Public Health Association of BC is managing the project and received funding from the Public Health Agency of Canada and the BC Ministry of Health. See Appendix 1 for the Core Competencies Advisory Committee and Steering Committee Membership List.

2.0 METHODOLOGY

A number of different methods have been selected to gather information and move forward on completing the needs assessment. Methods include:

- Identifying and defining Core Competencies – Charting the links between the Core Competencies in Public Health in Canada and the roles and responsibilities identified in the model core program papers for Public Health in BC.
- Reviewing key literature and relevant reports.
- Consulting with Health Authorities to assist in further defining the core competences, gaps and training needs within the BC context. This included:
  - Working with the Health Authority's area of primary interest in relation to competencies and core functions/programs and "drilling down" in these areas to develop a comprehensive profile of the core competency. For example: VCH – Community Capacity-building; VIHA – Food Security; Fraser Health – Cultural Competencies; and Interior Health – Aboriginal Health. Northern Health is looking to develop a competency self-assessment tool.
  - Discussions with the Directors of Protection, Directors of Prevention and selected Health Authority program managers responsible for implementing the identified core programs to review the Competency Charts prepared to verify the competencies identified.
  - Connecting with special committees/groups such as: Health Authority Collaborative on Health Assessment and Surveillance; the Integrated Professional Practice Council, Fraser Health.
  - Linking with specific public health disciplines in BC to review the core competencies identified for this project, from their perspective - Public Health Nurses, Public Health Nutritionists, Medical Health Officers, Environmental Officers of Health.

  - Conducting a focus group with public health leaders – administrators, practitioners and educators from across the province to discuss the leadership competency.
- Linking the work being done at a national level by a number of Public Health Professional Disciplines to further the definition of core competencies for public health core programs/functions in BC.
- Identifying preliminary education and training opportunities with key BC Educational Institutions.
- Discussions with the committees of Deans and Directors of Health Sciences and Continuing Education Directors of educational institutions across BC.
- Consulting with other key resources to inform the project, e.g., representatives from the BC Ministry of Health and the Public Health Agency of Canada.

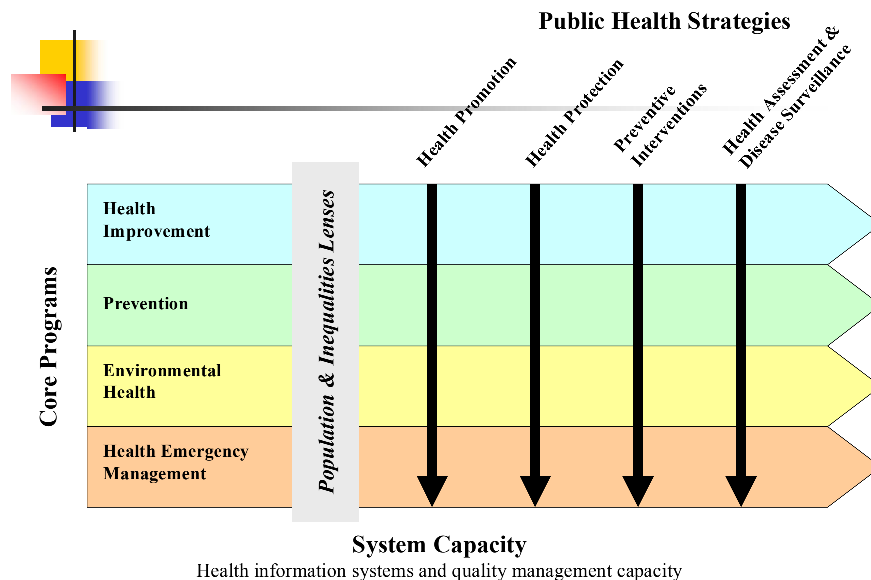
Definitions
For the purposes of this report the following definition of core competencies and competency gaps are being used:

Public health core competencies are the essential knowledge, skills and attitudes necessary to practice public health in BC and to implement the BC Ministry of Health Framework for Core Functions in Public Health.

Competency gaps are areas of essential knowledge, skills and attitudes where a need has been identified for additional training and education through a consultation process.

3.0 KEY FINDINGS

This section outlines the key findings in relation to the four elements of the BC Ministry of Health Framework for Core Functions in Public Health.



- *Public Health Core Programs* – Core competencies have been identified and defined for each of the public health core programs where a model core program paper has been completed.
- *The Population and Equity Lenses* – Core competencies required to implement the Framework for Core Function in Public Health for vulnerable populations, specifically new immigrants and refugees have been identified. Core competencies required to address the specific and unique needs of the Aboriginal population to improve public health outcomes (applying an Aboriginal Lens) have been identified.
- *Public Health Strategies* - The competencies required to implement the Public Health Strategies which apply to all core program areas: Health Promotion, Health Protection, Preventive Interventions and Health Assessment and Disease Surveillance are addressed in so far as they are consistent with the competencies identified for the core programs. Health Promotion is addressed in greater detail.
- *System Capacity* - System or organization supports that impact the application of core competencies and the overall implementation of the BC Framework for Core Functions in Public Health (and issues regarding these) identified during the consultation process, are documented in this report.

In addition, the competency gaps identifying training and education needs are presented. Preliminary responses from discussions with several key educational institutions in the province are highlighted in this report.

Specific workforce needs have not been addressed in this report. The core competency work to-date lays the foundation for further discussion of workforce needs and will help to increase understanding of the range of knowledge and skills required to effectively plan, deliver and evaluate core public health programs in BC within the context of the BC Framework for Core Functions in Public Health; assist in the development of competency-based job descriptions; inform the development of training needs assessment tools; and inform the content of public health training programs and curriculum development of continuing education.

3.1 BC Public Health Core Programs – Core Competencies

- The Core Competencies for Public Health in Canada: Release 1.0 identifies seven core competency areas - *1. Core Public Health Science; 2. Assessment and Analysis; 3. Policy, Program Planning, Implementation and Evaluation; 4. Partnership, Collaboration and Advocacy; 5. Diversity and Inclusiveness; 6. Communication to Public and Other Professionals; 7. Leadership*. The consultation process has validated that the Core Competencies for Public Health in Canada: Release 1.0 are relevant and applicable to the public health core programs in BC.

- Stakeholders involved in the consultation process identified the need to clarify a number of the competencies identified in the Core Competencies for Public Health in Canada: Release 1.0 and recommended additional core competencies that are relevant to implementing public health programs in the BC context. While it could be argued that some of these additional competencies would fit within the competencies identified in the Core Competencies for Public Health in Canada: Release 1.0, these are areas that stakeholders felt would be valuable to focus on separately. (See discussion below.)

- A number of **key assumptions** have been identified through the consultation process and apply to all the core competencies across the BC Framework for Core Functions in Public Health:

    - The core competencies identified in this project primarily relate to individual practice.

    - *Competency (proficiency) levels:* This refers to the degree of mastery of a skill or knowledge area. When applied to individuals within the public health workforce, a continuum of capacity or competency is expected and levels of competency/proficiency will depend on whether the individual is a novice (needing basic knowledge and skills), a more seasoned practitioner, or a more advanced practitioner/expert (needing specialized and dedicated competencies). Individuals require a different level of working knowledge, depth or mix of competencies depending on their role and responsibility within the organization.

    - *Competency mix*: It is not expected that all individuals in an organization possess all of the knowledge, skills and abilities that comprise a competency area but there is an appropriate mix of these skills at a team, program or organizational level to be able to effectively implement the identified core program. The organization-level set of competencies provides the reference to assess and optimize the mix of competencies/personnel within a core public health program, team or organization.

    - *System capacity/support:* The system must have the capacity to support the appropriate and collective application of the public health core competencies for the overall implementation of the BC Framework for Core Functions in Public Health.

    - *Leadership competency* at an individual level is critical to create the supportive environment and system capacity necessary to implement the many interrelated aspects of the BC Framework for Core Functions in Public Health.

The Core Competencies for Public Health in Canada: Release 1.0 **- areas requiring clarification:**

A number of competency areas identified in the Core Competencies for Public Health in Canada: Release 1.0 requires clarification for the BC context and these include:

- ***Public Health Sciences*** – The consultation to-date has indicated that one of the most critical core competencies across all the public health core programs in BC is the ability to demonstrate knowledge about population health and the social determinants of health and most significantly, the ability to apply these to public health practice.

- ***Advocacy*** – Participants identified a need to clarify what is meant by advocacy within the context of public health and the work of Health Authorities in BC. They indicated that the advocacy skills are required to advocate for the needs of the individual (holistic approach) as well as for broad long lasting systemic change. They

also indicated the need for a supportive organizational environment to enable individuals to feel safe to advocate for change.

- **Leadership** - The leadership competency described in the Core Competencies for Public Health in Canada: Release 1.0 did not appear to be sufficient to clarify the skills, knowledge and abilities required of leaders to implement the BC Framework for Core Functions in Public Health. Further elaboration of the leadership competency has been taken from *The Health Leadership Capabilities Framework (LEADS).*[2] This framework identifies, that for any leader, regardless of their role, or the positions they occupy in the health system must be able to:
  - Lead Self
  - Engage Others
  - Achieve Results
  - Develops Coalitions
  - System Transformation

  Each of these five broad domains has sub-domains which further describe the capabilities required. In addition, four leadership contexts have been identified: front line, middle, senior and executive. The behaviors across the four leadership contexts of each sub-domain are generally considered cumulative. However, depending on the role of the leader, a leader may display competencies from any of the levels. This framework has been adopted by the Health Authorities in BC and most recently, the Ministry of Health executives have used the Leaders for Life "*360 Degrees Questionnaire Framework*" for assessing their leadership capabilities. There is also interest from other provinces and national organizations in using the LEADS Framework.

  A focus group with public health leaders (practitioners, administrators, educators) across BC was held in November 2008 to review the LEADS Framework and its applicability to public health leadership.

  The group recognized the value of *The Health Leadership Capabilities Framework (LEADS)* in identifying the generic capabilities (skills, abilities and knowledge) required to lead at all levels of the health system. This framework is perceived to be applicable to the public health sector, but there is strong agreement that there are unique capabilities required by leaders in public health that should supplement the generic leadership framework. Stakeholders expressed the importance of being able to articulate the unique competencies of leaders in the public health sector in order to have a tool for leadership workforce planning and performance assessment as well as a method to identify gaps in education, training and mentoring and guide the development of appropriate responses.

  The following summarizes the key unique capabilities required of leaders in the public health sector as identified through this discussion:

  - ***The Health of the Public.*** The essence of public health leadership is to focus externally on improving the health of the public. This differs from leadership that must put the needs of the organization first. What is required of public health

[2] The Health Care Leaders' Association of BC Leaders for Life program - www.leadersforlife.ca

leaders is the ability to keep the health of the population (current and future) at the forefront of decisions and actions and to consistently demonstrate commitment and accountability to the public and to population health outcomes in an environment that is critically stressed for resources.

- ***Public Health Science.*** Knowledge of, understands and able to put into practice: population health, the social determinants of health, basic epidemiology, health assessment and disease surveillance, the contributions of different public health disciplines, and community-based public health strategies and programs.

- ***Equity Lens/Social Justice.*** Knowledge of and able to apply principles of social justice and human rights; understand, assess and able to address population health inequities (‘*no vulnerable population should be left behind’*).

- ***Values/Ethical Framework.*** Able to articulate and apply a values/ethical framework for decision making and actions that places the health of the public above all else and considers individual rights and collective good. It is suggested that a values/ethical framework be developed for public health leaders in BC in order to establish a transparent foundation that enables leaders to ‘*do the right things’*. *[‘Doing the right things’ is a leadership focus; ‘doing things right’ is a management focus]* Particular values include: caring, compassion, diversity, equity.[3]

- ***Historical and Cultural Awareness.*** Understands the context of honouring history, respecting cultural diversity, caring, applying a holistic approach (physical, emotional, mental and spiritual), and understands the capacity of others to further the public and population health agenda.

- ***Emotional Intelligence.*** Understands the emotional needs of individuals within and external to the organization and apply this understanding to meeting the needs and development requirements of colleagues and team members.

- ***Political Intelligence.*** Able to navigate the political arena to engage decision makers within and, most significantly, external to the health system (e.g. local governments, politicians, community leaders) to gain support for strategic action, policy and resource allocation to protect and improve the health of the population.

- ***Visioning and Strategic Planning.*** Able to inspire vision and communicate clear and meaningful expectations and outcomes. Able to establish strategic directions and strategically align decisions with vision, values and evidence.

[3] See also the Professional Values of the BC Public Service
http://employment.gov.bc.ca/index.php?p=Values

- ***Partnership and Coalition Building.*** Able to develop partnerships and coalitions within the public health context combined with an ability to establish a shared vision and to broker and leverage opportunities and resources.

- ***Community Capacity-Building.*** For leaders in public health this means recognizing the dynamism of the complexity of community engagement, and being able to contribute to the community seeing itself as an equal partner having a social contract (entrepreneurial partnership) in addressing population health. This requires a strong ability to establish and maintain credibility and build mutual trust and respect while engaging others.

- ***Knowledge Translation and Advocacy.*** Able to translate evidence-based information into plain language and communicate intent clearly to internal and external audiences, and when necessary, able to '*stand against public opinion*' or speak out against one's own organization for the public good. Be able to effectively engage the media in public health issues.

- ***Public Health Law.*** Knowledge of the quasi-judicial functions associated with public health e.g., civil liberties/ human rights; individual rights and privileges relative to the collective good, and the implications of these to public health practice from a legal standpoint. Able to demonstrate where regulatory responses are warranted and appropriate.

- ***Health Economics.*** Understands and able to apply basic health economics as it pertains to public health, cost effectiveness/benefit analysis, and business case development to support public health strategies. Understands the concept of free market failure, the implications for the public's health and potential corrective mechanisms.

- ***Change Management (Societal Change).*** Within a public health context, able to champion and orchestrate broad system reform and contribute to societal change that benefits the health of the population. This requires a repertoire of diverse strategies, change management skills (e.g. how to change attitudes and behaviours, social marketing concepts), critical thinking, and an understanding of how to reach vulnerable groups and difficult to change populations. Also needs to understand organizational change theory and methods within the public health organization.

- ***Technology.*** Understands opportunities (GPS tracking, data linkages, screening tools, EHRs), benefits, and implications (e.g. comparative cost benefits, privacy and confidentiality) of the application of technology to public health policy and practice.

- ***Organizational Leadership.*** Able to form, lead and manage teams within the public health organization and create appropriate change within the health care

system. This includes strategic planning and visioning, knowledge of budget gamesmanship, negotiating skills, and succession planning.

See also the preliminary work being supported by the Public Health Agency of Canada on leadership/management competencies in the Peel Region, Ontario, *"Identification of a Draft Set of Leadership/ Management Competencies for Public Health Leadership/Management Competencies for Public Health Managers*".[4]

Additional core competencies relevant to the BC context:

The consultation process identified additional core competencies that are relevant to the BC context. While it could be argued that these might fit under the seven public health core competencies identified in the Core Competencies for Public Health in Canada: Release 1.0, these are areas that stakeholders felt would be valuable to focus on separately because they are considered essential to the effective implementation of the BC Framework for Core Functions in Public Health and include:

- ***Community Capacity-building*** **–** This refers to the competencies required to engage communities and build on the capacity of the community to facilitate the delivery of the core programs/function. See companion Technical Report, Section 1 for a detailed description of the community capacity-building competency which was developed in consultation with representatives from Vancouver Coastal Health.

- ***Enforcement to ensure compliance with regulation*** **–** This refers specifically to knowledge of legislation, regulations, etc. required for enforcement and compliance purposes.

- ***Inter-professional Collaboration*** **–** This refers to the specific competencies required to work collaboratively with other disciplines to implement the BC Framework for Core Functions in Public Health.

  The BC Competency Framework for Inter-professional Collaboration, initiated by the Guided Inter-professional Field Study Project (part of the Health Canada initiative developed in BC) and completed by UBC's College of Health Disciplines, outlines the generic competencies that are required, in addition to a practitioner's specific and unique competencies, to provide patients/clients with optimal, integrated care. The inter–professional competencies identified are organized into three domains:
  - Interpersonal and Communication Skills
  - Patient-Centred and Family-Focused Care
  - Collaborative Practice:
    - Collaborative Decision-making
    - Roles and Responsibilities
    - Team Functioning
    - Continuous Quality Improvement

[4] This is preliminary work on leadership/management competencies in the Peel Region, Ontario, March, 2008 conducted by Dr. Brent W. Moloughney, Public Health Consultant for Office of Public Health Practice, Public Health Agency of Canada.

These inter-professional competencies appear to be relevant and applicable to the BC Public Health Core Functions Framework.

In consultation with the Integrated Professional Practice Council, Fraser Health, a number of inter-professional competencies were identified that apply to the public health context and are not specifically addressed in the BC Competency Framework for Inter-Professional Collaboration. For example, where there are multiple providers/partners/stakeholders requiring a long term population/public health perspective, inter-professional competencies include:

- The knowledge and understanding of the interplay between the individual/family/community and the broader population health context/social determinants of health and the ability to apply this to inter-professional public health practice.
- At a patient/client and family level, the ability to develop and implement a holistic and longitudinal public health assessment and care plan in collaboration with multiple providers and community stakeholders; ability to understand, respect and apply confidentiality – knowing what information to share, when and with whom; and ability to identify shared competencies and apply appropriately in the interests of continuity of care.
- At a population health program/systems level, the ability to work strategically with multi-sectoral stakeholders to address major public health issues, priorities and emergencies e.g., pandemics, built environments, healthy child growth and development.

In collaboration with the College of Health Disciplines, it is suggested that an addendum to the BC Competency Framework for Inter-professional Collaboration be developed that identifies the unique features of inter-professional collaboration required within the public health context as per above.

Further work on inter-professional collaboration is being carried out by the College of Health Disciplines at UBC that will be of benefit to this project. The College has formed a Professional Development Committee with the mandate to provide leadership relating to the professional development needs of practitioners and faculty around inter-professional collaborative practice and education. A needs assessment is currently being conducted and focus groups are being held across the province with preceptors/practitioners and educators. This will be followed by a survey to a larger audience to verify findings. A second phase is planned for the development of tools and strategies to meet the identified professional development needs.

- ***Applying New Technology –*** This refers to the ability to be aware, understand and be able to apply new technology relevant to the individual's area of responsibility.

- ***Knowledge Translation, Transfer/exchange[5] –*** Knowledge transfer is mentioned in the Core Competencies for Public Health in Canada: Release 1.0 under communication. However, stakeholders view this as a significant competency in public health that should be identified separately. It is seen as the ability to translate

[5] Also referred to as Knowledge Transfer and Exchange; Knowledge Transfer; Knowledge Exchange; or Knowledge Synthesis, Translation and Exchange (KSTE). See www.chsrf.ca/keys/glossary_e.php

knowledge, evidence and information and transfer this to professional, non-professional and community audiences and to engage stakeholders (internal and external to the organization) in knowledge exchange using plain language.

- ***Health Literacy –*** This is regarded as an important competency to be able to assist individuals/populations to obtain, process and understand the health information and materials they need to make informed decisions regarding their health. For more information regarding Health Literacy, see *Responsibilities for Health Literacy Across the Continuum of Health Care*, BC Academic Council, March, 2008.

- ***Research –*** The Core Competencies for Public Health in Canada: Release 1.0, under the Core Public Health Sciences competency area mentions the ability to use evidence and research to inform health policies and practices. The research competency, however goes beyond this to the ability to participate in research, and link with research resources as well as the ability within the organization to conduct research.

- ***Public Health Ethics –*** The ability to understand and apply health ethics has not been specifically identified in the Core Competencies for Public Health in Canada: Release 1.0 and is seen as a core competency required across all public health core programs.

Charting of the Core Competencies for Public Health in Canada: Release 1.0 and Additional Core Competencies against the BC Framework for Core Functions in Public Health:

Charting of the Core Competencies for Public Health in Canada: Release 1.0 and the additional core competencies against the BC core public health programs (with completed model core program papers) was undertaken to facilitate dialogue with stakeholders about the public health core competencies. The charting is based on a review of the key roles and responsibilities identified in the model core program papers and consultation with selected representatives from Health Authorities and the Ministry of Health who have primary responsibility for these programs.

The following charts have been prepared and include input from stakeholder consultation to-date: *See companion Technical Report, Section 2:*
Chart A – Core Competencies for Health Improvement Programs – reviewed by Directors/ selected Managers of Prevention
Chart B – Core Competencies for Disease, Injury and Disability Prevention – reviewed by Directors/selected Managers of Prevention
Chart C – Core Competencies for Environmental Health Programs – reviewed by the Directors of Protection, representatives from BCCDC and PHSA.
Chart D – Core Competencies for Health Emergency Management – this area has not been reviewed.
Chart E – Health Assessment and Disease Surveillance – reviewed by the Health Authority Collaborative on Health Assessment and Surveillance.

The charts also make reference to competencies applicable to the population and equity lenses (see sections below for detailed findings in these areas).

An additional detailed competency document for the Food Security core program has been prepared in consultation with representatives from VIHA and is included in the Technical Report, Section 3.

The identification and definition of the core competencies as reflected in the charts is an iterative, progressive and ongoing process that would benefit from a broader, more comprehensive dialogue.

3.2 Population and Equity Lenses

The BC Framework for Core Functions in Public Health offers the following definitions for population and equity lenses:

- The Population Lens focuses on ensuring that core programs address the health needs of special populations that are at higher risk or are more vulnerable due to biological, social, environmental, economic, cultural or other factors.
- The Equity Lens focuses on addressing inequities in health status that are widespread. These inequities have their roots in the social, economic, cultural and environmental determinants of health. Public Health has a duty to work to reduce these health inequities.

The competency charts identify, under the diversity and inclusiveness competency area, a summary of the knowledge, skills and abilities required to apply the population and equity lenses.

In addition, the consultation process has enabled a more comprehensive review of the competencies required to apply the population and equity lenses to vulnerable populations, specifically new immigrants and refugees. See the Technical Report, Section 4 on Core Competencies for Diversity: At Risk and Vulnerable Populations – New Immigrants and Refugees which was developed in consultation with representatives from Fraser Health.

For further information on inequities in health and potential responses that help to inform the core public health competencies required to address inequities, see recent work being done internationally by the World Health Organization (e.g., *Closing the Gap in a Generation*); nationally in the *Chief Public Health Officer's Report on the State of Public Health in Canada*; and provincially in the *Health Inequities in British Columbia: Discussion Paper,* November, 2008. These reports and the results of a workshop on *Responding to Health Inequities: The Role of Public Health* organized by the Public Health Association of BC (PHABC) are all available on the PHABC website.[6]

Core competencies required to address the specific and unique needs of the Aboriginal population to improve public health outcomes (applying an Aboriginal Lens) have been identified through consultation with representatives from Interior Health, see the Technical Report, Section 5: Core Competencies for an Aboriginal Lens. The

[6] www.phabc.org

development of these competencies and educational requirements can be further informed through discussions with the Aboriginal Health Leads from the Health Authorities and by the work being done at University of British Columbia campuses e.g. UBC- Okanagan regarding the concepts of Cultural Safety and Cultural Competency. [7] See also the work being done by the National Collaborating Centre for Aboriginal Health, e.g., *Sharing Knowledge and Making a Difference*.[8]

3.3 Public Health Strategies

Competencies required to implement public health strategies (Health Promotion, Health Protection, Prevention Interventions and Health Assessment and Disease Surveillance) across all core programs warrant further discussion. The competencies identified for the core programs appear to be applicable to the corresponding public health strategy, but because the strategies cut across all core program areas a more comprehensive set of advanced level competencies appear to be needed.

A few examples to initiate further discussion are identified below:

Health Protection

The competencies identified for the Environmental Health core programs are seen to be applicable to the Health Protection Strategy. However, consultation with Health Protection leaders suggests there is a need for a different emphasis or balance of skills or greater knowledge of a particular specialty to apply the strategy across all core program areas. For example:

- *Health Improvement*: Need for competencies relating to the assessment of short term and long term environmental impacts on the healthy development of children, reproductive health, healthy living and healthy communities, the enforcement of tobacco contract act and the intersection of safety issues with food security.
- *Disease, Injury and Disability Prevention*: Need for competencies relating to assessing and addressing the environmental assets and risks related to disease, injury and disability prevention. Assessment of risk related to communicable diseases in a critical specialty competency area.
- *Health Emergency Management:* Need for competencies in assessing and responding to environmental health risks associated with emergencies.
- *Health Assessment and Surveillance:* Need for competencies required in risk factor surveillance.

Health Promotion

Proposed Pan Canadian Discipline-Specific Competencies for Health Promoters[9] have been identified. While these competencies are described for a health promoter position (individual level), they may be relevant to a discussion of the competency areas required

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[7] www.indigenousinstitute.ca See in particular reference to the Cultural Safety Symposium and ongoing research projects.
[8] www.unbc.ca/nccah/
[9] http://www.ohpe.ca/ebulletin/index.php?option=com_content&task=view&id=9849&Itemid=78

to implement a health promotion strategy across the BC Framework for Core Functions in Public Health. These competencies include, in summary:

- Demonstrate knowledge necessary for conducting health promotion
- Conduct a community needs/situational assessment for a specific issue
- Plan appropriate health promotion programs
- Contribute to policy development
- Facilitate community mobilizations and build capacity around shared health priorities
- Engage in partnerships and collaboration
- Communicate effectively with community members and professionals
- Organize, implement and manage health promotion interventions

Health Assessment and Disease Surveillance

Health Assessment and Disease Surveillance is identified as a core program as well as a public health strategy that cuts across all core program areas. A focus group session with the Health Authority Collaborative on Health Assessment and Surveillance indicated that carrying out appropriate health assessment and disease surveillance should be considered an area of specialized support to other core programs.

Stakeholders indicated that health assessment and disease surveillance competency should be looked at as a continuum - with basic to advanced level competency required for frontline practitioners and managers. Further along the continuum would be more complex, specialized and dedicated expert competencies needed for health assessment and disease surveillance specialists who provide support at a regional and systems level.

At a basic level, the critical skills for program staff are to be able to apply health assessment and disease surveillance to public health practice, to know the limitations of the data, how to ask the right questions and who to go to for specialized assistance.

At an advanced level for health assessment and disease surveillance staff, critical thinking skills, ability to transfer knowledge in ways that are meaningful to different audiences including front line program teams and community members, and ability to engage community in health assessment and disease surveillance processes are essential skills.

For further details, see Section 2 - Chart E: Health Assessment and Disease Surveillance in the Technical Report.

Further discussion of the Public Health Strategies may be warranted to determine if there are different or unique competencies required for implementation these strategies within the context of the BC Framework for Core Functions in Public Health.

3.4 Discipline-Specific Competencies

This project has reviewed a number of the public health discipline-specific competencies that have been developed at a national level to help inform the competencies required to implement the BC Framework for Core Functions in Public Health. These include: public health nutritionists, medical officers of health, public health nurses, environmental health officers, public health epidemiologists and health promoters.

Public Health Nutritionists – The Pan-Canadian Task Force on Public Health Nutrition Practice set out to define public health nutrition practice in Canada, investigate the need for discipline specific public health nutrition competency sets and explore an organizational structure that can provide leadership for public health nutrition practice issues in Canada. Consultations were conducted across Canada in the fall of 2008 with public health nutrition stakeholders through twenty discussion groups. In addition, an on-line survey was distributed to over 10,000 dietitians and members of the public health community. Preliminary results indicate that there is considerable agreement that the public health component of existing dietetic competencies need strengthening. There were diverse opinions, however, as to the need for a distinct set of public health nutrition competencies. Stakeholders also identified the need to consider proficiency levels within public health nutrition practice and the practice interface with other public health colleagues. The consultation will be completed in December 2008, with final recommendations being reported at the Dietitians of Canada annual conference in June 2009.

A preliminary session with a small group of advanced practice public health nutritionists in BC reviewed how the Core Competencies for Public Health in Canada: Release 1.0 and the additional core competencies identified for public health in BC apply to their public health nutrition practice. The focus was to determine the core competencies required of public health nutritionists to enable the implementation of the BC Framework for Core Functions in Public Health. Findings from this session indicate that nutritionists in public health require all the core competencies (national and additional to BC) that have been identified. Further, it is suggested that nutritionists in public health in BC require competencies related to the following areas:

- Ability to undertake a broad scope of practice – a broad scope of nutrition and dietetic practice across the health service continuum relevant to population health and the public health context.
- Ability to act in a consultant role - listen, integrate information, provide expert advice and support on food, foods systems and nutrition to internal and external stakeholders, provide guidance in determining evidence-based responses to emerging issues.
- Ability to manage projects – build a business case, undertake contract management, financial and project planning and management.

See the Technical Report, Section 6 for description of competencies relating to Public Health Nutritionists in BC.

Medical Officers of Health - A session was held with a select group of Medical Health Officers from across BC[10] and a number of individuals involved in Community Medicine Education. The purpose was to identify the specific competencies required of Medical Health Officers to implement the BC Framework for Core Functions in Public Health. The following summarizes key findings form this discussion.

A Minimum Set of Competencies for Medical Officers of Health in Canada has been developed at the National level. [11] While it is recognized that within the BC context, the roles and responsibilities of Medical Health Officers may vary within and between the different health authorities, review of these competencies indicates that they are relevant and applicable to the implementation of the BC Ministry of Health Framework for Core Functions in Public Health. The following emphasis was added to a number of the core competency domains for the BC context:

- *Public Health Consultant* – This is seen as an important competency area – not only to be able to provide consultation and expert advice to stakeholders within the health system but also to be able to collaborate across disciplines and sectors and engage the broader community beyond the health system both public and community leaders.
- *Advocacy for the Public's Health* - An advanced level of advocacy skills are needed to be able to act as a 'health ombudsperson' – responsible for raising issues and advocating for changes to address these issues.
- *Communication* – A greater emphasis should be placed on knowledge translation and transfer to other health professionals and the public.
- *Applied Public Health Research* – The emphasis here is on the ability to critically review data, research and outcomes, gauge the level of evidence, and take the lead to interpret and make decisions about the evidence as it applies to public and population health practice.
- *Leadership* – This competency area is seen as one of the most critical. What is needed is the ability to be politically astute - able to navigate the political arena to engage decision-makers at the local government and provincial levels and to develop long-term trusting relationships with community leaders in order to address public and population health issues. Other key leadership skills added include: critical systems thinking and understanding self and being able to self reflect or self assess.

Two additional competency areas are identified as key to the work of Medical Health Officers in BC:

- *Inequities*- One of the major issues that Medical Health Officers currently face and will increasingly face in the future is the ability to address inequities in health. The skill set required to address inequities includes: leadership and management skills, and the ability to advocate, develop policy, translate knowledge, and engage the broader community and partners both within the health system and external to it in coalition building and collaborative action.
- *Ethical Framework* - Medical Health Officers need to be able to articulate an ethical framework for decision-making based on an understanding and valuing of human rights with an end goal of improving the health of the population. Medical Health

[10] In BC Medical Officers of Health are called Medical Health Officers.
[11] Draft Set of Minimum Competencies for Medical Officer of Health in Canada – Draft 3.1 April, 2008 and Medical Officers of Health Competency Role Domains- Version 3.0 January 9, 2008

Officers need to have an understanding and knowledge of human rights and social justice issues and their applicability to the public health context. "*Just as ethics is critical to bio-medical science, human rights are critical to public health practice*."

System Capacity/Support
It is further suggested that at an organizational level, supports are required to enable Medical Health Officers to carry out their advocacy and decision-making from an ethical framework – supports that would enable them to provide advice in an independent manner. Supports could include, for example, articulating and documenting key values in organizational plans and resource allocations, embedding an ethical framework in legislation or through performance reviews.

Training/Education
Key training needs/gaps for Medical Health Officers that are important to implementing the BC Framework for Core Functions in Public Health include:

- leadership and management
- advocacy
- understanding community engagement process and political action
- resources allocation
- policy development.

These so called 'soft' skills are seen as required both within the Community Medicine program for new recruits and for professional development of Medical Health Officers within the system.

The following education/training considerations were identified for:

- The Community Medicine Program
  - Include a sensitization of 'soft' skills within the Community Medicine Curriculum.
  - Provide longer placement rotations for residents (e.g., 6 months) enabling greater opportunities to learn on the job.
- New Medical Health Officers
  - Provide organized training support during transition from the Community Medicine Residency program to working as a Medical Health Officer.
  - Offer an organized mentorship program for new Medical Health Officers.
- Ongoing Professional Development for Medical Health Officers
  - Further the professional development of Medical Officers of Health in an organized and collective manner. For example, this could include:
    - A coaching program that provides support with regard to the 'soft' skill areas identified as critical, e.g., leadership, management, advocacy, policy development, community engagement, resources allocation.
    - A Summer Institute through the auspices of the Provincial Officer of Health.
    - A sabbatical program to develop specialty advanced competencies.
    - A program for training Medical Health Officers as mentors.

Public Health Nurses - The Community Health Nurses Association of Canada with funding from the Public Health Agency of Canada (PHAC) has completed a synthesis of the literature [12] and will be starting their work on defining core competencies. This synthesis identifies several unique aspects of the public health nurses' role which are not reflected in the Core Competencies for Public Health in Canada: Release 1.0 and these include:

- Their simultaneity of work
- The ability to work with individuals, families and groups while focusing on the larger picture of community or population health
- Their therapeutic nurse-care partner relationships which involve concepts of caring, trust, autonomy and empowerment
- Their public health nursing judgment
- Their focus on health promotion at the population level
- Their holistic approach to care.

A preliminary session with the BC PH Nurse Leadership Executive indicates that the Core Competencies for Public Health in Canada: Release 1.0 and the additional competencies identified in BC are applicable to the work of nurses in implementing the BC Framework for Core Functions in Public Health. Session participants emphasized that to implement the BC Framework, two additional competency areas in relation to the public health nurses' role need to be recognized:

- The ability to work with individuals, families and groups while focusing on the broader population health priorities.
- The ability to support individuals and families at any age and stage, and in any community-based setting.

They also stressed the importance of nursing students being able to have placements that provide them with the opportunity to apply key competencies such as advocacy, community development and communications within a broader community context.

Public health nurse leaders indicated the importance of clarifying for the front line nurse practitioners, the implications and inter-relationships of the different projects addressing core competencies and discipline-specific competencies.

Environmental Public Health Professionals – The Canadian Institute of Public Health Inspectors (CIPHI) is in the process of developing competencies for Environmental Public Health Professionals in Canada. Once completed, this work would help to further inform the competencies identified by the Directors of Protection and representatives from BCCDC and PHSA for the Environmental Health Programs in BC. (See Technical Report - Section 2 - Chart C).

Public Health Epidemiologists – Core competencies have been developed for public health epidemiologists in Ontario[13]. The work in Ontario has identified nine specific competency groupings for public health epidemiologists and these include:

- Understanding the system

[12] Public Health Nursing Practice in Canada: A Synthesis of the Literature, March 31, 2008.

[13] Core Competencies for Public Health Epidemiologists in Ontario: A Discussion Paper for the Association of Public Health Epidemiologist of Ontario (APHEO) and Public Health Agency of Canada, Department of Public Health Sciences, University of Toronto, February 15, 2007.

- Identifying sources of information and critical appraisal
- Databases, technology and surveillance
- Methods of analysis
- Knowledge translation
- Communication, health promotion and health protection
- Partnerships
- Policy and communication
- Performance, leadership , socio-cultural

The specific classification of entry level versus advanced managerial competencies was considered and discarded in favour of defining a single, basic set of discipline-specific core competencies for public health epidemiologists in Ontario. An electronic survey was conducted by the Association of Public Health Epidemiologists in Ontario in March, 2006. Most respondents agreed that the stated core competency items were the core discipline-specific competencies for public health epidemiologists. There was strong agreement regarding interpreting and translating evidence to inform decision-making but questions remain as to whether epidemiologists are expected to take direct leadership in determining or advocating for policy change or a different allocation of resources. Working with advanced data bases and analytical skills including geographic information systems as well as a role in emergency response protocols is seen by some as core competencies while others view these as being more relevant to a specialist epidemiology position.

Discussions are underway to build on this work to develop a set of core competencies for public health epidemiologists on a national level.

A review of the Ontario work has helped inform the identification of core competencies in relation to the Health Assessment and Disease Surveillance core program in BC. See Technical Report – Section 2 – Chart E).

Health Promoters – As indicated earlier (p.14), proposed Pan Canadian Discipline-Specific Competencies for Health Promoters[14] have been identified. This work may help to further inform the core competencies related to BC's Public Health Prevention Strategy.

In summary, the current work to define discipline-specific core competencies will inform the competencies required to implement the BC Framework for Core Functions in Public Health. Stakeholders indicated that there is confusion about the similarities/differences in the work being done at a national level on discipline specific competencies, the Core Competencies for Public Health in Canada: Release 1.0, and the definition of core public health competencies for BC resulting from this project. In particular, there is concern about the implications of these initiatives for front line service delivery staff.

[14] http://www.ohpe.ca/ebulletin/index.php?option=com_content&task=view&id=9849&Itemid=78

3.5 Public Health Agency of Canada and Other Related Work

Public Health Agency of Canada
The Public Health Agency of Canada (PHAC) continues to support the adoption and implementation of Core Competencies for Public Health in Canada: Release 1.0 including:

- Implementation projects (9 completed, 3 underway and 2 in development phase) across the country to assist in the further clarification of the public health core competencies, increase knowledge and understanding of the Core Competencies for Public Health in Canada: Release 1.0, and identify issues and challenges (e.g., accreditation and union), as well as training and educational responses required to adopt these competencies and incorporate them into public health practice.
- Workshops focusing on self-assessment, the development of organizational asset maps as well as complimentary competencies (e.g., management/leadership competencies), and proficiency levels, and professional/continuing education planning.
- The development of an evaluation framework and evaluation projects relating to the impact of the Core Competencies for Public Health in Canada: Release 1.0.
- Through “Grants and Contributions”, support for a range of projects across the country to: further define competencies required by specific public health disciplines; (nursing, community medicine, epidemiologists, public health inspectors, dental nutritionists, medical officers of health and health promoters); increase knowledge and understanding of public health human resource planning issues; enhance training and education capacity in critical public health areas such as rural and aboriginal health, epidemiology, and community medicine.

It is recommended that future work on core competencies in public health in BC should be cognizant of and link, where relevant, with the initiatives being supported by the Public Health Agency of Canada.

Other Related Work
The Core Public Health Functions Research Initiative (CPHFRI) is a collaborative program of research focused on public health systems renewal in Canada that brings together a team of inter-disciplinary academic researchers, and national, provincial and local decision-makers and practitioners. The primary funders for CPHFRI are the Michael Smith Foundation for Health Research, Canadian Institutes of Health Research, the Vancouver Island Health Authority, BC Government and Public Health Agency of Canada.

The overall goal of CPHFRI is to develop a public health research program, along with training opportunities aimed at studying the impact and outcomes of the Core Public Health Functions Framework in BC and the Public Health Standards in Ontario.[15]

[15] Contact person: Dr. Marjorie MacDonald, RN, PHD. Association Profession and CIHR/PHAC Chair in Public Health Education and Population Intervention Research, School of Nursing, University of Victoria, BC

4.0 System Capacity/Support

The BC Framework for Core Functions in Public Health identifies the need for system capacity to support the implementation of the core public health functions and includes the following key supports: health information systems, health human resources, core competencies, research, planning, performance management and legislation.

System supports were identified by all stakeholders in the consultation process as being essential to the effective implementation of the core competencies and the core model programs. A number of system capacity issues were identified and suggestions made as to the type of supports required.

Key System Capacity Issues

Stakeholders consistently identified a number of issues regarding system capacity that impact the effective implementation of the core programs. These include:

- ***Supportive environment:*** Stakeholders expressed the need for supportive attitudes, processes and structures that would create an environment where public health professionals feel encouraged to be innovative, feel safe to advocate and are supported in their efforts to collaborate with the public.

- ***Recognizing and optimizing skill:*** Individuals and/or disciplines have competencies which are not being optimized because there is limited time, resources or priority placed on certain competencies. In some situations, stakeholders indicate that the competencies they have are not being fully recognized. Further discussion regarding best ways to facilitate optimization of available competencies would be beneficial.

- ***Balance and mix of capabilities:*** Recognizing that not everyone within the organization needs to have or has acquired all core competencies or the advanced/expert level of the competency, there is a need to identify the balance and mix of skills required within the team, program or organization. Further discussion and research regarding best methods and tools to identify an effective/appropriate mix and balance of skills to implement the core programs is an important step in conducting a public health workforce assessment.

- **Training, Education and Mentoring:** Stakeholders emphasized that to acquire and enhance the public health core competencies requires specially focused education/continuing education and training that includes the provision of opportunities for applied practice within a mentorship framework. Currently, there is no structured mentoring system available within and across the public health sector to support the effective application of the core public health competencies.

- **Leadership:** While leadership is considered an individual competency, it has also been identified by stakeholders as a significant system capacity issue. Stakeholders see leadership as essential to creating the supportive environment and developing the critical system supports for effective application of the core competences and the overall implementation of the Framework for Core Functions in Public Health.

Suggested System Supports

A. Regional, PHSA and Ministry Supports

Stakeholders identified the importance of ensuring there is the appropriate system capacity at regional health authority, PHSA and Ministry levels to support the implementation of the BC Framework for Core Functions in Public Health.

Outlined below is a brief summary of the essential supports identified for each of these levels based on their overall roles and responsibilities. For example:

- At a regional level – Able to put in place the leadership, principles, values/ethical framework, processes, structures, policies, plans, strategies, programs, and resources (financial and human) to support the delivery of the core public health functions.

- PHSA – Able to act as a resource to regional health authorities in facilitating the delivery of the core public health functions. In addition, able to synthesize, transfer and exchange knowledge and information, and provide research, surveillance and monitoring expertise to support the delivery of the core programs and achieve desired health outcomes. With regard to specific core programs, able to provide specialized provincial (centralized) leadership and services or technical guidance (e.g., through BCCDC).

- Ministry of Health – Able to set vision and directions; provide provincial level leadership in planning, policy and legislation, and resource allocation; and collaborate with health authorities (regional, PHSA) to ensure accountability and evaluate overall effectiveness.

Stakeholders pointed to the Accreditation Canada's (previously Canadian Council on Health Services Accreditation) Standards for Public Health[16] as a means to inform the review of system capacity. These standards were prepared in response to a growing demand for excellence in health services, a need for system-wide changes to health care delivery and the increasing desire for public accountability. The standards address the five key functions in public health – Health Surveillance, Health Assessment, Health Protection, Health Promotion, and Disease and Injury Prevention. The standards are grouped into five themes:

- Building Knowledge and Understanding Needs
- Creating Networks and Mobilizing Partners
- Developing Policy and Designing Services
- Delivering Public Health Services
- Achieving Positive Public Health Outcomes

The standards help organizations assess what is needed within the five theme areas to meet the goal of excellence in public health and can guide the identification of key system supports required by health authorities, PHSA and the Ministry in carrying the core functions in public health.

[16] Canadian Council of Health Services Accreditation Program 2008 Standards for Public Health, 2007.

B. Specific System Supports

Stakeholders identified the following specific system supports required to facilitate the effective implementation of the BC Framework for Core Functions in Public Health:

- Supportive attitudes, values and philosophy that foster a safe, flexible learning environment.
- Supportive attitudes and structures that promote cultural sensitivity and respect for diversity across all aspects of the organization.
- A culture that supports evidence-based practice.
- An ethical framework that is articulated in organizational plans and embedded in legislation and performance reviews that supports ethical decision-making.
- Supportive policies, processes and structures to optimize the application of the core competencies to achieve desired health outcomes.
- Supporting advocacy to influence systemic change.
- Provision of resources that support the appropriate application and mix of competencies within the organization.
- Facilitating and supporting research opportunities and initiatives to promote best practices and achieve desired health outcomes.
- Providing opportunities for training, continuing education and mentoring to acquire and enhance competencies and/or support the effective application of competencies.
- Facilitating sustainable collaborative relationships with multiple sectors and partners.
- *Health Assessment and Disease Surveillance* is identified as a core program as well as a public health strategy. Stakeholders suggested that carrying out appropriate health assessment and disease surveillance should be considered an area of specialized support to other core programs.

In light of the critical importance that system capacity and support play in achieving desired results, stakeholders recommended attention be paid to developing the public health infrastructure required to support implementation of the BC Framework for Core Function for Public Health.

5.0 Training and Education Needs and Gaps

The consultation process has identified the following training and education needs and gaps. In most cases, where a need for education and training was identified this implied a gap in competency or a need to enhance a competency area.

A. Continuing Education

Stakeholders identified a need for a strong foundation in critical appraisal skills, systems thinking and knowledge transfer at all levels of the continuum of public health staff.

Key gaps in continuing education for practicing public health professionals include the following as it relates to population health and public health practice:

- *Community capacity-building:* This skill area has not been adequately addressed in public health educational and training programs to-date and requires its own special focus.

- *Knowledge transfer and mobilizing knowledge*: Health promotion and communication courses are often available but a special focus on knowledge transfer/translation within the public health context is lacking.

- *Health literacy:* There is a growing expectation for the public to become more informed about managing, sustaining and improving their health. Public health professionals will play an increasingly larger role in assisting the public to understand their health issues and how to manage them (self-management).

- *Advocacy:* Training in advocacy is required at all levels of the organization from front line practitioners to executive leadership. Different skills/ training is needed to advocate effectively at an individual level, at a systems level and within a government/ Health Authority context.

- *The social determinants of health*: Although public health education includes discussion of the importance and implications of the social determinants of health, what is lacking is training on how to apply the social determinants of health within a public health context.

- *Inter-professional collaboration*: More opportunities are required for public health practitioners to receive training in inter-professional collaboration and to gain experience working in teams with other public health professionals and with diverse professionals both within and external to the health system.

- *Health assessment and disease surveillance:* The basics of health assessment and disease surveillance are required for every public health discipline. In addition, more specialized education and training programs are required that incorporate not only the quantitative skills but the qualitative or 'softer' skill sets that facilitate community involvement in population health planning such as knowledge translation, community engagement and systems thinking .

- *Leadership:* Stakeholders identified the importance of leadership training that enables public health professionals to strategically align decisions and integrate priorities with vision, values and evidence and to be able to demonstrate system/critical thinking. More specifically, stakeholders indicated that leaders in public health should be knowledgeable in public health sciences, and would benefit from training in the following areas: equity lens/social justice; values/ethics; historical and cultural awareness; emotional and political intelligence; partnership and coalition building; community capacity -building; knowledge transfer and advocacy; public health law; health economics; change and societal management; technology and organizational leadership. (These are discussed in more detail on pages 8 and 9.)

- *Mentorship:* Stakeholders identified the importance of a structured mentorship support system that facilitates the application of learning to practice.

- *Application of the Population and Equity Lens:* Stakeholders identified the need for specific training to facilitate the application of the population and equity lens to the delivery of the core public health programs. This includes for example:

- *Diversity and Culture Competency Training* - Stakeholders identified the need for ongoing training to enable the appropriate application of the population and equity lenses to diverse cultural groups, in particular new immigrants and refuges.

- *Aboriginal Health Training* – Stakeholders identified the need for ongoing training to enable the application of an Aboriginal Lens across all the public health core functions. This includes but is not limited to training related to:
  - Knowledge, understanding of and sensitivity to the Aboriginal culture, its complex socio-political and historical contexts, jurisdictional issues, concepts of cultural safety and cultural competency.
  - Communication and relational skills within an Aboriginal context.
  - Advocacy and community engagement skills that build on the capacity and assets within the Aboriginal community.
  - Understanding and being able to apply the principle of Ownership, Control, Access and Possession (OCAP) to public health practice.

B. Academic Programs

Stakeholders identified the need to consider the following:

- **Environmental health education programs** in BC need to reflect the increasing complexity of the current and future requirement in the workplace. A need has been identified for an enhanced basic undergraduate program with an expanded practicum to better equip individuals entering the field. This should include, for example, more emphasis on core competencies such as: advocacy, communication critical thinking, community capacity-building and specialized skills in environmental assessment and analysis, risk factor surveillance, epidemiology and toxicology. A need has also been identified for specialized (post graduate) education for environmental health officers.

- **Nutrition education** – It is important that there be post-graduate opportunities for public health nutrition education in BC.

- **Practicum programs** - Stakeholders (both educators and practitioners) expressed concern about the inadequacy of opportunities and resources to support under-graduate and graduate practicums throughout the public health sector. Refer to the work done by the Practice Education Committee of the BC Academic Health Council: Advancing Practice Education in British Columbia – Strategic Plan – March, 2008.

6.0 Educational Institution Responses

Although Phase II will be focusing on the education and training responses, it was agreed that the consultants would gather initial information in Phase I regarding current and future educational plans and strategies in the province that focus on addressing the core public health competencies.

An email was sent from the Academic Health Council to all BC Educational Institutions introducing this project with limited feedback being received. As part of Phase I, it was

agreed that the consultants would follow-up with a select number of key educational institutions and programs to determine if (and how) they have addressed the core competencies in public health and what future plans they have for education in the public health area. It is recognized that there are many other educational institutions and organizations offering relevant programs.

Preliminary discussions were held with the Deans and Directors of Health Sciences and the Deans and Directors of Continuing Education from across BC Educational institutions. Key changes are underway in the public health education curriculum and the Deans and Directors indicated a desire to share information and be involved in early discussions that would inform the changes that are planned or under way. It was recognized that there is a need for a formalized structure, process or forum to enable ongoing networking, sharing of information, and collaborative decision-making.

Information was gathered from a number of public health educational initiatives at the selected institutions - UBC, SFU, UVIC, UNBC and BCIT – and this is summarized below:

University of British Columbia is implementing a new Masters of Public Health and has reviewed the National competencies for Public Health in their process. New courses include:
-Practicum
-Surveillance and Monitoring in Public Health
-Core Biological Concepts of Public Health Practice
-Issues and Concepts in Public Health
-Leadership in Public Health
-Applications of Ethical Theories in the Practice of Public Health
-Genetic Epidemiology
-Mathematical Modeling of Communicable Diseases
-Qualitative Methods in Health Research Design
-Social Determinants of Health
-Rural and Remote Health
-Aboriginal People and Public Health: Ethic, Policy and Practice
-Perinatal Epidemiology
-Epidemiology of Aging and Chronic Diseases

Simon Fraser University is in the process of developing a new Masters of Public Health Program. The mission of the MPH degree program at SFU is *"to equip the public health leaders of the future with the knowledge and skills required to improve the overall health and well-being of the population; to prevent diseases, injuries or disabilities that shorten life or impair health, well-being and quality of life; and to reduce inequalities in health between different groups and communities at local and global levels.* SFU has been reviewing both the Core Competencies for Public Health in Canada: Release 1.0 and the public health competencies developed by the American Society of Public Health (ASPH) to define a set of core competencies. They intend to review these competencies against their core curriculum for public health. SFU is also interested in developing a Diploma program in Public Health for continuing education.

University of Victoria is in the process of setting up a new school of Social Policy and Health Studies. They are considering a number of undergraduate programs in health studies in three main streams: Critical Health and Illness Studies; Health Services Administration and Indigenous Health. They are also considering developing a Masters of Science in Public Health with three main focuses: Health Promotion (Community Development); Public Health Informatics and Indigenous Health. UVic is committed to make this program relevant and is very interested in the work of PHABC project on core competencies and would like to engage in further dialogue.

University of Northern British Columbia is reviewing its undergraduate certificate program in Aboriginal Health and its Graduate Diploma Program in Aboriginal Health against the National Core Competencies and has indicated willingness to dialogue with this project.

British Columbia Institute of Technology is offering a range of technical public health related programs. It offers a baccalaureate nursing program. BCIT has forwarded a detailed analysis of the core and technical competencies offered by the nursing program indicating that this program addresses most of the national public health core competencies.

BCIT also offers a two year program in Environmental Health with a 12 week practicum. BCIT has forwarded a detailed analysis of the core and technical competencies offered by the Environmental program indicating that while many of the national core competencies are addressed, there are a number of gaps related to implementing the BC Framework for Core Function in Public Health and these include: areas covered but not in depth, e.g., health promotion, emergency preparedness, conflict management (*note*: these are covered at a entry-to-practice level but could be expanded at a post baccalaureate level); and areas not covered e.g., Food Security and community capacity-building**).**

7.0 Recommended Next Steps

The identification and definition of the core competencies as reflected in this report is an iterative, progressive and ongoing process that would benefit from a broader, more comprehensive dialogue.

Phase 1 is the first step in a larger ongoing process of collaboration among public health practitioners, administrators and educators to ensure the public health workforce in BC has a diverse mix of people who are equipped with appropriate skills and competencies for the effective and efficient delivery of public health in BC.

The following twelve recommendations (not in order of priority) result from the findings of Phase 1 and set the stage for the Phase 2 work plan.

1. **Definition of Competencies**
   Undertake further discussions within and between Health Authorities and the Ministry of Health to validate the identified competencies, and to identify competencies required for programs where model core program papers have not been completed to date.

2. **Competency (proficiency) levels**
   Establish a process to identify (as appropriate) competency (proficiency) levels required by front line staff, middle managers and at an advanced or expert level.

3. **Self Assessment**
   Facilitate the development of self assessment tools to enable Regional Health Authorities, PHSA and the Ministry of Health to determine the current competencies of its public health workforce.

4. **Competency Mix**
   Facilitate the development of process(es) to determine the mix of competencies required in each health authority, PHSA and at the Ministry level to support the implementation of the core functions in public health.

   Determine best ways to recognize and optimize available competencies within the workforce.

5. **Leadership**
   Facilitate the development of a values/ethical framework for public health leaders in BC in order to establish a transparent foundation for decision-making and to enable leaders to '*do the right things'*.

   It is recommended that there be training for leadership in public health in BC and that this training include the following:
   - public health sciences
   - equity lens/social justice
   - values/ethics
   - historical and cultural awareness
   - emotional intelligence
   - political intelligence
   - visioning and strategic planning
   - partnership and coalition building
   - community capacity-building
   - knowledge transfer and advocacy
   - public health law
   - health economics
   - change and societal management
   - technology

6. **Inter-professional collaboration**
   Consider, in collaboration with the College of Health Disciplines, the development of an addendum to the BC Competency Framework for Inter-professional Collaboration that identifies the unique features of inter-professional collaboration required within the public health context.

7. **Public Health Strategies**
   Engage in further dialogue within and between Health Authorities and the Ministry of Health about the intent and applicability of the four public health strategies across the

core public health programs to inform the definition of competencies required to implement the BC Framework for Core Functions in Public Health.

8. **Discipline Specific Competencies**
   Ensure that the discipline specific competency initiatives at the national level are integrated with the core competency work around the BC Framework for Core Functions in Public Health to minimize confusion and clarify the role expectations and training needs of public health practitioners.

9. **System Capacity and Support**
   Promote the development of the public health infrastructure required to support implementation of the BC Framework for Core Function for Public Health, that includes: ensuring expertise in health assessment and disease surveillance, policy development and planning and community engagement; providing required training, education and mentoring support; creating an environment that has supportive attitudes, values, principles and ethical framework that fosters safety, cultural sensitivity and flexibility to support advocacy and decision-making; and most significantly ensuring appropriate leadership.

10. **Public Health Agency of Canada-Related Initiatives**
    Link, where relevant, the future work on core competencies in public health in BC with the initiatives being supported by the Public Health Agency of Canada.

11. **Educational/Training Needs and Gaps**
    Determine how to address the key education/training needs and gaps that have been identified in Phase 1, and how to develop the best collaborative response to these needs and gaps.

12. **Public Health Collaborative Network**
    Determine the best way to develop an ongoing structure or process that will bring together public health practitioners/ leaders, administrators and educators in a network, table or forum on a regular basis.

    This network would facilitate workforce development and be able to identify education/training needs and gaps in a timely manner, collaborate on the most appropriate educational strategies, minimize duplication, build consensus and maximize an overall systems response.

    It is suggested that successful collaborative models (e.g. between government and industry) be assessed to determine their value and applicability to establishing a sustainable model for public health.

    Key stakeholders, such as those represented on this project's Advisory Committee (Ministry of Health, Regional Health Authorities, PHSA, PHABC, PHAC, BC Academic Health Council, Education Institutions, Researchers, Public Health Disciplines) be involved in determining the most appropriate model, organizations to be involved, and infrastructure required to support and sustain an effective public health collaborative network.

APPENDIX 1

Public Health Association of British Columbia

Core Competencies Advisory Committee
Membership List
As of October 1, 2008

Name	Position
Ted Bruce Chair	President, Public Health Association of BC Executive Director, Population Health Office of the Medical Health Officer Vancouver Coastal Health
Michael Barnes	Executive Director Public Health Association of BC
Steve Corber	Program Director Public Health Practice Simon Fraser University
George Eisler	CEO BC Academic Health Council
Trevor Hancock Alternate 1 Lorna Storbakken Alternate 2 Cheryl Martin	Public Health Consultant Population Health & Wellness BC Ministry of Health
Patti Janssen	Masters of Public Health Program University of BC
Pamela Kheong	Coordinator, Food Security Program Fraser Health Community Nutritionists Council

Name	Position
Domenic Losito	Regional Director, Health Protection, Vancouver Coastal Health Chair, Regional Directors of Health Protection, Provincial Council Chair, Advisory Committee, Environmental Health, BCIT
Kathy McDonald	Regional Director Preventive Public Health Northern Health
Marjorie MacDonald	Associate Professor, School of Nursing University of Victoria
Karen MacDougall	Partnership and Evaluation Consultant Skills Enhancement for Public Health/ Amelioration des competences en sante publique Public Health Agency of Canada/ Agence de la sante publique du Canada
John S. Millar	Executive Director Population Health Surveillance and Disease Control Planning Provincial Health Services Authority
Shannon Turner	Past President, Public Health Association of BC
Lorraine Woolsey	Program Head Environmental Health BC Institute of Technology
Katherine Whitworth	Office Manager Public Health Association of BC

Consultants

Sue Ross	Susan E. Ross & Associates
Zena Simces	Zena Simces & Associates

Public Health Association of British Columbia

Core Competencies Steering Committee Membership List As of April, 2008

Name	Position
Ted Bruce Chair	President, Public Health Association of BC Executive Director, Population Health Office of the Medical Health Officer Vancouver Coastal Health
Michael Barnes	Executive Director Public Health Association of BC
George Eisler	CEO BC Academic Health Council
Trevor Hancock Alternate 1 Lorna Storbakken Alternate 2 Cheryl Martin	Public Health Consultant Population Health & Wellness BC Ministry of Health
Shannon Turner	Past President, Public Health Association of BC

APPENDIX 2
Core Competencies for Public Health in Canada: Release 1.0

Core Competencies for Public Health
1.0 Core Public Health Sciences
1.1 Demonstrate knowledge about the following concepts: of health status of populations, inequalities in health, the determinants of health and illness, strategies for health promotion, disease and injury prevention and health protections, as well as the factors that influence the delivery and use of health services.
1.2 Demonstrate knowledge about the history, structure, and interaction of public health and health care at local, provincial/territorial, national and international levels.
1.3 Apply the public health sciences to practice.
1.4 Use evidence and research to inform health policies and practices.
1.5 Demonstrate the ability to pursue lifelong learning opportunities in the field of public health.
2.0 Assessment and Analysis
2.1 Recognize that a health concern or issue exists.
2.2 Identify relevant and appropriate sources of information, including community assets and resources.
2.3 Collect, sore, retrieve and use accurate and appropriate information on public health issues.
2.4 Analyze information to determine appropriate implications, uses, gaps and limitations.
2.5 Determine the meaning of information, considering the current ethical, political, scientific, socio-cultural and economic contexts.
2.6 Recommend specific actions based on the analysis of information.
3.0 Policy and Program Planning, implementation and Evaluation
3.1 Describe selected policy and program options to address a specific public health issue.
3.2 Describe the implications of each option, especially as they apply to the determinants of health and recommend or decide on a course of action.
3.3 Develop a plan to implement a course of action taking into account relevant evidence, legislation, emergency planning procedures, regulations and policies.
3.4 Implement a policy or program and /or take appropriate actions to address a specific health issue.
3.5 Demonstrate ability to implement effective practice guidelines.
3.6 Evaluate an action, policy or program.
3.7 Demonstrate an ability to set and follow priorities, and to maximize outcomes

based on available resources.
3.8 Demonstrate the ability to fulfill functional roles in response to a public health emergency affecting public health including outbreaks and emergencies
4.0 Partnership, Collaboration and Advocacy
4.1 Identify and collaborated with partners to address public health issues.
4.2 Use skills such as team building, negotiation, conflict management and group facilitation to build partnerships.
4.3 Mediate between differing interests in the pursuit of health and well-being, and facilitate the allocation of resources.
4.4 Advocate for healthy public policies and services that promote and protect the health and well-being of individuals and communities.
5.0 Diversity and Inclusiveness
5.1 Recognize how the determinants of health (biological, social, cultural, economic and physical) influence the health and well-being of specific population groups.
5.2 Address population diversity when planning, implementing, adapting and evaluating public health programs and policies.
5.3 Apply culturally-relevant and appropriate approaches with people from diverse cultural, socio-economic and educational backgrounds, and persons of all ages, genders, health status, sexual orientations and abilities.
6.0 Communication
6.1 Communicate effectively with individuals, families, groups, communities and colleagues.
6.2 Interpret information for professional, non-professional and community audiences.
6.3 Mobilize individuals and communities by using appropriate media, community resources and social marketing techniques.
6.4 Use current technology to communicate effectively.
7.0 Leadership
7.1 Describe the mission and priorities of the public health organizations where one works, and apply them in practice.
7.2 Contribute to developing key values and a shared vision in planning and implementing public health programs and policies in the community.
7.3 Utilize public health ethics to manage self, others, information and resources.
7.4 Contribute to team and organizational learning in order to advance public health goals.
7.5 Contribute to maintaining organizational performance standards.
7.6 Demonstrate ability to build community capacity bay sharing knowledge, tools, expertise and experience.