

2014

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VERSION 1.1**

This document applies to those who begin training on or after July 1, 2014.

DEFINITION

Public Health and Preventive Medicine is the medical specialty primarily concerned with the health of populations. The discipline's focus is disease and injury prevention and control, which is achieved through health protection and health promotion activities. A Public Health and Preventive Medicine specialist monitors and assesses the health needs of a population and develops, implements, and evaluates strategies for improving health and well-being through interdisciplinary and intersectoral partnerships.

Building on foundational competencies in clinical medicine and the determinants of health, the Public Health and Preventive Medicine specialist demonstrates competencies in public health sciences, including but not limited to epidemiology, biostatistics, and surveillance, planning, implementation and evaluation of programs and policies, leadership, collaboration, advocacy, and communication. These competencies are applied to a broad range of acute and chronic health issues affecting a population, including those that may be related to environmental exposures.

The Public Health and Preventive Medicine specialist may pursue and engage in a number of different types of careers in a variety of settings including but not limited to:

- a municipal, regional, provincial, or federal government
- an international inter-governmental organization
- a non-profit or private sector health or social services organization
- a community-oriented clinical practice with an emphasis on health promotion, disease prevention, and primary health care
- in an academic environment as a researcher, scholar, or educator

Within these diverse settings, a Public Health and Preventive Medicine specialist may be a consultant, advisor, medical health officer, executive, manager, researcher, scholar, or educator.

GOALS

Public Health and Preventive Medicine residents must demonstrate a comprehensive knowledge of the science and art of Public Health and Preventive Medicine, and the skills to apply this knowledge to a broad range of population health issues in the socioeconomic, political, and environmental contexts in which they occur. Residents must demonstrate the knowledge, skills, and attitudes related to assessing the determinants of health, including but not limited to income, environment, gender, education, social support systems, health behaviours, and access to health care, of the populations with which they work. Further, residents must demonstrate competence in incorporating these determinants of health into research methodology, data presentation and analyses as well as in strategies that will improve the health of these populations.

Upon completion of training, a resident is expected to be a competent specialist in Public Health and Preventive Medicine capable of assuming a public health leadership and management role in a health-related organization, including as a consultant in the specialty. The resident must demonstrate a working knowledge of the theoretical basis of the specialty, including its foundations in the clinical sciences, public health sciences, and humanities.

Residents must demonstrate the requisite knowledge, skills, and attitudes to effectively provide community-focused care to diverse populations. In all aspects of specialist practice, the resident must be able to address issues relating to the determinants of health in a professional, ethical manner. In addition, residents are encouraged to have developed a higher level of expertise in one of the core fields, including but not limited to communicable disease, environmental health, chronic disease, and to acquire competency in an area of practice relevant to their own professional and personal development objectives, including but not limited to education; global health; leadership, management and administration; and occupational health.

PUBLIC HEALTH AND PREVENTIVE MEDICINE COMPETENCIES

At the completion of training, the resident will have acquired the following competencies and will function effectively as a:

Medical Expert

Definition:

As *Medical Experts*, Public Health and Preventive Medicine specialists integrate all of the CanMEDS Roles, applying medical knowledge, clinical and public health skills, and professional attitudes in their provision of care at the individual, family, group, organization, community, and population levels. *Medical Expert* is the central physician role in the CanMEDS framework.

Key and Enabling Competencies: Public Health and Preventive Medicine Specialists are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical care at the individual, family, group, organization, community and population levels

- 1.1. Perform a consultation effectively, including the presentation of well-documented assessments and recommendations in written and/or oral form, in response to a request from a variety of sources
 - 1.1.1. Clarify the nature of the request and establish, negotiating where required, the desired deliverables when called upon for advice
 - 1.1.2. Collect and interpret information efficiently and appropriate to the request
 - 1.1.3. Formulate clear and realistic recommendations
 - 1.1.4. Communicate the assessment and recommendations in a manner (oral, written or both) that is most suitable to the given circumstances
 - 1.1.5. Assess the implementation or impact of recommendations
- 1.2. Demonstrate use of all CanMEDS competencies relevant to Public Health and Preventive Medicine
- 1.3. Identify and appropriately respond to relevant ethical issues arising in the care of individuals, families, groups, organizations, communities and populations
- 1.4. Demonstrate the ability to prioritize professional duties effectively and appropriately when faced with multiple issues and problems
- 1.5. Demonstrate compassionate care at the individual, family, group, organization, community and population levels
- 1.6. Recognize and respond to the ethical dimensions in public health and relevant clinical decision-making
- 1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony and advising governments

2. Establish and maintain medical knowledge, skills and behaviour appropriate to Public Health and Preventive Medicine

- 2.1. Apply knowledge of the fundamental biomedical, clinical, and public health sciences relevant to Public Health and Preventive Medicine practice
 - 2.1.1. Describe the natural history, epidemiology, risk factors and health burden of the major communicable and non-communicable diseases, including injury, of public health significance
 - 2.1.2. Apply knowledge of the principles of:
 - 2.1.2.1. Disease and injury prevention and control
 - 2.1.2.2. Health and disease surveillance
 - 2.1.2.3. Health protection

OBJECTIVES OF TRAINING IN PUBLIC HEALTH AND PREVENTIVE MEDICINE (2014)

- 2.1.2.4. Health promotion
- 2.1.2.5. Population health assessment

- 2.1.3. Describe the principles of infection control and their application to effective and appropriate procedures and policies to reduce risk
- 2.1.4. Describe the general principles of emergency planning and incident management
- 2.1.5. Discuss knowledge translation and social marketing strategies as relevant to the promotion of health
- 2.1.6. Describe the analytic tests and methods used to explain differences in health and health related behaviours including but not limited to:
 - 2.1.6.1. Analysis of variance (ANOVA)
 - 2.1.6.2. Chi-square
 - 2.1.6.3. Forecasting
 - 2.1.6.4. Geospatial analysis
 - 2.1.6.5. Kappa correlation
 - 2.1.6.6. Life tables
 - 2.1.6.7. Logistic regression
 - 2.1.6.8. Modeling
 - 2.1.6.9. Survival analysis
 - 2.1.6.10. T-test

- 2.1.7. Describe the methods used to explore knowledge, attitudes, beliefs and behaviours and public health interventions including but not limited to:
 - 2.1.7.1. Delphi process
 - 2.1.7.2. Focus group
 - 2.1.7.3. Key informant surveys
 - 2.1.7.4. Nominal group
 - 2.1.7.5. Participant observation
 - 2.1.7.6. Social network analysis

- 2.2. Describe the CanMEDS framework of competencies relevant to Public Health and Preventive Medicine
- 2.3. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up-to-date, enhance areas of professional competence, and maintain specialty certification
- 2.4. Integrate the available best evidence and best practices to enhance the quality of care and patient and program safety in Public Health and Preventive Medicine

3. Perform a complete and appropriate assessment at the individual, family, group, organization, community, and population levels

- 3.1. Perform a health needs assessment for a defined population for a specific purpose using appropriate methods (qualitative, quantitative or both) that are relevant, concise and reflective of context and preferences, describe the results of such an assessment, and make recommendations for action
 - 3.1.1. Analyze population level data in order to assess health status, health inequalities, determinants, and different needs to support prioritization of action
 - 3.1.2. Use and interpret information from a range of sources, including but not limited to, mortality, hospital admission, census, primary care, communicable diseases, cancer registries, reproductive and sexual health data, and health surveys, to support public health activities in an evidence informed, resource-effective and ethical manner
 - 3.1.3. Use a range of methods to assess morbidity and burden of disease within and between populations
- 3.2. Identify and explore health issues effectively, including context, preferences, and values
 - 3.2.1. Define, develop, select and interpret relevant social, demographic, and health indicators from a variety of data sources including but not limited to vital statistics, administrative databases, registries, and surveys
 - 3.2.1.1. Discuss and take into account the limitations in these data sets and their use
 - 3.2.2. Identify and interpret the impact of health behaviours of individuals, groups and populations, particularly with respect to nutrition, physical activity, use of tobacco and other substances, sexuality, risk taking, immunization, and participation in recommended prevention and screening programs
- 3.3. Conduct an assessment that is relevant, concise and reflective of context and preferences for the purposes of Public Health and Preventive Medicine
 - 3.3.1. Organize and analyze data, meta-data, information and knowledge using information technology as appropriate
 - 3.3.2. Appraise the validity and relevance of data and data systems in order to assess their quality and appropriateness for purpose
 - 3.3.3. Use data with consideration of the legal and ethical aspects of data collection, manipulation, retention, and release in order to balance societal benefit with individual privacy
 - 3.3.4. Integrate different types of data, using complex data sets or data from a variety of sources, to draw appropriate conclusions
 - 3.3.5. Discuss and apply guidelines for assessing causality, using Koch's postulates and Bradford-Hill criteria

- 3.4. Select appropriate investigative methods which are evidence informed, resource-effective and ethical
 - 3.4.1. Identify, select and interpret biological risk markers including but not limited to age, sex, race, genetic makeup
 - 3.4.2. Select, discuss and demonstrate an understanding of the socio-economic, political, and environmental factors, relevant to investigate a given context, including but not limited to:
 - 3.4.2.1. Distribution of wealth and power
 - 3.4.2.2. Urbanization
 - 3.4.2.3. Industrialization
 - 3.4.2.4. Social attitudes and values
 - 3.4.2.5. Immigration policies
 - 3.4.3. Select, discuss and demonstrate an understanding of physical environmental factors, including but not limited to:
 - 3.4.3.1. Hazardous emission and spills
 - 3.4.3.2. Noise
 - 3.4.3.3. Air and water pollutants
 - 3.4.3.4. Natural disasters
 - 3.4.3.5. Effects of climate change that are relevant to investigate a given health context (individual, local, regional, provincial, national, global)
 - 3.4.4. Apply and interpret appropriate quantitative methods and analytic tests to explain differences in health and health related behaviours, including but not limited to:
 - 3.4.4.1. Life tables
 - 3.4.4.2. Survival analysis
 - 3.4.4.3. T-test
 - 3.4.4.4. ANOVA (Analysis of Variance)
 - 3.4.4.5. Chi-square
 - 3.4.4.6. Logistic regression
 - 3.4.4.7. Kappa
 - 3.4.4.8. Correlation
 - 3.4.5. Interpret appropriate quantitative methods and analytic tests to explain differences in health and health related behaviours, including but not limited to:
 - 3.4.5.1. Modelling

- 3.4.5.2. Forecasting
 - 3.4.5.3. Geospatial analysis
 - 3.4.6. Apply and interpret qualitative methods to explore knowledge, attitudes, beliefs and behaviours and public health interventions, including but not limited to:
 - 3.4.6.1. Participant observation
 - 3.4.6.2. Key informant surveys
 - 3.4.6.3. Nominal group
 - 3.4.6.4. Focus group
 - 3.4.6.5. Delphi process
 - 3.4.6.6. Social network analysis and applicable approaches
 - 3.5. Demonstrate effective problem-solving and judgment in addressing health problems, including interpreting available data and integrating information to develop and implement management plans
 - 3.5.1. Perform an assessment of the health impact of a policy or project for a defined population and make recommendations
 - 3.5.2. Use evidence from health and non-health sources, including qualitative and quantitative studies, to answer a defined question, taking into account relative strengths and weaknesses of evidence used
 - 3.5.3. Use an appropriate framework to critically appraise evidence, including but not limited to ecological, qualitative, etiologic, interventional, and economic studies
 - 3.5.4. Use an economic analysis including but not limited to cost-benefit, cost-effectiveness and cost-utility in the assessment of a health issue and proposed intervention options
 - 3.5.5. Formulate a balanced, evidence-informed recommendation explaining key public health concepts using appropriate reasoning, judgement and analytic skills for a public health setting
 - 3.5.6. Ascertain, in a timely fashion, key public health information from a range of documents, including but not limited to briefings, policies, and news reports, and use it appropriately and in relation to wider public health knowledge
 - 3.5.7. Incorporate relevant legal and ethical frameworks into assessment of evidence
 - 4. Design and effectively implement and evaluate primary, secondary, and tertiary interventions relevant to Public Health and Preventive Medicine**
 - 4.1. Plan and design an intervention management plan in collaboration with individuals, families, groups, organizations, communities, or populations
 - 4.1.1. Debate the relative importance of individual and societal decisions for health
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- and ethical issues related to public health practice
- 4.1.2. Discuss the theories of community development
- 4.1.3. Discuss the strengths and weaknesses of health promotion interventions directed at populations including but not limited to social marketing, healthy public policy and harm reduction
- 4.1.4. Communicate the need for health promotion strategies in a defined community, presenting a case for action/inaction in response to the presenting health problem
- 4.1.5. Develop a plan to address a health need in a defined community making clear the theoretical base for a proposal and developing a business case for an activity with consideration to the strengths and weaknesses of health promotion interventions
- 4.1.6. Apply the theoretical models of behaviour change to the general population, high risk and hard to reach groups
 - 4.1.6.1. Identify and demonstrate an understanding of factors that influence the potential for change in a given context and population
- 4.1.7. Apply knowledge translation and social marketing to encourage the application of best practices
- 4.2. Demonstrate effective, appropriate, and timely performance of interventions relevant to Public Health and Preventive Medicine
 - 4.2.1. Advise on and co-ordinate public health action in the light of existing local, provincial, and national policies and guidelines
 - 4.2.2. Describe the general principles of emergency planning and incident management
 - 4.2.3. Contribute to the development and utilization of a community, provincial, or federal emergency preparedness plan, including but not limited to measures to prevent and manage exposure to biological and chemical agents, and radiation-emitting agents and devices
 - 4.2.4. Lead or take a major role in the investigation and management of a significant incident, including but not limited to a communicable disease outbreak, non-infectious disease incident, or a look back
 - 4.2.5. Contribute to the formulation of healthy public policy or legislation at local, provincial or federal level
 - 4.2.6. Lead or make a significant contribution to a major public health campaign demonstrating an understanding of appropriate theory and applications of social marketing and mass communication
 - 4.2.7. Implement and evaluate a health promotion intervention, including assessment of outcomes, methods, and costs; identifying strengths and limitations of intervention, communicating findings and making recommendations
 - 4.2.8. Develop, implement and evaluate health protection programs applying

knowledge of common environmental hazards, including but not limited to water and sewage treatment and quality control of water, soil, air and food

- 4.3. Ensure appropriate informed consent is obtained for therapeutic and preventive interventions

5. Demonstrate proficient and appropriate use of procedural skills for diagnosis and intervention

- 5.1. Demonstrate effective, appropriate, and timely performance of diagnostic procedures relevant to Public Health and Preventive Medicine
 - 5.1.1. Identify known or potential health effects associated with a particular hazard relevant to health protection in a population, drawing on expertise as appropriate
 - 5.1.1.1. Characterize the hazard identified, both quantitatively and qualitatively
 - 5.1.1.2. Assess the degree of risk associated with exposure to a hazard found in a population
 - 5.1.2. Integrate hazard identification, characterization, and assessment into an estimate of the adverse events likely to occur in a population, based on a hazard found in that population
 - 5.1.3. Design, implement and evaluate surveillance systems that inform public health programs
 - 5.1.4. Apply the principles of infectious disease epidemiology to the investigation and management of communicable disease outbreaks in individuals, families, groups, organizations, communities and populations
- 5.2. Ensure appropriate informed consent is obtained for interventions consistent with the public health legal and regulatory framework
- 5.3. Document and disseminate information related to interventions performed and their outcomes
- 5.4. Ensure adequate followup and evaluation after interventions

6. Seek appropriate consultation from other health professionals, recognizing the limits of one's own expertise

- 6.1. Demonstrate insight into one's own limits of expertise
- 6.2. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal practice
- 6.3. Arrange appropriate followup care and services for individuals, families, groups, communities, or populations

7. Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care/public health services quality and patient/population safety

- 7.1. Recognize and respond to harm from health care/public health service delivery, including patient/population safety incidents
- 7.2. Adopt strategies that promote patient/population safety and address human and system factors

Communicator

Definition:

As *Communicators*, Public Health and Preventive Medicine specialists facilitate effective relationships with individuals, families, groups, organizations, communities, and populations.

Key and Enabling Competencies: Public Health and Preventive Medicine Specialists are able to...

1. Develop rapport, trust, and ethical relationships with individuals, families, groups, organizations, communities, and populations

- 1.1. Recognize that being a good communicator is a core skill for physicians, and that effective communication can foster improved outcomes
- 1.2. Establish constructive relationships with individuals, families, groups, organizations, communities, and populations that are characterized by understanding, trust, respect, honesty, and empathy
- 1.3. Respect confidentiality, privacy, and autonomy
- 1.4. Listen effectively
- 1.5. Be aware of and responsive to nonverbal cues
- 1.6. Facilitate all encounters effectively

2. Elicit and synthesize accurately relevant information and perspectives of individuals, families, groups, organizations, communities, and populations, including colleagues and other professionals

- 2.1. Gather information about a health situation, including the beliefs, concerns, expectations, and experiences of all those involved
- 2.2. Seek out and synthesize relevant information from other sources and stakeholders

- 3. Convey relevant information and explanations accurately to individuals, families, groups, organizations, communities, and populations, including colleagues and other professionals**
 - 3.1. Deliver information in a humane manner and in such a way that it is understandable, and encourages discussion and participation in decision-making
 - 3.2. Disclose harmful patient and population safety incidents to patients, families groups, organizations, communities, and populations accurately and appropriately

 - 4. Develop a common understanding on issues, problems, and plans with individuals, families, groups, organizations, communities, and populations, including colleagues and other professionals, to develop a shared plan**
 - 4.1. Identify and explore problems to be addressed, including stakeholders' context, responses, concerns, and preferences
 - 4.2. Respect diversity and differences, including but not limited to the impact of gender, religion and cultural beliefs on decision-making
 - 4.3. Encourage discussion, questions, and interaction in the encounter
 - 4.4. Assist all stakeholders to identify, access and make use of information and communication technologies
 - 4.5. Engage all stakeholders in shared decision-making to develop a plan
 - 4.6. Address challenging communication issues effectively, such as obtaining informed consent, delivering bad news, and addressing anger, confusion, misunderstanding, and conflicting priorities

 - 5. Convey effective oral, written, and electronic information**
 - 5.1. Maintain clear, concise, accurate, and appropriate records of encounters and plans
 - 5.2. Present reports of encounters and plans
 - 5.3. Convey medical information appropriately to ensure safe transfer of care
 - 5.4. Present health information effectively to the public or media about a health issue
 - 5.4.1. Present epidemiological data and risk information to affected individuals, the public, other professionals, and the media using a variety of modalities
 - 5.4.2. Apply risk communication theory, and communication styles
 - 5.4.3. Develop and implement a communication plan about a public health issue, including a media component
 - 5.4.4. Respond effectively to public and media enquiries about specific health issues using various media channels, as indicated
 - 5.4.5. Communicate effectively using social media and digital technology
 - 5.4.6. Share information in a manner that respects individual privacy and confidentiality
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- 5.4.7. Evaluate the effectiveness of different types of media, including but not limited to print, broadcast and web-based, for reaching the intended audience

Collaborator

Definition:

As *Collaborators*, Public Health and Preventive Medicine specialists work effectively with others to achieve optimal health outcomes.

Key and Enabling Competencies: Public Health and Preventive Medicine Specialists are able to...

- 1. Participate effectively and appropriately in an interprofessional and interdisciplinary team and with other partners, including but not limited to community partners and populations served as well as sectors outside the health field**
 - 1.1. Describe the roles and responsibilities of the Public Health and Preventive Medicine specialist to other professionals, especially in circumstances involving legislative authority or emergency situations
 - 1.2. Describe the roles and responsibilities of other professionals within the health team
 - 1.2.1. Identify and describe the role, expected contribution and limitations of all members of an interdisciplinary team assembled to address a health issue, educational task or research question
 - 1.2.2. Identify individuals, groups, and other service providers who can contribute meaningfully to the definition and solution of an individual, group, or community level public health issue, and education task or research question, including but not limited to social services agencies, mental health organizations, the not-for-profit sector, and volunteers
 - 1.3. Recognize and respect the diversity of roles, responsibilities, competencies and, as applicable, authority of other professionals in relation to their own
 - 1.3.1. Describe the organization, structure, function, and effectiveness of community health and social services in at least one province, including but not limited to maternal and child health; dental health; child abuse; income maintenance, including the not-for-profit sector; volunteers and; other service agencies
 - 1.4. Work with others to assess, plan, provide, and integrate services for individuals, families, groups, organizations, communities, and populations

- 1.5. Work with others to assess, plan, provide, and review other tasks, such as research, education, program review, or administrative responsibilities
 - 1.5.1. Employ a variety of means to engage and enable the participation of identified key stakeholders
 - 1.5.2. Articulate the goals and objectives of a given collaborative process clearly
 - 1.5.3. Foster collaboration among other individuals and groups
- 1.6. Participate effectively in interprofessional and interdisciplinary interactions, including but not limited to team meetings
- 1.7. Enter into relationships with other professions for the provision of quality care or health programs
- 1.8. Demonstrate effective team participation, including but not limited to team leadership, utilizing the principles of team dynamics, including but not limited to the dyad model of physician-manager integration
- 1.9. Respect team ethics, including confidentiality, resource allocation, and professionalism
- 1.10. Demonstrate leadership in a health team, where appropriate

2. Work with health professionals and other stakeholders effectively, including community partners and population served, to prevent, negotiate, and resolve interprofessional and other conflicts

- 2.1. Demonstrate a respectful attitude towards other colleagues and members of an interprofessional team
- 2.2. Work with other professionals to prevent conflicts
- 2.3. Employ collaborative negotiation to resolve conflicts
- 2.4. Respect differences and address misunderstandings and limits of scope of practice in other professions
- 2.5. Recognize one's own differences, misunderstandings, and limitations that may contribute to interprofessional and interdisciplinary tension
- 2.6. Reflect on interprofessional and interdisciplinary team function
- 2.7. Demonstrate the ability to work on initiatives with non health sector organizations and staff/volunteers
 - 2.7.1. Enter into interdependent relationships with stakeholders/experts in other sectors for the assessment and application of responses to issues impacting the determinants of health or other services outside of health care including but not limited to school boards, water services, municipal planners, and ministries or other government departments outside of health
 - 2.7.2. Demonstrate an ability to meaningfully engage with the public/clients/community members in the identification of issues and solutions that impact them

3. Handover the care of a patient or public health activity to another health professional to facilitate continuity of safe patient/population care

- 3.1. Determine when care/responsibility should be transferred to another physician or professional
- 3.2. Demonstrate safe handover of care/responsibility, both verbal and written, during a patient transition to a different health care professional, setting, or stage of care, and during transition in coverage for public health organizations

Manager

Definition:

As *Managers*, Public Health and Preventive Medicine specialists are integral participants in organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of health care and other systems.

Unique among the medical specialties, upon certification Public Health and Preventive Medicine specialists are expected to be competent to function in administration, management and leadership roles within public health service delivery organizations. These competencies are at the core of the Public Health and Preventive Medicine specialty practice.

Key and Enabling Competencies: Public Health and Preventive Medicine Specialists are able to...

1. Participate in activities that contribute to the effectiveness of their health care organizations and systems

- 1.1. Work collaboratively with others in their organizations
- 1.2. Participate in quality improvement initiatives to enhance the quality of care and patient safety in Public Health and Preventive Medicine, integrating the available best evidence and best practices
 - 1.2.1. Design and implement data collection for a defined service question and integrate with other routinely available and relevant data
 - 1.2.2. Assess the evidence for proposed or existing screening programs, using established criteria and the performance of screening tests including but not limited to sensitivity, specificity, predictive value, and number needed to screen
 - 1.2.3. Monitor and appraise the impact of screening and other disease detection and prevention programs
 - 1.2.4. Describe the principles of infection control and their application to effective and appropriate procedures and policies to reduce risk of infection
 - 1.2.5. Develop, implement and critically appraise relevant practice guidelines
 - 1.2.6. Investigate and intervene when a potential health hazard is identified in a clinical setting

- 1.2.7. Manage a project or program including human, financial and material resources
 - 1.2.7.1. Hire, support and guide staff, monitor performance, receive and give constructive feedback
 - 1.2.7.2. Develop and manage a budget including but not limited to alignment of activities and accountabilities with resources, assessment of results against objectives, and flexible budgeting
 - 1.2.7.3. Develop and implement a plan to secure necessary material resources
 - 1.2.7.4. Use information technology effectively in the management of a project or program
- 1.2.8. Implement quality improvement techniques as appropriate to the organization and setting, such as Lean, Plan-Do-Study-Act (PDSA)/Plan-Do-Check-Act (PDCA), statistical process control, and community balanced scorecard
- 1.3. Contribute to a culture that promotes patient/population safety
- 1.4. Analyze patient/population safety incidents to enhance systems of care and/or public health service delivery
- 1.5. Use health informatics to improve the quality of patient care and optimize patient safety in Public Health and Preventive Medicine
- 1.6. Describe the structure and function of the health care system as it relates to Public Health and Preventive Medicine, including the roles of physicians
 - 1.6.1. Compare and contrast the different models of public health structures in Canada
 - 1.6.2. Discuss the organization of workplace health services in at least one part of Canada
 - 1.6.3. Describe principles of health care financing, including physician remuneration, budgeting and organizational funding

2. Manage their practice and career effectively

- 2.1. Set priorities and manage time to balance professional responsibilities, outside activities, and personal life
- 2.2. Manage a practice, including finances and human resources
- 2.3. Implement processes to ensure personal practice improvement

3. Allocate finite public health resources appropriately and participate in service planning, resource allocation and evaluation at the community, regional or provincial level

- 3.1. Recognize the importance of just allocation of health care resources, balancing effectiveness, efficiency and access with optimal patient care/health services delivery
 - 3.1.1. Allocate finite health resources using evidence informed and ethical concepts
- 3.2. Apply evidence and management processes for cost-appropriate care
 - 3.2.1. Apply a determinants of health analysis to a policy or program question to assess the equity implications of policy or program options

4. Serve in administration and leadership roles

- 4.1. Chair and participate effectively in committees and meetings
- 4.2. Lead or implement change in health systems
 - 4.2.1. Develop a vision, implement a strategic plan, and communicate that effectively to other key stakeholders
 - 4.2.2. Negotiate and influence in a multi-agency arena
- 4.3. Demonstrate critical self-appraisal and reflective practice with regards to administration and leadership roles
 - 4.3.1. Demonstrate insight into one's own leadership style, personality style, and preferences in different circumstances
 - 4.3.2. Discuss and apply different approaches to leadership development
 - 4.3.3. Use effective and appropriate leadership styles in different settings and organizational cultures taking account of the differences between elected and appointed roles
 - 4.3.4. Discuss and use the techniques of conflict management, including negotiation and arbitration

Health Advocate

Definition:

As *Health Advocates*, Public Health and Preventive Medicine specialists responsibly use their expertise and influence to advance the health and well-being of individuals, families, groups, organizations, communities, and populations. Public Health and Preventive Medicine specialists advocate for the health of individuals or groups and need to use judgement in balancing efforts to achieve health for all.

Competencies required to achieve this role include full understanding of tools of population health assessment, community engagement, and working in partnership with a wide range of interested parties. Public Health and Preventive Medicine specialists apply strategies to influence and build healthy public policy, as well as public health policy, and recognize the role of political factors and the political context, to make use of formal and informal systems to influence decision-makers and policy decisions.

Key and Enabling Competencies: Public Health and Preventive Medicine Specialists are able to...

1. Respond to individual, family, community and population health needs and issues

- 1.1. Identify the health needs, concerns, and assets of individuals, families, communities, and populations served
- 1.2. Identify opportunities for advocacy, health promotion and disease prevention with individuals, families, communities and populations served
- 1.3. Demonstrate an appreciation of the possibility of competing interests and implement processes for decision making to resolve competing interests incorporating an ethical approach

2. Identify the determinants of health for the populations that they serve

- 2.1. Recognize situations where advocacy is required and define strategies to effect the desired outcome
- 2.2. Identify vulnerable or marginalized sub-populations within those communities and populations served and respond appropriately
 - 2.2.1. Engage and involve vulnerable or marginalized sub-populations, including but not limited to Indigenous Peoples, new immigrants and refugees, and socio-economically disadvantaged persons and groups, to address health inequities

3. Promote the health of individuals, families, communities, and populations to improve health equity

- 3.1. Describe an approach to addressing a determinant of health of the population they serve, including identifying the roles of public health players
- 3.2. Discuss and analyze health law and common law relevant to public health policy and healthy public policy
- 3.3. Describe how public policy impacts on the health of the populations served
 - 3.3.1. Integrate public health and preventive medicine, and social science evidence into strategies for healthy public policy
 - 3.3.2. Discuss the processes for health impact assessment and analyze the health impact of public policy
 - 3.3.3. Discuss mechanisms of policy development and methods of implementation, including legislation, regulation, and incentives

- 3.3.4. Demonstrate an understanding of how competing values affect policy decision making including but not limited to, liberty of the individual, equality, common good of the community and prosperity
- 3.3.5. Conduct a policy analysis and policy evaluation
- 3.4. Identify points of influence in the health care system and its structure that impact population health
- 3.5. Describe the ethical and professional issues inherent in health advocacy, including altruism, social justice, autonomy, integrity, reciprocity and idealism
- 3.6. Demonstrate an appreciation of the possibility of conflict inherent in their role as a health advocate for a patient or community with that of manager or gatekeeper
 - 3.6.1. Demonstrate an appreciation of the potential for, and implement strategies to address this conflict balancing multiple accountabilities including but not limited to individuals, employers, the public, and within the health profession
- 3.7. Describe the role of the medical profession in advocating collectively for healthy individuals, systems and populations
 - 3.7.1. Discuss strategies for advocating for quality improvement and patient safety from a population health perspective that includes addressing health inequities

Scholar

Definition:

As *Scholars*, Public Health and Preventive Medicine specialists demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of relevant knowledge.

Key and Enabling Competencies: Public Health and Preventive Medicine Specialists are able to...

1. Maintain and enhance professional activities through ongoing learning

- 1.1. Describe the principles of maintenance of competence
- 1.2. Describe the principles and strategies for implementing a personal knowledge management system
- 1.3. Recognize and reflect on learning issues in practice
- 1.4. Continually evaluate one's abilities, knowledge, and skills, and know one's professional limitations, seeking advice, feedback and assistance where appropriate
- 1.5. Pose an appropriate learning question
- 1.6. Access and interpret the relevant evidence to a learning question

- 1.7. Integrate new learning into practice
 - 1.8. Evaluate the impact of any change in practice
 - 1.9. Document the learning process

 - 2. Critically evaluate health and other information and its sources, and apply this appropriately to practice decisions**
 - 2.1. Describe the principles of critical appraisal
 - 2.2. Identify, access and critically appraise data from a variety of sources, including individuals, administrative databases, the Internet and health, epidemiological and social sciences literature
 - 2.3. Integrate critical appraisal conclusions into professional practice

 - 3. Facilitate the learning of individuals, families, students, residents, other health professionals, the public and others, as appropriate**
 - 3.1. Describe principles of learning relevant to medical education
 - 3.2. Identify collaboratively the learning needs and desired learning outcomes of others
 - 3.3. Select effective teaching strategies and content to facilitate others' learning
 - 3.3.1. Adapt educational and training strategies to the needs of the learner(s)
 - 3.4. Deliver effective lectures or presentations
 - 3.5. Assess and reflect on teaching encounters
 - 3.6. Provide effective feedback
 - 3.7. Describe the principles of ethics with respect to teaching

 - 4. Contribute to the development, dissemination, and translation of new knowledge and practices**
 - 4.1. Describe the principles of research and scholarly inquiry
 - 4.1.1. Discuss and apply the principles of quantitative, qualitative, and action research/scholarly inquiry, including but not limited to study question/objective, design, conduct, analysis, interpretation, and reporting
 - 4.1.2. Discuss and apply sampling methods as well as the estimation of appropriate sample sizes, including study power, alpha and beta levels, and a consideration of type I and II error
 - 4.1.3. Calculate and interpret measures of frequency including but not limited to counts, rates, ratios, and, as applicable, their standardization
 - 4.1.4. Calculate and interpret measures of risk including but not limited to relative risk, risk difference, attributable risk, odds ratio, etiologic fraction and preventive fraction
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- 4.2. Describe the principles of research ethics
- 4.3. Pose a scholarly question and participate in the research process
- 4.4. Conduct a systematic search for and review of relevant evidence including but not limited to systematic review, meta-analysis
 - 4.4.1. Recognize potential sources of bias and confounding in research and discuss methods to reduce the impact of these through study design or analysis
 - 4.4.2. Discuss interaction, including but not limited to additive, multiplicative, synergism and antagonism, and effect modification in research and discuss methods for their identification and interpretation
- 4.5. Select and apply appropriate methods to address the question
- 4.6. Disseminate and mobilize the findings of a study appropriately
- 4.7. Complete a scholarly research, quality assurance, or educational project relevant to Public Health and Preventive Medicine that is suitable for peer-reviewed publication or presentation at an academic meeting

Professional

Definition:

As *Professionals*, Public Health and Preventive Medicine specialists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.

Key and Enabling Competencies: Public Health and Preventive Medicine Specialists are able to...

- 1. Demonstrate a commitment to individuals, families, groups, organizations, communities and populations served, their profession, and society through ethical practice**
 - 1.1. Exhibit appropriate professional behaviours in practice, including accountability, honesty, integrity, commitment, compassion, respect, and altruism
 - 1.2. Demonstrate a commitment to delivering the highest quality practice and maintenance of competence
 - 1.3. Recognize and appropriately respond to ethical issues encountered in practice
 - 1.4. Recognize and manage real or perceived conflicts of interest
 - 1.5. Recognize, discuss, and apply the principles and limits of confidentiality, privacy and access to information as defined by professional practice standards and applicable laws
 - 1.6. Maintain appropriate relations with individuals, families, groups, organizations, communities, and populations

- 1.7. Exhibit professional behaviours in the use of technology-enabled communication
- 2. Demonstrate a commitment to individuals, families, groups, organizations, and populations served, profession, and society through participation in profession-led regulation**
 - 2.1. Demonstrate knowledge and an understanding of the professional, legal and ethical codes of practice
 - 2.2. Fulfil the regulatory and legal obligations required of current practice in public health and preventive medicine
 - 2.3. Demonstrate accountability to professional regulatory bodies
 - 2.3.1. Distinguish among the roles of provincial and national licensing bodies, medical associations, and specialty societies
 - 2.4. Recognize and respond appropriately to others' unprofessional behaviours in practice
 - 2.5. Participate in peer review
 - 2.6. Demonstrate a commitment to patient/population safety and quality improvement
- 3. Demonstrate a commitment to physician health and sustainable practice**
 - 3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
 - 3.2. Strive to heighten personal and professional awareness and insight
 - 3.3. Recognize other professionals in need and respond appropriately

This document is to be reviewed by the Specialty Committee in Public Health and Preventive Medicine by December 2019.

REVISED – Specialty Standards Review Committee – April 2014

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