

Environmental Scan 2009: National Collaborating Centre for Methods and Tools

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National Collaborating Centre
for Methods and Tools

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1 Background

The National Collaborating Centre for Methods and Tools (NCCMT) is one of six National Collaborating Centres for Public Health (NCCs) that provide national focal points for key priority areas in public health and contribute to the development of a pan-Canadian public health strategy. The centres were designed to foster linkages among researchers, the public health community and other stakeholders to ensure the efficiency and effectiveness of Canada's public health system. While the other five NCCs focus on public health themes such as Aboriginal health, environmental health, infectious diseases, healthy public policy and social determinants of health, the NCCMT focuses on improving access to and use of evidence-informed methods and tools for people involved in practice, program decision-making, policy-making and research in Canada.

2 Purpose

The NCCMT has undertaken this environmental scan to inform its strategic planning activities for the next five years (2010–2015). An extensive environmental scan conducted in 2006 enabled the NCCMT to set its initial priorities, and the NCCMT has worked to address those priorities. At this point, the NCCMT is interested in refreshing its perspective on the public health environment and expects this environmental scan will highlight and summarize new and emerging developments, pressures and potential opportunities in the broad health care landscape. For an organization to be successful, it must meet the needs of the audience it intends to serve. In this instance, the NCCMT has undertaken to understand the public health community's needs so that it can develop useful methods and tools to meet those needs.

3 Methodology

This environmental scan has been informed by three lines of inquiry:

1. document review
2. key informant interviews
3. online survey of public health practitioners

The NCCMT identified ten key documents for review to discern trends in public health that might guide the centre in its future work. A list of the reviewed documents is included in Appendix A.

An interviewer conducted twenty telephone interviews with participants. The NCCMT sent an introductory e-mail, including a letter of invitation to participate, to thirty prospective informants. The interviewer sent follow-up e-mails to confirm participation and schedule dates and times for interviews. An interview guide was developed to help focus the conversation and obtain the desired information. The interview guide was not offered to informants in advance (unless requested, as in two cases) because of a desire to get spontaneous responses. Informants were sent a listing of the NCCMT's products and services, as well as a copy of the NCCMT's Vision, Mission, Goals and Principles statements and a description of the current target audience. The interviews each took approximately 20–35 minutes. The Interview Guide is included in Appendix B and a profile of Key Informant Respondents is included in Appendix C.

A total of 78 responses were received through the online survey of public health practitioners, included in Appendix D. The response rate was considerably lower than hoped, primarily due to the demands made on public health practitioners by the the H1N1 outbreak. As a result, the survey findings have been used in a more general sense to support or contradict the findings from the key informant interviews, rather than to draw unique conclusions on specific trends.

4 Findings

4.1 Document Review

A number of key themes emerged from the document review:

Knowledge Translation

A review of the documents indicated that knowledge translation remains an important issue for public health.

The literature continues to consider the various aspects of knowledge translation, although the emphasis is moving from discussions of what knowledge translation is to how knowledge can be translated to evidence-informed action. A great deal of health-related research is being produced that is relevant to public health, yet challenges remain in making sense of the research findings and then getting those research findings into the hands of public health practitioners, program managers and policy-makers.

It is commonly accepted that the spread of new knowledge into practice is a very slow and unpredictable process.

Kitson & Bisby, 2008

Drawing on documents prepared for the conference held in Banff in 2008, KT08: Forum for the Future (Gibbons, 2008; Kitson & Bisby, 2008), a number of issues still confront the knowledge translation field. Four main issues emerged from the documentation:

1. Encourage and support knowledge translation—research into practice.

Many organizations are conducting knowledge translation activities with various levels of sophistication. The challenge is getting knowledge into useable formats for the various users of this information. The successful dissemination of knowledge continues to pose a challenge, although progress is being made. Challenges to successful dissemination include: the need to encourage researchers to incorporate the requirements of the end user into their planning process; the need to ensure effective networks are in place to disseminate knowledge into the hands of practitioners; the need to overcome the scepticism in some quarters regarding evidence-informed decision-making; the need to overcome barriers such as workload and current politicized decision-making; the need to create different products for different users; and, the need to develop different dissemination strategies for different contexts.

2. Promote knowledge exchange as the next step in knowledge translation.

Knowledge translation needs to move to knowledge exchange, which conveys a more interactive process than just translation. The concept of engagement is proposed as a more appropriate term for involving researchers, policy makers, practitioners and citizens—with a view that, ultimately, the knowledge produced will need to be applied. Simply put, the exchange of knowledge relies on developing the necessary links, partnerships and/or relationships that will support the flow of information in a timely fashion so the needs of all parties are known and can then be better met. Clearly, to increase the likelihood of the application of knowledge flowing from research, the producers of knowledge need to understand the needs of their audi-

ences, which can be expected to result in more useable knowledge products.

3. Incorporate knowledge translation into processes.

As noted above, planning for knowledge translation can be expected to accelerate the process. If researchers were to receive training or support in the planning phase that would help them consider the possible future use of their research findings, this may result in a more seamless translation process. In addition, incorporating knowledge translation and exchange approaches into the curricula of public health schools would help to infuse knowledge translation practices into the skill set of new public health professionals.

4. Ensure that all kinds of knowledge are incorporated.

Citizens and communities hold a tremendous amount of knowledge specific to their local environment and experiences. This knowledge should be elicited from those individuals and incorporated into the research process or otherwise used in the development of knowledge products.

The documents reviewed suggest that there is a gap with respect to the implementation of knowledge. Specifically, experiments, research projects, pilot projects or similar undertakings are conducted in Canada that may result in promising initial findings or knowledge. However, in too many cases, the potential of these undertakings is never pursued beyond the experiment or pilot project phase. Support for promising projects is needed to fully realize the potential of these undertakings.

Health Inequalities

Health inequalities continue to be a key topic for public health in Canada. The determinants of health, while certainly not new and emerging, continue to serve as a framework to view, quantify and articulate the health inequalities that exist in Canada. The theme of the first Chief Public Health Officer's (CPHO) Report on the State of Public Health in Canada (2008) was health inequalities. The report identified the following determinants of health and noted that these key factors have a profound effect on people's individual health behaviours and health outcomes: income; employment and working conditions; food security; environment and housing; early childhood development; education and literacy; social support systems; health behaviours; and, access to health care.

Health inequalities are differences in health status experienced by various individuals or groups in society. These can be the result of genetic and biological factors, choices made, or by chance; but often they are because of unequal access to key factors that influence health, like income, education, employment and social supports.

Chief Public Health Officer, 2008

To reduce health inequalities, the CPHO identified the following priority areas for the future:

- **Social investments:** View social investment as a priority area, particularly investments in families with children living in poverty and in early child development programs.
- **Community capacity:** Strengthen the community capacity to address health inequality issues—communities likely have ideas for workable solutions.

- **Inter-sectoral action:** Involve multiple parties from different sectors to develop policies and engage in joint actions.
- **Knowledge development:** Support and encourage the growing knowledge of what is required to address inequalities to ensure a better understanding of different groups of Canadians, how socio-economic factors interact to create health inequalities, how best practices from other jurisdictions can be adapted, and to what extent current efforts are successful.
- **Leadership:** Foster leadership at the public health, health and cross-sectoral levels.

Partnerships

The need to develop and maintain effective partnerships was a common theme in the documents reviewed. Partnerships are an effective way to share resources and expertise and to cut across sectors and jurisdictions. Partnerships with the right organizations, such as an organization with existing links to a target community, can also expand the reach of any program.

Public health is complex, and success requires a comprehensive approach that brings in partners from across all sectors.

PHAC, 2007

Citizen Engagement/Health Literacy Skills

An analysis by the Canadian Council on Learning shows, sadly, that 60 percent of Canadians do not have the health literacy skills needed to find and use basic health information and services, and subsequently, to adequately self-manage their own health and healthcare needs.

CHSRF, 2009

The point raised regarding citizen engagement and health literacy skills is two-fold. Engaging the public in discussions related to public health issues will help encourage information sharing. A number of references in the documents note the need to include citizens in making informed decisions about their own health. However, Canadians need to be able to understand what they are reading—and that is what health literacy is meant to address. Health information needs to be readily available, but also available in plain language.

Measuring, Evaluating, Reporting

The reviewed documents revealed that it is essential to measure the impact, success and effectiveness of public health programs. Measuring results and evaluating progress will allow for adjustments to be made to improve programs that are not working as planned or not having the desired results. Having this information will allow public health practitioners, program managers and policy makers to report to colleagues, governments and Canadians on the successes that have been achieved and share any promising practices that emerge. Measurement and evaluation are also important issues in knowledge translation. Currently there are few tested outcome tools, and those that do exist are specific to a particular piece of knowledge that is hoping to change a particular behaviour.

Challenges

A review of the documents revealed a number of challenges that face public health in Canada. They include:

- **Globalization:** Due to the increase in global travel, there has been an increase

in the risk of infectious diseases, both from the likelihood of an outbreak and the speed of its transmission.

- **Economic pressures:** The economic environment may result in cuts to public health spending as the government faces spending pressures.
- **Poor economy:** The economy, which is a determinant of health, can be expected to affect people's health.
- **Human resources:** Canada's aging workforce means public health professionals will soon start to retire in great numbers; there is also a reported lack of new people coming into the field.
- **Communicable diseases:** Certain communicable diseases are increasingly being seen across Canada.

A review of the documents led to an investigation of what other countries identify as their key public health issues. Information from the United Kingdom and the United States follows.

United Kingdom

In the United Kingdom, the National Institute for Health and Clinical Excellence's (NICE) mandate includes providing national guidance on the promotion of good health and the prevention and treatment of ill health. The NICE provides guidance in three areas of health: public health, health technologies and clinical practice. With respect to public health, the guidance focuses on "the promotion of good health and the prevention of ill health for those working in the NHS, local authorities and the wider public and voluntary sector." (see the NICE website: <http://www.nice.org.uk/aboutnice/>) Guidance is developed with the input and expertise of the National Health Service (NHS) and other actors in the public health milieu, including NHS staff, health care professionals, patients and care-givers, industry and the academic world.

To get a sense of the priority public health issues getting attention in the UK, the Department of Health reported that in 2008, the NICE issued new public health guidance on a wide range of topics, including:

- substance misuse interventions
- workplace smoking interventions
- health behaviour change
- alcohol and schools
- physical activity and the environment
- community engagement
- maternal and child nutrition
- smoking cessation
- the mental well-being of children in primary education

The NICE is currently developing guidance in other areas that the department of health has identified as priority areas for public health, including:

- alcohol-use disorders (prevention)
- preventing obesity: whole system approaches
- prevention of unintentional injury in children
- prevention of cardiovascular disease at the population level
- looked after children
- promotion of the mental well-being of young people in secondary education
- prevention, early identification and initial management of alcohol use disorders in adults and adolescents

It appears that the UK greatly emphasizes prevention and promotion activities. A complete list of guidance currently in development can be found at: <http://www.nice.org.uk/guidance/index.jsp?action=ByType&type=4&status=2&p=off>.

United States

In the United States, the Center for Disease Control in Atlanta (CDC) has prepared a ten year plan entitled *Advancing the Nation's Health: A Guide to Public Health Research Needs, 2006–2015* (U.S. Department of Health and Human Services, 2006). The plan identifies the research areas that the CDC considers critical and that should be addressed during the next decade by CDC and its partners. The guide is meant to serve as an essential resource for defining a more focused health protection research agenda of research priorities aligned with the Health Protection Goals developed by CDC. In addition, portions of the guide will be used to inform research initiatives that address other critical public health needs and the research priorities of other agencies.

The guide includes 138 research themes organized into seven topic areas:

1. prevent and control infectious diseases
2. promote preparedness to protect health
3. promote health to reduce chronic diseases and disability
4. create safer and healthier places
5. work together to build a healthy world
6. manage and market health information
7. promote cross-cutting public health research

In the seventh area, promote cross-cutting public health research, the following areas are included for research:

- social determinants of health and health disparities
- physical environment and health (including global climate change, natural and built environments and physical and sociocultural environments)
- health systems and professionals (including workforce and career development)
- public health science, policy and practice (including intervention and translational research, economics and public health, community-based participatory research)

- public health education and promotion
- human genomics in public health, mental health and well-being (including substance abuse treatment and prevention)
- law, policy, and ethics

4.2 Key Informant Interviews

The responses obtained through the interview process have been supplemented with the feedback received from the online survey, where appropriate.

4.2.1 Important Priorities and Emerging Issues for Public Health Organizations and Practitioners

Key informants were asked what they think are the most important priorities/emerging issues that public health organizations and practitioners will be facing over the next five years. Respondents provided a wide range of priorities based on their various areas of expertise and experience. The responses were categorized as follows:

Landscape of Public and Population Health

The landscape of public health has evolved over the last few years. New issues have emerged that have increased the complexity of the operating environment. Key informants identified an extensive list of factors and influences that are at play, to some extent or another, in Canada. The cross-cutting factors include such topics as how to build healthier environments, how to prevent and deal with potential pandemics of communicable disease, how to address climate change and how to address global ecological challenges. In addition, informants mentioned familiar issues such as the determinants of health, chronic disease prevention, improving reproductive health, reducing inequalities in health, improving access to effective public health practice, equity, environmental health, food safety and security, water safety and security, and the challenge of dealing with interventions for an aging population.

This list is not exhaustive, and must be viewed in light of the current economic environment. This, coupled with the fact that the publicly-funded health care system is challenging to sustain, will likely mean that keeping preventative initiatives on the radar may be challenging as public health becomes one of many competing priorities for the government's attention.

Funding

Funding of public health is clearly a key issue. Although the percentage of the health budget spent on public health has increased, public health is underfunded. Currently, 3% of the health care budget is spent on public health; it needs to increase to at least 5% or 6% of the health care budget. As noted, the entire health care budget is already under stress. The challenge will be to provide the most effective services during a time of fiscal restraint.

Capacity – Human Resources

There is a significant shortage of highly-skilled public health professionals across Canada in terms of numbers, skills, training and competencies. It is expected that public health will take on a variety of roles, such as building community partnerships. The types of skill sets required in public health today include necessary research evidence, but also additional competencies such as:

- relationship building;
- the ability to interpret and use research to develop programs;
- learning how to work with people with different skill sets;
- learning how to work with people with different backgrounds; and
- evaluation, monitoring and surveillance skills.

New staff that are currently graduating or will soon graduate must be well-trained for the new public health environment.

Capacity – Support Systems

There is a pressing need to improve the various systems that support public health, such as the current surveillance and information systems, public health standards and the processes that support performance improvement. There is also a need for better integration of research evaluation policy and practice to generate the kind of practice-based evidence that people want to see. Finally, most of the work in public health around evidence-informed practice has to do with complex adaptive systems, which are inherently unstable. Unfortunately, the current measurement and analytical tools are not up to the task of dealing with that complexity. Current models for knowledge to action (KTA) do not adequately deal with organizational factors and at present the methodology is not available to learn how to do it better.

Knowledge Translation

As found in the reviewed documents and supported by the key informant interviews, Knowledge Translation (KT) continues to be a key issue in all areas of public health. A great deal of research, assembled evidence and best/promising practices have been developed; the challenge is getting evidence into the end users' hands so they can make the best decisions possible. This is a key issue because the user community and the public at large is increasingly sophisticated, with access to a wide variety of information on the Internet through The Cochrane Library (<http://www.ccn.cochrane.org/en/clib.html>) and other sources. Public health practitioners and policy makers must ensure that evidence is considered at all levels in public health. There is a need to use the knowledge already available, identify gaps and then generate new knowledge as efficiently as possible. The test of success is whether that knowledge is being used to make a difference in public health practices and processes and whether it results in improvements. The consensus in both the literature and the interviews was that much groundwork has been done; it is time to move on to the next phase.

Poverty

The economic environment is expected to be extremely difficult for public health for the foreseeable future – and not just for the obvious funding related issues. The suspicion is that the impact of the current economic downturn is not fully known, but a weaker economy can be expected to contribute to an increase in the level of poverty in Canada. Although the Bank of Canada recently announced that the recession is, technically, over, the Bank also noted that the recovery will be slow and unemployment is expected to continue to rise. This will likely have an impact on public and population health.

Obesity

Recent public pronouncements have been made about how this generation may be the first generation in which children will live shorter lives than their parents. This is an expected result of the obesity epidemic. Access to nutritional food is an issue—and in particular influencing the eating habits of children and getting people to change their eating habits in terms of what they're being offered to eat.

Infectious Diseases

Infectious disease control will likely keep public health on the agenda given its impact on people, the economy, the health care system and its ability to attract media attention, as seen with the recent H1N1 virus.

Primary Prevention

Primary prevention is a key issue and goes hand-in-hand with addressing chronic diseases. More effort and focus should be given to primary prevention to reduce the incidence of chronic diseases. Looking to the future in an effort to prevent the onset of many chronic conditions will have huge benefits for the health of Canadians and the public health system in the long term. In fact, it would be beneficial to ensure that people understand the importance of prenatal care and the positive impact that early childhood education has on producing healthy people. Sweden and Denmark lead the field in this area, and Canada should be looking at their successes.

Chronic Diseases

Chronic disease prevention is going to be critical in terms of getting traction at the policy level. Aligned with chronic disease prevention will be the care of the elderly, which is expected to drive all health care costs in the foreseeable future. Chronic diseases are therefore likely to have a big impact on policy decision-making. Conversely, many chronic diseases are preventable, which links back to the importance of primary prevention.

Lifestyle Changes

Encouraging changes to people's lifestyle choices is an approach that is becoming increasingly favoured, especially at the general policy and environment levels. In Alberta, health restructuring is underway that challenges previous approaches to public health; information about and guidance for healthy lifestyle choices is a core focus for

the prevention and promotion of health. British Columbia has taken a province-wide approach in its ActNowBC program that engages most, if not all government departments to provide guidance on healthy living, healthy eating and healthy environments.

Accountability

Public health professionals have to be accountable to all stakeholders and partners and demonstrate the value of their work. In some areas, such as health protection, the impact is easy to see; but with health promotion, it is not clear that the public is aware of what public health professionals are doing. Public health activities need to be evaluated to show results.

4.2.2 Suggested Priorities for the NCCMT

Key informants were asked to list the trends and key priorities that they felt the NCCMT should focus on for the 2010–2015 time period.

Overall, respondents felt that the NCCMT needs to ensure that public health practitioners receive information in the way they need it; it must be easily accessed, easily read and formatted appropriately for use in their practice area. This was identified as a key issue because the user community and the public are increasingly sophisticated, with access to a wide variety of information on the Internet. As a result, people working in public health need to be prepared with the best available evidence. The NCCMT needs to facilitate access to the methods and tools that will help public health practitioners acquire and use the information they need to do their job.

Organizational Issues

The key informants discussed a number of organizational issues. They suggested that the NCCMT should:

- develop and champion different ways of evaluating evidence that will enable the generation and use of the relevant evidence from as many sources as possible;
- create or join a single, authoritative, national source of high quality evidence on effective public health practice and promising practices;
- focus on making sure that the tools and methods required are available on a very quick turn around basis and in practical, useable formats for front line practitioners;
- help in the development of theoretical and methodological innovations to ensure uptake and dissemination of research results;
- consult with the target audience or end users who need the evidence when planning and developing NCCMT activities;
- customize the tools that are produced to meet the unique needs of the different target audiences or end users;
- develop the networks to share knowledge and to engage all sectors of society with government, and work with governments at all levels to address the

social determinants;

- create demand at the end user level so front line practitioners will request of their managers that NCCMT tools are available within their organizations to make evidence-informed decisions in front line practices;
- encourage practitioners to start on the journey of learning what methods and tools already exist, how to use them, how to link them and how to incorporate evidence into practice; and,
- ensure that methods and tools are included in the public health programs at universities and colleges so that new graduates are more prepared when they enter the public health field.

Specific Products or Services

The key informants also discussed a number of products and services that they felt the NCCMT should focus on. They suggested that the NCCMT should:

- develop relevant tools to assist in diverse, changing needs—the emerging diseases are known, the question is what we do about them;
- take promising practices from one location or setting and determine how those practices can be effectively adapted to other settings;
- survey public health programs in other jurisdictions that are known to work and adapt them to the Canadian environment;
- help develop a solid case study methodology for creating organizations that will be better platforms for KT;
- focus on developing the capacity of those involved in public health to use KT methods and tools (goal # 5), especially for front line staff;
- develop a method or tools that will guide people in developing networks—an important area that appears to lack guidance or promising practices;
- develop a tool to filter out best practice options—family doctors need tools to help them decide what they will and won't do;
- identify best practices in the recruitment and retention of public health professionals; and,
- develop a tool for public health units that addresses the optimal use of staff, optimal staffing mix for the population being served, the best place to use public health nurses in the health unit so they are working to their optimum and what roles are needed—particularly important for smaller units or regions.

Training

Key informants also discussed the demand for training on many KT-related issues that are influencing the public health environment and workplace. Key informants identified:

- training public health managers around research-informed management, evidence-informed management and relevant management practices;

- training in support of the new competencies and the spectrum of skills identified for public health workers to meet the expectations around evidence-informed practice;
- training to ensure people have the ability to read the evidence and critically appraise the evidence.

4.2.3 Perspectives on Current NCCMT Activities

Key informants were asked what they thought were the most important things the NCCMT is doing right now. The following themes emerged.

Linking to the Other NCCs

A number of key informants noted that they viewed the NCCMT as the link, or “glue” for the other NCCs. This role is important to avoid duplication of efforts among the other NCCs and to support the activities and outputs of the other NCCs.

Networking

The NCCMT has played an important role in building networks, which is a very challenging task given the size of the country. Informants noted that the NCCMT has developed good contacts through its outreach efforts and that its ability to connect across the country is valuable. This is not, as noted, networking for the sake of networking, but rather networking together organizations involved in similar or complementary activities to enable public health as a whole to benefit from an increased knowledge base.

Advancing Knowledge Across the Country

Several key informants noted that the NCCMT has helped the country rethink and debate what public health means when speaking about Knowledge Translation (KT), Knowledge Synthesis, Translation and Exchange (KSTE), Knowledge to Action (KTA), Knowledge Management (KM), etc. The NCCMT has been adding to the debate and contributing to the strategy. They have also created tools that support the advancement of knowledge, which is critical. Key informants also view the NCCMT as a national body that appears to be up-to-date and is a significant capacity-building organization.

Training, Education and Learning Opportunities

In addition to creating useful tools, the NCCMT has provided effective training and learning opportunities for using these tools. These opportunities reinforce the information found in the tools and are expected to increase the effectiveness of uptake.

Key informants also made positive comments about other training and education opportunities, such as:

- the environmental scanning activities that take the pulse of what is happening in public health;
- the health-evidence.ca website;

- the work on knowledge management—both the knowledge management conference and the background paper;
- the Registry of Knowledge Translation Methods and Tools for Public Health— noted as being really helpful for people who do not have access to a big library;
- projects in progress, specifically the EIPH toolkit and the online program planner;
- the publications produced to date (e.g. critical appraisal tool);
- the Summer Institute;
- the ability to pilot good ideas, which provides an opportunity to build on the work of others and adapt it as necessary;
- the map that sets out the goals of the NCCs and what each of the centres does;
- the Effective Public Health Practice Project; and,
- the “Coming Soon” section on the fact sheet entitled “Publications and Services available on the NCCMT website,” which is a useful reminder to check the website.

Key informants were asked what they thought were the most important things the NCCMT is not currently doing but perhaps should be doing. It should be noted that some key informants provided responses based on their perceptions. It was acknowledged by some informants that NCCMT may well be engaging in some of the following suggested activities, but they were not aware of it. It is worth stating these perceptions to provide the opportunity to address the issue or deal with an evident lack of awareness.

Grounding Material in Daily Reality

Key informants made a number of comments that the NCCMT should prepare case studies (and other work) that are grounded in the reality of what happens on a day-to-day basis. The NCCMT should present information, methods and tools clearly and effectively to different audiences in different ways so the target audiences can readily use the information or resource to inform changes in practice.

Expanding the Leadership Role

Some key informants felt that the NCCMT was not engaging in the leadership role to the extent that it could be, given its stated operating principle to “provide leadership in the resolution of KT issues confronting decision-makers in public health.” Several areas were suggested where the NCCMT may be able to lead to address gaps:

- Assess whether the right provincial, regional, local or community connections have been made for the networks to be most effective.
- Support collaboration through connectivity tools or methods that address the existing jurisdictional issues and geographical dispersion that exists in Canada—for example, is there a way to support collaboration that does not require extensive cross-country travel?
- Guide researchers and public health professionals to get the current research

and evidence into a format that front line practitioners can use.

- Provide a single authoritative source for high quality evidence on effective public health practice to avoid the danger of fragmentation, to ensure consistency of processes across the country and to avoid having public health professionals hunt across Canada for their information.
- Bring new ideas to the table for discussion to challenge some of the old ideas—one example provided was situations where waiting for all the evidence to be in before taking action is perhaps not always the right course in public health. Debating and discussing new and innovative ideas is the first step in changing the way things are done and building the tools necessary to support, train and enable networking.

Expanding the Network

Key informants recommended that a strong network of enthusiastic health professionals be developed that can share the “heavy lifting” with the NCCMT in terms of building the network across Canada. To be effective nationally, the NCCMT needs to connect with strong, experienced public health professionals in each province and territory. These people have been in public health for a while and have also likely developed tools over the years out of necessity and built on practical experience.

Getting to the Local Level

Feedback suggested that the NCCMT needs to get right to the local level, including public health units. Conversely, achieving this goal was noted to be extremely challenging, even at the provincial and regional levels, let alone the national level. The suggested solution was to connect with existing networks or organizations that could reach that level.

Building Capacity

While some key informants view the NCCMT training activities as very positive contributions to capacity building, other key informants felt there was more to be done. As an example, some key informants stated that they were unlikely to use a generic tool from the database unless the NCCMT was able to walk them through the tool to ensure it was properly understood. In short, the demand for, and interest in, training and educational opportunities that support or build capacity is very strong.

Examining Other Jurisdictions

The NCCMT should look at knowledge translation activities or approaches that have been successfully implemented in other jurisdictions and either adapt these activities for the Canadian public health milieu or apply some of the principles that are likely to be most successful (e.g., EPODE, see Appendix E).

Developing Guidelines to Support the Uptake of Research Findings

Key informants recommended that guidelines are needed to move public health issues forward for uptake. Specifically, after the research is complete, there should be tools flowing from that research to facilitate the uptake of knowledge.

4.2.4 Strengths of the NCCMT

Key informants were asked what they felt were the NCCMT's strengths. They identified the following, many of which are based on the personal attributes and professionalism of the NCCMT staff:

- ability to connect across the country, across provincial boundaries and across disciplines;
- collaborative approach with partners;
- outreach activities (reaches out to many different partners and to difference levels, having an advisory board with representation from every region across the country);
- ability and willingness to work with and listen to the advisory group and the other NCCs;
- successful translation of research into practice;
- openness to continuous improvement;
- ability to align activities and then build on them;
- situating of the NCCMT under PHAC—this keeps public health centralized so that across Canada people know where to go;
- excellent conference/workshops (November 2008);
- effectiveness in responding to the NCCMT environmental scan (2006);
- excellent work in knowledge translation;
- informative website that contains a “huge amount of information” and is easily navigated;
- focus on public health—it is a public health resource;
- evidence-informed information that helps to meet the critical need or incorporate evidence into practice;
- quality of the work it produces.

4.2.5 Weaknesses of the NCCMT

Key informants were asked what they felt were the NCCMT's weaknesses. They identified the following issues.

Responding Quickly

Key informants suggested that the NCCMT needs to be able to respond quickly to demands from the field. Knowledge becomes stale at an increasingly rapid pace. The NCCMT needs to stay at the forefront of KT activities and be able to produce and disseminate the necessary tools as required. This will likely be critical to its future success over the next five years.

Making the Work Resonate

Some of the key informants noted that the work produced by the NCCMT is viewed as “high level” and too academic. A number of respondents to the online survey also

commented on the issue of resonance, with one noting that “the research information is often difficult to understand, especially its applicability to front line practice.” It is important that the products and services are relevant to the target audiences and end users to make it resonate with people. Tools need to be tailored to each unique audience.

Increasing Visibility/Marketing

Some key informants thought the NCCMT was not effectively reaching people in provincial ministries or public health managers in the field, based on the perceived lack of presence in the field. A number of the respondents to the online survey noted a “lack of visibility” with regard to the NCCMT and a lack of understanding about what the NCCMT (and other NCCs) do. One respondent viewed the NCCMT as “yet another source of information, another network, in a blur of similar projects that we hear about . . . the branding is unclear.” The NCCMT hasn’t created a sufficient level of awareness for public health people in all areas to respond to. People want the benefit of the knowledge translation work, but the NCCMT does not appear to be in tune with the various public health people in the field as much as they need to be.

Emphasizing Evidence

Key informants suggested that the heavy emphasis on strong evidence for all things was possibly excessive. People who are trying to take a creative approach to solve issues in their areas may be hamstrung by a “lack of evidence” to support their policy or program approach. To make an impact at the population level, there may be no hope of getting top strength evidence. The NCCMT should be challenging the status quo where it makes sense to do so.

4.2.6 Opportunities for the NCCMT

Key informants were asked to identify NCCMT’s current and future opportunities. Many of the suggestions put forward are broad policy directions, while others may be readily incorporated into the future plans of the NCCMT.

Leadership

There were many suggestions for the NCCMT to take on a leadership role in a variety of areas:

- Enhance leadership—it is vital for the success of the NCC network and the NCCMT could lead with respect to communications, marketing and support to the other NCCs.
- Encourage scientists, researchers and other content people to communicate effectively with policy people to influence policy decisions. The NCCMT may be well-placed to guide how content people could effectively communicate the significance of, for example, their research findings for policy people to better understand and better appreciate the importance of such findings. A lack of understanding on the part of policy people can result in important policy decisions not being made.

- Support the knowledge transfer activities of smaller organizations. There are many health-focused organizations that engage in knowledge transfer activities. However, there is a gap facing some organizations with respect to how to meet the needs of their stakeholders. The NCCMT could provide leadership in this area.
- Challenge the status quo. The NCCMT is well-placed to bring new ideas to the table to get discussions going. Robust discussions to address a variety of views on complex topics is the first step in making the changes required to improve the system.
- Collaborate with KT funders and public health researchers so that the work resulting from research is disseminated in the most effective way possible to ensure uptake across the public health landscape.

Capturing Different Kinds of Knowledge

There is a growing need and interest in capturing the various kinds of information available. Explicit knowledge is easily captured and readily available. There is a pressing need to establish an effective methodology for capturing tacit knowledge. As the aging workforce retires, it will grow more critical to capture that information for younger public health professionals. This point reinforces the findings of the document review summarized in Section 4.1.

Additional Opportunities

Key informants suggested a number of additional leadership opportunities for NCCMT:

- Seek other funding mechanisms such as selling products or finding other funding sources. The NCCMT produces concrete products; these are sellable. It should develop a business model and sell the products. Since it has established itself as a credible source, there is now the opportunity to move on to the next level.
- Work on the new Ontario Public Health standards; connecting with that process may help build the profile of the NCCMT and the standards are likely applicable and transferable to other jurisdictions.
- Connect with the Canadian Task Force on Preventive Health Care (PHAC is revitalizing/re-establishing this task force). There is likely a partner role for the NCCMT to play, given the overlap between public health and primary care. Alternatively, there should be something like this for public health in Canada.
- Combine the activities of the Effective Public Health Practice Project (EPH-PP), health-evidence.ca, Public health+ and the pieces that PHAC does around evidence/best practice into a single entity.
- Develop a map indicating where all the high quality evidence is available in Canada right now and in which areas of expertise. This will assist public health professionals and possibly reduce duplication of evidence or other outputs.
- Support the future creation of centres of excellence (e.g., Community Health Nurses Association of Canada is discussing the creation of a centre of excellence for public health nurses).

- Examine the entire loop of knowledge translation. There is rarely talk about the practice-back-to-research cycle. Focus on the effective practices and habits of people in public health units across the country. The NCCMT could then ensure practice is based on evidence and refer this knowledge back into the research field.
- Develop training that focuses on public health managers. There is a gap in this field.
- Expand on Knowledge Management. The Knowledge Management paper and conference were extremely well received; the NCCMT has the opportunity to move on to the next step in Knowledge Management.
- Participate and/or collaborate with groups interested in KT. A large number of groups (e.g., chronic disease groups, KT funders, provincial decision-making bodies) want to do some work in KT, but as noted, there is a lack of capacity. The NCCMT could work with these interested groups.
- Help public health staff share their learning/evidence from projects with other PH practitioners. Survey respondents wondered if there is a role here for the NCCMT.

The online survey generated a large number of suggestions for products, services or activities for the NCCMT to consider:

- Develop economic analyses, tools and evaluations of public and population health interventions that can address issues such as opportunity costs, the discount rates applied (implicitly) to future and population-level benefits.
- Conduct a case study of successful public and population health programs with hard outcomes and good economic analyses.
- Provide information on the work done on environment and chronic disease and successful workplace-based interventions.
- Communicate metabolic syndrome evidence as it relates to current evidence of low-fat diets being unsuccessful and high-fat diets being much healthier.
- Examine why the evidence has so little effect on some policy, particularly in the area of drug policy.
- Provide knowledge translation guidance, tools or courses for politicians.
- Develop marketing tools to “sell” evidence to politicians and policy makers.
- Develop tools to help build capacity in smaller organizations where knowledge of jargon/language related to evidence-informed work is lacking.
- Disseminate and discuss findings from qualitative public health research.
- Develop a source that includes a running compilation of research topics currently underway.
- Provide an easy and accessible way to participate/assist in public health research projects.
- Provide EIPH for Aboriginal catchment areas.
- Develop a realistic approach to provide tools and support to public health

practitioners who are overextended.

- Develop methods for getting research into action.
- Encourage the conduct and dissemination of culturally appropriate research.
- Provide information that can be easily translated into programming, split out by population.
- Align the resources that have been produced to support the Ontario Public Health Standards and other provincial and federal strategies (e.g., the Federal commission regarding mental health).
- Develop tools that support project management and results-based accountability.
- Provide NCCMT workshops for service providers, program managers and policy makers based on Environmental Scan 2009.
- Communicate evidence related to communicable disease control programming in public health.
- Provide a tool for surveillance activities.
- Develop best practice documents for physicians and nurses in public health.
- Develop tools to use in the field—public health practitioners often work in isolated communities with few to no supports and tools are needed that address child development, speech development and pediatric bone assessment.
- Promote strategies to reduce hazardous sexual activity in adolescents and young adults.
- Develop tools to promote healthy nutrition within an Aboriginal context.
- Develop and support partnerships with existing evidence-informed services that meet the needs of the community.
- Provide information that will help practitioners make decisions on which priorities need to be addressed.
- Promote healthy everyday living.
- Develop public health strategies for social inclusion.
- Encourage evidence links to the Ottawa Charter for Health Promotion.
- Provide education sessions through an electronic format on a regular basis (e.g., some public health staff currently access a regularly scheduled education program from Australia about breastfeeding: the Baby Friendly Health Initiative).
- Continue to “advertise” this information in as many journals, associations and educational institutions as possible.
- Maintain the dialogue with PH staff and other interested people, which may provide a wealth of questions and some solutions being implemented.
- Expand the registry.
- Provide training/workshops through online systems for public health employees in rural areas who often cannot travel very far.

- Work with local organizations to increase KT of research into useful forms.
- Develop effective and affordable population outcome evaluation methods for population-based interventions, programs and policies (i.e., a registry of evaluation methods rather than KT methods)—health authorities can seldom afford large-scale community RCTs.
- Provide surveillance data on injuries across Canada.
- Provide more local-level workshops on evidence-informed practice.
- Ensure online access to evidence-informed journals.
- Deliver the results of this survey and information on the NCC to all public health professionals in Canada.
- Visit the districts and regions and develop practical ways to support them.
- Offer webinars like University of Ottawa, free and relevant.

4.2.7 Threats to the NCCMT

Key informants were asked to identify what current and future threats or pressures they thought might affect the NCCMT and what steps might be taken to mitigate such threats or pressures.

Resources

The most frequently cited threat was the interrelated issues of funding and resources. Given the weak economic environment, informants noted that there will be increasing competition for funding dollars. In such an environment, it is very important to show value for money to remain a government priority or to secure funding from other sources. There were even concerns raised about the stability of the PHAC in such an environment. There is also a shortage of public health professionals—which leads to the concern that the NCCMT may not have the capacity to attain all of its identified goals.

Suggestion:

- Establish a clear niche and focus for the NCCMT.
- Communicate that focus to the public health community.
- Stay focused on the priorities that have been established.
- Deliver on the promise.

Profile

Future support for the NCCMT may be at risk due to a lack of awareness of what the organization does and what it achieves. This finding was supported by the online public health survey, where a number of respondents noted their lack of awareness of the NCCMT.

Suggestion:

- This issue will be fully addressed in section 4.2.10.

Relevance

The NCCMT needs to ensure that it remains relevant. To be relevant, it must meet the needs and expectations of its audience, partners and collaborators. Its approaches, methods, tools, products and services must resonate with public health professionals, or the NCCMT will not succeed in meeting its goals and objectives.

For example, the current trend in primary prevention of moving upstream to address issues requires that the research-based standard of evidence—randomized control trials (RCTs)—is neither realistic nor possible. There is the possibility that opportunities may be missed by imposing a strict interpretation of what constitutes strong evidence. Various approaches must be considered and supported.

Suggestion:

- Ensure the needs of the audience and end users are understood in the early stages of developing any product.
- Ensure some level of involvement with a broad spectrum of public health people—if people see themselves reflected in the composition of a working group or advisory board, they are more likely to feel that the work applies to them.
- Ensure that the NCCMT's activities are aligned with and supportive of the ongoing activities in other public health arenas.

Timeliness

Several comments hinged on the need for the NCCMT (and other knowledge-focused organizations) to be able to respond in a timely manner. An inability to provide accurate and complete information to those requesting it would negatively impact the view of the NCCMT as a credible and reliable organization.

Suggestion:

- Be responsive to the needs of its audiences and ensure that its work relates very directly to the field.

Competition

Key informants noted that the number of organizations currently engaging in some or all elements of KT has grown immensely in the past 10 years. The NCCMT's future funding opportunities may be threatened as it becomes one of many competitors for the resources required to operate and for the public health staff required to deliver.

Suggestion:

- Clarify NCCMT's niche and market itself effectively.
- Be responsive to the needs of its audiences and ensure that its work relates very directly to the field.
- Too many authoritative sources.

On a related note, key informants commented on the various sources for KT: there are a dozen different centres of evidence with different standards and different ap-

proaches. This has the potential to undermine the effectiveness of the entire field. Although there is value in diversity, there is perhaps greater value in having a single authoritative source for public health KT activities.

Suggestion:

- Create a single authoritative source. Whether the NCCMT is the lead organization or whether it is subsumed by another organization, the needs of the community are paramount. The best job will be done by having all the same types of centres in one place to pool resources and expertise.

Duplication

Although one of the NCCMT's principles is to avoid duplication, several key informants noted that there is a danger of duplication. Given the number of organizations involved in KT activities, the various provincial public health departments, the range of non-profit organizations with knowledge translation activities and the various public health services in other countries and academia, there is the potential for duplication.

Suggestion:

- Ensure collaboration with similar organizations to ensure the NCCMT complements other activities currently underway.
- Identify and monitor KT activities that focus on methods and tools and network building.

User Friendly

Professionals at all levels in public health who need the kinds of methods and tools produced by the NCCMT do not have a lot of time. Lengthy documents will not be read. The NCCMT must develop methods and tools in a manner that suits busy, time-pressed schedules.

Suggestion:

- Make products and resources user friendly.
- Provide a very short summary of products and services and communicate that information on a regular basis, with links provided for the more curious to pursue.

4.2.8 Feedback on the NCCMT Vision, Mission, Goals and Principles

When it was established, the NCCMT identified a vision, a mission, goals and principles as operational guidance. Now that the NCCMT has been operating for over two years, key informants were asked for their views on whether these are proving to be the right vision, mission, goals and principles, or whether adjustments are warranted.

The overall reactions were not consistent, and ranged from "it's nice" and "it reads well," to "it doesn't tell me anything" and "the wording is cumbersome." However, the principles were singled out as being particularly well-focused and clear. Overall, respondents noted that the real test for the NCCMT is how the goals and principles are operationalized to deliver on the

mission to reach the vision.

Comments included:

- Add what it is that makes the NCCMT unique from the other NCCs, what it wants to focus on and be clear on what value it brings.
- Leadership should be in the mission, because it is the only organization in the country positioned to be the leader in this area.
- Add to the vision the concepts of “knowledge of promising practice” and “relevant timely evidence.”
- Very supportive of goal #5 (“To develop the capacity of those involved in public health to use KT methods and tools”), particularly with respect to front line workers.

The key informants were asked whether, in their opinion, the NCCMT is on the right track for reaching the goals that it has identified for itself. Those who felt sufficiently informed to express an opinion were very supportive of the progress the NCCMT has made to date.

4.2.9 Views on the NCCMT's Target Audiences

In an ideal world, information would flow freely from its source to all those who wish to use it and in a format of their choosing. However, given the operating environment of the NCCMT, decisions had to be made to identify a more focused target audience that it would be feasible to reach. Key informants were asked whether, in their view, the NCCMT has targeted the right audience for its activities, products and tools.

There was general support for the target audience as identified, based on the understanding that there are limitations in trying to reach the diverse people involved in public health. Specifically, getting material to the manager level or decision-maker level was seen as key to securing organizational buy in; the manager/decision-maker would then serve as a conduit to disseminate information throughout the public health milieu. Respondents noted that the target audience as identified really are the gatekeepers for identifying what interventions will be provided through public health; they are the people searching for new approaches.

The key informants expressed strong support for getting methods and tools into the hands of front line staff—although it was also noted that it is very challenging to get to that vast audience. Several informants expressed the thought that, “if we’re not making a difference for the folks at the front line, then we’re not doing our job.” Balancing that was the view that many front line workers are either not in a position, or do not have the authority, to make decisions about what they will or will not do.

Respondents also felt that key decisions in public and population health are not actually being made by those in the public health community. For example, substantial taxation on tobacco, as instituted by the Canada Revenue Agency, has had an impact on the public health issue of tobacco use.

Respondents recommended additions to the target audience, including:

- public health inspectors

- environmental health officers
- nutritionists
- dental public health workers
- public health researchers
- public health policy makers
- directors of public health programs at universities
- provincial agencies

Key informants also stated that:

- Some of the terms for jobs/positions used do not reflect the various public health organizations that exist across the country.
- People who don't see themselves represented as part of the target audience may well not pay any attention to the NCCs.
- The tools that public health managers require are vastly different from the tools that front line practitioners require.
- Establishing and using partnerships is an effective solution to the challenges of reaching a vast target audience.

4.2.10 Profile of the NCCMT

Key informants were asked what suggestions they might have for the NCCMT to raise its profile and market its methods, tools and services. The goal is for the NCCMT to become the “go to” place for reliable knowledge translation methods and tools in public health.

Overall, the input received was that the NCCMT needs to be very, very clear on what it does. It needs to articulate what it does and how it fits into the big picture in a way that helps strengthen public health. What is its unique role or contribution to advancing KT in the public health realm? That message needs to be communicated and understood to establish a greater presence and increased profile.

To establish a greater presence, particularly given its national mandate, NCCMT clearly requires money, time and people. To implement this approach, respondents also recommended that the NCCMT develop a marketing strategy or employ a marketing person for this purpose to underscore the importance of this component. Key informants provided a particular note of encouragement to “be bold,” and also strongly recommended the effectiveness of creating partnerships and building networks to raise the NCCMT's profile.

I know very little about the NCCMT at this time and am unable to respond. However, this survey is a great step toward increasing awareness and engaging stakeholders—I'm inspired to learn more.

Survey respondent

Is such an activity necessary? One respondent observed that few colleagues within the organization were aware of the NCCMT and believed that the reason for this was that managers/directors were not passing information along. Another key informant noted that although he/she had attended a session hosted by the NCCMT and partners, he/she really did not

know what the NCCMT did; the respondent learned more just by preparing for this environmental scan interview. So it appears that there is a need to raise the profile of the NCCMT.

Key informants offered the following suggestions for raising NCCMT's profile:

Workshops

The workshops have been very well received and are appreciated as an opportunity to work through material and practise new skills. Not only do participants learn the new material, but they also become aware of the NCCMT and its work. They also have the opportunity to build personal relationships and expand their network of public health people versed in a growing evidence-informed culture.

Getting Out Into the Field

Representatives from the NCCMT need to get out, speak to people and “sell” what they have to offer by explaining how the NCCMT can help public health people in their day-to-day work. The NCCMT needs to:

- attend every single public health conference in Canada, including CPHA and provincial association conferences;
- work with the provincial ministries, especially in the smaller provinces that do not have public health associations;
- attend every conference that deals with KT, research and/or other complementary subject areas;
- attend meetings of specific groups at various levels in the public health sphere;
- connect with professional groups like the Canadian Institute of Public Health Inspectors, the Surveillance and Information Expert Group of the Public Health Network, Nurses Associations, the Urban Public Health Network, the RNAO's community health nursing interest group and other practitioners' groups;
- provide training and learning opportunities—through these forums, people will know the NCCMT and what it does;
- keep people aware of NCCMT products and services on a regular basis, but respect the fine line between nagging and informing;
- ensure national connections and collaboration with all the relevant partners;
- focus on one or two really key products to establish the necessary credibility—that will draw people in to see what else the NCCMT has to offer;
- clarify the relationship of the NCCMT to other organizations—is the NCCMT a funder or a partner?;
- engage in informal conversations whenever possible and ask those people for their suggestions on organizations that the NCCMT should connect with;
- publish synopses of papers in public health journals;
- establish web-links on all partner sites.

4.2.11 Methods of Communication for the NCCMT

It is important to be able to communicate effectively with public health practitioners and professionals. Key informants were asked to identify their preferred methods of communication and to state what best gets their attention and what does not. The most divisive method was e-mail; some love it and some loathe it. The conclusion was that for information to be successfully disseminated, a variety of communication tools and vehicles are required, approaching from the top and from the grass roots level. The target audience may need to be segmented to determine the most effective approach for each group. Ultimately, some level of personal connection appears to resonate best with everyone.

Key informants made the following comments regarding the most effective approaches for sharing or sending information:

- It has to be pushed at people to get my attention.
- Participate in collaborative projects.
- People who are known to the recipient pass along the information.
- Publish material in journals.
- Include key words in documentation or e-mail headlines that attract the attention and interest of the recipient.
- The NCCMT display (and canvas bag handouts) has been effective.

Respondents provided the following comments regarding the most effective methods for receiving or accessing information:

- e-mails with attachments or web links
- BlackBerry
- face-to-face encounters
- conferences
- association or professional meetings
- workshops
- websites (many people noted that they are typically too busy to just “check out” websites, but will go if they are looking for something)
- newsletters
- webinars and teleconferences (growing in popularity because they are less expensive and time consuming than conferences and more staff can have access)

E-mails are effective when:

- they come through the right channels with an introductory message saying who is sending the information and why the recipient should be supportive or interested;
- they are from the medical officer of health, the director, or the manager;
- there is some element or level of personalized approach;
- they are audience-specific;
- the subject line or heading contains key words of interest to the recipient;

- the subject lines are clear for easy filing/referencing purposes;
- they are short, informative and regular so they can be dealt with promptly (e.g., the E-watch bulletin from Université Laval).

E-mails are not effective when:

- they are just a forward from someone and the onus is on the recipient to sift through them;
- they are forwarded with a pile of addresses (has the person who sent it even looked at it?);
- they are a mass mailing;
- the recipient has been inundated with e-mail from all sources and has effectively given up looking at them all (some individuals redirect e-mails from unknown senders to a SPAM folder that may, in the future, get looked at).

Finally, online survey respondents were asked to identify their three key sources where they go to access information. The most popular sources, by number of responses, were:

- journals (see Appendix F for journals identified)
- Cochrane/Campbell Collaboration
- Canadian Public Health Association
- Internet/Google searches
- established programs (e.g. PHRED)
- federal government (Health Canada, PHAC)
- NCCs/NCCMT
- provincial governments
- specific websites (see Appendix F for websites identified)
- conferences

5. Summary

The interviewer found the participants to be very complimentary of the volume and quality of work produced by the NCCMT to date. Conversations were filled with details, as all the key informants had much to say and much to share.

There are a huge number and a great variety of issues facing public health at this time. Interestingly, many respondents, commenting in early 2009, had thought the attention on public health was fading in the public eye. A lower profile for public health would not help with respect to funding issues and attracting professionals to the field. However, the subsequent outbreak of H1N1 has once again highlighted the vital role that public health plays.

NCCMT's workshops have been very well received at a variety of levels. The information is of high quality, there is the opportunity to practise the EIPH skills, they provide an opportunity to network, they raise the profile of the NCCMT and they get the information out to the audience.

The need for the NCCMT to clarify its role and communicate that role to its partners, collaborators, network members and the various organizations involved in public health appears to be a critical next step that the NCCMT needs to take. KT is a rapidly expanding field that holds a great deal of interest for many people and organizations involved in public health. The NCCMT has the opportunity and the skills to be a leader in this area.

Appendix A: Documents Identified by the NCCMT for Review:

- Canadian Health Services Research Foundation. (2009). *CHSRF Strategic Directions 2009–2013*. Ottawa. Retrieved from http://www.chsrf.ca/about/documents/CHSRF_StratPlan_09_ENG_Final.pdf
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- Kitson, A., & Bisby, M. (2008). *Speeding up the Spread: Putting KT research into practice and developing an integrated KT collaborative research agenda*. Alberta Heritage Foundation for Medical Research, background Paper for the KT08 Forum held in Banff, Canada from the 9th- 11th June 2008. Retrieved from www.ahfmr.ab.ca/download.php/fdb47de-28f52562a0452b42534d33b39
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Appendix B: Environmental Scan to Inform Strategic Planning – Interview Guide

Demographic Information:

First I would like to ask you for some basic demographic information.

A. At what level do you currently work?

- National
- Provincial
- Territorial
- Regional
- Local

B. In which geographic area do you currently work?

- Province (please specify) _____
- Territory (please specify) _____

C. Which best describes your discipline?

- Policy developer/ analyst
- Physician
- Nurse
- Inspector/environmental health specialist
- Dentist
- Epidemiologist
- Health promoter
- Nutritionist/ Dietician
- Health educator
- Program evaluator
- Librarian
- Information Technologist
- Toxicologist

- Infection Control Practitioner
- Administration/Management
- Other (please specify) _____

D. Which best describes your main job function?

- Executive officer
- Medical Officer of Health
- Associate Medical Officer of Health
- Program Manager/Program Director
- Direct service provision
- Research
- Program evaluation
- Policy development
- Other (please specify) _____

E. Gender: Male Female

Interview Questions:

- 1 What do you think are the most important priorities/emerging issues that public health organizations and practitioners will be facing over the next 5-10 years?
- 2 Thinking of the emerging trends, do you see any specific priorities? OR What areas/issues should the NCCMT focus on over the 2010–2015 time period?
- 3 What suggestions would you have in terms of raising the profile of the NCCMT/ marketing its methods and tools, etc., in order that it becomes the 'go to' place for reliable knowledge translation methods and tools in Public Health?
- 4 In your own experience, what is the most effective way that you receive or access information (Conversely, what suggestions do you have for the NCCMT with regard to getting information to those who need/want it?)
- 5 What are the three most important things the NCCMT is doing?

- 6 What are the three most important things that the NCCMT is not doing right now but should be (or within 2010–2015)?
- 7 What do you think the strengths of the NCCMT have been to date/what has it done well?
- 8 In your opinion, what have been the weaknesses of the NCCMT? What strategies might be adopted to address this?
- 9 What current and future opportunities do you believe exist for the NCCMT?
- 10 What current and future threats or pressures do you see affecting the NCCMT? What steps might be taken to mitigate such threats/pressures?
- 11 I would like to turn your attention to the current vision, mission, goals and principles established for the NCCMT—in your view, are they the right visions, mission, goals and principles? Are adjustments warranted? If so, what?
- 12 In your opinion is the NCCMT on the right track for reaching the goals that it has identified for itself? What else might the NCCMT be doing in order to meet those goals? Should there be other goals identified for the NCCMT?
- 13 In your view, has the NCCMT targeted the right audience for its activities/products/tools? (Reminder: Target audience includes those involved in “public health program decision making, policy development such as program managers, program developers, librarians, educators, knowledge brokers or epidemiologists.”)
- 14 Do you have any additional comments that you would like to make with respect to the NCCMT, its activities and/or its products? (Reminder: communications, resources, accessibility, responsiveness.)

Thank you very much for your time and your thoughts!

Appendix C: Key Informant Interviews – Profile of Respondents

The twenty respondents included twelve (12) females and eight (8) male respondents with the following characteristics:

<i>Level</i>	<i>#</i>	<i>Province</i>	<i>#</i>	<i>Discipline</i>	<i>#</i>	<i>Main job function</i>	<i>#</i>
National	6	Ontario	15	Policy developer/ analyst	3	Executive officer	5
Provincial	5	British Columbia	3	Physician	4	Program manager/ program director	7
Territorial	0	Alberta	1	Nurse	4	Direct service provision	2
Regional	3	Nova Scotia	1	Environmental health specialist	1	Research	2
Local	6			Epidemiologist	3	Program evaluation	2
				Health promoter	4	Consultant	1
				Health educator	1	Scientist	1
TOTAL	20		20		20		20

Appendix D: Online Survey for Public Health Practitioners, April 2009

There are at present six (6) National Collaborating Centres (NCCs) in the National Collaborating Centres for Public Health program. One of these is the National Collaborating Centre for Methods and Tools (<http://www.nccmt.ca/>). Its mandate focuses on improving access to and use of methods and tools for using evidence in public health policy making, program decision making, and practice in Canada.

We anticipate that this survey will take 15–20 minutes to complete. It is part of a study organized by the National Collaborating Centre for Methods and Tools to inform their strategic planning and priority setting for the next five years. No individual identifying information will be collected.

The survey has been approved by the Hamilton Health Sciences/Faculty of Health Sciences, McMaster University Research Ethics Board.

Please direct any questions about the study to Dr. Donna Ciliska at 905-525-9140, ext. 22529.

1. First, could you please provide some basic demographic information.

A. At what level do you currently work?

- National
- Provincial
- Territorial
- Regional
- Local

B. In which geographic area do you currently work?

- Province (please specify) _____
- Territory (please specify) _____

C. Which best describes your discipline?

- Policy developer/analyst
- Physician
- Nurse
- Inspector/environmental health specialist
- Dentist
- Epidemiologist
- Health promoter
- Nutritionist/Dietician
- Health educator
- Program evaluator

- Librarian
- Information technologist
- Toxicologist
- Infection control practitioner
- Administration/management
- Other (please specify) _____

D. Which best describes your main job function?

- Executive officer
- Medical officer of health
- Associate medical officer of health
- Program manager/program director
- Direct service provision
- Research
- Program evaluation
- Policy development
- Other (please specify) _____

E. Gender: ___ Male ___ Female

2. Which of the following statements best describes your level of awareness of the National Collaborating Centre for Methods and Tools (NCCMT)?

- Until now, I was unaware of it
- I have heard about it, but do not know anything about it
- I know a little about it
- I know a lot about it

3. Which of the following statements best describes your level of involvement with the NCCMT?

- I have heard about them
- I have read about them
- I have attended a workshop
- I have downloaded material or accessed services through their website
- I have joined a network through the NCCMT (DialoguePH)
- I have participated in a conference hosted by them (e.g. Knowledge Management Conference and the Summer Institute)
- I have met/spoken with NCCMT staff
- I am connected to one of their partner organizations (e.g., health-evidence.ca, Ef-

fective Public Health Practice Project (EPHPP))

- Other : _____

4. In your opinion, what are the greatest needs facing evidence-informed public health (EIPH) in Canada today? (Select as many as you want)

- The creation of a work environment supportive of EIPH
- Easier access to good information
- Electronic access to research
- Access to “pre-digested” research findings (search and critical appraisal done – such as health-evidence does with systematic reviews in public health)
- Availability of knowledge translation methods and tools
- Leadership for the knowledge translation activities going on within public health
- Research translated into useable forms for public health practitioners
- Research translated into useable forms for policy makers
- Other : _____

5. In your view, what are the three most important products and services produced by the NCCMT?

Products: - all viewable at <http://www.nccmt.ca/tools/index-eng.html>

- Knowledge Management: Background Paper for the Development of a Knowledge Management Strategy for Public Health in Canada
- Introduction to Evidence-Informed Public Health and a Compendium of Critical Appraisal Tools for Public Health Practice
- Can I use this evidence in my program decision? Assessing Applicability and Transferability of Evidence
- NCCMT Newsletter
- Environmental Scan 2006

Services:

- DialoguePH <http://www.nccmt.ca/partnerships/index-eng.html>
- Public Health + http://www.nccmt.ca/tools/public_health_plus-eng.html
- Evidence Informed Public Health <http://www.nccmt.ca/eiph/index-eng.html>
- Evidence Related to Chronic Disease Programming in Public Health http://www.health-evidence.ca/additional_resources/evidence_related_to_chronic_disease_prevention
- NCCMT Workshops http://www.nccmt.ca/events/nccmt_workshops-eng.html
- NCCMT Registry of Knowledge Translation Methods and Tools for Public Health <http://www.nccmt.ca/registry/index-eng.html>

6. To address existing gaps, what are the three most important products and services that the NCCMT should produce/provide in the future?

- 1.
- 2.
- 3.

7. Could you identify your top three (3) sources for evidence-based information on public health research, policy and practice?

- 1.
- 2.
- 3.

8. Are there other organizations currently engaged in the development, distribution and use of public health methods and tools that you think may make suitable partners/collaborators with the NCCMT?

9. The NCCMT currently invites public health practitioners to register on their general distribution list so that you can quickly sign up for workshops and events, receive occasional e-mail alerts and receive the quarterly NCCMT newsletter. Please click here if you wish to sign up: <http://www.nccmt.ca/account/membership-eng.html>

10. The NCCMT currently invites public health managers, librarians and practitioners responsible for knowledge brokering to become members of DialoguePH, a network designed to help you and your colleagues share methods and tools that will facilitate knowledge synthesis, translation and exchange within and across public health departments in Canada. Please click here if you wish to sign up: <http://www.nccmt.ca/partnerships/index-eng.html>

11. What do you think are the greatest strengths of the NCCMT? _____

12. What do you see are the greatest weaknesses of the NCCMT? _____

13. Do you have any other comments you would like to make? _____

Thank you!

Appendix E: Suggested Organizations or Linkages that the NCCMT Should Consider Exploring

Look at... [Canadian Task Force on Preventive Healthcare](#)

Why? PHAC is reviving this task force which fell into abeyance. The renewed task force aims to build on the previous task force's success and international recognition with its 25-year history of pioneering the development of evidence-informed guidelines for primary care. Given that there are overlaps between public health and preventative health care, this presents an opportunity to link with this task force to address common issues. Alternatively, a similar group might be established for public health.

Look at ... [Canadian Heart Health Strategy and Action Plan](#)

Why? The focus is on prevention; the emphasis is all on upstream determinants. The goal is to link science and practice tightly, so professionals receive timely and relevant information to continuously enhance the quality of the public health programming.

Look at ... [Obesity prevention: a proposed framework for translating evidence into action](#)

Why? This document presents a relevant framework for translating knowledge into evidence.

Look at [Institute for Population Public Health at the CIHR, specifically the Population Health Intervention Research Initiative for Canada \(PHIRIC\)](#)

Why? Envisioned as a ten-year initiative, PHIRIC is a partnership between the Institute of Population and Public Health (IPPH), the Institute of Nutrition, Metabolism and Diabetes (INMD), PHAC, the Canadian Population Health Initiative (CPHI), the Chronic Disease Prevention Alliance of Canada (CDPAC) and selected researchers intended to build capacity in population health intervention research, including its quantity, quality and use by policy makers and practitioners. Actions underway include the development of a plan for strengthening intervention research capacity that supports the generation of relevant, timely and rigorous evidence to inform policy, program and practice decisions.

Look at [EPODE \(Together Let's Prevent Childhood Obesity\)](#)

Why? Obesity, especially among children, is a huge issue that is difficult to address. Prognostications have been made that this is the first generation in which children will live shorter lives than their parents. A family and community approach is necessary. In France, the EPODE program is making strides in this and it would be worthwhile to see how this program could be replicated in Canada. It has already been

adopted in a number of European countries and, according to the EPODE website, it is about to be implemented in Québec. EPODE is affiliated with the European Public Health Alliance.

Look at [Canadian Health Services Research Foundation \(CHSRF\)](#)

Why? CHSRF brings together researchers and decision-makers to understand each other's goals and professional culture, to forge new partnerships, to create and apply knowledge and to influence each other's work. The foundation's focus is on helping Canada become an international leader in evidence-informed decision-making. They also deliver an executive training course focusing on public health professionals and management skills.

Look at [Canadian Cancer Society](#)

Why? This organization has an ongoing partnerships against cancer initiative with years of experience in knowledge transfer.

Look at [Contact, Help, Advice and Information Networks \(CHAIN\) Canada](#)

Why? This network is a community of practice for people interested in using evidence-informed health care and knowledge transfer. CHAIN is designed to facilitate links between health care professionals, specialists, researchers, educators, managers, librarians and other professionals. CHAIN was established in response to a demand for information about 'who is doing what' in evidence-informed health care and knowledge transfer.

Look at [Canadian Diabetes Association](#)

Why? The Clinical and Scientific Section continues to grow, with a membership across Canada of almost 600 physicians, researchers and other health professionals concerned with diabetes research and clinical care. They support diabetes care and expertise in Canada by organizing continuing medical education activities, producing important guidelines and tools and advocating for improvement in the quality of life for people affected by diabetes.

Look at [Ontario's Health Promotion Resource System](#)

Why? This organization develops tools to support health promotion in Ontario.

Look at [The Pan American Health Organization \(PAHO\) website](#)

Why? It sends out a number of health services and public health information bulletins on a daily basis. The organization has set up a system of screening recent

publications both in the grey and the peer review literature. If you have material of sufficient quality, it instantaneously circulates the information worldwide.

Look at [The CHSRF/CIHR Chair on Knowledge Transfer and Innovation at Laval University](#)

Why? This organization distributes an E-watch bulletin on innovation in health services that aims to spread knowledge and promote the use of research by decision-makers. On a weekly basis, the bulletin gives content about relevant events for health services professionals and decision-makers; up-to-date publications promoting knowledge use in the health services; and websites providing content on specific themes.

Look at [The Wellesley Institute](#)

Why? This Toronto-based non-profit and non-partisan research and policy institute focuses on developing research and community-based policy solutions to the problems of urban health and health disparities.

Look at [The Canadian Platform To Increase Usage of Real-World Evidence \(CAPTURE\) Project](#)

Why? CAPTURE is funded by the Canadian Partnership Against Cancer and aims to help close the knowledge-action-data-knowledge loop to aid continuous learning from policy and program interventions. (Note: there was a session on the CAPTURE project at the Summer Institute 2009)

Look at [Safe Kids Canada](#)

Why? Located at the Hospital for Sick Children in Toronto, this organization engages in KT but, according to one key informant, is having difficulty meeting the needs of its stakeholders and building capacity.

Look at [Knowledge Translation Canada: A National Research Network](#)

Why? This newly funded program (by CIHR) will bring together a network of over 50 Canadian experts in Knowledge Translation research. They will undertake an ambitious research program to identify and study solutions to ensure that Canadian decision-makers have the tools and skills necessary to achieve knowledge translation.

Additional suggestions for opportunities to build links

- provincial public health associations
- Health Officers Council of BC
- Centre for Critical Qualitative Health Research, Dalla Lana School of Public Health,

University of Toronto

- Canadian Public Health Association
- Assembly of First Nations
- Ministry of Health & Long Term Care (Ontario) / All ministries with public health legislation
- Urban STI Network
- Canadian Association of Occupational Therapists
- Local/provincial health services libraries
- Health Promotion Clearinghouse (Nova Scotia)
- Population Health Assessment and Surveillance Responsibility Centre, Department of Health Promotion & Protection (Nova Scotia)
- community health boards
- PHAC team responsible for the Public Health Service core competencies and on-line skill development

Appendix F: Additional Sources of Information

The following additional sources of information were mentioned by the key informants, referenced in the document review or identified in the online survey.

Documents:

More than “Using Research”: the real challenges in promoting evidence-informed decision-making.

Bowen, S., Erickson, T., Martens, P., Crockett, S. (2009). More than “Using Research”: the real challenges in promoting evidence-informed decision-making. *Healthcare Policy* 2009, 4(3), 87-96.

How to translate health research knowledge into effective healthcare action.

Graham, I., Tetroe, J. (2007). How to translate health research knowledge into effective healthcare action. *Healthcare Quarterly*, 10(3), 20-22.

Getting Evidence into Policy and Practice: Perspective of a Health Research Funder.

Graham, I., Tetroe, J. (2009). Getting Evidence into Policy and Practice: Perspective of a Health Research Funder. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 18(1), 46-50.

Building the public health workforce for the 21st century.

Joint Task Group on Public Health Human Resources. (2005). *Building the public health workforce for the 21st century*. Retrieved from http://www.phac-aspc.gc.ca/php-ppsp/pdf/building_the_public_health_workforce_fo_%20the-21stc_e.pdf

Obesity prevention: a proposed framework for translating evidence into action.

Swinburn, B., Gill, T., & Kumanyika, S. (2004). Obesity prevention: a proposed framework for translating evidence into action. *The International Association for the Study of Obesity* 2005, 6, 23-33.

Final Report of Senate Subcommittee on Population Health.

The Standing Senate Committee on Social Affairs, Science and Technology Final Report of Senate Subcommittee on Population Health. (2009). *A Healthy, Productive Canada: a Determinant of Health Approach*. Retrieved from <http://www.parl.gc.ca/40/2/parlbus/commbus/senate/com-e/popu-e/rep-e/rephealth1jun09-e.pdf>

Advancing the Nation’s Health: A Guide to Public Health Research Needs, 2006–2015.

U.S. Department of Health and Human Services. (2006). *Advancing the Nation’s Health: A Guide to Public Health Research Needs, 2006–2015*. Centers for Disease Control and Prevention. Retrieved from <http://www.cdc.gov/od/science/PHResearch/cdcra/AdvancingTheNationsHealth.pdf>

Journals:

Canadian Journal of Public Health

<http://www.cpha.ca/en/cjph.aspx>

Social Science and Medicine

http://www.elsevier.com/wps/find/journaldescription.cws_home/315/description#description

Health Promotion International

<http://heapro.oxfordjournals.org/>

Critical Public Health

<http://www.criticalpublichealth.net/default.asp>

American Journal of Public Health

<http://www.ajph.org/>

Scandinavian Journal of Work, Environment and Health

<http://www.sjweh.fi/>

Websites:

UpToDate

<http://www.uptodate.com/home/index.html>

Health-evidence.ca

<http://health-evidence.ca/>

PublicHealthOntario.ca (esp. the PH Librarians section)

<https://www.publichealthontario.ca/portal/server.pt>

University of Toronto (Dalla Lana School of Public Health) – Centre for Health Promotion

<http://www.utoronto.ca/chp/>

The Canadian Best Practices Portal for Health Promotion and Chronic Disease Prevention

<http://cbpp-pcpe.phac-aspc.gc.ca/>

