Advancing Population and Public Health Economics: Workshop Proceedings

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Acknowledgements

In 2012, the Canadian Institutes of Health Research (CIHR), the Institute of Population and Public Health (IPPH), the National Collaborating Centres for Public Health (NCCPH), the Canadian Population Health Initiative of the Canadian Institute for Health Information (CPHI-CIHI) and the Public Health Agency of Canada (PHAC) came together as partners in a special initiative to study the use of economic research and analysis in the development and evaluation of population and public health (PPH) policies and programs in Canada. Together, they agreed to commission a background paper and hold a workshop to solicit input from a variety of experts.

We all owe the members of the planning committee a debt of gratitude for their collective efforts, namely:

- **François Benoit**, *Lead, National Collaborating Centres for Healthy Public Policy*
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Executive Summary

The workshop provided participants with an opportunity to make recommendations that would enhance the funding, generation, dissemination and use of economic evidence within the Canadian context for the development of policies and programs affecting population and public health. Attendees, who represented a broad range of experts in the field, participated in small group discussions to address specific workshop objectives. They discussed a background paper, written by Lori J. Curtis that set the stage for the meeting and heard presentations from a variety of experts from Canada and abroad. The background paper and each of the presentations are summarized in the body of this report.

Discussion at the workshop was wide ranging and provided participants with a chance to share ideas, discuss best practices, explore gaps and overlaps and recommend steps for concrete action. This report is organized according to the following key themes discussed in each of the small breakout groups and suggestions proposed as part of the plenary discussions.

Discussion Themes

1. ***Research Priorities:*** Key recommendations included developing a conceptual framework for research; working with policy makers to identify priority problems; asking economists about their research interests; benefiting from the perspective of front-line PPH practitioners; developing a suite of micro-simulation models that can be used by a variety of jurisdictions; assessing the impact of interventions in a time-sensitive manner; evaluating how changes to social policy impact the social determinants of health and health outcomes; and examining the trade-offs/tipping points in investing in wait list/chronic disease management as opposed to investing more broadly in the health care system.
2. ***Research Methods:*** Key recommendations included developing approaches that bridge the fields of health services and PPH; using complex data modeling; designing agent-based modeling; creating system-dynamic modeling; and conducting cost–consequences analyses.
3. ***Infrastructure and Networks:*** Key recommendations included creating pan-Canadian research networks to combine multiple streams of evidence for simulation models; strengthening linkages across current networks; building a network of training centres equipped to teach PPH and economics; investing in "big science" by funding an overarching national project that brings together many disciplines; creating research mechanisms (such as Research Chairs); instituting scientific awards; and building individual capacity for economic evidence in PPH.
4. ***Asset Map:*** Key recommendations included establishing a comprehensive asset map that describes Canadian and international capacity, along with institutions that have or are producing primary data sets; determining what data already exists and the steps to follow to access them; summarizing unrefined, existing data; and developing a tool to help public health officials identify which health economists best suit their needs.
5. ***Data Access and Generation:*** Key recommendations included building a data infrastructure; pursuing the idea of open data; enriching existing data; shortening

the long waiting periods involved in obtaining permission to use data; making data directly available to researchers; softening the cost recovery requirement; developing a clear sense of the types of data people want; building on Canada's existing strengths in this area; and producing the types of data needed to fill known gaps.

6. ***Partnerships with Economists:*** Key recommendations included broadening our understanding of how economics may be incorporated into the research; reaching out to a wide variety of economic sub-disciplines; inviting economists to be engaged at the outset of a research process as opposed to at the end; and inviting them to become actively engaged from the very beginning at the proposal writing stage, acknowledging that departmental tenure and promotion guidelines have a role to play; asking clear questions that are relevant and compelling to an economist's frame of reference; and marketing the plethora of data available in the field of public health.
7. ***Partnerships with Other Disciplines:*** Key recommendations included understanding the causes of complex PPH issues from a multi-disciplinary perspective; inviting experts from a wide variety of disciplines to participate in research projects; and working with private-sector experts.
8. ***International Collaboration:*** Key recommendations included supporting Canadian researchers in public health who want to use more international research; building on CIHR's international reputation for excellence; reaching out to areas of economics related to fields of enquiry that are further developed outside of Canada; and connecting with the Pan American Health Organization (PAHO).
9. ***Audience Analysis***: Key recommendations included analyzing the needs and capacity of our target audience; developing a simpler, more sophisticated approach to the way evidence is presented; framing population and public health interventions as part of "demand reduction" efforts; using easy-to-understand, non-technical language that is presented in a user-friendly format; and referencing the work being done in this area by the National Institute for Health and Clinical Excellence (NICE) in the United Kingdom.
10. ***Funding:*** Key recommendations included creating incentives for multi-sectoral collaboration; expanding collaborative funding mechanisms that support joint partnerships in research; providing funding for public health economic chairs, new investigator awards and training programs in health economics; preparing to take full advantage of CIHR's open reforms; asking groups of academics from a variety of disciplines to come together to propose ideas, continuing and expanding funding available to conduct secondary analyses of existing population-based datasets; making access to research funding contingent on having access to data; offering grants that waive data access fees; stipulating in requests for applications (RFAs) that economists must analyze Canadian data; and developing CIHR agreements with the Institute of Clinical and Evaluative Sciences (ICES), Statistics Canada, or others to provide successful applicants with access to their datasets.

Background

On January 14–15, 2013, the NCCPH and CIHR-IPPH, in collaboration with CPHI-CIHI and PHAC, partnered to co-host *Advancing Population and Public Health Economics* in Toronto, Ontario.

This workshop was organized to ask experts in economics how the funding, generation, dissemination and use of economic evidence might be enhanced to better develop population and public health policies and programs in Canada.

The organizers set out five objectives for the workshop. To identify:

1. methods to increase the use and impact of evidence from economic research and analysis in the development of policies and programs affecting population and public health;
2. mechanisms to better link economic analysis and research capacity within and outside of population and public health;
3. current data and/or knowledge gaps;
4. infrastructure needs to support the conduct, funding, dissemination and use of economic evidence and;
5. mechanisms that would promote greater linkages between researchers, practitioners and policy makers in this field.

The full workshop agenda can be found in Appendix B.

Purpose of this Report

This report documents the key discussions and outcomes of the *Advancing Population and Public Health Economics* workshop. Its content is based on notes taken during plenary sessions and breakout discussions held during the workshop, summarizing the suggestions and issues raised by the participants and guest panelists, along with some notes and ideas submitted by members of the planning committee. The report is not intended to be a verbatim presentation of these discussions but rather a synthesis of key themes and presentations.

Context: Perspectives from Workshop Partners

The workshop began with a presentation by two representatives from the workshop partner organizations, Nancy Edwards (Scientific Director at CIHR-IPPH) and François Benoît (Lead at the National Collaborating Centre for Healthy Public Policy, acting on behalf of all NCCPH), who set the stage for discussions. They explained the various reasons why the partners thought it timely to convene such a forum.

Among other things, Nancy Edwards remarked that:

"It is time to view population and public health as an economic asset."

CIHR-IPPH, NCCPH, PHAC and CPHI-CIHI recognize there is a substantial knowledge gap in population and public health economics, priority fields of study that they have committed to advance. Faced with similar quandaries in these fields, the partners see the emergence of complementary work within their organizations as an excellent opportunity to link and consolidate efforts. All four organizations have therefore developed complementary mandates with a view to improving the funding, generation, dissemination and use of evidence in these fields.

Partner Requirements

PHAC

The Public Health Agency of Canada (PHAC) requires evidence to inform the development of policy and practice options and recommendations. Sound economic analysis is an important contributor to the evidence base required to inform decisions within and outside the health sector and to address health equity. To support and advance this work, PHAC has established 7 priorities in these areas.

1. Have the capacity to identify and prioritize its economic analysis needs;
2. Be aware of in-house and extramural capacity and areas of expertise
3. Actively collaborate with key experts and organizations to produce/obtain economic analyses and knowledge products;
4. Critically review and, in select cases, conduct economic analyses on priority topics for the Agency and where expertise is not readily available in other organizations;
5. Assist in the development of consistent economic methods in collaboration with experts (e.g., methods associated with the Economic Burden of Illness in Canada, or EBIC);
6. Work with other federal organizations to provide standard data (e.g., with EBIC);
7. Promote knowledge exchange and dissemination of economic analyses and products for policy, program and evaluation audiences.

CIHI

The mandate of the Canadian Institute for Health Information (CIHI) is to provide comprehensive, integrated health information that enables sound policy and effective

health system management that improves health and health care. CIHI holds data on costs associated with the health care system and has come to recognize the limitations of this data. There is very little economic analysis that brings together data on costs with data on population health and interventions and this is a gap in knowledge that we all need to help fill.

To this end, the Canadian Population Health Initiative (CPHI) of the CIHI is currently conducting two economic analysis projects in this area to better understand the potential of health care systems.

1. CPHI is investigating how greater gains in population health might be achieved without increasing spending (measuring health system efficiency).
2. CPHI is gauging the extent to which the health care system redistributes income from people who are healthy and wealthy to those who are not (measuring the redistributive effect).

CIHR-IPPH

The Canadian Institutes of Health Research-Institute of Population and Public Health (CIHR-IPPH) funds and encourages the production of economic evidence, in keeping with the priorities outlined in its strategic plan, *Health Equity Matters* (2009–2014). Its research themes include the following:

- *Pathways to health equity;*
- *Population health interventions;*
- *Implementation systems; and,*
- *Theoretical and methodological innovations.*

IPPH has noted that economic evidence in the study of population and public health has emerged as a recurring knowledge gap. This gap was cited as a major concern at a number of recent events, including a workshop on Health Equity held by CIHR-IPPH and the National Collaborating Centre for Determinants of Health (2012), a Forum on "Pillar 4" (social/cultural/environmental health) research at CIHR (2012) and two symposia related to population health intervention research (PHIR) (2010 and 2012). The lack of economic evidence on population and public health was also identified by the planning committee of the Population Health Intervention Research Initiative for Canada (PHIRIC) as a priority in its efforts to improve the quantity, quality and use of population health intervention research.

Finally, economic evidence is clearly linked to several CIHR-wide Roadmap Signature Initiatives. For example, capturing the cost of interventions is a notion that is being explored in the *Pathways to Equity for Aboriginal Peoples* Roadmap Signature Initiative and the need to build health economics capacity has been identified as a priority in the Strategy on Patient-Oriented Research (SPOR).

National Collaborating Centres for Public Health

The National Collaborating Centres (NCCs) for Public Health initiated a focus on population and public health economics in response to requests expressed to them by their users and stakeholders. Their mandate is to make knowledge about population and public health understandable to all, using a population health perspective. The study of population health examines and underscores the aggregate impacts in population health, the distribution of health status and the effect of health determinants on different groups within a given population. The concepts used in economic analysis (e.g., allocation) and individual decision-making factors are both challenging and useful tools in the field of population health.

The field of economic analysis has gained currency in today's constrained fiscal environment, where efficiency and effectiveness are the watchwords. In fact, economic analysis has long been perceived as the missing link in our chain of public health resources. But, most professionals in the area of public health have not used nor been provided access to support structures or the critical mass of expertise in this area.

NCCs have a shared objective to support the development of expertise in public health economics and the dissemination of economic literacy among middle-/end-users and researchers. They hold that a critical approach must be developed by professionals in the fields of PPH so that we know when and how to use and commission economic analyses. This critical analytical lens has relevancy for all NCCs in the variety of areas they cover (Aboriginal Health, Determinants of Health, Environmental Health, Healthy Public Policy, Infectious Diseases and Methods and Tools) and will have different applications depending on their respective areas of specialization.

NCCHPP

The National Collaborating Centre for Healthy Public Policy (NCCHPP) has asked what public health professionals felt they needed in the area of economic analysis. It found there was a definite appetite for the use of economic analysis to further the goals of public health and healthy public policy. When it comes to policy, decision-makers want to know how much things will cost and who is paying in order to determine how feasible and socially acceptable a public health intervention may be. Economic analysis is seen as an important tool to evaluate health interventions. Because policy is often a matter of distribution, ethical dimensions such what and who is valued (more or less), must always be explicitly described in any calculations. Aggregate costs, like statistics or any other "big data" produced at the population level, may not adequately weigh these and other issues. NCCHPP sees a real need to develop methods and capacity to deliver sound public health economic analysis. There is also a need to provide an ethical and equity-based perspective, beyond the numbers we see on a spreadsheet.

Perfect Storm of Factors

The point was made during the workshop that the time is ripe for providing stimulating economic evidence on population and public health. The debates over government expenditures and the struggles experienced by policy makers in their allocation of

restricted resources are ongoing. This research is all the more timely, given the following factors:

- Calls for economic evidence from policymakers and in landmark public health reports (e.g., Rein, A.S. and Ogden, L.L., Public Health: A best buy for America, *Journal of Public Health Management Practices*, 2012; Jacobs, J. et al., *Preventing Chronic Diseases, Tools for implementing an evidence-based approach in public health practice*, 2012; The Commission on the Reform of Ontario's Public Services, *Public Services For Ontarians: A Path to Sustainability and Excellence*, 2012).
- *The Social Sciences and Humanities Research Council (SSHRC) decision in 2009 to no longer fund any health research;*
- *Increased expectations concerning the need for cost-effectiveness data on population health interventions;*
- *Consideration regarding the interplay between ethics and economics (e.g., By what standards do we determine what is valued as a benefit or a cost to society?);*
- *Compatibility of cost-effectiveness and health equity goals;*
- *Inadequate economic methods to address* ***complex*** *population health interventions.*

The time has come to implement what some have termed a "triple-A solution." An article entitled, *Why now? Public Health in a Time of Government Austerity,* published in the *American Journal of Public Health* (January 2013: 48–49) described the following "triple-A" steps:

- **A**dvocacy: galvanizing the public and marshalling like-minded citizens to achieve constructive (collective) changing in the way society looks at public health;
- **A**nalysis: using the opportunity the financial crises brings to effect change;
- **A**ction: acting with novel partnerships to bring the entire community to bear in addressing health challenges that cannot be solved by government alone.

In order for this three-pronged strategy in public health investments to succeed, our efforts must be focussed on primary prevention, maximizing our return on public health investments and we must find ways to collaborate with partners, old and new, on funding and other initiatives.

The critical issues identified in the workshop participants are listed below.

Administrative Issues

The Commission on the Reform of Ontario's Public Services *(*see *Public Services For Ontarians: A Path to Sustainability and Excellence)*, or the "Drummond Report," brought to light the many tensions in the field that make progress difficult. In Ontario, as in most provinces, much public health work requires taking a whole-of-government approach. This is an extremely difficult undertaking as, "in reality, the province has a series of disjointed services working in many different silos," (Tanya Talaga, The Drummond Report, *The Toronto Star*, February 15, 2012).

Public Expectations

Canadians clearly want more extensive public coverage for drugs, home care, long-term

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care and mental health care, among other things. Competing demands for health care dollars represent a significant challenge for many public health professionals, who would like to see increased investment in programs outside of acute care.

Tensions in the Field

There are serious tensions in the field of population and public health economics: working to meet requirements around efficiency may conflict with calls for health equity; establishing a basis for comparison may be difficult; discounting suggested approaches may be problematic; and the focus on population-level rather than individually-oriented interventions which are likely to be inter-sectoral in nature challenges the potential for applicability of traditional economic methods. Reconciling diverging opinions about optimal public health policy is a monumental task at the best of times; in today's climate of austerity, it is all the more difficult.

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Gaps in Graduate-level Training

> "Training and support for public health economics is underdeveloped in Canada"

Training and support for public health economics is underdeveloped in Canada. Few Canadian graduate programs in public health or population health have a **required** course in health economics, and only a minority of Population and Public Health Strategic Training Initiatives in Health Research (STIHR) include a public health economics component.

SSHRC Guidelines for the Eligibility of Applications Related to Health

New guidelines regarding subject matter eligibility for health-related research at SSHRC came into effect in 2009.

Investigators whose proposed research is health-related should consult CIHR's mandate **first** to explore eligibility. CIHR has policies and procedures in place to adjudicate the full range of social science and humanities research proposals related to health research. Research eligible under the mandate of CIHR will not be considered by SSHRC.

"Research eligible under the mandate of CIHR will not be considered by SSHRC"

The use of social science or humanities theories, methodologies and hypotheses is, in and of itself, not sufficient to make a proposal eligible at SSHRC. The SSHRC website describes these changes in detail.

Summary of Workshop Presentations

This section provides an overview of individual and panel presentations held during the workshop.

Lori J. Curtis: A presentation of the Workshop Background Paper

Economics, Health Economics and Public Health

Lori J. Curtis, from the University of Waterloo, presented a critically important review of the literature in the fields of economic evaluation and population and public health. This background paper was produced for the workshop and served as a starting point for discussions.

Curtis addressed the goal and objectives of the workshop, emphasizing the complexity of this type of research. Her review of the literature discussed issues around population and public health intervention evaluation may make it difficult to identify which component or combination of components will lead to desired outcomes. Evaluating the costs and benefits of intervention outcomes is a challenge as they may not be restricted to the population group studied. Even more problematic is the challenge of assessing the costs borne by one sector (e.g., the health care system) when the benefits are reaped by others (e.g., the education system or the labour market).

Population and public health intervention effectiveness is difficult but not impossible to measure, according to the literature reviewed. Unfortunately, the gold standard in research — the double blind Randomized Control Trial (RCT) — may not be appropriate due to the ethical, time and cost constraints associated with population and public health interventions. But fortunately, adaptations to the most traditional experimental designs, consisting of different levels of randomization are available and may be more applicable (e.g., individually randomized trials, cluster-randomized trials, stepped wedge designs, preference trials, randomized consent and N of 1 designs).

Although information on intervention costs may be difficult to collect after the fact, sound evaluation design and systematic data collection should make this possible, thus facilitating cost–benefit analyses.

Reducing inequities is a stated objective of the several levels of government the Public Health Agency of Canada and in international public health policy. However, there seems to be some disagreement as to how this objective might be accomplished. Equity considerations should be a standard component of deliberative process input, according to a number of authors.

Policy makers investing in public health interventions to improve population health and to decrease health inequities must appreciate that it may take years or even decades to see changes in health status. The fact that positive outcomes may accrue to future generations often has a powerful influence over the policy process. To address this problem, some

sources suggest calculating costs and consequences using a range of discount rates (including a rate of “zero”) and presenting decision makers with results.

Several substantial barriers to obtaining funding for evaluations of public health intervention research were discussed in the literature. Some authors observed that funding comes more easily to clinical interventions research, perceived as being a more legitimate stream of inquiry (than is public health intervention research) because among other reasons, it enjoys an abundance of systematic reviews. Moreover, wherever multidisciplinary teams and the application of mixed methods are needed, the cost of research will increase.

Access to data remains a serious problem. The National Population Health Survey (NPHS) and the National Longitudinal Survey of Children and Youth (NLSCY) were the only longitudinal population health surveys available in Canada from the mid 1990s until their scheduled termination in 2009–2010. As restricted access has impeded some researchers in their work, some of them have turned to more accessible data sources in the US or UK, which offer greater international appeal. (For example, the British Household Panel and the Panel Study of Income Dynamics (PSID) simply request that users agree to follow the basic rules of confidentiality in order to access their data, which is available online).

The availability of graduate students in Economics and the course loads of economics professors can make it difficult for either to participate in research outside of their area of study. Furthermore, the criteria for achieving tenure and promotion in Economics departments are different than in PPH-related departments. These and other institutional barriers make it difficult to enlist the services of economists in PPH intervention research.

Lastly, the debate continues as to whether indicators of success should be at the individual or population level. The fundamental assumptions of neoclassical economics are based on individual responses, however many population health experts submit that economic evaluations should always be conducted from the viewpoint of society. The challenge then becomes how costs and benefits might best be weighed in economic evaluations of PPH interventions. Pragmatically speaking, appraisals of PPH interventions are usually based on a specific population group, but data from one population group may be difficult to generalize across others.

Curtis concluded by saying that PPH economists have a leading role to play in optimizing restricted resources to improve health outcomes. It is therefore vital that researchers work in interdisciplinary teams to conduct evidence-based research. In this way, they will be well positioned to help policy makers prioritize health problems, prevention and treatment options and resource allocation.

Panel: The Appetite for Economic Evidence — Needs and Caveats

This panel presentation and question-and-answer session featured the following three experts:

- Alan Shiell, *Executive Director of the Centre of Excellence in Intervention and Prevention Science*
- Amelia Brown, *Senior Policy Analyst, Strategic Policy and Research Branch, Human Resources and Skills Development Canada*
- Alain Poirier, *former Chief Medical Officer of Health (Quebec).*

This portion of the report is a summary of the main points made by each of the panelists.

Alan Shiell

According to Alan Shiell, it is reasonable to believe public health would be improved if there were more and better economic analyses performed. Most observers acknowledge that 80% to 90 % of public health evaluations are not significantly difficult, but the remaining work is significantly complicated. The complicated work involves trying to change people's living conditions, which is no small task. Shiell suggested we admit our personal limitations in knowledge and evaluation capacities up front, when faced with complicated interventions.

Maintaining a balance in the trade-off between efficiency and equity is difficult, he observed. Efficiency is a means to an end, whereas equity is the end. In talking about economic distribution, economists tend to overlook the structural forces driving distribution. Measures taken to promote equity therefore easily miss the point that powerful social forces corral people into areas of distribution from which they find it hard to escape.

It goes without saying that all practitioners must improve their understanding of the decision-making context, Shiell says. Without an understanding of who is making what decision and why, it is very difficult to influence outcomes. Studying large interventions as a way of bringing about systemic/structural change (parental involvement, for example) has emerged as a promising development on this front.

Shiell asserted that it is essential that economists question their assumptions. Doing so may not be easy. But he joked that economists do respond well to financial incentives. Therefore, if we want more economic analysis of public health policies and programs, funding is a must.

It is important to consider, however, that increased funding may not be an end in itself. It may yield the same kind of economic analyses we have used in the past. The UK is now offering training in health economics at the Master's level. With that training may come increased demand, a wider variety of analyses and, consequently, an incremental improvement to the situation. Importing expertise from other jurisdictions (such as the UK) can help fill the gap until training programs begin to change the professional landscape in Canada.

Amelia Brown

Amelia Brown said that while she is not a health/public health expert, she could contribute to the general policy research interface theme by speaking about her work at Human Resources and Skills Development Canada (HRSDC) in the area of population aging, a priority federal policy issue. She began by observing that although we may assume our unprecedented demographic issues mainly concern our senior citizens, it is important to realize that this ever-expanding phenomenon affects everything the government does.

Brown also spoke about the difference between academic research and policy research. Whereas the academic approach to research is to advance discussion within a given field of study, the policy research approach asks a research question based on the policy context. Policy questions may be broad, but must be clear and concise in order for its findings to be useful to decision makers. For example: How do we meet the needs of an older society? How changeable are these needs? Will current research paradigms still apply in the future?

Regrettably, often evidence has been produced by researchers, only to not be subsequently used by decision makers. Clearly, researchers must therefore get to know the needs of end users (their target audience) before they begin their work. Researchers should also communicate their evidence or frame findings with end users such as policy analysts and senior management in mind. When analysts are formulating policy, they generally do not have the time and may lack the training to grapple with the complexities of the wide variety of research information they receive. Researchers can help bridge this gap by communicating findings in clear, plain language, rather than in technical, field-specific terms. Research groups might also consider offering more technical training for analysts, to better equip them in understanding complex research.

Brown noted that the connotations of current policy–research interface terminology vary according to their context and may influence the impact of the messages we convey. The word “evidence” is a case in point. Perhaps best known for its use in the courtroom, “evidence” connotes something that is difficult to refute and that should be gathered just to have on-hand in case needed to make an opposing argument or defend a position. Policy analysts may view the word “evidence” through the same kind of lens and see it as a tool for legitimization. But researchers typically prefer to think of evidence as being neutral and scientific, focused on systematically filling knowledge gaps. Unlike the policy analyst, the fact-oriented health researcher does not tend to focus on how archived or new evidence might be used. Brown argued that health researchers should look at how they are using evidence and information, as they can certainly influence the way it is applied in the end. In a similar vein, policy analysts should be cognisant of the impact of words like “story” and “storyline.” Both words can connote fiction, a pleasing yarn that someone wants to hear, rather than a structured analysis that deserves to be heard.

To better integrate research and policy, Brown contended that we need to go further in our integration of research and policy to move our discourse somewhere between “evidence” and “story.” This means focusing more on the analysis and use of information (rather than on the production of knowledge) and on the integration of ideas across areas of research.

We must also take a more sophisticated approach to understanding and communicating the strengths and limitations of research.

Alain Poirier

Alain Poirier began with the idea that in order to increase the use of economic analysis for informed decision-making, better and simpler economic analysis is needed. Economic analyses are not the only factor to consider in the decision-making process, but, given the financial pressures faced by various levels of government, using simple, straightforward language that emphasizes return on investment is essential, he contended. Too often, the melting pot of issues associated with a given problem is overemphasized to the detriment of the resolving the problem itself. Since it is important that our proposals be compelling, we must prioritize important points and make them clearly.

Classic policy making is supposed to be based on evidence, but sometimes facts are requested only after a decision has been made. Remembering to meet the four requirements of decision makers is essential: they want a solution to their problem, they have a political agenda to consider, they are always sensitive to public opinion (often the most important determining factor) and they must be told about precedents. Precedents can prove highly relevant and so pointing out what other countries and provinces are doing may help make persuasive arguments for research projects.

Panel: What Next — Where to Go From Here?

This panel presentation and question-and-answer session featured the following three experts:

- Kenny Lawson, *Research Associate in Economics of Public Health, Institute of Health and Wellbeing, MRC Unit, University of Glasgow*
- Jim Chauvin, *Director of Policy, Canadian Public Health Association*
- Astrid Brousselle, *Associate Professor, Department of Community Health Sciences, Université de Sherbrooke.*

This portion of the report is a summary of the main points made by each of the panelists.

Kenny Lawson

Kenny Lawson began his presentation by pointing out that the problems and issues raised in this workshop were similar to those raised in workshops held across the UK in recent years. This fact was reassuring to him as it meant participants had before them an opportunity to develop common solutions to common problems and to effectively cultivate an international network of researchers and policymakers. In principle, learning must be a two-way process, he held. Economists must educate public health professionals and vice-versa.

> "The problems and issues raised in this workshop were similar to those raised in workshops held across the UK in recent years"

Lawson emphasized the importance of the social determinants of health (e.g., the provision of social housing) as the key drivers of both health and inequalities. Since we are seeing multi-sectoral drivers, we will need to formulate multi-sectoral policy solutions and take a "systems approach" to public health. In this context, a cost–consequence analysis should be conducted. All major consequences should be described in detail (e.g., housing provision, health, employment, or crime). This information can then be tailored to different end-users' needs, including, for example:

1. Cost of provision (e.g. housing-type), to satisfy funder objectives and improve technical efficiency;

2. Cost per health outcome (e.g., Quality Adjusted Life years, or QALYs), formulate or evaluate healthy public policy objectives; and

3. Overall cost–benefit analysis, valuing all outcomes (including health) to assess changes in overall social welfare.

This transparent approach would situate the impacts of various sectors on one another and highlight the need for greater intersectoral cooperation.

Evidence is only one of the elements that go into decision making, according to Lawson. Institutional and political concerns are also key elements of input. Tools for prioritizing (such as Programme Budgeting Marginal Analysis, or PBMA) can help guide decision makers by systematically prioritizing economic evidence vis-à-vis other concerns, thus optimizing restricted resources.

He concluded that given the commonalities between Canada and other countries, there should be scope for "across-the-pond" collaborations. For instance, a range of post-doctoral fellowship schemes exists in the UK where demonstrating strong international collaboration with leading researchers/centres is a precondition of success.

Jim Chauvin

Jim Chauvin called making the economic case for public health "the wicked problem for advocacy." He pointed out that the wealth of in-depth analysis going on in government and in academia is impressive. Nonetheless, the fruits of said analyses are not readily accessible, due political considerations and technical issues, among other things. Lack of access to this information is a serious issue that warrants our attention, he contended.

"Jim Chauvin called making the economic case for public health "the wicked problem for advocacy"

Canada funds many disease-specific studies, all of which are important. Nonetheless, Chauvin contended that we must still make the case for investing in public health writ large and several challenges remain if we are to do this successfully. Sometimes evidence is subsumed by politics in policy decisions. Indeed, the federal government has decided to no longer play a leadership role in public health, leaving the provinces and territories to take up the mantle. Provincial and territorial premiers and ministers of Health are now exploring innovative approaches for delivering cost-effective health care services. For national organizations, such as the Canadian Public Health Association (CPHA), a new dual strategy is therefore required.

On one hand, national organizations along with provincial and territorial public health associations, must "make the case," for research, justifying investments in public health to provincial and territorial governments and legitimizing the social determinants of health. On the other hand, at the federal level, they must strive to understand public opinion at the riding-level, appealing to parliamentarians to take action on public health issues. This local approach is a game-changer for national organizations that have to switch gears and work with members to engage with the communities in their riding.

Determining how deal with corporate influence on public health is a critical issue with its own set of challenges. For example, how do we/should we engage with corporations regarding health issues?

Astrid Brousselle

Astrid Brousselle spoke about her work in Québec. She stressed that decision makers need to integrate economic information on interventions and public health programs into their analyses. Economic information guides and influences their policy decisions.

According to her preliminary findings, the nature of the impacts generated by public health interventions is such that they do not lend themselves well to conventional economic evaluation methods. Therefore, new evaluation approaches had to be sought. For one thing, she contended, we must re-examine the evaluation questions we have been asking to determine whether they are a good fit with decision makers' needs. But we must also ensure that the right methods are in place to meet those needs.

In the research she conducted with the Ministère de la Santé et des Services sociaux du Québec (Quebec's health and social services ministry), Brousselle and her collaborators explored various ways of measuring the performance of public health interventions. In the end, the hybrid approach that was developed combined various known evaluation methods with economic evaluation methods. Four steps were followed in this approach:

1. Build a logic model for the proposed interventions;
2. Calculate associated costs;
3. Assess whether benefits justify costs;
4. Discuss the overall impact of the proposed intervention, including non-valued effects.

This methodological approach is currently being applied to programs for fluoridation, the prevention of sexually transmitted infections and the protection of vulnerable women in Quebec and each study has revealed a whole chain of effects. This work is being done with a number of doctoral and post-doctoral students.

Brousselle found that there is an interest in exploring new approaches to economic evaluation, including a clarification of the roles and expectations of various stakeholders, researchers, decision makers and funders. The role of public health decision makers is to set out the questions, identify values to prioritize and analyze the ethical consequences of proposals. Funders and public health agents act to facilitate access to data.

In conclusion, Brousselle said she believes that researchers must learn from the past, use simpler approaches, innovate methodologies, and take risks. Funders need to support researchers in the hard work they undertake to build new structures for their evolving research paradigm.

Summary of Discussion and Recommendations

Based on the workshop material and discussions, participants formulated a number of recommendations, described in further detail in this section of the report. Recommendations fell into ten broad discussion themes: Research Priorities, Research Methods, Infrastructure and Networks, Asset Map, Data Access and Generation, Partnerships with Economists, Partnerships with Other Disciplines, International Collaboration, Audience Analysis and Funding.

1. Research Priorities

- *Working with policy makers to identify priority problems.* Finding out what questions policy makers are asking is perhaps the most essential element of all in establishing research priorities.
- *Developing a more robust definition of "evaluation," omitting the word "economics" from any discussion of research priorities and broadening the focus on evaluation to include economic analysis.*
- *Benefiting from the perspective of front-line public health practitioners to integrate evidence from economic evaluations in the field.* Evidence has to be adapted to specific contexts in order to better address real-world problems.
- Focusing research on developing *a suite of simple, micro-simulation models that can be used by a variety of (FPT) jurisdictions across the country.* One example of this type of model is the now widely used Population Health Model (POHEM).
- *Assessing the impact of interventions in a time-sensitive manner.* Since provinces and territories continue to reform their primary health care systems, this approach would allow researchers to take advantage of CIHR's system of fast-track research funding to study "natural experiments" that may lend themselves to pan-Canadian comparisons.
- *Evaluating how changes to policy impact the social determinants of health and health outcomes.* This type of research could examine community capacity issues in areas such as housing, employment insurance, transportation and social assistance. It could also help policy makers fully appreciate the weight of health impacts within a community and thereby help focus research on policy evaluation.
- *Conducting an economic analysis of the impact of various provincial policy initiatives and their influence on determinants between provinces.* For example, the impact of housing policy on the social determinants of health and how health costs and other direct costs (such as those incurred by the criminal justice system, child welfare) could be assessed to better understand the effect of change on health outcomes.
- *Examining the trade-offs/tipping points involved when investing in wait lists/chronic disease management, as opposed to investment in the overall health care system.* To this end, strategies for redistributing/re-balancing the investment portfolio could be examined. Given that economists are already working in the areas of welfare, labour and employment, determining where cuts cause lasting

harm to society is a crucial consideration in health research regarding the upstream social determinants of health.

2. Research Methods

- *Recognizing that robust research methods are the bedrock of credible evidence.* Participants were excited to see so many emergent research and analysis methods. Methods in complex data modeling were of particular interest for their great potential in the field of population and public health economics.
- *Developing research methods that bridge PPH and health services, rather than divide them.* In this way, a more comprehensive framework could be established to examine complex problems, such as (economic) issues associated with our aging population.
- *Supporting agent-based modeling in economic evaluations.* Since many public health questions are complex, system-dynamic models could be used much more widely. Models used to study diabetes, such as Bobby Millstein's work, are particularly instructive in this regard. Group models can be helpful in reassuring decision makers that all of the steps required in constructing the model were considered. A group in the United States, led by Millstein, is using this approach. These analysts and others who are familiar with the Canadian public health research and policy contexts could work on developing this approach further. The Canadian Public Health Association (CPHA) has already initiated this dialogue through a workshop they hosted in May 2012. Those interested in the findings of the CPHA workshop should contact the Director of Policy for CPHA. *Comparing two health intervention options by conducting a cost-consequences analysis based on estimates of costs, health consequences and associated impacts*. These comparisons would be a promising practice for researchers and policy makers alike.

3. Infrastructure and Networks

- *Establishing and maintaining networks of researchers, trainees and decision-makers.* These networks could act as important mechanisms for generating relevant economic evidence in population and public health. Having an infrastructure that brings public health and economic experts together in the same room is also an invaluable asset, as we know the two groups do not always fully understand or appreciate each other.
- *Creating a new network in Canada for researchers, research users and economists.* The idea is to engage various sectors who are called upon to study systems-level problems for which there are systems-level solutions. This approach allows researchers to identify methodological problems quickly, as each group presents its own, distinct interests. Methodological problems often figure prominently in discussions about how best to raise awareness around public health problems that fall outside the mandate of individual stakeholder groups. Such an interdisciplinary research network support important players to cooperate on specific projects in order to hold the interest of policy makers.

- *Encouraging existing pan-Canadian research networks to combine multiple streams of evidence for simulation models*. Through these combined efforts, fragmentary data sources could be woven together to multiply the power of the message.
- *Strengthening linkages across existing networks*. Cancer prevention and tobacco networks (e.g., Canadian Centre for Applied Research in Cancer Control) would be logical choices.
- *Building a network of training centres, equipped to teach public health economics.* This network would help public health professionals and economists understand each other better and build both analytic and receptor capacity. At a minimum, bringing these professionals together once a year to discuss areas of common interest would be a positive first step. This approach is already being used in Australia.
- *Funding a "big science" project with an overarching national goal that brings together many disciplines*. CIHR and SSHRC could combine their resources to look at the many ideas that have been put forward over the years. They would have to determine the best strategy for organizing this type of effort and identify which organizations would want to participate. This type of project is in keeping with the mandate of the National Collaborating Centres for Public Health (NCCs), which act as a bridge between researchers and public health experts and practitioners. Non-governmental organizations should also be considered as possible participants. Currently, there is an expectation that the NCCs will work together more to address common themes and problems.
- *Creating mechanisms such as Research Chairs, instituting scientific awards and building individual capacity for economic evidence in population and public health*.

4. Asset Map

Participants were keen on the idea of establishing a comprehensive asset map of individual and organizational population and public health economics capacity. The map would show where Canadian population and public health economics experts are located and what institution they work with, along with their current, past and possible future subjects of interest. It was also proposed that a tool be developed to help public health officials find appropriate health economists.

Beyond mapping current and potential avenues for work in this field, the asset map should include institutions that have or are now producing primary data sets, should identify existing data (an important element in attracting the

"Participants were keen on the idea of establishing a comprehensive asset map of individual and organizational population and public health economics capacity"

interest of economists) and should provide directions for access to this information. Summarizing data that already exists in an unrefined form was presented as a priority.

The asset map could also include work performed in other countries. Scotland, for example, has further developed its public health and economic analysis capacity over the past few years.

5. Data Access and Generation

- *Investing in building a data infrastructure.* Ensuring that existing, relevant data is easily accessible to people who can truly add value to it would be part of this initiative. Open data sourcing has been discussed for many years in Canada and seems to be a recurrent issue. There is no question that more economic data is needed. There is also a clear need for specialists to examine existing data, retrieve it, analyze it, interpret it, present it and make it understandable to decision makers.
- *Shortening the long waiting periods involved in obtaining permission to access data*. Making data directly available to researchers and softening the cost recovery requirement would help ease the substantial (but not insurmountable) financial burden associated with accessing data.
- *Identifying what types of data people want and finding resources to identify which data is most relevant to population and public health.* Pinpointing where the need for economic evaluation data is greatest and focusing collection/improvement efforts on these areas is essential.
- *Building on Canada's existing strengths*. British Columbia, Manitoba, Ontario and Nova Scotia have linked health care records. The idea of building on these data sets should be a priority for researchers. In addition, it was noted that Statistics Canada Research Data Centres (RDCs) have a bibliography of every research project that has been done and will be making data available in a few months (e.g., the RDC at McMaster University in Hamilton, Ontario has a platform where you can look at abstracts and determine whether a document is available). The point was also made that the Manitoba Centre for Health Policy (MCHP) could be an excellent model for others to follow as we develop a comprehensive approach to identifying and linking data. The province of Québec is in the early stages of pursuing this approach. Data infrastructure is being strengthened at this point by increasing linkages within and across provinces to improve data access, an initiative supported by funding organizations that are now requiring that multiple provinces to be involved in proposals. This is a positive step towards access that should continue to be supported.

6. Partnerships with Economists

- *Building partnerships specifically with economists*. Most public health professionals are not trained in economics and most economists are not familiar with the field of public health. Public health researchers need to broaden their understanding of the discipline of economics so that dialogue is more productive and helps enlist the efforts of economists in PPH work. To this end, we must understand how to incorporate the field of Economics into research beyond studies

in “health economics” or specialized sub-areas, like “economic evaluation.” It is important to reinforce the message that economists are not one, homogeneous group. Behavioural, labour and environmental economics, for example, have a great deal to tell us about the behaviour of people acting both individually and collectively. It is critical to invite these economic experts to participate at the initial drafting stage of a research initiative.

“Parachuting economists in at the end of a process: a practice to be discouraged”

- *Parachuting economists in at the end of a process: a practice to be discouraged.* Using economists as “token” technical experts so that it may be claimed an economist was consulted is an unacceptable trend. It is far better to reach out to economists and invite them to be engaged at the outset of a research process as opposed to at the end. By inviting their active engagement from the very beginning at the proposal writing stage, they can shape the questions and decisions about what sorts of data should be collected.
- *Asking clear, compelling questions that are relevant to an economist’s frame of reference*. Getting economists interested in public health intervention evaluations remains a problem. Inviting them to ask the questions or propose them is a way around this problem. Few professional economists will turn down this type of invitation.
- *Marketing the substantial amount of data available in public health.* Disseminating this message could be a powerful incentive for many economists. Most economists working outside the field of public health have little or no idea of all the data they could access.
- *Removing academic barriers to collaboration between economists and PPH professionals.* Participants mentioned that in forming partnerships with economists, they had observed how departmental tenure and promotion guidelines for economists tended to focus on their ability to publish in high-ranking economic journals. Consequently, unless there is a methodological or ideological breakthrough, economic evaluations are unlikely to be published in the type of journals tenure committees like to see and economists will not likely be inclined to choose to partner on public health evaluations.

7. Partnerships with Other Disciplines

- *Building strategic partnerships that foster collaboration between disciplines.* Understanding the causes of complex issues from a multi-disciplinary perspective is essential to helping public health experts with their theoretical work. Only an approach that promotes partnerships with disciplines outside of economics and public health will help decipher how health determinants impact public and population health. Depending on the area of inquiry, epidemiologists, sociologists, urban planners, transportation experts, psychologists and/or other experts may be invited to help to build solid research programs for the study of complex public

health problems. Which disciplines are engaged will depend on the research question being asked.

- *Defining who should be included at the outset of any project.* Naming participants and describing the rules of engagement are critical considerations.
- *Positioning health data* as *an element of input, not an element of output*. This approach makes it easier for public health professionals to find creative ways of conceptualizing problems that speak to professionals in other fields.
- *Inviting other disciplines to ask the questions*. In this way, other disciplines can familiarize themselves with population health data, giving them an incentive to partner with public health professionals.
- *Working with private-sector experts in provincial business councils.* Corporate data could be very useful in shedding light on a number of issues and could be obtained through actuarial firms who look at future trends. Indeed, Networks of Centres of Excellence (NCE) grants and others require private sector partnerships. This opportunity is worth exploring in further detail.

8. International Collaboration

- *Strengthening international collaboration.* Given the fact that every developed economy is struggling with the same budget and health care issues, forging links with and learning from different countries is of critical importance. Supporting Canadian public health researchers in their efforts use international research better and more often would also be a positive development.
- *Making the most of our brand recognition.* CIHR is an internationally recognized brand and hat is a domestic advantage we should build on. As Canada's federal research funding agency, the CIHR could be an attractive partner or funding source for international researchers. While capitalizing on our assets at home, we can make valuable connections abroad.
- *Reaching out to fields of economic enquiry that may not exist in Canada.* This path to building constructive partnerships takes into account the fact that Canada lacks expertise that some other countries have (e.g., in the US, a wealth of knowledge was produced to prepare for health reform and the passage of the Affordable Care Act). Building international partnerships and linkages allows researchers to study cross-border problems such as globalization, climate change and world population growth. Some of the health consequences of these challenges for various population groups will inevitably limit gains made in Canada. Exploring a formal Canada-UK partnership associated with a specific area of research would also be worth considering.
- *Connecting with the Pan American Health Organization (PAHO).* PAHO is an organization that seeks to forge links between economic data and epidemiological data. It is working to create new products to help influence decisions and is currently mapping all of its data. Since Canada needs to undertake a similar project, developing a collaborative arrangement with PAHO could generate immediate benefits.

9. Audience Analysis

- *Communicating information clearly.* Public and population health professionals who want to influence discussions on public health policy must appreciate the needs of their target audience so they can tailor their message to that audience. The persuasiveness of a message does not necessarily lie in the quality of the message itself; it also depends upon the receiver's grasp of economic evidence. Using non-technical language that is easy to understand in a user-friendly format is important. The challenge in adapting the message to the intended audience is to ensure that it is not simplified to the point that the data or the pros and cons of potential policy decisions lose any of their meaning. Our expert from Human Resources and Skills Development Canada (HRSDC) has observed that models easily understood by policy makers are the ones that get the most traction.
- *Explaining the concepts that matter well.* Properly analyzing the needs and capacity of the target audience is essential if messages are to have the desired impact. It follows that we should bear in mind that most decision-makers who are not health professionals are not particularly interested in or knowledgeable about health determinants. They will not know that these determinants are important to consider when thinking about how to frame messages regarding the impact of policies on public health. For instance, using of Quality Adjusted Life years (QALYs) may not have any significant impact in some policy circles.
- *Improving the way we present evidence.* To present evidence in a simpler, more sophisticated way, researchers should describe their range of costs and benefits in terms end users can understand, while framing population and public health interventions as part of "demand reduction" efforts. This is a wise strategy, especially when dealing with acute care or chronic disease management in ambulatory care.
- *Designing communications strategies for a wider audience.* Educating and enlightening the public is imperative as an informed public is well equipped to voice its opinions. In the UK, the government simplified its message by creating the National Institute for Health and Clinical Excellence (NICE). This agency strives to uses plain, easy-to-understand language and Acronyms and specialized terminology are reviewed and kept to a minimum, resulting in clear messaging. NICE's work could serve as an example.
- *Meetings with political and bureaucrat staff.* Researchers rarely meet directly with ministers, but in the end, it is ministers who approve policy and research decisions. Meeting with ministers, their representatives and/or policy leaders could help us in responding better to their needs.

10. Funding

- *Create incentives for partnered research in public health.* Of course, funding stimulates the production of economic evidence in population and public health. Although this workshop is a sign that the funding agencies are aware of the needs of policy makers in various jurisdictions, there is room for improvement in the current research funding system
- *Create incentives for multisectoral collaboration for research in public health.* Our funding structures in Canada make it difficult to conduct the multi-sectoral

research that is needed. The structure of many Canadian universities has not been conducive to building positive partnerships around grants and projects. To remedy this situation, we must create incentives for multi-sectoral collaboration and expand our promotion of collaborative funding mechanisms that support joint partnerships.

- *Providing funding for new investigator awards, public health economic chairs and training programs in population and public health economics.* Our efforts can help to ensure that tomorrow's leading economics researchers are getting the support they need now.
- *Preparing to take full advantage of reforms to CIHR's open grant competition.* An objective of these changes is to make it easier to fund large programs. Research funders (such as CIHR) could promote a mix of interventions and economic analyses in public health by asking groups of academics from a variety of disciplines to meet informally and propose ideas for viable research projects.
- *Continuing to fund secondary analysis (and increasing available funding).* Access to research funding should be contingent upon having access to data. Requests for applications (RFAs) could also require that economists analyze Canadian data. Indeed, CIHR could secure agreements with ICES, Statistics Canada or others to give successful applicants to such competitions access to said data. In addition, grants that waive data access fees and provide enough money to hire research assistants for half a year should be offered.
- *Continuing to develop funding mechanisms that cut across sectors to address complex problems*. Examining models/lessons learned in the fields of justice and mental health research will help break down silos.

Conclusions and Next Steps

The partners involved in organizing this event would like to express their gratitude for the invaluable contributions of all those involved in this workshop. Our organizations remain committed to supporting the funding, generation, dissemination and use of economic evidence in population and public health. The very productive workshop discussions and the extensive literature review by Lori J. Curtis have equipped us all with invaluable tools for honing our respective priorities and approaches. In the coming months, the recommendations that emerged from the workshop will inform our planning for future initiatives.

Appendix A: List of Participants

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Appendix B: Agenda

Advancing Population and Public Health Economics - Agenda

Delta Chelsea Hotel, 33 Gerrard Street West, Toronto, Ontario M5G 1Z4
The Scott Room and the Carlyle Room

The CIHR – Institute of Population and Public Health and the National Collaborating Centres for Public Health, with the Canadian Population Health initiative (of CIHI), and the Public Health Agency of Canada are collaborating on a background paper and related workshop to discuss the use of economic research and analysis in the development and evaluation of population and public health policy and programs. The paper will inform the discussion at this meeting where we hope to solicit input from a variety of experts. The meeting has the following goal:

To engage experts in economics on how to enhance the conduct, funding, dissemination and use of economic evidence within the Canadian context in the development and evaluation of policies and programs affecting population and public health

The meeting has the following five objectives. To identify and discuss:

1. *Methods to increase the use and impact of evidence from economic research and analysis in the development and evaluation of policies and programs affecting population and public health*
2. *Mechanisms to better link economic analysis and research capacity within and outside of population and public health*
3. *Data and/or knowledge gaps that exist*
4. *Infrastructure needs to support the conduct, funding, dissemination and use of economic evidence*
5. *Mechanisms that would promote greater linkages between researchers, practitioners and policy makers in this field*

DAY ONE	
Time	**Agenda Item**
11:00 am-11:30 am	Registration - Carlyle Room
11:30 am-12:15 pm	Welcome and Introductions
12:15 pm-1:30 pm	Lunch (provided) - Carlyle Room
1:30 pm-2:00 pm	**Context-setting: Why are the workshop partners interested in economic analyses in population/public health?** Presentation on why the workshop partners are interested in economic analysis in population/public health. Two representatives will speak on behalf of the partner organizations. Their brief presentation will address the following items: 1. *What we believe we are and are not achieving in relation to our commitment to using economic information in the development of population and public health policy* 2. *What we see as the gaps in the Canadian context* 3. *The key questions and barriers that arise based on what we are doing and have done to date* 4. *How economic analysis can be a useful tool for us, where it has been successfully deployed and how we can improve* **<u>Speakers on behalf of all workshop partners</u>** • Dr. Nancy Edwards, Scientific Director of the CIHR-Institute of Population and Public Health • François Benoit, Lead for the National Collaborating Centre for Healthy Public Policy
2:00 pm-2:45 pm	Discussion and reaction to the presentations based on the answers to the following questions: • *For each of the presentations, what strikes you as the key take-away message or challenge?* • *Based on your expertise and involvement with the economics field, what do you see as leading opportunities and challenges to advancing its funding, conduct, and use in population/public health?* Discussion Facilitator: Michael Trottier, Training Task Group International
2:45 pm-3:00 pm	Health Break
3:00 pm-3:45 pm	**Scoping Review Paper: What was found?** Presentation by Dr. Lori Curtis (confirmed) of the main features of the Scoping Review Paper 1. *What we discovered when we surveyed the literature* 2. *What we learned as a result of what we found and didn't find in the literature* Introduction: Dr. Shoo Lee, Scientific Director of the CIHR-Institute of Human Development, Child and Youth Health

3:45 pm-4:50 pm	Discussion and reaction to the presentation based on the answers to the following two question: 1. *In what way does this work change/not change our assessment of the challenges and opportunities?* 2. *In thinking about knowledge gaps, infrastructure requirements and evidence needs, what are the key messages we can take away from the scoping review?* Discussion Facilitator: Michael Trottier, Training Task Group International
4:50 pm-5:00 pm	Adjournment of the first day
DAY TWO	
Time	**Agenda Item**
8:00 am-8:30 am	Breakfast - Carlyle Room
8:30 am-8:45 am	Welcome re-cap of day one – Scott Room
8:45 am-9:30 am	**The Appetite for Economic Evidence: Needs and Caveats** Presentation by experts, research and policy-oriented organizations regarding their views on the following two questions: 1. What are the intended and unintended consequences of using economic evidence in population and public health decision-making? 2. Where are the knowledge gaps where new evidence is needed and what types of evidence is likely to have the greatest impact? Introduction: Jean Harvey, Director of the Canadian Population Health Initiative **Speakers** • Alan Shiell, Executive Director of the Centre of Excellence in Intervention and Prevention Science. • Amelia Brown, Senior Policy Analyst, Strategic Policy and Research Branch, Human Resources and Skill Development Canada. • Alain Poirier; former Chief Medical Officer of Health (Quebec)
9:30 am-10:00 am	Question and answer session and general reactions
10:00 am-10:15 am	Health Break
10:15 am-11:30 am	**Break Out Activity** Table discussion to answer the following two questions: 1. *What should be the top two areas of research, research capacity building and infrastructure?* 2. *What data gaps need to be addressed in the short term?* Discussion Facilitator: Michael Trottier, Training Task Group International
11:30 am-12:00 pm	Reporting back from the tables and discussion [plenary]

12:00 pm-1:00 pm	Lunch (provided) – Carlyle Room
1:00 pm-2:00 pm	Table discussion to answer the following two questions: 1. *What is the best way to increase the impact and use of economic research and analysis in the development of policies and programs related to population and public health?* 2. *What should be the priority mechanisms used to facilitate linkages between researchers and decision-makers and improve economic analysis and capacity within and outside of population and public health?* Discussion Facilitator: Michael Trottier, Training Task Group International
2:00 pm-2:45 pm	Reporting back from the tables and discussion
2:45 pm-3:00 pm	Health Break
3:00 pm-3:50 pm	**What next? Where to go from here?** Presentation from experts to answer the following three questions: 1. *Based on what we have heard the last two days, where should we take this field?* 2. *What are the intended and unintended consequences in using economic evidence in population and public health decision-making?* 3. *How can we best consolidate what we have learned?* These brief presentations will be followed by a large group discussion Introduction: Beth Jackson, Manager, Equity Analysis and Policy Research, Social Determinants and Science Integration Directorate, Public Health Agency of Canada **Speakers** • *Kenny Lawson, Research Associate in Economics of Public Health, Institute of Health and Wellbeing, MRC Unit, University of Glasgow* • *Jim Chauvin, Director of Policy, Canadian Public Health Association* • *Astrid Brousselle, Associate Professor, Department of Community Health Sciences, University of Sherbrooke* Discussion Facilitator: Michael Trottier, Training Task Group International
3:50 pm-4:00 pm	Summary comments to discuss next steps and how the results of this workshop will be used following the closure of the meeting