ACCELERATING PUBLIC HEALTH SYSTEMS RESEARCH IN ONTARIO:
BUILDING AN AGENDA

THINK TANK HIGHLIGHTS
OCTOBER 22-23, 2012

Proceedings from:

Public Health Systems Research Think Tank

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The views expressed in this document are those of the authors and Think Tank participants and do not necessarily represent those of the sponsors.

Acknowledgments

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EXECUTIVE SUMMARY

Attached are proceedings from the Public Health Systems Research Think Tank held on October 22-23, 2012 in Toronto. The purpose of the Think Tank was to begin to build a Public Health Systems Research (PHSR) agenda for Ontario (ON) that includes research priorities, associated broad research questions, an inventory of interested stakeholder groups, and an action plan for the way forward.

The session began with a discussion about the reasons for developing a PHSR agenda. The group was presented with the results from an environmental scan and an on-line survey, as well as multiple presentations and panel discussions. Fifteen priorities, originally identified in a national PHSR think tank, were presented. The group discussed these priorities, and after some discussion, agreed on one distinct new priority. The group then selected the most important of these priorities for future PHSR research - six were agreed on. For each priority, the group identified potential research questions, methods and stakeholders. The group also highlighted missing partners required to move this agenda forward. Individuals were asked to express their interest in participating in moving this agenda ahead. Below is a summary from each topic.

Reasons for developing an agenda

1. Workforce: To improve our understanding and tracking of health human resources.
2. Accountability: To measure our impact, document our achievements and add credibility to the work.
3. Quality: To improve the quality of our services.
4. Evidence: To inform evidence-based practice.
5. Resource distribution: To set priorities, allocate resources and focus our work; because there is limited funding, setting a shared agenda will allow for better use of resources, and knowing what we are aiming for makes it easier to tell the story.
6. Addressing inequities: As Canada changes there are more and more health inequities and how we address inequities from a systems perspective is an important question.
7. Standardization: Because it provides an opportunity to standardize definitions for data collection.
8. Collaboration: To foster collaboration, and better link researchers, policy makers & practitioners. It sets up window of collaboration and keeps bringing others towards the public health agenda.
9. Administration: Necessary for local public health administration.
10. Impact: For developing/implementing high impact public health programs.
11. Education: To serve growing student/education programs in public health.
12. Knowledge Translation/Communications strategy: To articulate, market and promote the role of public health and promotion.

Key Priorities

1. Public Health Performance
2. Evidence-based Practice
3. Public Health Organization & Structure
4. Public Health Workforce
5. Public Health Infrastructure
6. Partnerships/Linkages

Priority	Research Questions/sub-themes
1. Public Health Performance	1. How do we develop a conceptual model for the development of indicators? 2. What are the impacts of quality improvement systems on public health system performance? 3. How do we ensure relevance and feasibility of performance management systems to practitioners? 4. How can we track inequities in populations as well as the incorporation of equity considerations into policy and practice? 5. How cost-effective & cost efficient is the public health system in ON? 6. How do you do a contribution analysis in public health?
2. Evidence-based Practice	1. Who uses evidence? How is evidence used at Public Health Units (PHU) and what are the contributing factors (enablers/barriers to using evidence)? 2. What evidence is used and what is the quality of the data/evidence being used? 3. How do health units successfully incorporate evidence informed decision-making in the health unit? At all levels of the organization?
Public Health Organization & Structure	1. What is the relationship between how public health is organized (structure, budget, authority, decision making capacity, mandate) and public health performance? 2. Are there international "best practice" governance models that result in better public health performance? How to we make inter-jurisdictional comparisons, within ON, between ON and other jurisdictions, and internationally? 3. Are there preferred organizational models that allow for intersectoral collaboration?
Public Health Workforce	1. Are the core competencies being used? Where and to what effect? 2. Is there surge capacity in public health? 3. What are the types, numbers and distribution of (various) public health professionals across ON, including workforce-to-population ratios? 4. What are the best models of forecasting the public health workforce needs?
Public Health Infrastructure	1. What is the population size and geography required to achieve 'critical mass' (adaptability)? Is there an ideal population size for each PHU? 2. How can access to/use of information, data & evidence improve practice? 3. How does access to a full range of data about health and its determinants impact practice? 4. What components (e.g., skill mix of the workforce, finances) of the public health infrastructure are most influential? How do they influence each other? How do they vary by province?
Partnerships & Linkages	1. How do we assess the meaning, value and outcome of our partnerships from multiple perspectives - including our partners? 2. What are the factors enabling/hindering effective partnerships at different levels (e.g. institutional, community, etc.)? 3. What are processes to enable multi-level partnerships & associated outcomes? 4. What is the role of public health as a convener & steward of partnerships across community organizations with health and among other sectors? What are the infrastructure requirements to enable this to occur? 5. How can we use partnerships effectively to reach equitable service delivery and ultimately health equity?

Suggestions for Methods and Partners are in pages 20-24

Path Forward

Key Steps (beyond the research team mandate)

1. Determine secretariat / steward / convenor for the agenda (such as Public Health Ontario, Western University or the University of Toronto)
   a. Clarify who will lead the initiative and the role of the health units in getting research studies going
   b. Coordinate with the public health sector with regards to a strategic planning process
   c. Define the characteristics of a good steward
2. Seek funding to continue dialogue
   a. For example, Health Systems Research Fund, the Canadian Institutes of Health Research (Partnerships for Health Systems Improvement)
   b. Advocate for appropriate funders and funding relevant to research priorities
   c. Apply for: NCE-Knowledge Mobilization Competition, Canada Foundation of Innovation
   d. Create a list of prospective donors
3. Establish Ontario research network
   a. Invite other provinces to the table
   b. Inventory of knowledge: create inventory of existing and potential information systems for capturing public health activities, summarize/inventory all documents in one place
4. Define research questions (scope/boundaries etc.)
   a. Define boundaries of the public health system for this agenda or project
   b. Achieve consensus on the scope of the research system and services
   c. Focus on research questions that are "researchable" and "fundable"
   d. Apply an ethical lens to the research agenda
5. Develop and strategically shape key questions and "shop" this around with the policy and decision makers while also moving in a parallel process of developing a network of researchers and front line units (strategically involved on specific questions) who are also interested in this area
6. Establish and/or clarify the relationship between this project and national Public Health Systems and Services Research agenda work
7. Choose one place to start within defined timeframe, e.g., one research question
8. Knowledge Translation/Communications strategy: Expedite approval of key messages from research through authorities through a process of consensus, facilitating just in time messaging.

End of Session Commitment Survey

At the conclusion of the session, the team was asked to consider the priorities developed and provide ratings (1-10) on commitment to the workshop directions and the likelihood of success. The group averages are as follows.

Question	Group Average (1=Low….. 10=High)
1. Agreement & Commitment. I agree with and am committed to the priorities we have developed	**8.25**
2. Likelihood of Success. I believe we will be successful in implementing our plans	**7.13**

THINK TANK OVERVIEW

Rationale

Public Health Systems Research (PHSR) is defined as a "field of study that examines the organization, financing, and delivery of public health services within communities, and the impact of these services on public health" (1, p.180). There is a strong concern over the capacity of public health (PH) resources and infrastructure, recognizing a need to develop these via a robust PH research agenda that engages key system players in defining the agenda and working together to address it (2,3). In 1997 and 2002, the US Institute of Medicine urged a stronger focus on exploring and building the governmental PH role and that of other partners involved in PH (3). It is an appropriate time to focus on PHSR development, as there is now a need for stronger and more effective mechanisms for preventing, detecting, and responding to newly emerging health threats on a population-wide basis (4,5).

Think Tank Objectives

The purpose of the Think Tank was to bring together a group of key stakeholders from across ON with an interest and expertise in PHSR, as well as national and international PHSR experts, to engage in discussion and debate about PH systems research priorities at the provincial level. This meeting was designed to move toward consensus on the development of an ON PHSR agenda; initiate the development of an initial five-year plan to advance the agenda; and initiate the establishment of the proposed PHSR network.

The objectives of the entire process were:

1. To build on the national level research priorities with a unique focus on ON.
2. To establish consensus on an ON PHSR agenda.
4. To develop a five-year action plan to advance the agenda.
5. To establish a province-wide network of PHSR researchers, practitioners, and decision-makers.
6. To maintain strong linkages to researchers working on the Canadian PHSR agenda.

Leading up to the Think Tank

In preparation for the Think Tank, an environmental scan was conducted to identify emerging trends in technology, health human resources, quality and innovation in the health-care system, and health systems integration that might be contextually relevant for a PHSR agenda. An online survey was also conducted on PHSR Priorities in ON, sampling from a wide range of PH networks across the province such as health units, ON-based researchers known to be engaged in PH research, relevant research units (e.g., Population Health Intervention Research Network), PH organizations (e.g. Ontario Public Health Agency, Canadian Public Health Association), academic programs in health studies/PH and selected non-governmental organizations. The results from the environmental scan and online survey were presented during the Think Tank and were used to inform decision-making during the agenda-setting process.

Overview of the Think Tank Agenda

The first day of the Think Tank began with a welcome, review of the agenda (Appendix A) and purpose of the meeting, followed by a presentation on the importance of developing a PHSR agenda. This was followed by a group brainstorming session on reasons for a PHSR agenda. Subsequently there was a presentation of the results from the environmental scan and online survey that were done leading up to the Think Tank, and a presentation comparing the ON findings to the national findings from a year prior. The morning ended with a panel response to the ON and national findings and a large group discussion. The afternoon of Day One began with a group exercise to determine the top six priorities for an ON PHSR agenda, and the rest of the day was spent in small groups to develop broad research questions, research methods, and identify potential stakeholders who may be important for addressing each priority area.

Day Two began with a recap of priorities set from day one, followed by a presentation about opportunities and challenges in developing a PHSR agenda, based on experiences in the United States. Next, there was a large group discussion on key steps for moving the agenda forward. A second panel provided perspectives from leaders about how to effectively build synergies for a PHSR agenda given ON's current context. Finally, participants indicated expressions of interest in and/or commitment to specific research topics. The day concluded with closing remarks about the next steps and a brief end of session commitment survey.

Think Tank Participants

Thirty-nine participants attended the Think Tank. This included two invited guests from the United States and the United Kingdom chosen for their expertise in PHSR, along with thirty-seven Canadian researchers, practitioners and policy makers. Although the national level was represented, the majority of participants were from different regions in ON. Organizations represented at the Think Tank are listed in Appendix B.

THINK TANK DAY 1: LAYING THE FOUNDATION

Introduction

Dr. Kothari began by welcoming the participants. She outlined the context for the meeting - that the Think Tank had been planned over a year ago and was an extension of PH research being conducted through a national collaboration. The ON team believed that is was time to begin the dialogue on an ON-specific PHSR agenda. She stressed that the Think Tank represented a collaborative effort between research, practice, and policy.

Dr. Kothari introduced the research team and acknowledged funding sources for the meeting. She gave a warm welcome to the national and international speakers, panel members and the Think Tank facilitator. She briefly went over the meeting agenda and purpose of the Think Tank, presenting a definition for PHSR as well as the objectives and intended outcomes of the Think Tank. In closing, Dr. Kothari noted that the following day and a half was a collective opportunity to begin the dialogue to develop an ON PHSR agenda. She thanked everyone for taking the time to be a part of the event.

Presentation 1: Why Develop a PHSR Program?

John Frank MD, CCFP, MSc, FRCPC, FCAHS, FFPH
Professor Emeritus, University of Toronto
Chair, Public Health Research and Policy, University of Edinburgh
Director, Scottish Collaboration for Public Health Research & Policy

Dr. Frank began by expressing his pleasure at being invited and his belief in the importance of developing a PHSR agenda. His presentation focused on the fact that PH organization and structure in Canada is widely varied across provinces, without accompanying research to measure the impact of these structures on PH performance and population health outcomes. As such, it is extremely difficult to determine an optimal model for PH organization. Furthermore, large-scale PH reforms have historically been driven by ideologies or circumstance rather than evidence, both in Canada and internationally. These reforms are periodic, sweeping, and can happen extremely fast with the change of governments. Dr. Frank used the example of current health reform occurring in the UK as an example, where PH is being moved from inside the National Health System (NHS) clinical care system to local government - specifically community councils. He argued that this was essentially a political move that will have great ramifications on the PH system. PHSR is essential because:

1. We should *expect* periodic pressure for major PH organizational reform – which is usually driven by ideology, not by evidence
2. Developing a body of evidence, based on robust comparative studies of "best models", would be some defense (not 100%!) against quixotic change
3. Much of the Canadian variation in PH organization surely could not be healthy – a lot of the models are "historical accidents" and have never been studied
4. Public sector effectiveness and efficiency matter more than ever now – we have a duty to study how we organize ourselves for PH work
5. The strong Canadian tradition of knowledge translation and exchange in health services/systems research will facilitate impact of PHSR on the PH system.

Dr. Frank also highlighted some key questions that ON is currently facing with respect to organization of the PH system, which could be addressed by PHSR:

- How to ensure PH professional autonomy
- How to prevent "local capture of PH resources": should we preserve funding from ON Government for core programs?
- Should we leave planning, management and evaluation of clinical services to others? (Local Health Integration Networks (LHINs), Health Quality Ontario)

Brainstorming Exercise – Why develop a PHRS agenda?

The facilitator asked participants: What are the reasons for a PHSR agenda (advantages, benefits, positive impacts, etc.)? The group brainstormed over 30 ideas and then merged the similar ideas. This list was then refined by the facilitator to produce a final list of twelve major reasons.

Reasons for a PHSR Agenda

1. Workforce: To improve our understanding and tracking of health human resources.

2. Accountability: To measure our impact, document our achievements and add credibility to the work.
3. Quality: To improve the quality of our services.
4. Evidence: To inform evidence-based practice.
5. Resource distribution: To set priorities, allocate resources and focus our work; because there is limited funding, setting a shared agenda will allow for better use of resources, and knowing what we are aiming for makes it easier to tell the story.
6. Addressing inequities: As Canada changes there are more and more health inequities and how we address inequities from a systems perspective is an important question.
7. Standardization: Because it provides an opportunity to standardize definitions for data collection.
8. Collaboration: To foster collaboration, and better link researchers, policy makers & practitioners. It sets up window of collaboration and keeps bringing others towards the public health agenda.
9. Administration: Necessary for local public health administration.
10. Impact: For developing/implementing high impact public health programs.
11. Education: To serve growing student/education programs in public health.
12. Marketing and public awareness: To articulate, market and promote the role of public health and promotion.

Presentation 2: Context of PHSR in ON - Environmental Scan and Survey Findings

Dr. Anita Kothari, PhD, MHSc
Associate Professor, School of Health Studies, Western University

Dr. Sandra Regan, RN, PhD
Assistant Professor, School of Nursing, Western University

Dr. Kothari presented the results of the environmental scan that was conducted prior to the Think Tank. She reminded participants that its purpose was to sensitize the discussion around PHSR priorities, and encompassed topics relevant to the health care system broadly as well as those specific to the PH system. The scan was conducted using a systematic search of relevant gray literature to identify documents produced by governments and non-governmental organizations (NGOs) at provincial and national levels. In addition, hand searches were conducted on websites of organizations that were identified as key contributors to PHSR literature. Data was extracted from 106 documents produced between 2007 and 2012. The 12 main themes identified from the environmental scan were as follows:

- Disparities in the Healthcare System and Vulnerable Populations
    - ON's PH system must be responsive those living in urban, rural and remote areas, vulnerable subpopulations such as Aboriginal peoples, people with low socioeconomic status and women, and demographic groups with special needs such as children and seniors.
- Health Human Resources
    - The ON PH System faces a shortage of workers, partially as a result of retiring baby boomers but also as a result of the increased need for services as the population ages and increasing rates of disability and chronic conditions. Constraints on health human resources can be more severe in rural and remote areas.

- Regulation and Healthcare Reform
    - The Ontario Drug Benefit eligibility criteria were cited as one area in need of reform to create "fairness" among health care users. Similarly, Medicare was identified as a target for reform, specifically in terms of mental health concerns.
- Issues Related to Specific Conditions
    - Ten specific health conditions were identified as threats to the healthcare system, including: Arthritis, Chronic Obstructive Pulmonary Disease, Diabetes, Obesity, Mental Health Illness, West Nile Virus, Sexually Transmitted Infections, Falls, Resistant Pathogenic Bacteria and Cardiovascular Disease. These conditions present unique challenges to the healthcare system and may require a specialized response.
- Wait Times
    - Solutions to alleviate wait times include investments in health information technology, using nurses to the fullest extent of their scope and encouraging health promotion efforts, and mitigating the need for care where possible through adoption of healthy lifestyles and proper management of chronic conditions by healthcare users
- Health Systems Integration
    - This affects patients who may be seeing multiple healthcare providers for different conditions, or when patients transition between different levels of care (for example from primary to secondary or tertiary care).
- Technology
    - Technology provides new delivery mechanisms to improve care. Unfortunately most provincial health information technology programs have missed their target dates for implementation, exceeded their budgets, failed to show clear benefits and demonstrated an inability to connect the frontline points of care.
- Climate Change
    - Canada's healthcare system not only needs to be responsive to the impact of climate change (for example, emergency preparedness), but also proactive in terms of educating the population and preventing further environmental deterioration.
- Innovation
    - There are numerous aspects of the ON PH system that can be enriched through investments in innovation, including both human resourcing and medical devices.
- Partnerships
    - As ideas about health and health services have shifted away from an acute, biomedical model to a more comprehensive perspective encompassing broader factors that influence health (ex. the social determinants of health), partnering with actors outside of the healthcare system has been identified as an effective way to promote health and deliver healthcare services.
- Food Safety
    - There is an identified need to strengthen health and safety issues pertaining to food, nutrition and health products.
- Health Literacy
    - More than half of working adults in Canada are estimated to have less than adequate health literacy skills. Higher health literacy is associated with better health and lower healthcare costs and so addressing the issue of health literacy may lead to significant improvements in health.

Dr. Regan presented the results of the online survey that was also conducted prior to the Think Tank. The survey was sent to a convenience sample of organizations and individuals with an interest in PH, including PH organizations, government, health professional associations, LHINs, and social policy based organizations. It was distributed through email lists via key organizations and individuals, and asked basic demographic information, levels of familiarity with study concepts, and for respondents to select their top 3 PHSR priorities from a list.

There were 223 respondents who had an average of 10.3 years of experience in PH (range: 0-46years). 69% of respondents worked at the local level, 18% at the provincial level, 9% at the national level and 2% at the international level. All regions of ON were represented in the responses, although a larger percentage came from Toronto Central (22%) and South West ON (14%). A large proportion of respondents were practitioners, as can be seen in Figure 1.

Figure 1: Primary affiliation of respondents on the online survey
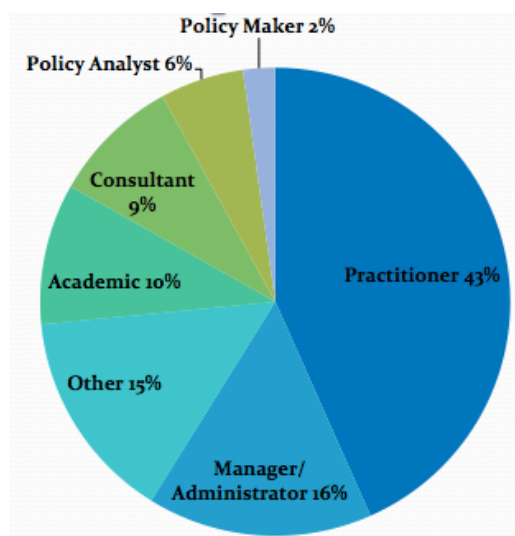
On a scale of 1-10, with 1 being not at all familiar and 10 being very familiar, respondents averaged 7.5 with respect to familiarity of PH Systems. They were slightly less familiar with PH Research (6.55) and even less familiar with PHSR (5.97). The priorities most frequently ranked in the top 3 by respondents were: health disparities, evidence-based practice and PH performance. The ranking of all priorities based on respondent selection can be seen in Figure 2.

Figure 2: Percentage of respondents who ranked each priority in their top 3 choices.
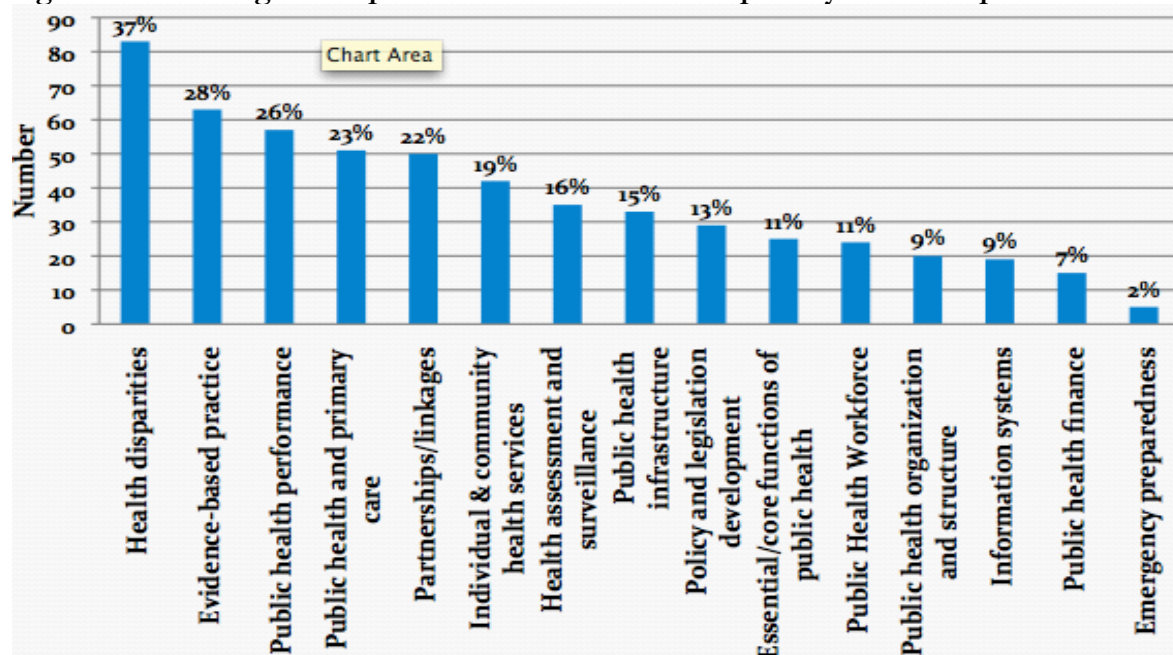
Some respondents commented on the importance of a PHSR agenda for ON and the need for it to be coordinated and communicated appropriately in order to avoid duplication and overlap. It was also noted by some that choosing between the priorities was difficult, either because they were all important or because of the interrelated nature of some priorities.

Presentation 3: ON findings compared to national PHSR priorities

Marjorie MacDonald, RN, PhD
Professor, School of Nursing, University of Victoria
Co-Director, Core Public Health Functions Research Initiative
CIHR/PHAC Applied Public Health Chair

Dr. MacDonald began her presentation with a description of the Core Public Health Functions Research Initiative (CPHFRI), a PHSR project of which she is a co-director. CPHFRI was created to conduct research on PH systems renewal in British Columbia (BC). The goals of CPHFRI were to advance public health services/systems research (PHSSR) in BC and Canada and to contribute to evidence-informed practice and PH practice improvement, among others. The CPHFRI group has received funding for a large number of projects over the past 5 years, one of which was a Think Tank to develop a national PHSSR agenda.

Before elaborating on the national Think Tank, Dr. MacDonald gave a brief clarification on the difference between PHSR and PHSSR. PHSR has been defined as "*a field of study that examines the organization, funding and delivery of public health services within communities, and the impact of these services on public health*" (1p. 180), whereas PHSSR is situated more as a sub-field of Health Services Research. Dr. MacDonald described PHSSR as sitting at the intersection of Health Services Research and PH Research, which in turn fits within Population Health Research.

The national Think Tank was also preceded by an online survey and literature review. Dr. MacDonald went on to make comparisons between the ON survey and the national survey - which

was made possible by the fact that the ON survey design was closely modeled after the national one. In the national survey, there was a more even distribution of respondent primary affiliations, whereas in ON practitioners dominated the responses. The national survey also had a more even sampling of respondents who worked at local, provincial and national levels. Familiarity with the study concepts (PH systems, PH research, and PHSR) was very similar to ON averages. Finally, rankings of the top 3 priorities had some similarities and differences (see Table 1 for ranking differences).

Table 1: Top 5 priorities listed in the national survey and the ON survey

	National Survey	**ON Survey**
1.	Evidence-based Practice	Health Disparities
2.	PH Performance	Evidence-based Practice
3.	PH Infrastructure	PH Performance
4.	Health Disparities	PH and Primary Care
5.	Core PH Functions	Partnerships/Linkages

The purpose of the literature review for the national Think Tank was to identify work being done around PHSSR in Canada and examine PHSSR priorities in 5 countries (Canada, the US, the UK, New Zealand and Australia). The bulk of the work was being done in the US, and countries had different top priorities (based on the number of times each topic was endorsed as a priority). Canada's top priorities included: partnerships, PH infrastructure, Evidence-based Practice and Policy/Legislation. At the national Think Tank, the final list of priorities identified were: Data development/PH Information Systems, PH System Performance**,** Governance, System/Organizational Structures, Knowledge Translation Research, Developing Appropriate PHSSR Methods, Development of Capacity to do PHSSR, PH Ethics and PH Workforce. However, it was recognized that this did not represent consensus on an agenda, which required validation from a broader group of stakeholders. Health Disparities was also not on the final list of priorities, although Think Tank participants acknowledged it as an important issue. A research framework and a logic model were created at the Think Tank, which will be refined as one of several next steps. In the future, the CPHFRI group would like to develop the PHSSR network further, expand funding opportunities and explore the development of an international network.

PHSR Panel 1: Response to ON findings and national work

Dr. Ruta Valaitis, Associate Professor at McMaster University and member of the research team, introduced the members of this panel indicting that the purpose was for them to reflect on what they had heard so far at the Think Tank in relation to the ON and national findings. They were asked 3 questions: What surprised them about the results? How do the results align with their organization's needs in today's context? What is missing from these results/this priority list? Members of this panel included: Ms. Siu Mee Cheng, Executive Director of the Ontario Public Health Association; Dr. Doug Sider, Associate Chief Medical Officer of Health - Infectious Diseases (Acting) at the Ministry of Health and Long-Term Care; Ms. Carol Timmings, Chief Nursing Officer Director - Chronic Disease & Injury Prevention at Toronto Public Health; and Dr. John Garcia, Associate Professor at the University of Waterloo.

Dr. Doug Sider, Associate Chief, Medical Officer of Health - Infectious Diseases (Acting), Ontario Ministry of Health and Long-Term Care

Dr. Sider suggested that the issue of "burden of illness" was missing from the results - specifically when considering the redirection of PH we need to be cognizant of where we are focussing our attentions. When considering burden of illness, three aspects are especially important: a) the burden of mental illnesses, b) chronic diseases and c) injury prevention. When looking at PHSR, we need to consider which focus will be the best use of resources. Related to this comment, Dr. Sider noted that what was missing in the results was the epidemiologic foundation for the categorization of priorities. He then went on to talk about opportunities and challenges for PHSR in ON. Some strengths of the ON system include rich and robust existing PH structures such as the Ontario Public Health Association, a permissive framework for PH, and large capacity for PHSR. Some challenges include governance at both provincial and local levels, an unclear definition of PHSR, and limited capacity in government to tackle all priorities. Dr. Sider concluded that we need to use our resources to identify key questions for PHSR in a collaborative way, and then harness our local capacity and academic resources to push the agenda forward.

Dr. John Garcia, Associate Professor & Associate Director, Professional Graduate Programs, School of Public Health and Health Systems, University of Waterloo; and a member of the research team.

Dr. Garcia indicated that the inclusion of the issue of "wait times" on the list of PH issues was surprising. He commented that perhaps the definition of PHSR used at the beginning was problematic, and that we need to frame the discussion more in terms of systems and mechanisms that produce disease, i.e. as opposed to a focus on health care services. In terms of what was missing, Dr. Garcia noted that financing of PH systems needed to be investigated in more detail - for example the levels of investment and subsequent intervention intensity that will achieve population-level impacts, financing required for northern and rural communities, etc. Tobacco control was missing from the list of priorities, as well as a substantive focus on health environments and health child development. Dr. Garcia liked the way issues were framed in the report from the national Think Tank and mentioned that perhaps we could use that report to think about ON priorities. Although "health disparities" was on the list of priorities, it is important to move beyond recognizing a problem to study the causal mechanisms that give rise to disparities, as well as a focus intervention development, including associated theories of action and intervention effectiveness. A realist evaluation paradigm may be productive. Finally, a complex adaptive systems perspective could have been highlighted better.

Ms. Carol Timmings, Chief Nursing Officer Director - Chronic Disease & Injury Prevention, Toronto Public Health

Ms. Timmings appreciated the collaborative approach for the agenda building and noted that taking the time to build a solid consensus on what the priorities are is foundational to a successful research agenda. She was surprised that the PH workforce was such a low priority for research, considering that 80% of the budget is in health human resources. She also commented that we might consider refining environmental scan and survey themes further - for example, when we talk about infrastructure, we can't talk about those things without the people. Making workforce a priority in the research agenda could make a huge contribution in the literature. We need to see how we use PH expertise to full capacity - to align skills and talent, to allow professionals to work to their full scope, and to use technology in a way that makes sense for the workforce. These issues are critical for an effective response of the PH system. In terms of how the priorities align with her organization, Ms. Timmings felt that the ranking of health disparities, evidence-informed practice, and performance measurement were very important. It is critical to be able to articulate and prove that they're important to policy makers, in terms of returns on investment. Ms. Timmings thought that research was not clearly articulated as an item on the agenda, and that knowledge-to-action was also missing from the list of priorities - PH professionals have a large contribution to make to PHSR.

Ms. Siu Mee Cheng, Executive Director, Ontario Public Health Association

Ms. Cheng framed her response in terms of system enablers (supports needed to make the PH sector perform optimally) and specific PH issues. She said that there was strong alignment of the priorities identified with OHPA interests, especially the top three that were identified in the survey since they will impact practitioners at the front-line level. Some system enablers that were important were health human resources and health systems integration, and PH issues of importance were disparities and vulnerable populations and disease specific issues. Ms. Cheng noted that it was not surprising that issues such as PH finance and health human resources did not make it higher up on the priority list because a large proportion of the respondents were practitioners and it is difficult to engage them in such issues that don't impact their day-to-day work. Some additional system enabler priorities that Ms. Cheng thought were important were PH Systems Planning, PH Economics (Benefits of PH and its impact on the broader health system), Expertise and Competency and Capacity and Planning (as subcategories of Health Human Resources), PH Leadership, PH Policy Impact and PH Advocacy. Some additional PH specific priorities included the Built Environment, Healthy Ageing: Role of PH, Specific PH Policies (e.g. "sin" taxes, marketing towards children), and Behavioural Risk Factors.

Large Group Discussion

Further comments were raised during the large group discussion that followed the panel presentation, such as:
1. Health units are in the process of learning how to use research, and it may be too difficult to ask at this point what their broad research questions are.
2. There seems to be a tension between intervention research versus infrastructure research. How do we market the need for both types of research? One suggestion was to think about policies, programs and services as interventions. Infrastructure is a key aspect of public health system capacity for public health interventions.

3. Many priorities are inter-related, and some of that complexity was missing.
4. Reducing the burden of illness has to be at the forefront of our minds, and that it would be helpful to have a related goal vis-à-vis PHSR.
5. What is the role of public engagement? Relatedly, another missing piece was the local level partnerships with other key stakeholders like school boards.
6. There are three kinds of ethics: clinical, research ethics and PH ethics, the latter of which is ripe for research.
7. There are two foci here: 1) Model 1: - we need to contribute to global knowledge therefore the list of research priorities needs to pass that test. Model 2) – participatory research as a community development tool. We need to be realistic about the list you take to different types of funders. Hopefully there is a type of research that is in between the two.
8. The list also brings to mind the issues pertaining to leadership capacity and whether –we may be avoiding certain questions related to leadership. Research focused on leadership in public health may also be worth pursuing.

Priority-setting exercise for ON PHSR

The group reviewed the existing 15 priorities and added potential new ones. The group then merged the new ones with the existing priorities. After merging, it turned out that there was one additional "new" priority. Below is a list of the priorities (in no particular order) - suggested priorities that were merged can be seen as bullet points under existing priorities, and the new added priority is underlined.

Complete List of PHSR Priorities

1. **PH Performance -** How do we create theoretically based performance indicators and measurement tools to evaluate the efficiency, equity and effectiveness of PH services, while improving quality and safety?
   - PH systems planning and evaluation
   - PH policy impact
2. **PH Finance -** How do we identify the effects of finance on PH performance and organization?
3. **Health Disparities -** How can PH performance and PHSSR create an opportunity to reduce disparities in health?
4. **PH Infrastructure -** How do we ensure the infrastructure resources (organizational structures, financing systems, workforce characteristics, and delivery mechanisms) necessary to implement effective and appropriate interventions for individuals and communities?
   - Investment/business case: where is the PH bang for buck? We need to prove our case and impact on the broader health system
   - PH economics
5. **PH Organization and Structure -** How do the size, boundaries and structures of PH agencies/departments impact the delivery and performance of PH services?
6. **Emergency Preparedness -** How can PH integrate emergency preparedness with a wider range of general PH initiatives?
7. **PH Workforce -** How do we recruit and retain PH professionals, while addressing the issues of education and accreditation?
   - HHR (expertise & competency, capacity & planning, projections)
   - Leadership: capacity, how to do it better

8. **Information Systems -**How can we create and utilize information systems that will improve PH performance?
9. **Partnerships/Linkages -**How do we create and mobilize partnerships/linkages to improve PH system performance (i.e., within and between government, PH agencies, community-based organizations, health care providers, educational institutions and private sector organizations)?
    - Roles of various players (the Ministry of Health and Long-Term Care (MOHLTC), the Canadian Institutes of Health Research (CIHR), Public Health Ontario (PHO) etc.)
10. **Evidence-based Practice -**How do we use existing data to create the foundation for future research initiatives? How do we ensure that PH services and decision-making processes are guided by evidence-based practice?
    - What is the strategic development agenda (overarching)? How do we integrate research into practice?
11. **Individual & Community Health Services -** How do we assess, monitor and align individual and community issues with PH priorities?
12. **Policy and Legislation Development -**Who should be involved in policy and legislation development for individual and community health?
    - Advocacy
    - PH ethics: e.g. tension between individual autonomy and public good
13. **Essential/Core Functions of PH -** What should be included as essential/core functions for PH? How are essential/core functions implemented and what factors influence implementation? What is the impact of essential/core functions implementation on population health?
14. **Health Assessment and Surveillance -**What are the most efficient and effective ways of tracking, forecasting, and disseminating health events and health determinants?
    - Burden of illness/disease
15. **PH and Primary Care -**To what extent does collaboration between these two sectors occur? What influences collaboration? What areas are most important for collaboration to occur?
16. **Role of 'public' in PH**: community engagement, relationships with key stakeholders, leadership etc.

Vote on top six priorities

After creating the list of all the priorities, the group then selected the most critical 6 priorities from this list by vote. The criteria for priority selection were as follows:

The priority...
- Is PHSR-related
- Lends itself to a collaborative approach
- Has a sense of urgency and is likely to get funding
- Lends itself to comparability across jurisdictions
- Supports delivery of population-based interventions

Voting Results

Based on the participants' votes, the top 6 priorities were: PH Performance (23), Evidence-based Practice (22), PH Organization and Structure (20), PH Workforce (20), PH Infrastructure (17) and Partnerships/Linkages (17). For a full distribution of voting results please see Table 2.

Table 2: Vote for the Top 6 PHSR Priorities for ON
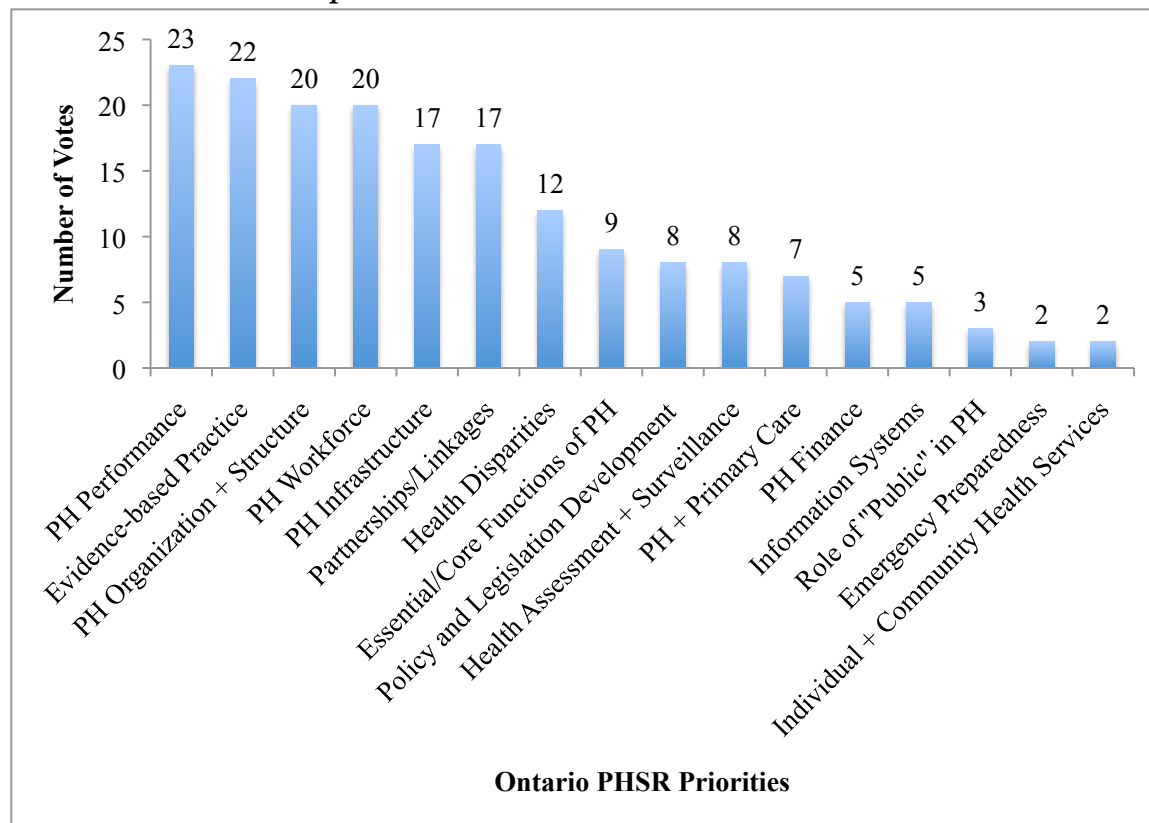
Priorities, research questions, and key stakeholders

Each table of participants was given one of the top six priorities and then asked to brainstorm key research questions, potential partners and stakeholders, and potential methods/approaches to answering them. Priorities were rotated in order for all participants to have a chance to contribute to each priority. Finally, each table selected 3-4 key research questions for each priority. Below are listed key questions, methods/approaches, and potential partners/leads for the priorities PH Performance, Evidence-based Practice, PH Organization and Structure, PH Workforce, PH Infrastructure, and Partnerships/Linkages (please note that we have removed individual names from this list).

PH Performance

Key Questions
- How do we develop a conceptual model for the development of indicators?
- What are the impacts of quality improvement systems on PH system performance?

- How do we ensure relevance and feasibility of performance management systems (including data collection) to practitioners? What are various quality improvement initiatives that exist and which are relevant for PH? How do we differentiate workforce performance and outcome of services, &/or outcomes of partnerships? What are various quality improvement initiatives that exist and which are relevant for PH?
- How can we track inequities in populations as well as the incorporation of equity into policy and practice?
- How cost-effective and cost-efficient is the PH system in ON?
- How do you do contribution analysis in PH? What exactly is the attribution/value add/impact of PH?

Potential Methods/Approaches:
- Scoping literature review regarding conceptual models for development of relevant indicators.
- Mixed methods, situational analysis and cross case analysis.
- Feasibility study using mixed methods, a comparison of internal and external performance management.
- Engaging a PH economist.
- Contribution analysis - to analyze how different components contribute to the outcomes.

Potential Partners, Leads:
- MOHLTC (performance management working group), PHO, Health economists, Business Schools, Health Quality Ontario (HQO), the Registered Nurses Association of Ontario (RNAO) and key researchers.

Evidence-based practice

Key Questions
- Who uses evidence? How is evidence used at PHUs and what are the contributing factors (enablers/barriers to using evidence)?
- What evidence is used and what is the quality of the data/evidence being used? What exactly are the most effective evidence-based practices?
- How do Health Units successfully incorporate evidence informed decision making throughout the health unit? At all levels of the organization?

Potential Methods/Approaches:
- Surveys, focus groups, interviews with PHU staff and management.
- Assessment of the quality of evidence/data used. Review of data sources, retrospective "chart/project" review of literature used for program development/implementation.
- "In house" participatory action research with PHU staff.
- Involve other organizations in the PH system.
- Grounded theory.

Potential Partners, Leads:
- Universities, the National Collaborating Center for Methods and Tools, RNAO (best practice guidelines), Health Evidence, the Association of Public Health Epidemiologists of Ontario (APHEO), collaboration with health unit peers), the Public Health Agency of Canada (PHAC) skills enhancement program, PHO, Peel Region

PH Organization & Structure

Key Questions
- What is the relationship between the way PH is organized (structure, budget, authority, decision-making capacity, mandate) and PH performance (i.e. effective PH practice)?
- Are there international "best practice" governance models that result in better PH performance? How to we make inter-jurisdictional comparisons, within ON, between ON and other jurisdictions, and internationally?
- Are there preferred organizational models that allow for intersectoral collaboration?

Potential Methods/Approaches:
- Case study research.
- Regression analysis.
- Need > 1 province (multi-jurisdictional teams).
- Social network analysis.

Potential Partners, Leads:
- Propel Centre for Population Health Impact, PHO, Association of Local Public Health Agencies (ALPHA), Canadian Public Health Association (CPHA), Western University, and University of Saskatchewan.

PH Workforce

Key Questions
- Are the core competencies being used? Where and to what effect? What core competencies are required in the workforce to take action on the social determinants of health? What common skills to do we all need? Do PH practitioners have the necessary competencies to implement the OPHS effectively? How do the competencies of existing PH workforce map onto the national competencies? What core competencies should be integrated into university undergraduate (i.e. nursing, health sciences, inspectors, social work, dental, nutrition, medicine) and masters programs to ensure an adequately prepared workforce?
- Is there surge capacity in PH?
- What are the types, numbers and distribution of (various) PH professionals across ON, including workforce-to-population ratios (which may be adjusted for population health status, geography, diversity and other factors)? What are the best models of forecasting the PH workforce needs - and what factors would be integrated in to this model?

Potential Methods/Approaches:
- Knowledge Skills Attitudes test pre and post based on the competencies.
- Document analysis of curriculum and programs.
- Concept mapping.
- Situational analysis.
- Intervention-based studies to apply core competencies - group facilitation, interviewing, and communication.

Potential Partners, Leads:
- The MOHLTC, HealthForceOntario, Canadian Health Human Resources Network, Ontario Health Human Resources Research Network, Ontario Public Health Association (OPHA), RNAO.

PH Infrastructure

Key Questions
- What is the population size, geography required to achieve 'critical mass' (consider adaptability)? Is there an ideal population size for each PH unit (matching the PH infrastructure to the population)?
- How can access to and use of information, data and evidence informed practice improve practice?
- How does access to a full range (local and otherwise) of data about health and its determinants impact practice?
- What components (e.g., skill mix of the workforce, finances) of the PH infrastructure are most influential? And how do they influence each other? How do they vary across the province?

Potential Methods/Approaches:
- Having linked databases (inputs, outputs - staff, money) for analysis.
- Economic evaluation (e.g., cost-benefit analysis).
- Document analysis.
- Mixed methods.
- Organizational behaviour studies.
- Qualitative interviews.
- Mapping process.

Potential Partners, Leads:
- Statistics Canada Regional Data Centres, the Institute for Clinical Evaluative Sciences
- Local Health Integration Networks (re: organization and delivery of primary care; partnerships).
- Health Care Master of Business Administration type programs for organizational behaviour studies.
- The Centre for Health Economics and Policy Analysis (economic analysis).

Partnerships & Linkages

Key Questions
- How do we assess the meaning, value and outcome of our partnerships from multiple perspectives - including our partners (for example in PH policy, programs and practice)? What are the best indicators - how do we know/measure effective partnerships and partnership processes?
- What are the factors enabling/hindering effective partnerships at different levels (e.g. institution, community, etc.)? What are the processes to enable multi-level partnerships, and outcomes associated with these?
- Building partnerships across different entities: How do we build partnerships between service, policy and research? What is the most effective/appropriate way to partner with industry? Should PH partner with industry? How does PH partner with the LHINs? What

are the linkages? How much time, financial resources, etc should be invested (from all parties) in creating and maintaining partnerships? Are we engaging the right partners for intersectoral action? How do we create and mobilize partnership across PHUs? Where should PH partner with private sector?

- What is the role of PH as a convener and steward of partnerships across community organizations with health and among other sectors? What are the infrastructure requirements to enable this to occur?
- How can we use partnerships effectively to reach equitable service delivery and ultimately health equity?

Potential Methods/Approaches:
- Social Network Analysis.
- Qualitative research, mixed methods, surveys.
- Developmental evaluation.
- Participatory Action Research, storytelling, PhotoVoice.

Potential Partners, Leads:
- OPHA, government, PH agencies, community-based organizations, health care providers, educational institutions and private sector organizations.

THINK TANK DAY 2: MOVING TOWARDS AN AGENDA

Presentation 4: Challenges and Opportunities Developing a PHSR Agenda

Dr. Timothy Van Wave, DrPH
Associate Director for Science
Office for State, Tribal, Local and Territorial Support
Centers for Disease Control and Prevention

Dr. Van Wave presented three main themes to consider when developing and using a PHSR agenda: 1) Defining the PH system, 2) Linking research, policy and practice and 3) Ethical considerations in systems and services research.

1) Defining the PH system
Dr. Van Wave observed that in order to build a solid research agenda, it is important to have a definite definition of the PH system. Some cross-cutting system components include the workforce, finance, data and technology, organization and structure, leadership and governance, medical technologies and service delivery. PH systems are complex and dynamic, and systems-level thinking is required in order to develop an appropriate PHSR agenda. Systems thinking recognizes no one individual element determines the systems function or outcomes, the system is dynamic with interactions among all components affecting system performance, the system's composition is constantly changing and is   and is nonlinear and governed by feedback. A systems view recognizes PH intervention impact can also vary at different points in time. For example, an intervention instituted in 2012 may produce effects in 2014 that are unexpected or very different from the result that had been intended. Dr. Van Wave contrasted some traditional lines of thinking (static thinking, systems-as-effect thinking, tree-by-tree thinking, factors thinking and straight-line thinking) with systems thinking approaches (dynamic thinking, systems-as-cause thinking, forest thinking,

operational thinking, and loop thinking). The key question is how to apply the principles of systems thinking in developing a PHSR agenda?

2) Linking Research, policy and practice
To link research, policy and practice, Dr. Wave encouraged Think Tank participants to take a utilization-focused approach to agenda development. It is important to identify primary intended users (who are the users of the agenda) and primary intended uses (what are they going to use it for?). It is also important to consider what parts of the agenda could be just in time for policy, creation of questions for practitioner organizations, and determining what constitutes a critical mass of evidence for a policy-user or practitioner in order to take action.

3) Ethical considerations in systems and services research
There are important ethical considerations for both developing an agenda, and using the agenda. Some ethical considerations when developing the PHSR agenda include: Who decides and why on: the development process used, the agenda's content, the type and content of the agenda's research questions, the participants for the agenda's development and if the agenda contains questions that are fundable, doable. In using the PHSR agenda, some considerations include: the potential harms of using this agenda, execution and monitoring the agenda's progress, and expectations of public/private partnerships in moving forward with this agenda.

Dr. Van Wave concluded by saying that he sees Ontario's PHSR development as a well-timed effort full of opportunity to contribute to strengthening Ontario and Canada's public health system and its services.

Large Group Discussion: Developing a Process

Participants were asked to identify missing stakeholders (who needs to be part of this dialogue to develop this agenda), as well as next steps for moving the agenda forward in the form of a "to do" list.

Who is missing from the dialogue on PHSR?

Population Groups:
- Aboriginal groups, citizens/the public, community members + representatives of community organizations, different target populations depending on the question, more policy makers and practitioners, "worker bee" researchers to do the work, and PH managers & staff, users who are going to make major systems decisions in the next 4 years that have the potential to improve the effectiveness of PH.

Individuals:
- Municipal Chief Administrative Officers (CAOs), Chief Nursing Officers (CNOs), Executive Director of Public Health Division & Health Promotion, other researchers.

Professional Associations/Networks:
- Association of Nursing Directors and Supervisors of Ontario Official Health Agencies (ANDSOOHA), Association of Public Health Epidemiologists in Ontario (APHEO), the Board of Health section of the Association of Local Public Health Agencies (alPHa), Association of Municipalities of Ontario (AMO), Canadian Health Human Resources Network (CHHRN), Ontario Health Human Resources Network (OHHRN), Ontario

Society of Nutrition Professionals in Public Health, Health Promotion Ontario, Association of Ontario Health Centres (AOHC), Association of Family Health Teams of Ontario.

PH Organizations/Agencies:
- Heart and Stroke Foundation of Ontario (HSFO), Canadian Cancer Society (CCS), Canadian Partnership Against Cancer (CPAC), Health Quality Ontario (HQO).

Health Care:
- Community Health Centres, Hospitals.

Institutes/Centres:
- National Collaborating Centres for Public Health (NCCs), Institute for Clinical Evaluative Sciences (ICES), Wellesley Institute, Caledon Institute of Social Policy, Funders beyond Canadian Institutes of Health Research (CIHR), Institut National de Santé Publique du Québec (INSPQ), and the BC Centre for Disease Control (BCCDC).

Government Partners:
- First Nations and Inuit Health Branch, Provincial government (e.g., Ministry of Children and Youth Services, Ministry of Education), Municipal government (e.g. School Boards).

Education:
- All schools and programs of PH/health professional programs (e.g. Schools of Nursing, Medicine, Nutrition, PH).

Next Steps

Research Team Commitments

1. Circulate results of October 22-23, 2012 Think Tank (for feedback, input, interest)
2. Identify missing stakeholders (who needs to be part of this dialogue to develop this agenda)
3. Create an e-mail distribution list

Next Steps for the Larger Group

1. Determine secretariat/steward/convenor for the agenda (e.g. PHO, Western University, the University of Toronto).
   a. Clarify who will lead the initiative and the role of the health units in getting the research studies going.
   b. Coordinate with PH sector strategic planning process.
   c. Define the characteristics of a good steward.

2. Seek funding to continue the dialogue.
   a. E.g., Health Systems Research Fund, CIHR (Partnerships for Health Systems Improvement).
   b. Advocate for appropriate funders and funding relevant to research priorities.
   c. Apply for: the National Centres of Excellences Knowledge Mobilization. Competition, Canada Foundation for Innovation.
   d. Create a list of prospective donors of fund.

3. Establish the Ontario research network.
   a. Invite other provinces to the table.
   b. Inventory of knowledge: create inventory of existing and potential information systems for capturing PH activities, summarize/inventory all documents in one place.

4. Define research questions (scope/boundaries etc.).
   a. Define boundaries of PH system for this agenda or project.
   b. Achieve consensus on the scope of the research systems and services.
   c. Focus on research questions that are "researchable" and "fundable".
   d. Apply an ethical lens to the research agenda.

5. Develop and strategically shape key questions and "shop" this around with the policy and decision makers while also moving in a parallel process of developing a network of researchers and front line units (strategically involved on specific questions) who are also interested in this area.

6. Establish and or clarify the relationship between this project and national PHSSR agenda work.

7. Choose one place to start within defined time frame, e.g., one research question.

8. Knowledge Translation/Communications strategy: Expedite approval of key messages from research through authorities through a process of consensus, facilitating just in time messaging.

Panel 2: Building synergies – Leaders' Perspectives of the Current Context in ON

The purpose for panel members was to assist in thinking about how to move the agenda forward from here. Members of this panel included: Dr. Vivek Goel from PHO, Dr. Sarah Viehbeck from CIHR - Institute of Population and Public Health, Ms. Jane Underwood from McMaster University, and Dr. David Mowat from Peel Public Health.

Dr. Vivek Goel, President and Chief Executive Officer, PHO

Dr. Goel had five main remarks to make about moving forward with the PHSR agenda:

- A clearer definition for PHSR needs to be established. In order to do this, perhaps the group could think about the things that produce health, and then see what they want to study in terms of health-producing functions that we have.
- PHSR is a long game: people have to be ready to work on it for the long haul. One important part of this that Dr. Goel noted is building up data systems - especially surveillance for chronic diseases and key risk factors. There are no information systems on inputs into PH, however it is important to know inputs as well as outputs. The Institute for Clinical Evaluative Sciences could be an important partner in this.
- The approach to evidence and methods in the first day was along more traditional lines that hierarchize evidence quality. Dr. Goel pointed out that hierarchies of evidence were created

for clinical evaluations, and that when looking at complex systems, the group needs to look to other methods and forget about hierarchies of evidence.

- Dr. Goel pointed out the value of giving a larger role to practitioners in developing and implementing a research agenda, giving the transformation of the old Public Health Research, Education & Development program as an example. Many ideas put forth in the Think Tank have also come out of local health units (where academics were left out of the room). The researchers in this case were more akin to methodological consultants, and the process worked well.
- In closing, Dr. Goel pointed out a few issues he noticed hadn't come up in the Think Tank. The group had not yet talked about approaching PH in a way that intersects with law (e.g. the new ruling on HIV). They hadn't talked about social, legal, ethical dimensions. Finally, in the era of accountability, everyone needs to show the impact of what they do. There are intangibles that come out of these types of processes, which we don't have metrics to capture. In the agenda the group needs to focus on how they will measure the impact of that kind of work.

Dr. Sarah Viehbeck, Senior Evaluation Associate, Canadian Institutes of Health Research - Institute of Population and Public Health

Dr. Viehbeck offered some reflections on the directions that the Think Tank was taking, as well as information on institutes and programs within CIHR that could present opportunities for funding this type of research. First, she encouraged participants to consider from a research funding perspective what ON/Canada's niche role could be. Dr. Viehbeck also pointed out that some features of systems thinking (adaptation, complexity, resilience etc.) might be relevant to consider. She noted that that "impact" of the public health systems/services research agenda could be framed as either impact on capital "PH" (i.e. the formal governmental public health system) or "the public's health". She observed that many of the issues raised in the environmental scan seemed to fall more in the realm of health care, but that some of the terminology could be transferred to the public health context. For example, wait times for a PH issues (such as healthy built environments). Finally, Dr. Viehbeck pointed out the strengths of a programmatic approach to research (such as with Dr. MacDonald's team), where the research agenda involves has multiple, linked projects and doesn't rely on a single type of funding source. A programmatic approach to research could have the potential to mobilize around emergent research questions based on practice/policy opportunities, and can also be used as a platform to build capacity and interest among trainees.

When considering specific funding opportunities, Dr. Viehbeck talked about priorities within the Institute of Population and Public Health (IPPH) and the Institute of Health Services and Policy Research (IHSPR). She reminded participants that the bulk of CIHR's funding envelope was available through the open operating grants program, rather than through strategic funding opportunities.

IPPH Relevant Priorities (http://www.cihr-irsc.gc.ca/e/40524.html)
- Implementation systems for population health interventions in PH and other sectors

IHSPR Relevant Priorities (http://www.cihr-irsc.gc.ca/e/41544.html)
- Primary and Community-Based Health Care
- Financing, Sustainability and Governance

Relevant Programs:
- Community Based Primary Healthcare: A Roadmap Signature Initiative (note: this initiative includes PH, but requires a comparative dimension to apply). Some priorities within this initiative that could fit are: Chronic Disease Prevention and Management in Community-Based Primary Healthcare and Access to Appropriate Community-Based Primary Healthcare for Vulnerable Populations.
- Partnerships for Health Systems Improvement (this has potential, especially because it has offered multi-year funding in past competitions).

In closing, Dr. Viehbeck observed that the group has many strengths, including:
- A programmatic approach to research grounded in an agenda.
- Creative consideration of the design and delivery of public health as an "intervention".
- Potential for comparative research through the different design and delivery mechanisms for public health across all provinces (and the strong collaboration between the Ontario and BC research teams).

Ms. Jane Underwood, Associate Clinical Professor, McMaster University and Public Health Consultant, Underwood & Associates.

 Ms. Underwood reflected on some key groups and practices needed to "ask the right questions" and move this agenda forward.

Key groups:
- PH Workers: community intelligence often comes last on the list in PH, however PH workers have a great track record on working with community and we shouldn't lose that.
- Policy-makers: are important for contextual analysis. Researchers can figure things out but they may not understand them as people in the field like policy-makers.
- Researchers: Ms. Underwood was concerned about losing academic researchers in this mix. Academics are needed inside sooner than later in the game, particularly because it is the academics that really want to do the research. If we lose the critical mass of researcher expertise in university, we are losing part of the sustainable plan for PH.

Key Practices:
- We can build on past research and experience; and we don't need to start at the beginning for personnel or content.
    - We could emulate the PHRED model which nurtured well recognized outstanding Public Health researchers from university settings such as Drs. D. Ciliska, N. Edwards, R. Valaitis, and L.W. Chambers, to name a few. Currently there are some experienced Public Health researchers that could use field support to continue their work, such as Drs. A. Kothari, R. Valaitis and others. These experts located in university settings do high quality research themselves and if funded, can attract and train new researchers to produce high quality research products.
    - We could build on work of Drs. R. Valaitis, M. MacDonald and others on topics such as primary care intersection with public health, systems dynamic modeling for health policy relevant to social determinants of health, contribution of core PH services etc. We could even build on the work regarding enablers and barriers for Public health practitioners (Underwood + David Mowat).

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- PH is a small world in Canada, and even smaller in Ontario. There are many opportunities to work together, and we need to put structures, funding and processes in place so we can take advantage of the synergies that are available.

Dr. David Mowat, Medical Officer of Health, Peel Public Health

Dr. Mowat began by saying that it is interesting to see people work towards a consensus and that the group had done a great job. He agreed with what participants had arrived at, especially sticking to one "S" (systems) for PHSR and Ms. Timmings' points about the importance of the public health workforce. He noted that there is a thirst among workers for how PH can be better organized; however, at other end of the spectrum is structure. This is problematic because leadership (e.g. government) counts for much more than structures and leadership is always changing. It is important to find the critical part within structures that really makes a difference.

Dr. Mowat also commented on methodological issues, stressing the importance of a complex systems approach to research. He noted that it is important, however, not to be overwhelmed by thousands of differences in context and that there is no magic bullet in terms of methodology for understanding very complex issues. We need to choose issues that <u>can</u> be studied. For example, in ON, there are variations on methods of governance. In regionally run governance, Medical Officers of Health have very different opinions on how they function, which looks the same on paper. The differences can be in leadership, personalities, etc., which can be hard to study. When looking at issues of Health Human Resources, Dr. Mowat urged participants to work on knowledge translation, rather than counting the number of PH staff.

He also noted that the agenda was not an agenda *per se* - he likened it to a menu of potential options. When picking an option it is important to consider certain questions:

1. How do we engage people with what is important and urgent?
2. What do we know? What do we need to know? What will our study(ies) add?
3. How to we pick issues that are doable, fundable, and useable?

In his closing comments, Dr. Mowat suggested that in choosing a focus for the agenda, we need to start with PH system objectives: improving population health and reducing disparities. If we target certain diseases, chronic diseases would be ideal because they will be much more impacted by preventive measures than clinical measures.

Expressions of interest in participating

Participants were asked to express their interest each/any of the six PH research priorities, under the following categories:

1. I am interested in this research topic, would like to be kept informed, perhaps part of a team
2. I am committed to driving this forward (as a champion, lead, or key partner)

Names are withheld in this section to protect the privacy of those involved, but Think Tank participants are welcome to contact Dr. Kothari to obtain the names of interested parties.

Think Tank Evaluation

At the conclusion of the session, the team was asked to consider the priorities developed and answer a number of questions regarding their satisfaction with the Think Tank, agreement with the decisions made, and commitment to the research agenda. Please see Appendix C for the evaluation questions and results.

Closing Remarks

Drs. Kothari and Regan thanked everyone for their commitment to the development and advancement of the PHSR research priorities.

References

1. Mays, GP, Halverson, PK., Scutchfield, DF. 2003. "Behind the Curve? What We Know and Need to Learn from Public Health Systems Research." Journal of Public Health Management & Practice 9(3):179-82.
2. Scutchfield DF, Marks JS, Perez DJ, Mays GP. 2007. "Public Health Services and Systems Research". American Journal of Preventive Medicine 33(2):169-171.
3. Institute of Medicine. 2002. The Future of the Public's Health in the 21st Century. Washington, DC: National Academies Press. Also available at: http://books.nap.edu/catalog/10548.html.
4. Mays GP, Halverson PK, Scutchfield DF. 2003. "Behind the Curve? What We Know and Need to Learn from Public Health Systems Research". Journal of Public Health Management & Practice 9(3):179-182.
5. Scutchfield DF, Patrick K. 2007. "Public Health Systems Research: The New Kid on the Block". American Journal of Preventive Medicine 32(2):173-174.

Appendix A - Think Tank Agenda (October 22-23, 2012)
Accelerating Public Health Systems Research in Ontario: Building an Agenda[1]

Purpose: to build a Public Health Systems Research (PHSR) agenda for Ontario that includes research priorities, associated broad research questions, an inventory of interested stakeholder groups and an action plan for the way forward.

PHSR Definition: "a field of study that examines the organization, financing, and delivery of public health services within communities, and the impact of these services on public health"[2]

Day 1: Laying the Foundation

*8:00-8:30	**Networking Breakfast (provided)**
8:30-9:00	**Welcome, introductions, review of the agenda, and context setting** *Speakers: Dr. Anita Kothari, Associate Professor, Western University; Dr. Sandra Regan, Assistant Professor, Western University; Mr. Erik Lockhart, Associate Director, Queen's Executive Decision Centre*
9:00-9:40	**Why develop a public health systems research agenda?** *Speaker: Dr. John Frank, Director, Scottish Collaboration for Public Health Research and Policy*
9:40-10:00	**Brainstorming reasons for a public health systems research agenda** Small Group Work – all participants *Facilitator: Mr. Erik Lockhart*
10:00 -10:30	**Presentation of the findings from the Environmental Scan and On-line Survey regarding PHSR priorities (pre-reading provided).** *Speakers: Dr. Anita Kothari and Dr. Sandra Regan*
10:30 – 10:45	**Break (provided)**
10:45-11:15	**National Work – How do Ontario findings align with national agenda setting? What are the national priorities?** *Speaker: Dr. Marjorie MacDonald, Professor, UVic, CIHR/PHAC Applied Public Health Chair*
11:15-12:00	**Panel response to Ontario findings and national work** Panel of representatives from the Ontario Public Health Association, Ministry of Health and Long-Term Care, Toronto Public Health and the University of Waterloo, followed by group discussion. *Speakers: Ms. Siu Mee Cheng, Executive Director, OPHA; Dr. Doug Sider, Associate Chief Medical Officer of Health - Infectious Diseases (Acting), MOHLTC; Ms. Carol Timmings, Chief Nursing Officer Director - Chronic Disease & Injury Prevention, TPH; Dr. John Garcia, Associate Professor, University of Waterloo* *Moderator: Dr. Ruta Valaitis, Associate Professor, McMaster University*
12:00-12:30	**Q & A: Large group discussion with researchers and guest speakers.** *Facilitator: Mr. Erik Lockhart*
12:30-1:15	**Lunch (provided)**
1:15-2:15	**What are the top five priorities for Ontario PHSR?** Small and Large Group Work – all participants *Facilitators: Mr. Erik Lockhart, Dr. Heather Manson, Chief - Health Promotion, Chronic Disease and Injury Prevention, PHO*
2:15-2:30	**Priorities, research questions, and key stakeholders** *Speaker: Mr. Erik Lockhart*
2:30 – 4:15	**Priorities, research questions, and key stakeholders** Large and small group work – Based on priorities identified, participants identify most important research questions, rationale for inclusion in the research agenda, who might be involved (key stakeholders, leads), and potential methods. Break Included *Facilitators: Mr. Erik Lockhart, Dr. John Garcia, Dr. Linda O'Mara, Associate Professor, McMaster University*
4:15-4:30	**Wrap-up day**
6:30	**Group Dinner** (Optional)

Think Tank Agenda (October 22-23, 2012)
Accelerating Public Health Systems Research in Ontario: Building an Agenda[1]

Day 2: Moving Towards a Public Health Systems Research Agenda

*8:00-8:30	**Networking Breakfast (provided)**
8:30-9:00	**Welcome and recap proceedings from Day 1** *Speakers*: Dr. Anita Kothari, Dr. Sandra Regan and Mr. Erik Lockhart
9:00-9:30	**Opportunities and Challenges: Developing a PHSR agenda** *Speaker*: Dr. Timothy Van Wave, Associate Director for Science, CDC's Office for State, Tribal, Local and Territorial Support
9:30-10:30	**Moving Forward: Developing the process for an Ontario PHSR agenda.** Large Group Discussion *Facilitator*: Mr. Erik Lockhart
10:30-10:45	**Break (provided)**
10:45-12:00	**Building synergies – Leaders Perspectives of the Current Context in Ontario.** Panel of representatives from Public Health Ontario, the Canadian Institutes of Health Research, McMaster University and Peel Public Health, followed by group discussion. *Speakers*: Dr. Vivek Goel, President and CEO, PHO; Dr. Sarah Viehbeck, Senior Evaluation Associate, CIHR - Institute of Population and Public Health; Ms. Jane Underwood, Associate Clinical Professor and Public Health Consultant, McMaster University; Dr. David Mowat, Medical Officer of Health, Peel Public Health *Moderators*: Dr. Sandra Regan and Dr. Anita Kothari
12:00-12:30	**Wrap up – Going forward from the Think Tank.** *Speakers*: Dr. Anita Kothari, Dr. Sandra Regan and Mr. Erik Lockhart
12:30	**Lunch (provided)**

Think Tank Location:	Public Health Ontario, 480 University Avenue, Toronto ON Meetings will be held in Boardroom 350
Accommodations Location:	Holiday Inn Downtown Toronto Centre, 30 Carlton Street, Toronto ON, M5B 2E9 Telephone: (416) 977-6655

Check-in Time: 3:00 pm
Check-out Time: 11:00 am

Breakfast and Lunch will be provided to participants on both days, with an optional Group Dinner on the night of the 22nd. No other meal expenses will be reimbursed.

Rooms at the Holiday Inn for out of town participants have been booked and paid for by the PHSR Think Tank. Please note that while Internet access from hotel rooms is complimentary, guests will be responsible for covering all other incidental costs (ex. cable TV, parking, etc). Parking at the Holiday Inn is $25/day.

Transportation costs to the Think Tank will be covered. Please retain any receipts and submit them to Anita Kothari, along with any other expenses, within sixty (60) days of the expense date.

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[1] Funded by the Canadian Institutes of Health Research, Public Health Ontario, the Renewal of Public Health Systems Emerging Team Grant and Dr. Marjorie MacDonald's CIHR Applied Public Health Chair

[2] Mays GP, Halverson PK, Scutchfield DF: Behind the Curve? What We Know and Need to Learn from Public Health Systems Research. J of Public Health Manage Practice 2003; 9(3):179-182.

Appendix B - Participant List

Accelerating Public Health Systems Research in Ontario: Building an Agenda Think Tank
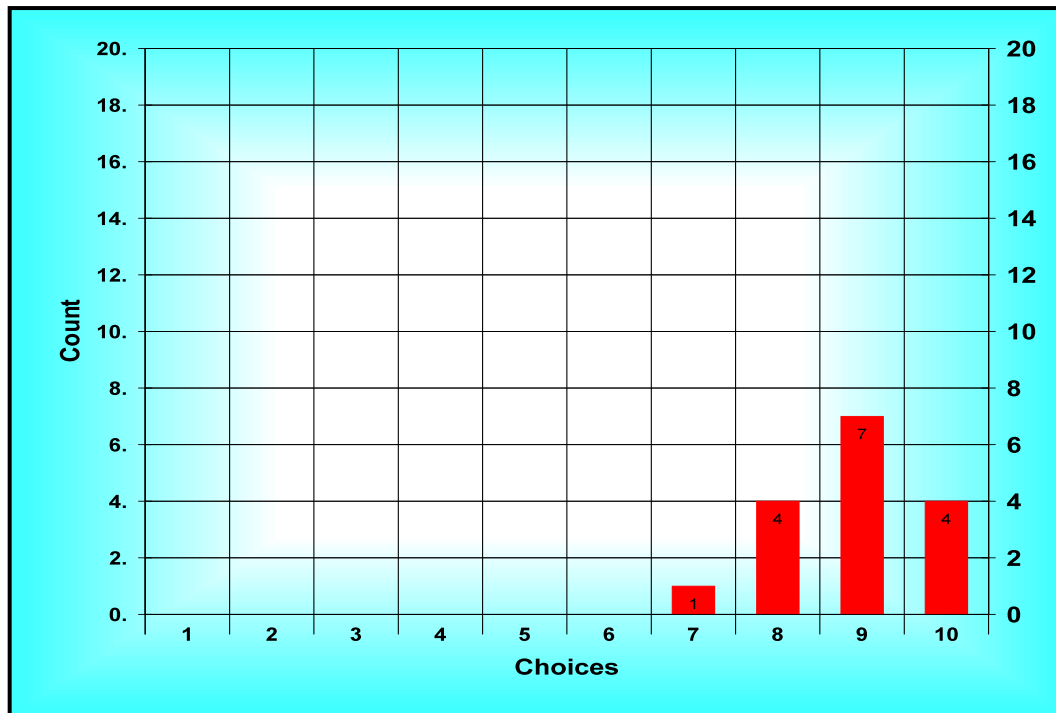October 22-23, 2012

Think Tank Speakers and Facilitators

Name	Position and Organization
Ms. Siu Mee Cheng	Executive Director, Ontario Public Health Association
Dr. John Frank	Director, Scottish Collaboration for Public Health Research and Policy, Scotland
Dr. John Garcia	Associate Professor & Associate Director, Professional Graduate Programs, School of Public Health and Health Systems, University of Waterloo
Dr. Vivek Goel	President and CEO, Public Health Ontario
Dr. Anita Kothari	Associate Professor, Faculty of Health Sciences, Western University
Mr. Erik Lockhart	Associate Director, Queen's Executive Decision Centre
Dr. Marjorie MacDonald	Associate Professor, School of Nursing, University of Victoria; CIHR/PHAC Applied Public Health Chair in Public Health Education and Population Intervention Research
Dr. Heather Manson	Chief, Health Promotion, Chronic Disease and Injury Prevention, Public Health Ontario
Dr. David Mowat	Medical Officer of Health, Peel Public Health
Dr. Linda O'Mara	Associate Professor, School of Nursing, McMaster University
Dr. Sandra Regan	Assistant Professor, School of Nursing, Western University
Dr. Doug Sider	Associate Chief Medical Officer of Health - Infectious Diseases (Acting), Ontario Ministry of Health and Long-Term Care
Ms. Carol Timmings	Chief Nursing Officer Director - Chronic Disease & Injury Prevention, Toronto Public Health
Ms. Jane Underwood	Associate Clinical Professor, School of Nursing, McMaster University; Senior Partner, Underwood and Associates (Public Health Consultants)
Dr. Ruta Valaitis	Associate Professor, School of Nursing, McMaster University; Dorothy C. Hall Chair in Primary Health Care Nursing, McMaster University
Dr. Timothy Van Wave	Associate Director for Science, Office for State, Tribal, Local, and Territorial Support, Centers for Disease Control and Prevention, United States
Dr. Sarah Viehbeck	Senior Evaluation Associate, CIHR - Institute of Population and Public Health

**List of participating organizations, institutions, ministries and health units**

1. Brock University
2. Canadian Institutes of Health Research (CIHR)
3. Haldimand-Norfolk Health Unit
4. McMaster University
5. Middlesex-London Health Unit
6. National Collaborating Centre for Determinants of Health
7. Office for State, Tribal, Local, and Territorial Support, Centers for Disease Control and Prevention (US)
8. Ontario Ministry of Health and Long Term Care (MOHLTC)
9. Ontario Public Health Association (OPHA)
10. Ottawa Public Health
11. Peel Public Health
12. Porcupine Health Unit
13. Propel Centre for Population Health Impact
14. Public Health Agency of Canada
15. Public Health Ontario (PHO)
16. Registered Nurses' Association of Ontario (RNAO)
17. Scottish Collaboration for Public Health Research and Policy (UK)
18. Sudbury & District Health Unit
19. Toronto Public Health
20. University of Victoria
21. University of Waterloo
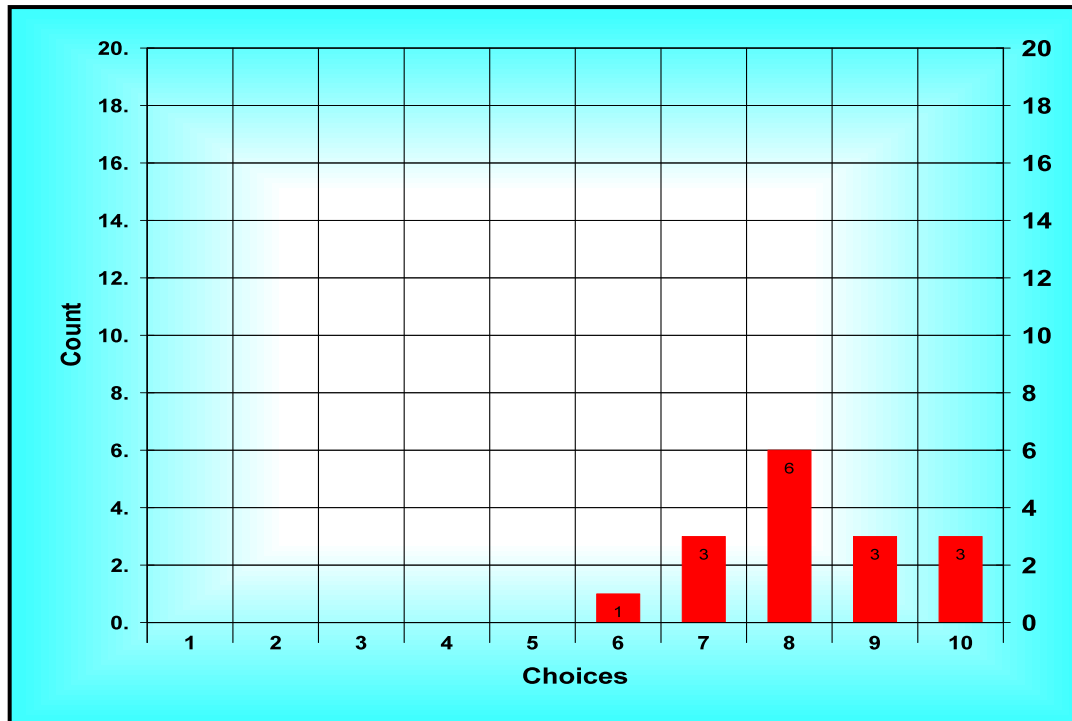22. Western University

Appendix C - Think Tank Evaluation

1. I was satisfied with the session October 22-23 (*Mean: 8.88)*
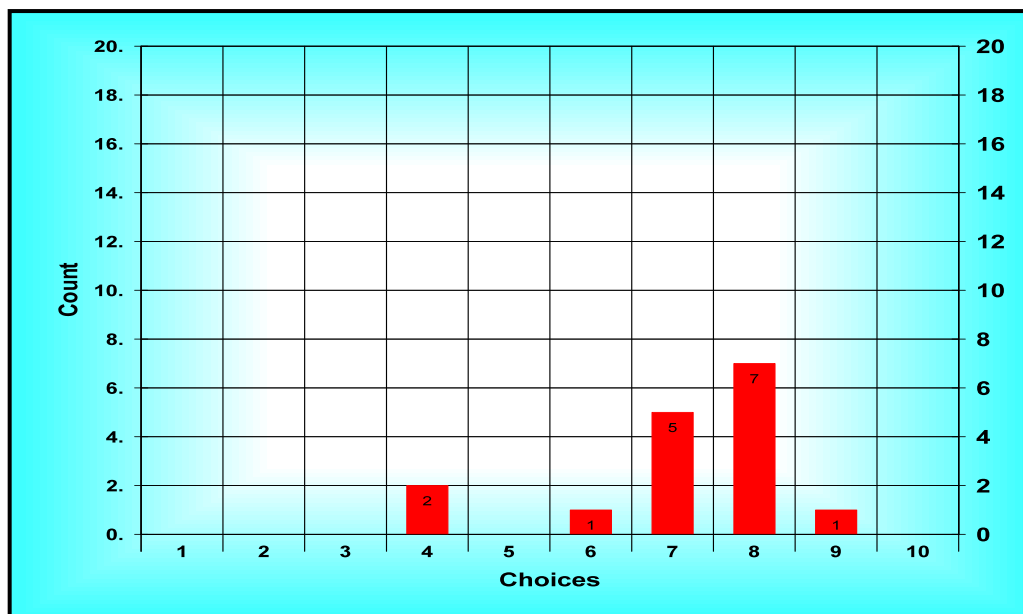

2. The GDSS technology added value to the session (Mean: 9.44)

36
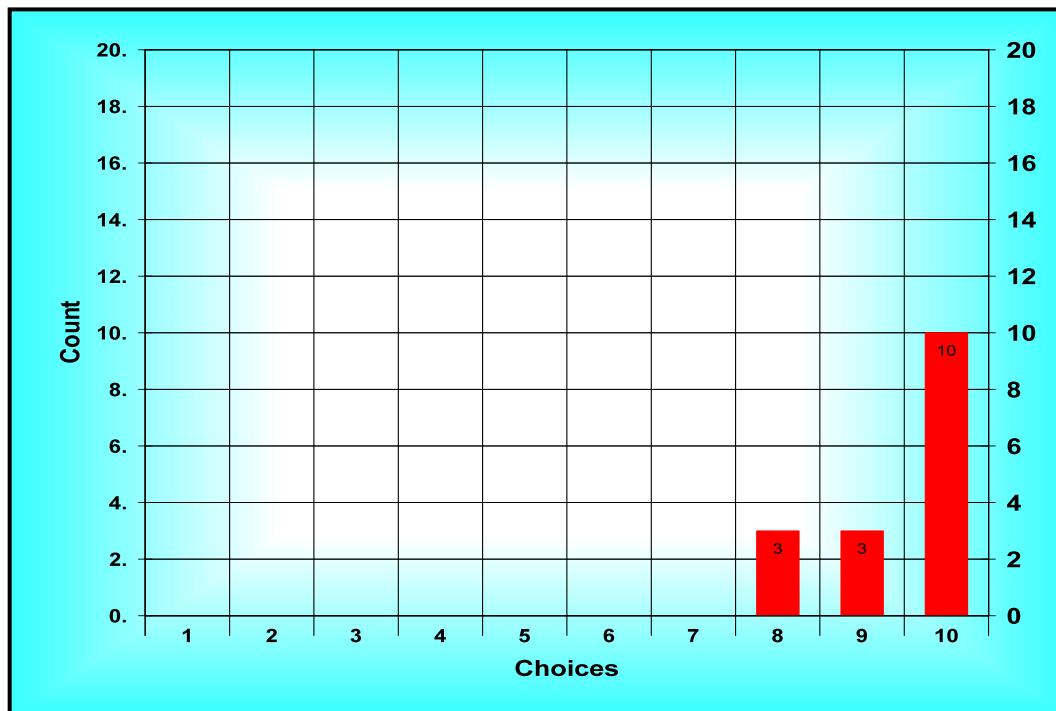
3. Buy-in: I agree with and am committed to the research agenda we have developed (Mean: 8.25)

4. Probability of success: I believe we will be successful in achieving the research agenda we have developed (Mean 7.13)

5. Other advice for the research team to ensure we are successful moving this dialogue forward...

      1. Great vision and ways of putting wheels under plans.

      2. There does need to be a focus on the development of researchers in this field - what that looks like in terms of post doc and graduate students would be good to strategize around

      3. Make sure you focus on what is important and doable

      4. Focus, and link the research question with broader health system goals

      5. Watch for being too insular in the approach to develop and maintain the agenda. Build in time for evaluating the network or structure that will facilitate the agenda. Ensure right mix of policy, researchers and practitioners.

      6. Sort out with PHO role in convening future meetings, i.e. PHO not champion, but can facilitate and lead from behind by convening

      7. Help sort out thematic leadership and advance specific research proposals

6. The process today: Good, bad, ugly. what you liked? did not like? Any suggestions for facilitator to improve.

      1. We need to be sure our conversations are not overheard or taken out of context, but this was not possible with the broadcasting to other rooms in PHO. A little disturbing...

      2. My first experience with technology with participative methods. Great learning.

      3. Thank-you for keeping us moving forward

      4. Great process. A good mix of presentations, panel, discussion and group work. The technology helped a lot in summarizing our thoughts. Thanks!

      5. I thought the process was well done and an excellent way to engage individuals

      6. Good - covered a lot - productive - as far as is possible

      7. Process was excellent

      8. Great facilitation. No suggestions for improvement.