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Canada

Population Health Intervention Research Initiative for Canada ("PHIRIC") Workshop Report

September 26 – 27, 2006
Banff Centre, Banff, Alberta

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Acknowledgements

The Population Health Intervention Research Initiative for Canada (PHIRIC) organizing committee would like to thank the Banff participants who willingly gave of their time to share their wisdom and expertise to help advance PHIRIC. Special thanks also go to:

- The presenters and our discussant – Richard Lessard, Barbara Riley and Laurie Anderson;
- Our workshop facilitator, Lillian Bayne for her expert assistance in facilitating our think tank discussions;
- Our small group facilitators for their contributions to small group work;
- Barbara Riley for leading the preparation of the Banff workshop proceedings;
- Lindsay Bradshaw for transcribing all of the plenary discussions; and,
- Vera Ndaba for ably organizing the workshop.

Note: The views expressed in this report do not necessarily represent those of the organizations participating on the PHIRIC organizing committee. See Appendix 2.

Background and Purpose

Introduction

The Banff workshop was intended to start a more strategic, coordinated, and ambitious conversation about research to improve population health interventions in Canada. The conversation, and resulting actions, are central to the development and sustainability of population and public health in this country. This is well-recognized. But how to systematically build capacity for this 'new' science of population health interventions is less well-understood.

An initial self-organized group we'll call the 'PHIRIC founders' envisioned the Banff workshop as an opportunity to expand the conversation they were having amongst themselves. The PHIRIC founders brought with them a working definition of population health intervention research, a few presentations to stimulate discussion, and a vision of a ten-year initiative to build capacity in population health intervention research – its quantity, quality, and use by policy makers and practitioners.

> *A working definition*…**Population health intervention research** involves the use of scientific methods to produce knowledge about policy and program interventions that operate within or outside of the health sector and have the potential to impact health at the population level.

The workshop was purposely small, though not meant to be exclusive. It was an initial forum to test out some early ideas, get a sense of interest and momentum in the area, and brainstorm possible directions.

The PHIRIC launch was dynamic and engaging. These proceedings capture some highlights. But the real proof of strength will be a growing, connected network and gains in capacity for funding, conducting and using population health intervention research.

Objectives of the Workshop

The Banff workshop was about bringing together an initial group of 'thought leaders' (see Appendix 2) to help shape directions for population health intervention research in Canada. Workshop organizers and participants aimed to:

- Work toward a common understanding of population health intervention research
- Identify strengths and limitations in current capacity for population health intervention research and share lessons on capacity building strategies
- Help to refine a framework that would inform the development of a long-term population health intervention research plan
- Build a constituency to advance the profile and support for population health intervention research – to initiate "constellations of collaboration"
- Identify strategies for action planning including key players, roles and responsibilities, and ongoing intelligence and communications requirements and strategies to address them

To supplement the experience and expertise of workshop participants, a set of six background papers was circulated in advance of the workshop. The papers were intended to stimulate thinking about the scope of intervention research (paper by Drs. Penny Hawe and Louise Potvin) and to provide examples of organizational mandates, experiences, and activities relevant to population health intervention research (see Appendix 3 for a brief description of the background papers).

Overview: Why Intervention Research Matters

Penelope Hawe and Stephen Samis were the co-chairs for the workshop. Dr. Hawe is Professor and Markin Chair in Health and Society, Centre for Health and Policy Studies at the University of Calgary. Mr. Samis is Chair of the Chronic Disease Prevention Alliance of Canada and Director of Health Policy at the Heart and Stroke Foundation of Canada.

Dr. Hawe and Mr. Samis set the stage for the event by reinforcing the need to better align research and evaluation with population health programs and policies. Health and social problems are worsening. We need to invest our resources more wisely. PHIRIC calls for investing in capacity building to generate and use research more relevant to program and policy interventions.

All PHIRIC founding organizations have national mandates, and have missions related to bridging knowledge development and use for population health interventions.

A second key message was that significant momentum already exists. PHIRIC is a vehicle – a platform – to bring coherence to existing relevant initiatives and to build on these. Dr. Hawe borrowed from Drs. Cameron

and Riley to suggest that PHIRIC aspire to be an "enduring national asset".

> *"What we really want to do…is to marshal the synergies that are already happening across the country".* S. Samis

Learning from Experience

Dr. Richard Lessard: Towards a Learning Organization

Richard Lessard is the Chief Executive Officer of the Public Health Directorate for Montreal. He is currently on secondment to the World Health Organization.

Dr. Lessard shared his experience in trying to build a learning organization. He also challenged participants to envision a new era where public health research and practice communities develop a partnership for improving health through evaluated interventions.

> *"A learning organization looks for new knowledge, incorporates it in its decision-making process, acts accordingly, and keeps on evaluating whether their policies, programs and interventions can be implemented or improved for better health outcomes."*

Dr. Lessard reinforced that science is not having a substantial impact on decision-making. Problems like childhood poverty, obesity, or pollution in urban settings are not being addressed with evidence-based solutions that exist. Dr. Lessard also observed first hand in his community of Montreal that "a lot of researchers are working on a lot of things…and it's all important….but they're not spending as much time on pressing public health problems".

A learning organization is one approach to address these gaps. From his experience, Dr. Lessard offered some 'critical success factors' in moving toward a learning organization. First, teams of researchers and public health personnel must be problem-focused. Public health problems are what they call the 'hub' – the centre of concern.

> *"A hub that works is engaged in the exchange of knowledge and information…to solve public health problems."*

Also critical to success is to understand that decisions are made all the time "whether you like it or not". A key aspiration is to influence decisions with knowledge on the belief that the intervention will be better.

Third, we need to understand that research and interventions cannot be separated. There is no point building capacity to produce more research if it cannot be used. Interventions must be sufficiently resourced and implemented for a meaningful evaluation. Typically, interventions are too small in scale. Evaluations and interventions must grow together – one or the other is useless.

Dr. Barbara Riley: Wisdom from the Canadian Heart Health Initiative

Barbara Riley is a Scientist at the NCIC/CCS Centre for Behavioural Research and Program Evaluation at the University of Waterloo. She is the recipient of the 3-year Dr. Andres Petrasovits (founder of the CHHI) Award in Health Policy Research, jointly funded by the Heart and Stroke Foundation of Canada and the Canadian Institutes of Health Research.

Dr. Riley brought a retrospective analysis of some lessons from the Canadian Heart Health Initiative (CHHI) into the discussion. The essence of the CHHI was to link public health policy, research and action – similar to Dr. Lessard's learning organization but on a pan-Canadian scale. The CHHI introduced a new policy direction in Canada – a population approach to cardiovascular (chronic) disease prevention. It also introduced a 'new' science relevant to public health interventions. Over a 20-year period, the CHHI yielded many lessons about building capacity for this 'new' science.

The CHHI created a prototype infrastructure for linking research and evaluation with population interventions. The prototype was relatively small scale, in part due to limited financial investment, but also due to limited capacity in other areas. For example, at the time, interdisciplinary teams consisting of researchers, policy makers and practitioners were new, and existing research tools and measures were not appropriate for the outcomes that were realistic within the CHHI.

The CHHI formally ended in 2006. The momentum of the CHHI was compromised by the disappearance of key national leadership, disappearance of a relevant research funding mechanism, and serious erosion of public health infrastructure in Canada. Together, the growth, 20-year sustainability, and decline of the CHHI offer many lessons for PHIRIC to consider. A few nuggets of wisdom follow:

- Address urgent and serious health and system problems to create interest and commitment;
- Seek and enable well-positioned and influential champions who span research, policy and communities;
- Use mainstream research funding mechanisms to maximize sustainability and research credibility;
- Traditional peer review is not suitable for research that is impact-oriented and designed to improve interventions;
- The practice infrastructure must be sufficiently resourced and stable to be ready to integrate research and evaluation; and

- A mission to co-create a prevention system that integrates research and evaluation is a powerful incentive.

Dr. Riley concluded by reinforcing that the Canadian Heart Health Initiative was a particular model at a particular time. The Canadian policy, intellectual and organizational landscape is much different now than it was in 1986. Nevertheless, many lessons are transferable over time.

Dialogue and Debate

What is the scope of population health intervention research?

Issues related to the definition and scope of population health intervention research punctuated discussions at the workshop, and stimulated the background paper by Drs. Hawe and Potvin.

The working definition proposed by workshop organizers was well-received by the participants: “population health intervention research involves the use of scientific methods to produce knowledge about policy and program interventions that operate within or outside of the health sector and have the potential to impact health at the population level”. Unpacking this definition revealed some deeper meanings and understandings. For example:

- Research and evaluation converge when focusing on intervention studies. They both can study any aspects of intervention process and outcomes, including economic consequences.
- Intervention research requires the research and practice infrastructures to interact in meaningful and sustained ways. These infrastructures and their interactions need to be understood as complex adaptive systems.
- Intervention research puts intervention in the foreground rather than research. Consequently, external validity and contextual variations in implementation are as important as internal validity.
- There is a coherent and non-linear relationship between intervention design, research and evaluation designs, and knowledge translation and exchange strategies.
- A culture of continuous improvement is needed for organizational decision-making and for intervention research to influence decision-making and practice.

The discussion revealed general consensus that intervention research is complex; it requires multidisciplinary work; and it requires appropriate resources, structures and processes to support it. This is the topic of the next section.

How do you build capacity for population health intervention research?

Brainstorming *what capacities* are needed to fund, conduct and appropriately use population health intervention research, and *how to build these capacities* was a core part of the Banff meeting. Some initial frameworks were presented to stimulate thinking about possible capacities. Then it was the job of small groups to generate ideas – and that they did. Some highlights are captured in the table below. Despite varied, free flowing discussions, all groups focused on identifying capacities needed, some critical success factors and some ideas to help build these capacities in Canada. The ideas from the workshop form the foundation for further work on a capacity building framework and for actions to build these capacities.

Capacity needed	Some critical success factors	Ideas to build this capacity
Engagement	• Collaboration occurs between players across sectors (e.g., policy-makers, funders, researchers, practitioners) and jurisdictions (e.g., regional, provincial, national) • An informed public about research issues	• Create incentives for collaboration, such as funding and opportunities to share skills • Organize a network of researchers who share interests • Organize a Canadian Conference on Intervention Research • Engage partners such as the Social Sciences and Humanities Research Council of Canada, Canadian Foundation for Innovation, Public Health Network Council • Seek existing opportunities, such as the Public Health Agency of Canada (PHAC), provincial 'demonstration programs'; PHAC grants and contributions, SEARCH Canada
Stewardship	• Coordinate priorities for interventions and research • "Hub" for research relevant to population health interventions • Definitions and conceptual framework for capacity building • Strategic plan • Feedback and continuous improvement cycle • Clear and regular communication	• Conduct an environmental scan to identify key players resources and gaps • Actively promote evidence-informed decision-making and an impact orientation to research • Develop a conceptual framework for capacity building, while at the same time, capitalizing on existing momentum and opportunities (e.g., Health Promotion Research Centres) • Develop indicators of success and a monitoring and evaluation plan with opportunities for feedback and reflective practice • Develop a website
Research funding mechanisms for intervention research	• Intervention and research funding is aligned • Research is oriented towards the needs of policy and practice (including cost-effectiveness) • Opportunities for rapid response • Peer review process that is	• Establish an intervention research fund that would be parallel to the RCT fund • PHAC to create an intervention research unit • Combine PHAC intervention funds with Canadian Institutes of Health Research research funds • Create rapid response RFAs that include policy makers (using the Canadian Health Services Research Foundation (CHSRF mechanisms as a model)

Capacity needed	Some critical success factors	Ideas to build this capacity
	appropriate for intervention research • Accountability for research funded	• Tailor peer review to support intervention research • Develop new mechanism for research funding agencies to report on research funded
Personnel to conduct intervention research	• Academic reward structure that supports intervention research • Opportunities for intervention research training	• Create a plan for workforce development that includes training and mentoring for intervention researchers • Develop common curriculum competencies for intervention researchers and MPH schools • Apply for training funds (e.g., Strategic Training Initiative in Health Research) • Provide training in Masters of Public Health Programs • Offer scholarships and faculty re-training grants (e.g., career transition award) • Include intervention research as a consideration in the accreditation of Schools of Public Health • Create interchanges and joint positions (including joint funding of positions for some academic appointments)
Research tools and methods	• Research design, methods and tools that enable intervention research	• Add health outcomes to non-health interventions • Tailor research synthesis methods to intervention research • Examine barriers to data access such as privacy and confidentiality • Learn about work of others (e.g., provincial institutes) in surveillance, research and training
Practice environment that supports evidence-informed decision making	• Population health intervention research 'literacy' within practice and policy environments • Demand for intervention research • Skilled practitioners and decision-makers	• Work with policy and practice personnel to disseminate 'best practices' • Create a Canadian Society for Intervention Research and accompanying journal • Provide evidence to decision-makers in a useful form • Influence existing structures and initiatives, such as the National Collaborating Centres for Public Health, health charities, Schools of Public Health

Who and what is PHIRIC?

Banff participants were excited about the possibility of a mechanism to champion population health intervention research in Canada. They were also enthusiastic about the possibility of the workshop organizers providing this initial leadership.

The participants discussed the dominant vision for "PHIRIC" as a focal point; a platform; a movement; a catalyst for system change to support the funding, conduct and use of intervention research. While a core group is needed to champion the movement, the boundaries of PHIRIC need to be fluid and inclusive. PHIRIC can serve as a resource and vehicle to facilitate communication and to engage universities, research funding agencies, and other relevant, influential parties around stimulating population health intervention research.

The workshop organizers were encouraged by participants to think about appropriate working structures to support these functions. They were also encouraged to create mechanisms that enable communication and linkage across existing organizations, rather than creating a new organization.

The Way Forward

> *"Good first step to stimulate and motivate."* Workshop participant

Suggested Next Steps

Four main directions were suggested by participants as ways to advance the PHIRIC agenda.

1) ***Further develop foundations for PHIRIC***: Some examples include continuing to work towards a common understanding of population health intervention research; identifying thematic priorities for PHIRIC; developing a conceptual framework to map out an initial understanding of capacity building to fund, conduct and use intervention research; and a strategic plan that identifies priorities for action.

2) ***Establish an initial 'structure' to enable PHIRIC to move forward***: The Banff workshop was a beginning. Participants wanted to see the enthusiasm and initial ideas shared at the workshop used to advance the agenda. They encouraged workshop organizers to consider steering committee, working group and network structures to move forward.

3) ***Build a constituency to advance population health intervention research***: As planned, the Banff workshop convened an initial group of thought leaders. Group discussions reinforced that many other players need to be engaged. As part of building the constituency, one idea was to develop a 'map' of who is doing intervention research in Canada and what major population health interventions (programs and policies) exist or are being developed that are possible 'natural experiments' for intervention research.

4) ***Identify some 'quick wins'***: A common theme throughout discussions was the many individuals, organizations and initiatives that are engaged, or could be, in funding, conducting or using population health intervention research. Participants strongly encouraged identifying these 'quick wins' (e.g., investment in the Canadian Strategy for Cancer Control; review of the Canadian Tobacco Control Research Initiative).

Reflections from Discussant: Dr. Laurie Anderson

Dr. Laurie Anderson is a scientist at the Centres for Disease Control, USA. She also has an appointment at the University of Washington School of Public Health. Dr. Anderson is an advisor to the Cochrane Collaboration, works with the World Health Organization working group on health promotion evaluation, and has advised on Canadian projects such as the Canadian Population Health Initiative expert work group on obesity, the Best Practices initiative of the Public Health Agency of Canada, and the CIHR Institute for Nutrition, Metabolism and Diabetes.

Dr. Anderson brought with her a wealth of knowledge, experience and perspective on the Population Health Intervention Research Initiative for Canada. She began by reinforcing the need for more and better intervention research. Pressing health and social issues, such as obesity and mental health, are left unanswered by a narrowly defined research agenda.

Research that is relevant to population health interventions is scant. A case in point is the experience of the U.S.-based Guide to Preventive Community Services. Over the last 10 years, almost 200 reviews were completed and half of those reviews resulted in insufficient evidence. This lack of evidence means that decision-making for interventions cannot be evidence-informed.

Dr. Anderson also offered valuable and insightful observations about building capacity for population health intervention research. She affirmed that no models exist to follow. The lack of alignment of research and evaluation with population and public health priorities is a global problem. Canada is “really ahead of the game thinking about a coordinated approach to build this capacity”.

Dr. Anderson offered several nuggets of wisdom about capacity building for intervention research.

- Capacity building is about trying to effect change across systems, agencies, and institutions.
- Capacity building is an incremental process and needs to move at a moderate pace.
- Capacity building requires a long-term investment and it is never complete. Careful thought about sustaining this effort will be important.
- Feedback and continuous improvement are vital to capacity building. Think about evaluating the adequacy, scope and scale of intervention research in Canada periodically – as a direction check and tool to assist future planning.
- A critical need is to better align intervention priorities and funding, with research priorities and funding.
- Capacity building cannot be about intervention research only. It’s much more holistic than that. The supply of research cannot be separated from the demand from policy and practice settings. Changes are required on both sides to enable productive interactions.

A final plea from Dr. Anderson was to harness existing resources. She was struck by the varied and many networks, research and evaluation communities, and emerging funding mechanisms that provide opportunities to advance population health intervention research in Canada. Dr. Anderson strongly advised us to make best use of those assets and to keep “widening the circle”.

Appendices

APPENDIX 1 - List of participants

Population Health Intervention Research Initiative for Canada (PHIRIC) Workshop
September 26, 2006 - September 27, 2006

Laurie Anderson	Centers for Disease Control and Prevention, University of Washington
Mostafa Askari	Health Canada
Nicholas Bayliss	Alberta Health and Wellness
Lillian Bayne	Lillian Bayne and Associates
Will Boyce	Centre for Health Services and Policy Research, Queen's University
Lindsay Bradshaw	University of Calgary
Carol Brulé	Canadian Population Health Initiative, Canadian Institute for Health Information
Roy Cameron	Centre for Behavioural Research and Program Evaluation, University of Waterloo
Sharon Campbell	Population Health Research Group, University of Waterloo
Karen Chad	College of Kinesiology, University of Saskatchewan
Bernard Choi	Public Health Agency of Canada
Jocelynn Cook	First Nations and Inuit Health Branch, Health Canada
David Crouch	CIHR - Institute of Nutrition, Metabolism and Diabetes
Erica Di Ruggiero	CIHR – Institute of Population and Public Health
Laurette Dubé	James McGill Chair of Consumer and Lifestyle Psychology and Marketing, McGill Integrative Health Challenges Think Tank, McGill University
Jim Dunn	Inner City Health Research Unit, St. Michael's Hospital
Jane Farquharson	Heart and Stroke Foundation - Nova Scotia
Diane Finegood	CIHR - Institute of Nutrition, Metabolism and Diabetes
Larry Frank	School of Community and Regional Planning, University of British Columbia
Kim Gaudreau	CIHR – Institute of Population and Public Health
Jean Harvey	Chronic Disease Prevention Alliance of Canada
Penny Hawe	Centre for the Study of Social and Physical Environments & Health, Markin Institute, University of Calgary
David Hubka	Public Health Agency of Canada

Suzanne Jackson	Centre for Health Promotion, University of Toronto
Harriet Kuhnlein	Centre for Indigenous Peoples' Nutrition & Environment, McGill University
Richard Lessard	WHO, Chronic Diseases Prevention and Management Health Promotion
Donna Lillie	Canadian Diabetes Association
Renee Lyons	Atlantic Health Promotion Research Centre, Dalhousie University
Mary Frances MacLellan-Wright	Public Health Agency of Canada
Patricia Marck	University of Alberta
Richard Massé	Institut nationale de santé publique du Québec
Marjorie McDonald	School of Nursing, University of Victoria
Kelly McQuillen	Diabetes and Chronic Diseases Unit, Manitoba Health
John Millar	Provincial Health Services Authority
David Mowat	Public Health Agency of Canada
Vera Ndaba	CIHR – Institute of Population and Public Health
Gilles Paradis	Department of Epidemiology, Biostatistics and Occupational Health, McGill University
Linda Piazza	Heart and Stroke Foundation of Canada
Louise Potvin	University of Montreal
Kim Raine	Centre for Health Promotion Studies School of Public Health, University of Alberta
Barbara Riley	Centre for Behavioural Research and Program Evaluation, University of Waterloo
Irv Rootman	University of Victoria
Adria Rose	CIHR - Institute of Nutrition, Metabolism and Diabetes
Stephen Samis	Heart and Stroke Foundation of Canada
Alan Shiell	Centre for the Study of Social and Physical Environments and Health, University of Calgary
Lisa Sullivan	Canadian Population Health Initiative, Canadian Institute for Health Information
Paul Veugelers	School of Public Health, University of Alberta
Jean-Pierre Voyer	Social Research and Demonstration Corporation
Jeanette Ward	Canada Research Chair, University of Ottawa

APPENDIX 2 - Organizing committee

Stephen Samis	Chronic Disease Prevention Alliance of Canada (Co Chair)
Penny Hawe	Institute Advisory Board, Canadian Institutes of Health Research, Institute of Population and Public Health (Co Chair)
Erica Di Ruggiero	Canadian Institutes of Health Research, Institute of Population and Public Health
Adria Rose	Canadian Institutes of Health Research, Institute of Nutrition, Metabolism and Diabetes
Lisa Sullivan	Canadian Institute for Health Information-Canadian Population Health Initiative
Carol Brulé	Canadian Institute for Health Information-Canadian Population Health Initiative
Elizabeth Gyorfi-Dyke	Canadian Institute for Health Information-Canadian Population Health Initiative
Roy Cameron	Centre for Behavioural Research and Program Evaluation, University of Waterloo
Louise Potvin	Léa Roback Research Centre, University of Montréal
Gregory Taylor	Public Health Agency of Canada
Vera Ndaba	Canadian Institutes of Health Research, Institute of Population and Public Health
Kim Gaudreau	Canadian Institutes of Health Research, Institute of Population and Public Health

APPENDIX 3 - List of background papers

What is Population Health Intervention Research? (Penelope Hawe and Louise Potvin)

Building Intervention Research Capacity: Wisdom from the Canadian Heart Health Initiative (1986-2006) (Barbara Riley and Gregory Taylor)

Evaluation Research of Population Health Interventions: The Evolving Role of the Canadian Population Health Initiative (CPHI staff)

Canadian Institutes of Health Research Support For Population Health Intervention Research in Canada (Erica Di Ruggiero, Adria Rose and Kim Gaudreau)

Development of Capacity for Population Intervention Studies: The Experience of the Centre for Behavioural Research and Program Evaluation (Roy Cameron and Barbara Riley)

Towards the Population Health Intervention Research Initiative for Canada: Building on efforts by the Chronic Disease Prevention Alliance of Canada and others (Stephen Samis)