



Institute of Population and Public Health



POP News

Oct/Nov 2011

Volume 2

Issue 1

Message from the Scientific Director

This time last year we were focusing a great deal of attention on the international review. Reports from the International Review Panel were released mid-summer and are available for perusal on the [CIHR website](#). I encourage you to have a look at the recommendations for individual institutes as well as for CIHR overall. CIHR's management response to the overall recommendations will be available shortly.

There are important reforms of the open operating grant program under development at CIHR. We are now entering another consultation phase with Institute Advisory Board members and University Delegates. This will be followed by a wider consultation with the research community. A discussion paper outlining the proposed reforms will be released early in 2012. I want to strongly encourage all public and population health researchers to take the time to review this document and provide your feedback to CIHR. This is an extremely important set of reforms and it is essential that we hear from pillar 4 scientists doing all types of research. If you would like to [contact me directly](#) about this, I encourage you to do so.

IPPH staff continue to lead a number of knowledge translation initiatives. These have all been undertaken in partnership with others, strengthening the reach of these initiatives. The population health ethics workshop we co-hosted at the CPHA Conference in collaboration with the CIHR Ethics Office, the National Collaborating Centre for Healthy Public Policy, the Public Health Agency of Canada - Office of Public Health Practice and Public Health Ontario was well attended and [proceedings](#) are now available. We continued this collaboration through a [call for cases](#) in population and public health ethics. We received a strong response to the call and these have now been sent out for peer review. The casebook will be published in 2012.

Our Institute hosted a knowledge exchange workshop on Health Systems Research on pH1N1 on September 19-20, 2011 in Ottawa. The workshop was co-sponsored by CIHR, PHAC and the National Collaborating Centre for Infectious Diseases (NCCID). Researchers, decision makers, practitioners and students who work at local, provincial, territorial, and national levels in Canada attended the event. For more information, please contact [IPPH](#).

Over the last year and a half, a supplement on global health research was developed jointly with the Global Health Research Initiative. Erica Di Ruggiero has been the IPPH lead for this initiative. This supplement is published in the [BMC International Health and Human Rights Journal](#). It features examples of how Canada-Low- and Middle-Income Country research partnerships have operationalized efforts to reduce health inequities across a range of global health themes.

Many teams applied to our programmatic RFA on health equity, attesting to the strong research capacity that exists in this field. Congratulations to the



Dr. Nancy Edwards
Scientific Director

teams who successfully applied to this strategic initiative. The eleven funded teams will be undertaking leading edge research in Canada and internationally. They are tackling critical public health issues including food security, workplace health, and infectious disease; and working with diverse populations in a wide range

of settings. We look forward to getting to know the funded teams. Starting with this issue, we will be featuring their work in this newsletter. The programmatic research of Daniel Weinstock and his team is discussed on page 5.

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I am delighted to announce our new Institute Advisory Board Members: Ted Bruce, Executive Director, Population Health, Vancouver Coastal Health; Louise Potvin, Professor, Université de Montréal; and Jeff Masuda, Assistant Professor, University of Manitoba. Their areas of expertise complement those of our other board members and we appreciated their terrific input during our recent board deliberations. Welcoming new members means saying goodbye to Jim Dunn, who has finished his second

term on our board. Jim, who is one of our Applied Public Health Chairs and currently on sabbatical at Harvard University, was a true champion for social science researchers on our IAB. Thanks Jim, for your many significant contributions to our Board discussions.

Marina Irick, Claire O'Brien, and Chardé Morgan, worked with our team as summer students, providing excellent support for a number of activities including the ethics workshop at CPHA and the

pH1N1 workshop held in September. I want to thank all of the students for their enthusiasm and hard work.

Building a Robust PHIR System in Canada

By Heather Greenwood, Senior Policy Analyst and Dr. Beth Jackson, Manager, Strategic Initiatives & Innovations Directorate, PHAC

A substantial evidence base now exists to support action to improve population health and reduce health inequities. Building capacity in population health intervention research (PHIR) is foundational to such action. To this end, the Public Health Agency of Canada (PHAC) hosted a session at the 2011 Canadian Public Health Association Conference entitled *Building a Robust PHIR System in Canada: Infrastructure, Processes, and Methods* which built on a [PHIR symposium and workshop](#) held in Nov. 2010.

PHIR seeks to assess the effects of population health interventions and understand the mechanisms and processes through which they bring about change. The interactive session at CPHA

featured invited panelists who shared their perspectives on the components and actions needed to strengthen and integrate a robust PHIR system in Canada. Each panelist brought their own expertise in research, funding, evaluation, policy, and/or practice as follows:

- Nancy Edwards, Scientific Director, CIHR-IPPH (Moderator)
- François Benoit, Lead, National Collaborating Centre for Healthy Public Policy
- Ivy Bourgeault, Scientific Director, Population Health Improvement Research Network
- Marie Chia, Manager, Innovation Strategy, Strategic Initiatives And Innovations Directorate, Public Health Agency of Canada
- Cory Neudorf, Chief Medical Health Officer, Saskatoon Health Region
- Jeannie Shoveller, Co-Chair, [Population Health Intervention Research Initiative of Canada](#) and Applied Public

Health Chair, University of British Columbia

Panelists emphasized the need to act on structural determinants of health shared across disease areas. Infrastructure to help take advantage of natural experiments, and funding structures supportive of programmatic research and interdisciplinary collaboration are keys to building such capacity. In particular, contributions from the social sciences and humanities are essential to advancing PHIR as we consider how factors such as historical context and social relations contribute to health inequities. Such interdisciplinarity and collaborative relationships across sectors also bring a range of theoretical and methodological contributions to advance PHIR, and should be built into peer review processes fit for PHIR. Combined, innovations and investments in infrastructure, processes, theories, methods, and practice can help build and strengthen a robust PHIR system in Canada.

“Contributions from the social sciences and humanities are essential to advancing population health intervention research as we consider how factors such as historical context and social relations contribute to health inequities.”

Book Review—*The Crisis of Chronic Disease among Aboriginal Peoples: A Challenge for Public Health, Population Health and Social Policy*

By Jennifer O'Neill, MSc
Research Officer
National Aboriginal Health
Organization

Aboriginal people in Canada face many challenges in terms of their health and well-being. The rates of diseases such as diabetes, heart disease, HIV/AIDS, and tuberculosis are much higher in the Aboriginal population than in the Canadian population in general.

The *Crisis of Chronic Disease among Aboriginal Peoples: A Challenge for Public Health, Population Health and Social Policy* explores Aboriginal health and chronic diseases using a life course approach, from the prenatal stage of life to late adulthood. In addition to examining the risk factors for various chronic diseases across each of these life stages, the book discusses the burden of chronic disease for Aboriginal Peoples in Canada.

Health is determined by multiple and interrelated factors. In his section on chronic disease risk factors, Reading begins with a discussion of risk factors at the community-level, such as poverty, housing, and access to health services, and their effects on health. Then, Reading conducts an extensive review of the literature to describe in detail the effects of risk factors throughout each stage of life. He argues that using a life course approach allows us to integrate scientific

knowledge with cultural and sociological knowledge in a meaningful way.

The life course approach complements Aboriginal conceptions of health and well-being because it understands health in a holistic way. This approach allows us to follow risk factors throughout the lifespan in a logical way from the prenatal stage of life to late adulthood.

In the section on the burden of chronic disease, Reading examines the impact of diseases such as diabetes, cardiovascular disease, cancer, and musculoskeletal conditions on the Aboriginal population. He also examines the impact of chronic diseases on mental health. For example, Reading describes the relationship between diabetes and mental health by discussing diabetes-related depression and anxiety, and the impacts of this comorbidity on an individual. Reading also indicates that there are gaps in the research in this area.

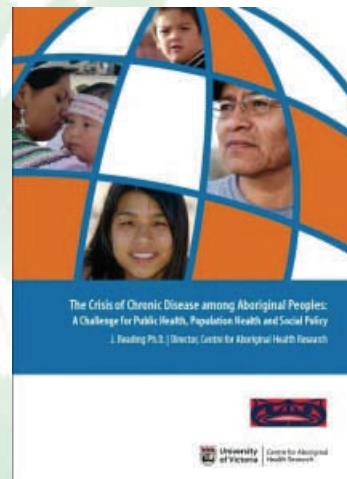
Each section uses specific indicators to describe the risk factors or the burden of disease. Statistics for the Aboriginal population in Canada are compared to general Canadian statistics whenever possible. In addition, population-specific statistics for First Nations, Inuit, and Métis are given whenever possible.

This book is a valuable resource for students, research-

ers, and policymakers, and an important addition to the chronic disease literature on Aboriginal Peoples. It identifies gaps in research and points to areas where interventions are needed or could be successful.

Jeff Reading is the Director of the Centre for Aboriginal Health Research at the University of Victoria and former Scientific Director of the Canadian Institutes of Health Research Institute of Aboriginal Peoples' Health.

This article first appeared in the Journal of Aboriginal Health. It is reprinted here with permission.



The Crisis of Chronic Disease among Aboriginal Peoples: A Challenge for Public Health, Population Health and Social Policy.
Jeff Reading, PhD
University of Victoria,
Centre for Aboriginal
Health Research, 2009
ISBN 978-1-55058-407-3
185 pages.

Applied Public Health Chair Feature: Dr. Kim Raine



Dr. Kim Raine
Applied Public Health Chair

“In her heart she is an activist out to change the world to be a healthier place to live.”

Dr. Kim Raine

Applied Public Health Chair, Canadian Institutes of Health Research and Heart and Stroke Foundation of Canada Professor, Centre for Health Promotion Studies, School of Public Health, University of Alberta
President, Alberta Public Health Association (2009-2012)

The focus of the Chair is community environmental-level and population-based interventions for promoting healthy weights and preventing chronic diseases. As a dietitian-nutritionist, Kim has always been interested in healthy eating as a cornerstone of prevention. But, in the face of the obesity epidemic, she began research into the role the environment (economical factors, urban design, social norms and policy) in shaping people's food choices. In collaboration with an interdisciplinary team, her research focuses on changing environments, especially local communities and public policies to “make the healthy choice the easy choice”. In her heart she is an activist out to change the world to be a healthier place to live. By drawing upon her research skills and strong network of colleagues in research, practice and policy, she uses evidence to advocate for interventions for change, and then applies research skills again to evaluate those interventions.

The Healthy Alberta Communities (HAC) project provides an example of developing and evaluating community

interventions. Four demonstration communities throughout Alberta developed unique approaches to prevention. The team captured the knowledge and experience of citizens, community agencies and leaders through community partnerships in developing projects that influenced local citizens (e.g. community gardens) and entire communities (e.g. coalitions for active transportation). They then developed an [on-line resource](#) for other communities to use in developing their own interventions. Based upon the strong evidence base developed through the evaluation of HAC, Kim worked closely with Alberta Health Services who have adopted the HAC model for integrating community-level health promotion into standard practice. As “THR!VE on Community Wellness” ramps up, Kim's team is developing an evaluation framework to capture the impact of rolling out the demonstration projects throughout the province.

Local communities can only do so much. Policies can help or hinder community-driven prevention efforts. Building on the successes of tobacco control and expanding the scope of policy interventions to tackle unhealthy diet, physical inactivity and obesity, the team created the **Alberta Policy Coalition for Chronic Disease Prevention**. Their research into public and decision-makers' “appetite” for policy change had led to place priorities on advancing policies to limit advertising of unhealthy foods and beverages to children, and to pur-

sue taxes on sugar-sweetened beverages. As advocacy efforts are continuing with a strong network of partners based in non-governmental organizations (NGOs), the research team will work to capture whether the interventions worked, in what context, and how.

Ultimately, the intent of intervening is to change environments and reduce the risk of transmitting obesity and chronic diseases through social means. This type of research requires long-term commitment and courage to challenge the status quo. But, to quote Dr. William Dietz, Director of Nutrition, Physical Activity and Obesity at the U.S. Centers for Disease Control and Prevention, “It is already obvious that multi-component, multi-sectoral approaches like the ones she [Dr. Raine] has designed will be required to resolve obesity.”

Programmatic Grant Feature: Ethics, Social Determinants of Health, and Health Equity: Integrating Theory and Practice

Drs. Daniel Weinstock, Nicholas King, Ryoa Chung, Samuel Harper, Iwao Hirose, Matthew Hunt, Bryn Williams-Jones, and Meredith Young are the recipients of one of eleven Programmatic Grants in Health and Health Equity funded by CIHR-IPPH and other partners.

Research Program

The social determinants of health (SDOH) are central to the discourse of health equity in a range of fields from philosophy and health policy to medicine and epidemiology. Working as the Director of a Public Health Ethics Committee that reviewed population health intervention protocols from 2004-2008, Dr. Weinstock became aware of pervasive discourse of health equity in public health ethics and noticed it lacked conceptual clarity. This programmatic grant will allow an interdisciplinary team to study this and other related research questions.

There are two main dimensions to this research: 1) examine the notion of SDOH and how this concept is understood; and, 2) establish collaboration between people on the medical versus social sciences and humanities sides and build interdisciplinary capacity of researchers to use disciplines relevant to discussions of health equity. The goal of the research is to delve deeper into conditions of health equity in Canada.

Methods

A broad range of researchers are involved in this team. Some are practice-oriented and will be undertaking interviews and experimental studies to explore how Canadians think about the notion of health equity in terms of resource distribution, for example. Others are undertaking projects using theoretical methods such as philosophical arguments, literature reviews, and conceptual analyses. One of the innovations of this program is linking empirical studies with philosophical inquiries.

Population Health Ethics

This program of research will examine the ethical foundations of population health interventions to address the SDOH, and to promote health and health equity. A shared interest in the emergence of public health and associated ethics discourse into mainstream thinking about health equity within Canada and internationally is what brought this research team together in the first place. Not only were they intrigued by the emergence of SDOH as a key concept in public health thinking, but there was some apprehension that the concept could become virtually meaningless since it is used so often. Therefore the studies that unite the conceptual and empirical arms are to do with the SDOH as a key concept in thinking about health equity.

Global Health

The research team is not interested in limiting understanding of health equity to health systems within Canada only. A project in this program of research is a case study on SDOH approaches in the context of the 2010 Haiti earthquake. The objective will be to explore how and whether social determinants of vulnerability were integrated into the international response to the Haiti earthquake. Most of the research team is based in Quebec at McGill University and l'Université de Montréal but there is a desire to develop national and international collaborations.

Evaluation

One measure of success will be the degree of uptake by principal stakeholders (researchers and practitioners) and their determination that this research enabled them to develop better tools to do their work, part of which involves measuring how close or how far we are from the ideal of health equity within Canada.

Dr. Daniel Weinstock and colleagues are the recipients of one of eleven Programmatic Grants in Health and Health Equity funded by CIHR-IPPH and other partners.

Student Corner: Chardé Morgan—A Fishery on the Edge



*Chardé Morgan
MScPH Candidate
Department of Epidemiology, Biostatistics and Occupational Health
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McGill University
CIHR-IPPH 2011 Summer Student*

Ready for adventure, I boarded a plane to Uganda. Unsure of what to expect, I was scared and excited. As an Environmental Studies student specializing in Ecological Determinants of Health with the McGill University School of Environment, I was about to have the experience of a lifetime completing a summer internship at the Ugandan National Fisheries Resources Research Institute.

As part of my internship, I traveled to lakeside villages throughout the country to sample fish and water quality. The beauty of the landscape and the warmth of the people were astounding. However, I quickly realized the situation could be headed in a dangerous direction. The fisheries, which are vital to the health and socioeconomic wellbeing of the nation, were suffering. Contributing to more than 50 percent of Ugandan protein intake, representing 2.2 percent of the GDP, and employing upwards of 700,000 individuals, Uganda's fisheries are an important resource under intense pressure from overfishing. I decided to pursue the topic for my honours thesis, while looking into the potential population

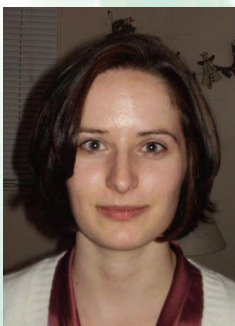
health and health equity implications associated with a fisheries decline.

Working with McGill University's Dr. Lauren Chapman, we focused the research on Lake Nabugabo, a small satellite lake located off the shores of Lake Victoria, the largest tropical lake in the world and Africa's largest inland fishery. By comparing catch assessments from 1962, 1991, and 2006-2010, we observed an overall increase in fish harvesting, and a corresponding decline in the size of fish being caught. Fish size is important, because when small fish are caught, there is less time for reproduction, thereby affecting overall population numbers dramatically. The findings corroborated previous research, which indicated that advanced technological capabilities have improved over time, allowing for smaller fish to be caught with greater efficiency, coupled with greater foreign and domestic market demand.

By 2015, it is estimated that demand will outgrow a sustainable supply, leading to a collapse of the fishery. Such

a collapse would likely have far reaching implications for health, social equity and the economy of Ugandans. A sustained increase in demand and a declining supply of fish will continue to drive up prices. Increased food costs decrease accessibility for the poorest Ugandans, affecting women and children the most, increasing gender and social inequities, and driving up childhood malnutrition and associated ailments. Declining fisheries also result in unemployment, which further amplifies the above effects.

My concern and interest for this important issue has led me to pursue a graduate degree in Public Health and Environment, where I can continue to focus on the environmental and socioeconomic determinants of health and health equity. It is my hope that sound holistic management, policy development and stakeholder involvement will be used to manage Uganda's fishery sustainably. Mitigation and/or adaptation strategies are also needed to respond to inevitable future fluctuations. Such strategic policy decisions are crucial to averting a potential biological and socioeconomic crisis.



*Kristy Buccieri
Ph.D. Candidate, York University
[Homeless Hub](#) Associate*

Student Corner: Kristy Buccieri—pH1N1 Workshop

What does homelessness have to do with pandemic planning? This is a question I frequently get asked when I mention I am working on the Canadian Institutes of Health Research funded study, "Responding to

H1N1 in the context of homelessness in Canada." It is a valid question. The most basic response is that pandemics affect everyone, including those who are homeless. Beyond this, however, it is important to note that in many

instances those who are homeless actually constitute some of the most vulnerable persons during an outbreak. This is not only because they often have serious underlying chronic disease conditions such as diabetes, lung disease,

and heart disease but also because many spend time in poorly ventilated congregate settings like shelters and drop-in centres, are nutritionally vulnerable, and lack private places where they can avoid other people and convalesce should they become infected. The homeless are not only at-risk during a pandemic because of personal health problems but also because our current response to homelessness in Canada is an emergency-

based system that in many ways increases their chances of becoming ill.

As researchers and policy makers, we must always remember that the best pathway to health equity is an inclusive approach that is sensitive to the unique challenges and needs of our most vulnerable citizens. Recently I was invited to attend the "Health Systems Research on pH1N1 Knowledge Exchange Workshop" held in Ottawa, Ontario

where I had the privilege of meeting and thinking alongside some of the most innovative and provocative minds active today in public health. One of the key messages that emerged was that we cannot wait for a pandemic in order to start planning: we must plan now. This is an important lesson for all levels of governance in public health and for everyone working within the homelessness sector. We must plan. More importantly, we must plan for everyone.

Student Corner: Chatura Prematunge—pH1N1 Workshop

One of my key take home messages from the workshop was the need to educate more Canadians regarding influenza immunization. This message was resonant in André Picard's keynote speech and many of the group discussions that took place among attendees. For instance, we agreed on addressing "what's in the hearts and minds" of individuals, but based on the existing evidence, it seems as though many Canadians remain unclear or misinformed about influenza vaccination due to inconsistent messages. So the key communications may not be "get the flu shot every fall" but rather "why everyone should

get the flu shot every year".

The reality is the influenza vaccine is most efficacious among those at least risk of influenza-related complications (i.e. healthy adults) and least efficacious among those who are at most risk (i.e. the elderly and the immune compromised). Therefore more efforts should be placed on answering questions like, "Why should healthy people get the flu shot?", "What is 'herd immunity'?", "How is a vaccine developed and how does it work?", "When can related adverse reactions happen?", and "Where can I get accurate information?" Furthermore, this information should not only be distributed via traditional pamphlets,

posters, and guidelines but also communicated through newer more engaging platforms like social media.

As important as pandemic-based initiatives are, the workshop also brought into focus the health inequities that still exist throughout Canada. We saw that disadvantaged populations, like the homeless and some First Nations communities, experienced a more severe pH1N1 in comparison to other Canadians. Thus the primary objective for us all should be the establishment of equitable access to health resources throughout the Canadian population for both pandemic and non-pandemic scenarios.



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Student Corner: Lyanne Foster—pH1N1 Workshop

For me, the workshop emphasized the importance and need for effective knowledge translation and communication related to pandemic influenza. The workshop helped shape some of

my opinions expressed below.

To help those who will be affected by the next pandemic, we need to consider lessons learned from 40 years of experience, and encourage

innovation, while streamlining the existing and potential capacity we have in the country.

Continued effort is needed to ensure important research findings are implemented to

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improve the current approach to pandemic planning. Long-term and real-time research provides evidence to help inform decision makers, recognizing that evidence is currently but one consideration. In a perfect world, better synthesis of research, with a focus on translating findings to improve the health of the public, would lead to the ethical application of knowledge for the betterment of society.

The public needs to know the basis for decisions that affect their health. Decisions should be made with transparency and confidence even when there are unknowns. Provide people with the information they need to make healthy lifestyle choices. Deliver

consistent messages and avoid confusing and conflicting communication to the public. Sometimes that involves actively responding to rumors circulated by cynics.

I would argue the manner in which information on pH1N1 was presented to the public was problematic. Modern communications methods are needed to engage the public and to maintain their confidence. The public must trust the system for it to function successfully, i.e. to enhance the uptake of public health recommendations.

Information flow and interpretation in real time is needed via the Internet and through various social media sources to reach mass populations. Using new

media is only beneficial if it consistently provides timely and accurate information. However, effective communications must also be developed for populations who do not use the Internet and 'newer' technologies, and those who rely on traditional media or other sources of information.

There will be another pandemic that will affect the population; we just don't know when it will occur. Change to the existing pandemic planning approach needs to be proactive and incorporate the evidence we are gathering now and in the future. Thank you to the workshop sponsors CIHR, PHAC and the NCCID for the great learning opportunity.

For general inquiries, please [contact IPPH](#).

To subscribe to our E-Bulletin list, please visit our [website](#).
 Visit the [IPPH website](#) for a list of current funding opportunities being offered by the Institute.

Funding Results**CIHR/PHAC/HSFC Operating Grant: Programmatic Grants in Health and Health Equity**

Details can be found on [CIHR's funding decisions database](#).

CIHR/PHAC Café Scientifique Program

Details can be found on [CIHR's funding decisions database](#).