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Message from the Scientific Director

I vividly remember my first CPHA Conference. It was held in Halifax, and took place immediately following the Alma Ata Declaration. The possibilities and challenges of change that were embedded in this primary health care declaration were both exciting and daunting. They were the focus of lively debate at the Halifax conference. CPHA Conferences have always provided opportunities to learn about the tenacious and innovative efforts of public health practitioners and scientists to improve the health of populations. It was through CPHA Conferences that I first met many inspirational leaders in the field of public health like John Frank, Kue Young, David Butler-Jones, Alan Ronald, and Karen Mills.

And now, after many months of planning, another historic Canadian Public Health Association Conference is taking place. This conference marks 100 years since the founding of this Association. The top 12 achievements in public health over the past century, that have been chosen by the Association, reflect the joint contributions that public health scientists and practitioners have made to improve the health of populations in Canada and around the world. The Institute of Population and Public Health would like to further recognize research achievements in public health and we encourage you to submit your nominations for research accomplishments by June 30th, 2010 (see the call for CPHA-IPPH milestones: http://www.cihr-irsc.gc.ca/e/41357.html).

Reviewing milestones of the past stimulates us to reflect on possibilities for the future; and there are many promising signs for future milestones in public health. Over the past couple of months, I have visited several Canadian universities that are conducting leading-edge research in public and population health. There are exciting programmatic initiatives underway that bridge sectors and disciplines. I have been impressed by the enthusiasm of young scientists who are firmly planting their roots in the fields of public and population health. It is encouraging to see that trainees are coming from a wide range of disciplinary fields – mathematics, economics, anthropology, psychology, social work, sociology, veterinary medicine, dentistry, and agriculture - as well as from more traditional fields of public health. The strong presence of students and young scientists at this year's CPHA Conference bodes well for the future.

Dr. Nancy Edwards
Scientific Director

As I look back, I am reminded of the relevance of the primary health care approach and its emphasis on health determinants that I first learned about through a CPHA conference. While the language to describe this has evolved over the years, the intent, the need and the potential for impact remain the same. And what also remains the same is the importance of inspiring our future public health leaders and scientists in this country. There is no doubt that this year's CPHA Conference will succeed in this quest.

For general inquiries, or to be added to our E-Bulletin News List, please contact: ipph-ispp@uottawa.ca

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Institute of Population and Public Health
600 Peter-Morand Crescent, Suite 312
Ottawa, ON K1G 5Z3

Invited Book Review
Les inégalités sociales de santé au Québec

Professor Thierry Lang
Department of Epidemiology and Public Health, University Paul Sabatier, Inserm UMR 558.
Federated Institute for Interdisciplinary Studies and Research on Health and Society (IFERISS)
Toulouse, France

Les inégalités sociales de santé au Québec

Under the direction of Katherine Frohlich, Maria De Koninck, Andrée Demers, and Paul Bernard

Les Presses de l'Université de Montréal 2008

This book is the product of an initiative by researchers from the Quebec Population Health Research Network and reflects the wide variety of research being done on social inequalities in health in Quebec. Part 1 presents empirical data, Part 2 addresses theoretical issues, and Part 3 is devoted to policies and practices for reducing such inequalities.

In Part 1, Chapters 1 and 2 contain a wealth of precise, well supported statistics that illustrate the historical patterns of premature mortality in Quebec and France. In both places, the relative differences in premature mortality among social groups have increased over the past 10 years, while the absolute differences have increased among women and decreased among men in Quebec. These differences have remained the same in France, where the gap between people who are included in the workforce and people who are excluded from it has grown. Chapter 3 is a detailed analysis of three specific geographic areas. The authors stress that the local environment is a product of social interactions and that there is a complex, dynamic interplay between physical living conditions and social relationships, which can help to protect the population's health on one hand or undermine it on the other.

Part 2, which is devoted to theoretical analyses, is extremely useful because, as many authors have pointed out, there is a dearth of theories to support analyses of public health. Chapter 4 raises the general question of the appropriation relationship, analyzing social inequality and health inequalities as a transfer of time spent living in good health from one population to another through the appropriation of the labour force. Chapter 5 criticizes the strong current tendency to interpret behaviours on the basis of individualizing theories, with a pragmatic approach to the detriment of intellectual and policy debates. In Chapter 6, the authors propose that lifestyles be regarded as social practices and stress the recursive nature of the relationship between individuals' habits and the social structure. Hence this relationship is dynamic and calls for an examination not only of the resources of the geographic area in which individuals live, but also of their ability to use these resources. Chapter 7 extends this analysis to neighbourhood environments. It also looks at time in the life course, drawing attention to the iterative processes involved: any individual's current life circumstances continuously shape that individual's future. These chapters suggest that any analysis of individuals' access to material resources must be combined with a consideration of the degree to which these individuals can actually mobilize and use these resources. Chapter 8 stresses the importance of social capital and social networks, with references to Émile Durkheim. For the author, networks constitute the new social morphology in response to the evolution of ties of solidarity in a context of rapid change. Chapter 9 discusses the physiological mechanisms that may be connected with social behaviours. The author argues that the phenomena of submission and shame can trigger physiological alarm signals. From this neurobiological perspective, what matters is not true economic status but perceived social status. Chapter 10 addresses the life-course approaches and proposes the status achievement model, which draws attention to the impact of the environment on individuals' mobility. Chapter 11 examines some promising biostatistical methodologies, such as multi-level analysis, and encourages continued investigation of the conceptualization of levels of analysis, thus reiterating the need for a theoretical approach.

Part 3, deals with interventions for reducing social inequalities in health. Chapter 12 discusses youth-protection

services in Quebec and shows that poverty and the deprivation associated with it seem to have an impact on the quality of the relationship between parents and children. Children are thus the victims not only of their parents' problems, but also of the inadequate response by the health and social services system. This response is often fragmented, consisting of separate, compartmentalized interventions that neutralize one another. Chapter 13 emphasizes the need for an interdisciplinary approach and underscores the great potential of interventions in the school setting, while also noting the weaknesses in evaluation methods. This shortcoming is also highlighted in Chapter 14, which deals with risks associated with work. Quebec does have laws, regulations, and government programs designed to help maintain the employment link and facilitate return to work. But evaluations of such programs are scarce, and the programs that promote prevention are less accessible to those employees whose working conditions are the most precarious, particularly in small businesses. Chapter 15 aptly notes that discussions of how to evaluate health promotion have deliberately omitted the imperative of equity set out in the *Canadian Charter of Rights and Freedoms*, focusing almost exclusively on the values of effectiveness and efficiency. This approach increases the risk that health promotion initiatives will actually increase health inequalities. Equity should therefore be an evaluation criterion at every one of these stages. The last chapter of this book reviews texts dealing with social inequalities in health in the United Kingdom, Sweden, and Quebec and reiterates the need for intersectorality and for an approach to the fundamental causes of inequalities.

This book offers a rich variety of valuable perspectives on the issue at hand. My one minor criticism is that it does not offer any discussion of evaluation methods. The need for evaluation is stressed in several chapters, and it would have been helpful if the book had also discussed the various methodological modalities by which evaluations can be conducted and reviewed the roles of the various actors in producing evidence (qualitative data, epidemiological data, modeling, citizen mobilization, *a priori* impact studies, etc.).

In conclusion, this is a fascinating book that provides much data on health inequalities and points out how much could be gained by developing a theoretical approach to the associated problems beyond that which has been developed to date. The great variety of viewpoints illustrates both the richness and the complexity of this subject. The chapter on putting ideas into action clearly shows the need for theoretical and intersectoral approaches, as well as decompartmentalizing the actors' roles.

"...this is a fascinating book that provides much data on health inequalities and points out how much could be gained by developing a theoretical approach to the associated problems beyond that which has been developed to date."

Welcome to 2010 IPPH Summer Students

Kate Neufeld is from Saskatoon, Saskatchewan and is graduating in June 2010 with a Bachelor of Science, Honours degree in Physiology from the University of Saskatchewan.

In August 2010, Kate will be starting medical school at the University of Saskatchewan, College of Medicine. Her areas of research have included women and children's health. Kate also enjoys travelling and learning new languages. She is based at the Institute of Population and Public Health office at the University of Ottawa.

In 2009, *Lina Johnston* completed a Master's of English Literature with the University of Ottawa. She is currently working on a second Master's of Anthropology. Her areas of interest span agriculture, food security and health, organics and the local/ sustainable use of the land, and discourses surrounding food production, consumption and marketing. She enjoys travelling, and writing. Lina will be working with both the Institute of Health Services and Policy Research and IPPH at CIHR central.

Applied Public Health Chair Feature: Dr. Lise Gauvin

Dr. Lise Gauvin
Applied Public Health Chair

"The Charter is a global call to action that outlines four actions based on 9 guiding principles to achieve greater political and social commitment towards physical activity."

Lise Gauvin is the recipient of an Applied Public Health Chair funded by the CIHR Institute of Population and Public Health and the Centre de recherche en prevention de l'obésité which deals with neighbourhoods, lifestyle, and healthy body weight. The Chair is based at the Direction de santé publique de Montréal and focuses on understanding how interventions that transform neighbourhood environments can influence physical activity and healthy eating and eventually healthy body weight. She is a professor in the Department of Social and Preventive Medicine at the Université de Montréal and a researcher affiliated with the Centre de recherche du Centre Hospitalier de l'Université de Montréal (CRCHUM). She is also affiliated with the Léa-Roback Research Centre on Social Inequalities in Health, which is funded through a CIHR Centres grant.

Lise, originally trained as a physical activity specialist, then gravitated towards public health to better understand how to successfully influence population levels of physical activity. Along the way, she developed new partnerships, new interests, and delved into her passion for advanced quantitative methods and the application of new research methodologies. The result has been a program of research and knowledge translation that builds on the continually growing body of research, and shows that the environments that people live, work, and recreate in influence the choices they make around physical activity and eating. Along with colleagues at the CRCHUM and the *Direction de santé publique de Montréal* as well as a doctoral candidate, she is leading a team of investigators to study the impact of the implementation of a public self-service bicycle sharing program in Montreal called BIXI (www.bixi.com) on the travel patterns and risk of collisions with motor vehicles among Montreal residents who use the bikes. She is also part of a team of public health officers, urban planners, and researchers led by the Heart and Stroke Foundation of Canada and funded through the newly developed Coalitions Linking Action and Science for Prevention - Canadian Partnership Against Cancer (CLASP-CPAC) funding mechanism to determine how evidence about the built environment and health can best be brought to bear on chronic disease prevention.

Knowledge has always been a mainstay for Lise as she has spoken to audiences interested in how research could be applied in intervention, and has been involved in developing print materials about intervention. However, she was also actively looking for new ways to transfer knowledge when the opportunity to work with an international advocacy initiative emerged. Under the auspices of the Global Advocacy for Physical Activity (GAPA) Council of the International Society for Physical Activity and health (www.ispah.org) and the Board of Directors of the 3rd International Congress on Physical Activity and Public Health (www.icpaph2010.org) held in May 2010 in Toronto, she co-presided (with Dr. Fiona Bull of the University of Western Australia) the writing team of the Toronto Charter for Physical Activity (www.globalpa.org.uk). The Charter is a global call to action that outlines four actions based on 9 guiding principles to achieve greater political and social commitment towards physical activity. The Charter emerged out of a collective desire to leave a lasting legacy for physical activity. Research on how environmental and policy factors influence population levels of physical activity – the focus of her Chair research program - and some principles gleaned from population health intervention research were integrated into the statement of the Charter. Development of the Charter followed a three step process: a first draft of the Charter was developed by the writing team and circulated to 25 to 30 senior researchers and policy-makers for input; a second version of the Charter was developed by the writing team, translated into French and Spanish, and then posted on the web for an online, world-wide consultation. More than 400 people from over 50 countries provided upwards of 1700 comments. These were integrated into the Charter which was then launched at the closing session of the 3rd International Congress on Physical Activity and Public Health in Toronto between

May 5th and 8th of this year. The final version of the Charter went up on the GAPA web site on May 24th. French and Spanish versions of the Charter will be online shortly. To date, there have been offers to translate the Charter into at least 7 other languages (Arabic, Croatian, Czech, German, Japanese, Polish, Portuguese, and Thai). "Working on this advocacy initiative has been a wonderful experience of collaboration that highlights how seeking input from partners can crystallize into a concrete instrument for health promotion" states Lise. In the coming months, she will be actively looking for other novel ways to share useful information emanating from the ongoing population health research projects funded through her Applied Public Health Chair.

The Evolution of Public Health: A Great Canadian Success

A message from Dr. David Butler-Jones, Canada's Chief Public Health Officer

As we celebrate the Canadian Public Health Association's Centenary in 2010, I'd like to offer POP News readers some thoughts on the past, present and future of public health from my perspective as Canada's Chief Public Health Officer.

To better appreciate how far we've come in public health over the past century or so, it's worth remembering what health conditions were like in Canada in the late 19th century.

In those days, most communities experienced unsafe water supplies and poor waste disposal, overcrowding and inadequate housing, poor diet, and unsafe food and milk. Life expectancy at birth was about two thirds what it is today, and one out of every seven infants did not survive.

Across the western world, conditions such as these had long been met with resigned complacency, as reflected by the philosopher Jean-Jacques Rousseau's observation: "One half of children die before their 8th year. This is nature's law. Why try to contradict it?"

In the late 19th and early 20th centuries, Canadian attitudes began to change thanks to the efforts of individuals and communities. This included the Canadian Public Health Association, which also played a key role in advocating for the creation of a Department of Health in 1919. As the 20th century progressed, Canadians were the beneficiaries of important health-related developments, such as pasteurized milk, improved public housing standards, increased food safety and sanitation, clean drinking water and education.

Advances in public health continued in the latter half of the 20th century with mass immunization, social reforms, the introduction of Medicare, and innovative public education and health promotion campaigns and legislation, such as those to reduce tobacco use and increase the use of seatbelts.

Despite this progress, there remain Canadians in every corner of the country who continue to experience higher rates of injury, chronic or infectious diseases, and addiction and mental health issues. Disparities in the underlying determinants of health continue to hold back the overall health of Canadians.

As we move forward into the 21st century, I believe it's more important than ever that we be mindful of the core objectives of public health: to improve the health and well-being of our population and reduce health inequalities.

In 2010, the good news is that Canadians are living longer. The bad news is that not all health trends are improving, and not all Canadians are benefiting to the same degree from public health improvements over time. Given the current epidemic of childhood obesity, we risk this being the first generation of children to not live as long and as healthy and their parents.

The Public Health Agency of Canada recognizes the importance of acting on a broad range of complex and interconnected determinants of health — from physical and social environments to poverty, education, employment and working conditions, and health and social services.

By bringing attention to these underlying health determinants and successful ways to address them, we can contribute to improving public health and levelling the playing field for all Canadians.

(Continues on page 8)

Dr. David Butler-Jones
Canada's Chief Public Health Officer

"As we move forward into the 21st century, I believe it's more important than ever that we be mindful of the core objectives of public health: to improve the health and well-being of our population and reduce health inequalities."

Stimulating Debate and Dialogue on Ethical issues in Population and Public Health: The IPPH Population Health Ethics Virtual

Heather Greenwood, Research Assistant, IPPH and Sarah Viehbeck, Senior Evaluation Associate, IPPH

"The use of technology to facilitate debate and dialogue combined with the focus on an area of shared interest represents the emergence of a virtual community of practice in population and public health ethics in Canada."

While some work has been undertaken to define frameworks and underlying principles for public health ethics,[1-2] gaps remain in our understanding, conceptualization, and application of ethics to this field.[3-4] Population and public health ethics can be distinguished from traditional bioethics by the focus on: (1) *populations* rather than individuals; (2) a wide range of population-level and/or environmental interventions often implemented *outside of the health care setting* or health *sector*; and (3) *prevention* of illness and disease.

Fostering the development and refinement of ethical frameworks for population health interventions in Canada and globally is a strategic objective for IPPH. To this end, IPPH convened a virtual journal club through six sessions held via distance education from February to May, 2010. This initiative aimed to consider fundamental questions about the application of population health ethics principles and frameworks to the design and evaluation of population health interventions, and to identify and discuss concrete situations for the application of population and public health ethics frameworks.

The journal club included 37 participants from academic (n=21), policy/program (n=11) and knowledge translation (n=5) fields. Participants came from diverse disciplinary backgrounds representing 26 different organizations from across Canada. Each session featured an expert in the area who presented one of their publications and then facilitated dialogue amongst participants. Discussants were from Canada (Drs. Francoise Baylis and Ross Upshur), the U.S. (Drs. Jason Robert, Dan Wikler, and Norman Daniels) and the UK (Dr. James Wilson).

The use of technology to facilitate debate and dialogue combined with the focus on an area of shared interest represents the emergence of a virtual community of practice in population and public health ethics in Canada. IPPH is currently planning the next phase of activities in this area to continue to foster this virtual community and work towards the development of ethical frameworks for population and public health.

For further information about IPPH initiatives in the area of population and health ethics please email Heather Greenwood at hgree016@uottawa.ca or visit the IPPH website (http://www.cihr-irsc.gc.ca/e/13777.html).

1. Nuffield Council on Bioethics. Public health: ethical issues. London: Nuffield Council on Bioethics; 2007.

2. Thomas JC, Sage M, Dillenberg J, Guillory VJ. A code of ethics for public health. American Journal of Public Health 2002;92(7):1057-1059.

3. Baylis F, Kenny NP, Sherwin S. A relational account of public health ethics. Public Health Ethics 2008;1(3):196-209.

4. Daniels N. Just health: Replies and further thoughts. Journal of Medical Ethics 2009;35(1), 36-41.

Is there Equity from the Start in Canada?

Dr. Clyde Hertzman Director, Human Early Learning Partnership

In 2008, the World Health Organization (WHO) Commission on the Social Determinants of Health published its international report on the social determinants of health (CSDH, 2008). Chapter 5, called 'Equity from the Start' was devoted to early child development. Its overarching recommendation was that all WHO member countries "commit to and implement a comprehensive approach to early life, building on existing child survival programs and extending interventions in early life to include social/emotional and language/cognitive development." Despite the fact that Canada was *the* primary contributor of knowledge to this chapter, we are a wealthy coun-

try that is investing the least in the early years (OECD, 2006). In its recent report card on early learning and care, UNICEF revealed that Canada met only 1 out of 10 benchmarks, tying it for last, with Ireland, out of 26 wealthy countries (UNICEF, 2008).

Canadian children's chances of being vulnerable (that is, being behind where we would like them to be in their physical, social/emotional, or language/cognitive development) vary greatly by school age. In some Canadian neighbourhoods only 5% of children are vulnerable, whereas in others as many as 70% are vulnerable. Overall, between 25 and 30% of Canadian children are vulnerable. Once vulnerable, children are at increased risk of grade failure, early criminality, school drop-out, reduced economic participation, mental health conditions, and early onset of chronic disease.

Reducing vulnerability to less than 10% is an achievable goal. Vulnerability forms a gradient as one goes from the top to the bottom of the spectrum of family income, parental education, or the status of parents' jobs. That is, the proportion of vulnerable children *gradually* increases, *without a threshold* as one goes from the most, to the least privileged segments of society. Children in the least privileged families have the greatest chance of being vulnerable, but, from the perspective of society, *the largest number* of vulnerable children is spread more thinly across the populous middle class. In Canada no special population can be targeted: by income, ethnicity, immigration, birth weight, gestational age, family or psychosocial risk status that will capture a majority of the developmental vulnerability (Kershaw et al., 2005). The gradient challenges us to provide strong nurturing environments to *all* children; providing universal access to experiences that will minimize vulnerability and support healthy child development. This is what 'equity from the start' is all about.

In contrast to Canada, Sweden met all UNICEF benchmarks. It provides: high quality, high coverage prenatal care associated with lower low birth weight rates than Canada; an income policy that brings virtually all families with young children above the poverty line; up to 18 months paid parental leave with incentives for the father to take some; monthly developmental monitoring in the first 18 months of life so that all vision, hearing, speech/language, and dental problems are addressed before school-age; universal, non-compulsory, access to publicly-funded high quality programs of early learning and care (which 80-90% of preschool age children attend), run by university educated staff, which do not compromise the central role of parents in raising their children; and, finally, a gradual transition from play based to formal learning at school age that serves to avoid privileging January babies and girls, and disadvantaging December babies and boys.

If one looks across the Canadian provinces and territories, one can find exemplary initiatives in each of the areas that would make up a comprehensive approach to early life. But no jurisdiction has put in place all the necessary elements. It is past time for a pan-Canadian commitment to equity from the start.

1. Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the commission on social determinants of health. Geneva: World Health Organization, 2008.

2. Organization for Economic Cooperation and Development (OECD). Starting strong II. Early childhood education and care. Paris, France, 2006.

3. UNICEF. The child care transition, Innocenti Report Card 8. UNICEF Innocenti Research Centre, Florence, 2008. <http://www.unicef.ca/portal/Secure/Community/502/WCM/HELP/take_action/Advocacy/rc8.pdf> (Version current at 2008).

4. Kershaw P, Irwin L, Trafford K, Hertzman C. The British Columbia atlas of child development. Western Geographical Press #40, 2005.

"The gradient challenges us to provide strong nurturing environments to all children; providing universal access to experiences that will minimize vulnerability and support healthy child development. This is what 'equity from the start' is all about."

IPPH STAFF
Scientific Director
Dr. Nancy Edwards
nedwards@uottawa.ca
Tel: 613-592-5800 ext 8414

Associate Director
Erica Di Ruggiero
e.diruggiero@utoronto.ca
Tel: 416-524-0111

Senior Evaluation Associate
Sarah Viehbeck
Sarah.Viebeck@uottawa.ca
Tel: 613-592-5800 ext 1925

Knowledge Translation and Communications Officer
Emma Cohen
ecohen@uottawa.ca
Tel: 613-562-5800 ext 8439

Administrative Coordinator
Ashley Page
ipph-ispp@uottawa.ca
Tel: 613-562-5800 ext 8414
Fax: 613-521-2919

CIHR CORPORATE STAFF
Assistant Director
Ghisline Bourque
ghisline.bourque@cihr-irsc.gc.ca
Tel: 613-592-4538

Associate, Strategic Initiatives
Kim Gaudreau
kim.gaudreau@cihr-irsc.gc.ca
Tel: 613-957-6128
Fax: 613-954-1800

Students
Heather Greenwood
hgree016@uottawa.ca

Kate Neufeld
kneufeld@health.uottawa.ca

Lina Johnston
lina.johnston@cihr-irsc.gc.ca

For general inquiries, or to be added to our E-Bulletin News List, please contact: ipph-ispp@uottawa.ca

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This, in turn, supports the functioning of our society and Canada's competitiveness as a nation. As fewer are left behind, more will prosper.

As a society, we are only as healthy as our least healthy members. We all have a role to play in creating the physical, economic, social and cultural conditions that are the foundation of good health for all Canadians. And what we do, even in small ways, can make a difference.

Funding Opportunities

Please visit the IPPH website for a list of current funding opportunities being offered by the Institute.

http://www.cihr-irsc.gc.ca/e/13777.html

Featured Articles

Please let us know about your recent publications. We would like to profile some of these in future newsletters. Please email Emma Cohen (ecohen@uottawa.ca), IPPH Knowledge Translation and Communications Officer. Thank you.

Loeb, M., Russel, M. L., & Moss, L. (2010). Effect of Influenza Vaccination of Children on Infection Rates in Hutterite Communities: A Randomized Trial. *JAMA*, *303*(10), 943-950.

Chiu, M., Austin, P.C., Manuel, D.G., & Tu, J.V. (2010). Comparison of cardiovascular risk profiles among ethnic groups using population health surveys between 1996 and 2007. *CMAJ, 182*(2), E301-E310.

Creatore, M.I., Moineddin, R., Booth, G., Manuel, D.H., DesMeules, M., McDermott, S., & Glazier, R.H. (2010). Age- and sex-related prevalence of diabetes mellitus among immigrants to Ontario, Canada. *CMAJ, 182* (8), 781-789.