FOREWORD

From Talking Circles to Telehealth

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Our shared vision of improving the health of Circumpolar Peoples brings us together every three years at the International Congresses on Circumpolar Health (ICCH).

The ICCH is unique in that it embraces all relevant health topics within three broad domains: public health service, health care delivery, and health research. We are a unique group in that we recognize the importance of the breadth of specialties and perspectives needed to advance public health service, health care delivery and health research, and the inter-related aspects of our work. The similarities of the challenges faced across the Circumpolar North are remarkable, and sharing our experiences and perspectives every 3 years provides us with mental and spiritual fuel to carry on our work back home. It is why we leave each Congress energized, and the 12th ICCH held in Nuuk, Greenland was no exception.

Carrying on a tradition of diversity, the 12th ICCH included presentations representing participants from 11 countries on subjects ranging from infectious and chronic diseases to health behaviors, mental and psychosocial health, reproductive and child health, ageing, environment, genetics, injuries and violence, cold and dark adaptations, wellness and community health promotion, research ethics, training, and the challenges of providing high-quality and timely health care in the sparsely populated North.

Not only are the topics diverse but so too are the methods of communication. Talking circles have now become a part of ICCH and provide a forum for engaging in a traditional Aboriginal problem-solving process for dealing with the complexities of the modern-day challenges we face.

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Indigenous peoples characterize well-being as a broad construct of balance of the spiritual, emotional, physical and mental and intellectual aspects of life, whereas health research and patient care is largely focused on specific diseases and processes. Our western public health science training has taught us to seek out the risk factors for disease, but perhaps this construct only gets us so far. Perhaps it is time to listen to the Elders and add "wellness factors" to our research objectives to provide another perspective that is sorely missing in our scope of assessments.

For example, in the mental and psychosocial health arena, high suicide rates are a common problem throughout the Circumpolar North, and how to reduce the rates continues to elude us. Research has improved our understanding of the traumatic life experiences (risk factors) that are more prevalent among those with suicidal ideation and other indicators of psychological distress. The Congress participants point out that it is not enough to treat symptoms of distress but we must also understand
the contributing causes, such as growing up in a household affected by alcohol abuse or observing violence in early childhood. But, if we were to also study wellness factors, we would ask another set of research questions, such as what are the effective means of coping among those that have experienced trauma? The answers to what leads to wellness would provide another perspective and help cformulate prevention approaches.

Similarly, we hear of the high smoking rates and the risk factors for smoking, such as age, gender, and ethnicity, but rarely do we examine wellness factors, i.e., what motivates and enables smokers to quit, and what contributes to decisions to never take up smoking? One delightful descriptive study presented suggested, at least indirectly, that getting youth interested and active in competitive sports might be a way to motivate youth to quit smoking or to never begin smoking.

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New perspectives and questions posed in alternative ways can improve the public health value of our work and advance our common vision of improving the health and well-being of Circumpolar Peoples. Increasing Congress participation by Indigenous peoples and particularly the Elders should be a high priority for future Congresses, as their perspective on wellness can help frame research questions.

Some additional highlights from the Congress are discussed below.

In the health service arena, inadequate financial resources and the value of long-distance health care were featured themes including communicating with one’s long-distance doctor via email in Greenland and the value of telemedicine throughout the north. A harrowing story of a two-year old boy in acute respiratory distress in Arctic Bay illustrated the value of long-distance telehealth as a support-line for the Medevac crew that was stranded due to an arctic storm. The local nursing staff and the Medevac crew set up an ICU unit and did what they could with few supplies. Teamwork and telemedicine technology were credited for the successful care of the seriously ill child. Also a topic of discussion is that the emergence of chronic diseases such as diabetes in remote northern populations requires innovative strategies for care. Congress presenters shared a newly developed program which combines a mobile care unit and telemedicine backup with specialists in Vancouver to help treat diabetes patients in Northern B.C. As public health efforts become successful in increasing life expectancy in the north, new challenges emerge, such as the provision of health services to an ageing population and end-of-life care in remote communities.

In the infectious disease arena, we learned that the dramatic decreases in infectious diseases over the last century are no reason for complacency. While there is plenty of good news, such as the success of immunization campaigns in reducing new infections of viral hepatitis in the Arctic, we learned of the unacceptable numbers of people who remain chronically infected with hepatitis B (HBV) in Alaskan communities, and that micro-epidemics of tuberculosis in isolated communities in Greenland and on reserves in Canada presents an ongoing public health challenge. Respiratory infections were another focal point of discussions. Health Canada representatives drew from their recent SARS experience in their presentation on preparedness planning for new and emerging respiratory pathogens in Northern communities. Also a number of presentations highlighted the fact that northern Aboriginal children are still at unacceptably high risk for respiratory infections. In the cancer arena, human papillomavirus (HPV) infections account for the high cervical cancer rates noted in northern communities, and helicobacter pylori infection (which is linked to gastric ulcers and cancer and iron deficiency anemia through blood
loss) continues to be high in seroprevalence studies in Greenland and Alaska, but has not yet been systematically evaluated in Canadian communities.

Solutions were discussed as well: new antiviral therapies hold promise for chronically infected HBV patients who are at risk for cirrhosis and hepatocellular carcinoma. For tuberculosis, early detection and treatment need more attention in public health measures. For HPV infections, the results of a study in Nunavut will help develop a cervical cancer screening strategy for the territory where HPV testing and cytology screening will be incorporated into an early detection and prevention program.

In the chronic disease arena, the focus of attention was on the emergence of obesity, type 2 diabetes and related risk factors of metabolic syndrome. A health survey in Greenland has found that the prevalence of type 2 diabetes mellitus (DM) in all regions was as high or higher than among Danes in Denmark: a striking finding given that the Inuit have historically not been at risk for diabetes. While measures of weight and obesity indicate increases in populations in the Circumpolar North, one positive finding was that at any given level of obesity, the Inuit had more favorable levels of blood pressure, triglycerides, HDL-cholesterol and 2-hour glucose and insulin than did their Danish counterparts. Could the higher dietary intake of n-3 fatty acids among the Inuit and other lifestyle differences be playing a protective role? In animals, omega-3 polyunsaturated fatty acids protect against insulin resistance and in prospective epidemiological studies, high fish consumption has been related to reduced risk of type 2 diabetes mellitus.

On a related note, differences in dietary quality was noted in a number of presentations, with Inuit in Greenland on a western diet having lower vitamin D levels than those consuming a traditional diet, and in Canada notable age differences in total and saturated fat intake with higher intakes reported among youth and young adults than among Inuit Elders. Dietary transition is continuing to occur and together with other lifestyle factors will likely play a role in future chronic disease risk for populations in the Circumpolar North. Rickets is still a health issue, and vitamin D deficiency was noted in presentations from Norway, Canada, and Greenland.

In the reproductive and perinatal and child health arena, strategies for preventing unwanted pregnancies, and ways to promote culturally appropriate sexual health education, the need for reducing the rates of domestic violence, and the rates and causes of preterm delivery were among the many topics of discussion. Also, early childhood dental caries continues to affect more than 80% children in many northern populations. Chronic otitis media and hearing loss continues to be a problem, and in one study one in five Inuit aged 12-16 had hearing loss which was also noted to have a substantial impact upon academic performance. A model program was presented for detecting and treating amblyopia in Alaska which is a preventable cause of blindness. Geneticists shared their findings of genetic determinants of cirrhosis in First Nation communities in B.C. and Québec and the complex issues that surround genetic testing, such as communication strategies, psychosocial support, ethical issues, confidentiality and discrimination, and non-paternity.

On the environmental contaminants issue, some good news is that there has been a dramatic decline in blood lead levels among neonates in Nunavik due to a new law prohibiting the use of lead ammunition for migratory bird hunting in Canada and a community information campaign on how to prevent lead exposure. Another piece of good news is that there has been a decline in persistent organic pollutants (POPs) in the Arctic noted in Nunavik, and that the recent International POP Convention will likely help enhance the downward trend being observed. Also, a study presented found no link between POPs and breast cancer, a finding that is in keeping with the majority of research on this topic. Other good news is that the ample supply of omega-3 polyunsaturated fatty acids in a traditional diet is related to increases in birthweight and gestational age and appears to attenuate the potential adverse effects of POPs on the duration of pregnancy and birth weight.
Some potential areas of concern, however, were also presented at the Congress. POP exposure is highest in populations living in Eastern Greenland and the higher levels have been attributed to the consumption of polar bear fat. Initial findings of one small exploratory study found that Inuit Parkinson’s Disease patients in Greenland had a greater plasma concentration of DDE compared to Inuit age and sex-matched controls. While these associations do not demonstrate causality, the findings warrant further exploration in other studies. Also presented were findings relating fetal exposures to lead, mercury, and POPs on early developmental tests of cognitive functioning in a study conducted in Nunavik.

In the occupational arena, the Circumpolar North is characterized by the number of dangerous and life-threatening occupations in fishing, forestry, off-shore oil industry, and mining. Commercial fishing accounts for a large number of deaths due to drowning and hypothermia and early response to fishing vessel accidents now includes the use of emergency position beacons which facilitates search and rescue efforts. Sharp declines in worker deaths in Alaska have been noted following the implementation of a surveillance and worker education program. Chronic ailments have also been attributed to the unique work demands in the north, with crab asthma and atopy being a health concern for crab plant workers; shift work being related to isolated systolic hypertension in Russia, and musculoskeletal symptoms being high in reindeer herders in Sweden.

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Training the next generation to take our place and improving training opportunities for Indigenous Peoples was a welcome addition to the proceedings in Nuuk. Highlights include the successes of the Nunavut Arctic College nursing program which will graduate the first students of its program this year, and the Canadian Institute for Health Research initiative to increase the number of Aboriginal students in graduate level health research. Also, student travel stipends to the 12th ICCH enabled many young people to come and participate.

Another consideration for future Congresses was reflected in coffee break conversations regarding the need for technical training sessions prior to or following the Congresses to help improve research methodology in the Circumpolar North. For example, issues such as how to best select controls for a case-control study, how to write abstracts clearly so they can be interpreted appropriately, and appropriate statistical applications and inferences for small populations are among the topic areas in which we can benefit from additional training.

On a final note, thanks to all the participants who made the 12th ICCH a success and, on behalf of all participants, a warm thank you is extended to all who contributed to the planning and organization of the 12th ICCH for excellent work. Thank you, Dr. Stensgaard and to the many members of the Greenlandic Nurses Association, the Greenlandic Doctor’s Association and the Danish/Greenlandic Society for Circumpolar Health and to the President of IUCH, Dr. Bjerregaard, for enabling the tradition of the International Congress on Circumpolar Health to continue.

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