

SUSTAINING OBSERVING OBSERVATION NETWORKS  
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Session 9: Human Health and Community Observation Networks

Co-chaired: Jay Van Oostdam and Gerard Duhaime  
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Five talks were presented at the start of this session, four outlined human health and social sciences networks that are presently operating in the circumpolar region and the fifth talk offered a community perspective. These short overviews on the presently operating health / social sciences networks allowed the time available for discussion to focus on how we could improve human health research and health / social sciences data gathering and assessment in the circumpolar region. The set of recommendations summarize these discussions.

### **Social Indicators and Human Health**

G rard Duhaime PhD, Professor, Department of Sociology, Chairholder, Canada  
Research Chair on Aboriginal Conditions, Faculty of Social Sciences, Laval University,  
Quebec City, QC, Canada

Several initiatives are underway to increase our research capacity and to address social realities of the arctic. They all aim to encourage data sharing and use. The Survey of Living Conditions in the Arctic (SLiCA), completed for most arctic regions, has a web site where the data and other information can be consulted, ([www.arcticlivingconditions.org](http://www.arcticlivingconditions.org)). It covers (or will cover) Northern Alaska, Northern Canada, Greenland, Northern Norway and Sweden, the Kola Peninsula and Chukotka. The Arctic Social Indicators (ASI) is a follow up to the Arctic Human Development Report. This project, which is currently on-going, will take advantages or already existing data to create relevant indicators, and will recommend a set of new and relevant indicators. ASI is divided up into six domains: ability to guide one's destiny, cultural integrity, contact with nature, education, health and demography, and material well-being. The Arctic Observation Network Social Indicators Project (AON-SIP) is compiling data using a common framework, geography, time, and variable definitions. There are five clusters of indicators: community living conditions (organized within the six ASI domains), tourism, fisheries, oil, gas, mining and marine transportation, and marine mammal hunting ([www.search-hd.net](http://www.search-hd.net)). ArcticStat is a portal database that allows the user to select and reach existing tables that cover Arctic countries and regions, some ten socio-economic indicators and more sub-indicators, and years ([www.arcticstat.org](http://www.arcticstat.org)). Thousands of tables mainly from national agencies are linked to ArcticStat. All of the above projects are attempting to integrate their data.

Significant difficulties are presented in the use of existing data due to a lack of uniformity between existing data sets (between two countries for instance) and barriers to access the data (tables not accessible at the regional level, or in English language, or excessive charges). Moreover no researchers / agencies have ongoing funding for these important determinants and in some countries there is no funding for even basic database operation / assembly.

### **Circumpolar Health Observatory – Proposed**

Kue Young, MD, FRCPC, Dphil, Professor and CIHR Senior Investigator, Department of Public Health Sciences, Faculty of Medicine, University of Toronto, Toronto, Canada

This will be an international collaborative health information system, with a systematic, standardized, and consistent data collection, analysis, and reporting. Its purpose is to monitor trends and patterns in health status, health determinants, and health care, provides quantitative evidence for planning and evaluation of health programs and services. It needs to be population-based, and aggregated by administrative regions in all circumpolar countries

In addition to the *International Circumpolar Surveillance* [ICS] and *Arctic Monitoring and Assessment Program* [AMAP], there are several existing projects/programs that have functioned as “sustainable arctic observing networks”:

- *International Network for Circumpolar Health Research* – an organization of researchers who collaborate on projects, exchange results, and provides training
- *Inuit Health in Transition Study* – a multi-regional cohort study with focus on chronic diseases and risk factors with over 7000 subjects and to be repeated in 7 years
- *Circumpolar Inuit Cancer Review* – Standardized data retrieval and analysis from regional cancer registries in Alaska, Canada and Greenland providing a 35-year perspective on trends and patterns of cancer incidence among the Inuit
- *Circumpolar Health Indicators* – report covering 2000-2004 on 28 health indicators of all Arctic countries and regions – available free from [www.ijch.fi](http://www.ijch.fi)

Proposal – creation of the Circumpolar Health Observatory by amalgamating or synchronizing existing data generation activities; a deliverable could be a Circumpolar Health Atlas that functions as both data repository and learning tool

### **The International Circumpolar Surveillance System: An Arctic Observing Network for Infectious Diseases**

Alan J. Parkinson Ph.D, Arctic Investigations Program, Centers for Disease Prevention & Control, Anchorage, Alaska, USA.

The purpose of the International Circumpolar Surveillance (ICS) system for infectious diseases is to establish a network of hospital and public health laboratories throughout the Arctic. The network would allow collection and sharing of uniform laboratory and epidemiologic data between Arctic countries that will describe the prevalence of infectious diseases of concern to Arctic residents and assist in the formulation of prevention and control strategies. Currently the system monitors invasive bacterial diseases and tuberculosis in the US Arctic (Alaska), northern Canada, Greenland, Iceland Norway, Finland, northern Sweden. While currently focused on prevention and control of infectious disease the system could be adapted to monitor other human health issues of concern in Arctic countries, and serves as a model for a Sustainable Arctic Observing

Network for human health. More information at:  
[www.cdc.gov/eid/content/14/1/contents\\_v14n1](http://www.cdc.gov/eid/content/14/1/contents_v14n1)

**Arctic Monitoring and Assessment Program, Human Health Assessment Group (AMAP-HHAG) – An Arctic Observing Network on Human Health Impacts of Environmental Contaminants**

Jay Van Oostdam BSc, DVM, MPH, Health Canada, Safe Environments Programme, Canadian co-chair – AMAP-HHAG, Ottawa, Canada

The Arctic Monitoring and Assessment Program (AMAP) has been coordinating circumpolar monitoring and assessment on atmospheric pathways, biota impacts, food chain dynamics and human health issues for environmental contaminants since 1991 (<http://www.amap.no/>). The contaminants have included Persistent Organic Pollutants (historic and emerging compounds), metals and radionuclides of concern in the circumpolar world. The AMAP Human Health Assessment Group (HHAG) has members in all eight circumpolar countries and has completed two assessments on the human health impacts of arctic environmental contaminants (1996, 2002). A third assessment is to be released in 2009. These assessments have included human monitoring data, dietary studies, health effects studies and risk management strategies to mitigate the effects of contaminants. The HHAG has effectively functioned as an Arctic Observing Network for environmental contaminants in the circumpolar north and could work with the other human health observation networks to give an integrated picture of circumpolar human health.

**Community Observation Perspectives**

Lorraine Peter, Destiny Management Consulting, Old Crow, Yukon, Canada

Lorraine presented a community perspective from her community of Old Crow, Yukon of the Vuntut Gwitchen, the most northern community in the Yukon, inside the arctic circle. Population 250.

The Gwitchin people depend on a subsistence lifestyle. I can say that we have the best of both worlds. When we share about our people and the challenges we face today in health and climate change we cannot separate ourselves from any one area, so we are connected to the land and animals. We rely on the land and animals for our food and for our health and well being. Fifteen years ago, the hunters and trappers noticed changes in the environment and animals. This was confusing, fearful and sad. However, we have to accept the changes, so overtime we have adapted to the best of our abilities.

We are hopeful, we are learning and benefiting from scientific data and work. IPY is helpful. We need this information. We need you and you need us. Traditional knowledge plays a key role, the experts on land are in our communities. We need to be at these meetings to share our knowledge, we need more data to give an indication to the world on the impacts we face. Canada has a large population of First Nations people –

there is good data on higher Arctic peoples, we need data on inland arctic people. We need to build on partnerships to bridge the gap.

You want to leave an IPY legacy – we can help you do that. With more data left in communities we will be able to address our concerns and continue to live on our lands.

## **RECOMMENDATIONS**

1. Existing Arctic Observation Networks - There are a number of human health observation networks in the arctic (infectious disease, contaminants, chronic disease, social science) and we must strengthen the linkages to build on each other's research / assessment and minimize duplication.
2. Support for integrative research and assessment - Adequacy of funding needs to be ensured for arctic human health research and assessment. Environmental / social change is coming rapidly to the arctic and only ongoing human health research and assessment will allow governments to respond to changing human health conditions. This needs to come as support for circumpolar human health working groups, human health databases and training / capacity building / infrastructure in northern communities.
3. Barriers to health and social sciences research – Health and social sciences indicators need to be harmonized in all circumpolar jurisdictions. Common definitions of indigenous people need to be employed and applied in all countries. Human health and social sciences data need to be available in a common language (English) and statistical agencies must not use cost as a barrier.
4. SAON recommendations - The recommendations from SAON must go to the highest levels of Arctic Council. The Ministers must ensure that each country supplies adequate resources for the human health / social sciences working groups so that Arctic Council can receive the best input on the changing health and social status of arctic populations. Arctic Council Ministers must ensure that all involved agencies of their government (Health Departments, Statistical Agencies) are able to support this work.
5. Data availability / international databases / confidentiality – Large databases can easily be assembled for circumpolar atmospheric parameters or biota. Due to confidentiality requirements which vary in each country and sensitivity about the use of human health data it will not be possible to assemble a circumpolar human health database. Each country / study will be able to supply summary data to allow circumpolar comparisons.

## **Attendees**

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