

# INTERNATIONAL POLAR YEAR ARCTIC HUMAN HEALTH INITIATIVE

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The Arctic Council (AC) has recognized that the International Polar Year (2007-2008) as an unique opportunity to stimulate cooperation and coordination on Arctic Research and to increase the awareness and visibility of human health concerns of Arctic peoples ([www.arctic-council.org](http://www.arctic-council.org)). While previous polar years (IPY 1882-1883; IPY 1932-1933; and the International Geophysical Year 1957-1958) opened polar regions to internationally coordinated research and exploration, human health was not considered as a research theme. At the November 2004 Arctic Council meeting held in Reykjavik, Iceland, the ministers approved the Sustainable Development Working Group (SDWG) proposal of an International Polar Year (IPY) Arctic Human Health Initiative (AHHI).

The AHHI project will seek to advance and coordinate the joint circumpolar human health research agendas of the Arctic Council SDWG and Arctic Monitoring and Assessment Program (AMAP) human health research activities, as well as those of the International Union for Circumpolar Health (IUCH). Current AC human health activities include monitoring the human health impact of anthropogenic pollutants, climate variability, infectious diseases, assessment of health and well being of children and youth, a survey of living conditions in the Arctic, and the expansion and assessment of tele-health innovations in Arctic regions. In order to coordinate and

manage the human health activities of the AC, it has been proposed that a "health cluster" be formed within the AC SDWG with oversight by a committee of subject matter experts.

The IUCH ([www.iuch.org](http://www.iuch.org)) is an organization that maintains contact with subject matter experts through the working groups of IUCH in the areas of Arctic Health Policy, Birth Defects & Genetics, Cancer, Diet & Heart, Environmental Health & Subsistence Food Security, Family Health, Fetal Alcohol Syndrome, Health Surveys, HIV/AIDS, STDs, Indigenous Peoples Health, Infectious Diseases, Injury Prevention, Occupational Safety & Health, Population Based Planning, Tobacco & Health, and Women's Health. An aim of the AHHI is to develop an organizational structure for IPY human health projects that can be used for the management of the AC health cluster beyond 2009.

An expression of interest (EoI) on behalf of the Arctic Council was submitted by the US State Department representation to the IPY Joint Committee January 14, 2005. An AHHI International Advisory committee was formed and met in Copenhagen, Denmark April 7, 2005 and Quebec City, Quebec, Canada October 25, 2005. The purpose of these meetings was to develop the concept, the priorities for research activities, and potential management and organizational structures of the AHHI. The committee consists of representatives from: The Arctic Council's

AMAP human health and SDWG's, Canadian Institutes of Health Research, Centre for Health Research in Greenland Danish National Institute of Public Health, Danish Greenlandic Circumpolar Health Society, Indigenous Peoples Secretariat, Center of Primary Health Care Nuuk Greenland, Centre for Arctic Medicine, University of Oulu Finland, Institute of Community Medicine University of Tromsø, Norway, Saami National Center for Child and Adolescent Health, Center for Saami Health Research, Lund University Sweden, Russian Academy of Medical Sciences, Novosibirsk, Russian Federation, State Sanitary and Epidemiology Surveillance Center, Arkhangelsk Region, Russian Federation, the International Union for Circumpolar Health, Alaska Native Tribal Health Consortium, Southcentral Foundation, Anchorage Alaska, Gwitch'n Council International, and the US Centers for Disease Control and Prevention's Office of Global Health and Arctic Investigations Program. Meeting proceedings can be found at [www.iuch.org/ipy](http://www.iuch.org/ipy). Potential IPY Arctic human health activities identified by the advisory groups included:

1. The support and development of new, and expansion of existing human health surveillance, monitoring and research networks. These circumpolar networks will allow the monitoring of diseases of concern in Arctic communities through the development of standardized study protocols, data collection, laboratory methods, and data analysis. Once established, these networks will allow the monitoring of disease prevalence over time, the determination of risk factors for disease and evaluation and implementation of disease prevention and control strategies.
2. The establishment of research activities focusing on human health issues of concern to Arctic residents. Priority areas include the human health impact of:
  - Regional and inter-continentially transported anthropogenic pollution in Arctic regions.
  - Oil, gas and modernization activities
  - Contaminants and zoonotic infectious diseases on the traditional food supply.
  - Climate variability on human health and traditional food supply.
  - Infectious diseases including tuberculosis, HIV/AIDS, hepatitis, vaccine preventable diseases, emerging infectious diseases such as SARS.
  - The effects of the changing Arctic environment on the evolution, ecology, and emergence of zoonotic disease, particularly avian influenza.
  - Chronic diseases such as cancer, cardiovascular diseases, obesity and diabetes.
  - Behavioral health issues, such as suicide, interpersonal violence and substance abuse, and unintentional injuries.
3. The use of culturally sensitive health interview surveys are a tool for characterizing health, risky behaviors, the health status of populations, and the development of culturally appropriate interventions.
4. The organization of several symposia and topic specific work shops for the development of new collaborations, the assessment of advances made to date in health research and the identification of future risks to the health and well being of Arctic peoples.

5. The creation of an AHHI website that will contain a catalog of AHHI proposals, projects, scientific plans, progress, results, presentations, publications and upcoming events.

A full IPY AHHI proposal was developed and submitted to the IPY Joint Committee September 30, 2005. A description of the full proposal (number 167) can be found at [www.ipy.org](http://www.ipy.org). The proposal was endorsed by the Joint Committee as an IPY coordinating proposal under which other IPY human health research proposals endorsement by the IPY Joint Committee could be clustered. The mechanism and criteria for inclusion of human health proposals in the AHHI cluster can be found in Appendix I. As of August 15, 2006, 13 EoIs and 8 full proposals have been endorsed by and are linked to the AHHI (Appendix II).

The AHHI concept and proposal were presented at the AC SDWG and Senior Arctic Officials meetings held in Khanty-Mansiysk, Russian Federation October 10-14, 2005, at the AMAP Human Health Working Group Meeting, Reykjavik, Iceland May 11-12, 2006, and at the 13<sup>th</sup> International Congress on Circumpolar Health (ICCH13), held in Novosibirsk, Russian Federation, June 12-16, 2006. The ICCH13 meeting was the "Gateway" to the IPY for circumpolar health community and brought together circumpolar health care professionals, workers, researchers, policy makers, and community members. The meeting presented a forum for discussions on their respective visions and priori-

ties for human health research for the IPY and beyond, and resulted in recommendations that included the involvement of communities in health research planning, research activities, and the translation of research findings into actions that directly benefit the health and well being of Arctic communities.

Next steps include:

1. The creation of an AHHI website at [www.arctichealth.org](http://www.arctichealth.org) which will catalog AHHI proposals, scientific plans, progress, summary results presentations, publications and upcoming events.
2. The development of an AHHI organizational structure which would include the creation of project specific working groups (i.e., infectious diseases, contaminants and health, chronic diseases, behavioral health) together with overall coordination by an International Steering Committee. It is envisioned that the International Steering Committee will be comprise of subject matter experts drawn from the member organizations of the IUCH, the project specific working groups, and other partner organizations. The role of the International Steering Committee would be to review new proposals, monitor and evaluate project progress, generate reports, coordinate publication of findings, and facilitate the translation of research findings into actions that benefit Arctic communities. This structure can also be used for the management and oversight of the proposed AC SDWG health cluster.

The IPY presents a unique opportunity to focus public and political attention on health concerns of arctic communities and develop collaborative, international research programs that will address those concerns. The improvements in health status already achieved by Arctic peoples provide hope that through concerted effort and clear vision, existing health challenges and disparities can also be overcome. We believe that the International Polar Year Arctic Human Health Initiative is an important step in this direction.

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### Submission of proposals

To submit proposals to be included as part of the AHHI: contact Alan J. Parkinson [ajpl@cdc.gov](mailto:ajpl@cdc.gov) or Pam Orr [POrr@exchange.hsc.mb.ca](mailto:POrr@exchange.hsc.mb.ca) with a request that includes a summary of the proposed project using the IPY EoI format: [http://www.ipy.org/development/framework/IPY\\_EoI\\_Annex\\_1.doc](http://www.ipy.org/development/framework/IPY_EoI_Annex_1.doc) The EoI should also be submitted to the IPY international program office using online format provided.

### Criteria for AHHI proposals:

Fulfillment of IPY project criteria is required (found at [www.ipy.org](http://www.ipy.org)), including an international partnership of at least one other collaborator in a circumpolar country. In addition we are seeking:

- 1) Research Projects that build on existing Arctic Council human health activities
  - Expansion of telemedicine-health communication
  - International Circumpolar Surveillance-Infectious Diseases
  - Assessment of health & wellbeing of Children and Youth
  - Monitoring-human health effects of contaminants
  - Monitoring effects of Climate Change on Human Health
  - Surveys of living conditions in Arctic regions
- 2) Research Projects that expand existing (or propose new) human health surveillance, monitoring and research networks.
- 3) Research Projects that use surveys to characterize health status, assess health risks, and determine culturally appropriate interventions.

4) Research projects that include studies of the human health impact of:

- Anthropogenic pollution in the Arctic
- Contaminants and zoonotic infectious diseases, effects on the food supply
- Climate variability
- Oil and Gas development
- Infectious diseases, tuberculosis, HIV/AIDS, Hepatitis, vaccine preventable, emerging threats
- Chronic diseases, cancer, cardiovascular diseases, obesity, diabetes
- Behavioral health, suicide, unintentional injuries

5) Projects in the area of education outreach and communication

- Conferences, workshops, publications, educational events.

Research projects that result in eventual translation into health policy and implementation of community/public health interventions are particularly encouraged.

**Expressions of Intent (EoI) Endorsed by and linked to AHHI (as of 8/15/2006):**

Proposal details can be found at [www.ipy.org](http://www.ipy.org) using the referenced Expression of Interest (EoI) or Full Proposal number:

Study of the impact of changing environments, society, and climate on health and disease

- among the Inuit and Yupik of the circumpolar North (International Inuit Study), EoI 496/760
- Co-ordination of Observation and Monitoring of the Arctic for Assessment and Research (COMAAR), EoI 503
- International Network for Circumpolar Health Research, EoI 516
- Arctic Community Based Environmental Monitoring; Observation and Information Stations Phase 1: Bering Sea Sub Network (BSSN), EoI 922
- Circumpolar Health and Wellbeing: Research Program for Circumpolar Health and Wellbeing, Graduate School of Circumpolar Health and Wellbeing, Health Adaptation, and International Joint Masters Program in Circumpolar Health and Wellbeing, EoI 1045
- Scientific and professional supplements on human health in polar regions-the International Journal for Circumpolar Health, EoI 1046
- Burden of Infectious Diseases in Greenland, EoI 1107
- Prevalence of Human Papilloma virus and Cervical Dysplasia in the Northwest Territories, EoI 1121
- Evaluation of the impact of an immunization program combining pneumococcal conjugate vaccine and inactivated influenza

vaccine in Nunavik children, EoI 1119

- Hepatitis B in Aboriginal Populations in the Arctic, EoI 1109
- Siberian Birth Outcomes Study, EoI 1122
- Public health in the Russian Arctic: Analytical review for Russian program of International Polar Year, EoI 1139

**Full Proposals Endorsed by and linked to AHHI (as of 8/15/2006):**

- Arctic Monitoring and Assessment Program's Human Health Assessment Group (AMAP HHAG Research Program workshop), Full Proposal 145
- A circumpolar study of new contaminants in women of reproductive age; an assessment in human blood, dietary sources and possible associations to pregnancy outcome, Full Proposal 356
- Pressures and Impacts on the Health and Well-being of Indigenous People of the Arctic: Invitational International Symposium and Symposium Publication, Full Proposal 433
- Inuit Health in Transition and resiliency-URSUK Research Program, Full Proposal 253
- Taking the Antarctic Arctic Polar Pulse-IPY 2007-8 Human Biology and Medicine Research (TTAAPP), Full Proposal 165
- Arctic Resiliency and Diversity: Community Response to Change, Full Proposal 183
- Survey of living conditions in the Arctic (SLICA), Full Proposal 190
- Change in Diet and Lifestyle and Rise in Chronic Diseases of Alaska Native People-the EARTH Study- Education and Research Towards Health, Full Proposal 209