

Report From The International Circumpolar Surveillance (ICS): Prevention and Control of Emerging Infectious Diseases in the Arctic

**Sustainable Development Working Group Meeting
October 30-31, 2007. Vadso, Norway.**

1. Purpose of Project:

The purpose of this project is to establish an integrated International Circumpolar Surveillance (ICS) system for infectious diseases by establishing 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.

2. Contribution to the Sustainable Development Framework Document:

The mandate of the Arctic Council's Sustainable Development Working Group (SDWG) is to "propose and adopt steps to be taken by Arctic States to advance sustainable development in the Arctic, including opportunities to protect and enhance the environment and the economies, culture and health of the indigenous communities and other inhabitants of the Arctic, as well as to improve the environmental, economic and social conditions of Arctic communities as a whole" (*Iqaluit Declaration 1998*). *The Sustainable Development Framework Document (Barrow, 2000)*, outlined 6 areas of special importance, subsequently adopted as part of the *Sustainable Development Action Plan (Reykjavik 2004)*. These areas of importance (priority subject areas) included:

- Health of people working in the Arctic
- Sustainable economic activities and increasing community prosperity
- Cultural heritage including language
- Prosperity and capacity building for people in the Arctic particularly children and youth
- Sustainable development of natural resources
- Development of transportation infrastructure

Human health is a critical component of any sustainable development program. Sustainable economic development is frequently accompanied by changes in a number of factors, which impact human health and promote the emergence of infectious disease problems. With increased air travel and international trade Arctic communities are no longer isolated from infectious disease threats. Circumpolar surveillance of infectious diseases may serve as an early warning system of emerging threats and provide increased capacity to monitor the effectiveness of public health control measures.

3. Deliverables:

Project deliverables at the 2008 Arctic Council Ministerial meeting will include a comprehensive report on invasive bacterial diseases caused by *Streptococcus*

pneumoniae, *Haemophilus influenzae*, *Neisseria meningitidis*, Group A & B streptococcus in Arctic populations and the status of preventive measures being undertaken by the public health authorities within each participating country. In addition there will be reports on IPY ICS activities which include the establishment of a tuberculosis surveillance working group, a circumpolar viral hepatitis research working group, and a circumpolar *Helicobacter pylori* research working group.

4. Date of approval, date of proposed finalization:

The International Circumpolar Surveillance of Emerging Infectious Diseases was approved as a Sustainable Development Working Group Project at the Ministerial meeting held in Barrow, Alaska, October 10-13, 2000. The project is long term and ongoing.

5. Leaders, participants:

Participant countries include: United States, Canada, Greenland/Denmark, Iceland, Norway, Sweden, Finland, and the Russian Federation.

The CDC's Arctic Investigations Program coordinates the project. Team members include:

Dr. Alan J. Parkinson, Project Manager

Email: ajp1@cdc.gov

Dr. Michael Bruce, Epidemiologist

Email: zwa8@cdc.gov

Tammy Zulz, MPH, Surveillance Coordinator

Email: tsc3@cdc.gov

A steering committee has been formed that consists of public health experts with interests in health problems in Arctic populations. Members are drawn from each participating country and from interested permanent participant indigenous people's organizations. The purpose of the steering committee is to guide and review ICS activities, and to recommend new surveillance activities. Current members include:

United States

Dr. Alan Parkinson

Deputy Director

Arctic Investigations Program

Centers for Disease Control and Prevention

4055 Tudor Centre Drive

Anchorage, Alaska 99508

Email: ajp1@cdc.gov

Dr. James Berner
Office of Community Health
Alaska Native Tribal Health Consortium
4201 Tudor Centre Drive
Anchorage, Alaska 99508
jberner@anmc.org

Canada

Dr. Theresa Tam
Center for Infectious Disease
Prevention & Control
Public Health Agency of Canada
PL0603E1 Tunney=s Pasture
Ottawa, ON K1A 0K9 Canada
Email: theresa_tam@phac-gc.ca

Dr. Andre Corriveau
Chief Medical Officer
Department of Health and Social Services P.O.Box 1320
Yellowknife, Northwest Territories X1A 2L9
Canada
Email: andre_corriveau@gov.nt.ca

Greenland

Dr. Flemming Stenz
Chief Medical Officer
Institution of the Chief Medical Officer PO Box 120
DK-3900
Nuuk, Greenland
E-mail: flst@gh.gl

Dr. Karin Ladefoged
Chief Physician
Dronning Ingrid's Hospital
Nuuk, Greenland
Email: kala@gh.gl

Denmark

Dr. Anders Koch
Department of Epidemiology
Research
Statens Serum Institute
5 Artillerivej
DK-2300
Copenhagen, Denmark
E-mail: ako@ssi.dk

Iceland

Dr. Karl Kristinsson
Associate Professor
Department of Clinical Microbiology
Landsitalinn University Hospital
P.O. Box 1465 121 Reykjavik, Iceland
Email: karl@rsp.ic

Finland

Dr. Pekka Nuorti
Senior Medical Epidemiologist
Department of Infectious Disease
Epidemiology
National Public Health Institute
Mannerheimintie 166
FIN 00300
Helsinki, Finland
Pekka.Nuorti@ktl.fi

Tarja Kaijalainen, RN, PhD
Respiratory Infection Unit
Department of Child and Adolescent Health
National Public Health Institute
Oulu, Finland
Email: tarja.kaijalainen@ktl.fi

Sweden

Dr. Anders Nystedt
Department of Infectious Diseases
Sunderby Hospital
Lulea, Sweden
Email: anders.nystedt@nll.se

Norway

Dr. Oistein Lovoll
National Institute of Public Health
Section of Infectious Diseases
P.O.Box 4404 Nydalen
N-0430 Oslo, Norway
Email:
oistein.lovoll@folkehelsa.no

Russian Federation

Dr. Roman Buzinov
or

Dr Andrei Tulisov
State Sanitary-Epidemiological Surveillance Centre
Gaidara Street 4
163 000 Arkhangelsk
Russian Federation
E-mail: cgsn@cgsn.msa.ru (Dr. Buzinov)
E-mail: tandr@atnet.ru (Dr. Tulisov)

Indigenous Peoples Secretariat

Rune Fjellheim
Exécutive Secretary
rf@ghsdk.dk

Russian Association of Indigenous Peoples of the North (RAIPON)

Larisa Abrutina
Member of Executive Council
riapon@online.ru

World Health Organization

Nedret Emiroglu
WHO EURO
Scherfigsvej, 8
2100 Copenhagen Ø
Denmark
E-mail: nem@euro.who.int

6. Progress since last SDWG meeting:

The second annual meeting of the circumpolar viral hepatitis research working group was held at the Danish Polar Centre, Copenhagen, Denmark, October 16-17, 2008. The purpose of this meeting is to bring together researchers from the US Arctic, Canada, Greenland, Russia and other countries to develop collaborative research projects on viral hepatitis and liver disease in the Arctic especially in indigenous populations that can be initiated during the International Polar Year.

An organizational meeting of the Circumpolar *Helicobacter pylori* research group was held at the Danish Polar Center, October 18, 2008. This is an IPY initiative to bring together research from the circumpolar countries to develop collaborative research projects.

Presented ICS as “An Arctic Observing Network for Human Health” at the American Association for the Advancement of Science, Arctic Science Conference held in Anchorage Alaska, September 24-26, 2007.

7. Main developments forseen until next SDWG meeting:

The Invasive Bacterial Disease Working Group will hold its annual meeting in Vancouver, British Columbia, Canada, December 13-14, 2007. This annual meeting is sponsored and hosted by the Public Health Agency of Canada.

The ICS Steering Committee meeting will be held Sunday, March 16, 2008, from 9:00 a.m. until 3:00 p.m. at the Hyatt Regency, Atlanta, GA, USA, in conjunction with the International Conference on Emerging Infectious Diseases (March 16-19). Details at: www.iceid.org/. On Wednesday, March 19, from 10:30 a.m. - 12:00 noon there will be a session entitled "International Networks that Work". This session will feature the ICS system, plus other international surveillance networks.

There will be a special IPY issue of the Emerging Infectious Diseases Journal (www.cdc.gov/ncidod/eid) published in January, 2008. Papers will focus on new and reemerging infectious diseases in Arctic and Antarctic regions and on the influence of events in polar regions on disease emergence around the world. This edition will feature several reports from the ICS network.

ICS will sponsor an IPY International Conference (Workshop) on Infectious Diseases April 24-26, 2008, in Moscow. The purpose of this meeting will be to form a working group of public health and/or epidemiologists and infectious disease experts from northern regions of Russia to discuss the possibility of establishing an Infectious Disease Surveillance Network to monitor infectious diseases in Russia's northern regions.

Establish ICS as an Arctic Observing Network for Human Health

8. Contribution to Capacity Building:

A goal of ICS is to assist the development of clinical and public health laboratory capacity in Arctic regions to collect standardized laboratory and epidemiologic data on infectious diseases under surveillance by ICS.

9. Gender equality:

Infectious disease data collected on all cases regardless of gender.

10. SDWG Plan Table update 2007-2008

- Continue surveillance of invasive diseases in the US Arctic, northern Canada, Greenland, Iceland, Norway, Finland and northern Sweden
- Continue the pneumococcal laboratory Quality Control program (US Arctic northern Canada, Denmark) and extend program to include Iceland and Norway
- Continue the laboratory based Quality Control program for Neisseria meningitis, and Haemophilus influenzae (US Arctic, Northern Canada, and Denmark)
- Conduct ICS viral hepatitis research working group meeting Copenhagen, Denmark October 16-17, 2007
- Conduct ICS Helicobacter pylori research working group meeting Copenhagen, Denmark, October 18, 2007
- Conduct an ICS Invasive Bacterial Diseases Working Group Meeting, Vancouver BC Canada December 13-14, 2007
- Conduct and ICS Steering committee meeting Atlanta, GA, USA, March 16, 2008
- Conduct an ICS tuberculosis working group meeting in March 2008
- Conduct an ICS Conference (Workshop) and epidemiology training course on Infectious Diseases in Moscow, April 24-26, 2008.
- Conduct an investigation of the emergence of invasive bacterial diseases caused by Haemophilus influenzae type a
- Expand ICS to include non infectious disease problems important in Arctic Communities, including Injuries; Chronic diseases; Birth Defects
- Initiate a community based monitoring system for the detection of zoonotic diseases in subsistence animal species (potential linkages with AMAP, CAFF)
- Establish an ICS Research Fellowship program
- Establish ICS as an Arctic Observing Network for Human Health