Circumpolar Health
Improving the health of the indigenous population
and the role of circumpolar health organizations

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Burden and Prevention of Viral Hepatitis in Arctic Regions
Copenhagen Denmark March 22-23, 2012
Where are we going?

- What is “The Arctic”??
- Who lives there?
- What are their health challenges?
- Circumpolar cooperation on health
The Official Map of the IDITAROD

NORTHERN ROUTE (Even Years)

Nome, Safety, White Mountain, Golovin, Elim, Shaktoolik, Koyuk, Unalakleet, Nulato, Galena, Ruby, Cripple, Ophir, Takotna, McGrath, Nikolai, Rohn, Rainy Pass, Finger Lake, Skwentna, Willow, Anchorage, Campbell Airstrip

KM 0 50 100 200
ML 0 50 100 200
Life Expectancy at birth-improved - Alaska Native

Challenges to Health and Wellness

Health Disparities

Alaska Native

- Life expectancy 64.9 years vs 76.7 years for US
- Infant mortality 8.7/1000 vs 7.2/1000 for US
- Unintentional injury mortality 3.3 times US rate
- Suicide 4.2 times rate for US all races
- Cancer mortality is 1.5 times US all races
- Higher rates of some infectious diseases
Challenges to Health & Wellness

Infant Mortality

Indigenous Proportion of Population

- Nunavut (Canada): 85%
- Greenland (Denmark): 88%
- Finnmark (Norway): 40%

Figures for Russia and Alaska are specifically for the indigenous populations.

Source:
Challenges to Health & Wellness
Common Causes of Mortality (ACIA 2005)

Mortality rates (per 100,000)

- **Cancer**
- **Heart disease**
- **Stroke**
- **Injury**
- **Suicide**

Countries: Russia, Alaska Natives, NUUT Canada, Sweden, Norway, Iceland, Finland, Greenland, Faroe Islands.
Challenges to Health & Wellness

Suicide

Rates of death by suicide by Alaska Natives, Greenlanders, and Eastern Arctic* Inuit, 1960-2003

*(Qikiqtani region of Nunavut plus Nunavik)
Challenges to Health & Wellness
Infectious Diseases - Tuberculosis

Incidence of tuberculosis in Alaska Natives, Greenlanders and Canadian Inuit, 1952-61
Challenges to Heath & Wellness
Infectious Diseases-Tuberculosis

Alaska Tuberculosis Incidence by Race 1999-2008
Challenges to Health and Wellness

- Health impacts of:
  - Environmental contaminants - mercury, other heavy metals, PCBs, DDT dioxins and other organochlorines
  - Impact on the traditional food supply
  - Impact on human health
Challenges to Health and Wellness

- **Health impacts of:**
  - Climate Change

"the most vulnerable will be those living close to the land in remote communities, those already facing health related changes…"

*ACIA 2005*
Cooperation on Circumpolar Health

- International Union for Circumpolar Health
- International Network of Circumpolar Health Researchers
- Northern Dimension in Public Health and Social Wellbeing
- Barents Euro Arctic Council
- Northern Forum
- Arctic Council
  - Arctic Monitoring and Assessment Program
  - Sustainable Development Working Group
    - Arctic Human Health Experts Group
Cooperation on Circumpolar Health

- Arctic Human Health Experts Group
- Priority Areas
  - Health Inequities
  - Health Care Delivery
  - Diet and Nutrition
  - Mental & Behavioral Health
  - Injuries
  - Food & Water Security
  - Climate Change and Health
  - International Circumpolar Surveillance
Why Circumpolar Surveillance?

- Defined geography, climate, populations
- Concern over health disparities (Infectious diseases)
- Well established public health infrastructures
  - Disease surveillance, prevention programs
- Linkage with national public health/research organizations
  - International Union for Circumpolar Health
  - International Network of Circumpolar Health Researchers
- Arctic Cooperation on health
  - Arctic Council
    - AMAP
    - SDWG
    - Permanent participants-Indigenous peoples organizations
- Existing Multi National Cooperatives in infectious disease control
  - US/Canada
  - Nordic/Russian Federation
    - NDPHS, Barents Cooperation
  - EU networks (EARSS, ENTERNET EU Surveillance)
  - WHO
  - ECDC
International Circumpolar Surveillance

- 1998 ICS Established
  - *Streptococcus pneumoniae*
  - Northern Canada, Alaska
- 1999: Surveillance begins
- 2000: Greenland joins ICS
  - *Haemophilus influenzae, Neisseria meningitidis*, GAS, GBS added
- 2001 Iceland, Norway, Finland, northern Sweden join ICS
International Circumpolar Surveillance

- 2011 “Closing the Circle?” Tuberculosis meeting Khanty-Mansiysk, Russia, April 18-19
International Circumpolar Surveillance Lessons learned...

- Model for international surveillance
- Capitalizes on existing government/non-government health cooperatives
- Capitalizes on existing surveillance systems (inexpensive)
- Provides standardized laboratory and epidemiologic data on invasive bacterial diseases
- Comparable across regions
- Identifies research needs and priorities
- Can be expanded to other health concerns of Arctic peoples.
International Circumpolar Surveillance

Arctic Council
Sustainable Development Working Group
(Human Health Experts Group)

Steering Committee

Working Groups

Surveillance

Invasive Bacterial Disease (US lead) 2011
Tuberculosis (Canada lead) 2011

Others?

Research

Viral Hepatitis (Denmark) 2006
Helicobacter pylori (US lead) 2008
STI’s (Canada lead) 2008
Climate Sensitive Infectious Disease
(Sweden/US lead) 2010

Others?
The International Congress on Circumpolar Health welcomes you to discover the latest information on programs, research, and scientific achievements from circumpolar experts at the 15th ICCH meeting. This unique international meeting brings together health professionals, researchers, and indigenous representatives from Canada, Greenland, Denmark, USA, Russia, Norway, Sweden, Iceland, Finland and other countries interested in circumpolar health and is considered the world's foremost multidisciplinary forum on Arctic health. ICCH15 features a stimulating, multi-faceted program reflecting the chosen location - the beauty of Interior Alaska and the dynamic city of Fairbanks.
Thank you