International Circumpolar Surveillance: 
*infectious disease surveillance in the Arctic*

- Progress
- Main Outcomes
- Recommendations for Future Activities

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Objectives …

◆ Establish an integrated network of hospital, public health, and reference laboratories throughout the Arctic
◆ Monitor infectious disease rates & trends
◆ Identify risk factors for disease
◆ Evaluate intervention options
◆ Monitor intervention effects
Progress to Date....

◆ 1998- Working group established
  ● US/Canada
    ◆ Priority diseases identified
      ○ Invasive bacterial diseases, Tb, RSV, Cancer, STD’s
◆ 1998-99 US/Canada Pilot ICS
  ● Invasive pneumococcal disease
    ◆ International QC program established
◆ 2000 ICS Accepted as an Arctic Council SDU Human Health Project.
◆ 2000-2001 ICS Invasive pneumococcal diseases
  ● US Arctic, northern Canada, Greenland, Iceland, Norway, Finland and Sweden.
Main Outcomes…

- ICS is feasible!
- Pneumococcal disease rates
  - Indigenous people, young children (< 2 years) and elderly persons (> 65 years) residing in Alaska or Northern Canada have high rates of invasive pneumococcal disease.
  - Rates vary by region within Alaska and northern Canada
  - The case fatality rate (CFR) in Alaska was over three times the CFR in Northern Canada or Iceland.
Main Outcomes…

◆ Pneumococcal disease is vaccine preventable
  ● For Alaska, N Canada, Iceland and Finland:
    ◆ >80% of cases in persons ≥ 2 years of age were potentially preventable with use of the 23-valent polysaccharide vaccine
    ◆ 49-82% of cases in children < 2 years of age were potentially preventable with use of the 7-valent conjugate vaccine.
  ● For Alaska and N Canada:
    ◆ 76% of deaths were potentially preventable with use of the 23-valent polysaccharide vaccine.
    ◆ Further evaluations of vaccine use and efforts to improve vaccine coverage are needed
Recommendations for Future Activities...

- Expand pathogens
- Expand ICS participants/steering committee
  - Russian Federation, Indigenous peoples organizations
    - Barents Sea, Chukotka, Kamchatka, Yakutia
- Expand International QC program
  - Other pathogens/countries
- Link with other networks
  - WHO, EU, PAHO
- Expand to include other non infectious diseases
  - Chronic diseases, birth defects, intentional/unintentional injury
- Explore linkage/role in AMAP, climate change initiatives