

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

- ◆ Progress
- ◆ Main Outcomes
- ◆ Recommendations for Future Activities

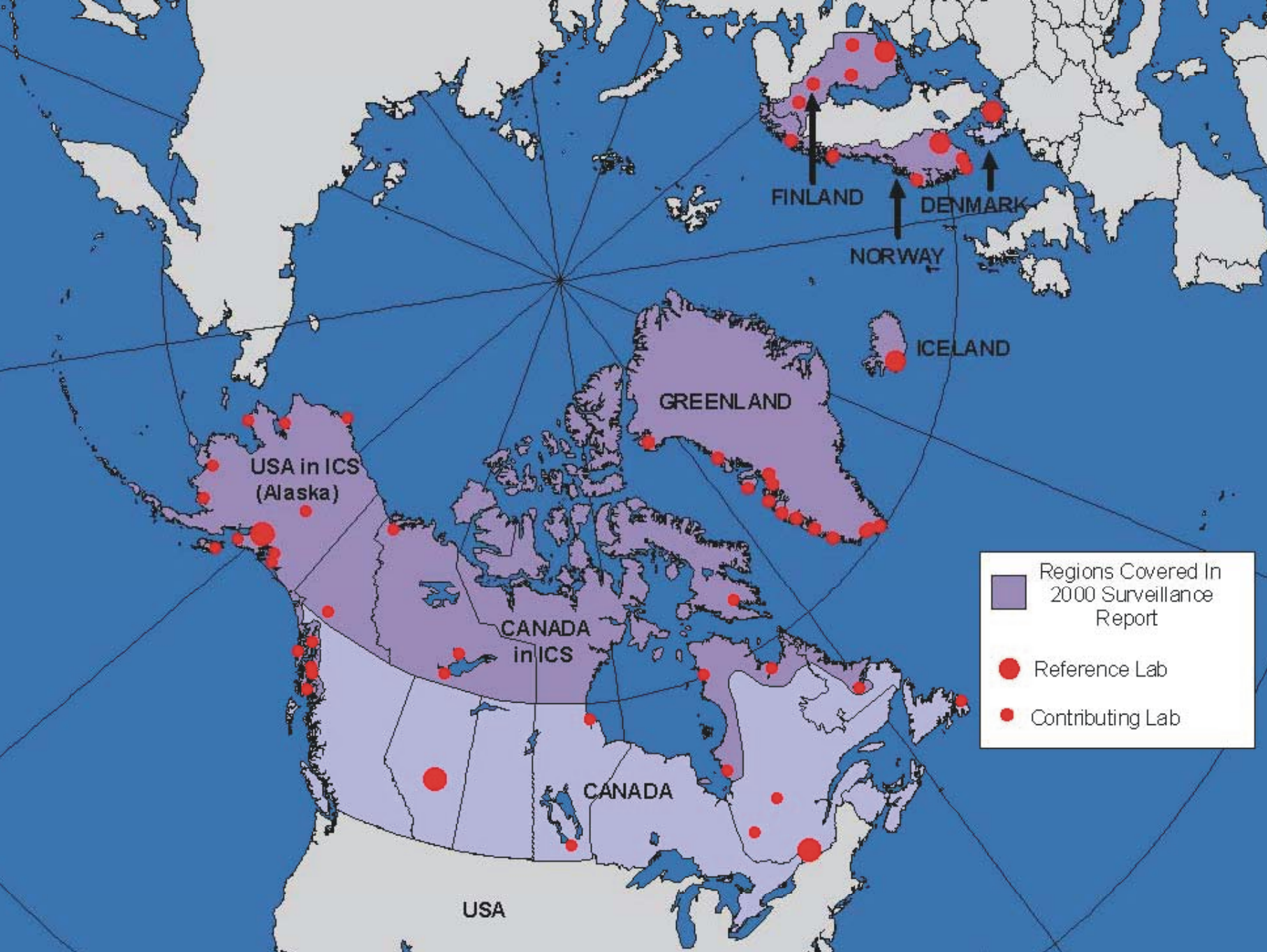
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Objectives ...

- ◆ 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
 - *Haemophilus influenzae*, *Neisseria meningitidis*, Streptococcus A & B, tuberculosis, HIV/AIDS.
- ◆ 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