

# Climate Change and Infectious Disease Activities in the US Arctic (Alaska)

- Zoonotic and parasitic infections in Alaska (ZPAK) Conference August 11-12, 2010, University of Alaska Fairbanks, Alaska.
  - What are the pathogens of most concern?
  - What is known about their ecology and disease prevalence?
  - What are the gaps in research, monitoring, intervention?
  - How and who will address these gaps?

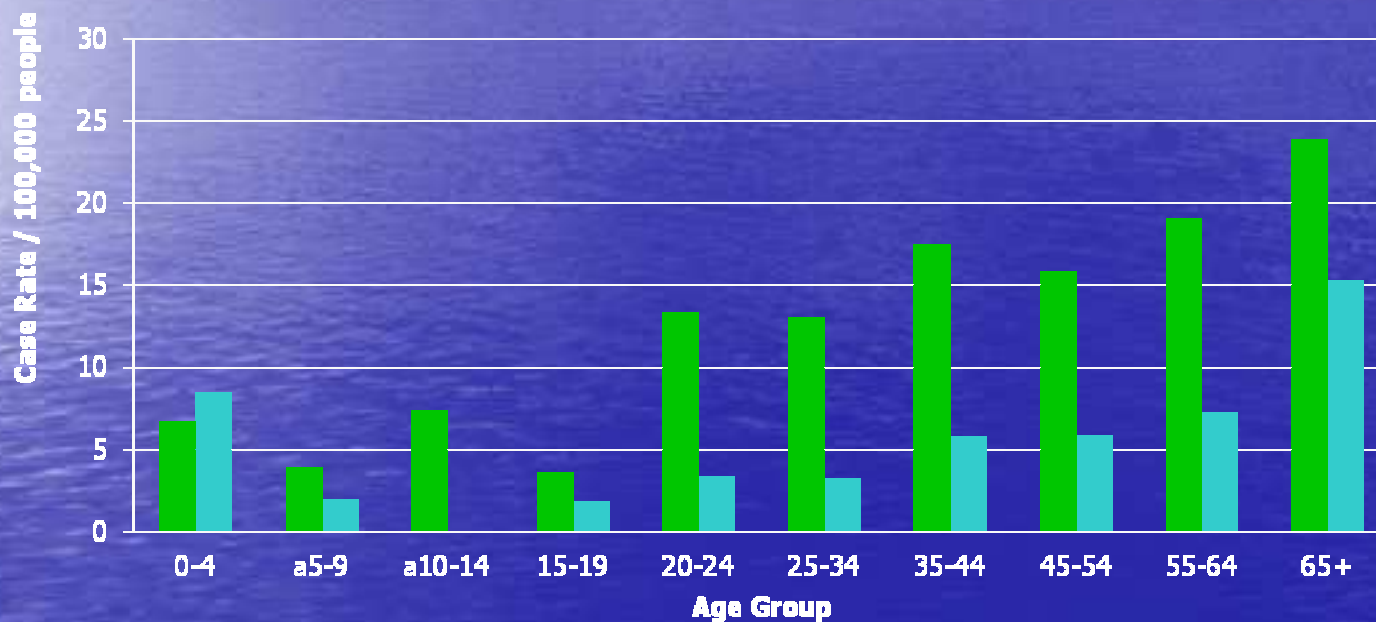
# Infectious Diseases of Concern in the US Arctic (Alaska)

- Giardia,
- Cryptosporidium,
- *Trichinella*,
- *Brucella*,
- *Toxoplasma*,
- *Franciella tularensis*,
- *Echinococcus*
- rabies,
- Avian influenza

# Climate Change and Infectious Disease Activities in the US Arctic (Alaska)

- Surveillance evaluations
  - Brucella
  - Giardia/Cryptosporidium
  - Echinococcus
- Impact of Climate Change on Infectious Diseases in the US Arctic: Measuring baseline levels of exposure to common zoonotic infections.

# NPIRS code rates compared with SOE Giardia case rates by age group in American Indian/Alaska Native populations in Alaska 2001-2008



■ NPIRS Code Rate   ■ Case Rate

# Recommendations- *Giardia*

- Improve
  - Communication to provider/labs for reporting
  - Race data collection in SOE data
  - Definitions of counting rules for *Giardia* cases in SOE data.
- Educate
  - Providers about prevalence, diagnosis, treatment, and reporting of *Giardia*
  - Public about *Giardia* risk and prevention
  - Medical coders about misclassification among NPIRS *Giardia* coding.
- Enhance Surveillance of *Giardia*
  - Active, Sentinel, or Specimen based.
- Study *Giardia* prevalence in untreated surface water

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# Climate Change and Infectious Diseases Activities in the US Arctic (Alaska)

- “Community Action for Recording Effects of Climate Change”. Institute for Circumpolar Health Studies, University of Alaska, Anchorage.
- Climate Change and Health Community Assessments. Center for Climate and Health, Alaska Native Tribal Health Consortium.
- “Climate and health events map”- Alaska Native Tribal Health Consortium