

CDC's Arctic Investigations Program (AIP)

Safeguarding Alaskan Communities from Infectious Disease Threats

 Based in Anchorage, Alaska | Serving Americans living in Arctic regions



AIP uses innovative laboratory testing, real-time disease tracking, outbreak investigations, and culturally respectful partnerships to address public health threats before they spread.

For over 50 years, CDC's Arctic Investigations Program (AIP) has protected the health of Arctic residents by identifying, preventing, and responding to infectious disease threats. In close collaboration with Alaska Native partners and public health agencies, AIP works at the frontlines of disease surveillance and research in one of the most unique and challenging environments in the world.



All Photos are Courtesy of the Alaska Native Tribal Health Consortium (ANTHC).

Key Focus Areas

- **Detect and Respond to Emerging Threats:** Monitor for severe respiratory illnesses (e.g., RSV) and invasive pathogens like *Streptococcus pneumoniae*.
- **Deploy Response-Ready Experts:** Prepare experienced public health responders to support emergency outbreaks globally and locally.
- **Work Towards Hepatitis C Elimination in Alaska:** Expand screening, increase treatment access, and overcome health system barriers.
- **Track Emerging Diseases:** Investigate infections influenced by environmental changes, such as waterborne and zoonotic diseases.
- **Advance Community Protection:** Ensure vaccines and therapies for preventable diseases remain accessible and effective for Arctic communities, including remote populations.



U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION

AIP's Public Health Impact

- **Expanded Vaccine Access:** Partnered to increase pneumococcal vaccine availability in Alaska Native communities, helping address the higher rates of invasive pneumococcal disease (IPD) among Alaska Native adults.
- **Evaluate effectiveness of RSV preventative:** AIP found the monoclonal antibody Nirsevimab to be 89% effective at protecting Alaska Native infants from RSV-associated hospitalization.
- **Rapid Emergency Response:** AIP staff were deployed to assist with several national and global emergencies, including **Ebola** (DRC, 2018), **COVID-19** (2020) **monkeypox** (2022), **Marburg virus** (2023) and **Oropouche/Dengue** (PR, 2024) .
- **Hepatitis C Reduction:** AIP works with the Alaska Department of Health and tribal health partners toward the goal of eliminating hepatitis C, by improving access to prevention, testing, and treatment services.
- **Rapid Monitoring and Prevention:** The AIP lab can quickly identify group A *Streptococcus* and group B *Streptococcus*, through use of whole-genome sequencing.
- **Improving Patient Outcomes:** AIP staff studied an increase in cases of acute rheumatic fever (ARF) and rheumatic heart disease (RHD). The findings will be used to inform clinical guidance.



Alaska Area Specimen Bank



The AIP laboratory maintains the Alaska Area Specimen Bank (AASB), a secure repository of more than **400,000 samples**. Co-managed with Alaska Native partners, the AASB ensures ethical research practices and supports long term studies on infectious diseases affecting Arctic communities.

Because of the Alaska Area Specimen Bank, AIP has been able to:

- Confirm that the Hepatitis B vaccine provides protection for over 40 years.
- Discover Alaska Native children developed immunity to human papillomavirus (HPV) after vaccination.
- Show that improving in-home water access can decrease the risk of *Giardia*, an intestinal infection.
- Study the occurrence of cancer and liver disease in those with Hepatitis C.

"The AASB is used to conduct research and remains a carefully managed resource to improve the health of the Alaska Native people."

- H. Sally Smith, Alaska Native Tribal Health Leader



**Learn more about CDC's
Arctic Investigations Program**

