



Alaska Interagency Ecosystem Health Work Group

► *The Alaska Interagency Ecosystem Health Work Group is a community of practice that recognizes the interconnections between the health of ecosystems, wildlife, and humans and meets to facilitate the exchange of ideas, data, and research opportunities. Membership includes the Alaska Native Tribal Health Consortium, U.S. Geological Survey, Alaska Department of Environmental Conservation, Alaska Department of Health and Social Services, Centers for Disease Control and Prevention, U.S. Fish and Wildlife Service, Alaska Sea Life Center, U.S. Environmental Protection Agency, and Alaska Department of Fish and Game.*



Background

Environmental contamination and emerging infectious diseases are causing growing public health concern worldwide. These public health threats influence the relations between people and the physical, chemical, and biological aspects of our natural environments. The interaction of climate change with population growth and the related pressures of development are increasing the difficulties associated with sustaining effective public health practices and policies. Vector-borne and zoonotic (diseases animals can transmit to humans, like rabies) diseases, water contamination, bioaccumulative contaminants in the food chain, and environmental threats to public health the world over require marshalling our scientific knowledge to develop new approaches and solutions. Understanding environmental and ecological health is a prerequisite to protecting public health. In Alaska, where the human community is inseparably linked to its surrounding natural resources, the Alaska Interagency Ecosystem Health Work Group (AIEHWG) will play a significant role in providing scientific knowledge and information that will improve our understanding of the contribution of the environment to disease and human health.

The mission of the AIEHWG is to bring together and leverage the significant and diverse missions, skills, and capacities of the participants to gain a greater understanding of the relations between ecosystems and human health.

Goals

- Establish baselines for hazards (contaminants and environmental).
- Identify and study pathways and sentinels to determine their effects on human health.
- Identify relevant data sets and mechanisms for exchange of information.
- Facilitate pilot projects that demonstrate the connections between the natural environment and human health issues.





Topical Areas of Interest with Example Projects and Participants

Potential Contaminants and Pathogens in Air, Dust, and Soil

- Assessing potential geographic linkages of chemical and minerals to Alaska Native health issues by analyzing available U.S. Geological Survey geophysical data and Alaska Native health data. (U.S. Geological Survey [USGS] and Alaska Native Tribal Health Consortium [ANTHC])

Chemical and Harmful Contaminant Exposure by Drinking Water

- Assessment of hydrology, water quality, and trace elements in selected placer-mined creeks in the Birch Creek watershed near Central, Alaska, 2001–05. (USGS)

Human Consumption of Chemical and Pathogenic Contaminants

- Contaminants in salmon and pike. (U.S. Fish and Wildlife Service [USFWS], Alaska Department of Health and Social Services [ADHSS], and ANTHC)



- Assessing the relation between Northern pike consumption and human hair mercury levels in rural Alaska. (ADHSS and USFWS)
- Developing and promoting recommended methods for disposal of medications to reduce impacts to fish and drinking water. (USFWS, Alaska Department of Environmental Conservation [ADEC], and ANTHC)

Vector-borne and Zoonotic Disease

- Zoonotic and animal arboviruses (diseases transmitted by the bite of insects) in Alaska. (ANTHC)
- Sampling Black Brant for avian influenza viruses during nesting, brood rearing, and molting. (USGS)
- Monitoring marine mammals for fecal pathogens known to cause illness in humans. (Alaska Sea Life Center)

Natural Hazards and Human Health

- Improve volcanic ash fall and volcanic gas warning information in support of public health and safety. (USGS, National Oceanic Atmospheric Administration, ADEC, ADHSS, Municipality of Anchorage, and the U.S. Coast Guard)

Animals as Sentinels of Human Health

- West Nile virus and St. Louis encephalitis surveillance in horses. (ADEC in collaboration with Centers for Disease Control and Prevention)

For More Information:

U.S. Geological Survey

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