

## Alaska community forums highlight tribal health disparities

By Kelly Lenox

NIEHS and NTP Director Linda Birnbaum, Ph.D., traveled to the far north July 20-25 for community forums in Alaska, where she heard firsthand the unusually severe environmental health challenges faced by tribal communities. In addition, Birnbaum met with health care providers to discuss ways to improve environmental public health in the region.

Vi Waghiyi, Alaska Community Action on Toxics (ACAT)

(<http://www.akaction.org/>)

Environmental Health and Justice Program director and member of the NIEHS National Advisory Environmental Health Sciences Council, invited Birnbaum to St. Lawrence Island, Alaska. Waghiyi noted that Alaska is home to 231 federally recognized tribes, including some of the most highly contaminated populations on the planet.

"It's not a question of whether you will get cancer, but when," Waghiyi said. She herself is Yupik, an Alaska Native tribe whose numbers on St. Lawrence Island were far higher before the coming of European whalers, missionaries, and archaeologists. "Help is not coming fast enough," she said.

### "We're part of the ecosystem"

Birnbaum has held numerous [community forums](#) and other meetings in places facing environmental health disparities (see related [story](#)). The exchanges allow NIEHS to bring research to bear on public health concerns shared by tribal leaders, regional health care providers, and community organizations.

The Alaska visit underscored how changes in the environment, both local and global, threaten the health of people living traditional lifestyles. "Northern peoples are an indicator for the world," said an elder in the St. Lawrence Island community of Savoonga. "We're part of the ecosystem," he said.

### Triple threat on St. Lawrence Island

The Yupik on St. Lawrence Island face a triple threat - air pollutants transported from Asia and North America by global air currents; polychlorinated biphenyls (PCBs), organochlorine pesticides, and other chemicals in the marine mammals that constitute their major food source; and contaminants from a former military installation.

With funding from NIEHS, ACAT conducts community-based participatory research with the island leaders. According to early [results](#)

(<http://www.ncbi.nlm.nih.gov/pubmed/23977641>)

of one study, blood serum in residents of the island, which is closer to Siberia than to the Alaska mainland, showed elevated levels of PCBs. The levels in those exposed to environmental degradation around the closed military site at Northeast Cape, an area that is an important source of traditional foods, were up to 10 times higher than the average American.

Elders and leaders shared their concerns with Birnbaum, and she participated in a women's listening circle, as well as a lunch discussion with elders. Immersion into local life through meals and festivities gave the forum a unique flavor.

### Coal mining in Chickaloon

Chickaloon Village, northeast of Anchorage, is located on the mainland, in contrast to the island setting of Savoonga, and while residents face some of the same environmental health concerns, there are differences, as well.

Notably, Chickaloon lies near an area of historical coal mining operations, which have led to underground fires and stream pollution. At meetings with tribal elders and members of the Chickaloon Village Traditional Council, Birnbaum heard concerns about a proposal for new mining operations adjacent to the community, and shared recommendations for responding to health challenges.

The events ended with visits to grantees at the University of Alaska Anchorage, and a wrap-up meeting with ACAT staff. The NIEHS Office of Science Education and Diversity has already begun planning for the next community forum in Tucson, Arizona, in the spring of 2015.



Lisa Wade, left, of the Chickaloon Village Traditional Council, showed Birnbaum the site of a proposed surface coal mine. (Photo courtesy of John Schelp)



Waghiyi, a Yupik mother and grandmother, explained that ACAT enables communities like Savoonga to be involved in designing research to address their needs. (Photo courtesy of Samarys Seguinot-Medina, of ACAT)



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*Living on the northern coast of St. Lawrence Island - thought to be a remnant of the land bridge that once connected Asia and North America - Savoonga's residents rely on traditional sources of food - mostly marine mammals. (Photo courtesy of John Schelp)*



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*The unique health challenges of living on permafrost, or permanently frozen soil, have been met with creative solutions, such as the above-ground heated water and sewer system in Savoonga. (Photo courtesy of John Schelp)*



3/9

*In Savoonga, the community leadership spoke frankly with Birnbaum about the environmental health threats they face. (Photo courtesy of John Schelp)*



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*Lunch with the Savoonga elders was one of the rich opportunities Birnbaum had to hear from local residents. (Photo courtesy of John Schelp)*



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*Savoonga residents played traditional drums during the atuuq, a celebration to welcome Birnbaum. (Photo courtesy of Samarys Sequinot-Medina, of ACAT)*



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Lodging in Savoonga reflected the remote locale. Birnbaum, right, is shown with John Schelp, NIEHS special assistant for community engagement and outreach. (Photo courtesy of John Schelp)



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Birnbaum met with local residents in a variety of settings, such as this lunch with the Chickaloon elders. (Photo courtesy of Samarys Seguinot-Medina, of ACAT)



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Birnbaum answered questions and shared environmental health research findings relevant to local concerns. (Photo courtesy of John Schelp)



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The visit closed with a fruitful review of the week's accomplishments with ACAT staff. (Photo courtesy of Samarys Seguinot-Medina, of ACAT)



The Matanuska Glacier feeds the Matanuska River, which flows past Chickaloon, eventually reaching Anchorage on its way into the Gulf of Alaska. (Photo courtesy of Samarys Seguinot-Medina, of ACAT)

## Closing the loop with health care providers

Birnbaum met with health care providers for both tribal areas. In Nome, more than 150 miles northeast of St. Lawrence Island, Birnbaum spoke with Angie Gorn, president and CEO of the Norton Sound Health Corporation, sharing what she learned in the women's listening circle - that the community faces serious public health concerns, including a high prevalence of cancers, reproductive problems, and developmental disabilities. By the time residents receive evaluation and treatment, cancers and other health issues are often far advanced. Gorn agreed to send evaluation teams out to the island to assess health status.

In Anchorage, Birnbaum met with representatives of the Alaska Native Tribal Health Consortium, which serves Alaska Natives statewide, and the Southcentral Foundation, which serves Chickaloon and Alaska Natives in the south-central region. Birnbaum again emphasized the need for addressing environmental health, such as PCB contamination, in addition to traditional concerns with water, sanitation, and rabies. The health care providers agreed, sharing their focus on prevention and use of culturally based approaches.

## Alaska community forum events

### Savoonga, St. Lawrence Island

- Dialogue with tribal leaders and community members
- Lunch and listening session with elders
- Women's listening circle, with women and girls from the island, on women's and children's health

### Nome

- Meeting with marine biologist on connections between human health and marine mammal health
- Roundtable discussion with Norton Sound Health Corporation, the regional health care provider

### Chickaloon Village

- Meeting with tribal chief, village council, and health department staff
- Lunch and discussion with elders
- Visit to site of proposed mine

### Anchorage

- Meeting with University of Alaska Anchorage grantees, faculty, and students
- Roundtable discussion with Alaska Native Tribal Health Consortium and Southcentral Foundation
- Wrap-up with ACAT staff and research collaborators

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