

Birnbaum reflects on life-changing experience

By Kelly Lenox

After NIEHS and NTP Director Linda Birnbaum, Ph.D., returned from the Alaska community forums, the Environmental Factor (EF) had a rare opportunity to speak with her at length of her experiences and lasting impressions. In the excerpts below, Birnbaum (LB) reflects on what she learned of life in the far north, as well as on her thoughts after 30 years of studying chemicals, exposures, and underserved populations.

EF: You've done community forums all over the country since coming to NIEHS, and recently returned from holding community forums in Alaska. How do these forums play a part in designing environmental health research?

LB: Before I came to NIEHS, I had no involvement in community-based research at all, but I have learned that we can't do environmental health sciences without involving the community. People know what their problems are, and if we listen to them, we will better understand the processes at work.

EF: What are some of the ways your community meetings in Alaska were different from previous forums?

LB: No doubt it was the intensity. Normally, a community forum is two to four hours long and involves other community leaders. Presentations focus on a specific topic, with time for dialogue.

In Savoonga, we spent five days immersed in tribal issues and health disparity concerns. That included meeting with a marine biologist, and with some of our grantees at the University of Alaska. We set up a meeting with one of the health providers for one hour, and we talked for more than two hours. I think that enabled us to open their eyes to environmental health needs and get specific commitments to do things that hadn't yet been done.

EF: How do environmental health challenges in Native American tribal areas in the far north compare with those in other tribal areas you've visited?

LB: This trip had a real impact on my understanding of what some of our indigenous peoples must confront. The traditional lifestyles that remain are threatened in Alaska and in the lower 48.

In Savoonga, they are subsistence hunters, and their traditional diet is now heavily contaminated. That is partly due to global pollution, including PCBs, organochlorine pesticides, and other compounds that are produced in temperate climates, and then are taken up in the atmosphere and deposited in polar regions. Others bioaccumulate up the food chain and the Yupik are eating at the top of the food chain. And then there's the military base there.

In Chickaloon, the traditional diet is salmon and other fish from the stream, and hunting. Coal mining has affected those activities.

At an environmental justice meeting in 1994, a woman - she was Lakota Sioux, I believe, and an attorney - said, "I don't think you understand that the spirits of my ancestors live in the stream that runs next to my house, and in the trees that shade my house, and I can't move because I am part of the continuity of the earth and the land."

Most European Americans are descendants of people who chose to come here, and we don't have the same integral connection to the land, even if we love our homes or have been living on the same land for generations.

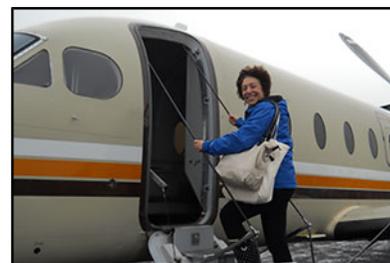
EF: Prevention is a persistent theme of your talks at community forums. What realistic steps can a community that relies heavily on traditional food sources take to protect its members?

LB: Prevention is challenging. First is the good news. Some of the levels of persistent organic pollutants in seals and fish are starting to decline, though they are still very high.

On St. Lawrence Island, for full medical care, the residents have to go to Nome, or even Anchorage. The health care organizations are largely focused on smoking and alcohol use. We urged them to think more about the health impact of environmental issues, and we got a commitment for a medical team to go out for several days to study the health of everyone on the island.

For subsistence tribal communities, you can educate people to, for instance, avoid the skin and fat. Certain species of fish can be avoided. But it's a change from traditional practices. Blubber, for instance, is a mainstay, but it's highly contaminated. You can also look at the individuals who are at enhanced risk. For instance, women of childbearing age and young children can be encouraged not to eat certain foods.

Working from another direction, we urged the islanders to get their young people trained to provide medical care. It's very hard for them to go off the island to medical school and leave their families and environment. But that's another way to address the disparities.



Bad weather meant Birnbaum had to wait nearly a full day in Nome before boarding her flight for Savoonga on St. Lawrence Island. (Photo courtesy of John Schelp)



Birnbaum, center, with a community member, right, and Pamela Miller, director of Alaska Community Action on Toxics, which conducts NIEHS-funded community participatory research in Savoonga. (Photo courtesy of Samarys Seguinot-Medina, of ACAT)



The events on St. Lawrence Island allowed Birnbaum and others to deepen their understanding of how the island's environment shapes local life. (Photo courtesy of John Schelp)



A community meal in Savoonga heightened Birnbaum's (second table, left, in blue shirt) sense of immersion in local culture. (Photo courtesy of John Schelp)

EF: With so many environmental contaminants originating elsewhere, how does the Alaska experience speak to the global nature of environmental public health?

LB: Our environment is global, but also local. The air pollution in Beijing reaches California in four to five days and may reach Alaska even sooner. So it's not only the persistent compounds that undergo global transport, but also the nonpersistent ones. They may not accumulate in our bodies, but that doesn't mean we're not impacted by a daily onslaught.

EF: Is there anything else you'd like to add?

LB: The trip was amazing, maybe even life changing. I'm already looking forward to visiting the Tohono O'odham in Arizona next April.

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