

## ▶ DIRECT FROM CDC ENVIRONMENTAL PUBLIC HEALTH TRACKING NETWORK



Alex E.  
Charleston,  
MPH



CAPT Richard  
Sullivan

## Exploring Environmental Health Gaps in Native American Populations

**Editor's Note:** As part of our continuing effort to highlight innovative approaches and tools to improve the health and environment of communities, the *Journal* is pleased to publish a bimonthly column from the Centers for Disease Control and Prevention's (CDC's) Environmental Public Health Tracking Network (Tracking Network). The Tracking Network is a system of integrated health, exposure, and hazard information and data from a variety of national, state, and city sources. The Tracking Network brings together data concerning health and environmental problems with the goal of providing information to help improve where we live, work, and play.

Environmental causes of chronic diseases are hard to identify. Measuring amounts of hazardous substances in our environment in a standard way, tracing the spread of these over time and area, seeing how they show up in human tissues, and understanding how they may cause illness is critical. The Tracking Network is a tool that can help connect these efforts. Through these columns, readers will learn about the program and the resources, tools, and information available from CDC's Tracking Network.

The conclusions of this article are those of the author(s) and do not necessarily represent the views of CDC.

Alex Charleston is the acting deputy branch chief for the Environmental Public Health Tracking Program and has worked at CDC for almost 23 years. CAPT Richard Sullivan has been a commissioned officer with the U.S. Public Health Service for 29 years and has served in the Navajo, Portland, and Tucson areas of the Indian Health Service, and at CDC.

The Midwestern U.S. is home to the Bemidji Area Indian Health Service. This area includes the states of Michigan, Minnesota, and Wisconsin, and the city of Chicago. Tribes included in the service area are the Chippewa (Ojibwe), Dakota, Ho-Chunk, Menominee, Mohican, Odawa, Onei-

da, and Potawatomi nations, among others (Great Lakes Inter-Tribal Council, Inc., 2016).

Many environmental issues persist in tribal lands despite efforts to combat them, such as the tribal implementation of parts of the U.S. Environmental Protection Agency's Clean Air and Clean Water Acts. In the Bemidji Area,

some of the most prevalent environmental issues affecting communities include contamination of traditional foods, indoor air pollution, mining, poor housing conditions, sludge sites, and wood stoves. These environmental issues affect pollution levels in two of the most vital areas: air and water quality. In addition, linking exposure to environmental hazards, like water and air pollution, to chronic diseases is difficult.

In 2002, Congress began funding the Centers for Disease Control and Prevention (CDC) to develop a program and system to track health problems that may be associated with environmental health hazards. The Environmental Public Health Tracking Network (Tracking Network) was created to provide information to a variety of audiences from a nationwide network of integrated health and environmental data that drive actions to improve health outcomes. Since the Tracking Program launched its network in 2009, it has continued to evolve in content and functionality. The program currently maintains cooperative agreements with health departments in 25 states and one city that contribute data to the network. A limitation of the Tracking Network, however, is its lack of information specific to Native Americans.

### The Bemidji Area Tracking Pilot Project

In the summer of 2014, CDC contracted with the Great Lakes Inter-Tribal Epidemiology Center (GLITEC) to conduct the Bemidji Area Environmental Health Tracking Program pilot project. GLITEC serves the 34 tribes in the Bemidji Area. Its staff supports tribal communities in their efforts to improve

health by building capacity to collect and use data, while advocating on the local, state, and national levels to improve data quality. The Wisconsin Tracking Program, Minnesota Tracking Program, and Michigan Tracking Program provided additional resources to assign a GLITEC epidemiologist to lead the project and provide monetary awards to each participating community. The Bemidji Area environmental health advisory group provided oversight for the pilot project.

The overall goals of the pilot project were to identify available data and to assess the quality of those data. The three tribal communities that participated were the Bad River Band of Lake Superior Tribe of Chippewa Indians in Wisconsin, the Fond du Lac Reservation in Minnesota, and the Detroit Urban Indian Community in Michigan.

### Pilot Project Findings

The GLITEC epidemiologist conducted in-person visits to the three different communities in order to establish and facilitate relationships among the tribes, CDC, and the participating state tracking programs as well as to outline the project goals and objectives. In meeting with each tribe, themes emerged that were similar to those experienced by grantees during the early stages of development for the national Tracking Program. For example, the isolation of data across departments and sectors was surprising and often frustrating for tribal partners. The tribes lacked consistency in the ways they were collecting and recoding data. Different departments sometimes collected data on the

same indicator based on funding sources or requirements. Tribal partners stated a desire to collect environmental data in a meaningful way that would be useful for everyone in the community. The lack of interdepartmental local coordination coupled with the lack of substantial and reliable funding, however, has created a patchwork of available environmental data in these communities. A member of one tribal community said that the group wanted this project to lead to an “in-house way to deal with data.” This type of system can only be accomplished with significant direct investment in data collection and utilization by tribes across tribal lands.

Through the cooperative efforts of participating tribes and tribal communities, GLITEC, and state tracking programs, the participants accomplished their first-year objectives by assessing ongoing environmental monitoring occurring at the tribal level and developing environmental priorities, including indoor and outdoor air quality, radon, and well water testing.

### Working With Tribes: Lessons Learned

In order for partnerships and projects with tribes to be successful, relationships with Native American communities must be built upon trust. The Tracking Program has worked with GLITEC to build a relationship with Native American communities and to explore existing environmental public health data. By the end of the pilot, CDC, GLITEC, and Tracking Program grantees established a foundation for tribal involvement within the Track-

ing Program. State tracking programs and CDC learned the importance of tribal cultural awareness, customs, flexibility, and respect for tribal sovereignty by allowing communities to ultimately decide the course of the project. This awareness led to new established connections among the tribes, an urban Native American community, the Tribal Epidemiology Center, and state tracking programs.

With the success of the pilot project, the Tracking Program has begun to look at next steps in working with tribal communities. The objective for the future is to have standardized environmental health data that tribal populations can use to drive public health action within their communities.

To learn more about the Tracking Program's work, visit <http://ephtracking.cdc.gov>. To stay connected with the Tracking Program and get updates on the newest data, tools, and resources, join our listserv by e-mailing [eph@cdc.gov](mailto:eph@cdc.gov).

**Corresponding Author:** Richard Sullivan, CAPT, USPHS, Project Officer, Environmental Health Tracking Branch, Environmental Hazards and Health Effects, National Center for Environmental Health, CDC, 4770 Buford Highway, MS F-60, Building 106, Chamblee, GA 30341-3717. E-mail: [rsullivan@cdc.gov](mailto:rsullivan@cdc.gov).

### Reference

Great Lakes Inter-Tribal Council, Inc. (2016). *Great Lakes Inter-Tribal Epidemiology Center service area*. Retrieved from <http://www.glitc.org/programs/epi-servicearea/>

NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION

# ADVANCE YOUR CAREER WITH A CREDENTIAL

Learn more at [neha.org/professional-development/credentials](http://neha.org/professional-development/credentials)

- Environmental Health Specialist: REHS/RS
- Food Safety: CP-FS and CCFS
- Healthy Homes: HHS
- Onsite Wastewater: CIOWTS