

## CALIFORNIA

Keeping Track, Promoting Health

### Building a Network

Without question environmental contaminants are affecting people's health. Environmental hazards are among parents' top health concerns for their children, according to the American Academy of Pediatrics. Understanding how these contaminants and other environmental factors are linked to chronic disease is essential to disease prevention—and to protecting the health of our communities.

The Centers for Disease Control and Prevention (CDC) is leading the initiative to build the National Environmental Public Health Tracking Network. The Tracking Network is being developed in response to calls for better understanding of how the environment can affect people's health. This Web-based system will integrate health and environmental data and provide information to address public health concerns, educating the public about ways to protect themselves from possible contamination and disease.

States and communities can act upon data generated through tracking. Today, because of tracking, public health officials in Washington State can do more than determine mercury levels in fish. They can also compile information from many sources and use the data to educate citizens about healthy fish choices with greater speed and accuracy. In Maine, tracking has allowed researchers to examine high arsenic levels in well water and its effects on reproduction. Consequently, state public health officials can now warn well users about the hazards of exposure to arsenic during pregnancy.

The Tracking Network will enable and encourage communities, health care providers, state and local health departments and others to take control of their health.

The building blocks of this network are grants to state and local health departments and universities around the country to build capacity and demonstrate just what tracking can do.

### Building the Foundation: California (2002 — 2006)

In 2002, the California Department of Health received funding from CDC to plan for a statewide Environmental Public Health Tracking Network that will be part of the national tracking network. California used the funding to build capacity, enhance infrastructure, and complete data linkage projects. The program coordinated collaborations between people and agencies to exchange critical data essential to protecting the public's health. These groups included environmental and public health practitioners, policy makers, non-governmental and community-based organizations, university-based researchers, and the general public.

With this diverse group of stakeholders, California's Tracking Program established Advisory Groups to assist in the direction, exploration, and evaluation of tracking. With guidance from the Advisory Groups, California was able to

- communicate public health information to communities;
- build information technology and staff infrastructure to expand environmental public health surveillance;
- enhance state level efforts in the tracking of air toxins
- track emissions from sources such as traffic and agricultural pesticides; and
- provide grants to potential contributors and users of environmental public health tracking to support a number of environmental public health best practices and policies in communities across the state.

### Why Tracking Matters to California

Within the San Joaquin Valley alone, California's agricultural industry applies 20% of all the pesticides used in the United States. Pesticides contain toxic chemicals that may cause acute poisoning, cancer, and nervous system damage in people. These pesticides are often used where people live, work or go to school. With CDC funding, California increased its Tracking Program capacity to provide reliable information to residents on pesticide use and the potential for exposure. Through its mini-grants program, the California Tracking Program was able to support the Pesticide Action Network North America (PANNA), a non-governmental organization working to reduce the use of hazardous pesticides worldwide. Through this partnership, the public now has free access to pesticide information through an online tool—AirPIC (<http://www.pesticideinfo.org/airpic>)—developed by PANNA. AirPIC is only one example showing the importance of access by communities to clear, concise, and easy to understand information.



### DID YOU KNOW?

The California Senate Bill 702 Expert Working Group report stated that an effective surveillance system that helps to reduce just 1% of the cost of environmentally-related chronic diseases would save California \$100 million annually. In California, the costs associated with only nine such diseases, including childhood asthma, cancer, and lead poisoning, is an estimated \$10 billion per year, or \$288 per person.

# Tracking in Action

## What is the problem?

## What did tracking do?

## Improved public health

### Understanding the Relationship Between Agricultural Pesticides and Autism

Although many Californians live and work in close proximity to pesticides used in agriculture, little is known about the potential effects of these chemicals on human health.

California's Tracking Program analyzed patterns of pesticide applications linked to birth records of children with and without Autism Spectrum Disorder.

The study generated new clues about the possible causes of Autism and potential opportunities to protect the public's health. The study also utilizes a community-based participatory approach, which promotes community participation in the research and results dissemination processes.

### Fresno County Department of Agriculture Tracking Pesticide Runoff

Data about crop sites did not exist in electronic form, making it very difficult for the Department of Agriculture to monitor or study the impacts of pesticide applications within the county.

The Tracking Program provided funding for the Fresno County Department of Agriculture to improve their capacity to use Geographic Information System technology to digitize crop sites. This increased the department's ability to track site specific information on pesticides, analyze pesticide drifts and identify sensitive areas, develop detailed maps to locate pest infestations, and identify sites that are in close proximity to bodies of water.

Data now exists from monitoring the geographical distribution of pesticide use, improving Fresno County's knowledge of the relation of pesticide use to the proximity of people.

### Using Data to Improve County Integrated Pest Management Practices

Contra Costa County pest management practices were to apply pesticides in public places that are harmful to humans. In addition, no public records were being maintained to track these applications.

The program provided local funding for the Contra Costa County Public & Environmental Health Advisory Board that resulted in endorsement of a recommendation from the Parents for a Safer Environment (PfSE) citizen activist group to improve the implementation of the County's Integrated Pest Management Policy.

The California Tracking Program negotiated with PfSE to make changes to pest control practices, including the termination of routine pesticide applications at and around all county buildings. They also demonstrated the need for accessibility to environmental and public health data that can be leveraged by community advocacy groups to improve public health policy.

### Improving Community Access to Useful Information

Information about health is often only available at the zip code level, while variations in health status often occur at the community level. There is a need to examine how existing data can be used to increase the public's knowledge about how the environment affects their community's health without compromising individual privacy. It is also necessary for affected communities to gain access to this information.

The California Tracking Program used special analytic and mapping techniques to locate "hot spots" of pre-term birth, term low birth weight, and a range of asthma indicators in Alameda County. They also explored possible relationships between these outcomes and environmental hazards. The project demonstrated the ability of the Tracking System to identify elevated rates of health outcomes at the community-level while maintaining the confidentiality of the individuals. The Tracking Program was also able to identify disparities in rates by race/ethnicity, median income, and geography.

To ensure that these results were accessible to the community in a relevant fashion, the California Tracking Program partnered with the Urban Strategies Council, and several other organizations, in a community collaborative called InfoAlamedaCounty ([www.infoalamedacounty.org](http://www.infoalamedacounty.org)). The goal of the collaborative is to develop information resources and provide technical assistance to promote equity and empowerment for low-income neighborhoods and communities of color in Alameda County. Information generated by the Tracking Program was incorporated onto the InfoAlamedaCounty.org interactive mapping site, ensuring that that even after the project has ended; the citizens in the community will still have access to and be able to use the project data.



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For more information about the National Environmental Public Health Tracking Program please visit: [www.cdc.gov/nceh/tracking](http://www.cdc.gov/nceh/tracking)

