FLORIDA

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: Florida (2003 – 2006)

In 2003, the Florida 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. Florida used the funding to build capacity, enhance infrastructure, and complete data linkage projects. The results range from improving surveillance to enabling faster responses to environmental public health questions.

Why Tracking Matters to Florida

Deteriorating lead-based paint is the most common source of childhood exposure to lead. Although lead based paint was banned in 1978, it can still be found in many older homes, especially those built before 1950. There are more than 430,000 homes in Florida built before 1950.

Between 1997 and 2005 more than 10,000 children in Florida less than six years of age had elevated blood lead levels. The Florida Tracking Program helped to develop a physician's screening tool. And, to provide a resource for concerned homeowners, the Florida Tracking Program developed a feature on their website that maps out lead-based paint risk by area. The site also provides prevention and education resources at www.doh.state.fl.us/environment/community/lead/education.htm.

"When the Pew Commission report came out, everyone—the press, the public, congress—couldn't believe that a tracking program didn't already exist,"

Shelley Hearne, Dr.P.H., Founding Executive Director of Trust for America's Health.

Tracking in Action

	What is the problem?	What did tracking do?	Improved Public Health:
Understanding how Hazardous Waste Sites can Lead to Health Problems	The U.S. Environmental Protection Agency maintains the National Priority List (NPL), which includes the hazardous waste sites in the nation that are known to have releases or threatened releases of hazardous substances, pollutants or contaminants. In 2006, there were more than 50 active NPL hazardous waste sites in Florida.	With assistance from the Florida Birth Defects Registry, the Florida Tracking Program evaluated the prevalence rates of selected birth defects near NPL hazardous waste sites. Birth data and environmental data were analyzed using the Rapid Inquiry Facility (RIF) software tool. RIF is an automated tool developed by Tracking partners at the Imperial College of London that uses a combination of statistics and geographic information system to map diseases.	No association was found between the selected birth defects and location of hazardous waste sites. However, this project proved successful by providing an example of how tracking data can be rapidly used to evaluate a health outcome, alleviate residents' concerns, promote hypotheses generation among public health professionals, and provide quicker, more efficient data analysis.
Linking Lead Exposure to Health Effects	Childhood exposure to lead is a cause for concern because lead exposure may cause developmental disabilities. In Florida, more than 10,000 children younger than age six had elevated blood lead levels between 1997 and 2005.	The Florida Tracking Program conducted a data linkage project to examine the relationship between childhood blood lead levels and developmental disabilities. To do this, staff linked individual disability data to individual blood lead levels. The linkage project showed that children with elevated blood lead levels had an increased risk of developing behavioral disorders and other developmental disabilities. This was the first time Florida Childhood Lead Poisoning Prevention Program data was used to document adverse health outcomes related to known lead exposure.	The Florida Tracking Program's project showed an association between elevated blood lead levels and several types of developmental disabilities. The current sample is believed to be one of the largest linked set of biomarker data and disability outcomes available to date. This project also demonstrates collaborations and partnerships for future studies linking biomarker data from exposures such as lead with developmental disability data and serves as an example of tracking at work to show how environment affects health.
Asthma and Outdoor Air Quality	Asthma is a continuing public health concern in Florida. In 2006, there were more than 27,000 hospitalizations in Florida due to asthma. The average age of an asthma hospital patient was 42 years old, with an average stay of 3 days.	The Florida Tracking Program linked outdoor air quality data provided by the Florida Department of Environmental Protection (DEP) with asthma hospital data from the Agency for Health Care Administration. Tracking staff used advanced spatial modeling techniques to develop county-level maps depicting the prevalence of asthma across the state. An increased association was found between asthma rates and outdoor air quality during certain times of the year, however, more work is needed to provide a complete picture of the asthma burden.	The Tracking Program used this project as an opportunity to improve agency collaboration and data collection capacity. The emergency room data may capture more of the asthma burden since many people are treated and released by the emergency room and not necessarily admitted into the hospital. The use of the DEP air data offers an opportunity to evaluate the effects of harmful chemicals, such as ozone and particulate pollution, on adverse health outcomes such as asthma. This new approach will allow the Tracking Program to effectively monitor air quality and impacts on the rising asthma rates in Florida.

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