

UNMET NEEDS

Provide \$14 million to fund CDC's National Biomonitoring Program:

- \$10 million to fund states to build laboratory capacity and capability to monitor chemicals in people
- \$4 million to fund CDC to support state programs, develop methods, conduct studies and issue reports on chemical exposures in people

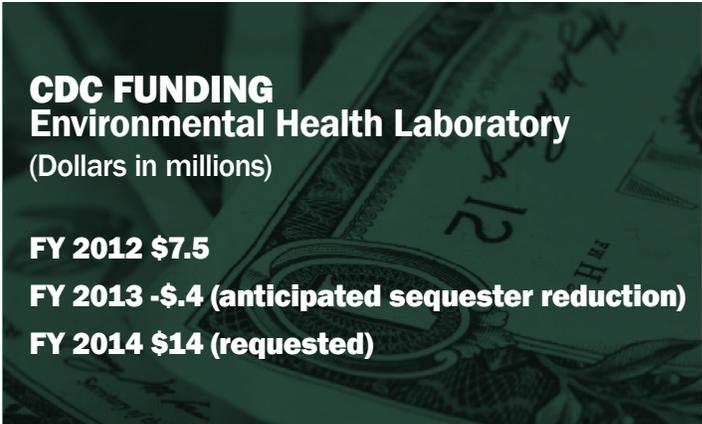
BACKGROUND

Every day, we come in contact with thousands of chemicals, and the public is growing more and more uneasy about these exposures. Though you would not knowingly breathe in air polluted with sulfur dioxide or drink water containing arsenic, chemicals in the environment often go unnoticed.

Approximately 100,000 chemicals are currently registered for use in the US, yet we know very little about their effects on human health. At the same time, chronic diseases are on the rise and their causes are largely unknown. The public's concern, combined with our inability to explain what causes the majority of illness and death in the US, emphasizes the **need to understand which chemicals are getting into our bodies** and what they are doing while there.

Biomonitoring remains essential for identifying what and how much chemicals are getting into people on a regular basis. **Biomonitoring data play a critical role in assessing people's exposure to chemicals following both unintentional and intentional chemical events** by identifying the chemical agent and determining which people were and were not exposed.

For the last 30 years, the **National Biomonitoring Program at CDC's Environmental Health Laboratory measures hundreds of chemicals** including lead,



CDC FUNDING Environmental Health Laboratory (Dollars in millions)

FY 2012 \$7.5

FY 2013 -\$0.4 (anticipated sequester reduction)

FY 2014 \$14 (requested)

perchlorate, bisphenol A (BPA), cotinine (a measure of secondhand tobacco smoke), flame retardants, certain pesticides and other complex chemicals. The data are used to assess exposure to environmental chemicals in the US population and provide valuable information when analyzed in conjunction with health outcome data. Additionally, information from CDC about background levels of exposure serves as a reference to determine when people have elevated levels of chemicals in their bodies.

STATE-BASED PROGRAMS

While CDC's program is an essential national asset, **state laboratories also need biomonitoring capability in order to respond to smaller, local concerns**. Currently, CDC funds only three state laboratories, out of the 29 which were approved for funding. The requested funding would allow additional states to conduct targeted population-based biomonitoring studies, building on capabilities developed through preparedness efforts. Funding would allow CDC to provide technical assistance, transfer of methods and training to more states.



ENVIRONMENTAL PUBLIC HEALTH TRACKING

Rates of chronic diseases such as allergies, asthma, obesity, diabetes, heart disease and metabolic syndrome are all on the rise in the US. Although there are many theories with regard to cause, there are no definitive answers explaining these alarming rates. Past research has linked some environmental exposures with specific diseases, such as benzene exposure to leukemia. However, much work remains to determine whether or not exposure to certain chemicals, such as flame retardants, causes illness or disease.

The **Environmental Public Health Tracking (EPHT) Network allows existing environmental hazard, exposure and disease tracking systems to be viewed together** by researchers as well as the public. Biomonitoring remains essential to such a tool since it serves as the most accurate method of determining human exposure to environmental hazards.

State laboratories should play an important role in the EPHT Network. The Connecticut EPHT Program, for example, works closely with the state's public health laboratory, the Maine Health and Environmental Testing Laboratory and the Vermont Department of Health Laboratory to examine umbilical cord blood from newborns for mercury, lead, cadmium and related biomarkers.

CDC just added national biomonitoring data to the EPHT Network in 2012. This comprises a first step to track many of the exposures and health effects on a national level that may be related to environmental hazards. Although some states have made tremendous strides in biomonitoring, only a few have contributed biomonitoring data to the Network.

APHL supports the expansion of the Environmental Public Health Tracking program to link environmental data with biomonitoring and health data in all states. Funding should increase the number of state laboratories doing biomonitoring and develop their ability to share data electronically with other agencies. ■

CONTACT

For more information, contact Peter Kyriacopoulos, senior director of public policy, 240.485.2766, peter.kyriacopoulos@aphl.org.