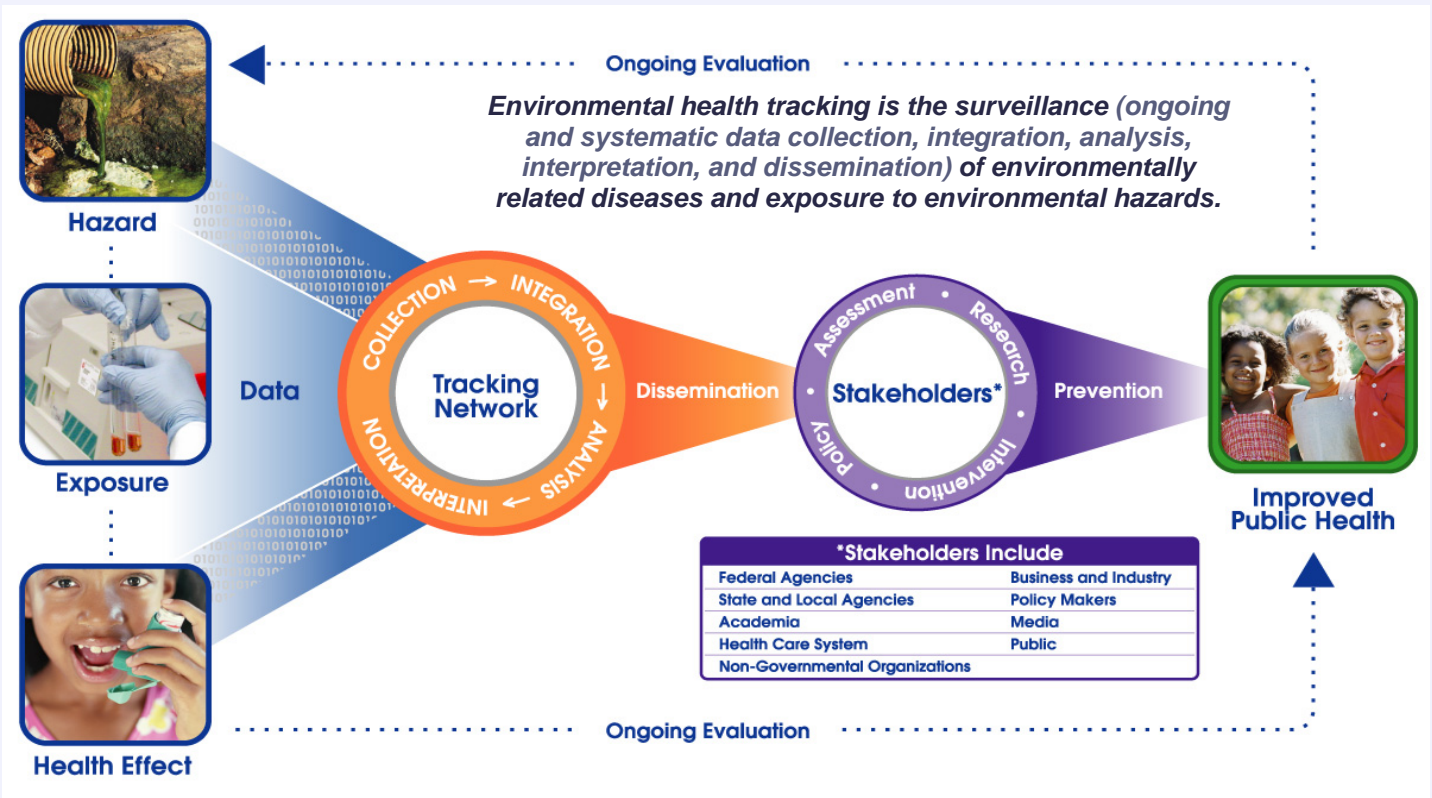


# OVERVIEW OF ENVIRONMENTAL HEALTH TRACKING



Environmentally related chronic diseases take a fiscal and human toll on Californians. 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.

There is growing scientific evidence that environmental factors (such as pesticides and toxic air pollutants) are strongly linked to many chronic diseases (such as asthma, birth defects, and cancers). Alarming, some of these illnesses are on the rise. For example, from 1984 to 2003, asthma in adults and children reportedly increased 76% nationwide.

Currently, no comprehensive tracking system exists at the state or national level to track many of the exposures and health conditions that may be related to environmental hazards. Because

individual environmental and health databases, registries, and monitoring systems are not coordinated and/or linked together and because some hazards and chronic diseases are not tracked at all, it is difficult to carry out key public health functions.

Lack of a comprehensive environmental health tracking system contributes to the critical gap in knowledge about the possible links between environmental hazards and chronic diseases.

“Reliable information is the most basic tool for prevention of chronic diseases that are related to the environment. Without information obtained by tracking health and links to environmental factors, California will continue to fight chronic diseases with costly treatment, rather than cost-effective prevention.”

**Senator Martha Escutia**

California is currently developing a comprehensive plan for a standards-based, coordinated, and integrated system that would facilitate public health actions through on-going monitoring, reporting, linkage, and communication of data on environmental hazards/exposures and environmentally related diseases (see diagram above).

Such a system would provide the information needed to improve existing pollution prevention, health promotion, and disease prevention policies and programs by helping to answer the following questions:

- What environmental hazards are people exposed to?
- How much are they exposed to (e.g. concentration)?
- How have these exposures changed over time?
- How do these exposures compare to other populations or communities?
- Is there an unusual rate of disease in a population or community?
- How have disease rates changed over time?
- Is there an unequal burden disease in a specific population or community?
- What are the effects of pollution and disease prevention policies and programs?

Readily available and accessible information about pollution and disease in specific geographic areas and specific racial/ethnic groups could inform communities and policy-makers addressing environmental health issues. For example:

- City and County officials can use data on exposure to traffic pollution for land-use and transportation planning.
- Policy-makers can create empowerment zones where specific services, such as lead screening for children in low-income households, are provided.
- Public health officials can use data on low-birth weight at the community level for allocation of prenatal/perinatal-care resources and services.

The potential of a future environmental health tracking system is immense; however, its success depends on the involvement of and usefulness to stakeholders who will ultimately use tracking information to carry out public health functions.

Too often, even when relevant data on environmental hazards/ exposures and environmentally related diseases exist, the data may not be analyzed and disseminated in formats and methods that are useful to communities, local public health agencies, and community-based organizations. Furthermore, those stakeholders may be limited in their capacities to access, understand, analyze, and/or utilize data for public health actions.

A tracking system would lack much of its intended purpose and usefulness if it fails to communicate data and information to stakeholders and if stakeholders are limited in their capacity to access, analyze, and utilize the information.

Therefore, central to a comprehensive plan for the future environmental health tracking system are strategies to ensure that:

- 1) Information generated by a tracking system is communicated to communities, community-based organizations, local public health agencies, and other stakeholders in the most effective method and formats; and
- 2) Capacity to access, understand, analyze, and utilize the information is increased among stakeholders.

To that end, the the University of California (UC) and the California Environmental Health Tracking Program (CEHTP) are taking steps to ensure that plans for a future environmental health tracking system are developed with the input and involvement of stakeholders. Ultimately, California hopes to design a system that is useful to stakeholders and to increase their readiness to take full advantage of this future resource and become stronger partners in achieving healthy people in healthy communities.

**The proposed environmental health tracking system would have the following functions:**

- Track environmental hazards to guide exposure prevention efforts.
- Track disease trends to understand if they are changing over time, in residents statewide, in specific populations, or in certain geographic areas.
- Link environmental hazard information, exposure data, and disease reports to support environmental health research.
- Inform the development and evaluate the effectiveness of disease prevention and environmental protection programs and policies.