

The State Environmental Health Indicators Collaborative (SEHIC)

Environmental Public Health Indicators (EPHI) were first described by the CDC/CSTE environmental public health indicators project in 2000 (www.cdc.gov/nceh/indicators/). These indicators, along with other public health indicators developed by CSTE, were identified in part to provide a means of placing non-infectious diseases and conditions under surveillance towards building a comprehensive National Public Health Surveillance System (NPHSS).¹ Since that time, the National Environmental Public Health Tracking Program has begun to enhance environmental health surveillance capacity nationally and among state health departments by encouraging the linkage of environmental and health data using standardized, systematic methods. These efforts included the development measures that provide consistent and standardized methods for comparing public health surveillance and environmental monitoring data across multiple states. In 2004, the State Environmental Public Health Indicators Collaborative (SEHIC) was established to develop a pilot set of EPHI. While this work is being led by state-level environmental epidemiologists, support for the program's efforts is being provided by the CDC's National Center for Environmental Health and the Council for State and Territorial Epidemiologist (CSTE).

The primary goal of SEHIC was to convene a group of willing state level environmental health practitioners as collaborators to develop and compare indicators for use within environmental health surveillance and practice.

In their most basic form, EPHI are descriptive summary measures derived from existing environmental health programs that can be used to enhance environmental health practice by improving the accessibility, availability and distribution of information for decision-making.

Purpose and Goals of Environmental Public Health Indicators

First, it is proposed that EPHIs can serve as summary measures that describe elements of environmental sources, hazards, exposures, health effects, and intervention and prevention activities that may stand alone or be combined to describe their interaction.

Second, indicators can also be used to assess positive and negative environmental determinants of health including measures of the built environment and "healthy people in healthy places".

Third, EPHIs are intended to serve as communication tools for making environmental health information available to stakeholders including environmental health partners, policy makers and the general public.

Fourth, EPHIs can identify areas for intervention and prevention and evaluate the outcomes of specific policies or programs aimed at improving environmental public health.

SEHIC work to date

SEHIC chose to first develop and pilot indicators related to air quality, asthma and drinking water. Three working groups were formed, each focusing on one of the identified topic areas. Preliminary indicators and topic areas were selected based on existing knowledge regarding relationships between environmental sources, hazards, exposures and health effects, the interests of collaborators, and perceived ease of development. Once topic areas were selected, SEHIC engaged CDC programs, CSTE and additional state partners to pilot the indicators, participate in refining key measures, generate tools for indicator development, and to provide feedback on background materials framing the project.

¹ Council of State and Territorial Epidemiologists, Position Statement 1994-3, *Setting priorities for diseases, conditions and health status indicators or outcomes in the National Public Health Surveillance System*

Within each of the three topic areas, several preliminary measures have been identified and individual states are in the process of piloting these measures using state level data resources. The templates and “how-to-guides” used to outline each indicator and its measures are based on previous CSTE/CDC indicator collaborations.^{2,3} The template offers a mechanism to evaluate the strengths and weaknesses of each indicator measure by describing the significance, background, data sources, data quality and limitations. For each indicator measure, the “how to” guide outlines step-by-step methods to systematically replicate the derivation of measures in a standard way. Future goals of SEHIC are to evaluate the findings of the initial pilot of the indicators, refine indicator templates and guidance documents for wider implementation, standardize reporting formats, and expand the number of indicators and topic areas.

Two working group meetings were held, in September 2005 and February 2006. Plans for development of a preliminary document with indicator results are underway and scheduled for release in June 2006.

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² Centers for Disease Control and Prevention. Indicators for chronic disease. MMWR 2004; 53 (No. RR-11): 1-116.

³ Council of State and Territorial Epidemiologists. Occupational Health Indicators: A Guide for Tracking Occupational Conditions. November 2004. Available at: http://www.cste.org/pdffiles/Revised%20Indicators_12.14.04.pdf

