

Appendix A

Environmental Health Specialist (EHS) Network

2000 through 2004

Brief Background

EHS-Net was launched as a project of CDC's FoodNetⁱ program in 2000. It was a collaborative project between CDC, eight of the then 10 Emerging Infections Program sites (California, Colorado, Connecticut, Georgia, New York, Minnesota, Oregon and Tennessee), FDA, and USDA.

The purpose of FoodNet studies is to understand the burden of foodborne disease in the United States. FoodNet case control studies of sporadic cases of foodborne disease consistently found eating outside the homeⁱⁱ to be a risk factor for some foodborne diseases. EHS-Net began as a collaborative project between EHSs with retail food safety expertise, epidemiologists, and laboratorians to understand the causes of restaurant associated foodborne disease.

In addition to the EHSs, epidemiologists, and laboratorians participating at the state and local levels, CDC has supported the project with a staff of EHSs, epidemiologists, and statisticians, as well as a behavioral scientist, and an informatics specialist.

EHS-Net's purpose and activities have been presented at meetings of the International Association of Food Protection, National Environmental Health Association, FDA regional seminars and other appropriate forums.

EHS-Net Activities

As a result of the first meeting and subsequent discussions among the EHS-Net participants a number of projects were identified or evolved over time. They included adding questions to FoodNet's population survey for people identified as food workers or managers; development of a gold standard data collection instrument that could be used in retail foodservice settings during both outbreak investigations and routine inspections; development of a Web-based information system to capture data collected; study of EHSs and barriers and facilitators to their role as risk communicators; characterization of the retail food safety regulations and other aspects of the food safety program in each State; determination of the denominator of foodservice facilities in the EHS-Net catchment area that meet the EHS-Net definition of a restaurant; a multistate study of egg-handling practices in restaurants; a multistate study of ground beef-handling practices in

restaurants; and a multistate study of food worker hygiene practices in restaurants. Several of these projects have been completed; the remainder are expected to be completed by December 2004. The outcome will be published during 2004 and 2005.

Outbreak and Nonoutbreak Data Collection

Because a standardized instrument or method was not used by all participating states, EHS-Net participants developed an instrument and established a method for environmental evaluations that could be used for both foodborne outbreak and nonoutbreak evaluations. The data collection instrument developed by EHS-Net participants was tested in the field in both outbreak and nonoutbreak settings during three pilots. With this instrument EHS-Net participants intend to collect data from outbreak investigations on an ongoing basis. From these investigations a database of policies and practices will be developed to determine the factors or combination of factors that are protective for foodborne outbreaks and to provide information for further studies of the environmental antecedents (underlying causes) of outbreaks. In addition to collecting data from outbreak investigations EHS-Net participants also can collect data during nonoutbreak evaluations for future comparison

studies. The method for data collection in either situation is based on a systems approach to assessing the environment.

Web-Based Information System

The Web-based information system was designed to support the ongoing multistate foodborne outbreak data collection activity, as well as other EHS-Net multistate studies. The information system is a secure Web application designed by CDC specifically for EHS-Net data collection activities. Access to the system requires a user account, with each state representing a user group on the system. The State administrator of the account can input, edit, or delete data or records and can grant access privileges to others. Privileges may be granted to EHSs at the state, county, or city level. The administrator can identify the privileges to grant to a user. For instance, the administrator can grant data entry and editing privileges to users but can withhold authority to delete records. The data are stored at CDC's NCEH/ATSDR. Data are protected using user account privileges and encryption. Any identifying restaurant information is encrypted at CDC. Each participating state owns its data and can access its data directly from the information system. Participating states must grant

permission for their data to be shared with other participating EHS-Net states. The data stored at CDC are subject to the Freedom of Information Act. States must determine their ability to use the system and share data among states to participate in EHS-Net activities. Participating states will use the system on an ongoing basis to report environmental evaluations of outbreak investigations and to capture data for other multistate studies.

For additional information concerning the system and its use, please contact

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Appendix B

Environmental Health Specialist Network

Guiding Principles

Guiding principles for the EHS-Net are as follows:

- The network is guided by an intersectoral approach characterized by active participation of EHSs; epidemiologists; regulatory and public health laboratories; and other professionals who work in the field of environmental health (i.e., infectious disease experts, engineers, industrial hygienists, health educators, hydrologists, microbiologists, geologists).
- The network resides within existing environmental health service programs and their infectious disease program counterpart. The network aims to be a national resource for food safety and drinking water safety programs in evaluation of risk assessment and management activities and their relation to health.
- Identification of short-term and intermediate evaluative goals that support the long-term goal of identifying activities that prevent food or waterborne disease takes high priority.
- Activities of the network build upon the routine functions of these programs but go beyond routine

activities to answer questions important to food safety and drinking water safety programs. Through these innovative efforts, environmental health service programs will strengthen capacity to prevent disease by addressing issues related to food safety and drinking water safety.

- Important issues in infectious disease control guide activities of the EHS-Net.
- EHS-Net maintains sufficient flexibility to respond to emergencies and to address new, reemerging, and future problems.
- Training is the key to the network for state, local, tribal, or Federal EHSs and persons in professional training programs such as public health students, infectious disease fellows, or laboratory fellows. The network works together to identify training opportunities and develop training material to improve the practice of environmental health.
- The network develops and evaluates environmental health practice, strengthening EHS capacity to anticipate, recognize, evaluate, and respond to both unintentional and intentional contamination of food and drinking water and transfers information to the public health and environmental health service communities.

ⁱInformation concerning FoodNet is available at:

<http://www.cdc.gov/foodnet/>.

ⁱⁱ Jones T, Vugia D, Selman, C, Angulo F, and the EIP FoodNet Working Group. Eating in Restaurants: A Risk Factor for Foodborne Illness? Findings from FoodNet to Be Explored by EHS-Net. International Conference on Emerging Infectious Diseases. Atlanta, GA, March 2002. See: http://www.cdc.gov/foodnet/pub/iceid/2002/jones_t.htm