

Enhancing Environmental Health Through Training in Essential Services

Carl S. Osaki

Environmental justice, bioterrorism, indoor air quality in schools, and West Nile Virus are a few of the emerging environmental health issues receiving national attention. The separation of environmental health and public health practice, however, has complicated public health practitioners' ability to respond to these global environmental threats and issues.

Since the early 1980s, an increasing number of environmental health units and programs have been placed in organizations outside of traditional public health departments. In Wyoming, for example, food safety and water recreation programs are located in the State Department of Agriculture. Water quality and food safety programs in Alaska are located in the State Department of Environmental Conservation. In Washington State, solid waste activities performed by local health jurisdictions are administered by the State Department of Ecology.

This separation of public health and environmental health is exacerbated as environmental health activities become increasingly supported by fees, which typically limit responses to permits and licenses or to legal obligations.

As a result of this separation, too, tasks such as tracking and linking environmental data to improve community health status, as well as developing competent personnel, are affected by the relationships and missions of the many different agencies that assess and assure environmental health protection.

The need for essential services training

In 1994, local, state, and national public health leaders developed a consensus list of 10 essential services (*see box below*) needed to carry out the core functions. Despite concerted efforts to communicate the essential services to all public health workers, environmental health units have lagged behind their public health counterparts in integrating the essential services into their daily practice. Reasons for this include budget challenges, lack of appropriate training opportunities, the placement of environmental health activities outside of public health, and the lack of understanding about the value and importance of the essential services to environmental health practice.

The confusion about how environmental health and public health connect is compounded by the problems many environmental health organizations, including those located in traditional local and state public health agencies, face in attracting or employing workers who have the requisite knowledge, skills, and abilities to perform their jobs. This problem is especially prominent in rural or remote areas where attracting well-trained environmental health practitioners is often difficult. On-the-job training or external course offerings remain the usual methods to improve the professional competencies of newly hired or existing employees. However, these trainings are aimed primarily at technical concepts and procedures and are typically focused on specific programs. Less common are course offerings and instructional tools aimed at the nontechnical concepts of environmental health, such as effective communication, community collaboration, policy making, and data collection and analysis.

The University of Washington School of Public Health and Community Medicine (SPHCM) has often collaborated with the public health practice community to conduct research and training around emerging environmental health issues and practices such as ecogenetics, asthma, risk communication, community assessments, geographic information systems, and bioterrorism. Yet, despite these and other private and public training efforts, the environmental

Ten Essential Public Health Services

1. Monitor health status to identify community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure a competent public health and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems

health workforce is still limited in its capacity and knowledge to respond effectively to current and future environmental health threats.

New essential services training project

In October 2001, in response to the need to improve the practice of environmental health, the SPHCM's Northwest Center for Public Health Practice (NWC PHP) launched a training project to incorporate the 10 essential services of public health into environmental health practice regardless of where the function is located. This pilot project is funded for three years by the Association of Schools of Public Health through a cooperative agreement with the National Center for Environmental Health at CDC. A 10-member advisory committee representing local, state, and federal agencies, and academia in the six Northwest states (Alaska, Idaho, Montana, Oregon, Washington, and Wyoming) provides guidance for the project. Its activities are being coordinated with a regional public health workforce development network that includes the same six states.

During the project's first year, NWC PHP developed a questionnaire to identify environmental health workers' knowledge and practice of the essential services. Survey responses will help define training needs associated with the essential services. The questionnaires were distributed to about 250 environmental health workers from the six states, and 179 were completed and returned (*see page 5 for selected survey responses*).

Fewer than 50 percent of the environmental health workforce understood or practiced the essential services. Further, frontline workers demonstrated less knowledge about the essential services than supervisors or directors. On the other hand, frontline workers indicated that they *practiced* the essential services more frequently than did supervisors, and supervisors practiced them more than did directors. It appears that one of the primary reasons for this outcome was that frontline workers often identify with a program or unit (e.g., food safety, liquid waste management, or district), but supervisors and directors tend to have a broader organizational perspective. Part of the challenge for this project will be to illustrate the value and benefits of this training to frontline workers.

The training module includes a brief description of the history and linkage of the essential services to environmental health, followed by instructions on how to develop performance indicators. The full training takes three to four hours, with follow-up technical assistance as needed. (The module can also serve as a guide for departments to conduct their own training.)

Four pilot sites are participating in the second year of the project:

- Office of Environmental Health and Safety, Boise State University, Boise, ID (3 EH staff)
- Benton County Health Department, Corvallis, OR (7 EH staff)
- Gallatin City-County Health Department, Bozeman, MT (11 EH staff)
- Thurston County Health Department, Olympia, WA (45 EH staff)

Staff at each site will receive training and will develop performance indicators for each essential service (*see box for an example*). The degree to which trainees have incorporated each essential service into practice, as measured by the performance indicator, will be surveyed after six to nine months.

The project aims to address the disparities between individual and organizational training needs by using case studies to illustrate the added value to all job classes. Information from these surveys will be the basis for the development of case studies depicting the successes, barriers, and challenges environmental health workers experience in integrating the essential services into practice.

In the final year of the project NWC PHP will focus on marketing and distributing the training module nationally. It will also continue to offer regional and national presentations on the project.

This project will assist agencies in improving their practice of environmental health. The benefits of doing so include a more competent workforce to perform the essential services, increased preparedness of the environmental health workforce to respond to current and emerging threats, the demonstration of leadership by those agencies that have incorporated the essential services, and the development of new approaches to deliver environmental health services. 🐾

Resources

Institute of Medicine. *The Future of Public Health*. Washington DC: National Academy Press. 1988; 12.

National Center for Environmental Health, CDC. *Enhancing Environmental Health Practice in the 21st Century*. A Public Health Training Network Satellite Broadcast, May 9, 2002.

Author

Carl S. Osaki, *RS, MSPH*, is a member of the Washington State Board of Health, a clinical associate professor in the UW SPHCM Department of Environmental Health, and former chief of environmental health at Public Health-Seattle & King County.

A Performance Indicator from Gallatin City-County Health Department

Create an interactive Web site to inform and educate people about environmental health by May 15, 2003.

This locally identified indicator is for the essential service of "informing, educating, and empowering people about environmental health problems."