Using 10–Essential–Services Training to Revive, Refocus, and Strengthen Your Environmental Health Programs

Carl S. Osaki, R.S., M.S.P.H.
Deborah Hinchey, M.P.H.
Joy Harris, M.P.H.

Abstract

The 10 essential services of environmental health, which are based on the 10 essential public health services, can guide environmental health practitioners in systematically organizing and managing environmental public health programs and activities. The National Center for Environmental Health of the Centers for Disease Control and Prevention has used the 10 essential services of environmental health as a basis for its six goals for the revitalization of environmental health in the 21st century. Nevertheless, studies indicate that very few environmental health practitioners are aware of the 10 essential services. This article discusses how essential-services training has increased the awareness and knowledge of environmental health practitioners about the development, value, and use of the essential services. Examples of training outcomes are offered to illustrate how the use of the essential-services framework has improved environmental health performance and practice.

Introduction

Public health issues such as environmental justice, land use, emergency preparedness and response, food safety, and zoonotic diseases continue to emerge and receive national attention, yet the environmental health workforce faces significant challenges in addressing them. Factors include lack trained personnel, insufficient political support, and placement of environmental health services in numerous agencies outside of traditional local, state, or regional public health jurisdictions. Developing an ability to incorporate the 10 essential public health services into environmental health practice is integral to addressing these challenges.

The 10 Essential Public Health Services

By the early 1990s, many organizations had attempted to incorporate the core functions of public health—assessment, policy development, and assurance of access—into their environmental health operations. Although these functions made sense to most public health leaders, they were not well understood by elected officials responsible for funding public health efforts or by public health workers responsible for carrying them out. Therefore, in 1994, local, state, and national public health leaders developed a consensus list of services—the 10 essential public health services—needed to carry out these core functions of public health (Public Health Functions Steering Committee, 1999) (see sidebar on page 13).

The Need for Essential–Services Training

The 1988 Institute of Medicine report, *The Future of Public Health*, described some significant findings about the practice of environmental health that are still relevant today. The report found that since many environmental health activities took place outside of traditional local or state public health agencies, there was "disjointed policy-making, fragmented service delivery, and the lack of accountability." It further suggested that "state and local health agencies strengthen their capacities for identification, understanding, and control of environmental problems as health hazards" (Institute of Medicine, 1988, page 12).

In 2000, to address the Institute of Medicine's recommendations, the National Center for Environmental Health (NCEH) of the Centers for Disease Control and Prevention (CDC) developed a national strategy to revitalize the practice of environmental health in the 21st century (CDC, 2003). The strategy aimed to

- promote environmental health research;
- develop effective environmental health leadership;
- communicate and market environmental health services;
- enhance environmental health capacity to achieve the essential services;

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- develop a competent environmental health workforce; and
- develop strategic partnerships between public, private, and community organizations and academia.

The strategy clearly depends on the ability of environmental health units to practice the 10 essential public health services within their organizations. In addition, the most recent Institute of Medicine report, *The Future of the Public's Health in the 21st Century*, reaffirmed the need for state and local health agencies to strengthen their capacity to successfully identify and manage environmental problems through the use of the 10 essential public health services (Institute of Medicine, 2002). Yet, to date, very few environmental health units have adequately trained or prepared their environmental health staff to fully integrate the 10 essential public health services into their operations. For example, in a study conducted by the University of Washington in 2002 about the knowledge and practice of the essential services in environmental health in six Northwestern states, it was found that less than 20 percent of the environmental health workers knew about the essential services and fewer than 50 percent practiced the essential services of monitoring, developing community partnerships, evaluating activities, and researching for innovative solutions to problems.

Workforce Development Challenges

There are a number of reasons that the 10 essential public health services have not been integrated into environmental health practice. Many environmental health organizations, including those located in traditional local and state public health agencies, face problems in attracting or employing workers who have the requisite knowledge, skills, and abilities to perform their jobs. This challenge is especially prominent in rural or remote areas where recruiting well-trained environmental health practitioners is often difficult. For example, a 2001 survey conducted in the state of Iowa found that 34 percent of Iowa's environmental health workforce has only a high school education (Comito, 2001).

Access to training is also an issue. Many departments find it difficult to send their staff to trainings at university or urban settings or even to local professional association meetings because of restrictions on budget, travel, or temporary staff replacements. There is also a paucity of established programs in some areas; for instance, in the Northwest, only two accredited academic undergraduate environmental health programs (Boise State University and the University of Washington) and one school of public health (University of Washington) serve a six-state area.

A further workforce challenge is that about 25 percent to 30 percent of the current environmental health leadership in the Northwest region will be retiring in the next three to five years. Although this situation follows national trends, low salaries and lack of political or community support for environmental health programs and services make recruiting well-trained leaders particularly challenging for remote or rural sites (Association of State and Territorial Health Officials, 2004).

When employees do have access to trainings, it is generally through on-the-job or external course offerings aimed at traditional and technical concepts and procedures. Course offerings and instructional tools aimed at the nontechnical competencies of environmental health, such as effective communication, community collaboration, policy making, and data collection and analysis, are less common. Regardless of content, many of the traditional training methods are unable to provide lasting value or incentives to incorporate learning into practice, thereby reducing their practical application to an environmental health practitioner's daily work. Furthermore, many employees attend trainings simply to fulfill continuing-education requirements, not necessarily to enhance needed professional competencies. Without value and incentive, it is easy for concepts to be dismissed as unimportant or as passing fads that will soon be replaced.

Addressing the Challenge

In October 2001, in response to the need to improve the practice of environmental health, the Northwest Center for Public Health Practice (NWCPHP) of the University of Washington's School of Public Health & Community Medicine launched a training project to help local, state, federal, and tribal agencies incorporate the 10 essential public health services into environmental health practice. This effort included development of a training CD identifying the 10 essential services of environmental health. The Iowa Department of Health developed a similar essential-services training effort during this time. Funding for both projects was provided by CDC's NCEH.

The 10 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.

The University of Washington and state of Iowa efforts address the workforce development challenges discussed above. They provide an opportunity for individuals and organizations to learn about the philosophy of the essential services and offer strategies to integrate this philosophy into daily practice through convenient and practical tools. The trainings are also linked with the NCEH strategy for revitalizing environmental public health service nationwide.

Organizations can use the University of Washington training module (Osaki, n.d.) in a variety of ways. In particular, the module allows, and even encourages, emerging leaders to conduct the training for their coworkers. The training can be offered during routine staff meetings or through formal in-house training opportunities at a pace that is comfortable and convenient to all users.

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. Experiences and lessons learned from four pilot sites are provided as case studies that agencies can use and discuss as a part of their own training. For example, one case looks at the application of the essential services to a food program and an-

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other at the gaps in the development of a West Nile virus program. A third case illustrates the use of the essential services for strategic-plan development. Examples of performance indicators derived from the training sites are found in the training module.

The full training can be accomplished in six to 11 hours, and NEHA has authorized up to 16 continuing-education credits for its completion. In short, the module is a resource that agencies can use to fulfill NCEH's strategy for enhancing the practice of environmental health in the 21st century.

In contrast, the Iowa Department of Pubic Health provided trainings directly to environmental health practitioners and local policy makers in Iowa. As a part of the trainings, the department awarded 27 mini-grants to local health departments ranging from $5,963 to $20,000 to address a weakness in the delivery of at least one essential service. Clay County was the lead county for a mini-grant awarded to nine northwest Iowa counties to conduct training for local boards of health and local boards of supervisors on the essential services within a 17 county region. Awardees additionally provided training in the areas of soils, onsite wastewater treatment, nuisance, wells, and food safety to local contractors and operators. Awardees identified that they had positively affected at least three of the essential services by conducting the trainings.

Training Successes

Agencies that have gone through the training have found different reasons for using the essential services to assess, evaluate, and communicate their activities.

Some agencies have used the essential services to develop program plans for emerging issues. The Washington State Department of Health and the U.S. Department of Health and Human Services Indian Health Service developed their West Nile virus plans by using the essential services. Both agencies developed their plans after receiving the essential-services training.

Other agencies used the essential-services framework to communicate their programs to policy makers. In 2003, environmental health leaders in Oregon used the essentials services along with the FDA food standards to communicate the role of public health in food safety to state legislators. As a result of this input, the Oregon legislature adopted State House Bill 3156, which clarified the state's food safety program responsibilities in statute.

The essential services have also been seen as an effective tool for developing strategic plans. The Thurston County Health Department in Olympia, Washington, and the Benton County Health Department in Corvallis, Oregon, both used the essential services in developing strategic work plans for future environmental health activities in their counties.

The Environmental Health and Safety Program at Boise State University in Boise, Idaho, saw an opportunity to apply the essential services as a means of evaluating existing programs, including identifying program gaps. It opted to use the essential-services framework to conduct an evaluation and subsequently used the data for budget justifications and requests.

In the state of Iowa, Warren County and other counties began to structure their board-of-health agenda on the three core functions of public health (assessment, policy development, and assurance of access) ensuring that they were constantly striving to improve with respect to all of the essential services. This decision was viewed as particularly important since the Iowa administrative code defines the roles and responsibilities of local boards of health as carrying out the core functions and the essential services.

Over 100 U.S. Indian Health Services personnel and representatives from tribal jurisdictions have been trained in the history and use of the essential services at six locations across the nation. The essential services have been used by the U.S. Indian Health Service as a standard for its program reviews and consultations.

An unintended consequence of these trainings has been interest in them by public health practitioners outside the field of environmental health (e.g., community health nurses, epidemiologists, and health educators). Possible work along the lines of the essential services of environmental health may provide opportunities for collaborations or partnerships in the development of integrated public health programs or standards. For example, combined environmental health and public health nursing courses have been taught in Montana and Washington State with the essential services as the focus for course development and presentation. The essential services have also been used to leverage strategic partnerships. For example, the Food and Drug Administration (FDA) has taken an interest in the relationship of the essential services to the FDA Food Standards. Discussions have been held among CDC, the University of Washington, and FDA about potential opportunities for combined training and assistance to local and state health departments for the essential services and the FDA Food Standards.

Marketing and Distribution

It is estimated, on the basis of personal communications and information requests to NWCPHP, that more than 1,000 public health workers had heard about the University of Washington project by the end of September 2004. From October to December 2004, more than 200 copies of the training module were distributed by NWCPH to individuals or organizations from 33 states. In early 2005, the Environmental Health Services Branch of CDC's NCEH distributed 3,800 copies of the training module to local, state, and tribal organizations nationwide. (Visit www.cdc.gov/nceh/ehs for more information about the training module and NEHA continuing-education credit.)

Fellows participating in the two National Environmental Public Health Leadership Institute (EPHLI) trainings have received copies of the training module and have learned about the essential services as a part of their leadership training. Many of the fellows have used the essential services to guide their individual leadership projects.

To date, more than 4,000 copies of the module have been distributed nationwide. Many states require a minimum number of continuing-education units (CEUs) for professional licensure, and the training module provides a convenient and inexpensive way to meet this requirement. The training module, in CD-ROM format, can be ordered from the Northwest Center for Public Health Practice Web site at www.nwcphp.org. The module was featured in the newsletter of the Association of Schools of Public Health, *The Friday Letter* ("The Essential Services of Environmental Health Training Module," 2005). As a result, copies of the training module have been requested by many national environmental health educators in universities and colleges.

Conclusion

To date, data on knowledge about and application of the essential services in environmental health units nationwide are limited. Training professionals in the value, the benefits, and the use of the essential services is

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an important first step before evidence from experience and examples can be gathered. By correlating environmental health activities with the essential services, people both outside and inside the profession can clearly ascertain not only strengths and weaknesses, but also areas of collaboration with other professions in public health. The essential-services framework is meant to assist environmental health agencies in addressing capacity issues such as inadequate resources and equipment, lack of political support for environmental health activities, ill-defined organizational infrastructures for environmental health programs, and a growing loss of leadership.

Corresponding Author: Carl S. Osaki, Clinical Associate Professor, University of Washington, School of Public Health & Community Medicine, Department of Environmental and Occupational Health Sciences, 3520 NE 189th Place, Seattle, WA 98155. E-mail: CSOsaki@aol.com.

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