



Improving Environmental Public Health Services Performance to Meet Community Needs

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National Center for Environmental Health
 Division of Emergency and Environmental Health Services



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Environmental public health (EPH) programs can substantially enhance public health department goals to improve performance and quality of services. They also can contribute to and benefit from collaborations to improve public health efforts throughout the department. This document

- describes public health and EPH performance improvement initiatives and resources,
- explains how EPH performance improvement activities can be incorporated into public health department efforts, and
- shows how performance improvement resources can be used to support a strong role for EPH in improving community health.

Activities to improve public health performance have been elevated to new levels in recent years. Surveys conducted by the Association of State and Territorial Health Officials (ASTHO) and National Association of County and City Health Officials (NACCHO) indicate performance improvement is a priority for many state and local health agencies. Improving the effectiveness and efficiency of public health services is at the root of this activity. Public health departments are encouraged to identify gaps in providing essential services and incorporating community needs to better inform priorities and make decisions. Public health performance has been improved and supported by developing guidance and resources and has been encouraged through initiatives and funding opportunities. National initiatives supporting and encouraging this wave of improvement include the following:

- **Voluntary Accreditation for Public Health Departments** – The Public Health Accreditation Board (PHAB) is a nonprofit organization founded in 2007. PHAB’s goal is to advance public health performance by providing a national framework of standards for tribal, state, local, and territorial health departments. PHAB is the national organization charged with administering the public health accreditation program. Prerequisites of accreditation include a community health assessment, community health improvement plan, and health department strategic plan.
- **National Public Health Improvement Initiative** – This CDC initiative provides support to health departments for accelerating public health accreditation readiness activities, implementing performance and improvement management practices and systems, and implementing and sharing practice-based evidence.
- **Patient Protection and Affordable Care Act** – This law requires nonprofit hospitals to conduct a community health needs assessment every 3 years to maintain their nonprofit status. They also must involve at least one representative with public health expertise and develop an implementation plan to meet identified needs.



Figure 1. Public Health Core Functions and Essential Services. Source: Public Health in America

Improving Public Health Performance

Improving public health performance has been an evolving process, fueled by the 1988 release of the Institute of Medicine’s report *The Future of Public Health*. The report identified three core functions: assessment, policy development, and assurance (Figure 1).

In 1994, the U.S. Department of Health and Human Services coordinated the Public Health Functions Project, with national representation, to describe public health services. This collaborative project produced a statement called “Public Health in America” that identified 10 Essential Public Health Services.

In 2002, the Centers for Diseases Control and Prevention (CDC) released the National Public Health Performance

Standards Program (NPHPSP), a public health system assessment framework based on the essential services. To complement assessment of public health system services, community health assessment and strategic planning emerged as key mechanisms for describing and meeting population health needs. In response, CDC and NACCHO released *Mobilizing for Action through Planning and Partnerships* to promote a community-driven, strategic-planning process for improving community health.

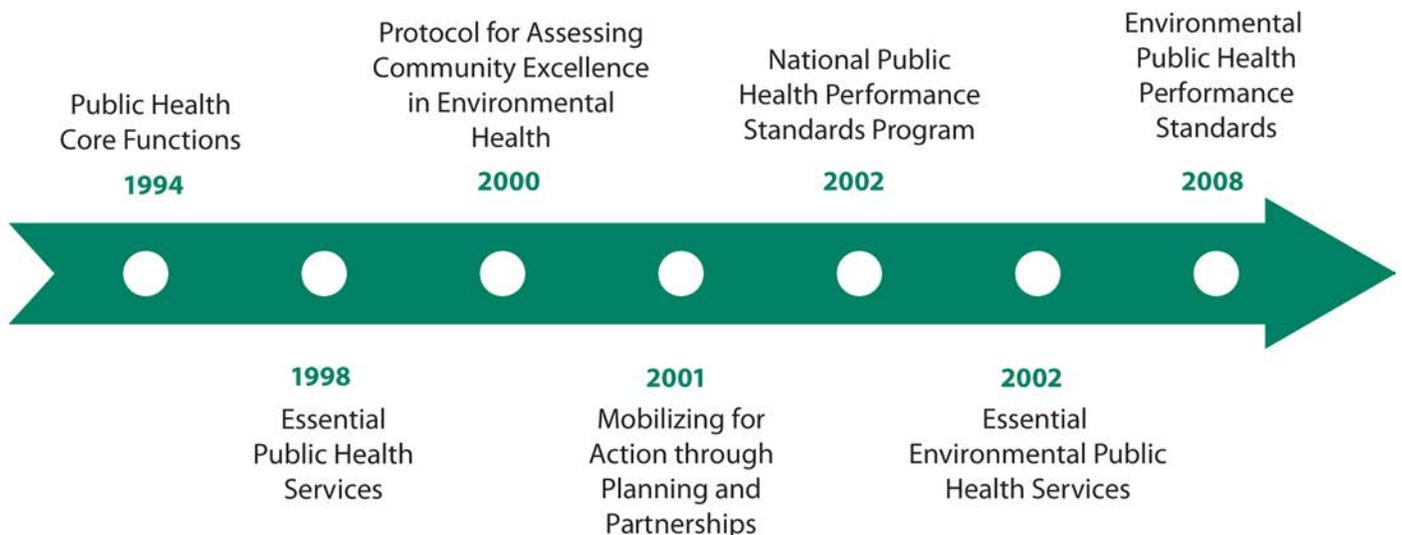
While resources to improve public health performance were developed and released, work was under way to develop guidance and tools specific to EPH (Figure 2). By 2002, the 10 Essential Public Health Services were

Improving Public Health Performance (continued)

adapted to fit EPH by creating the 10 Essential EPH Services (text box). Subsequently, CDC released the Environmental Public Health Performance Standards (EnvPHPS) in 2008 to improve the EPH service delivery system. These standards complement NPHPSP while specifically representing EPH.

EnvPHPS describes the optimal performance and capacity for EPH systems and programs and provides program-assessment tools. The purpose of these standards is to help make EPH programs and systems more effective. The standards are used to assess and improve how programs and systems provide communities with the 10 Essential EPH Services. These 10 services identify the actions necessary to protect and improve EPH.

Figure 2. Timeline of Performance Improvement Resources



In 2000, NACCHO and CDC released the Protocol for Assessing Community Excellence in Environmental Health (PACE EH) to address community environmental health needs. PACE EH guides communities and local health officials in assessing community-based environmental health. It uses community collaboration and environmental justice principles to help the public and other stakeholders identify local environmental health issues, set priorities for action, target populations most at risk, and address identified issues. PACE EH helps implement the 10 Essential EPH Services.

10 Essential Environmental Public Health Services

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

Performance Improvement: Using Assessment Results

Each assessment process produces individual results. Assessment results can complement each other and combining them in an action plan helps to reflect department and community needs. Developing and implementing action plans to address identified gaps and needs ensures findings result in meaningful change. Because prioritizing actions is necessary, the PACE EH process has a built-in prioritization tool. The tool can be modified for other assessment processes. Conducting assessments will enable programs to identify

- concerns or service gaps that can be further prioritized if desired,
- possible solutions to the priority problems based on discussions during the assessment, and
- a stakeholder group (whether department or community-based) that can help implement solutions.

Return on Investment

Gathering data and obtaining assessment results does not guarantee impact. Rather, the process and outcome must yield a return on investment (illustrate how the data and results can produce benefits). Acquiring meaningful results, using those results, and, most importantly, leveraging resources can ensure successful implementation of action plans and produce tangible results.

Partnerships formed during the data gathering and assessment processes often leave community partners with a newfound sense of empowerment. This added benefit stems from their active involvement and direct engagement with improving health status within their community.



Read about how West Wabasso, Florida, contributed to broader public health goals and processes.



Return on Investment: Florida Department of Health in Indian River

The small community of West Wabasso implemented PACE EH. With a median household income of \$6,250 (2000 Census), West Wabasso has a demographic and socioeconomic makeup that is drastically different from the surrounding Indian River county, one of the wealthiest counties in Florida.

The PACE EH steering committee garnered media attention and gained support from county decision makers for project activities that responded to the community's concerns. In addition, the health department staff successfully transitioned project coordination to the community. A community group that grew out of the process conducted a visioning process to make long-term plans. Because of the survey and strong partnerships inspired by PACE EH, several community-identified improvements were realized in West Wabasso. Those improvements include

- installation of 44 streetlights throughout the community,
- replacement of 10 septic systems most in need of repair,
- assistance from a youth ministry program that brings youth volunteers to build or repair houses in the community,
- connection of homes in West Wabasso to county water (\$850,000 Community Development Block Grant), and
- improvements to local parks.

To date, an initial investment of \$30,000 by the Florida Department of Health for the PACE EH Coordinator's salary has yielded more than \$1.3 million in community improvements. The value of a community empowered to improve its health and quality of life is immeasurable, and this qualitative measure is of value when computing return on investment.

Performance Improvement: Using Assessment Results

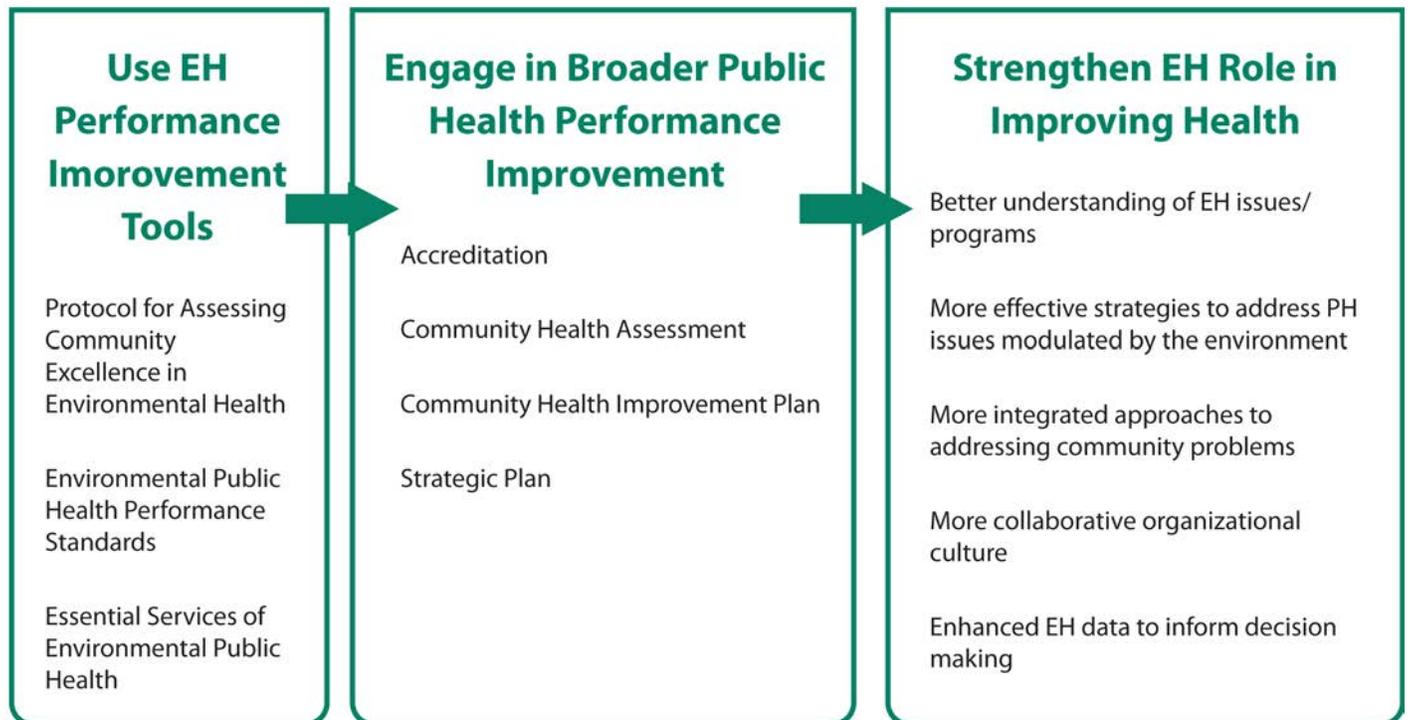
Contributing to Broader Public Health Goals and Processes

EPH assessment results can be integrated with broader public health department improvement efforts. Getting involved in those broader assessment and action-planning activities can help build and nurture partnerships (Figure 3). Relationships can lead to greater understanding of how EPH is helping achieve broader public health goals and can prove the importance of EPH approaches to other public health department programs. In turn, this may lead to other opportunities such as enhanced support for EPH programs.

PHAB's voluntary accreditation process presents a significant performance improvement opportunity to integrate EPH assessment results. Health departments seeking accreditation must submit a community health assessment, community health improvement plan, and strategic plan. These documents drive voluntary accreditation; they also ensure that EPH concerns are included and that environmental health approaches to addressing broader problems are recognized and supported.

There are areas of alignment among EnvPHPS, PACE EH, and PHAB standards. Information from PACE EH or EnvPHPS assessment processes can support health

Figure 3. Integrating Environmental Public Health Assessments



Performance Improvement: Using Assessment Results

Contributing to Broader Public Health Goals and Processes (continued)

department fulfillment of certain PHAB standards. Table 1 highlights the alignment among PHAB domains, EnvPHPS standards, and PACE EH activities.

Environmental factors can influence broader public health goals such as reducing obesity. For example, sidewalks and safe, accessible parks are enhancements built into the environment to encourage physical activity. Identifying areas of alignment between community environmental health concerns and broader public health goals can reveal approaches that address both. Activities to improve performance help identify community environmental concerns and potential beneficial strategies. These activities also help communities align with broader efforts to improve public health goals and strengthen environmental health's role in improving the public's health.



Contributing to Broader Public Health Goals and Processes: Walton County, Florida

The Walton County Health Department's Division of EH (environmental health) and a stakeholder group (the EH Council) worked with police departments, schools, community organizations, and local government using the EnvPHPS to assess environmental health capacity and needs. Meanwhile, the health department developed the County Health Improvement Plan (CHIP), a prerequisite for accreditation. The CHIP cohort used Mobilizing for Action through Planning and Partnerships, while the council members used PACE EH to assess and develop action plans.

Early in the CHIP process, the Division of EH realized they should be active in the county's health improvement planning initiatives. CHIP stakeholders learned that many root causes for chronic diseases link directly to environmental factors. They composed specific strategies to address both the community's EH concerns and the environmental causes of chronic disease. For example, CHIP stakeholders created a "garden in a bucket" initiative to encourage families to plant small container vegetable gardens and prepare and enjoy nutritious meals together. The National Association of County and City Health Officials recently designated this program, now implemented in all of Walton County's schools, as a promising practice.

Get Involved!

Environmental public health approaches can improve the odds of achieving public health goals. Using specific EPH tools promotes involvement and provides helpful information to align with broader public health performance initiatives such as strategic planning. Ensuring a role for EPH in broader public health performance initiatives has several primary benefits, including helping

- Highlight environmental components of chronic and infectious disease—addressing environmental causes of larger public health goals is often critical to achieving them.
- Address environmental concerns of community members and other stakeholders—integrating community priorities into broader planning efforts can generate additional partners and resources.

- Improve performance management leadership among environmental health professionals— involvement in performance management is an essential workforce development opportunity and can heighten understanding of the importance of environmental health.

Involvement in broader public health performance improvement efforts can help EPH programs realize these benefits.

Explore the **“Resources and Information to Improve Environmental Public Health Performance”** and **“Examples of Funding Sources to Support Assessment and Implementation”** on the next page.



Resources and Information to Improve Environmental Public Health Performance

- Environmental Public Health Performance Standards (EnvPHPS): <http://www.cdc.gov/nceh/ehs/envphps/> Protocol for Assessing Community Excellence in Environmental Health (PACE EH): <http://www.naccho.org/topics/environmental/PACE-EH/>
- Essential Environmental Public Health Services Evaluation Framework: <http://www.wvdhhr.org/envhealth/index.htm>
- National Public Health Performance Standards Program (NPHPSP): <http://www.cdc.gov/nphpsp/>
- Public Health Accreditation Board (PHAB): <http://www.phaboard.org/>
- National Public Health Improvement Initiative: <http://www.cdc.gov/stltpublichealth/nphii/>
- Mobilizing for Action through Planning and Partnerships: <http://www.naccho.org/topics/infrastructure/Mapp/index.cfm>
- National Association of County and City Health Officials (NACCHO) Accreditation Preparation and Quality Improvement: <http://www.naccho.org/topics/infrastructure/accreditation/>
- Association of State and Territorial Health Officials Accreditation (ASTHO) and Performance: <http://www.astho.org/programs/accreditation-and-performance/>

Examples of Funding Sources to Support Assessment and Implementation

- Community Transformation Grants: <http://www.cdc.gov/communitytransformation/>
- Small Communities: <http://www.cdc.gov/communitytransformation/small-communities/index.htm>
- Kresge Foundation (nonprofits only): <http://kresge.org/programs/health>
- HHS Prevention Fund: <http://www.hhs.gov/open/recordsandreports/prevention/index.html>
- Robert Wood Johnson Foundation: <http://www.rwjf.org/en/grants/calls-for-proposals.html>

Table 1. Connections between PHAB Domains Version 1.0, EnvPHPS Standards, and PACE EH

| Public Health Accreditation Board (PHAB) Domains | Environmental Public Health Performance Standards (EnvPHPS) | Protocol for Assessing Community Excellence in Environmental Health (PACE EH) |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Domain 1: Conduct and disseminate assessments focused on population health status and public health issues facing the community</p> | <p>Essential Service 1: Monitor environmental and health status to identify and solve community environmental public health problems</p> | <p>PHAB cites PACE EH as an example tool for standard 1.1 (Participate in or conduct a collaborative process resulting in a comprehensive community health assessment).</p> <p>Additional PACE EH activities may contribute to PHAB standards:</p> <ul style="list-style-type: none"> • 1.2.3 A (Collect additional primary and secondary data on population health status). • 1.3.1 A (Analyze and draw conclusions from public health data). • 1.3.2 L (Provide public health data to the community...). • 1.4.1 A (Use data to recommend and inform public health policy, processes, programs, and/or interventions). • 1.5 (Provide public health data to the community in the form of reports on a variety of public health issues, at least annually) |
| <p>Domain 2: Investigate health problems and environmental public health hazards to protect the community</p> | <p>Essential Service 2: Diagnose and investigate environmental public health problems and health hazards in the community</p> | <p>None noted.</p> |

Table Continued 

Table 1. Connections between PHAB Domains Version 1.0, EnvPHPS Standards, and PACE EH

| Public Health Accreditation Board (PHAB) Domains | Environmental Public Health Performance Standards (EnvPHPS) | Protocol for Assessing Community Excellence in Environmental Health (PACE EH) |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Domain 3: Inform and educate about public health issues and functions</p> | <p>Essential Service 3: Inform, educate, and empower people about environmental public health</p> | <p>PACE EH activities may contribute to PHAB standards:</p> <ul style="list-style-type: none"> • 3.1.1 A (Provide information to public on protecting their health). • 3.1.2 A (Implement health promotion strategies to protect the population from preventable health conditions). |
| <p>Domain 4: Engage with the community to identify and address health problems</p> | <p>Essential Service 4: Mobilize community partnerships and actions to identify and solve environmental public health problems</p> | <p>The community-focused assessment component of PACE EH may be supportive of this domain.</p> |
| <p>Domain 5: Develop public health policies and plans</p> | <p>Essential Service 5: Develop policies and plans that support individual and community environmental public health efforts</p> | <p>PHAB cites PACE EH as an example tool for measure 5.2 (Conduct a comprehensive planning process resulting in a Tribal/state/community health improvement plan).</p> <p>Additional PACE EH activities may contribute to PHAB standards:</p> <ul style="list-style-type: none"> • 5.1.2 A (Engage in activities that contribute to the development and/or modification of public health policy). • 5.2.3 A (Implement elements and strategies of the health improvement plan, in partnership with others). |
| <p>Domain 6: Enforce public health laws</p> | <p>Essential Service 6: Enforce laws and regulations that protect environmental public health and ensure safety</p> | <p>PACE EH activities may contribute to PHAB standard 6.2 (Educate individuals and organizations on the meaning, purpose, and benefit of public health laws and how to comply).</p> |

Table Continued 

Table 1. Connections between PHAB Domains Version 1.0, EnvPHPS Standards, and PACE EH

| Public Health Accreditation Board (PHAB) Domains | Environmental Public Health Performance Standards (EnvPHPS) | Protocol for Assessing Community Excellence in Environmental Health (PACE EH) |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Domain 7: Promote strategies to improve access to health care services</p> | <p>Essential Service 7: Link people to needed environmental public health services and assure the provision of environmental public health services when otherwise unavailable</p> | <p>PACE EH activities may contribute to PHAB standards:</p> <ul style="list-style-type: none"> • 7.1.1 A (Convene and/or participate in a collaborative process to assess the availability of health care services). • 7.1.2 A (Identify populations who experience barriers to health care services). |
| <p>Domain 8: Maintain a competent public health workforce</p> | <p>Essential Service 8: Assure a competent environmental public health workforce</p> | <p>None noted.</p> |
| <p>Domain 9: Evaluate and continuously improve health department processes, programs, and interventions</p> | <p>Essential Service 9: Evaluate effectiveness, accessibility, and quality of personal and population-based environmental public health services</p> | <p>None noted.</p> |
| <p>Domain 11: Maintain administrative and management capacity</p> | | <p>None noted.</p> |
| <p>Domain 12: Maintain capacity to engage the public health governing entity</p> | | <p>None noted.</p> |