Ten Essential Services of Environmental Health: Examples and Resources

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A. About the Ten Essential Services of Environmental Health

1. Monitor environmental and health status to identify and solve community environmental health problems

    a. General Examples:

- A system to assess environmental health threats
- A system to track specific environmental health indicators
- A system to acquire community input
- Conducting community environmental health needs assessments
- A system to identify vulnerable populations
- A system to track trends in disease indicators

    b. Specific examples:

An environmental health monitoring project in an Oregon county that has two components: developing an asthma tracking system and developing a tracking system to monitor, through GIS, burn permits and area of effect for burns.
http://www.oregon.gov/DHS/ph/epht/minigrant_summary.shtml#Coos_County_Public_Health

Environmental Health Report Card for the City of Albuquerque and Bernalillo County
http://www.bernco.gov/upload/images/environmental_health/reportcard.pdf

    c. Resources:

On-line Primer for Indicator Development
http://www.achd.net/biostats/pubs/pdf/Conference07.pdf

Environmental Public Health Indicators Project
http://www.cdc.gov/nceh/indicators/

CDC's National Environmental Health Tracking Program
http://www.cdc.gov/nceh/tracking/

Working group on using EH Indicators
http://www.cste.org/OH/SEHIC.asp
http://www.cste.org/publications.asp

Community Environmental Information
http://www.epa.gov/epahome/whereyoulive.htm

Envirofacts Data Warehouse
http://www.epa.gov/enviro/

National Center for Health Statistics
http://www.cdc.gov/nchs/

Creating a Community Environmental Health Assessment (CEHA) or Profile (CEHP)
http://www.naccho.org/topics/environmental/CEHAResourceLibrary.cfm

2. Diagnose and investigate environmental health problems and health hazards in the community

a. General Examples:

- A protocol to collect, investigate and act upon complaints.
- A protocol to set in motion immediate action to abate imminent Public Health Hazards.
- Initiate action to correct Public Health Hazards.

b. Specific examples:

North Carolina's food-borne illness investigation guidance and tools
http://www.deh.enr.state.nc.us/ehs/food/Foodborne_Outbreak_Investigation_Guidance.pdf

A New York county investigates rabies exposures and provides vaccinations for dogs and cats to prevent human rabies.
http://www.co.tompkins.ny.us/health/eh/index.htm

Shoemaker P.A., Skogstrom T., Shea J., Bethune L., The Boaton Safe Shops Project – Preliminary Findings of a Case Study in Applying the 10 Essential Services of Public Health to Building Environmental Health Capacity. Journal of Environmental Health, July/Aug 2007.

c. Resources:

 ATSDR, Public Health Assessments & Consultations

http://www.atsdr.cdc.gov/hac/PHA/index.asp

EPA's National Center for Environmental Assessment
http://cfpub1.epa.gov/ncea/

Home*A*Syst is a program helps people identify house-related risks to a family's health and the environment. The program begins with checklist questions to identify problem areas.
http://www.uwex.edu/homeasyst/

A Guide to Health Risk Assessment, California Environmental Protection Agency
http://www.oehha.ca.gov/pdf/HRSguide2001.pdf

EPA, Office of Solid Waste and Emergency Response (OSWER)
http://www.epa.gov/swerrims/

3. **Inform, educate and empower people about environmental health issues**

   a. General Examples:

      – Websites with educational information, advisories, and data
      – Fact sheets
      – Community meetings and presentations
      – Newspaper articles

   b. Specific examples:

      Recreational Water Quality Program that has a public website to advertise swimming advisories.
      http://www.deh.enr.state.nc.us/pubinfo/swimadv_view_list.asp

      A fact sheet of fish consumption guidelines for the public
      http://www.idph.state.ia.us/eh/common/pdf/env/fish_health_issues.pdf

      A televised public health report
      http://www.sboh.wa.gov/Meetings/2002/09_11/documents/Tab11_PorsoPresentation.pdf

   c. Resources

A Media/Materials Clearinghouse. The Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs.
http://www.m-mc.org/

Healthy People 2010, Chapter 11, Communication
This chapter gives resources and describes the importance of communication in public health.
http://www.healthypeople.gov/document/HTML/Volume1/11HealthCom.htm

NACCHO Public Health Communications Toolkit. National Association of County and City Health Officials. Created to help local health departments communicate effectively about local public health.
http://www.naccho.org/advocacy/MarketingPublicHealth_toolkit_overview.cfm
http://archive.naccho.org/documents/Communication-toolkit.pdf

National Center for Environmental Health (NCEH), CDC. A searchable index of NCEH health topics with access to fact sheets, brochures, and other publications.
http://www.cdc.gov/nceh/topics.htm

Guide to Federal Environmental Information and Statistics, EPA
http://yosemite.epa.gov/Guide/guide.nsf/Home?openform

A list of Hotlines and Clearinghouses from EPA
http://www.epa.gov/epahome/hotline.htm

A list of Libraries and Repositories from EPA
http://www.epa.gov/natlibra/

A list of Tribal links and information resources from EPA
http://www.epa.gov/epahome/tribal.htm

4. **Mobilize community partnerships and actions to identify and solve environmental health problems**

   a. General Examples:

   – Collaborate with the other county departments and community organizations for programs.
   – Collaborate with municipalities to address health problems and environmental issues within that area.

- Coordinate an advisory committee made of community members to improve community involvement

b. Specific examples:

A Washington State county that, through PACE EH, organized an Environmental Health Assessment Team consisting of community members
http://www.islandcounty.net/health/EHAT/aboutus.htm

An Ohio county that that, through PACE EH, organized an Environmental Health Assessment Team consisting of community members
http://www.mahoning-health.org/SpecialReportsUpload/PACE_ EH_Report.pdf

A Colorado county's Tobacco Education and Prevention Partnership (TEPP)
http://www.elpasocountyhealth.org/tobacco/community.asp

c. Resources

Mobilizing for Action through Planning and Partnerships (MAPP)
http://mapp.naccho.org/mapp_introduction.asp

Community Based Environmental Health Assessment (PACE EH)
http://www.naccho.org/topics/environmental/CEHA.cfm
http://pace.naccho.org/DownloadPage.asp

National Turning Point's Community Building Tools
http://www.turningpointprogram.org/

Indigenous Environmental Network (IEN), an entity known for mobilizing communities
http://www.ienearth.org/

5. **Develop policies and plans that support individual and community environmental health efforts**

a. General Examples:

- Review and update policies
- Develop new policies as needed to support public health initiatives.

       – Advocate in the local government policies that affect environmental health

  b. Specific examples:

    The Washtenaw County Regulation for Privately Owned Community Sewage Systems was supported by the Washtenaw County Health Department and adopted by the county Board of Commissioners in 2007. See the policy below.
http://www.ewashtenaw.org/government/departments/environmental_health/wells_septic/well_septic_pdf/eh_pocssregulation.pdf

    Laramie County Nuisance Regulations
http://webgate.co.laramie.wy.us/departments/health/_documents/nuisance_regs.pdf

  c. Resources

    Turning Point public health statute modernization resources
http://www.turningpointprogram.org/Pages/ph_stat_mod.html

    Environmental Health Legislation and Statutes Databases
http://www.ncsl.org/programs/environ/envhealth/ehdatabases.htm

    Laws & Regulations, EPA
http://www.epa.gov/epahome/lawregs.htm

    U.S. Department of Labor Occupational Safety & Health Administration: Laws, Regulations and Interpretations
http://www.osha.gov/comp-links.html

    The University of Louisville Center for Environmental Policy and Management: Practice Guides and resources
http://cepm.louisville.edu/publications/publications.htm

6. **Enforce laws and regulations that protect environmental health and ensure safety**

  a. General Examples:
    – Assure safe drinking water.
    – Enforce tobacco smoke restrictions.
    – Enforce the County and State Sanitary Code

b. Specific examples:

Missoula County's Environmental Health Division has regulations that describe how they should enforce food service violations
http://www.co.missoula.mt.us/ENVHealth/EnvHlthDiv/Regulations/MCCHC2004/hlthcodemain.html
http://www.co.missoula.mt.us/ENVHealth/EnvHlthDiv/Regulations/Regulation%204%202007.pdf

Each year, the Montgomery County Department of Environmental Protection (DEP) investigates more than 450 incidents of illegal dumping and spends more than $100,000 for clean-up and enforcement.
http://www.montgomerycountymd.gov/deptmpl.asp?url=/content/dep/Enforcement/home.asp

c. Resources

Food and Drug Administration (FDA)
http://www.fda.gov/opacom/laws/

Occupational Safety & Health Administration (OSHA) Laws, Regulations and Interpretations page
http://www.osha.gov/comp-links.html

Office of Enforcement & Compliance Assurance (OECA), EPA
http://www.epa.gov/compliance/

WashLaw, free legal research webpage
http://www.washlaw.edu/uslaw/search.html

This website connects you to the full-text state constitutions, statutes, legislation, session laws, and administrative rules.
http://www.prairienet.org/~scruffy/f.htm

7. **Link people to needed personal environmental health services and assure the provision of healthcare when otherwise unavailable**

a. General Examples:
   – Collect information about other agencies to provide accurate and adequate referrals to the appropriate environmental agency.

- Maintain a website with web links to various relevant services and healthcare resources.
- Ensure that people obtain post-exposure rabies treatment.

b. Specific examples:

Deschutes County provides resources for the public regarding their rights as tenants in unsafe living conditions and other issues.
http://www.co.deschutes.or.us/go/government/departments/health-department/health-and-wellness/environmental/public-health-topics/index.cfm#housing

Environmental health resources from the Wisconsin Department of Health and Family Services
http://dhfs.wisconsin.gov/eh/

From the National Institute of Health Specialized Information Systems, Hurricanes: Links to Health Information Including Toxicology and Environmental Health
http://sis.nlm.nih.gov/enviro/hurricane.html

c. Resources

National Environmental Health Association (NEHA), Environmental Health Links
http://www.neha.org/links.html

A variety of environmental health resources from the American Public Health Association
http://www.apha.org/about/Public+Health+Links/LinksenvironmentalandOccupationalHealth.htm

The Community Environmental Health Resource Center (CEHRC) offers local organizations a spectrum of services related to identifying housing-related environmental health hazards
http://www.cehrc.org/

Healthy People 2010 and Environmental Health
http://www.phf.org/EH/

8. Assure competent environmental health and personal healthcare workforce

a. General Examples:

- Provide professional technical training to staff to assure competency in environmental health programs.
- Provide in-service training to maintain staff competency in environmental health programs.
- Hire a capable workforce
- Give employees opportunities to gain leadership experience.

b. Specific examples:

Monroe County offers public health courses
http://www.monroecounty.gov/training/course/category.php?id=5

Collier County has an employee training plan for the health department
www.doh.state.fl.us/PHNursing/Library/Orientations/**Training**_2003-04.doc

c. Resources

Non-technical environmental health core competencies:
http://www.cdc.gov/nceh/ehs/Corecomp/Core_Competencies_EH_Practice.pdf
http://www.apha.org/ppp/phipmain/ehcp.htm

The National Environmental Health Workforce Consortium Innovative Workforce Practices Project
http://www.neha.org/research/Workforce_Development/innovativepractices.html

Public Health training Network
http://www2a.cdc.gov/PHTN/default.asp

The National Environmental Health Association (NEHA) online training guide
http://www.neha.org/onlineuniversity.html

Council on Linkages, Competency Project
http://trainingfinder.org/competencies/

Environmental Health Support Center (EHSC)
http://www.opheng.ihs.gov/

9. Evaluate effectiveness, accessibility and quality of personal and population based environmental health services

    a. General Examples:

       – Prepare quarterly performance measures reports.
       – Choose indicators for projects and monitor regularly.
       – Prepare Annual Environmental Health Report.

    b. Specific examples:

       Butte County On-Site Wastewater Program Evaluation Implementation Plan
       http://buttecounty.net/publichealth/environmental/Butte_Program_Implementation_COWA_11-03-06.pdf

       Seattle-King County evaluated and reported upon their Alliance Against Asthma
       http://www.metrokc.gov/health/asthma/evaluation/

       A Closer Look at the State of Iowa's Swimming Pool Program
       http://www.heartlandcenters.slu.edu/ephli/FinalReport07/Harris.doc

    c. Resources

       CDC National Public Health Performance Standards Program
       http://www.cdc.gov/od/ocphp/nphpsp/

       Free, on-line training module on Program Evaluation in Environmental Health
       http://www.nwcphp.org/centers-projects/environmental-health-center/index_html

       Framework for Program Evaluation in Public Health. Centers for Disease Control and Prevention.
       http://www.cdc.gov/eval/framework.htm

       W.K. Kellogg Foundation Evaluation Handbook.
       http://www.wkkf.org/Pubs/Tools/Evaluation/Pub770.pdf

       The Community Toolbox, which provides practical skill-building information on over 250 different topics, including evaluating community programs
       http://ctb.ku.edu/

10. Research for new insights and innovative solutions to environmental health problems

    a. General Examples:

        – Collaborate with municipalities, governmental agencies, community agencies, and educational institutions to investigate alternative solutions to public health environmental problems.
        – Evaluate pilot programs to determine whether they are effective and may be used by other agencies.

    b. Specific examples:

        Program on Health, Equity, and Sustainability, San Francisco Department of Public Health
        http://archive.naccho.org/modelpractices/Result.asp?PracticeID=126

        Utilizing Cuting Edge Technology to Prevent and Intervene with Foodborne Illness Disease Transmission, Multnomah County Environmental Health Services, OR
        http://archive.naccho.org/modelpractices/Result.asp?PracticeID=309

        Drinking water research and studies, Whatcom County Health Department, WA
        http://www.co.whatcom.wa.us/health/environmental/drinking_water/research.jsp

    c. Resources

        Model Practices Database, NACCHO
        http://archive.naccho.org/modelpractices/default.asp

        Innovative Environmental Public Health Workforce Practices
        http://www.neha.org/research/Workforce_Development/innovativepractices.html

B. Example Programs that use the Ten Essential Services of Environmental Health

Implementing a Safe Drinking Water Program for Private Individual Water Wells
http://www.heartlandcenters.slu.edu/ephli/finalprojects/1ButlerReport.doc

Child Cares, Septic Systems and Public Health
http://www.heartlandcenters.slu.edu/ephli/finalprojects/9CarpenterReport.doc

Improving Emergency Preparedness - Developing an Environmental Emergency Response Plan
http://www.heartlandcenters.slu.edu/ephli/FinalReport07/21Rosendahl.doc

Formation of an Illegal Dumping Prevention Program To Reduce Potential Impacts of E Coli 0157:H7 in Agricultural Produce Grown in Monterey County
http://www.heartlandcenters.slu.edu/ephli/FinalReport07/19Ramirez.doc

General resource for the Ten Essential Services:
Council on Linkages. Competencies for Providing Essential Public Health Services. http://trainingfinder.org/competencies/list_ephs.htm

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Division of Environmental Health Services, Indian Health Services. Ten Essential Services. http://www.dehs.ihs.gov/index.cfm?content=references.cfm&cat=18

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http://www.sboh.wa.gov/Meetings/2002/09_11/documents/Tab11_OsakiPresentation.pdf