

## LOCAL BOARDS OF HEALTH AND ENVIRONMENTAL HEALTH: WHICH WAY TO GO

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*"Would you tell me, please, which way I ought to go from here?", asked Alice.*

*"That depends a good deal on where you want to get to," said the cat.*

*"I don't much care where," said Alice.*

*"Then it doesn't matter which way you go," said the cat.*

Environmental health is a basic component of the field of public health. Local boards of health should be leaders in local environmental health organizational and policy issues rather than leaving a void that others are eager to fill. However, some may find organizational diversification and various bureaucracies troublesome, and like *Alice in Wonderland*, determine which way to go amongst the wonderland of organizational possibilities.

Historically, environmental health was a basic component of public health **departments**. Environmental health problems caused the creation of many health departments. And the U.S. Public Health Service was responsible for most federal environmental health activities.

Environmental health began diversifying at the federal level at an early date when, for example: housing conservation and rehabilitation was assigned to Housing and Urban Development; occupational health and safety was assigned to the Labor Department; water pollution control was transferred from the Public Health Service to the Interior Department; pesticide regulation and meat inspection were developed within the Agriculture Department; and radiation protection was administered by the Atomic Energy Commission. By the late sixties, the Congress began questioning the strength of the U.S. Public Health Service commitment to deal with the public and political demands for action regarding the rapidly increasing complexity of environmental health, as well as the determination of the Public Health Service to assign the requisite priority to environmental health problems, including the necessary regulatory actions. The Congress alleged that the Public Health Service was more interested in conducting research than in vigorously regulating the environment. Even the organized national public health community was prodded into a higher level of concern. I chaired a delegation from the American Public Health Association that testified before President Nixon's Advisory Commission on Government Reorganization to make specific recommendations regarding the organizational scope and mission of the Environmental Protection Agency that was

subsequently created by Presidential Executive Order. Since then, most states have followed the federal model.

### TRANSPARENCY

- **Environmental health is the largest single component of the field of public health in terms of numbers of personnel and expenditures.**
- **Environmental health expenditures and numbers of personnel account for approximately 50% of the entire field of public health.**
- **At the state level, 90 to 95% of environmental health activities are assigned to agencies other than health departments.**
- **There appears to be a similar trend at the local level, but most local environmental health responsibilities remain in local health departments.**

Many health personnel are not aware of the foregoing because the widely cited Public Health Foundation data are collected solely from health departments and do not include the activities and expenditures of the complex assortment of state and local environmental health agencies other than health departments.

Organizational responsibilities continue to diversify at the local level. A number of local jurisdictions have authorized environmental health departments, and many important responsibilities are being assigned to local and regional agencies **other** than traditional local health departments. A 1996 study found that agencies **other** than local health departments are playing an increasing role in such environmental health areas as air pollution control, noise pollution control, water pollution control, groundwater contamination, industrial discharges, accidental spills, fish and shellfish sanitation, drinking water contamination, brownfields clean-up and redevelopment, hazardous materials control, leaking fuel storage tanks, hazardous waste sites, and pollution prevention.

Unlike the "good old days", the public health delivery system has evolved from traveling on a single health department track, to traveling on an environmental health track and a personal public health track. Such diversification of responsibilities occurred for a variety of reasons, including:

- The perception that health departments were not effective for environmental health,
- The public and political demand for greater emphasis on environmental health,
- The increasing complexity and societal importance of environmental health,
- Health department emphasis on health care rather than public health,
- The demands of environmental advocacy groups,
- Health department failure to emphasize regulatory methods, and
- Health department failure to address ecological issues,

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## Health Services Continuum

ENVIRONMENTAL HEALTH AND PROTECTION	HEALTH PROMOTION	DISEASE PREVENTION	HEALTH CARE
Examples of Issues	Examples of Issues	Examples of Issues	Examples of Issues
Clean Air	Substance Abuse	Infectious Diseases	Diagnosis
Clean Water	Family Planning	Clinical Prevention	Primary Care
Toxic Chemicals	Nutrition	PKU Screening	Case Management
Safe Food	Health Education	Glaucoma	Outpatient Services
Radiation	Violence	Diabetes	Clinics
Solid Wastes	Obesity	Osteoporosis	Treatment
Occupational Health	Tobacco	Cancer	Surgery
Hazardous Wastes	Mental Health	Suicides	Long Term Care
Risk Assessment	Physical Activity and Fitness	Oral Health	Acute Care
Risk Communication	Access	Heart Disease and Stroke	Rehabilitation
Risk Management		Maternal and Child Health	Cost Containment
Global Degradation		Access	Health Insurance
Land Use			Mental Health and Treatment
Noise			Developmental Disabilities
Disease Vectors			Alcohol and Drug Treatment
Housing			Access
Ecological Dysfunction			
Unintentional Injuries			
Access			

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**Health care** is the diagnosis, treatment, or rehabilitation of a patient under care, and is practiced on a one-on-one basis.

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Public health is the art and science of **preventing** disease and disability, **prolonging** life, **promoting** the health and efficiency of populations, and **insuring** a healthful environment through organized community effort.

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The "Report of the Committee on the Future of Environmental Health" defines environmental health and protection as—

. . . the art and science of protecting against environmental factors that may adversely impact human health or the ecological balances essential to long term human health and environmental quality. Such factors include, but are not limited to, air, food, and water contaminants; radiation; toxic chemicals; wastes; disease vectors; safety hazards; and habitat alterations.

ENVIRONMENTAL HEALTH AND PROTECTION PROGRAM EXAMPLES:

AMBIENT AIR QUALITY  
WATER POLLUTION CONTROL  
SAFE DRINKING WATER  
INDOOR AIR POLLUTION  
NOISE POLLUTION CONTROL  
RADIATION PROTECTION  
SANITATION OF EATING AND DRINKING ESTABLISHMENTS  
SANITATION OF FOOD PROCESSING ESTABLISHMENTS  
OCCUPATIONAL HEALTH AND SAFETY  
THERMAL POLLUTION  
CHILDHOOD LEAD POISONING  
ACID DEPOSITION  
MEAT INSPECTION  
DISASTER PLANNING AND RESPONSE  
CROSS-CONNECTION ELIMINATION  
SHELLFISH SANITATION  
INSTITUTIONAL ENVIRONMENTAL CONTROL  
PURE FOOD CONTROL  
HOUSING CONDITIONS  
RECREATIONAL AREA ENVIRONMENTAL CONTROL  
POULTRY INSPECTION  
SOLID WASTE MANAGEMENT  
HAZARDOUS WASTE MANAGEMENT  
VECTOR CONTROL  
PESTICIDE CONTROL  
ON-SITE LIQUID WASTE DISPOSAL  
LAND USE  
MILK SANITATION  
TOXIC CHEMICAL CONTROL  
UNINTENTIONAL INJURY PREVENTION, AND  
  
GLOBAL ENVIRONMENTAL ISSUES SUCH AS ECOLOGICAL DYSFUNCTION,  
HABITAT DESTRUCTION, POSSIBLE GLOBAL WARMING, POSSIBLE  
STRATOSPHERIC OZONE DEPLETION, PLANETARY TOXIFICATION,  
DESERTIFICATION, DEFORESTATION, NON-RENEWABLE RESOURCE  
CONSUMPTION, AND OVER-POPULATION.



# **Federal Environmental Health and Protection Agencies**

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■ **Environmental Protection Agency**

■ **Department of Labor**

■ **U.S. Public Health Service**

- **National Institute of Environmental Health Sciences**
- **National Center for Environmental Health**
- **Food and Drug Administration**
- **Indian Health Service**
- **Agency for Toxic Substances and Disease Registry**
- **National Institute for Occupational Safety and Health**

■ **Coast Guard**

# **Federal Environmental Health and Protection Agencies (cont.)**

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- Geological Survey
- National Oceanographic and Atmospheric Administration
- Nuclear Regulatory Commission
- Corps of Engineers
- Department of Transportation
- Department of Agriculture
- Department of Housing and Urban Development

# State Level Environmental Health and Protection Agencies

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- Health departments
- EPAs
- Ecology departments
- Conservation departments
- Environmental quality departments
- Natural resources departments
- Pollution control departments
- Agriculture departments
- Labor departments

# **Local Level Environmental Health and Protection Agencies**

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- Health
- Environmental health
- Planning
- Public works
- Building and inspection
- Solid waste management
- Housing
- Councils of government
- Special purpose districts
- Regional authorities

## *Most Common Local Programs -*

**food protection,  
swimming pool safety and sanitation,  
childhood lead poisoning prevention,  
on-site liquid waste disposal,  
groundwater contamination,  
asbestos surveillance,  
safe drinking water,  
animal/vector control,  
radon surveillance,  
illegal dumping,  
hazardous material spills,  
emergency response planning, and  
nuisance abatement.**

**A few also administer indoor and  
community air pollution programs, and  
some indicate activity in water pollution  
control, solid waste management,  
radiation control, and hazardous waste  
management.**

I have sketched this brief historical overview as a reminder that public health organizational responsibilities have been diversifying for many years and that change is the rule rather than the exception. Today, it is **imperative** that we think and act in terms of the **field** of public health rather than yesterday's comfortable health department organizational pattern. The public and our political leaders at all levels of government may better recognize the scope and importance of the **field** of environmental health than do many public health personnel.

At this point, it is essential to define a few of the terms I have used. Although health care is not public health and public health is not health care, it is necessary to understand the difference.

### HEALTH SERVICES CONTINUUM TRANSPARENCY

### DEFINITION OF HEALTH CARE TRANSPARENCY

### DEFINITION OF PUBLIC HEALTH TRANSPARENCY

### DEFINITION OF ENVIRONMENTAL HEALTH TRANSPARENCY

And to better focus on environmental health, I offer the following laundry list of environmental health programs.

### TRANSPARENCY

What are some of the federal and state and agencies providing environmental health services?

### TRANSPARENCIES

What are some of the local agencies having environmental health responsibilities?

### TRANSPARENCY

What environmental health activities are commonly administered by local health departments?

### DEVELOP TRANSPARENCY

Food protection, swimming pool safety and sanitation, childhood lead poisoning prevention, on-site liquid waste disposal, groundwater contamination, asbestos surveillance, safe drinking water, animal/vector control, radon testing, illegal dumping, hazardous material spills, emergency response planning, and nuisance abatement. A few also administer indoor and community air pollution programs, and some indicate activity in water pollution control, solid waste management, radiation control, and hazardous waste management.

What is the rationale for the roles of federal, state and local governments in environmental health?

- In general, problems of an **interstate** nature such as food protection , solid and hazardous waste transportation, water pollution control, pesticide regulation and air pollution regulation, are administered by federal agencies. Additionally, the federal government has partial or sole authority for radioactive waste management, air pollution control, meat inspection, poultry inspection, occupational safety and health and safe drinking water.
- Some programs are properly administered on a **regional** basis rather than on a limited local jurisdiction basis. Examples include water pollution control, air pollution control, solid waste management, and milk sanitation.
- State agencies may retain complete jurisdiction in sparsely populated states as well as rural areas of some states.
- Many states provide technical and consultative support to local environmental health programs.
- State and federal agencies may develop criteria, standards and model legislation for state or local adoption.
- State and local agencies may administer grants and contracts provided by federal agencies.
- A conflict of interest may develop when local environmental health agencies attempt to regulate local government proprietary functions such as public water supplies, solid waste disposal and sewage treatment.
- Smaller local agencies may not have expertise in certain areas such as epidemiology, toxicology and risk assessment.

What are some of the issues that **should** be considered when organizing environmental health at the local level?

- Environmental health services are based on public health needs, justified by public health standards, and pursue public health goals no matter the title of the administering agency. Environmental health services **should** be administered by public health trained personnel.
- Most environmental health programs are inextricably interdigitated and **should** be organized together for purposes of effectiveness, efficiency and economy.
- Environmental health **should** have visible organizational status that allows access to elected officials, the media, and advocacy groups.
- Environmental health **should** be so organized as to have ease of interagency communication with agencies that deal with related problems such as public works, waste management, planning, land use and transportation.
- Environmental health **should** have adequate epidemiology, laboratory, computer technology, public information, and legal support services.
- Environmental health components **must** have sound statutory bases.

The foregoing principles **may** be attained either in a local health department or in a separate agency, but are more appropriate for a local public health or environmental health department.

What are some of the issues involved in retaining or regaining public health leadership in managing the environment?

Let's start with a few basics:

- The **common definition**, as previously shown was developed for the Report on the Future of Environmental Health, must be used for environmental health. If we cannot agree on whether we are marketing a buggy whip or a rocket ship, we do not have a product to market.
- A **network of communication bridges** to and from the entire spectrum of environmental health interests such as I have previously mentioned must be built and constantly traveled rather than allowing artificial agency walls.
- The **benefits and values** of environmental health services, such as improved quality of life, enhanced environmental quality, less disease and disability, reduced health care costs, and increased productivity must be constantly marketed.
- The **news media must be embraced** so that environmental health issues will be communicated to the public on a continuing basis.
- **Ecological considerations must be considered a part of environmental health.** Serious and direct human health threats exist, but the public and elected officials also know that pollution also kills fish, limits visibility, creates stench, ruins lakes and rivers, degrades recreational areas, and endangers plant and animal life.
- Local boards of health **should** play a key role in enhancing **communication and coordination** between all the various local agencies and community interests involved in the struggle for a healthy environment. This could be done by convening frequent discussion groups to consider common environmental health issues and public health goals.
- Local health departments **should** utilize public policy design, implementation, and analytical skills. Politics is basic to our democracy and is not a dirty word. Too many public health personnel are politically ineffective either through personal choice, agency policy, or a paucity of public policy skills. Do not assume that your environmental health policy goals will be designed and attained by others.
- Local boards of health **should** think and act in terms of the **field** of environmental health rather than any specific organization or agency. Public health is not in disarray as the Institute of Medicine suggested. It is far more diverse and complex than the public health agency model the Institute of Medicine would create. A few years ago, the Science Advisory Board of the American Public Health Association developed the following definitions to better deal with the increasing organizational diversity of public health services:

#### TRANSPARENCY

*A Local Health Department is a statutorily designated agency of local government that includes the words "health department" in its title and is charged with delivering identifiable services designed to prevent or solve health problems.*



***A PUBLIC HEALTH DEPARTMENT IS AN AGENCY OF  
GOVERNMENT WHICH INCLUDES THE WORDS PUBLIC HEALTH  
DEPARTMENT IN ITS TITLE AND IS CHARGED WITH DELIVERING  
IDENTIFIABLE SERVICES DESIGNED TO PREVENT OR SOLVE  
PUBLIC HEALTH PROBLEMS.***

***A PUBLIC HEALTH AGENCY IS AN AGENCY OF GOVERNMENT  
CHARGED WITH DELIVERING IDENTIFIABLE HEALTH SERVICES  
DESIGNED TO PREVENT OR SOLVE PUBLIC HEALTH PROBLEMS.***

*A Local Health Agency is a statutorily designated agency of local government charged with delivering identifiable services designed to prevent or solve health problems.*

The PEW Environmental Health Commission recently released the results of the first-ever comprehensive national survey on Americans' concerns about environmentally-related health problems. The poll shows that:

- Nearly nine out of ten believe that environmental factors are a major cause of health problems, and
- Two-thirds believe that more should be done to protect the public's health from environmental problems.

Environmental health goals are increasingly being addressed by agencies other than the evolving type of health departments. The practice of public health other than environmental health is gravitating closer to, and I might add confused by, health care, while environmental health is aligning more closely with environmental quality and conservation agencies. Local boards of health have the opportunity to lead in determining the organizational future and quality of environmental health service delivery systems. Or, they can allow others to make such policy determinations.

Local boards of health should fully embrace other local environmental health agencies as partners so as to more effectively involve them in the pursuit of enhanced public health. Local boards have the choice of defining narrowly or defining broadly. Local boards have the choice of being inclusive or exclusive. Local boards have the opportunity to be leaders for the **field** of environmental health if that is their desire.

Environmental health is widely considered to be a public entitlement, but is a complex organizational wonderland. To paraphrase the cat in *Alice in Wonderland*, decisions regarding whither local environmental health goest **should** consider where local boards of health want it to go.

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# Building Two-Way Environmental Health and Protection Bridges

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Other public health agencies

Planning

Land use

Energy production

Transportation

Resource development

Medical community

News media

Public works

Agriculture

Conservation

■ Engineering

■ Architecture

■ Universities

■ Product design and development

■ Economic development

■ Chambers of Commerce

■ Environmental groups

■ Professional, trade, and industry groups

■ Elected officials