Public Health 101: History and Structure

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Topics

Introduction to Public Health

1. Public Health Definition
2. History of Public Health
3. A Public Health Approach
4. Stakeholder Roles in Public Health
Learning Objectives

- Define and describe the purpose of public health
- Identify prominent events in the history of public health
- Describe stakeholders in the field of public health
- Describe the structure of public health
Public Health Defined

“The science and art of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private communities, and individuals.”

—CEA Winslow

The Mission of Public Health

“Fulfilling society’s interest in assuring conditions in which people can be healthy.”
—Institute of Medicine

“Public health aims to provide maximum benefit for the largest number of people.”
—World Health Organization
The History of Public Health
Sanitation and Environmental Health

500 BCE
- Greeks and Romans practice community sanitation measures

1840s
- The Public Health Act of 1848 was established in the United Kingdom

1970
- The Environmental Protection Agency was founded
Pandemics

Influenza

500 million infected worldwide in 1918

Polio

Vaccine introduced in 1955; eradication initiative launched in 1988

HIV

34 million living with HIV worldwide; 20% decline in new infections since 2001
Preparedness for Disaster Response

Biologic Warfare

Plague used as a weapon of war during the Siege of Kaffa

September 2001

Public health surveillance conducted after the 9/11 attacks

Hurricane Katrina

Emergency services, public health surveillance, and disease treatment provided
Prevention Through Policy

Book of Leviticus

The world’s first written health code

Tobacco Laws

Laws banning smoking in public places

Obesity

Food labeling and promotion of physical activity
A Public Health Approach
A Public Health Approach

Surveillance

What is the problem?

Risk Factor Identification

What is the cause?

Intervention Evaluation

What works?

Implementation

How do you do it?

Problem

Response
A system of partnerships that includes, but is not limited to . . .

- Media
- Churches
- Schools
- Businesses
- Healthcare Providers
- Environmental Health
- Mental Health
- Transportation
- Community Services
- Community Coalitions
- Philanthropy
- Justice and Law Enforcement
- Federal DHHS
- State Health Departments
- Local Health Departments
- Tribal Health
- Healthcare Providers
Cholera, a fatal intestinal disease, was rampant during the early 1800s in London, causing death to tens of thousands of people in the area. Cholera was commonly thought to be caused by bad air from rotting organic matter.
John Snow, Physician

John Snow is best known for his work tracing the source of the cholera outbreak and is considered the father of modern epidemiology.

Photo: London School of Hygiene and Tropical Medicine
Epidemiology — What is the Problem?

Cluster of Cholera Cases, London — 1854

Image: The Geographical Journal
Risk Factor Identification — What Is the Cause?

Cluster of Cholera Cases and Pump Site Locations

Image: The Geographical Journal
Intervention Evaluation — What Works?

Through continuous research, Snow understood what interventions were required to

- stop exposure to the contaminated water supply on a larger scale, and
- stop exposure to the entire supply of contaminated water in the area
Implementation — How Do You Do It?

John Snow’s research convinced the British government that the source of cholera was water contaminated with sewage.

Photo: Justin Cormack
Structure of Public Health in the United States

Office for State, Tribal, Local and Territorial Support

Centers for Disease Control and Prevention
Governmental Public Health

State and Local Health Departments

Retain the primary responsibility for health under the US Constitution

Accredited:

51**
State and the District of Columbia Health Departments

1
Tribal Health Departments

2,565*
Local Health Departments

8**
Territorial Health Departments

* Number based on 2010 National Profile of Local Health Departments (NACCHO, 2011)
** Numbers cited from ASTHO, Profile of State Public Health, Volume Two, 2011
Federal Public Health
Roles and Responsibilities
Federal Public Health Responsibilities

- Ensure all levels of government have the capabilities to provide essential public health services
- Act when health threats may span more than one state, a region, or the entire nation
- Act where the solutions may be beyond the jurisdiction of individual states
- Act to assist the states when they lack the expertise or resources to effectively respond in a public health emergency (e.g., a disaster, bioterrorism, or an emerging disease)
- Facilitate the formulation of public health goals (in collaboration with state and local governments and other relevant stakeholders)

Other Roles of Federal Public Health

Federal government plays a crucial role in

- Providing leadership, through regulatory powers, in setting health
  - Goals
  - Policies
  - Standards
- Contributing operational and financial resources
- Financing research and higher education
- Supporting the development of scientific and technological tools needed to improve the effectiveness of public health infrastructure at all levels
State Health Departments
Roles and Responsibilities
State Roles

- Screening for diseases and conditions
- Treatment for diseases
- Technical assistance and training
- State laboratory services
- Epidemiology and surveillance
Local Health Departments
Roles and Responsibilities
Six Required Services of Wisconsin LHDs:

1. Communicable disease surveillance, prevention and control
2. Generalized public health nursing program
3. Services to promote health
4. Services to prevent other diseases
5. Abatement or removal of human health hazards
6. Services to prevent the future incidence of occupational disease, environmental disease and human health hazard exposure

https://www.dhs.wisconsin.gov/lh-depts/lhdlevelrequirements.doc
State and Local Health Department Governance Classification System

- **Mixed**—Some local health departments are led by state government, and some are led by local government. No one arrangement predominates in the state.

- **State/Centralized**—All local health departments are units of state government, which makes most fiscal decisions.

- **Shared**—All local health departments are governed by both state and local authorities.

- **Local/Decentralized**—Local health departments are units led by local governments, which make most fiscal decisions.

Source: ASTHO Profile of State Public Health, Volume Two, 2011
Wisconsin Local Governance

• Constitutional Home Rule
  - Allows municipalities to determine their local affairs and government

• Statutory Home Rule
  - Except as otherwise provided by law, management and control of the municipality's property, finances, highways, navigable waters, and the public services
Public Health in American Indian and Alaska Native Tribes
Tribal Public Health

- **Tribal Health Department**—a corporation or organization operated under the jurisdiction of a federally recognized tribe, or association of federally recognized tribes, and is funded by the tribe(s) and/or contract service(s) from the Indian Health Service (IHS).

- **Tribal Health Organizations**—include Tribal Health Departments, Indian Health Service Units, Area Indian Health Boards and Urban Indian Health Centers (a much broader group, and relates to a variety of entities that might provide health services in a tribal setting).
QUESTIONS?
Resources and Additional Reading


Resources and Additional Reading

- Skelton A. Introduction to public health science and practice.” Presented at the CDC Steven M. Teutsch Prevention Effectiveness Fellowship Orientation, August 15, 2012.
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For more information, please contact the Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
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