



**What is Public Health?**



**Impact of Public Health?**



**Careers in Public Health?**

# What is Public Health?

[www.whatispublichealth.org](http://www.whatispublichealth.org)

This website includes a comprehensive overview of public health careers and the impact of public health, a knowledge quiz and an interactive game.

## Public Health Is Your Health

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We may think of our own health as a private matter, but many things that affect our health are public by virtue of our shared customs and environment, like the roads that we share and the air that we breathe.

Public health improves the shared conditions and behaviors that affect the health of each and every one of us. It investigates how the ecology of health affects our well-being – from social networks and economic circumstances to our environment – and then promotes safer health practices.

Public health efforts range from containing deadly contagious diseases to pushing for healthier lifestyles, from preventing diseases to addressing catastrophic events, and from providing basic sanitation to ensuring safe food and water.

Public health makes the world in which we all live safer and, as a result, protects the health of every person.

“Health care matters to all of us some of the time, public health matters to all of us all of the time.”

- C. Everett Koop



## Public Health Is...

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**P**ublic health addresses today's most pressing health concerns by combining the expertise of several professions. The five core areas of study within public health are *behavioral and social science, biostatistics, environmental health, epidemiology and health services administration*. In addition to the five core areas, there are other concentrations, such as *occupational safety and health, maternal and child health, public health program management and practice, biomedical and laboratory practice, nutrition and international/global public health*.

Public health professionals analyze the effect on health of genetics, personal choice and the environment in order to develop programs that protect the health of your family and community.



### We all rely on public health to:

- Improve drinking and recreational waters
- Maintain clean air and land through enforcement of regulatory controls and management and disposal of hazardous wastes
- Eradicate life-threatening diseases such as smallpox and polio
- Control and prevent infectious diseases and outbreaks such as influenza, HIV/AIDS, tuberculosis and the Ebola virus
- Reduce death and disability due to unintentional injuries, through policies such as seat belt and worker safety laws
- Empower communities to improve mental health, reduce substance abuse and counter social violence
- Promote healthy lifestyles to prevent chronic diseases such as cancer, heart disease and diabetes
- Educate at-risk populations to reduce sexually transmitted diseases, teen pregnancy and infant mortality
- Advocate equal access to cost-effective care

# Public Health: Areas of Study

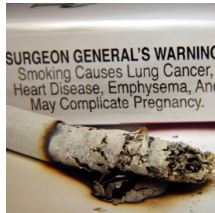
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## Behavioral and Social Science

Behavioral and Social Science initiatives include halting the spread of sexually transmitted diseases such as herpes and HIV/AIDS, promoting seat belt use and educating youth about the dangers of alcohol abuse. Behavioral and Social scientists discover ways to encourage people to make healthy choices and develop educational programs that promote healthy lifestyles and prevent disease and injury.

## Biostatistics

Biostatisticians use mathematical and scientific tools to analyze data such as the number of deaths from gun violence and trends in drunken driving injuries. They forecast scenarios, make projections and determine the causes of disease and injury. Biostatisticians identify health trends that lead to life-saving measures.



## Environmental Health

Environmental health involves studying the air we breathe, the water we drink and the complex interaction between genetics and our surroundings. Environmental risk factors cause asthma, cancer, food poisoning and other illnesses. Environmental health specialists examine the influence of the built and natural environment on our health and look for ways to reduce those risk factors.

## Epidemiology

When food poisoning or influenza strikes, “disease detectives,” or epidemiologists, investigate the cause and prevent its spread. Epidemiologists uncover the causes of disease and injury, who is at risk and how to prevent further incidences. They find the demographic and social trends that influence disease and injury. The initial discovery and containment of an outbreak, such as West Nile virus, is the specialty of epidemiologists.

## Health Services Administration

Health administrators develop budgets for health departments, create policies for health insurance companies and direct hospital services. Health services administration combines politics, business and science in managing the human and fiscal resources needed to deliver effective health services.

# Public Health: Other Areas of Study

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## International/Global Health

Globalization has linked our health more closely to one another than ever before. The rapid movement of people and food across borders means that a disease can travel from a remote village to distant cities. Global public health seeks the most effective solutions to the rising number of health challenges that transcend national boundaries.



## Nutrition

Nutritionists promote healthy eating and regular exercise, and educate the public about the dangers of overeating and other bad eating habits. By combining education with science, nutritionists can reduce the number of preventable diseases and improve overall health.



## Maternal and Child Health

Maternal and child health experts promote the health of pregnant women and unborn children, provide information and access to birth control and dispense vaccinations to children. They focus on improving the health delivery channels for women, children and their families through advocacy, education and research.



## Public Health Laboratory Practice

Public health laboratory professionals perform tests on biological and environmental samples in order to diagnose, prevent, treat and control infectious diseases in communities. This testing also ensures the safety of our food and water, screens for certain diseases within communities and is vital during public health emergencies, such as bioterrorism.

# 10 Ways That Public Health Changed the Course of the 20th Century\*

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## 1. Control of infectious disease

Cleaner water and improved sanitation cut the incidences of infectious diseases. Typhoid and cholera, major causes of illness and death early in the 20th century, were transmitted by contaminated water, and have been nearly eradicated.

## 2. Decline in deaths from coronary heart disease and stroke

The decline in deaths from coronary heart disease and stroke has resulted from “risk-factor modification,” such as smoking cessation and blood pressure control. Death rates for coronary heart disease have decreased by 51% since 1972.

## 3. Family planning

Access to family planning and contraceptives has contributed to smaller families and longer intervals between children, fewer infant, child, and maternal deaths and the prevention of STDs.

## 4. Fluoridation of drinking water

Fluoridation of drinking water began in 1945 and currently reaches an estimated 144 million persons in the United States. Reductions in tooth decay (40–70% in children) and of tooth loss (40–60% in adults) resulted directly from fluoridation.



## 5. Healthier mothers and babies

Better hygiene and nutrition, availability of antibiotics, greater access to health care and technological advances in maternal and neonatal medicine led to a decrease of infant mortality by 90% and maternal mortality by 99% since the 1900s.

## 6. Healthier, safer food supply

Food has become safer and healthier due to decreases in microbial contamination and increases in nutritional content. Public health professionals have nearly eliminated major nutritional deficiency diseases such as rickets, goiter and pellagra in the United States.

## 7. Recognition of tobacco use as a health hazard

Recognition of tobacco use as a health hazard in 1964 and subsequent public health anti-smoking campaigns have prevented millions of smoking-related deaths.

## 10 Ways That Public Health Changed the Course of the 20th Century\* (Continued)

### 8. Safer vehicles and highways

Motor vehicle–related deaths have declined as a result of public health measures like the increased use of seat belts and motorcycle helmets and the decrease in drunk driving.

### 9. Safer workplaces

The decline in severe injuries and deaths related to mining, manufacturing and construction, is a result of public health measures. Since 1980, safer workplaces have resulted in a reduction of approximately 40% in the rate of fatal occupational injuries.

### 10. Vaccinations

Vaccinations have eradicated smallpox and suppressed measles, rubella, tetanus, diphtheria and other infectious diseases in the United States and other parts of the world.

*This brochure provides a brief overview of the different career paths that are available within the field of public health. You can also find more info at [www.whatispublichealth.org](http://www.whatispublichealth.org).*

*\* In the US, courtesy of CDC's MMWR Web Page:  
[www.cdc.gov/od/oc/media/tengpha.htm](http://www.cdc.gov/od/oc/media/tengpha.htm)*



Visit [www.thisispublichealth.org](http://www.thisispublichealth.org) for real-life examples of public health in action and to learn more about the public health awareness sticker campaign taking place across the nation.



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*For additional information on public health, see [www.whatispublichealth.org](http://www.whatispublichealth.org).*