

# What is Public Health?

University of Nebraska Medical Center  
College of Public Health

**“the science of protecting and improving the health of communities through education, promotion of healthy lifestyles, and research for disease and injury prevention”**

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

Public Health as the power to  
maintain the health of everyone,  
everywhere,  
every day.



# Who is a Public Health Practitioner?

- Infectious Disease Epidemiologist
- Emergency Preparedness Specialist
- Health Promotion Program Director
- Biostatistician or Data Scientist
- Public Health Nurse
- Legislative Policy Advisor
- Health Service Administrator
- Environmental Health Technician
- Reproductive Health Specialist
- Director of Family Health Services
- Community Health Specialist
- Health and Wellness Executive Director



# What do Public Health Practitioners Do?

1. Focus on disease prevention
2. Concerned with the health of large populations

Public Health Practitioners contribute to research, teaching, advocacy, evaluation, analysis, leadership, and policy development to improve the health of our communities, our nation, and our world.



# Where do Public Health Practitioners work?

## Public Health Professionals work in:

- Government agencies
- Health and environmental agencies
- Healthcare settings
- Non-profit organizations
- Various businesses
  - Local level
  - State level
  - Federal level



# Why Public Health?

## Public Health Professionals are DIFFERENT from Clinical Professionals.

### Public Health Professionals:

- Work with POPULATIONS
  - Countries, States, Counties, Cities, Communities
- Focus on PREVENTING:
  - Injuries
  - Illnesses
  - Diseases

### Clinical Professionals:

- Work with ONE INDIVIDUAL at a time
- Provides care AFTER a person is sick or injured



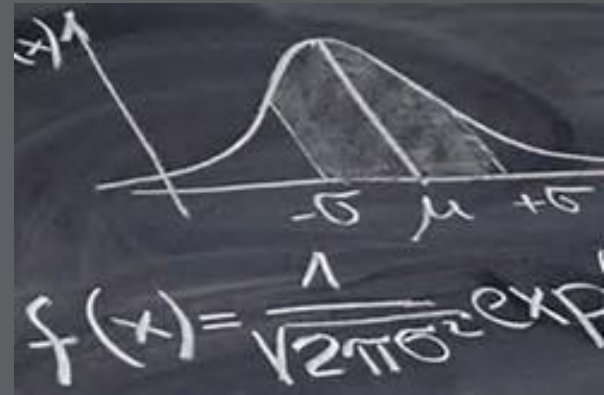
# Which Area of Study?

## Public Health Professionals Study:

- Biostatistics
- Emergency Preparedness
- Environmental, Agricultural & Occupational Health
- Epidemiology
- Health Promotion, Social & Behavioral Health
- Health Services Research & Administration



# Biostatistics



## What is it?

- Applying statistical discipline to complex problems presented in all areas of biology and medicine
- Summarize observations
- Detect patterns and trends
- Make inferences about future situations or populations at large

## Undergraduate Majors to Consider:

- Biology
- Chemistry
- Computer Science
- Mathematics
- Physics
- Statistics





# Biostatistics



## Career Opportunities:

- Pharmaceutical
- Clinical trials
- Academia
- Government agencies
  - Federal level
  - State level
  - Local level

## Areas of Research:

- Analyzing the effectiveness of new drugs
- Risk factors for different illnesses
- Planning health care interventions
- Explaining biological phenomena
- Determining trends in various injuries



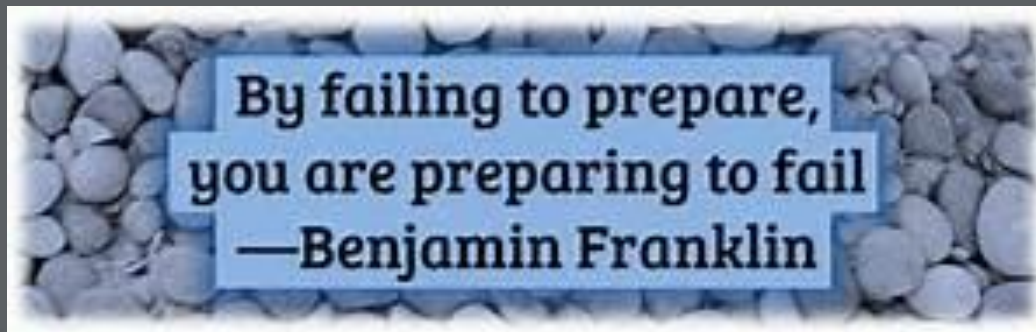
# Emergency Preparedness

## What is it?

- Preparation for public health emergencies
  - Natural disasters
  - Intentional acts of terrorism
  - Emerging infectious diseases

## Undergraduate Majors to Consider

- Biology
- Chemistry
- Emergency Management
- Environmental Health Science
- Management
- Psychology
- Sociology



# Emergency Preparedness

## Career Examples

- Business Continuity Planner
- Emergency Dispatcher
- Emergency Management Specialist
- Hospital Emergency Preparedness Administrator
- Homeland Security Officer



# Environmental, Agricultural & Occupational Health

## What is it?

- Research ways to improve environmental health, agricultural health, and occupational health and safety
- Working to decrease toxicological problems associated with environmental and occupational exposures
- Foster more sustainable environments

## Undergraduate Majors to Consider:

- Biology
- Chemistry
- Engineering
- Environmental Health Science
- Nutrition and Food Management
- Mathematics
- Physics



# Environmental, Agricultural & Occupational Health

## Career Examples

- Environmental Engineer
- Environmental Health Inspectors
- Environmental/Industrial Hygienist
- Safety and Wellness Coordinator
- Special Projects Coordinator
- Toxicologist
- Water Systems Inspector



# Epidemiology

## What is it?

- The study of distribution, causes and prevention of disease and injury in human populations
- Use various quantitative tools to measure:
  - Occurrence of illness
  - Injury and risk factors
  - Estimate the effect of exposures on disease risk
  - Evaluate interventions

## Undergraduate Major to Consider:

- Biology
- Chemistry
- Mathematics
- Physics
- Pre-medicine



# Epidemiology

## Career Examples

- Academic Research Epidemiologist
- Infection Control Epidemiologist
- Field Epidemiologists
- Health Surveillance Program Administrator
- Research Epidemiologist
- Survey Researcher



# Health Promotion, Social & Behavioral Health

## What is it?

- Aims to enable populations and communities to achieve optimal health
  - Social and behavioral change
  - Creation of environments conducive to healthy lifestyles
- Design and test effective and sustainable prevention interventions

## Undergraduate Majors to Consider:

- Health Education
- Marketing
- Nutrition
- Sociology
- Psychology
- Physical Education
- Social and Behavioral Science
- Social Work





# Health Promotion, Social & Behavioral Health

## Areas of Research:

- Adolescent risk behaviors
- Tobacco and substance use
- Nutrition
- Physical activity and inactivity
- Obesity prevention and control
- Environmental sustainability and health
- Cross-cultural health
- Health Inequalities
- Maternal and child health

## Career Examples:

- Community Health Educator
- Dietitian
- Disease Intervention Specialist
- Health and Wellness Coordinator
- Maternal and Child Health Specialist
- Nutritionist
- Project Coordinator



# Health Services Research & Administration

## What is it?

- Manage how health care and public health services are financed, organized, and delivered
- Help health care providers find more cost-effective means of completing their work
- Translate research into practice and policy to ensure adequate access to quality health care services for all

## Undergraduate Majors to Consider:

- Accounting
- Business Management
- Finance
- Human Resources
- Marketing



# Health Services Research & Administration

## Career Examples

- Administrative Services Managers
- Behavioral Health Director
- Community Service Managers
- Hospital Chief Executive Officer
- Human Resource Managers
- Outpatient Care Supervisor
- Pharmaceutical Health Insurance Specialist
- Wellness Program Administrator



# Want to learn more?

Here are a few resources for more information on public health.

American Public Health Association:

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

The Centers for Disease Control and Prevention:

<http://www.cdc.gov/>

National Association of County and City Health Officials (NACCHO):

<http://www.naccho.org/>

National Institutes of Health:

<http://www.nih.gov/>

U.S. Department of Health and Human Services:

[www.hhs.gov](http://www.hhs.gov)

The World Health Organization:

<http://www.who.int/en/>





# University of Nebraska Medical Center<sup>SM</sup>

**BREAKTHROUGHS** FOR LIFE.<sup>®</sup>



UNIVERSITY OF  
**Nebraska**  
Medical Center