



You can make a **DIFFERENCE**

Pursue a Career in Public Health





Consider Making a Difference Through a Career in Public Health

Health disparities exist for racial and ethnic populations in the United States

- ▶ While racial and ethnic populations make up approximately one-quarter of the U.S. population, they account for nearly half of all AIDS cases
- ▶ American Indians have higher death rates as compared to other Americans from tuberculosis (5 times higher) and alcoholism (6 times higher)
- ▶ Infant death rates among Blacks/African Americans, American Indians/Alaska Natives, and Hispanics are above the national average. The greatest gap exists for Blacks/African Americans, whose infant death rate is nearly double that of White infants
- ▶ Hispanic children are nearly three times as likely to lack a regular source of health care compared to White children
- ▶ The rate of kidney disease cases is one-and-a-half times higher in Asian and Pacific Islander Americans than found in White Americans
- ▶ Diabetes for Blacks/African Americans is approximately 70 percent higher than compared to Whites, and in Hispanics it is nearly double. Diabetes among American Indians/Alaska Natives is more than twice that for the entire U.S. population
- ▶ Hispanic, Asian and Pacific Islander American, American Indian, and Alaska Native women all have the lowest rates of screening and treatment of cervical cancer



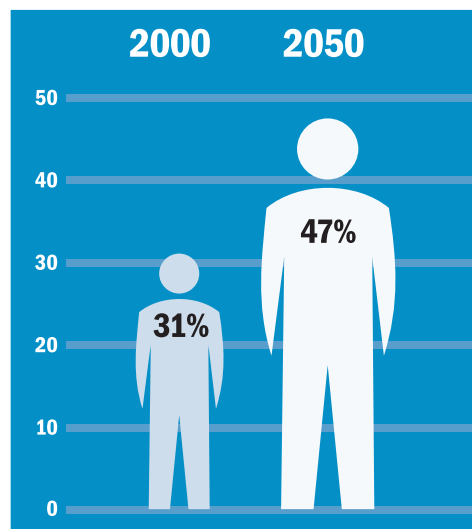
FACT: *Almost 20% of American Indian teenagers (ages 12–17) use illicit drugs, the highest rate of any group in the United States.*

Causes of Public Health Disparities

While there has been an explosion of scientific and technological discoveries that help diagnose, prevent, and treat disease, racial and ethnic populations have not been able to fully reap the benefits of these breakthroughs for many reasons, including:

- ▶ Poverty
- ▶ Language barriers
- ▶ Cultural differences
- ▶ Lack of health insurance and access to healthcare
- ▶ Immigration status
- ▶ Education levels
- ▶ Access to transportation and child/elder-care services
- ▶ Environmental risks
- ▶ Differences in individual and community support

PROJECTED U.S. MINORITY GROWTH AS A PERCENTAGE OF TOTAL U.S. POPULATION FROM YEARS 2000 TO 2050



Minorities = Asian and Pacific Islander Americans; Black/African American; Hispanic; and, American Indian/Alaska Native/Native Hawaiian

Public Health Addresses Health Disparities in Many Ways

What can you do in public health?

YOU CAN help improve the health and well being of people in your local community, your state, or even your country.

YOU CAN help people who are less fortunate follow a healthy lifestyle.

YOU CAN work to prevent health problems before they occur.

YOU CAN find true job satisfaction knowing that you are making the world a better place.

How? Here are some of the many examples:

BY determining the effects of the air, water, and soil pollutants that threaten and harm communities

BY creating educational campaigns that encourage healthy eating to prevent cancer, wearing bike helmets for greater safety, or exercising to prevent heart disease

BY developing policies for your city, state, or country that help improve access to health services

BY investigating the bacterial or viral sources of foodborne illnesses and developing strategies to prevent further contamination

BY using computers to track and analyze disease outbreaks, disability, or injury trends among communities and populations in the United States



Ciro Sumaya, MD, MPHTM

Dean and Professor

Former Deputy Assistant Secretary for Health, U.S. Department of Health and Human Services

FIELD: Higher education, federal government, consulting in private and public industries

SALARY RANGE: \$175,000–\$250,000

SPECIALTY: Pediatrics and infectious disease, national health policy

MPHTM 1973, BA Pre-Medicine

“Minority faculty provide leadership, serve as role models, provide perspective on dealing with minority patients, and promote culturally competent approaches to enhance the effectiveness of health service delivery to minority populations.”

A group of children in a slum, overlaid with a blue tint. The children are looking towards the camera, and the background shows makeshift structures and laundry hanging on lines.

What Is Public Health?

Public health is the science and art of protecting and improving the health of communities through education, promotion of healthy lifestyles, and research for disease and injury prevention. Public health involves the knowledge and application of many different disciplines in its research, teaching, service, and practice activities including: *biology, sociology, mathematics, anthropology, public policy, medicine, education, psychology, computer science, business, engineering, and much, much more.*

Public health is concerned with protecting the health of entire populations. These populations can be as small as a local neighborhood, or as big as an entire country.

Public health professionals try to prevent problems from happening or re-occurring through implementing educational programs, developing policies, administering services, and conducting research, in contrast to clinical professionals, such as doctors and nurses, who focus primarily on treating individuals after they become sick or injured.

What Field of Public Health Interests You?

The public health profession cuts across many different disciplines, so a public health career option exists for everyone!

Do you have strong organizational, communication, planning, and leadership skills? Consider a position in health administration or management. Job settings include: foundations, government agencies, community-based organizations, nonprofit agencies, clinics and hospitals, or managed care organizations.

Do you like working in the community, like solving problems in a team, and enjoy interacting with the public? Look into community practice. Job settings include: community health organizations, institutions that focus on university and community partnerships, state and local public health departments, and schools. A variety of job titles exist among the various settings (e.g., industrial hygienist, social worker, psychologist, community health educator, and public health nurse).

Are you interested in teaching others? Consider a position in education to teach health in a variety of settings including: maternal and child health in a women's clinic; occupational injury prevention with a trade union; stress reduction in a corporate wellness program; and any public health area in which you would like to become a professor in a school of public health, nursing, medicine, or other health profession.

Are you interested in current events, the law, and social change? Think about a career advocating change through developing, implementing, and evaluating health policies or laws. Job settings include: state, local, and national legislative offices; law firms; consulting firms; universities; nonprofit advocacy organizations; professional associations; and foundations.

Are you curious, detail-oriented, analytical, and rigorous in questioning the “hows” and “whys”? Research might be your field. Job settings include: university and medical centers, international organizations, private foundations, pharmaceutical companies, government agencies, and consulting firms.

Pursue a Career in Public Health

Public health has many fields to choose from. Most career opportunities are in the following areas:

ENVIRONMENTAL HEALTH

The air we breathe; the water we drink; the complex interactions between human genetics and our surroundings. These environmental risk factors can cause diseases such as asthma, cancer, and food poisoning. Environmental health studies the impact of our surroundings on our health.

BIOSTATISTICS

Estimating the number of deaths from gun violence or looking at trends in drunk driving injuries by using math and science is the study of biostatistics. Biostatistics uses data analysis to determine the cause of disease and injuries, as well as to identify health trends within communities. This field entails collecting and studying information, forecasting scenarios, and making reliable conclusions.

BEHAVIORAL SCIENCES/HEALTH EDUCATION

Stopping the spread of sexually transmitted diseases, such as herpes and HIV/AIDS; helping youth recognize the dangers of binge drinking; and, promoting seatbelt use. Behavioral Science/Health Education focuses on ways that encourage people to make healthy choices. This includes the development of community-wide education programs that range from promoting healthy lifestyles to preventing disease and injury, to researching complex health issues.

EPIDEMIOLOGY

When food poisoning or an influenza outbreak attacks a community, the “disease detectives” or epidemiologists are asked to investigate the cause of disease and control its spread. Epidemiologists do fieldwork to determine what causes disease or injury, what the risks are, who is at risk, and how to prevent further incidences. They understand the demographic and social trends upon disease and injury. The initial discovery and containment of an outbreak, such as West Nile virus, often comes from epidemiologists.

HEALTH SERVICES ADMINISTRATION

Managing the database at a school clinic; developing budgets for a health department; creating policies for health insurance companies; and, directing hospital services all depend on health administrators. The field of health services administration combines politics, business, and science in managing the human and fiscal resources needed to deliver effective public health services.

MATERNAL AND CHILD HEALTH

Providing information and access to birth control; promoting the health of a pregnant woman and an unborn child; and dispensing vaccinations to children are part of maternal and child health. Professionals in maternal and child health improve the public health delivery systems specifically for women, children, and their families through advocacy, education, and research.

NUTRITION

Promoting healthy eating and regular exercise; researching the effect of diet on the elderly; teaching the dangers of overeating and overdiets are the responsibility of public health nutritionists. This field examines how food and nutrients affect the wellness and lifestyle of populations. Nutrition encompasses the combination of education and science to promote health and disease prevention.

INTERNATIONAL/GLOBAL HEALTH

Addressing health concerns from a global perspective and encompasses all areas of public health (e.g., biostatistics, epidemiology, nutrition, maternal and child health, etc.). International health professionals address health concerns among different cultures in countries worldwide.

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, to ensure the safety of our food and water, to screen for the presence of certain diseases within communities, and to respond to public health emergencies, like bioterrorism.

For each of these public health career areas, opportunities exist in:

- ▶ Administration and Management
- ▶ Regulation and Law Enforcement
- ▶ Advocacy/Policy Development
- ▶ Research
- ▶ Teaching
- ▶ Delivery of public health services (public health nurse, public health doctor, public health dentist, etc.)
- ▶ Community Outreach

Obtain a Degree at a School of Public Health

Schools of public health are located across the United States and Puerto Rico and offer a wide range of educational opportunities. All accredited schools of public health offer high academic standards and the assurance that your educational opportunities will make you competitive in the job field after graduation. Accredited schools of public health offer many benefits:

- ▶ Wide variety of degree options and concentrations
- ▶ Hands-on training to prepare you for the workforce
- ▶ Interactive learning with communities
- ▶ Innovative research opportunities
- ▶ Refinement of skills and knowledge
- ▶ Mentorships
- ▶ Unique internships and fellowship opportunities
- ▶ Professional contacts



Students gaining practical experience through internships.

To determine if a career in Public Health is right for you...

- ▶ Contact a public health association for more information.
- ▶ Talk with professionals in the various public health fields, and ask questions about how they got to where they are.
- ▶ Schedule time to speak with faculty at any of the accredited schools of public health.
- ▶ Visit with current graduate students in public health.
- ▶ Conduct research on the Internet or at a library on the field of interest.

Policy Analyst

FIELD: Nonprofit National Asian American and Pacific Islander policy and advocacy organization

SALARY RANGE: \$35,000–\$50,000

SPECIALTY: International health, health policy, minority health

MHS 1999, BS Biology

“I analyze state and federal administrative policies, monitor legislation, and coordinate advocacy efforts on behalf of Asian American and Pacific Islander American communities. I have been able to combine my interest in health and science with my passion for social activism. To me, public health is part of the broad struggle for social justice, equality, and human rights for all.”

Jan T. Liu, MHS

Academics

The following is a sample curriculum that is generally expected of students.

Core Public Health Courses **5 courses**

- ▶ Introduction to Epidemiology
- ▶ Principles of Biostatistics
- ▶ Foundations in Health Administration
- ▶ Introduction to Environmental Health Sciences
- ▶ Introduction to Health and Community Behavior

Concentration Courses **7-8 courses**

Elective Courses **0-4 courses**

Practice Experience or Thesis

Culminating Experience (*culminating exam, special project, etc.*)

Please note that each school of public health will have different requirements. Check with each school for degree requirements and more information.

▶ **Core Public Health Courses**

To ensure a strong foundation for a public health career, every student is required to take coursework in epidemiology, biostatistics, health policy/administration, environmental health sciences, and the behavioral and social sciences.

▶ **Concentration Courses**

In addition to core courses, concentration courses are additional courses required within a student's selected major.

▶ **Elective Courses**

Elective courses are additional courses that are freely selected by a student to further refine their interest area.

▶ **Practice Experience**

Most students are required to complete a practice experience for graduation. This activity is conducted outside the classroom, usually in a work setting, to enable students to apply classroom knowledge and improve practice skills.

▶ **Culminating Experience**

This is an activity that enables students to demonstrate their mastery of everything they have learned in graduate school. It may take the form of a comprehensive examination, a written thesis paper, or a special project.



David Satcher, MD, MPH
U.S. Surgeon General (1998–2002)

Broaden Your Career Horizons... Consider a Dual or Joint Degree!

Combination degree programs are excellent programs for people with a wide range of interests, diverse education, and multi-talents to gain expertise in both public health and another discipline, such as medicine, law, public policy, education, social work, etc. Most schools of public health offer joint or dual degrees in distinct combinations tailored for your professional interests.

A dual degree is when a student completes all or most of the requirements for each individual degree. Some overlapping and shared requirements may occur; if so, these are usually through elective courses.

A joint degree is one in which two degrees can be completed both simultaneously and in less time than it would take to complete two degrees independently. The curricula of joint degrees are far more integrated than dual degrees.

The following are examples of common joint and dual degrees offered through schools of public health:

- ▶ MPH/MD (public health/medical degree)
- ▶ MPH/MSN (public health/nursing degree)
- ▶ MPH/JD (public health/law degree)
- ▶ MPH/MBA (public health/business degree)
- ▶ MPH/MSW (public health/social work degree)
- ▶ MPH/MPP (public health/public policy degree)
- ▶ MPH/DDS (public health/dentistry degree)

Assistant Clinical Professor and Physician

FIELD: Public health education, clinical practice; hospital, school clinic, and university

SALARY RANGE: \$95,000–\$125,000

SPECIALTY: General pediatrics and public health

MPH 2001, BA Comparative Literature

“A public health perspective allows me to examine how so many different, and at times, seemingly unrelated, factors interact and affect health. Health issues have roots that reach far beyond any individual patient. I need to understand these relationships if I wish to guide my patients to the road to wellness.”

Caroline Volel, MD, MPH

Application Process

There are many factors to consider when applying to a school of public health.

► PREPARATORY COURSEWORK

Most students in schools of public health come from a wide range of academic backgrounds. The following is a broad sampling of undergraduate majors that may help prepare you for your field of interest.

* SAMPLES OF UNDERGRADUATE MAJORS/MINORS	POSSIBLE FIELD CONCENTRATION(S)
Math, Statistics, Basic Sciences, Computer Sciences	Epidemiology or Biostatistics
Education, Sociology, Psychology, Anthropology, Biology, Marketing, Communications, Criminology	Behavioral Sciences/Health Education
Business, Economics, Public Policy, Political Science, Health Science, Marketing	Health Services Administration
Social Sciences, Linguistics, Political Science, History, Biology and other basic sciences, Anthropology, Communications	Global/International Health
Biology, Chemistry, Engineering, Agriculture, Earth Sciences (Geology, Meteorology), Archeology, Psychology	Environmental Health
Biology, Social Sciences, Health Science, Public Policy, Social Work	Maternal and Child Health

* *The suggested majors/minors are only examples and should not be considered as pre-requisite for any graduate public health concentration. Any discipline can prepare a person for most public health studies.* For example, a person doesn't necessarily need a major/minor in math or science to study biostatistics; competence in the appropriate math principles suffices.



Stacy Smallwood

MPH Candidate

FIELD: Exercise science

"I chose to pursue a career in public health because I wanted to take a proactive approach to health. Public health is important because it affects all aspects of people's lives. A career in public health means that I have the opportunity to affect the education, behavior, and health of African-American communities. There are many health issues that affect our communities disproportionately, yet there's also a lot of information out there about the solutions to the problems. We need people to bridge that gap."

▶ WORK EXPERIENCE

Many schools of public health favor relevant work experience in applicants. From recent college graduates to working professionals, the array of individual experiences brought to the classroom enriches student diversity. Work experience may be volunteer, school-based (e.g., internships), or paid employment. Work experience provides valuable insight into a profession and develops knowledge and skills that can assist you in graduate school.

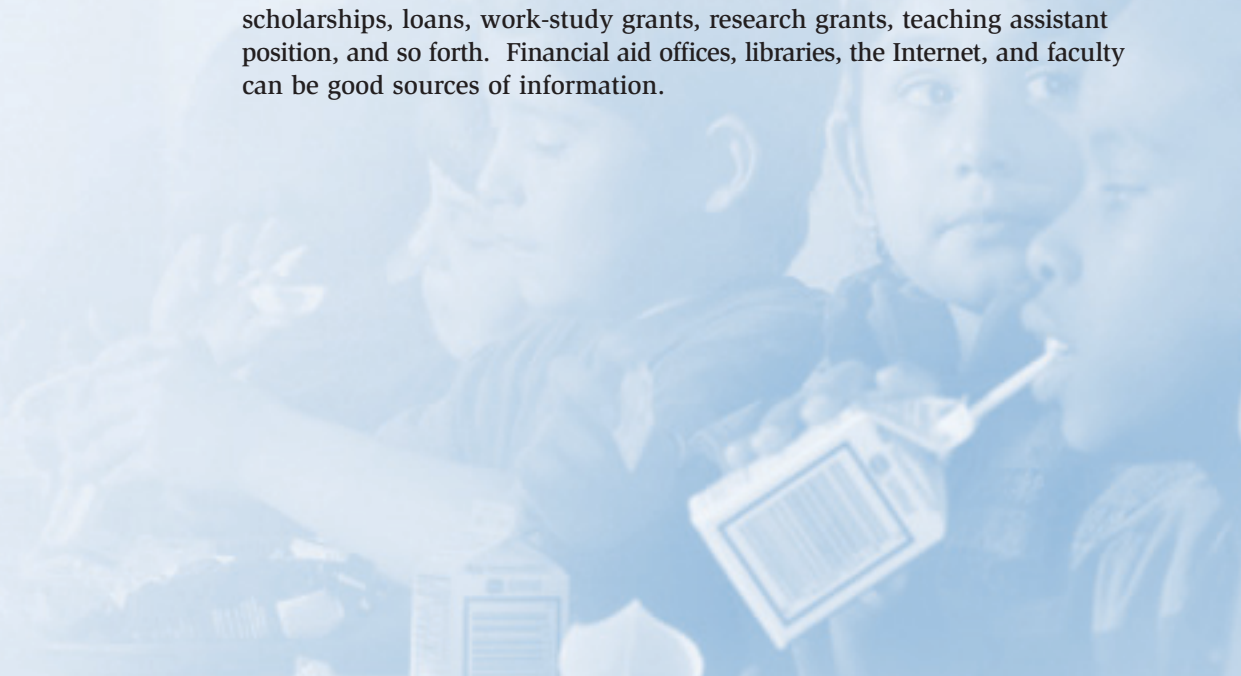
Frequently, early-to-mid career professionals return to school and seek a master of public health not only for their future goals, but also because public health complements a wide range of job experiences and previous studies.

▶ ADMISSIONS AND ENTRANCE

The entrance requirements differ by school and program area. For example, the Graduate Record Examination (GRE) is required by some schools, but not by others. Contact the schools that you are interested in attending to inquire about specific test requirements and admission policies.

▶ FINANCIAL AID INFORMATION

Annual tuition and fees at accredited schools of public health range from a little over \$1,000 to well over \$20,000, depending on the institution, degree program, and other factors. Financial aid opportunities vary from school to school; so contact each school for more information. Most students today receive some form of financial aid, which can include the following: scholarships, loans, work-study grants, research grants, teaching assistant position, and so forth. Financial aid offices, libraries, the Internet, and faculty can be good sources of information.





Research Associate

FIELD: Community-based research and policy on Medicare and Medicaid

SALARY RANGE: \$40,000–\$50,000

SPECIALTY: Community-based public health, health service research, health policy research
MPH 1999, BS Biological Sciences and Sociology

Ann-Gel S. Palermo, MPH

“As a Latina, I have been able to incorporate my own experiences as well as gain insights into the way in which public health practice and research is conducted with the Latino community.”





An Invitation to Join Public Health from Susan Scrimshaw

Public health is a wonderful field because, no matter what you enjoy, there is a need for your skills. Public health practitioners do everything from statistical analysis of health-related studies to research on the effects of air pollution on asthma to informing policy makers of the impact of their decisions on people's health to looking at cultural factors related to health behavior, including interaction with health systems. Public health focuses on promoting health and preventing disease, and its emphasis is on the population or community.

Jobs in public health range from providing direct care in health clinics (usually people who do this have a clinical specialty as well) to working in health programs as a health educator, administrator, evaluator, etc., doing research on health problems, tracking down epidemics, teaching public health, working on policy, and on and on. Jobs range from basic community level work up to the Surgeon General, who sets health policy and provides leadership on health issues.

Public health degrees include masters and doctoral degrees, which are attained after the bachelor's degree. Some students do come directly from undergraduate work, but they usually have some health experience such as volunteer work in a clinic. The rest have begun to practice public health or are in a clinical field (medicine, nursing, social work, dentistry, etc.) and decide to come back to school for the degree.

The field of public health embraces diversity! Health professionals from a variety of ethnic backgrounds are a significant and valuable asset to public health because their unique perspectives on culture and communities enhance prevention and wellness. Contrary to the unsound messages asserting that ethnic communities ought to adopt a uniform, mainstream lifestyle (e.g., language, dress, food, etc.) in the United States, the fact is that the cultural norms, language, and attitudes of ethnic communities actually translate into essential skills and knowledge for public health.

Public health values multiculturalism. Such diversity in public health also helps create an environment that will educate other professionals about the misconceptions of mainstream views about race, ethnicity, and health. If you want a rewarding career that will help improve the health of the future, join the public health profession.

Sincerely,

Susan Scrimshaw, Ph.D.
Chair, Association of Schools of Public Health (2000–2002)
Dean, University of Illinois at Chicago, School of Public Health

Benefits of a Career in Public Health

Be a part of the Public Health profession and you will gain:

- ▶ A variety of opportunities to work in many settings and disciplines;
- ▶ Professional growth and leadership skills;
- ▶ Personal and professional satisfaction from having a positive impact upon society's well-being;
- ▶ Opportunities to interact with and learn from a wide array of professionals in diverse fields;
- ▶ A chance to “give back” to the community and become a more actively engaged citizen;
- ▶ A deeper appreciation of multicultural perspectives; and,
- ▶ A chance to promote change by combining your interests and passions toward social activism and justice.

The boundaries of what you can do in Public Health are limitless...

You can make a difference with a career in Public Health!

Assistant Professor

FIELD: Education and community-based, applied research

SALARY RANGE: \$50,000–\$90,000

SPECIALTY: HIV/AIDS, ethnic minority health issues, program evaluation, and social determinants of disease

MPH 2001, BA Psychology

“I fell in love with public health because of its applied nature. It developed out of a need to improve populations. My research seeks to understand how social factors relate to disease among ethnic minority populations...it facilitates changes that will improve health outcomes of people of color in this country.”

Kimberly Jacob Arriola, PhD, MPH

ASPH Association of Schools
of Public Health

Please visit www.asph.org for more information.

