

AOHS Global Health

Lesson 15

Working in Global Health and Course Closure

Student Resources

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Student Resource 15.1

Chart: Career Pathways

Student Name: _____ Date: _____

Directions: Look at the health care careers in the chart below. Circle three careers that interest you. Then read and discuss the questions at the end of this resource. Write your responses in the space provided.

Therapeutic Services	Diagnostic Services	Health Informatics	Support Services	Biotechnology R and D
Acupuncturist	Audiologist	Admitting Clerk	Animal Behaviorist	Biochemist
Anesthesiologist/Assistant	Blood Bank Technology Specialist	Applied Researcher	Biomedical/Clinical Engineer	Bioinformatics Scientist
Anesthesia Technologist/Technician	Cardiovascular Technologist	Compliance Technician	Biomedical/Clinical Technician	Biomedical Chemist
Art/Music/Dance Therapist(s)	Clinical Lab Technician	Clinical Account Manager	Clinical Simulator Technician	Biomedical Manufacturing Technician
Athletic Trainer	Clinical Laboratory/Technologist	Clinical Account Technician	Central Service Manager	Biostatistician
Audiologist	Computer Tomography (CT) Technologist	Clinical Data Specialist	Central Service Technician	Cancer Registrar
Certified Nursing Assistant	Cytogenetic Technologist	Community Services Specialist	Community Health Worker	Cell Biologist
Chiropractor	Cytotechnologist	Data Quality Manager	Dietary Manager	Clinical Data Management Specialist
Chiropractic Assistant	Dentist	Epidemiologist	Dietetic Technician	Clinical Pharmacologist
Dental Assistant/Hygienist	Diagnostic Medical Sonographer	Ethicist	Environmental Health Advocate	Clinical Trials Monitor
Dental Lab Technician	Electrocardiographic (ECG) Technician	Health Educator	Environmental Health Practitioner	Clinical Trials Research Coordinator
Dietitian/Nutritionist	Electroneurodiagnostic Technologist	Health Information Mgmt. Administrator	Environmental Services/Specialist	Crime Scene Investigator
EMT/Paramedic	Electronic Diagnostic (EEG) Technologist	Health Information Mgmt. Technician	Facilities Manager	Diagnostic Molecular Scientist
Endodontist	Exercise Physiologist	Health Care Access Manager	Food Safety Specialist	Forensic Biologist
Exercise Physiologist	Geneticist	Health Care Administrator	Health Advocate	Forensic Chemist
Home Health Aide	Geriatrician	Health Care Finance Informatician		Forensic Odontologist
Kinesiotherapist				Forensic Pathologist
Licensed Practical Nurse				Genetic Counselor
Massage Therapist				Geneticist-Lab Assistant
Medical Assistant				
Mental Health Counselor				
Naturopathic Doctor				

Therapeutic Services	Diagnostic Services	Health Informatics	Support Services	Biotechnology R and D
Nurse Anesthetist	Histotechnician	Information Privacy Officer	Hospital Maintenance Engineer	Lab Technician
Nurse Midwife	Histotechnologist	Managed Care Contract Analyst	Industrial Hygienist	Medical Editor/Writer
Nurse Practitioner	Magnetic Resonance Technologist	Medical Coder	Interpreter	Microbiologist
Occupational Therapist/Assistant	Mammographer	Medical Historian	Marital, Couple, Family Counselor/Therapist	Molecular Biologist
Oral Surgeon	Medical Technologist/ Clinical Laboratory Scientist	Medical Illustrator	Materials Manager	Nurse Researcher
Orientation/Mobility Specialist	Nuclear Medicine Technologist	Medical Information Technologist	Medical Health Counselor	Packaging Technician
Orthodontist	Optician	Medical Librarian	Mortician/Funeral Director	Patent Lawyer
Orthoptist	Ophthalmologist	Medical Transcriptionist	Nurse Educator	Pharmaceutical/Clinical Project Manager
Orthotist/Prosthetist/Technician	Ophthalmic Assistant/Technologist	Patient Account Manager	Occupational Health Nurse	Pharmaceutical Sales Representative
Pedorthist	Optometrist	Patient Account Technician	Occupational Health & Safety Expert	Pharmaceutical Scientist
Perfusionist	Pathologist	Patient Advocate	Social Worker	Pharmacokineticist
Pharmacist	Pathologists' Assistant	Patient Information Coordinator	Transport Technician	Pharmacologist
Pharmacy Technician	Phlebotomist	Project Manager		Product Safety Scientist
Physical Therapist/Assistant	Polysomnographic Technologist	Public Health Educator		Process Development Scientist
Physician (MD/DO)	Positron Emission Tomography (PET) Technologist	Quality Management Specialist		Processing Technician
Physician Assistant	Radiologic Technologist	Quality Data Analyst		Quality Assurance Technician
Podiatrist	Radiologist	Research and Decision Support Specialist		Quality Control Technician
Psychologist	Speech-Language Pathologist	Reimbursement Specialist		Regulatory Affairs Specialist
Psychiatrist		Risk Manager		Research Assistant
Radiation Therapist		Unit Coordinator		Research Scientist
Recreation Therapist		Utilization Manager		Toxicologist
Registered Nurse		Utilization Review Manager		
Rehabilitation Counselor				
Respiratory Therapist				
Speech-Language Therapist				
Surgical Technician				
Veterinarian				
Veterinarian Assistant				
Wellness Coach				

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Think about one of the careers that you circled. If a person in this profession worked in global health, what additional or special training, skills, knowledge, and responsibilities might he or she have?

Think about one of the careers that you circled. Why might someone in this profession want to work in global health?

Student Resource 15.2

Reading: Global Health Professions Employment Overview

There are many ways to work in global health and a large number of professions that serve global health needs. These professions include doctors and nurses, but they also include career paths that you may not expect. You don't need to be trained in a medical profession to work in global health. For example, people trained in communications, engineering, ecology, and finance can all play important roles in global health.

People choose to enter global health professions for a number of reasons. Some people are driven by altruism, or an unselfish concern for other people's welfare, and a commitment to public service. Others are seeking adventure and want to satisfy a curiosity about cultures other than their own. Working internationally can come with challenges, such as difficult living and working conditions, the risk of disease and injury, and separation from family and friends. But not all global health work involves travel. For example, a scientist searching for a cure for AIDS may work in a laboratory close to home—and yet the scientist's work may touch lives around the planet.

Types of Employers

A broad range of organizations employ people in global health. The following table gives information about different types of global health employers. One approach to figuring out what global health career may be right for you is to consider what type of organization you might want to work for.

Type of Employer	Brief Description	Examples
Government agencies	Provide a wide range of health activities that support health programs in mostly low- or middle- income countries.	USAID Centers for Disease Control
Nongovernmental organizations (NGOs)	Smaller local NGOs likely focus on one health issue or one population, such as reproductive care in Bangladesh. Larger international NGOs may focus on many issues, such as water, sanitation, and pollution in low- and middle-income countries.	Oxfam Save the Children
Organizations involved with the delivery of humanitarian services or financial services	Provide services including: <ul style="list-style-type: none">• Clinical services in low- or middle-income countries in response to a natural disaster or complex humanitarian emergency• Services that are part of a short-term medical mission, such as dental care to children in Guatemala• Financial assistance to low- and middle-income countries	Doctors without Borders The World Bank
UN agencies	Provide services to people around the world. The UN is the world's largest international employer, with 60,000 staff members globally and 4,500 in the United States.	World Health Organization UNICEF

Type of Employer	Brief Description	Examples
Academia	Provide education, training, and research opportunities in global health. University academic departments that address global health issues include anthropology, economics, medicine, political science, and public health.	International Health at Johns Hopkins University Global Health Program at New York University
Policy organizations	Focus on research and analysis of key policy matters, using research to try to influence policymakers.	Center for Global Development Council on Foreign Relations
Advocacy organizations	Raising awareness and funding for global health issues.	Bill and Melinda Gates Foundation AIDS United

Global Health Careers

In addition to thinking about what type of employer you'd like to work for, you should also consider what type of job you might like to have and whether the demand for the profession will stay strong in the future. You know about a range of health care careers that have a global health context, such as pediatricians, registered nurses, and mental health counselors. Below are some other careers to consider. Remember, there are a lot of possibilities out there.

Biostatistician

A biostatistician is a type of statistician who works mainly in public health and medicine. Biostatisticians use mathematical techniques to analyze and interpret data and draw conclusions. Many economic, social, political, and military decisions rely on the work of statisticians. A biostatistician might design a study that tests whether a new drug could successfully treat tuberculosis or help identify the source of an Ebola outbreak. People who enter this line of work excel at math and computing.

Communications specialist

A communications specialist leads a global health organization's communication efforts. This may include writing and editing a magazine, a newsletter, website, or other materials that the organization publishes as well as managing social media. It may also involve setting up interviews between staff members and journalists, managing social media, or creating and leading major health campaigns. Communication specialists have excellent writing skills and the ability to connect with a variety of people.

Emergency operations center manager

An emergency operations center manager oversees a center's ability to effectively respond to disasters and other emergency situations in a particular area. The goal of this professional's work is to lessen the impact of a disaster on a population. Responsibilities may include training people in disaster preparedness, monitoring events to anticipate possible threats, and coordinating relationships with other groups, like the Red Cross or the military. People who do this type of work have excellent leadership skills and the ability to make decisions under pressure and perform effectively in crisis situations.

Environmental health scientists

Environmental health scientists study how environmental factors affect human health. This may involve educating the public about health risks related to the environment, such as air toxins released after an accident at a chemical plant. Their work involves collecting and analyzing environmental data, such as

samples of air, soil, and water, and creating plans to prevent, control, or fix environmental problems, such as a polluted drinking water supply. Environmental scientists have a strong interest and background in the sciences and the natural world, as well as in human behavior.

Health economists

Health economists research and analyze economic issues related to health and global affairs. Their work involves conducting surveys and collecting and analyzing data using mathematical models and statistical techniques. They often advise think tanks, governments, and international organizations on solving economic problems. They may also use economic concepts to address health issues such as studying the effect of cigarette taxes on smoking rates. Economists excel in math and have a deep knowledge about global history.

Health educators

Health educators develop programs and materials to encourage people to make healthy decisions. They teach people about healthy behavior, such as proper nutrition and physical activity. During emergencies, health educators are often responsible for providing safety information to the public. Some health educators work with policymakers to create public policies that support healthy behaviors. A health educator may specialize in a particular health topic, such as controlling malaria in sub-Saharan Africa. Health educators have excellent communication skills. They are able to connect with a wide variety of people on topics that may be sensitive or difficult to discuss.

Medical laboratory scientists

Medical laboratory scientists work in labs. They collect and perform tests on samples, such as body fluids and tissues. They operate sophisticated laboratory equipment, like cell counters. Their work may involve developing a new vaccine, studying a disease outbreak, testing a disease treatment, or researching a new strain of a disease. Medical laboratory scientists are detail oriented and have a deep knowledge of human biology.

Research epidemiologists

Epidemiologists investigate the causes of disease and other public health problems. They work to prevent public health problems from spreading or from happening again. Their work may involve collecting and analyzing data, which includes observations, interviews, and samples of bodily fluids. Epidemiologists have investigative minds as well as strong communication skills, because their work often involves explaining their findings to policymakers and the public.

Translators

Translators work in the written language. They convert information from one language to another. Translators may be responsible for translating medical documents, technical reports, lab results, legal documents, speeches, or policy briefs. They are expected to create high-quality documents that are accurate and precise. Translators who work for large organizations like the WHO may be required to know six or more languages. Translators are detail-oriented people who work efficiently and carefully. As well as being proficient in several languages, they must also respect and understand cultural differences.

The following website is an excellent places to explore careers in global health. It also describes the degrees and training required for different professions:

http://explorehealthcareers.org/en/Field/11/Public_Health

Getting Started

To identify a career that may be a good fit for you, it's important to become familiar with different types of opportunities to work in global health. Once you find a career you're interested in, you will want to

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understand the background, such as the education and work experience, needed for that career. Then you can make a plan to gain the knowledge, skills, and experience you'll need. You'll also want to identify people who can serve as role models or mentors.

While the requirements for global health jobs vary greatly, all global health careers require a common set of skills and knowledge. These include an understanding of key political, social, and economic issues in low- and middle-income countries and an appreciation for different cultures. They also often include knowing more than one language and having the experience of living and working in another country.

To succeed in global health, a bachelor's degree is a minimum expectation, and in many cases an advanced degree is necessary. Many aspiring global health workers choose to do their graduate work overseas. Internships and work study in a variety of global health fields, such as HIV/AIDS and maternal health, also put you on the right track for landing the global health job you want.

Strong math, health, and science grades in high school, including your grades in AOHS, will help you get into a good college program, which in turn can help you get the right internship or entry-level job to start you off in a global health profession.

Student Resource 15.3

Wish List: Interesting Jobs

Student Name: _____ Date: _____

Directions: Refer to Student Resource 15.2, Reading: Global Health Professions Employment Overview, and write down at least three jobs that you read about that you might want to do. Then write down why the job interests you and include at least two or three examples of skills, knowledge, and personal characteristics a person needs to have in order to succeed in that job. An example is shown.

Job Title	Why It Interests Me	Skills, Knowledge, or Personal Characteristics Needed
<i>Translator</i>	<i>I would like to work for a large, international organization like the WHO, which employs many translators. Because my father is Brazilian and my mother is Cuban, I am already fluent in Spanish, Portuguese, and English, and I'm interested in learning more languages.</i>	<i>Detail oriented Proficient in several languages Respectful of cultural differences</i>

Student Resource 15.4

Biographical Profile: Global Health Professional

Student Name: _____ Date: _____

Directions: Write a brief biographical profile of a global or public health professional who inspires you. Your profile should include the following types of information:

- *A description of the person's background and his or her contribution to global health*
- *Important milestones in the professional's life, such as life-changing decisions, challenges encountered, and major accomplishments*
- *How learning about the professional's work inspires you and impacts your own career aspirations*

Before you begin your work, analyze the example profile and read the assessment criteria at the end of this assignment sheet.

Step 1: Choose a Professional

Choose one of the following professionals to write your biographical profile about. You may also choose someone who is not on this list. Consider choosing someone you've learned about in this course, a guest speaker you've interacted with, or a global health professional you or your family know personally. If you choose someone who is not on this list, make sure to tell your teacher your selection before you begin researching and writing.

- Johanne Sekkenes, nurse for Doctors without Borders
 - <http://www.doctorswithoutborders.org/person-profile/johanne-sekkenes-nurse>
- William Foege, an epidemiologist instrumental in the eradication of smallpox
 - http://en.wikipedia.org/wiki/William_Foege
 - <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=01262005>
- Donald Francis, one of the early scientists researching HIV and AIDS
 - http://en.wikipedia.org/wiki/Don_Francis
- Yusuf Hamied, a scientist and chairman of a socially conscious pharmaceuticals company
 - http://en.wikipedia.org/wiki/Yusuf_Hamied
 - <http://www.theguardian.com/world/2003/feb/18/aids.sarahboseley13>
- Margaret Chan, the director of the World Health Organization
 - http://en.wikipedia.org/wiki/Margaret_Chan
 - <http://www.nejm.org/doi/full/10.1056/NEJMp068299>
- David Satcher, a former US surgeon general who advocated for minority health issues
 - http://en.wikipedia.org/wiki/David_Satcher
 - http://www.pbs.org/newshour/bb/health-jan-june02-satcher_1-21/
- António Guterres, the UN high commissioner for refugees
 - <http://www.unhcr.org/pages/49c3646c8.html>

- http://en.wikipedia.org/wiki/Ant%C3%B3nio_Guterres
- Donald McNeil, a *New York Times* reporter on global health
 - http://topics.nytimes.com/top/reference/timestopics/people/m/donald_g_jr_mcneil/index.html
 - <http://www.fnsreporting.com/Portfolio/Technical%20Documents/sacredheart/images/mcneil.pdf>

Step 2: Research and Write Your Biographical Profile

Use the links given in Step 1 to research the professional you’ve chosen to write about. As you research, take notes in the chart below. The chart explains what each paragraph in your profile should be about. When you have completed your research, write your profile on a separate sheet of paper (or on your computer) using your notes to guide you. When you have finished writing, review your profile and make sure that your work meets or exceeds the assessment criteria.

What Each Paragraph Should Be About	Notes
<p>In the first paragraph, explain the contribution the person you’ve chosen has made to public or global health. In this paragraph, also give information about the person’s background, such as education received, jobs held, places the person has lived, or relevant personal experience he or she has had.</p>	
<p>In the second paragraph, focus on one or two accomplishments the person has made or challenges he or she has faced and overcome.</p>	
<p>In the third paragraph, focus on how learning about the person’s career has affected you. Say what</p>	

<p>you are inspired by or explain how learning about the person has given you an idea about your own career path.</p>	
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Make sure your work meets or exceeds the following assessment criteria:

- The profile clearly explains why the professional’s contribution to public or global health is important, by providing both general information about the professional’s background and specific information about his or her accomplishments.
- The profile demonstrates an understanding of the challenges and rewards of working in global health, as well as the skills, knowledge, and experience needed.
- The profile provides a thoughtful reflection on how learning about the professional has affected the student’s ideas about his or her own career in public or global health.
- The profile is neat and uses proper spelling and grammar.

Example Profile: Candace “Candy” Lightner

Candy Lightner is an activist, lobbyist, and lecturer who helped found Mothers Against Drunk Driving, a pivotal organization in the fight against drunk driving. Lightner did not have a background in activism or politics. She was born in 1946 and raised in a military family, and went to college in Sacramento, California. She had three children. She worked as a real estate agent and dental assistant. After her 13-year-old daughter was hit and killed by a drunk driver, she formed MADD just four days later.

One of MADD’s and Lightner’s most significant accomplishments is raising awareness about drunk driving. Prior to her work, drunk drivers often received light punishments for hitting or killing people. Her work changed that. Another monumental accomplishment was advocating for a national law raising the legal drinking age to 21.

I am inspired by Lightner’s work because she turned her grief and rage into action. After her daughter’s death, she quit her job and used her savings to form MADD. She was driven by the idea that tougher laws could save lives. She worked tirelessly to realize this vision. One thing I take away from Lightner’s story is that people in public health often take personal risks. I see myself as someone who, like Lightner, is compelled to make a difference and is willing to make personal sacrifices to do so.