

# \*ACTIVITIES AND TOOLS FOR TEACHING PUBLIC HEALTH

*A Resource for Educators, Career Counselors and Public Health Ambassadors*



**Connecticut  
Public Health  
Association**

Promoting Public Health in Connecticut Since 1916



**UCONN**  
**PUBLIC HEALTH PROGRAM**

## **Mentoring Organization Registry**

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## INTRODUCTION

*Activities and Tools for Teaching Public Health* is a resource for educators, counselors and workplace mentors who want to expose high school and college students to career and volunteer opportunities in the field, but do not have the time to gather materials necessary to do this. This guide contains lesson plans, links to databases and lists of organizations that provide work-based learning, sample volunteer projects and PowerPoints to help professionals integrate public health into a variety of high school or college courses.

The value of training students in public health concepts and careers goes far beyond preparation for careers in the field: When students learn public health, they learn a broad range of 21<sup>st</sup> century skills that encourage success in any work environment and in daily life. These 21<sup>st</sup> century skills include communication, collaboration, innovation, leadership, problem solving, cultural competency, social consciousness and technology. Often they are learned and strengthened outside the walls of school through experiences in the community under the guidance of caring and talented adults in the workplace.

We hope you will use the activities in this guide and pass them on to other professionals to help build the next generation into one that is healthier, ready to contribute to the community's well-being, and prepared and interested in becoming part of a talented public health workforce. We suggest that you begin to introduce students to public health on page one with the *Public Health Career Quiz* and move on to *Public Health: A Career for a Lifetime*, a PowerPoint presentation with notes for every slide making it easy for you to introduce students to the basics of public health.

## ACKNOWLEDGEMENTS

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**ACTIVITIES AND TOOLS FOR TEACHING PUBLIC HEALTH 2011**

*From the CT Public Health Association and University of CT Program in Public Health*

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## TAKE THE PUBLIC HEALTH CAREER QUIZ\*

1. Which of the following best describes the difference between public health and personal health care?
  - a. Public health focuses on the health of the population. Personal health care focuses on treatment of the individual
  - b. Public health focuses on improving the environment to prevent diseases like asthma from spreading throughout the population. Personal health focuses on treating individuals who suffer from environmentally caused illness.
  - c. Public health focuses on protecting populations from disasters and disease, rather than treating individuals who are sick or injured.
  - d. All of the above
  
2. Health Disparities are factors that unequally affect a person or community's ability to be healthy, such as:
  - a. Lack of jobs
  - b. Unequal access to quality health care
  - c. Unhealthy and/or unsafe living, work and/or school environments
  - d. Lack of food including fresh and healthy food (food insecurity)
  - e. All of the above
  
3. Circle three of the 10 greatest achievements in public health.
  - a. A cure for the common cold
  - b. Promoting the health of mothers and babies
  - c. Fluoridation of water
  - d. Vaccinations
  - e. Discovering that chocolate and coffee are high in antioxidants
  
4. Which activity does NOT make communities healthier or safer?
  - a. Monitoring the water and food supply
  - b. Working with local grocery stores to carry affordable, fresh, and organic foods
  - c. Collaborating with local policymakers to build walking and bike paths
  - d. Working with educators to designate a smoking area on school grounds
  - e. Lobbying for state laws to protect the environment
  
5. Circle the volunteer activities that help you develop valuable public health work skills.
  - a. Call Area Health Education Centers to ask about the [CONNECTICUT Youth Health Service Corps](#).
  - b. Ask your friends to join you and your efforts to make your community healthier and safer.
  - c. Ask a teacher to help your class assemble an emergency preparedness packet. Go online to: <http://www.getreadyforflu.org/clocksstocks/GetSetHighSchoolKit.pdf>
  - d. Help reduce energy costs in your school go to [Live Green, Win Green](#)
  - e. All of the above

6. Which of the following is responsible for over half of all deaths from unintentional injuries?
  - a. Drowning
  - b. Motor vehicle crashes
  - c. Poisoning
  - d. Firearm injuries
  
7. What did the early explorers of North and South America share with the indigenous populations?
  - a. Fast Food
  - b. Modern weaving techniques
  - c. Improved methods for pasteurizing milk
  - d. Communicable disease
  
8. What is one of the fastest growing public health concerns in the world?
  - a. Cancer
  - b. SARS
  - c. Diabetes
  - d. Workplace accidents
  
9. Which of the following is responsible for more deaths each year than homicide; cocaine, heroin, and alcohol use; AIDS; suicide; and motor vehicle crashes combined?
  - a. Marijuana
  - b. Tobacco
  - c. Fires
  - d. Unintentional injury
  
10. According to many experts, what is the most important measure to take to prepare for a disaster?
  - a. Have a large supply of non-perishable food in-house
  - b. Own a cellular phone
  - c. Have access to a battery-powered radio
  - d. Have a family plan

**Introduce your students to public health careers through CT Public Health Association's "[Public Health: A Career for a Lifetime](#)" PowerPoint.**

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\*Adapted from <http://www.whatispublichealth.org/quiz/quiz.html> August 12, 2011.

Answer Key: 1-d 2-d 3-b,c,d 4-d 5-e 6-b 7-d 8-b 9-c 10-d



## ARE YOU READY FOR AN EMERGENCY AT HOME?

The best way to be ready for an emergency or disaster is to get prepared before one ever happens. To make sure your family is ready answer the questions below to develop an emergency plan. Then use materials from <http://www.ready.gov/america/index.html> to gather specific contents for your emergency preparedness kit.

1. Do you have a “just-in-case plan” for emergencies? Yes No
2. Discuss different types of emergencies and how to respond to each.  
[www.ready.gov/america/beinformed/](http://www.ready.gov/america/beinformed/)
3. Do you know who to call if one of you becomes lost or separated? Yes No
4. Have you chosen a safe spot to meet somewhere in the neighborhood? Yes No
5. Do you have a preparedness kit stocked with food, water and other supplies? Yes No  
[emergency food](http://www.ready.gov/america/getakit/index.html), [www.ready.gov/america/getakit/index.html](http://www.ready.gov/america/getakit/index.html)  
[clean water](http://www.ready.gov/america/getakit/index.html)
6. Do you know when it is better to stay inside the house rather than go outside? Yes No  
*Different emergencies sometimes mean inside is better (such as during a tornado) than outside (such as during a fire). If you are inside an unfamiliar building in an emergency, look for the exit signs.*
7. Do you have a list of local emergency numbers other than 911? Yes No  
[www.ccm-ct.org/advocacy/websites.html](http://www.ccm-ct.org/advocacy/websites.html)
8. Do we have emergency preparedness information available at home? Yes No  
Create a pocket card that has all the phone numbers you might need.  
[www.ready.gov/america/downloads/familyemergencyplan.pdf](http://www.ready.gov/america/downloads/familyemergencyplan.pdf)
9. Do you have an emergency preparedness kit in your car? Yes No
10. Sit down with a parent or adult and visit <http://www.ready.gov/america/index.html> for tips and ideas.



### Additional Items to Consider Adding to an Emergency Supply Kit:

- Prescription medications and glasses
- Infant formula and diapers
- Pet food and extra water for your pet
- Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from [www.ready.gov](http://www.ready.gov)
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper – When diluted nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- Fire Extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books, games, puzzles or other activities for children



## Emergency Supply List





# Ready

Prepare. Plan. Stay Informed.

# Family Emergency Plan



Make sure your family has a plan in case of an emergency. Before an emergency happens, sit down together and decide how you will get in contact with each other, where you will go and what you will do in an emergency. Keep a copy of this plan in your emergency supply kit or another safe place where you can access it in the event of a disaster.

Out-of-Town Contact Name: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Neighborhood Meeting Place: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
 Regional Meeting Place: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
 Evacuation Location: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

Fill out the following information for each family member and keep it up to date.

Name: \_\_\_\_\_ Social Security Number: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Important Medical Information: \_\_\_\_\_  
 Name: \_\_\_\_\_ Social Security Number: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Important Medical Information: \_\_\_\_\_  
 Name: \_\_\_\_\_ Social Security Number: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Important Medical Information: \_\_\_\_\_  
 Name: \_\_\_\_\_ Social Security Number: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Important Medical Information: \_\_\_\_\_  
 Name: \_\_\_\_\_ Social Security Number: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Important Medical Information: \_\_\_\_\_  
 Name: \_\_\_\_\_ Social Security Number: \_\_\_\_\_  
 Date of Birth: \_\_\_\_\_ Important Medical Information: \_\_\_\_\_

Write down where your family spends the most time: work, school and other places you frequent. Schools, daycare providers, workplaces and apartment buildings should all have site-specific emergency plans that you and your family need to know about.

<b>Work Location One</b> Address: _____ Phone Number: _____ Evacuation Location: _____	<b>School Location One</b> Address: _____ Phone Number: _____ Evacuation Location: _____
<b>Work Location Two</b> Address: _____ Phone Number: _____ Evacuation Location: _____	<b>School Location Two</b> Address: _____ Phone Number: _____ Evacuation Location: _____
<b>Work Location Three</b> Address: _____ Phone Number: _____ Evacuation Location: _____	<b>School Location Three</b> Address: _____ Phone Number: _____ Evacuation Location: _____
<b>Other place you frequent</b> Address: _____ Phone Number: _____ Evacuation Location: _____	<b>Other place you frequent</b> Address: _____ Phone Number: _____ Evacuation Location: _____

Important Information	Name	Telephone Number	Policy Number
Doctor(s):			
Other:			
Pharmacist:			
Medical Insurance:			
Homeowners/Rental Insurance:			
Veterinarian/Kennel (for pets):			

Dial 911 for Emergencies



# PUBLIC HEALTH CLASSROOM ACTIVITIES

## I. Disease Detective Activities

### ***Outbreak at WaterEdge***

**Time:** One class period

**Type of class:** Forensics, Environmental Science, Biology, Career Exploration classes

**For:** 9<sup>th</sup>-12<sup>th</sup> grade students; *can be adapted for college students*

The need for public health professionals has never been greater. This interactive online activity introduces students to the variety of public health and environmental health professionals that together investigate and stop disease outbreaks.

[http://www.mclph.umn.edu/watersedge/teachers\\_guide.html](http://www.mclph.umn.edu/watersedge/teachers_guide.html)

## II. Air Quality Index Exercises

### ***Check your Air Quality Index each day in your area***

**Time:** One Class Period

**Type of Class:** Environmental Science, Health, Biology

**For:** 9<sup>th</sup>-10<sup>th</sup> grade students

There are many kinds of air pollution. The Environmental Protection Agency (EPA) calculates the Air Quality Index (AQI) everyday. Predict weather information and corresponding air quality for the next day. Those with asthma will especially appreciate knowing ahead of time the air quality of the day.

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

### ***Air Pollution: What's the Solution?***

**Time:** One Class Period

**Type of Class:** Environmental Science, Health, Earth Science

**For:** 6<sup>th</sup>-12<sup>th</sup> grade students

This site utilizes real time data to guide students, grades 6 - 12, to discover the science behind outdoor air pollution. The project contains exciting applications on the Internet where students can access real time atmospheric data, weather data and other sources. Students will focus on the science behind air quality issues, look for relationships and trends among the data collected via real time sources, and will examine the health impact of air pollution.

<http://www.k12science.org/curriculum/airproj/ozonetomorrow.html>

## III. The Relationship Between Population, the Environment and Health

### ***World in the Balance: Global Trends Quiz***

**Time:** One Class Period

**Type of Class:** Environmental Science, Health, Earth Science

**For:** 9<sup>th</sup>-12<sup>th</sup> grade students; *can be adapted for college students*

Populations in both developed and developing nations are on a course to change dramatically in the coming decades. These changes could radically impact economies as well as have enormous consequences for local and global environments. In this quiz, explore what may lie ahead.

<http://www.pbs.org/wgbh/nova/worldbalance/trends.html>

#### IV. Teaching Units Aligned to National Standards

##### ***The Most Dangerous Woman in America: The Story of Typhoid Mary***

**Time:** One Class Period

**Type of Class:** Health, Biology, History

**For:** 9<sup>th</sup>-12<sup>th</sup> grade students; *can be adapted for college students*

The program reviews the symptoms, virulence, transmission, and causes of typhoid fever, relates how epidemiologist George Soper tracked down Typhoid Mary as the source of the contagious disease, and covers her eventual arrest and the forced testing that revealed she was carrier of the bacteria. Grade 9-12 classroom activities available at this site are aligned to national standards.

[http://www.pbs.org/wgbh/nova/teachers/programs/3115\\_typhoid.html](http://www.pbs.org/wgbh/nova/teachers/programs/3115_typhoid.html)

##### ***Disease Outbreak Investigation***

**Time:** Multiple lessons and units can be adjusted according to curriculum needs

Lesson 1: Food-Borne Outbreak

Lesson 2: Cholera and the Investigations of John Snow

Lesson 3: Case Study of a Leukemia Cluster in Woburn, Massachusetts

**Types of Classes:** Statistics, Biology, Environmental Science

**For:** 9<sup>th</sup>-12<sup>th</sup> grade students, *can be adapted for college students*

This award-winning teaching module from the Young Epidemiology Scholar's Competition uses actual examples of outbreak investigations.

[http://www.collegeboard.com/prod\\_downloads/yes/disease\\_outbreak.pdf](http://www.collegeboard.com/prod_downloads/yes/disease_outbreak.pdf)

#### V. Epidemiology and Mobile Phones

##### ***From the Nuffield Foundation: Lesson E: Mobile Phones***

**Time:** 90 minutes

**Type of class:** Science, Civics, Health

**For:** 9<sup>th</sup>-12<sup>th</sup> grade students; *can be adapted for college students*

Three activities and homework assignments focus on the distinction between evidence of a causal mechanism and evidence of correlation, and how to assess the quality of evidence in terms of its validity, reliability and repeatability.

<http://www.nuffieldfoundation.org/lesson-e-mobile-phones>

[Neurosurgeon: Your Cellphone Is Not Necessarily a Safe Device](#)

#### VI. Obesity: A Public Health Epidemic

##### ***Bridges to Wellness***

**Time:** Multiple lessons and units can be adjusted according to curriculum needs.

Lesson 1: 3-A-Day of Dairy Nutrient Package

Lesson 2: Food Groups to Encourage

Lesson 3: Nutrition and Physical Activity

Lesson 4: Making Breakfast Count

**Type of Class:** Health

**For:** 9<sup>th</sup>-10<sup>th</sup> grade students

Bridges to Wellness personalizes nutrition information for students, helps educators meet school wellness policy nutrition education goals and helps develop effective partnerships with

the school nutrition staff. The lessons provide 30-45 minutes of classroom instruction and 20-30 minutes of application. They include step-by-step instructions and reproducible handout and transparency masters.

<http://www.nutritionexplorations.org/educators/lessons/bridges/bridges-main.asp?tab=3>

### **Obesity**

**Time:** One class period

**Type of class:** Health, Biology

**For:** 10<sup>th</sup> -12<sup>th</sup> grade students, college students

This activity introduces students to the role that hormones play in obesity, how the body regulates weight by carefully controlling the storage and burning of fat and how a better understanding of these complex metabolic systems could lead researchers to treatments that curb obesity and improve public health.

[http://www.pbs.org/wgbh/nova/teachers/activities/pdf/3313\\_03\\_nsn.pdf](http://www.pbs.org/wgbh/nova/teachers/activities/pdf/3313_03_nsn.pdf)

## **VII. Epidemiology and Genetics**

### **Epigenetics**

**Time:** One Class Period

**Type of Class:** Biology, Statistics, Environmental Science/Health

**For:** 10<sup>th</sup> – 12<sup>th</sup> grade students; *can be adapted for college students*

In the field of epigenetics, scientists study how chemical tags attach themselves to DNA or to the structures surrounding the DNA. These chemical tags can control gene expression, silencing or activating genes. Epigenetics is a highly relevant area to public health studies, offering scientists new ways to investigate many fundamental questions about life, health, and disease. For example, how do exposures to nutrients, toxins, pollutants, and other environmental agents affect gene expression? The goal of the lesson is for students to be able to explain the difference between genetics and epigenetics.

[http://www.pbs.org/wgbh/nova/teachers/activities/pdf/3411\\_02\\_nsn.pdf](http://www.pbs.org/wgbh/nova/teachers/activities/pdf/3411_02_nsn.pdf)

## **VIII. Genomics**

Genomics is a term that describes the study of all the genes in a person, as well as interactions of those genes with each other and with that person's environment.<sup>1</sup> The study and practice of genomics provides for more effective prevention of disease. It alerts health care providers and individuals who have genetic predispositions about effective measures to prevent diseases.

**For:** Grades 9<sup>th</sup> through college level

**Genomics Careers: Find Your Future**

<http://www.genome.gov/Careers/>

**The NIH National Human Genome Research Institute:**

<http://www.genome.gov/Education/>

**NIH Genetics Home Reference**

<http://ghr.nlm.nih.gov/handbook>

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<sup>1</sup> Retrieved from <http://www.cdc.gov/genomics/public/faq.htm> on August 10, 2011.

**Teach Genetics and Learn Genetics, with “Print and Go” Lesson Plans, etc.**

<http://teach.genetics.utah.edu/>

This site is a portal for lesson plans tied to national education standards from middle school through early college levels. Topics covered include: bioethics, addiction, stem cells, public health campaigns, and patient education.

**ASHG – “Six things everyone should know about genetics”, and more**

[http://www.ashg.org/education/everyone\\_1.shtml](http://www.ashg.org/education/everyone_1.shtml) (From k through post-doctorate)

## IX. Health Equity and Cultural Competency

***Place Matters: Researching our Neighborhoods: A documentary and public engagement campaign from California Newsreel***

**Time:** 4-7 lessons over 3-5 days, depending on class level and activities selected.

**Type of class:** Social Studies, Government, Geography, Sociology, City Planning and Urban Studies, Environmental Justice, Public Health.

**For:** 10<sup>th</sup> grade students through college sophomores.

Eating well and staying fit is important for health. However, economic and social environments are even bigger influences on health. Why is a street address or zip code such a powerful predictor of health? In these lessons, students research why residents of some neighborhoods live, on average, five, ten or even fifteen years longer than those in other neighborhoods. Students will gather and analyze data from their own neighborhood to identify features of their local economic, built, social, and service environments that promote or threaten the health of residents. They will learn how differences in neighborhood conditions tend to pattern along lines of class and race/ethnicity and give rise to corresponding differences in neighborhood health differences.

[http://www.unnaturalcauses.org/assets/uploads/file/Place\\_Matters\\_Lessons.pdf](http://www.unnaturalcauses.org/assets/uploads/file/Place_Matters_Lessons.pdf)

***Enhancing Cultural Competency: From [The Community Toolbox](#)***

The Community Tool Box is a global resource for free information on essential skills for building healthy communities. It offers more than 7,000 pages of practical guidance in creating change and improvement. This part of the Community Tool Box provides a framework and support for assessing and enhancing cultural competence in you, your organization, group or community.<sup>2</sup>

Available support includes:

- [Outline for Enhancing Cultural Competence](#)
- [Outline with links to tools](#)
- [How-to Information on Enhancing Cultural Competence](#)
- [Examples of Enhancing Cultural Competence](#)
- [Links to other online resources for Enhancing Cultural Competence](#)

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<sup>2</sup> Retrieved from <http://ctb.ku.edu/en/default.aspx> on August 10, 2011.

## X. Tools to Plan Service Learning Activities Grounded in Evidence-based Public Health Practice

**Time:** This resource can be used throughout the semester/year in conjunction with planning and implementing a service learning activity or capstone project.

**Type of Class:** Capstone or senior project, service learning group project, or Social Studies, Science, Math, Government, Geography, Sociology, City Planning and Urban Studies, Environmental Justice, Public Health.

**Ages:** 9<sup>th</sup>-12<sup>th</sup> grade and undergraduate levels

The Guide to Community Preventive Services is a free online resource providing model programs and policies in 19 public health areas from adolescent health to nutrition. It offers recommendations on programs that have been effective in improving health and preventing disease in communities. Information at this site provides educators and students excellent resources to ensure effective public health learning designs. The site uses systematic reviews are used to answer these questions:

- Which program and policy interventions have been proven effective?
- Are there effective interventions that are right for my community?
- What are the costs and return on investment of effective interventions?

<http://www.thecommunityguide.org/index.html>

## XI. Celebrity Diagnosis

**Time:** Flexible

**Type of Class:** Social, Health, and Science: Information from this site can be integrated into any course that covers public health topics. It can be used as a catalyst for classroom discussions about diseases, symptoms, and treatments.

**For:** Grade 9 through college level students

Michele Berman, MD and her physician husband, Mark Boguski, co-founded Celebrity Diagnosis with a dual mission: to report on common diseases affecting uncommon people and to provide the medical facts behind the headlines. She established one of the first medical practice websites in 1997. She and her husband have trained and taught at some of the top medical schools in the country including Harvard, Johns Hopkins, and Washington University in St. Louis.

<http://www.celebritydiagnosis.com/>

## PUBLIC HEALTH WORKPLACE LEARNING OPPORTUNITIES



### FOR HIGH SCHOOL STUDENTS

#### **Area Health Education Center (AHEC) - Youth Health Service Corps in CT**

Your pathway to a health career. <http://www.nwctahec.org/NWCTAHECmap.htm>

#### **EnvironMentors**

An environment-based mentoring program aimed at preparing high school students for college programs and careers in science and environmental professions.

<http://ncseonline.org/02education/EnvironMentors/>

#### **Connecticut Light and Power Green Schools**

Students can win up to \$20,000 for their school from CT Light and Power to green their educational environment. Live Green, Win Green competition link is below.

<http://www.clpenvironments.com/LiveGreenWinGreen.php>

#### **Summer Public Health Internship at Hartford Health and Human Services Department**

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

### FOR COLLEGE STUDENTS

#### **Internship/ Volunteer location information for the New Haven Area**

[http://www.southernct.edu/public\\_health/bachelorscience/internships/](http://www.southernct.edu/public_health/bachelorscience/internships/)

#### **Medical Interpretation Certification**

The Connecticut AHEC Medical Interpreter Certificate is 40 hours of highly interactive practice sessions and role-plays. Each training program accommodates up to 15 participants.

<http://ctahec.uchc.edu/programs/interpretation/index.html>

#### **Collegiate Health Service Corps (CHSC)**

This program prepares college level health professions students to volunteer in settings that serve marginalized populations while increasing the volunteer's awareness of careers in health care delivery and public health. The Connecticut colleges and universities currently participating

in the CHSC include Fairfield University, Quinnebaug Valley Community College, Three Rivers Community College, University of Bridgeport, University of Connecticut, University of Hartford, Central, Eastern, Southern, and Western Connecticut State Universities.

<http://ctahec.uhc.edu/programs/chsc/index.html>

**Planned Parenthood of Southern New England, Inc. (PPSNE) Campus Action**

Campus Action is the college internship program of PPSNE that trains students to be effective advocates for reproductive justice on their Connecticut or Rhode Island campuses. Interns spend 5-10 hours/week planning and organizing advocacy and education events for other students. Students report to the manager of Public Affairs and Community Organizing. Interns can receive course credit or a stipend. Contact [organizing@ppsne.org](mailto:organizing@ppsne.org)

**Summer research opportunities at the UConn Health Center**

<http://grad.uhc.edu/prospective/programs/summer/index.html>

**FOR EVERYONE**

**CT Public Health Association (CPHA) Mentoring Organization Registry**

Connect with a workplace ambassador <http://www.cpha.info/>

Contact: [cyndistern@mac.com](mailto:cyndistern@mac.com) or [kristin.sullivan@ct.gov](mailto:kristin.sullivan@ct.gov)

**Research a local health department online and call or e-mail.**

Volunteering is a great resume builder and a way to get to know health careers first-hand!

[https://www.han.ct.gov/local\\_health/localmap.asp](https://www.han.ct.gov/local_health/localmap.asp)

**Volunteer opportunities at the [American Red Cross](#).** Examples of internship opportunities include the following. Contact the Director of volunteer services at Phone: (860) 678-2793

- Public Affairs
- Community Disaster Education
- Client Casework
- HR Support - Blood Services
- HR Support - Volunteer Resources
- Office Assistant
- Special Events



## PUBLIC HEALTH CAREER PATHWAYS

*Launch a public health career path with a two-year degree at Connecticut Community Colleges<sup>3</sup>*

### **Community Outreach Worker/Social and Human Services Assistant/ Social Science Research Assistant**

Community outreach workers help individuals and communities adopt healthy behaviors. They may provide outreach for medical personnel or health organizations implementing programs that promote, maintain and improve community health. Social and human service assistants work with social workers, healthcare workers, and other professionals to provide services to people. The main function of social and human service assistants is to provide services to clients to help them improve their quality of life. This may include activities such as: assessing client needs; investigating their eligibility for benefits and services; monitoring and keeping case records on clients and reporting progress to supervisors and case managers. Social science research assistants can work with social and healthcare workers and other professionals to collect data necessary to improve and develop new programs that address public health needs. **Two-year degree and certificate programs are offered at:** [Asnuntuck Community College](#), [Capital Community College](#), [Gateway Community College](#), [Housatonic Community College](#), [Manchester Community College](#), [Middlesex Community College](#), [Naugatuck Valley Community College](#), [Northwestern CT Community College](#), [Norwalk Community College](#), [Quinebaug Valley Community College](#), [Three River Community College](#), [Tunxis Community College](#).\*

- ❖ *With continued education and work experience, this position can lead to public health careers including:* [Grant Coordinator/Manager](#), [Public Health Researcher](#), [Public Health Nurse](#), [Public Health Program Coordinator/Manager](#), [Public Relations Director](#).

### **Dental Hygienist<sup>4</sup>**

Dental hygienists work in collaboration with dentists to meet the oral health needs of patients. Dental hygienists provide services such as: patient screening; assessment of oral health conditions; review of health history; teeth cleaning; patient education and counseling on oral hygiene strategies; good nutrition and its impact on oral health. *Dental hygienists provide public health services when instructing groups of adults and or children in the relationship between general health and oral health.* **Two-year degree programs are offered at:** [Gateway Community College](#), [Tunxis Community College](#).\*

- ❖ *With continued education and work experience, this position can lead to several public health careers including:* [Grants Coordinator/Manager](#), [Public Health Program Planner/Coordinator](#).

### **Emergency Preparedness Specialist**

Emergency preparedness specialists coordinate disaster response or crisis management activities,

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<sup>3</sup> Training programs exist at other undergraduate institutions; however, this list is limited to programs offered at the community colleges. All information provided in the *Public Health Career Pathways* section was retrieved from Connecticut Department of Labor, Connecticut Career Paths 2010-2012, <http://www1.ctdol.state.ct.us/lmi/pubs/CareerPaths2010-2012.pdf> and the U.S. Bureau of Labor Statistics, Occupational Outlook Handbook, 2010-11 Edition, <http://www.bls.gov/oco/> in July, 2011 unless otherwise noted.

<sup>4</sup>Retrieved from American Dental Education Association. Explore Health Careers. <http://www.explorehealthcareers.org>, July 2010.

provide disaster preparedness training, and prepare emergency plans and procedures for natural disasters (e. g., hurricanes, floods, earthquakes) and/ or technological emergencies (e. g., nuclear power plant emergencies, hazardous materials spills). They consult with officials of local and area governments, schools, hospitals, and other institutions in order to determine their needs and capabilities in the event of a natural disaster or other emergency. **Two-year degree and certificate programs are offered at:** [Capital Community College](#), [Norwalk Community College](#).\*

- ❖ *With a Bachelor's Degree and/or Master's Degree combined with experience, individuals can advance to public health careers including:* [Emergency Preparedness Manager](#), [Health Director](#), [Public Health Policy Developer](#), [Sanitarian](#).

### **Emergency Medical Technician/Paramedic**

Emergency medical technicians (EMTs) and paramedics provide vital first response services to sick or injured individuals, and provide care for them if transport to medical facilities is necessary. At the medical facility, EMTs and paramedics help transfer patients to the emergency department, report their observations and actions to emergency department staff, and may provide additional emergency treatment. **Two-year degree and certificate programs are offered at:** [Asununtuck Community College](#), [Capital Community College](#), [Manchester Community College](#), [Northwestern CT community College](#), [Norwalk Community College](#), [Quinebaug Community College](#), [Tunxis Community College](#).\*

- ❖ *With continued education and work experience, this position can lead to an* [Emergency Preparedness Manager](#), [Health Services Manager](#)

### **Environmental Health Technician/Public Health Laboratory Technician**

Environmental and public health technicians perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health, often under the direction of environmental and public health scientists, engineers, or other specialists. Many environmental and public health laboratory technicians work for the government, ensuring that regulations are followed and human activity has a limited impact on the environment and the general public's health. Environmental and public health laboratory technicians have a fundamental role in protecting individuals from environmental hazards. **Two-year degree and certificate programs are offered at:** [Gateway Community College](#), [Manchester Community College](#), [Middlesex Community College](#), [Three Rivers Community College](#).\*

- ❖ *With additional education, credentialing and experience, this position can lead to public health careers, such as:* [Epidemiologist](#), [Health Director](#), [Public Health Researcher](#), [Sanitarian](#).

### **Food Inspector/Food Preparation and Service Worker Supervisors**

Food inspectors and food preparation and service worker supervisors work to ensure that food provided to the public is handled safely and is uncontaminated. They enforce federal laws and regulations relating to the production of fresh and processed meat, poultry and eggs. They perform inspections of slaughterhouses or processing plants, and inspect establishments that serve food or food products. Experienced food inspectors may participate in developing food safety policy and procedures. **Two-year degree and certificate programs are offered at:** [Gateway Community College](#), [Manchester Community College](#), [Naugatuck Valley Community College](#), [Norwalk Community College](#), [Three Rivers Community College](#).\*

- ❖ *With continued education, advanced degrees and work experience, this position can lead to public health careers including:* [Environmental Health Researcher/Specialist](#), [Epidemiologist](#),

[Sanitarian, Health Policy Analyst](#)

**Hazardous Materials Remover**

Hazardous materials removal workers identify, remove, package, transport, and dispose of a variety of hazardous materials including: asbestos, radioactive and nuclear waste, arsenic, lead, and mercury—or any materials that typically possess at least one of four characteristics—ignitability, corrosivity, reactivity, or toxicity. The workers often respond to emergencies where harmful substances are present. They are sometimes called abatement, remediation, or decontamination specialists. *Hazardous materials removers provide essential services during emergencies.* **Two-year degree and certificate programs are offered at:** [Middlesex Community College](#).\*

- ❖ *With continued education and work experience, this position can lead to public health careers including:* [Emergency Preparedness Manager](#), [Environmental Health Specialist](#), [Sanitarian](#).

**Health Information Technician**

Health information technicians collect and organize health information data by ensuring its quality, accuracy, accessibility, and security. The increasing use of electronic health records (EHR) will continue to broaden and alter the job responsibilities of health information technicians. Health information technicians use EHR software to maintain data on patient safety, patterns of disease, and disease treatment and outcome. **Two-year degree and certificate programs are offered at:** [Capital Community College](#), [Manchester Community College](#), [Naugatuck Community College](#), [Norwalk Community College](#), [Quinebaug Valley Community College](#), [Gateway Community College](#).\*

- ❖ *With continued education and work experience, this position can lead to several public health careers including:* [Health Information Manager](#), [Health Services Manager](#), [Public Health Researcher](#).

**Multi-Media Artists and Animators/ Writers and Authors**

Multi-media artists and animators create special effects, animation, or other images using film, video, computers, or other electronic tools/media for use in computer games, movies, music videos, and commercials. Writers and authors work to develop advertising text for use by publication, broadcast or internet media in the public health field. Both professions may work to create product names, write the slogans, and develop brochures and/or other promotional material. *Career opportunities can include developing public health materials such as public service announcements, documentaries, and educational materials or reporting on public health topics for local news programs.* **Two-year degree and certificate programs are offered at:** [Capital Community College](#), [Gateway Community College](#), [Housatonic Community College](#), [Manchester Community College](#), [Naugatuck Valley Community College](#), [Middlesex Community College](#), [Northwestern CT Community College](#), [Norwalk Community College](#), [Quinebaug Community College](#), [Three River Community College](#), [Tunxis Community College](#).\*

- ❖ *With continued education, advanced degrees and work experience, this position can lead to public health careers including:* [Grants Coordinator/Manager](#), [Public Health Communications Coordinator /Manager](#), [Public Relations Director](#).

### Occupational Health and Safety Technician

Occupational health and safety technicians work with occupational health and safety specialists to help prevent harm to workers, property, the environment and the general public. Several of their responsibilities include: designing safe work spaces; inspecting machines; or testing air quality. Occupational health and safety technicians take measurements and collect workplace data either for routine inspection or as directed by a specialist. The full range of responsibilities for occupational health and safety technicians vary by industry, workplace, and types of hazards affecting employees. *Further education in this field can lead to careers such as an occupational health and safety specialist or a private consultant for a variety of institutions including hospitals and clinics.* **Two-year degree and certificate programs are offered at:** [Tunxis Community College](#).\*

- ❖ *With continued education and work experience, this position can lead to several public health careers including:* [Occupational Health and Safety Specialist](#), [Public Health Policy Developer](#), [Health and Safety Manager](#).

### Public Relations Assistant

Public relations assistants promote and provide marketing for individuals, groups or organizations through various communications media. They also arrange public appearances, conferences, and political events for clients that wish to increase product/personal visibility. *Public relations specialists in public health promote public health messages and create opportunities through a variety of media including social media, to increase public health awareness.* **Two-year degree and certificate programs are offered at:** [Capital Community College](#), [Manchester Community College](#), [Middlesex Community College](#), [Naugatuck Community College](#), [Norwalk Community College](#), [Three River Community College](#).\*

- ❖ *With continued education and work experience, this position can lead to public health careers including:* [Public Health Communications Coordinator/Manager](#), [Public Relations Director](#).

### Registered Nurse

Registered nurses (RNs) constitute the largest group of public health professionals with 2.6 million jobs<sup>4</sup>, nationally and 35,370 in the state<sup>5</sup>. Public health nurses prioritize low-income and medically underserved populations; however, they can be employed in local health departments in more affluent areas, where they deal with such services as vaccinating and educating aging populations. Public health nursing responsibilities include identifying prevalent health conditions and outbreaks, creating prevention and intervention plans and helping to implement them to curtail the spread of diseases/conditions. RNs promote general health through screening or immunization clinics, blood drives, and educational outreach and seminars.<sup>6</sup> It is important to note that some vocational and private nursing school courses awarding two-year degrees do not transfer to other nursing programs, such as Registered Nurse (R.N.) and Bachelor's Degree (B.S.N) programs. It is necessary to check if a nursing school is accredited by the National League of Nursing Accrediting Commission, Inc. (NLNAC). Check accreditation status for a vocational or private nursing school online at [http://www.nlnac.org/Forms/directory\\_search.htm](http://www.nlnac.org/Forms/directory_search.htm). **Two-year Registered Nurse degree programs are offered at:** [Capital Community College](#), [Gateway Community College](#), [Housatonic Community College](#), [Naugatuck Valley Community College](#), [Northwestern CT Community College](#), [Norwalk Community College](#), [Three Rivers Community College](#).\*

- ❖ *RNs can expand their career opportunities by obtaining Bachelor's and Master's Degrees (BSN, MSN) in nursing or in public health. With advanced degrees and work experience, this position can lead to public health careers including:* [Health Director](#), [Public Health Nurse](#), [Occupational Health Nurse](#), [School Nurse](#), [Hospital Administrator](#) and [Public Health Program Coordinator/Manager](#).

## Water/Liquid Waste Treatment Plant Systems Operator

Water treatment plant and system operators run the equipment, control the processes, and monitor the plants that treat water so that it is safe to drink. Liquid waste treatment plant and system operators do similar work to remove pollutants from domestic and industrial waste. Operators in both types of plants control equipment and monitor processes that remove or destroy harmful materials, chemicals, and microorganisms from the water. They also run tests to make sure that the processes are working correctly and keep records of water quality and other indicators. *Operators are trained in emergency management procedures and use safety equipment to protect their health, as well as that of the public.*

**Two-year degree and certificate programs are offered at:** [Asnuntuck Community College](#), [Capital Community College](#), [Gateway Community College](#), [Naugatuck Valley Community College](#), [Middlesex Community College](#), [Three River Community College](#). \*

- ❖ *With continued education, advanced degrees and work experience, this position can lead to several public health careers including:* [Environmental Health Researcher/Specialist](#), [Sanitarian](#), [Emergency Preparedness Manager](#), [Toxicologist](#).

*\*This information has been validated in July 2011, however, course offerings change over time and direct contact with the educational institution is the most effective way to ensure accurate course information.*

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<sup>6</sup> Retrieved from <http://www.bls.gov/oco/ocos083.htm> August 11, 2011.

<sup>7</sup> Retrieved from <http://www1.ctdol.state.ct.us/lmi/pubs/Connecticut%20Middle-Skill%20Jobs.pdf> August 11, 2011.

<sup>8</sup> Retrieved from <http://typesofnurses.net/public-health-nurse/> August 11, 2011.

## CONNECTICUT COMMUNITY COLLEGES

School	City	Phone Number
<a href="#"><u>Asnuntuck Community College</u></a>	Enfield, CT	(860) 253-3000
<a href="#"><u>Capital Community College</u></a>	Hartford, CT	(860) 906-5000
<a href="#"><u>Housatonic Community College</u></a>	Bridgeport, CT	(203) 332-5000
<a href="#"><u>Manchester Community College</u></a>	Manchester, CT	(860) 512-3000
<a href="#"><u>Naugatuck Valley Community College</u></a>	Waterbury, CT	(203) 575-8040
<a href="#"><u>Middlesex Community College</u></a>	Middletown, CT	(860) 343-5800
<a href="#"><u>Three Rivers Community College</u></a>	Norwich, CT	(860) 886-0177
<a href="#"><u>Northwestern CT Community College</u></a>	Winsted, CT	(860) 738-6300
<a href="#"><u>Norwalk Community College</u></a>	Norwalk, CT	(203) 857-7000
<a href="#"><u>Quinebaug Valley Community College</u></a>	Danielson, CT	(860) 412-7200
<a href="#"><u>Gateway Community College</u></a>	New Haven, CT	(203) 285-2000
<a href="#"><u>Tunxis Community College</u></a>	Farmington, CT	(860) 255-3500

## Careers Related to Public Health: Salaries and Projected Workforce Need for positions requiring a two-year degree and/or certification

Position	Education Required	U.S. Minimum Salary	U.S. Average Salary/ CT Average Salary	U.S. Maximum Salary	U.S. Projected Increase in Jobs 2008- 2018	Connecticut Outlook		
						# of Job	2018 New Jobs	Field Growth
Community Outreach Worker	Associate's Degree	\$22,600	\$36,900/\$40,340	\$64,430	+22.0%	3,688	102	Average (3)
Construction and Building Inspector	Associate's Degree	\$31,380	\$42,450/\$60,360	53,020	+9.0%	711	18	Average (3)
Dental Hygienist	Associate's Degree	\$22,270	\$32,380/\$38,660	\$46,150	+36.0%	3,389	118	Fastest (5)
Emergency Preparedness Specialist	Certification and/or Associate's Degree	\$23,950	\$45,120/\$49,060	\$81,390	+20.0%	196	6	Fast (4)
EMT/Paramedic	Training/certification program	\$18,160	\$28,200/\$35,500	\$47,540	+9.0%	3,501	110	Fastest (5)
Environmental Science Technician	Associate's Degree	\$25,930	\$39,020/\$43,770	\$62,890	+18.0%	317	15	Average (3)
Food Inspector/ Food Preparation and Service Worker Supervisor	Training/certification program	\$18,560	\$30,040/\$39,960	\$50,940	-4.0%	8,374	110	Slow (2)
Hazardous Materials Remover	Training/certification program	\$22,820	\$35,880/\$35,760	\$60,840	+15.0%	378	11	Slowest (1)
Medical Health Information Technician	Associate's Degree	\$20,440	\$30,610/\$35,380	\$50,060	+20.0%	1,741	47	Average (3)
Multi-Media Artists and Animators	Associate's Degree	\$33,840	\$58,510/\$56,930	\$99,830	N/A	1,068	31	Average (3)
Occupational Health and Safety Technician	Associate's Degree	\$26,540	\$45,360/\$51,440	\$73,050	+14.0%	Information not available		
Public Health Laboratory Technician	Associate's Degree	\$26,590	\$41,380/\$51,440	\$67,630	+29.0%	1,342	54	Average (3)
Public Relations Specialist	Associate's Degree	\$30,140	\$51,280/\$57,760	\$97,910	+24.0%	3,167	109	Fastest (5)



Position	Education Required	U.S. Minimum Salary	U.S. Average Salary/ CT Average Salary	U.S. Maximum Salary	U.S. Projected Increase in Jobs 2008-2018	Connecticut Outlook		
						# of Jobs	2018 New Jobs	Field Growth
Registered Nurse	Associate's Degree	\$28,360	\$39,030/\$50,920	\$53,580	+21.0%	9,531	337	Average (3)
Social and Human Services Assistant	Associate's Degree	\$17,900	\$27,280/\$41,950	\$43,510	+23.0%	105	5	Average (3)
Social Science Research Assistants	Associate's Degree	\$32,250	\$53,910/\$46,610	\$89,490	+22.0%	105	5	Average (3)
Water/Liquid Waste Treatment Plant and Systems Operators	Associate's Degree	\$23,710	\$38,430/\$48,800	\$59,860	+20.0%	640	17	Average (3)
Writers and Authors	Associate's Degree	\$28,020	\$53,070/\$70,310	\$106,630	+15.0%	1,913	50	Average (3)

Connecticut data retrieved from: Connecticut Department of Labor. Connecticut Career Paths 2010-2012, <http://www1.ctdol.state.ct.us/lmi/pubs/CareerPaths2010-2012.pdf>

National data retrieved from: U.S. Bureau of Labor Statistics. Occupational Outlook Handbook, 2010-11 Edition, <http://www.bls.gov/oco/>

## PUBLIC HEALTH WEBSITES AND RESOURCES

*\*ideal for guidance counselor \*\*ideal for educators \*\*\*ideal for student projects, capstones, service learning*

### Local Health District Sites

#### Listing of Connecticut Local Health Departments and Districts

<http://www.ct.gov/dph/cwp/view.asp?a=3123&q=397740>

#### Hartford Department of Health and Human Services \*\*\*

[http://www.hartford.gov/Human\\_services/default.htm](http://www.hartford.gov/Human_services/default.htm)

*Learn about comprehensive population health assessments and planning, public health internships and more*

#### Ledge Light Health District \*\*\*

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

*Learn about heat stroke, internships and more*

#### Farmington Valley Health District

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

*Learn about [food safety ratings](#) and local emergency preparedness*

### Selected State Sites

#### Connecticut Career Paths 2010-2012 \*

<http://www1.ctdol.state.ct.us/lmi/pubs/CareerPaths2010-2012.pdf>

#### Connecticut School Health Survey (Youth Risk Behavior Survey)

<http://www.ct.gov/dph/cwp/view.asp?a=3132&q=388104>

#### Connecticut State Health Facts

<http://www.statehealthfacts.org/profileglance.jsp?rgn=8>

### Some National Sites

#### America's Health Rankings

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

#### Association of Public Health Schools brochures on careers in public health \*

<http://www.asph.org/document.cfm?page=842>

#### Careers in Public Health \*

<http://www.101careersinpublichealth.com/>

CDC Wonder\*\*

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

Centers for Disease Control and Prevention

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

Child Trend Data Bank

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

Community Toolbox\*\*\*

<http://ctb.ku.edu/en/default.aspx>

Explore Health Careers \*

<http://explorehealthcareers.org/en/home>

Health Data Tools and Statistics \*\*

[http://phpartners.org/health\\_stats.html](http://phpartners.org/health_stats.html)

Health Information Careers\*

<http://www.hicareers.com>

Healthy Schools Healthy Youth\*\*

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

Public Health Connect \*\*

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

Public Health Connect (phConnect) is an online collaboration tool built to support geographically dispersed professionals working in the field of public health.

National Institutes of Health: Health Information

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

Young Epidemiologist Scholars \*\*

<http://www.collegeboard.com/yes/>

Youth Risk Behavior Surveillance System \*\*

<http://www.cdc.gov/HealthyYouth/yrbs/index.htm>