

# MERIT BADGE SERIES



# PUBLIC HEALTH



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*"Enhancing our youths' competitive edge through merit badges"*



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# Requirements

1. Explain what public health is. Explain how *Escherichia coli* (*E. coli*), tetanus, AIDS, encephalitis, salmonellosis, and Lyme disease are contracted. Then, pick any four of the following diseases and explain how each one is contracted and possibly prevented: gonorrhea, West Nile virus, botulism, influenza, syphilis, hepatitis, emphysema, meningitis, herpes, lead poisoning. For all 10 diseases, explain the type or form of the disease (viral, bacterial, environmental, toxin), any possible vectors for transmission, ways to help prevent exposure or the spread of infection, and available treatments.
2. Do the following:
  - a. Explain the meaning of *immunization*.
  - b. Name five diseases against which a young child should be immunized and two diseases against which everyone should be reimmunized periodically.
  - c. Using the diseases you chose for requirement 1, discuss the diseases for which there is currently no treatment or immunization. If treatments or immunizations are available for the diseases you chose, discuss others on the list.
3. Discuss the importance of safe drinking water in terms of the spread of disease. Then, demonstrate two ways for making water safe to drink that can be used while at camp. In your demonstration, explain how dishes and utensils should be washed, dried, and kept sanitary at home and in camp.

4. Explain what a vector is and how insects and rodents can be controlled in your home, in your community, and at camp. Tell why this is important. In your discussion, explain which vectors can be easily controlled by individuals and which ones require long-term, collective action.
5. With your parent's and counselor's approval, do ONE of the following:
  - a. Visit a municipal wastewater treatment facility or a solid-waste management operation in your community. Describe how the facility safely treats and disposes of sewage or solid waste. Describe how sewage and solid waste should be disposed of under wilderness camping conditions OR visit the mosquito abatement district facility in your community. Tell how your community attempts to control the mosquito population and why.
  - b. Arrange to meet with the food service manager of a food service facility (such as a restaurant or school cafeteria) and visit this establishment. Observe food preparation, handling, and storage, and learn how the facility keeps foods from becoming contaminated. Find out what conditions allow microorganisms to multiply in food and how conditions can be controlled to help prevent the growth and dissemination of microorganisms. Learn how microorganisms in food can be killed. Discuss what you learned with your counselor.
6. Do the following:
  - a. Describe the health dangers from air, water, and noise pollution.
  - b. Describe health dangers from tobacco use and alcohol and drug abuse.

7. With your parent's and counselor's approval, visit your city, county, or state public health agency. Discuss how the agency addresses the concerns raised in requirements 1 through 6 and how the services provided by this agency affect your family. Then do the following:
  - a. Compare the four leading causes of mortality (death) in your community for any of the past five years with the four leading causes of disease in your community. Explain how the public health agency you visited is trying to reduce the mortality and morbidity rates of these leading causes of illness and death.
  - b. Explain the role of the health agency you visited related to the outbreak of diseases.
  - c. Discuss the kinds of public assistance the agency is able to provide in case of disasters such as floods, storms, tornadoes, earthquakes, and other acts of destruction. Your discussion can include the cleanup necessary after a disaster occurs.
8. Pick a profession in the public health sector that interests you. Find out the education, training, and experience required to work in this profession. Discuss what you learn with your counselor.

# Resources

## Scouting Literature

*Boy Scout Handbook; Fieldbook; Animal Science, Camping, Citizenship in the Community, Citizenship in the Nation, Citizenship in the World, Cooking, Dentistry, Emergency Preparedness, Environmental Science, First Aid, Medicine, Safety, Search and Rescue, and Soil and Water Conservation* merit badge pamphlets

For more information about Scouting-related resources, visit the BSA's online retail catalog (with your parent's permission) at <http://www.scoutstuff.org>.

## Books

- Bock, Kenneth, and Cameron Stauth. *Healing the New Childhood Epidemics: Autism, ADHD, Asthma, and Allergies*. Ballantine Books, 2008.
- Drisdelle, Rosemary. *Parasites: Tales of Humanity's Most Unwelcome Guests*. University of California Press, 2011.
- Dunn, Rob. *The Wild Life of Our Bodies: Predators, Parasites, and Partners That Shape Who We Are Today*. Harper, 2011.
- Foege, William. *House on Fire: The Fight to Eradicate Smallpox*. University of California Press, 2012.
- Friedlander, Mark P. *Outbreak: Disease Detectives at Work*. Twenty-First Century Books, 2009.
- Human Kinetics. *Health and Wellness for Life*. Human Kinetics, 2009.
- Pendergrast, Mark. *Inside the Outbreaks: The Elite Medical Detectives of the Epidemic Intelligence Service*. Houghton Mifflin Harcourt, 2010.
- Rhodes, John. *The End of Plagues: The Global Battle Against Infectious Disease*. Palgrave MacMillan Trade, 2013.
- Seltzer, Beth. *101 Careers in Public Health*. Springer Publishing Company, 2010.
- Sherman, Irwin. *Twelve Diseases That Changed Our World*. ASM Press, 2007.

Thornton, Denise. *Living With Cancer: The Ultimate Teen Guide*. Scarecrow Press, 2011.

Youngdahl, Karie, et al. *The History of Vaccines*. College of Physicians of Philadelphia, 2013.

### **Organizations and Websites** **Bureau of Health Workforce**

Health Resources and  
Services Administration  
Toll-free telephone: 888-275-4772  
Website: <http://www.hrsa.gov>

### **Centers for Disease Control and Prevention**

1600 Clifton Road  
Atlanta, GA 30333  
Toll-free telephone: 800-232-4636  
Website: <http://www.cdc.gov>

### **Environmental Protection Agency**

William Jefferson Clinton  
Federal Building  
1200 Pennsylvania Ave. NW  
Washington, DC 20460  
Telephone: 202-272-0167  
Website: <http://www.epa.gov>

### **National Institutes of Health**

Telephone: 301-496-4000  
Website: <http://www.nih.gov>

### **Office of Disease Prevention and Health Promotion**

Telephone: 240-453-8280  
Website: <http://www.odphp.osophs.dhhs.gov>

### **U.S. Department of Health and Human Services**

Toll-free telephone: 877-696-6775  
Website: <http://www.hhs.gov>

### **U.S. Food and Drug Administration**

10903 New Hampshire Ave.  
Silver Spring, MD 20993  
Toll-free telephone: 888-463-6332  
Website: <http://www.fda.gov>

### **U.S. Public Health Service Commissioned Corps**

Toll-free telephone: 800-279-1605  
Website: <http://www.usphs.gov>

### **World Health Organization**

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

## **Acknowledgments**

The Boy Scouts of America is thankful to Dr. William C. Reeves for his help in updating the 2014 printing of the *Public Health* merit badge pamphlet. The BSA also thanks the following subject experts for their assistance with updating the 2005 edition: Eric J. Pyle, Ph.D., Department of Education Theory and Practice, West Virginia University; Gerald F. Pyle, Ph.D., Department of Health Promotions and Kinesiology, University of North Carolina–Charlotte; and Richard W. Klomp, Information Management Team, Centers for Disease Control and Prevention.

Thanks to the Centers for Disease Control and Prevention, Atlanta, Georgia, for providing the information found in the “Recommended Immunization Schedule.”

The Boy Scouts of America is grateful to the men and women serving on the Merit Badge Maintenance Task Force for the improvements made in updating this pamphlet.