The Importance of Veterinarians to Public Health

While all veterinarians work in accordance to the Veterinarian’s Oath to protect animal health, as well as the public’s health, some veterinarians target their efforts to specific areas where animal and public health interconnect.

These public health veterinarians work on issues such as zoonotic disease control, prevention and education, infectious disease outbreak investigations, food safety and protection, food-borne illness investigations, or environmental health issues, such as vector control or air or water quality, as well as occupational exposures. Public health veterinarians often work for state or federal agencies, as well as in academia or research; some also work for private industries focused on improving the public’s health.

Areas of Involvement

Roles and activities of public health veterinarians can be diverse but will focus on those issues impacting human and animal health. Most also collaborate closely with human health professionals.

Control, prevention and education of infectious zoonotic diseases: With over 150 zoonotic diseases (diseases of animals that can be spread to humans, such as rabies or brucellosis) in the U.S., public health veterinarians are on the front lines investigating outbreaks and cases in efforts to protect animal and human health.

Protecting food safety: Public health veterinarians also work to improve food safety and eliminate food-borne zoonotic threats to reduce the burden of foodborne illnesses in the U.S., as well as other countries.

Investigating food-borne illness: Using their epidemiology skills, many public health veterinarians work closely with human medical and public health professionals to help investigate foodborne disease outbreaks.

Environmental health: Public health veterinarians help address several environmental health issues, such as water quality and safety, insect vector control and prevention, air quality and environmental toxin monitoring.

Disaster preparedness and response: More recently, public health veterinarians have become involved in a number of emergency preparedness activities, including planning and response for people and animals before and after natural disasters or other emergency situations. Some also help in preparing for the introduction of emerging zoonotic diseases or bioterrorism defense.
**Specialized Training**
Many public health veterinarians obtain Master’s in Public Health (MPH) degrees. This specialized training helps them build their skills in epidemiology, environmental health, as well as learn aspects of public health policy and prevention program development.

Public health veterinarians are often board certified by the American College of Veterinary Preventive Medicine (ACVPM), or in other disciplines (e.g., microbiology, pathology).

The Epidemic Intelligence Service (EIS) is a 2-year post-graduate training program of service and on-the-job learning for health professionals interested in the practice of applied epidemiology, often through investigation disease outbreaks throughout the world.

**Employment Opportunities**

**Federal**
There are several federal agencies that employ public health veterinarians.

One such agency the U.S. Department of Agriculture, Food Safety Inspection Service (FSIS) employs over 1100 public health veterinarians, who conduct meat and poultry inspection to ensure safe and wholesome products are provided to the public. They are also trained in public health issues and regulatory medicine.

Another agency that employs public health veterinarians is the Centers for Disease Control and Prevention (CDC). CDC Veterinarians work in a wide range of areas like bioterrorism, environmental health, food safety, viral and bacterial diseases, and occupational health. Some are even assigned to posts overseas, such as China or Zimbabwe. The CDC also coordinates the EIS.

Public health veterinarians at the U.S. Food and Drug Administration (FDA) help to ensure the safety of the food supply, assist in the approval and monitoring of animal drugs and provide oversight of animal feeds, among other duties. Public health veterinarians also monitor trends in antimicrobial resistance in retail meats and animals, as well as conduct research to better understand these issues.

At the Environmental Protection Agency (EPA), public health veterinarians address topics such as pesticide (e.g., flea and tick products) use, proper handling of infectious waste, and the environmental impacts of concentrated animal feeding operations.
State
There are State Public Health Veterinarians (SPHV) in most states in the U.S. They generally work within each state’s Department of Public Health. Some may be part of the state’s epidemiology, toxicology or environmental health divisions. SPHVs conduct investigations of zoonotic disease cases or outbreaks, as well as collect and monitor data for disease occurrences. They regularly provide consultation to human medical professionals on cases involving humans and animals, as well as to legislators and local officials to implement policies to protect the public. SPHV also work to raise awareness and provide education on these same issues to schools, health departments and the general public. Subgroups of the SPHV have written national Compendia containing recommendations and guidelines for public health issues such as rabies, psittacosis, animal contact exhibits and veterinary infection control.

Military
The U.S. Army Veterinary Service provides food defense inspection (from production, through storage and distribution, to consumption) for the Army, Navy, Marine Corps, and other defense agencies. They also provide care to Military Working Dogs (MWD), ceremonial horses, working animals of many Department of Homeland Security organizations, pets owned by service members, and animals supporting Human-Animal Bond (HAB) programs at military hospitals.

Public health veterinarians are also part of the U.S. Public Health Service Commissioned Corps and serve in a variety of positions throughout the U.S. Department of Health and Human Services as other Federal agencies. Lead by the U.S. Surgeon General, these highly trained public health professionals deliver the Nation’s public Health promotion and disease prevention programs and work to advance public health science.

Academia
Many public health veterinarians are employed by Colleges of Veterinary Medicine, educating future veterinarians, conducting research, and developing educational resources on veterinary public health issues. Many also co-teach at other university and Colleges of Public Health, sharing the veterinary aspects of public health with human health professionals.

Local Agencies
Public health veterinarians can also be involved at the local level in positions such as animal sheltering, infection control, and animal welfare. They may also help in developing guidelines for animals in schools, health care facilities and as service and therapy animals, as well as previously mentioned roles of disease control, prevention and education, environmental health or food safety issues.
**Internationally**
Some public health veterinarians work to address and improve food safety, disease prevention and control and environmental health issues in other countries. Often coordinating with international agencies such as the Food and Agriculture Organization of the United Nations (FAO), the Pan American Health Organization (PAHO), the World Health Organization (WHO) as well as the World Organization for Animal Health (OIE), these veterinarians are making a global impact with their efforts to protect animal and human health.

You can learn more about the role veterinarians play in protecting and preserving the public’s health from these sites.

**Federal**

U.S. Department of Agriculture (USDA)
- Food Safety Inspection Service (FSIS)
- Animal and Plant Health Inspection Service (APHIS)

U.S. Department of Health and Human Services
- Centers for Disease Control and Prevention (CDC)
  - National Center for Emerging and Zoonotic Infectious Diseases
  - Epidemic Intelligence Service

U.S. Department of Homeland Security (DHS)
- Federal Emergency Management Agency
  - National Bio and Agro-Defense Facility (NBAF)

U.S. Food and Drug Administration (FDA)
- Center for Veterinary Medicine

**Military**

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)
- U.S. Army Veterinary Service Corps
- U.S. Public Health Service Commissioned Corps

**Global Public Health**

Food and Agricultural Organization of the United Nations (FAO)
- Animal Production and Health Division
- Veterinary Public Health & Feed and Food Safety

Pan American Health Organization (PAHO)
- Veterinary Public Health
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