to prevent the spread of diseases such as malaria, Ebola and avian influenza.

Veterinarians in the Department of Homeland Security (DHS) also protect the health and safety of animals and people through their work in developing disease surveillance and antiterrorism procedures and protocols.

Manmade and natural disasters pose significant risks to animals and humans, and veterinarians play vital roles in helping communities prepare for and recover from disasters.

### **MILITARY SERVICE**

Veterinarians in the U.S. Army Veterinary Corps are protecting the United States against bioterrorism. They are responsible for food safety, veterinary care of government-owned animals, and biomedical research and development. Officers with special education in laboratory animal medicine, pathology, microbiology, or related disciplines conduct research in military and other governmental agencies.

In the U.S. Air Force, veterinarians serve in the Biomedical Science Corps as public health officers. They manage occupational illness, food borne disease, and communicable disease control programs at Air Force bases around the world. These veterinarians promote public health through surveillance of disease trends, food safety practices, and facility sanitation.

Military veterinarians play a vital role rebuilding and improving animal care systems in underdeveloped and war-damaged countries. Many societies are heavily dependent upon animal agriculture, and improving the health of their animals improves the quality of life for the human community.

### **OTHER PROFESSIONAL ACTIVITIES**

Veterinarians are also employed in animal welfare, zoologic medicine, aquatic animal medicine, aerospace medicine (shuttle astronauts), animal shelter medicine, sports medicine, animal-assisted activity and therapy programs, and wildlife medicine. There are veterinarians involved in local, state and federal governments, working with legislators to shape laws that protect the health, welfare and well-being of animals and people.

Veterinarians also play critical roles in environmental protection, research, food safety, and public health.

### THE ROAD TO BECOMING A VETERINARIAN

Students should perform well in general science and biology in junior high school and pursue a strong science, mathematics, and biology program in high school to prepare for pre-veterinary coursework at a college or university. Before applying to veterinary college/school, students must successfully complete university level undergraduate prerequisites. Each college or school of veterinary medicine establishes its own pre-veterinary requirements, but typically these include demonstrating basic language and communication skills, and completion of courses in the social sciences, humanities, mathematics, biology, chemistry, and physics.

Admission to veterinary school is highly competitive, with the number of qualified applicants admitted varying from year to year. Applicants may be required to take a standardized test (for example, the Graduate Record Examination or GRE).

Most veterinary schools require applications through the Veterinary Medical College Application Service (VMCAS). For information about application requirements, applicant data statistics, and other admissions resources, visit www.aavmc.org/vmcas/vmcas.htm

After completing the required veterinary medical curriculum and earning a veterinary degree, some graduates choose to pursue additional education in one of more than 20 AVMA-recognized veterinary specialties such as surgery, internal medicine, animal behavior, dentistry, ophthalmology, pathology or preventive medicine.

### IS VETERINARY MEDICINE RIGHT FOR YOU?

Today's veterinarians are extremely dedicated to protecting the health and well-being of animals and humans. Veterinarians are animal lovers and understand the value of animals in our families and society. Other personal attributes that contribute to a successful career in veterinary medicine are:

### A SCIENTIFIC MIND

A student interested in veterinary medicine should have an inquiring mind and keen powers of observation. Aptitude and interest in the biological sciences are important.

#### **GOOD COMMUNICATION SKILLS**

Veterinarians must meet, talk, and work well with a variety of people. Compassion is an essential attribute for success, especially for veterinarians working with owners who form strong bonds with their animals.

### LEADERSHIP EXPERIENCE

Many environments (e.g., clinical practice, governmental agencies, public health programs) require that veterinarians manage employees and businesses. Having basic managerial and leadership skills contribute to greater success in these work environments.



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## **VETERINARIANS**

Brought to you by your veterinarian and the American Veterinary Medical Association





# **TODAY'S VETERINARIANS**

are the only doctors educated to protect the health of both animals and people. They work hard to address the health and welfare needs of every species of animal. Veterinarians also play critical roles in environmental protection, research, food safety, and public health.

### PROTECTING THE HEALTH OF ANIMALS AND SOCIETY

Employment opportunities for veterinarians include such diverse areas as clinical practice, teaching and research, regulatory medicine, public health, and military service.

### PRIVATE OR CORPORATE CLINICAL PRACTICE

In the United States, approximately two-thirds of veterinarians work in private or corporate clinical practice, providing veterinary care for a wide range of species. Many treat only traditional or exotic pets such as dogs, cats, birds, small mammals (e.g., hamsters, guinea pigs), reptiles, and fish. Some veterinarians exclusively treat horses. Others treat a combination of species. Some veterinarians limit their practice to the care of farm/ranch animals and advise owners on production medicine and protecting our nation's food supply from farm to fork.

### **TEACHING AND RESEARCH**

Veterinarians in academia instruct veterinary students, veterinary technology students, other medical professionals, and scientists. Veterinary college faculty members conduct research, teach, provide care for animals in the veterinary teaching hospital, and develop continuing education programs to help practicing veterinarians acquire new knowledge and skills.

Research veterinarians employed at universities, colleges, governmental agencies, or in industry are finding new

Approximately two-thirds of veterinarians work in private or corporate clinical practice. ways to diagnose, treat, and prevent animal and human health disorders. These veterinarians have made many important contributions to human health. For example, veterinarians made discoveries that helped control malaria and yellow fever, solved the mystery of botulism, produced an anticoagulant used to treat some people with heart disease, and identified the cause of West Nile virus infection. They also developed and refined techniques such as permanent artificial limbs and new treatments for joint disease and broken bones.

Veterinarians in pharmaceutical and biomedical research firms develop, test, and supervise the production of drugs and biological products for human and animal use. In addition to a veterinary degree, these veterinarians usually have specialized education in fields such as pharmacology, toxicology, virology, bacteriology, laboratory animal medicine, or pathology.

Veterinarians also work in management, regulatory affairs, technical sales and services, agribusinesses, pet food companies, and pharmaceutical companies. They are in demand in the agricultural chemical industry, private testing laboratories, and the feed, livestock, and poultry industries.

### **REGULATORY MEDICINE**

To prevent the introduction of foreign diseases into the United States, veterinarians are employed by state and federal regulatory agencies to quarantine and inspect animals brought into the country. They supervise international and interstate shipments of animals; test for diseases that could threaten animal and human health or our food supply; and manage campaigns to prevent and eradicate diseases, such as tuberculosis and rabies, that pose threats to animal and human health.

Veterinarians at the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA-FSIS) or a state department of agriculture ensure that only healthy animals enter our food supply. They see that our meat, poultry and egg





products are safe for consumption through carefully monitored inspection programs.

Veterinarians in the USDA Animal and Plant Health Inspection Service (USDA-APHIS) monitor the development and testing of new vaccines for safety and effectiveness. USDA-APHIS veterinarians are also responsible for enforcing humane laws for the treatment of animals, protecting the health of our nation's agriculture through disease surveillance, and preventing foreign animal diseases from entering the country and endangering the nation's food supply. Other branches of the USDA, such as the Agricultural Research Service (ARS) and the National Institute of Food and Agriculture (NIFA) employ veterinarians in research, research administration, and animal care.

### PUBLIC HEALTH

Veterinarians serve as epidemiologists in city, county, state, and federal agencies investigating animal and human disease outbreaks such as food-borne illnesses, influenza and rabies. They restar Public Veter Agen pollut peopl (FDA of me additi Wildli the N Librar More for Di public other CDC



They help ensure the safety of food processing plants, restaurants, and water supplies. Many serve in the U.S. Public Health Service Commissioned Corps.

Veterinarians working in the Environmental Protection Agency (EPA) study the effects of pesticides, industrial pollutants, and other contaminants on animals and people. At the U.S. Food and Drug Administration (FDA), veterinarians evaluate the safety and efficacy of medicines, medical products, pet foods and food additives. Veterinarians also work at the U.S. Fish and Wildlife Service, Environmental Protection Agency, and the National Institutes of Health (NIH) and its National Library of Medicine.

More than 100 veterinarians are employed by the Centers for Disease Control and Prevention (CDC) to protect public health by investigating zoonotic diseases and other diseases affecting the health of animals and people. CDC veterinarians are involved in investigating disease outbreaks throughout the world and developing programs