

are similar to those of the veterinarian in civilian life. His training in the medical sciences enables him to participate in preventive medicine and research activities.

The military veterinarian has paralleled his physician counterpart in contributing to human health and welfare through his responsibility for inspection of all foods of animal origin consumed by the serviceman. The Department of Defense has assigned world-wide food inspection responsibilities to the military veterinarian. In addition, he has responsibility for disease control through appropriate food handling, inspections of community areas, utilities and waste disposal, and rodent control.

Because his training in medical science is parallel to that of the physician, the Doctor of Veterinary Medicine assumes preventive medicine research functions in addition to those which are related to foods of animal origins. Large numbers of veterinarians in the military service are engaged in research. For example, research on the solution of high altitude problems by using animals and vehicles projected into space; acceleration and decelerations; space flights; and space travel. Through animal experimentation, veterinarians determine the effects of radiation upon animals and, by extrapolation, upon man. Other examples are flight and ground feeding research; preservation of foods by radiation; research designed to protect against biological warfare; research on diseases transmissible from animals to man; and world-wide laboratory support.

Veterinarians in laboratory animal medicine

The laboratory animal industry is valued at nearly \$500 million. Original research data using animals in space prior to manned flights is an example of the veterinarians' participation. New treatments for disease, new vaccines, and new surgical procedures are first developed by veterinarians on animals to demonstrate their value and safety before such drugs or procedures are used for man.

Animals used for biomedical research total 37 million annually. Veterinarians are using millions of animals to study cancer-causing and cancer-inhibiting chemicals, to measure the effects of radioactivity, and to study the reactions of living organisms in space. Laboratory animals constitute a vital resource for medical and other biological research. Animals must be painstakingly calibrated and standardized as the most sensitive instrument in many health research projects. Loss of laboratory animals from disease or malnutrition can have an impact far beyond the cost of the animals' replacement. It can meet setbacks in scientific efforts in which millions of dollars are invested.

One of the growing phases of veterinary service is to provide healthy, uniform laboratory animals, for these represent indispensable elements in biomedical research. Veterinary research is concerned with the diseases common to man and animals, and recognizes the usefulness of animals for experimentation in the study of human health problems. Advances in animal health research often open doors to the solution of human disease problems. Generally, research in veterinary medicine makes contributions to human health and well-being as well.

The magnitude of the role of veterinarians in laboratory animal medicine is illustrated by the budget and staff of Dr. Zinn, Director of Laboratory Animal Resources at the National Institutes of Health. He has a budget of \$3.6 million and a staff of 300 employees.

Veterinarians in large animal practice

Veterinary research, clinical practice, public health, and regulatory activities in the United States have made possible an abundance of safe, wholesome protein foods. The average per capita consumption of food in the United States exceeds 1500 pounds per year. Over 650 pounds per capita are foods of animal origin.

Veterinarians are currently responsible for the health of 108.4 million cattle, 100 million hogs, 30 million sheep, 2.5 million poultry, and 3.1 million horses. Estimates of the value of these animals are: cattle, \$12 billion; swine, \$1.2 billion; sheep, \$201 million; and poultry, \$480 million.

Veterinarians in small animal practice

These veterinarians, recognizing the close association between pets and their owners, are constantly striving to eliminate or minimize diseases—such as rabies, psittacosis, and tuberculosis—which might be transmitted to human beings.