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| Rosalie T. Trevejo | |
| <p>All veterinarians, regardless of their formal job description, serve the public good and contribute to public health. The public health activities veterinarians engage in most frequently in clinical practice are in the areas of disease detection, reporting, and prevention. This article provides a brief overview of the basic functions of public health, while emphasizing the public health roles that veterinary clinicians play in their day-to-day practice of veterinary medicine and how they might extend their interest and involvement in this field. The multidisciplinary nature of the field of public health and the benefits of collaboration with other health care and public health professionals are also discussed.</p> | |
| Disease Reporting and Surveillance: Where Do Companion Animal Diseases Fit In? | 225 |
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| <p>Disease surveillance and reporting is a necessary and integral part of public health practice. Surveillance systems have been developed over many years for both human medicine and veterinary medicine. However, these systems are not usually interconnected. Today, with the benefits of advanced information technology, the development and integration of existing and new resources in companion-animal practice should be focused on “one medicine—one health” for the betterment and health of all species. This means more sharing of surveillance data, greater cooperation among organizations involved in surveillance, and further integration of human and animal surveillance activities.</p> | |
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| <p>Animal sentinel surveillance is a key component of public health risk assessment. While many species serve as animal sentinels, companion animals have an especially valuable role as sentinels because of their unique place in people’s lives, with exposure to similar household and recreational risk factors as those for the people who own them. Dogs and cats can help</p> | |

in early identification of food contamination, infectious disease transmission, environmental contamination, and even bioterrorism or chemical terrorism events. Early detection, leading to early intervention, can minimize the impact of these adverse events on both animal and human health.

Influenza in Dogs and Cats

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Emily Beeler

Influenza has been long absent from the list of infectious diseases considered as possibilities in dogs and cats. With the discovery that avian influenza H5N1 can infect cats and dogs, and the appearance of canine influenza H3N8, small animal veterinarians have an important role to play in detection of influenza virus strains that may become zoonotic. Small animal veterinarians must educate staff and clients about influenza to improve understanding as to when and where influenza infection is possible, and to avert unreasonable fears.

Emerging Tick-borne Diseases

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Curtis L. Fritz

Ticks are capable of transmitting numerous pathogens to both humans and their pets. The risks of tick-borne disease risks vary geographically and are determined by the climate, environment, the presence of rodents and other mammal reservoirs, and the species of ticks parasitizing wild and domestic animals. Zoonoses such as Lyme borreliosis, tularemia, and tick-borne rickettsioses can emerge in previously nonendemic areas when circumstances favorable to their maintenance and transmission arise. Tick-borne zoonosis can be prevented by implementation and adoption of an integrated program to reduce the likelihood of tick bites on pets and their owners.

Pets and Antimicrobial Resistance

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Jamie K. Umber and Jeff B. Bender

Antimicrobial resistance is a growing problem and is a significant public health issue. An increasing number of organisms are developing resistance to many of the antimicrobial agents available for treatment of infections in both humans and animals. These resistant organisms often result in greater disease severity, longer hospitalization, and increased care and treatment costs. This article reviews the current situation of antimicrobial resistance in companion small animals and highlights how important it is for veterinarians to recognize the significance of antimicrobial resistance and to commit to the judicious use of antimicrobial agents.

The Human–Companion Animal Bond: How Humans Benefit 293
Erika Friedmann and Heesook Son

The human–animal bond is extremely important to most clients of small animal veterinary practices. Pet ownership, or just being in the presence of a companion animal, is associated with health benefits, including improvements in mental, social, and physiologic health status. This article provides the research data regarding the human health benefits of companion animals, animal-assisted therapy, animal-assisted activities, and assistance animals; reviews measures that can be taken to enable safe pet ownership for the immunocompromised, and discusses the veterinarian’s role in supporting immune-compromised clients and clients who have assistance animals. Client education and enhanced veterinary care can reduce the risk from zoonotic diseases, even for the immunocompromised.

The Impact of Companion Animal Problems on Society and the Role of Veterinarians 327
Victoria L. Voith

The benefits of companion animals are immense, but there can be negative impacts also. Noise, destructive behaviors, excrement, bites, and the overpopulation of domestic cats and dogs are some of the major problems that can result in stress and hardships on owners, neighbors, the community, and the pets themselves. The perpetuation of pets in society requires that the negative aspects of living with dogs and cats be addressed. Veterinarians can play an important role in addressing these problems by incorporating the concept of behavior wellness into their practices and promoting education regarding husbandry, animal behavior, responsible pet ownership, and the effects of pets on the environment.

Emergency Management During Disasters for Small Animal Practitioners 347
Helen T. Engelke

This article provides a broad overview of emergency management during disasters, including its organizational structure and the emergency management cycle. It delineates activities that small animal clinicians might engage in with regards to disaster mitigation, preparedness, response, and recovery. It also introduces such concepts as the incident command system and the national incident management system. Last, this article provides some suggestions for how small animal veterinarians might seek further training and education in this increasingly important field.

Border Health: Who's Guarding the Gate?**359**

Karen Ehnert and G. Gale Galland

Changes in the global trade market have led to a thriving international pet trade in exotic animals, birds, and puppies. The flood of animals crossing the United States' borders satisfies the public demand for these pets but is not without risk. Imported pets may be infected with diseases that put animals or the public at risk. Numerous agencies work together to reduce the risk of animal disease introduction, but regulations may need to be modified to ensure compliance. With more than 280,000 dogs and 183,000 wildlife shipments being imported into the United States each year, veterinarians must remain vigilant so they can recognize potential threats quickly.

Local Veterinary Diagnostic Laboratory, a Model for the One Health Initiative**373**

Gundula Dunne and Nikos Gurfield

The San Diego County Animal Disease Diagnostic Laboratory (ADDL) is unique in its emphasis on protecting both human and animal health in San Diego County, and its use of interagency and community collaboration to create strong, effective public health programs. This article describes the ADDL core programs of avian and vector-borne disease surveillance, rabies testing, and animal abuse investigations and uses selected case studies to illustrate the need for a local veterinary diagnostic laboratory to safeguard the health of humans and animals. The ADDL serves as a role model for other local communities to develop vital public health partnerships to ensure a healthier community.

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