



Joint American Veterinary Medical Association (AVMA)-Federation of Veterinarians of Europe (FVE)-Canadian Veterinary Medical Association (CVMA) Statement on

THE BENEFITS OF ANIMAL VACCINATION PROGRAMS IN ADVANCING ANIMAL AND HUMAN HEALTH

Vaccination - the inoculation of an innocuous or less virulent form of a disease agent to stimulate an animal's natural immune response against that disease - plays an important role in preventive medicine and will continue to be a mainstay for promoting animal health and reducing the risk of human exposure to zoonotic diseases. Historically, immunization practices and vaccination protocols have contributed to significantly reduce the incidence of many life-threatening diseases; for example, rabies in dogs and rinderpest in cattle. In the latter case, coordinated vaccination programs across multiple countries led to the eradication of this disease in 2011 (see www.oie.int/for-the-media/rinderpest/).

The risks of not vaccinating can be significant, not only to the individual animal, but also to the population at large. The principle of herd immunity recognizes that vaccinating a large percentage of any given population of animals against a specific disease breaks or slows the chain of transmission of that disease. When herd immunity is strong, the risk of infection decreases for all animals in that herd, even for those that are not able to be vaccinated (or revaccinated); for example, young, pregnant, or immunocompromised animals or animals that had a previous adverse reaction to the same vaccine. In addition, vaccination of large populations of animals can be an effective management tool to not only reduce the risk of primary infection—whether that be by a viral or bacterial agent—but also the risk of secondary infections, which are most often caused by bacteria. As such, effective vaccination programs will decrease the need for treatment with antimicrobials, which in turn will help reduce the risk of development of antimicrobial resistance.

Vaccinating animals can also benefit human and public health. For example, the [World Health Organization](#) reports that tens of thousands of people die of rabies every year, with the canine variant serving as the source of zoonotic infection in the vast majority of these deaths. But in countries or communities in which vaccination of dogs against rabies is required, vaccinated dogs are identified, and stray dogs are controlled, the incidence of humans infected with the canine rabies virus decreases to near zero. Similarly, immunizing susceptible animals against brucellosis protects people who work or come into contact with products derived from those animals from contracting this zoonotic bacterial disease.

However, as with every beneficial medical procedure or treatment, there are also potential risks associated with the use of vaccines. The American Veterinary Medical Association (AVMA),



Federation of Veterinarians of Europe (FVE), and Canadian Veterinary Medical Association (CVMA) believe it is incumbent on the veterinary profession to help educate the public as to the benefits of vaccines in promoting animal, human, and public health while at the same time mitigating risks by advocating for the use of sound medically based approaches to developing vaccination protocols that address preventive health needs in multiple species, breeds, and individual patients.

The AVMA (www.avma.org) represents more than 89,000 individual veterinarians across the U.S.A; the FVE (www.fve.org) represents 46 national veterinary organizations across 38 European countries; and the CVMA (www.canadianveterinarians.net/) represents over 13,000 individual veterinarians across Canada. The AVMA, FVE, and CVMA collaborate on issues of importance to its members, working cooperatively to promote animal and human health, support veterinarians in delivering their professional responsibilities at the highest level, and advance the veterinary medical profession.

The AVMA, FVE, and CVMA are committed to promoting the value of vaccines in reducing the risk of infectious and zoonotic diseases, developing educational material for use by veterinarians to increase client compliance with appropriate vaccination programs, and collaborating with other health professions to advocate for resources to advance scientific understanding of vaccine pharmacology and immunology.

The AVMA, FVE, and CVMA believe that the following non-inclusive list delineates key issues to consider when developing and implementing effective educational and advocacy efforts regarding vaccination:

- Vaccines have been used for centuries to effectively decrease morbidity and mortality associated with many infectious diseases, and in the vast majority of cases, the benefits of scientifically sound vaccination programs outweigh any potential risks.
- Animals must be physiologically healthy and immunologically competent to respond effectively and appropriately to a vaccine.
- Vaccination and revaccination programs for preventive health care should be designed to maintain the health of the vaccinated animals and public health (e.g., when vaccinating against a zoonotic disease such as rabies) while, at the same time, minimizing potential adverse effects to the vaccinated animals.
- Herd immunity is an important benefit of effective vaccination programs and can be assessed by measuring vaccination rates together with the results of sero-epidemiological



surveys. Such assessments can be used to help promote vaccination of large populations of animals.

- Points that veterinarians must consider when developing vaccination/revaccination protocols for individual animals or groups of animals include age, breed and health status of the animal(s); environment, lifestyle, travel habits and risk of exposure; regional variations in disease prevalence; and known adverse events associated with the use of certain vaccines.
- A patient's or herd's vaccination/revaccination needs should be assessed by a veterinarian on a regular basis as part of a comprehensive preventative health care strategy.
- The decision to administer any particular antigen should be based on the risk of an individual animal or herd of animals contracting the disease, and protocols may vary depending on what disease entities are prevalent in any given area.
- Adverse events to vaccination can occur as a reaction to the vaccine itself or because of inappropriate use of a vaccine.
- Current adverse event reporting systems need improvement in the capture, analysis and reporting of adverse events.
- All adverse events (including protection failures) should be reported to the manufacturer and appropriate government agencies to help ensure the continued safety and efficacy of veterinary vaccines.

The AVMA, FVE, and CVMA will continue to help educate the general public on the effectiveness of sound vaccination protocols in advancing animal and public health and will advocate for the increased availability of animal vaccines that are safe, efficacious, scientifically based, and clinically practical, to provide practitioners with a basis for developing vaccination programs that maximize the benefits and minimize the associated risks for the patients under their care.

Additional country- or region-specific vaccination principles are available from the [AVMA](#) - [CVMA](#) - [FVE](#)