



# Animal diseases prevention and control

Prevention and control of diseases through activities of Veterinary

Services worldwide constitute a Global Public Good. Benefits drawn from these activities is considerable for agricultural production and food security and safety, public health, animal welfare, access to markets and rural poverty reduction. The efficacy of prevention policies relies on good governance and quality of Veterinary Services, whose compliance with OIE standards are an essential prerequisite.

OIE's standards and guidelines form the indispensable base of disease prevention and control methods. They are accessible on the OIE website.

### CONTROLLING DISEASES AT SOURCE

National Veterinary Services (VS) are at the very core of the system for the prevention and control of animal diseases. Among other aspects, they are responsible for early detection and rapid response to outbreaks of emerging or re-emerging animal diseases. Enhancing VS governance must be the focus worldwide so that, the quality and efficiency of disease prevention and control systems is ensured and is supported by appropriate legislation.

VS in developing and in transition countries are most in need of human and financial resources, and technical assistance so they will be able to guarantee animal health and thus public health worldwide, including food security and food safety.

### NOTIFICATION OF ANIMAL DISEASES TO THE OIE

The OIE guarantees transparency of the world animal health situation; its 178 Member Countries are electronically linked to the OIE Headquarters in Paris, France for disease information purposes.

116 terrestrial and aquatic animal diseases are listed by and are notifiable to the OIE by the VS of Member Countries through the World Animal Health Information system (WAHIS), i.e. the first occurrence or the re-occurrence of a listed disease in their country, as well as the occurrence of new emerging diseases. These notifications are complemented with follow-up reports as the situation evolves.

In 2012 OIE launched an improved version of WAHIS. The major change of this new version is the integration of a section for voluntary notification of specific wildlife diseases that are not officially OIE-listed and the development of two sections: WAHIS Regional Core and OIE/NACA Regional Core for aquatic animals (see fact sheet "World Animal Health – Reporting obligations).

### Compensation is a key measure to guarantee transparency

The existence of a rapid and fair compensation scheme after culling of infected animals imposed by the Veterinary Services encourages early notification of diseases by farmers who are the first to detect the occurrence of diseases. Farmers will more easily report illness provided they are assured of getting compensation for losses.

### Surveillance

Upstream of all action in preventing and controlling animal diseases is an effective active or passive surveillance. This can only be guaranteed provided an awareness campaign includes and rallies all actors at all levels of the animal production chain that is to say from the farmer, to his local veterinarian and laboratories, to the highest private or public veterinary authority.

The OIE defines surveillance as "The systematic ongoing collection, collation, and analysis of data, and the timely dissemination of information to those who need to know so that action can be taken." (OIE *Terrestrial animal Health Code*).

### EARLY DETECTION AND RAPID RESPONSE MECHANISMS

#### EARLY DETECTION SYSTEM

(OIE *Terrestrial animal Health Code*):

A system for the timely detection and identification of an incursion or emergence of disease/infection in a country, zone or compartment. An early detection system should be under the official control of the Veterinary Services complying with relevant OIE standards and should include the following characteristics:



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- representative coverage of target animal populations by field services in good cooperation with animal owners;
- ability to undertake effective disease investigation and reporting;
- access to laboratories capable of diagnosing and differentiating relevant diseases;
- a training programme for veterinarians, veterinary para-professionals and others involved in handling animals for detecting and reporting unusual animal health incidents;
- the legal obligation of private veterinarians to report to the Veterinary Authority;
- a national chain of command.

## COLLECTING SAMPLES

In order to have a rapid and efficient diagnosis of a disease occurrence, the veterinary authorities must have a responsive mechanism of sample collection and laboratory analysis. Particularly in developing countries, because of the shortage of field veterinarians, the detection of disease and collection of samples will rely on well trained farmers or para-professionals under close supervision of accredited veterinarians.

## DIAGNOSTIC

Once aware of a disease outbreak, the veterinary authorities must ensure rapid diagnosis, that the national and international community is well alerted, and that a final confirmation and characterization of pathogen of animal origin may be determined if necessary in OIE Reference Laboratories for the specified disease. OIE has a global network of 284 Reference Laboratories and Collaborating Centres covering all relevant animal diseases.

the spread of pathogens. Appropriate biosecurity measures must be implemented everywhere. Member Countries must comply with OIE standards and guidelines, provide training where relevant for those involved, and appropriate material and human resources. Financial compensation of owners whose animals may have been killed for disease control purposes is a key element for successful control policies of transboundary diseases. Vaccination should be the preferred control method compared to depopulation whenever possible and relevant.

## VACCINATION

Vaccination is not a form of treatment, and is not always a recommended measure. Stamping-out policy is sometimes necessary in order to control and ultimately eradicate a disease, particularly useful when detected very early in a free zone. However, appropriately applied preventive vaccination remains an indispensable global tool to prevent and control the majority of the diseases listed by the OIE.

## IMPLEMENTING A VACCINATION STRATEGY

If it is determined that vaccination is an option, before launching a specified vaccination policy Members need to look at critical pre-requisites to guarantee a successful outcome, i.e. ensure vaccine quality and define the conditions under which any vaccination policy must eventually be stopped (exit strategy).

## VACCINE QUALITY

Vaccines should be produced in accordance with international guidelines prescribed in the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*. For most vaccines, ensuring a permanent cold chain (continuum of temperature control) is critical to the successful implementation of a vaccination campaign. The OIE has created regional vaccine banks to support its Member Countries (vaccines against rabies, foot and mouth disease and peste des petits ruminants).

## IDENTIFICATION AND TRACEABILITY OF ANIMALS

Animal identification and traceability are very useful tools in the effective control of animal diseases. In case of outbreaks, such measures will ease the identification of animals and animal products potentially exposed to the pathogen and allow isolating or destroying them, vaccinating animals or treating them thereby reducing the spread of the infection. This policy will also result in a reduction of possible trade restrictions.

### For more information

The OIE *Terrestrial Animal Health Code* gathers the organisation's international recommendations and guidelines on animal health.

Notification of animal diseases:  
[www.oie.int/en/international-standard-setting/terrestrial-code/access-online/?htmlfile=chapitre\\_1.1.1.htm](http://www.oie.int/en/international-standard-setting/terrestrial-code/access-online/?htmlfile=chapitre_1.1.1.htm)

Animal Health Surveillance:  
[www.oie.int/index.php?id=169&L=0&htmlfile=chapitre\\_1.1.4.htm](http://www.oie.int/index.php?id=169&L=0&htmlfile=chapitre_1.1.4.htm)

Disease Prevention and Control:  
[www.oie.int/index.php?id=169&L=0&htmlfile=titre\\_1.4.htm](http://www.oie.int/index.php?id=169&L=0&htmlfile=titre_1.4.htm)

Animal disease summaries:  
[www.oie.int/en/for-the-media/animal-diseases/animal-disease-information-summaries/](http://www.oie.int/en/for-the-media/animal-diseases/animal-disease-information-summaries/)

## ZONING AND COMPARTMENTALISATION

### Maintaining trade despite the presence of diseases

Zoning allows a country to delineate parts of its territories that are free from certain diseases from infected parts.

Compartmentalisation makes it possible to continue to trade from disease free subpopulations of animals within a country or zone affected by one or more animal diseases.

Under the terms of the OIE *Terrestrial Animal Health Code*, a compartment "means an animal subpopulation contained in one or more establishments under a common biosecurity management system with a distinct health status with respect to a specific disease or specific diseases for which required surveillance, control and biosecurity measures have been applied for the purpose of international trade".

This new OIE provision makes it possible for countries that still have areas infected with diseases to access international markets without placing importers at risk, whereas until quite recently they would not have had this possibility.

## BIOSECURITY

Biosecurity policies and measures taken to protect human and animal health from all biological hazards is essential. In case of a disease outbreak in a non endemic area, depopulation by humane killing - using OIE standards -, followed by disinfection of establishments, equipments and vehicles, and a ban or control of movements of infected and in contact animals, will in most cases efficiently prevent