

CHAPTER 4.19.

OFFICIAL CONTROL PROGRAMMES FOR LISTED AND EMERGING DISEASES

Article 4.19.1.

Introduction

The purpose of this chapter is to provide recommendations for the preparation, development and implementation of *official control programmes* for *listed* and *emerging diseases*. It is not aimed at providing ready-made fit-for-all solutions, but rather at outlining principles to follow when combating transmissible animal diseases, including zoonoses. Although this chapter focuses primarily on *listed* and *emerging diseases*, the recommendations may also be used by the *Veterinary Authorities* for any *notifiable diseases* or diseases against which they have established *official control programmes*.

The *Veterinary Authority* should determine the diseases against which *official control programmes* are to be prepared, developed and implemented, according to an evaluation of the actual or likely impact of the disease. *Official control programmes* should be prepared by the *Veterinary Authority* and *Veterinary Services* in close collaboration with the relevant stakeholders and other authorities, as appropriate.

When a *listed disease* or *emerging disease* occurs in a Member Country, the *Veterinary Authority* should implement control measures proportionate to the likely impact of the disease in order to minimise its spread and consequences and, if possible, eradicate it. These measures can vary from a rapid response (e.g. to the first occurrence of a disease) to long-term control (e.g. of an endemic disease).

Official control programmes should be justified by rationales developed on the basis of *risk analyses* and taking into account animal health, public health, socio-economic, *animal welfare* and environmental aspects. They should preferably be supported by relevant cost-benefit analysis and should include the necessary regulatory, technical and financial tools.

Official control programmes should be developed with the aim of achieving defined measurable objectives, in response to a situation in which private action is not sufficient. Depending on the prevailing epidemiological, environmental and socio-economic situations, the goal may vary from the reduction of impact to the *eradication* of a given *infection* or *infestation*.

The general components of an *official control programme* should include:

- 1) a plan of the programme to control or eradicate the relevant *infection* or *infestation* in the country or *zone*;
- 2) appropriate *veterinary legislation*;
- 3) emergency preparedness plans and emergency response plans;
- 4) *surveillance* of the relevant *infection* or *infestation* in accordance with Chapter 1.4.;
- 5) regular and prompt animal disease reporting;
- 6) detection and management of *cases* of the relevant *infection* or *infestation*, to reduce the *incidence* and the *prevalence* by minimising transmission;
- 7) measures implemented to prevent introduction or spread of the relevant *infection* or *infestation*, including *biosecurity* and *sanitary measures* such as movement control;
- 8) a *vaccination* programme, if appropriate;
- 9) measures to protect public health, if appropriate;
- 10) communication and collaboration among all relevant *Competent Authorities*;
- 11) awareness programme for relevant stakeholders including the general public if appropriate.

The critical components of *official control programmes* for diseases that are not present in the country or *zone* are measures to prevent their introduction, an *early warning system*, and a plan for rapid response and effective action, possibly followed by long-term measures. Such programmes should include options for revising or ending them.

Official control programmes and the application of their components should be regularly evaluated. Learning from past *outbreaks*, from both epizootic or enzootic situations, reviewing the response sequence and revising the methods are

critical for adaptation to evolving circumstances and for better future performance. Experiences of the *Veterinary Services* of other Member Countries may also provide useful lessons. Plans should be tested regularly to ensure that they are fit-for-purpose, practical, feasible and well understood, and that staff are proficient and other stakeholders are fully aware of their respective roles and responsibilities.

Article 4.19.2.

Legal framework and regulatory environment

- 1) In order to be able to control *listed diseases* and *emerging diseases* effectively, the *Veterinary Authority* should ensure that:
 - the *Veterinary Services* comply with the principles of Chapter 3.2., especially the services dealing with the prevention and control of transmissible animal diseases, including zoonoses;
 - the *veterinary legislation* complies with the principles of Chapter 3.4.
- 2) In particular, in order for the *Veterinary Services* to be most effective, the following should be addressed in the *veterinary legislation* or other relevant legal framework:
 - legal powers and structure of command and responsibilities, including responsible officials with defined authority, especially those with a right of entry to *establishments* or other related enterprises such as live animal markets, *slaughterhouses/abattoirs* and processing plants for animal products, for regulated purposes of *surveillance* and disease control actions, with the possibility of obliging owners or operators to assist;
 - sources of finance for dedicated staff and additional support staff when needed;
 - sources of finance for epidemiological enquiries, laboratory diagnosis, disinfectants, insecticides, vaccines and other critical supplies;
 - sources of finance for communication and awareness campaigns;
 - sources of finance and a compensation policy for *commodities* and property that may be lost or destroyed;
 - coordination with other authorities, especially law enforcement and public health authorities.
- 3) Furthermore, the specific regulations, policies, or guidance on disease control activities should include the following:
 - *risk analysis* to assess and prioritise *risks*, including a regularly updated list of *notifiable diseases*;
 - definitions and procedures for the reporting and management of a suspected case or a confirmed case of a *listed disease* or an *emerging disease*;
 - procedures for the management of *establishments* directly or indirectly affected by the disease;
 - procedures for epidemiological investigation of *outbreaks* including forward and backward tracing of *commodities* and fomites;
 - definitions and procedures for the declaration and management of *infected zones* and other *zones*, such as *free zones*, *protection zones*, *containment zones*, or less specific *zones* such as *zones* of intensified *surveillance*;
 - procedures for the collection, transport and testing of samples;
 - procedures for *animal identification* and the management of *animal identification systems*;
 - procedures for the restriction of movements, including possible standstill or compulsory veterinary certification, of relevant *commodities* and fomites within, to, or from given *zones* or *establishments* or other related enterprises;
 - procedures for the destruction or *slaughter* and safe disposal or processing of infected or potentially infected *animals*, including relevant *wildlife*;
 - procedures for collection, treatment and safe disposal of contaminated or potentially contaminated products of animal origin;
 - procedures for collection, treatment or safe disposal of contaminated or potentially contaminated fomites such as fodder bedding, litter, manure and waste water;
 - procedures for *disinfection* and disinsection of *establishments* and related premises, *vehicles/vessels* or equipment;
 - procedures of compensation for the owners of *commodities*, including defined standards and means of implementing such compensation;
 - procedures for the implementation of *vaccination* programmes or treatment of *animals*, as relevant, and for any other necessary disease control actions;
 - procedures for post-control *surveillance* and possible gain or recovery of status, as relevant.

Article 4.19.3.

Emergency preparedness

Rapid and effective response to animal health emergencies, such as occurrence of an *emerging disease* or a *listed disease* that was not present in the country or *zone*, or a sudden increase in the *incidence* of a *listed disease* that is already present, is dependent on the level of preparedness.

The *Veterinary Authority* should define emergencies and integrate emergency preparedness including planning, equipping, training and exercises within the *official control programmes* for these diseases as part of its core functions.

Emergency preparedness should be supported by *risk analysis*, should be planned in advance, and should include capacity building and simulation exercises.

1. Risk analysis

Risk analysis, including import *risk analysis*, in accordance with Chapter 2.1., should be used to determine a list of *notifiable diseases* that require emergency preparedness planning, and the level of preparedness needed.

A *risk analysis* identifies the pathogenic agents that present the greatest *risk* and for which preparedness is most important, and therefore helps to prioritise the range of disease threats and define the consequent actions. It also helps to define the best strategies and control options.

The *risk analysis* should be reviewed regularly to detect changes (e.g. new pathogenic agents, changes in distribution and virulence of pathogenic agents previously identified as presenting the major *risk* or changes in possible pathways) and be updated accordingly, taking into account the latest scientific findings.

2. Planning

Emergency planning consists of describing the following in advance of an emergency:

- what national and subnational authorities, and relevant stakeholders should do;
- how they should be organised, equipped, trained and exercised to be ready to do it;
- how their actions should be activated, managed and coordinated.

This implies the development of:

- a) an emergency preparedness plan, which outlines what should be done before an emergency;
- b) an emergency response plan (or contingency plan), which details what should be done in an emergency, beginning from the triggering point;
- c) a comprehensive set of instructions for staff and other stakeholders on how to undertake specific tasks required by the response or contingency plan;
- d) a recovery plan for the safe restoration of normal activities, including food supply, possibly including procedures and practices modified in light of the experience gained during the management of previous emergencies, for example following an after-action review.

3. Simulation exercises

A simulation exercise is a controlled activity where a situation, that could exist in reality, is imitated for training, assessment of capabilities and testing of plans. The *Veterinary Services* and all stakeholders should be made aware of the sequence of measures to be taken in the framework of an emergency response plan, through the organisation of simulation exercises mobilising a sufficient number of staff and stakeholders to evaluate the level of preparedness and fill possible gaps in the plan or in staff capacity. Simulation exercises may be organised within a country or among the *Veterinary Services* of several countries and with other relevant agencies.

Article 4.19.4.

Surveillance and early warning systems

Depending on the priorities identified by the *Veterinary Authority*, *Veterinary Services* should implement adequate *surveillance* for *listed diseases* in accordance with Chapter 1.4. and *listed disease*-specific chapters, in order to detect suspected cases and either rule out or confirm them. The *surveillance* should be adapted to the specific epidemiological and environmental situation. *Early warning systems* are an integral component of emergency management. They should be in place for diseases for which a rapid response is desired, and should comply with the relevant articles of Chapter 1.4. When used, *vector surveillance* should be conducted in accordance with Chapter 1.5.

Strong suspicion based on supportive, but not definitive, findings should lead to at least the implementation of pre-emptive control measures. Once a case is confirmed, full *sanitary measures* should be implemented.

Article 4.19.5.

General considerations for outbreak management

Upon confirmation of an *outbreak* of a *listed disease* or an *emerging disease* that is subject to an *official control programme*, effective *risk management* should be applied. This depends on the implementation of a combination of measures operating concurrently or consecutively. These measures should aim at:

- 1) tracing forward and backward in-contact *animals* and potentially infected or contaminated *commodities* or fomites through epidemiological investigation;
- 2) eliminating the source of the pathogenic agent, by:
 - the *killing* or *slaughter* of *animals* infected or suspected of being infected, as appropriate, and safe disposal of dead *animals* and disposal or treatment of other potentially contaminated *commodities* and fomites, such as beddings and single use clothing and equipment;
 - the cleaning, *disinfection* and, if relevant, *disinsection* of premises and other fomites such as *vehicles*, clothing and equipment;
- 3) preventing the spread of disease, *infection* or *infestation* through:
 - movement restrictions on *commodities* and fomites, as appropriate;
 - *biosecurity*;
 - *vaccination*, treatment or selective *killing* of *animals*;
 - control of *vectors*;
 - communication and public awareness.

Different strategies may be chosen depending on the objective and expected outcome of the *official control programme* (i.e. *eradication*, containment or prevalence control) and the epidemiological, environmental, economic and social situation. The *Veterinary Authority* should assess the situation beforehand and at the time of *outbreak* detection. For example, the wider the spread of the disease and the more locations affected at the beginning of the implementation of the measures, the less likely it will be that selective *killing* will be effective as the main *eradication* tool, and the more likely it will be that other control tools such as *vaccination* or treatment, either in conjunction with selective *killing* or alone, will be needed. The involvement of *vectors* or *wildlife* will also have a major influence on the control strategy and different options chosen. The strategies chosen will, in turn, influence the final outcome of the *official control programme*.

The costs of the response measures, including the compensation of owners for losses incurred by the measures as described in regulations, policies or guidance, should be considered in relation to the benefits expected.

In case of highly transmissible or high-impact disease events, the response measures should be closely coordinated through an inter-sectoral mechanism such as an incident command system.

Article 4.19.6.

Selective killing of animals and disposal of dead animals and other potentially contaminated commodities

Living infected *animals* can be the most significant source of pathogenic agents. These *animals* may directly transmit the pathogenic agent to other *animals*. They may also cause indirect transmission of pathogenic agents through living organisms (*vectors*, people) or through the contamination of fomites, including breeding and handling equipment, bedding, *feed*, *vehicles/vessels*, and people's clothing and footwear, or contamination of the environment. Although in some cases carcasses may remain infective for a period after death, shedding of the pathogenic agent ceases when the *animal* is killed or slaughtered. Thus, selective *killing* of *animals* is often a preferred strategy for the control of transmissible diseases.

Veterinary Services should adapt any strategy for selective *killing* of *animals* or disposal of dead *animals* and other potentially contaminated *commodities* to the transmission pathways of the pathogenic agent. A *stamping-out policy* is the preferred strategy for highly transmissible diseases and for situations where the country or *zone* was previously free or freedom was impending. Other strategies, such as "test and cull", are better suited to less transmissible diseases and situations where the disease is endemic.

For control measures, including destruction of *animals* or other *commodities*, to be most effective, *animal identification* and *animal traceability* should be in place, in accordance with Chapters 4.2. and 4.3.

The *slaughter* or *killing* of *animals* should be performed in accordance with Chapter 7.5. or Chapter 7.6., respectively.

The disposal of dead *animals* and other potentially contaminated *commodities* should be performed in accordance with Chapter 4.13.

1. Stamping-out policy

A *stamping-out policy* consists primarily of the *killing* of all the *animals* infected or suspected of being infected, including those that have been directly or indirectly exposed to the causal pathogenic agent.

A *stamping-out policy* can be limited to the affected *establishments* and, where appropriate, other *establishments* found to be epidemiologically linked with an affected *establishment*, or be broadened to a defined *zone*, when pre-emptive depopulation can be used to stop the transmission of a rapidly spreading pathogenic agent.

A *stamping-out policy* can be applied to all the animal species present on an affected *establishment*, or to all susceptible species, or only to the same species as the infected *animals*, based on the assessment of associated *risks*.

Selective *killing* and carcass disposal can be applied to *wildlife* within a defined *zone*, based on the assessment of associated *risks*.

Killing should preferably be performed on site, and the carcasses either disposed of on site or transported directly and safely to a rendering plant or other dedicated site for destruction. If they are to be killed outside the *establishment* or slaughtered, the *animals* should be transported directly to a dedicated *approved* rendering plant or *slaughterhouse/abattoir*, respectively, avoiding any possible direct or indirect contacts with other susceptible *animals*. These slaughtered *animals* and their products should be processed separately from others.

Products originating from killed or slaughtered *animals*, ranging from carcasses, *meat*, *milk*, eggs or genetic material to hair, wool, feathers or manure, should be destroyed or processed in a way that inactivates the pathogenic agent. The inactivating process should be carried out in accordance with the relevant articles of the *listed disease-specific* chapters.

Stamping-out policy procedures include the cleaning and *disinfection* of *establishments* and *vehicles/vessels* used for the transport of *animals*, carcasses or products, as well as of any equipment and material that has been in direct or indirect contact with the *animals*. The procedures may include *disinsection* or *disinfestation* in the case of *vector-borne* disease or parasitic *infestation*. These procedures should be conducted in accordance with the relevant articles of Chapter 4.14. Where premises cannot be practically disinfected, alternate means of elimination of the causal pathogenic agent, such as extended following periods or composting, may be considered.

2. “Test and cull”

This strategy consists primarily of finding the infected *animals* in order to remove them from the population for either *slaughter* or *killing* and disposal. *Veterinary Services* may apply different “test and cull” strategies based on the epidemiology of the *infection* or *infestation* or on the characteristics of available diagnostic tests. In particular, the design of the “test and cull” strategy will depend on the sensitivity and specificity of the tests. *Veterinary Services* may adjust “test and cull” strategies in response to changes in the *prevalence*.

Apart from the selection of *animals* to be killed, the same principles apply as for a *stamping-out policy* in terms of processing, treatment and disposal of dead or slaughtered *animals* and their products.

Article 4.19.7.

Movement control

Disease spread due to the movement of live *animals* and other *commodities* and fomites should be controlled by movement restrictions that are adequately enforced.

These restrictions can be applied to one or more animal species and their associated *commodities*, and to different types of fomite (e.g. people, clothing, *vehicles/vessels* and equipment). Based on *risk analysis*, they may vary from pre-movement certification to total standstill, and be limited to one *establishment* only or multiple *establishments*, or cover specific *zones* or the entire country. The restrictions can include the complete isolation of individual *animals* or groups of *animals*, and specific rules may be applied to movements, such as protection from *vectors*.

Specific rules covering movement controls should apply to each of any defined *zones*. Physical barriers may be installed as needed, to ensure the effective application of movement restrictions.

Movement controls should be in place until the end of other disease control operations, such as a *stamping-out policy*, and after *surveillance* and a revised *risk assessment* have demonstrated that they are no longer needed.

When implementing movement control operations, *Veterinary Services* should coordinate with other relevant authorities such as local authorities and law enforcement agencies, and with communication media, as well as with the *Veterinary Services* of neighbouring countries in the case of transboundary animal diseases.

Article 4.19.8.

Zoning

The *Veterinary Authority* should use the tool of zoning in *official control programmes*, in accordance with Chapter 4.4.

The use of zoning for disease control and *eradication* is inherently linked with measures of *killing* or *slaughter*, movement control, *vaccination*, *surveillance*, *biosecurity* and communication, which apply differently according to the *zones*. In particular, efforts should be concentrated on those parts of a territory affected by the disease, to prevent the spread of the pathogenic agent and to preserve the status of the parts of the territory not affected by the disease.

Zones established in response to *outbreaks* of *listed diseases* or *emerging diseases* are usually *infected zones*, *containment zones* and *protection zones*. However, other types of *zone*, such as *zones* where specific *surveillance*, *vaccination* or other activities are conducted, can also be used.

Article 4.19.9.

Biosecurity

In order to avoid the spread of the pathogenic agent outside the affected *establishments* or *infected zones*, and in addition to the management measures described in Articles 4.19.5. to 4.19.7., *biosecurity* should be applied. In particular measures should be taken to avoid the contamination of clothing and shoes, equipment, *vehicles/vessels*, the environment or anything capable of acting as a fomite.

Disinfection and disinsection should be applied in accordance with Chapter 4.14. When *disinfection* is applied, specific disinfectant solutions should be used for footbaths or disinfectant baths for *vehicles'* wheels. Single-use material and clothes, or material and clothes that can be effectively cleaned and disinfected, should be used for the handling of *animals* and other *commodities*. Protection of premises from *wildlife* and other unwanted *animals* should be ensured. Wastes, waste-water and other effluents should be collected and treated appropriately.

Article 4.19.10.

Vaccination and treatment

Vaccination as part of an *official control programme* should be conducted in accordance with Chapter 4.18.

Vaccination programmes, especially in response to an *outbreak*, require planning to identify potential sources of vaccine, including vaccine or antigen banks, and to determine the possible strategies for application, such as barrier, blanket, ring or targeted *vaccination*.

The properties of the vaccines should be well understood, especially the level of protection against *infection* or disease and the possibility of differentiating the immune response produced by the vaccine from that induced by *infection* with the pathogenic agent, or differentiating live vaccine strains from field strains.

Although *vaccination* may hide ongoing *infection* or transmission of pathogenic agents, it can be used to increase the *herd* immunity for and decrease the shedding of the pathogenic agent, hence reducing the reproductive rate of the *infection*. In particular, when stamping-out is not feasible, *vaccination* can be used to reduce the *prevalence* of the *infection* until its level is low enough for the implementation of another strategy such as a "test and cull" strategy.

Vaccination may also be used to minimise the impact of an *infection* by reducing clinical signs or economic losses.

Whenever *vaccination* is to be used as a tool to control *outbreaks* or spread of disease, the *official control programme* should consider a cost-benefit analysis with regard to trade and public health and an exit strategy, i.e. when and how to stop the *vaccination* or whether *vaccination* should become systematic.

Treatment can also be used as part of an *official control programme*. It requires planning to identify potential sources of *veterinary medicinal products*, and to determine the possible strategies for application and an exit strategy.

Article 4.19.11.

Communication

For the best implementation of disease control measures, *Veterinary Services* should ensure good communication with all concerned stakeholders, including the general public. This should be part of the *official control programme* and be carried out, among others, through awareness campaigns targeted at animal owners or keepers, *veterinarians*, *veterinary paraprofessionals*, local authorities, the media, consumers and the general public. Communication with *Competent Authorities* of neighbouring countries and trading partners is important for the control of transboundary animal diseases.

Veterinary Services should communicate before, during and after *outbreaks*, in accordance with Chapter 3.5.

Article 4.19.12.

Specific post-control surveillance

Specific *surveillance* should be applied in order to monitor the effectiveness of the *official control programme*, and to assess the status of the *animal populations* in the different *zones* established by the *Veterinary Services*.

The results of this *surveillance* should be used to reassess the measures applied, including reshaping of the *zones* and re-evaluation of the selective *killing* or *vaccination* strategies, and for the eventual recovery of free status, if possible.

This *surveillance* should be conducted in accordance with Chapter 1.4. and with the relevant articles of the *listed disease-specific* chapters.

Article 4.19.13.

Further outbreak investigation, monitoring, evaluation and review

In order to gather information required for any management information system, *Veterinary Services* should conduct an in-depth epidemiological investigation of each *outbreak* to build up detailed first-hand, field-based knowledge of how the disease is transmitted, to inform further disease control plans. This requires staff who have been trained in appropriate methods and in the use of the standardised data collection forms.

Furthermore, feedback from persons involved in the organisation and implementation of *official control programmes* should be gathered.

The information gathered and experience gained should be used to monitor, evaluate and review the *official control programmes* in order to improve them.

NB: FIRST ADOPTED IN 2021.

