Appendix III

Generic Guidelines for Disease Control

(Version 03 March 2011 ad hoc Group on Epidemiology)

A. Introduction

The objective of these generic guidelines is to provide a framework for countries to establish disease control priorities, strategies and policies to achieve the desired goal of specific animal disease control programmes. The guidelines are not intended to be a prescriptive list but rather a conceptual framework that can be adapted to a particular national and epidemiological context.

These guidelines are intended to help countries identify priorities, objectives and desired endpoints of disease control programmes. Disease control programmes are often established with the aim of eventual eradication of agents at a country, zone or compartment level. While this approach is desirable, the needs of stakeholders may require a broader range of outcomes. For some diseases, eradication may not be economically or practically feasible and options for sustained mitigation of disease impacts may be needed.

It is important to clearly formulate the programme goals and these may range from simple mitigation of impacts to disease control, progressive control or eradication of the disease. These guidelines highlight the importance of economic assessment of disease intervention options in the design of programmes taking into consideration effectiveness, feasibility of implementation, as well as costs and benefits.

It is assumed that the country has determined its disease control priorities and these guidelines are intended to help Members in the development and implementation of a specific animal health programme that includes objectives, policies and strategies adapted to the full range of national needs. Specific outputs of this process will include a problem statement, a control programme strategy and an implementation plan.

B. Problem statement

The country should clearly state the rationale for establishing a disease control programme. Consideration should be given to public health, food safety, food security, biodiversity and socioeconomic aspects.

The justification for the disease control programme should include a summary of the current knowledge about the epidemiological situation within the country detailing:

1. Description of the disease situation
2. Description of disease impacts (public health, food safety, food security and socioeconomic) and how these are distributed among stakeholders
3. Identification and engagement of stakeholders

C. Control programme strategy

The desired endpoint of a control programme should be defined from the outset. Although eradication has traditionally been the goal for many disease control programmes it may not always be achievable within a reasonable timeframe or at an acceptable cost. The epidemiology of the disease along with the availability of technical tools as well as social and economic considerations dictate if eradication is achievable or if control at a certain prevalence level is adequate. For some diseases, or in certain situations, the emphasis of a programme should be on reducing the health and economic impact of the disease. Some of the factors to consider are listed below.
D. Strategic planning

The development of a strategic plan should be based on the choice of the endpoint of the programme. The choice of intervention options should be based on their biological effectiveness, ease and cost of implementation to fit the needs of the programme, as well as the benefits that are expected by reaching the objectives of the programme. Value chain analysis helps understand the role of different players within the production system, identify critical control points to target measures and provide an indication on the incentives for and feasibility of implementation of the programme. The decision on the most appropriate intervention options should take into account cost-benefit considerations, in conjunction with the likelihood of success of a particular set of disease control measures.

Institutional analysis examines the organizations involved in delivering services and the processes that govern their interaction. This type of analysis would be helpful to inform the strategic planning process and identify areas where a change would enable better programme implementation and facilitate effective collaboration.

The programme should include a continued review process to assess the effectiveness of the interventions that are being applied, identify gaps in knowledge and adapt the goals, objectives and methods or actions as required.

The programme should take into consideration the distribution of costs and benefits among different stakeholders and understand the factors limiting stakeholder participation in programme activities. These factors can affect the optimal selection of interventions. Programme policies need to include incentives for engagement including, for example, additional services for the producer, appropriate compensation schemes, adding value to the final product and protecting public health. In addition, it may be necessary to include measures to ensure compliance including movement restrictions and fines.

E. Implementation plan

A disease control programme should be based on an efficient and effective veterinary service. Countries are encouraged to follow the provisions of Chapter 3.1 of the Terrestrial Animal Health Code (Terrestrial Code), as well as to undergo a Performance of Veterinary Services (PVS) evaluation and address the gaps that may be identified. In addition, the programme should have political support, and sustainable sources of funding including government and private stakeholder contributions.

The implementation plan should address the following:

1. **Regulatory framework**

   The disease control programme should be supported by effective legislation at the primary and secondary levels. Countries are encouraged to follow the OIE Guidelines on Veterinary Legislation ([http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/docs/pdf/A_Guidelines_VetLeg.pdf](http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/docs/pdf/A_Guidelines_VetLeg.pdf)). The disease should be notifiable throughout the country. The regulatory framework for the disease control programme should be flexible enough to be adapted to evolving programme needs.

2. **Epidemiological situation**

   The implementation of the programme needs to take into consideration:
   
   a. Knowledge of livestock production systems
   b. Geographical and temporal distribution
3. Disease surveillance

The underpinning of the disease control programme activities is an effective surveillance system that provides guidance on priorities and targets for the application of interventions. The surveillance system should consist of general surveillance activities reinforced by pathogen specific activities. A clear case definition and outbreak investigation procedures are required. The provisions of Chapter 1.4 of the Terrestrial Code on animal health surveillance should be referred to.

4. Diagnostic capability

The programme needs to be supported by diagnostic facilities with adequate capacity. The choice of diagnostic tests applied should ensure detection and confirmation of the disease. The tests should follow the specific requirements in Chapter 1.1.4 on Principles of Validation of Diagnostic Assays for Infectious Diseases and the disease specific recommendations in the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. Diagnostic facilities, either official or accredited, should be under a quality assurance scheme coordinated by the designated national reference laboratory (ies). The latter should establish communication with an OIE reference laboratory for the particular disease. National and sub-national laboratories need to ensure that diagnostic results are communicated to the national surveillance system, field veterinarians and producers. National laboratories are also needed to provide independent and impartial quality control of vaccines. When advantageous, national laboratories are encouraged to submit samples to OIE reference laboratories for confirmation of findings and developing an understanding of the molecular epidemiology of the agent.

5. Traceability

An effective traceability system facilitates the identification of affected herds or flocks. The existing traceability system may need to be adapted to take into account the epidemiology of the disease particularly the length of the incubation period. The design of the traceability system should follow the provisions of the Terrestrial Code in particular, Chapter 4.1 on General Principles on Identification and Traceability of Live Animals and 4.2 on Design and Implementation of Identification Systems to Achieve Animal Traceability.

6. Vaccination

a) Role of vaccination

Vaccination is an essential tool in the control of many diseases. However, vaccination on its own will not usually achieve the desired results unless the vaccination programme is part of an integrated control strategy. Depending on the epidemiological situation, the pattern of animal movements, population density and production systems within the country, targeted vaccination may be more effective than systematic mass vaccination. Where appropriate, vaccination campaigns should be serologically monitored for their effectiveness to ensure that herd-level immunity objectives are being met.

b) Vaccine quality

A vaccine quality assurance programme ensures the purity, safety, potency of vaccines as well as measures their efficacy in relation to the circulating strains. Vaccines used within control programmes should be licensed under the authority of the official veterinary services in accordance to international standards and preferably tested independently for safety and potency.
c) Vaccine delivery

Effective delivery of vaccine, including preservation of the cold chain and proper administration, is the cornerstone for reaching an adequate level of population immunity. Governmental and/or private schemes can be established to ensure vaccine distribution at the local level.

d) Vaccine and antigen banks

Banks could be useful to ensure sufficient stocks are available if targeted vaccination is needed. Such banks may be held at national or regional levels.

7. Emergency preparedness and response

Countries should develop emergency preparedness and response plans to be applied in case of a disease introduction into a formerly free zone or an unexpected increase in incidence in areas that have reached an appropriate level of control or in the case of disasters. These plans are especially important for rapidly spreading diseases. Emergency response plans should be up to date, tested in the real world setting and embedded in the legal framework. Emergency funds should be available to cover operational costs and indemnities. The chain of command and coordination with all key players, where necessary, including the police and armed forces, should be well established to ensure control efforts are executed rapidly and with success. Contingency plans need to be in place when immediate response is needed, including critical actions that need to be taken when a sudden outbreak of a disease is notified. Arrangements need to be in place to ensure rapid communication at all times. It is also important that these plans are coordinated on a regional level, particularly for transboundary animal diseases.

When the disease control measures applied have a significant economic impact, appropriate compensation mechanisms are needed to ensure cooperation by farmers. Funding is essential but is often lacking leading to non-compliance, if the disease occurs again. Partnerships between government and the private sector have proven effective to develop sustainable contingency funds in several parts of the world.

8. Regional integration

Many diseases are considered transboundary animal diseases and require a regional approach to disease control. Regional and inter-sectorial agreements, including the chief veterinary officers in each country and representatives from international and other relevant regional organizations should be established to ensure proper coordination. Where possible, regional funds could be pooled to ensure a source is available in an emergency and to protect the region from disease incursion and spread.

9. Social participation

Communication, awareness programmes and programme ownership need to be in place. Stakeholders should be involved in the development, planning, implementation and management of the programme. This should be an on-going process.

10. Disease control measures

Disease control measures to be applied in the programme can be implemented by the Veterinary Authority, or private entities or a combination of both. In any event, the overall responsibility for oversight of the programme remains with the Veterinary Authority. The basic principles of a control programme and the measures to address them include:

a) Identification of foci of infection

- Early detection and diagnosis
- Disease reporting
- Surveys
- Abattoir surveillance
- Epidemiological and outbreak investigation
b) Prevention of infection of susceptible hosts,

- Vaccination
- Quarantine
- Animal movement control
- Vector control
- Public awareness and communication

c) Elimination of the infectious agent

- Cleaning, disinfection and rest period
- Animal treatments
- Treatment of products and by-products
- Test and isolation
- Test and slaughter
- Stamping-out

The management of the application the disease control measures should follow standard operating procedures including:

- Implementation, maintenance, monitoring of the measures
- Application of corrective actions
- Verification of the process
- Record keeping

11. Assessment of programmes

The programme should include a continued review process to assess the effectiveness of the interventions that are being applied, identify gaps in knowledge and adapt the goals, objectives and methods or actions as required. This process should begin with the establishment of baseline data on the epidemiological, economic and social impact of the disease. The programme should collect data on process and impact indicators. This enables measurement of the effectiveness of interventions on epidemiological indicators such as incidence and prevalence, and identify areas needing strengthening.

12. Role of research in support of disease control programmes

During the strategic planning and assessment of programmes certain areas needing further research may be identified. Communication with national and international research institutions should be established to address programme needs.

13. Training and capacity building

Institutional capacity building is important in development of systems and infrastructure. The personnel in charge of implementing the measures within the programme need to be adequately trained and updated on the current knowledge on the disease. Veterinary accreditation schemes of private veterinarians and veterinary para-professionals can be a useful tool to increase the veterinary presence in the field, however training and supervision coordinated by the official veterinary service is required.