

Practical examples on surveillance for WOAAH new dossiers

**Training Workshop on FMD epidemiology, diagnostics and
surveillance for strengthening FMD control in Eastern Africa**

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M. MULUMBA

INTERNATIONAL ANIMAL HEALTH CONSULTANT

TAHC Chapters 1.4 (horizontal) and 8.8 (vertical)

Requires that surveillance is risk based,
representative and demonstrably capable of
detecting FMD if present

Dossier application for disease freedom

- Applications for official disease control programmes involve submitting a detailed plan that outlines the disease situation, the quality of veterinary services, and the specific activities, outcomes, and outputs planned to achieve objectives.
- Key components include biosecurity, surveillance, early warning systems, and a budget, as well as a plan for monitoring and evaluation
- For official recognition of disease-free status, applications must meet the specific requirements of the World Organisation for Animal Health (WOAH).
- dossier to WOAH in support of its application that not only explains the epidemiology of FMD in the region concerned but also demonstrates how all the *risk* factors, including the role of *wildlife*, if appropriate, are identified and managed. This should include provision of scientifically based supporting data. ([WOAH EOCP for FMD.docx](#))

FMD CHAPTER 8.8

- Is the vertical chapter of the TAHC which deals with Foot and Mouth Disease
- Runs from 8.8.1 to 8.8.45
- Covers broad range of topics from what the disease is, to control, laboratory diagnosis, surveillance methods, vaccinations, WOAH endorsed official control programmes and application of recognition of FMD disease freedom among others
- Read together with the horizontal Chapter 1.4 mostly on surveillance, it adequately equips a country to control and be on the pathway for FMD disease freedom

WOAH endorsed official control programme

- considerable latitude is available to Member Countries to design and implement surveillance to establish that the whole territory or part of it is free from infection with, and transmission of, FMDV and to understand the epidemiology of FMD as part of the *official control programme* means a programme which is approved, and managed or supervised by the Veterinary Authority of a Member Country for the purposes of controlling a vector, pathogenic agent or disease by specific measures applied throughout that Member Country, or within a zone or compartment of that Member Country.
- Focus is on surveillance

1. Clinical (field) surveillance

Active:

- Trained veterinary staff conduct **regular farm inspections**, checking for lesions (oral, foot, teat), lameness, and salivation
- In some countries, village para-veterinarians or community animal health workers are trained to use **FMD case definitions**

Passive:

- **Hotlines and farmer networks** for immediate reporting of vesicular diseases
- **Compulsory notifiable disease reporting** backed by veterinary **legislation**

Dossier value: demonstrates a functional early-warning system across the national territory or zones

2. Serological surveillance

Random surveys:

- Statistically representative sampling of cattle, small ruminants, and buffaloes across zones
- Used to detect prior exposure (non-structural protein [NSP] ELISA).

Targeted surveys:

- Sampling of high risk herds near borders, livestock markets, national game reserves, or transhumance routes

Post vaccination monitoring (PVM):

- NSP and structural protein antibodies tests to evaluate vaccine coverage or free without

Dossier value: provides **evidence of infection** absence or effective vaccination, essential for “free without vaccination” claims

3. Slaughterhouse / Abattoir surveillance

Clinical checks:

- Ante-mortem inspections: mouth, feet, udder lesions
- Post-mortem inspections: vesicular lesions or secondary infections

Sample Collection:

- Serology or tissue sampling from suspect cases

Dossier value: shows an **additional layer of surveillance** capturing animals outside of routine farm visits

4. Laboratory-based surveillance

Diagnostic Capacity:

- Real-time RT-PCR, ELISA, virus isolation for confirmation of suspected cases
- National reference laboratory accredited to WOAHA standards

Sample Sources:

- From field suspicion, sero-surveys, and abattoir cases

Dossier value: proves the country can **rapidly confirm or rule out FMD**

5. Event-based and Risk-Focussed surveillance

Wildlife Surveillance:

- Sampling buffalo in southern Africa (where applicable)

Border Surveillance:

- Quarantine stations test imported cattle before release
- Inspection posts monitor cross-border movements

Risk-based design: stratification by production system, geography, or border proximity

Dossier value: shows that surveillance is not random but **targeted to risk pathways**

Summary

- Surveillance must be documented, statistically valid, risk-based, and backed by legislation. The dossier should include:
 - ✓ **Surveillance design** - (objectives, risk stratification, sampling).
 - ✓ **Methods used** (clinical, serology, lab).
 - ✓ **Results** (tables, maps, trends).
 - ✓ **Evidence of sensitivity** (power to detect infection if present).
- Other information to be included in dossier:
 - ✓ Annual **sero-surveys** in cattle zones (5% herd-level prevalence with 95% conf.)
 - ✓ **Passive reporting** through village livestock assistants
 - ✓ **Vaccination coverage monitoring** (structural antibody ELISA, NSP testing)
 - ✓ **LITS (traceability)** ensures all sampled animals were tracked

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