Food and Mouth Disease
– follow up from Asunción -

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FAO and OIE cooperation and “tools”

- WHO
- GF-TADs – FAO and OIE
  - GLEWS
    - Disease information analysis and warning
  - OFFLU
- CMC-AH
  - Quick response
- Regional Animal Health Centers
- Global and Regional networks
Following Asunción, GF-TADs’ Global Steering Committee decided to

• Establish a GF-TADs Working Group for FMD:
  
  ➢ To work out a **GLOBAL Strategy for FMD**, to ensure proper follow up of the Asunción recommendations
  ➢ Fine tune the **PROGRESSIVE CONTROL PATHWAY (PCP)** and its related **ROADMAP** strategy for FMD, based on the **7 VIRUS POOLS** as recognized by the FAO/OIE FMD laboratory network
Principles for a global strategy for FMD - within the GF-TADs framework -

1. No single solution → tailored (vaccination) approach based on the 7 virus pools ("watershed") concept

2. “Regional Roadmaps” based on PCPs in all of the major virus pools (reservoirs), but building on already existing partnerships and regional actions

3. National responsibility for FMD control

4. Long-term effort (sustainable)

5. International role: support by facilitating, encouraging, lobbying (countries and donors), monitoring

6. Promotion of surveillance and applied research
The 7 regional virus pools with continual virus circulation and evolution in each. Epidemic jumps occasionally occur, also to free regions.
What are Regional FMD Roadmaps?

• Regionally coordinated plans to achieve progress:
  ➢ Use regional leaders, build political commitment
  ➢ Lobby together for resources/actions
  ➢ Address the problem of reservoirs/high risk countries
  ➢ Communicate on risks and assist in response efforts

• Not new, but proven successful approach for progress
  ➢ Europe (EuFMD)
  ➢ South-East Asia (SEACFMD)
  ➢ South America
Virus pools and Regional Roadmaps

- **West Eurasia Roadmap** - since 2008
- **African Roadmaps** (3) - developed in 2009
- **Constraints** – South Asia (Pool 2), slow or no implementation in parts of Africa
Progressive control of FMD

• OIE Code only recognizes "FMD free" and "FMD infected" (so far)

• FAO’s Progressive Control approach takes into account that:

  ➢ Countries are at different stages in managing the risk of infection, ranging from

    - continuous circulation of FMD virus
    - to sporadic outbreaks, originating from import of infection (introductions) to the country, that are quickly brought under control
FAO Progressive Control Pathway

Not a top down prescribed approach, but each MS encouraged to develop national risk reduction strategies that are supportive to the regional effort.

Stages 0-3:

1. Critical risk points identified, strategy being developed
2. Critical points addressed, incidence lowered
3. Approaching freedom, outbreaks < once/year
4. Officially free with vaccination, no circulation / containment zones only
5. Officially free without vaccination, no circulation / containment zones only

Infected countries/zones:

- NOT an official status
- The common feature of all stages is the measurement of FMD infection/circulation in the population at risk
- The difference is the level of control of transmission/risk
Stage 0: risk not controlled

Characteristics:

- Level of virus circulation (prevalence in serological studies) has not been studied in the past 12 months
- And/or: outbreaks occur every year
- And: the impact of control measures (vaccination, quarantines) on virus circulation is not studied or measured
Stage 0 (continue)

• Many countries still at this stage!
• Whether vaccinating or not

• Countries that [deliberately?] do not report FMD and do not report results of serological surveys are automatically in Stage 0
Stage 1: critical FMD risk points assessed, national strategy under development

• **Stage 1 Characteristics:**
  – level of virus circulation (prevalence - NSP positives) has been studied in past 12 months
  – the critical risk points (CRP) associated with the major husbandry/marketing chains are identified and
  – a strategy is under development to address the CRP

• **Main criterion:** systematic information gathering on FMD circulation and critical control points

Critical risk points identified, strategy being developed
Stage 1 – Low cost

- Serological survey to identify incidence and risk groups
- Typing of FMD viruses/strains (can be outsourced)
- Identify Critical Control Points (CCP)
- Identify capacity to control CCPs and identify willingness to pay
- Develop strategy

- Provides valuable surveillance data for risk assessment, therefore Stage 1 activities are of regional value
Critical control points.........
Stage 2: FMD under control, circulation is progressively reduced

• Stage 2: Characteristics
  – each new outbreak/cluster of outbreaks is investigated and potential virus sources are identified
  – level of virus circulation - prevalence in serological studies - has been studied repeatedly for at least 24 months (evidence of FMDV exposure may still be found in each survey)
  – the risk associated with the major husbandry/marketing chains is identified, and strategies implemented for each
Stage 2 (continue)

-and: the impact of control measures (vaccination, quarantines, measures at borders) on virus circulation is being measured

-**Main criterion:** FMD control strategy has been implemented and is monitored by repeated sero-surveys

Critical Risk Points addressed

\[ \downarrow \text{incidence} \]
Stage 2: Cost are higher than for Stage 1

- Usually involves vaccination
- Targeted vaccination may suffice, mass vaccination on national scale not prescribed

NB: Some countries may choose not to effectively implement Stage 2, because of a lack of economic incentives and finance

- Data needed on economic consequences of FMD in different settings
- Regional political pressure and support important
- Potential incentives: FMD controlled compartments or commodity-based trade
Stage 3: Approaching freedom; effective prevention and containment measures

Stage 3: **Characteristics**

- Level of virus circulation (prevalence in serological studies) has been studied repeatedly for at least 24 months. Evidence of FMD virus exposure may be found, but restricted to limited foci or limited time periods.
- FMD outbreaks are scarce.
- Outbreak tracing is always performed.
- New outbreak(s) is shown to originate outside the country or zone, not originate from within.
Stage 3 (continue)

- each outbreak or evidence of infection is followed up by immediate measures and post-outbreak surveillance, and review of the impact of control measures (vaccination, quarantines, measures at borders)

**Main criterion:** FMD outbreaks originate from outside the country or region (no continual virus circulation)

**Approaching freedom**
“FMD events” < once / year
Stage 3 (continue)

- Good level of contingency planning
- Access to vaccine reserves/banks for emergency
- Rapid response to risk
- Ability to regulate animal movement

- Example:
  - several North African countries in response to the type A Iran 05 incursion into Libya in 2009
PCP and Roadmaps – application

- **Subsaharan Africa (Virus pools 4, 5 and 6)**
  - Continental Roadmap - developed in 2009
  - Composed of three sub-regional Roadmaps
  - Progress in year 1 mainly to establish FMD Lab networks (part of information base)
  - PCP progress meeting planned early 2011
Africa Roadmap progression to 2020 – after Nairobi and Algiers Workshops -
Assessment of PCP Stages West Eurasia

• 2008: self-assessment by countries with peer review (FAO)
• 2009 (Istanbul):
  – upon submission of evidence of actions required at each stage
  – presentation/review at Regional Meeting
  – 2 month period post-meeting to supply information, if required
• 2010/11: follow up meeting
## West Eurasia Roadmap - Progress Review of 2009, expected progression to 2020

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Food and Agriculture Organization of the United Nations

Animal Production and Health Division
What was accomplished since Paraguay?

1. PCP approach and Roadmaps in most regions; regular follow up meetings foreseen
2. PCP will be further fine tuned
3. OIE considers “endorsement” of Stage 3
4. FAO and OIE agreed on a “Global FMD Working Group” under GF-TADs
5. Joint FAO/OIE FMD Scientific and Pledging Conference is planned in Asia in June 2012
Visualizing the PCP approach for FMD

Stage 0 (risk not controlled; continuous circulation of FMD virus)

Stage 1 (Critical risk points addressed ↓ incidence)

Stage 2 (Under control Discontinuous circulation)

Stage 3 (Approaching freedom; Outbreaks < once/ per year)

Stage 4 (Officially Free with vaccination)

Stage 5 (free without)

Level to be targeted

Disease not free

Disease free

OIE-recognized (Stages 4 & 5)

OIE-endorsed? (Stage 3)

GF-TADs-accepted? (Stages 1 and 2)
Positive - but realistic
Things are beginning to move...
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• African Union - IBAR (Pan African Workshop)
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• Supporting Centers:
  – EuFMD Secretariat staff (Nadia Rumich)
  – RAHCs in Nairobi, Bamako, Beirut, Tunis, Gaborone, Nepal