Epidemiological situation & Control measures of FMD in Egypt

General Organization Of Veterinary Services
Preventive Medicine Department
## History of FMD in Egypt

<table>
<thead>
<tr>
<th>Serotype</th>
<th>Years</th>
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STAGE 0
Identify risk and control options
FMD risk not controlled. No reliable information

FROM 0 to 1
Comprehensive study of FMD epidemiology planned

STAGE 1
Implement risk-based control

FROM 1 to 2
Risk-based FMD control plan

STAGE 2
Implement control strategy to eliminate circulation

FROM 2 to 3
Develop aggressive strategy to eliminate FMD

STAGE 3
Maintain zero circulation & incursions

FROM 3 to 4
No endemic FMD in domestic livestock

STAGE 4
Maintain zero circulation & incursions; withdraw vaccination

FROM 4 to 5
Apply for official status (OIE): 'free WITHOUT vaccination'

STAGE 5
Free without vaccination
Economic importance of FMD

- In Egypt, the economy is strongly depends on livestock production, so FMD is one of the key priorities for livestock sector.

- The veterinary authorities try to apply strict control measures to overcome these negative effects and economic losses of FMD.
Control Measures of FMD

- Vaccination
- Surveillance
- Quarantine measures
- Awareness campaigns
- Bio-security measures
- Improving building capacity
- Rapid Response
- Contingency plan
FMD Vaccination in Egypt

Vaccination is major defence lines

in controlling of FMD in Egypt
Types of FMD Vaccines in Egypt

- Local
  - Governmental sector
  - Private sector
- Imported from Europe
## Vaccination Strategy by Egyptian Authorities

<table>
<thead>
<tr>
<th>Type of vaccine</th>
<th>Animal vaccinated</th>
<th>Policy of vaccination</th>
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<tbody>
<tr>
<td>• locally produced trivalent oil adjuvant vaccine</td>
<td>• All susceptible species are vaccinated</td>
<td>• Ring vaccination immediately post suspicion (radius 10 km).</td>
</tr>
<tr>
<td>• Prepared from local strains</td>
<td></td>
<td>• Massive vaccination</td>
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Vaccination Strategy by Egyptian Authorities

• Since 2017, the mass vaccination policy changed from twice / year to be three massive vaccination campaigns /year in all Egyptian governorates.
Vaccination Strategy by Egyptian Authorities

- Vaccination coverage increased to be around 80%
- Decrease number of outbreaks
Reflection Of Vaccination on No. of Outbreaks

![Graph showing the decrease in the number of outbreaks from 2017 to 2019.]

- 2017: 124
- 2018: 88
- 2019: 41

No. of Outbreaks
Surveillance System

- **Passive Surveillance:**
- As a disease reporting is very important and sensitive issue.
- The report system supported by:
  - Implementation awareness sessions.
  - Providing with easy and available contact tools (Mobile No. –Fax No. – hot line).
- Now, smallholders are aware about they have to notify the disease.
Surveillance System

- **Active Surveillance**:
  - Sero surveillance: estimate the immune status of vaccinated herds.
  - Detect the circulating serotypes and test the risk factors.
Rapid Response

- Outbreak investigation team (epidemiology, preventive medicine, extension department and laboratory) started;
  - Epidemiological investigation.
  - Awareness campaign (bio-security measures: Animal movement restriction- Hygienic carcasses disposal)
  - Collecting samples.
  - Emergency ring vaccination.
  - Symptomatic treatment and preventive measures.
Contingency Plan

- Design and continuously update contingency plan is very important to give the most rapid and effective response to an outbreak with new strain.

- In Egypt, there are a lot of risk factors that help in introduction and rapid spreading of new strain.
Components of the Contingency Plan

- Introduction & overview on FMD
- Risk factors related to FMD in Egypt
- Prevention strategies in peace phase
- Early warning, rapid response for the new strain
- Organizational arrangements for FMD emergencies
- Action plan: Operational plan
Bio-security Measures

- Awareness campaigns about importance of application of bio-security measures.
- Providing with the required supplies for disinfection.
- Missions for follow up application of bio-security measures.
▪ Quarantine Measures:

(Importation of live animals or their products are in accordance with the OIE recommendations).

▪ Improvement of Building capacity:

( Data base system - mobile laboratory for boarders governorates - training of field veterinarians )
Thank you