ROLE OF NATIONAL HEALTH ORGANIZATIONS IN (RE)-EMERGING INFECTIOUS DISEASES (RIFT VALLEY FEVER)

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DISCLOSURE

• No conflict of interest
OUTLINE

• Introduction
• Prevention
• Detection
• Response
• Financing
▪ First reported in Rift Valley Kenya in early 20th Century

▪ Reemerging mosquito-borne zoonotic viral hemorrhagic fever in Africa

▪ Outbreaks occur every 5-15 years in Kenya,

▪ Animals mostly affected: Transmission via mosquito vector

▪ Humans mainly infected through contact with infected animal tissues
RVF Risk Profiling in Kenya
## RVF Outbreak Sequence of Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>March, 2018</td>
<td>An alert on above average rainfall and anticipated flooding in the country by Kenya Meteorology department</td>
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<tr>
<td>April, 2018</td>
<td>Activation of <em>Enhanced Syndromic Surveillance</em> (ESS) for RVF in livestock</td>
</tr>
<tr>
<td>May 25, 2018</td>
<td>First reports of abortions and animal deaths from Wajir, North Eastern Kenya</td>
</tr>
<tr>
<td>June 4, 2018</td>
<td>Human deaths reported to MoH from the same area</td>
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<tr>
<td>June 7, 2018</td>
<td>RVF laboratory confirmed in humans</td>
</tr>
<tr>
<td>June 13, 2018</td>
<td>National multisectoral team sent to investigate and control the outbreak</td>
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</tbody>
</table>
Stakeholder mapping/analysis

- Ministry of Health (National and Sub-national government)
- Private Health Providers
- Affected Communities
- Ministry of Agriculture, Livestock and Fisheries
- Kenya Medical Research Institute
- Local NGOs/CBOs
- Kenya Wild Life Service
Coordination and Partnerships

• Synergy of actions
• Optimized resource utilization
• Efficiency in operations
• Reduces risks of further spread
Strengthen one health approach for effective coordination
Task forces and committees of experts (RVF coordinating committee multi-disciplinary)

Mapping of laboratory capacities (KEMRI, CVL, NPHL)

Referral mechanisms (specimen sample) observing biosafety and biosecurity principles

Development and standardization of training materials and guidelines
Prevention

- Identify gaps through regular simulations
- Invest in human and animal health workers
- Continuous surveillance and research to map out hot spots including international borders
- Community sensitization on the dangers of handling/consumption of sick/dead animal carcass
Exposure characteristics of the confirmed RVF cases (n=25), Kenya, 2018

<table>
<thead>
<tr>
<th>Type of exposure*</th>
<th>Frequency</th>
<th>%</th>
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<tbody>
<tr>
<td>Consumed meat</td>
<td>16</td>
<td>64</td>
</tr>
<tr>
<td>Consumed raw milk</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Preparation and handling of meat</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Herding</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Handled aborted fetus</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Handling carcass</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Assisted birthing process</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Slaughter</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Treating sick animals</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Milking</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

*Some cases reported more than one exposure, hence totals don’t add upto 100%
Detection

- Laboratory diagnosis (strategic installations)
- Sample transportation
- Reporting (obligatory all actors)
  - Timely accurate information for decision making
  - Faster and effective response
- Information sharing in-country and across borders
Delay in Detection and Response - Animal/Human
Response

- Link with security agencies to enforce regulations
  - Ban on slaughter and sale of livestock
  - Livestock quarantine to and from the affected areas
- Partner with
  - Build capacity for first responders and surge capacity
- Strengthen case management at sub-national level
- Field investigation (Human and Animal)
  - Active and passive case detection
  - Sample transportation to labs with diagnostic capacity
Resource mobilization and advocacy

Multi-sectoral/multidisciplinary team

• Lack of resources delays response
• Creating awareness among non-health actors
• Policy makers /Economists
• Trade and Finance institutions
• Politicians
Acknowledgement

• Ministry of Health Kenya
  ▫ Field Epidemiology Training Program
  ▫ Health Promotion and Risk communication
  ▫ Disease Surveillance and Epidemic Response
  ▫ Community Health Services
  ▫ Environmental Health Zoonotic Diseases Unit
  ▫ National Public Health Laboratory

• Kenya Medical Research Institute
• Meteorological Department
• CDC Kenya
• Africa CDC
Thank You!