Evolution of EVD Response
Republic of Sierra Leone

Presenters:
1. Prof. Bashiru M. Korma, Njala University, Sierra Leone.
2. Mukeh Kenneth Fahnbuleh, Director of Planning, PHNEOC, Ministry of Health, Sierra Leone
3. Mr. Abdul Kareem Jalloh, Director- Medical Research Council, Sierra Leone
4. Mr. Aiah Thorlie, Ministry of Agriculture, Sierra Leone.
When Ebola first hit Sierra Leone, the country struggled to stem the outbreak. EVD quickly spread across the country despite decisive executive action.

**Ebola response was initially led by MoHS**

- **24 MAY 2014, 1ST EVD CASE IN SL**
- EVD State of Emergency imposed by His Excellency
- Restrictions on movement
- Closure of schools
- National Stay at home Day for family reflection (movement restricted) in August

EVD continued to spread rapidly during this time. Following this, Stephen Gaojia was brought in to response as the National Coordinator.

However, there were difficulties running the project through MOHS. MoHS had difficulty coordinating and leading the response whilst also attending to its other healthcare responsibilities with very limited resources and support.

- Sierra Leone with a 6m population: 136 doctors; 1,017 nurses and midwives; 114 pharmacists
- Source: Afri-Dev.Info. Less than a dozen ambulances nationwide.
Despite new efforts, there were still difficulties coordinating the response

- Increased activity among response:
  - Launched 3-day “Ose to Ose” Ebola campaign
  - Established 117 Call Center
  - Increased Ebola awareness messaging and community activity

- Establishment of National Ebola Response Center:
  - Created mechanism to better coordinate policy among delivery pillars
  - Built coherent nationwide response achieved through application of SOPs, targeted responses
  - Decentralized response by recruiting district coordinators and adding district-level command and control capacity

- Palo Conteh brought in as CEO:
  - Added ability to have executive authority over other government departments
  - Leveraged role to facilitate coordination among partners, districts
Sierra Leone Ebola response: principles and operational model

**Principles**

A **district**-led response...

...informed by **medical/technical** guidance...

...supported by Gvt and her **partners**...

...coordinated by the **NERC**...

...with strong **regional** collaboration.

**Operational Model**

- **National**
  - iPACT
  - Pillars MoHS

- **Operational**
  - NERC
  - DERCs

- **District**
  - Pillars DHMTs

- **Technical**
The Challenges

Road to Yambuku - 1976

Sierra Leone

WHO Scientists along Guinea/Sierra Leone border

Road to Khailahun, Sierra Leone - 2014
District EVD zero case

District EVD Zero Case
Number of days with no Confirmed Cases as of 6 Nov 2015
At NERC. H.E. and National and International Community on the eve (6/11/15) of 42 days declaration
I was there that night!!!
<table>
<thead>
<tr>
<th>Problem</th>
<th>Coordination</th>
<th>Zoonotic Surveillance systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Keeping contacts in their homes</td>
<td>Live Stock/veterinary officers and other extension service providers sent to all farming communities</td>
</tr>
<tr>
<td>Needed to provide the necessary support to contacts during their period of quarantine and failing not to prove to them that we are their protectors. If not contacts will leave their quarantine</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Provide adequate feeding and nutrition</td>
<td></td>
</tr>
<tr>
<td>DRY AND WET RATION NEED TO BE ADEQUATELY SUPPLIED</td>
<td>WFP and Ministry of Agriculture + The nutrition department of Ministry Health and Sanitation</td>
<td></td>
</tr>
<tr>
<td>We have clear strategy for these operations</td>
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<td></td>
</tr>
</tbody>
</table>

Inter Ministerial Collaborative work for effectiveness of quarantine
The Grand Strategy

**Surveillance**
(a) Ongoing;
(b) contacts lists established
(c) Strengthen system is key
(d) VQF facilities established immediately

**Case Management**
(a) Stand beds
(b) Deploy RDTF given epi trigger
(c) Prepare for more locations if necessary
(d) Increase staff capacities
(e) Support for staffing increase crucial

**Soc Mob and Communications**
(a) Ensure immediate and sustained Coms programs
(b) Implement strategic Social Mob messages
(c) Specific engagement with Herbalists

**Burials**
(a) One effective immediate-term measures of slowing down secondary/tertiary transmission

**Sierra Leone**
The Grand Strategy

**Psychosocial and Child Protection**
(a) Ongoing
(b) Survivors mapped and followed up
(c) Survivor fluids tested for live or fragments of viral reservoirs

**Community Prevention & Control/Cross border collaboration**
(a) Stand up village communities
(b) Hand wash facilities
© Vigilant screening along borders

**Sierra Leone**

**Logistics: Medical and Non Medical**
(a) Ensure immediate and sustained supply system

(b) 

**NGOs & INGOs**
(a) Coordination and Operations
MYTHS AND REALITIES OF EBOLA VIRUS DISEASE IN SIERRA LEONE
Myths

- There are claims that the following measures have prophylactic or curative effect
  - Chewing bitter cola (Gracinia cola or G. Afzelii)
  - Eating cochorus olitorius (a vegetable commonly eaten as soup in Nigeria)
  - Salt bath and drink
  - Kerosene bath
  - Bath with bleaching agent (sodium hypochlorite)

- Social media has been used to transmit information about these myths
- Consequently, many have died as a result of the ingestion of over-concentrated salt drink
- Research and health education is required to verify and highlight the danger of these claims
Ebola Landscape

Hospital → Village → Family

Natural host

(a) → (b) → (c) → Natural host

(b) → (c) → (a)

Hunter

(e) → (d) → (e)

Medical Survey

Wild Animal Mortality Network
### Confirmed, probable, and suspected EVD cases in Sierra Leone – Ebola Situation Report, 19 February 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Case definition</th>
<th>Cumulative cases</th>
<th>Cases in past 21 days</th>
<th>Cumulative deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmed</td>
<td>8704</td>
<td>0</td>
<td></td>
<td>3589</td>
</tr>
<tr>
<td>Probable</td>
<td>287</td>
<td>*</td>
<td></td>
<td>208</td>
</tr>
<tr>
<td>Suspected</td>
<td>5131</td>
<td>*</td>
<td></td>
<td>158</td>
</tr>
<tr>
<td>Total</td>
<td>14122</td>
<td>0</td>
<td></td>
<td>3955</td>
</tr>
</tbody>
</table>
The outbreak has caused a heightened international response towards this emerging disease and the world (mostly 1st world) has swung into action towards getting a cure for the disease.

The experimental drug ZMapp seems to be effective in the treatment.

At least 10 drugs and 2 vaccines against Ebola Virus disease are currently under development (WHO).
Community prevention and Control

- Call your medical centre early and tell them about your illness
- Listen to the advice/key messages.
- You may be sent to a special hospital
- Keep away from others so they don’t get sick
- Be especially careful of your vomit and diarrhoea
- Safe burial practices
- Practice general sanitation/hygiene
The Royal Netherlands Embassy (RNE) in Ghana voted funds to support a 22-month project (February 1, 2016– November 30, 2017), “Preparedness against Ebola and other emerging infectious diseases in Sierra Leone and Guinea”, otherwise known as the **Post Ebola Resilience Project**. The project involves a consortium of institutions including **Njala University (Sierra Leone)**, Sonfonia University (Guinea), **Noguchi Memorial Institute for Medical Research (Ghana)**, the Wageningen University, University of Amsterdam and the Royal Tropical Institute (the Netherlands).

**Principal Objective:** is to establish a system for preparedness and resilience of Ebola virus disease (EVD) and prevention of other infectious diseases with epidemic potential in Sierra Leone and Guinea. This is to be achieved under three interrelated components or work packages (WPs): WP1 – Community-based surveillance; WP2 – Laboratory strengthening; and Results-based financing
Building resilient health systems: lessons from international, national and local emergency responses to the Ebola epidemic in Sierra Leone

The London School of Hygiene & Tropical Medicine in partnership with Njala University from 1st February 2016 – 31st January 2019. Principal Investigator: Dr Susannah Mayhew

Susannah.Mayhew@lshtm.ac.uk +44(0)2072994672

Overall Objective: Our study will explore a range of factors including: the extent to which responses were informed by local concerns and perceptions of emergency–response systems; whether external interventions sought to work within or with local systems (and whether this resulted in the building of parallel response structures); whether external interventions ultimately weakened and made the health system less resilient by, for example, taking locally qualified staff away from public sector systems or by diverting resources from other ongoing health requirements (including routine maternal and child health and common preventable diseases)
Ongoing Projects…

Centre for Control and Prevention of Zoonoses

- MacArthur Grant No. 97944–INP with Faculty of Veterinary Medicine, University of Ibadan in partnership with Department of Animal Sciences, School of Agriculture, Njala University

- Principal Objective: Improve postgraduate programmes for curriculum in Epizootiology, training and research in zoonoses, and community engagement
EBOLA MUSEUM

- Njala University in collaboration with University of Illinois, USA.
And Finally
LET US ALL PREVENT EBOLA
THANK YOU INDEPTH & ALL

bon voyage