Experiences and Lessons Learnt on the Fight against Ebola
How To Increase Effectiveness of Disaster Risk Management

SAS Kargbo, MD, MPH, DMed
Director, Policy, Planning and Information
Ministry of health and Sanitation, Sierra Leone

saskargbo@gmail.com; saskargbo@health.gov.sl
**Background**

- Sierra Leone’s protracted civil conflict, which ended in 2002, eroded vital infrastructure and human capacity.

- The Gross National Income (GNI) per capita (current dollar, purchasing power parity (PPP)) is $1,690 while the GDP growth rate was 6% in 2013.

- The Human Development Index rank for Sierra Leone is 177 out of 187 countries (UNDP 2014).

- Just 43% of the population older than 15 years are literate, and life expectancy at birth is just 45 years (World-Bank 2015).
Initial Response to EVD

• Poor early recognition of suspected cases of EVD due to weak surveillance systems

• Inadequate Scientific knowledge of EVD to influence management
  - Urban instead of field hospitals
  - Oral rehydration instead of aggressive fluids
  - Vaccines and therapies not ready
  - Turnover of laboratory results too slow
  - Inadequate trained staff on clinical management of haemorrhagic fevers
Initial Response

- Health education messages less positive leading to community mistrust
- Weak Community Engagement especially on:
  -- Surveillance and reporting
  -- Safe burial procedures
- Inadequate Infection Prevention and Control (IPC) standards led to a total of 296 EVD infections among health care workers with 221 deaths, including 11 specialized physicians.
- As at Feb 2015, 10,934 confirmed cases with 35.3 fatality rate
Initial Response

• Essential health program management staff were re-assigned to help control the outbreak
• This led to the delayed implementation of key health programmes (eg. MCH Week, EPI),
• Delivery of essential interventions were halted, and;
• Routine health management and coordination meetings ceased
Initial Impact of EVD

• A reduction in community confidence in the health sector negatively affected utilization –
  ➢ 23% drop in institutional deliveries;
  ➢ 39% drop in children treated for malaria;
  ➢ 21% drop in children receiving basic immunization (penta 3).

• Estimates suggest post-Ebola levels of under-five mortality have returned to 1990 levels

• Health Sector Recovery Plan Preparation
Issue Analysis

• Inadequate human resources (quantity & quality) and maldistribution.
• Weak infection prevention & control practices at all levels.
• Weak integrated disease surveillance & response (IDSR) system including an emergency preparedness framework
• Inadequate health technologies (medicines, supplies, laboratory) & weak supply chain management (quality & quantity).
• Ineffective referral system.
• Poor institutionalization of quality assurance programmes.
• Weak coordination.
• Lack of community ownership in health service delivery.
Sierra Leone Basic Package for Essential Health Services (BPEHS) – Fully implemented by 2020

**Patient & Health Worker Safety Outputs**
- PS and health services & systems development
- National PS policy
- Knowledge & learning in PS
- PS awareness raising
- Health workforce protection
- Health care-associated infections
- Safe surgical care
- Medication safety
- PS partnerships
- PS Funding
- PS surveillance & research

**Health Workforce Outputs**
- National & 3 regional referral hubs for quality care
- Establish a medical post-graduate centre
- Strengthen national & 3 regional training institutions
- Establish CPD programmes for all health cadres
- Improving individual, provider and sector performance
- Strengthening ethics and health regulations

**Essential Health Services Outputs**
- Integrated Management of Childhood Illness
- Core malaria control interventions, including HIV/AIDS and TB
- Maternal & Child life-saving interventions
- Teenage Pregnancy prevention
- Non-Communicable Diseases
- Essential Medicines & Supplies including PPEs
- Improve referral including revitalization of the national ambulance service
- Diagnostic laboratories & blood transfusion
- Rehabilitation & facility equipping
- Health promotion, environmental health & sanitation

**Community Ownership Outputs**
- Revise policy and guidelines on Community leadership
- Community dialogue
- Community-based approaches
- Linkages between facility and community
- Improve community initiated health alerts

**Surveillance & Information Outputs**
- Disease surveillance & database
- District health information system (DHIS2)
- Human Resource information system (HRIS)
- Logistics Management Information System (LMIS)
- Burden of disease studies
- National Health Accounts

**Key Expected Results**
- Safe and healthy work settings
- Adequate Human Resources for Health
- Essential (basic) health and sanitation services are available
- Communities able to trust the health system and access essential health services
- Communities able to effectively communicate and effectively send health alerts
- Improved health system governance processes and standard operating procedures
- International Health Regulations (IHR) followed

**Enabling Environment**
- Leadership & Governance, Efficient Health Care Financing Mechanism and Cross-Sectoral Synergies.
Recommendations (1)

• Emphasis on **district focus** for timely attainment of results for recovery and resilience

• Set up a comprehensive institutionalized **QA system** including district facility improvement teams.

• Establish a comprehensive **IPC system**.

• Establish an integrated **referral system and improved transport management**.

• Ensure uninterrupted supply of essential commodities
Recommendations (2)

- Strengthen community-facility interface
- Strengthen surveillance system with a focus on utilizing community capacity.
- Strengthen capacities in the delivery of laboratory services, bio-safety including blood safety.
MoHS EOC Structure – Incident Management System

ONS Liaison officer

Dep INCIDENT MANAGER

DONOR COORDINATOR

Senior Medical Officer

Operations Director (COS)

WASH
  - Waste Management
  - Water Supply
  - Sanitation
  - Burials

Surveillance
  - Alerts
  - Investigations and contact tracing

Case Management
  - Clinical
  - Infection prevention and Control
  - Contact Monitoring

Laboratory
  - Clinical and Environmental sampling
  - Gene Sequencing

Social Mobilisation
  - Public Health Messaging
  - Community Engagement

Psychosocial

Response and Planning
  - Logistics
  - Media and Public Communication

Operational Support
  - Finance
  - Human Resources
  - Fleet Management

Communications and Information Management
  - Mapping, Information Management, KPI Information Products

KPI Information Products

RAPID RESPONSE TEAM
Impact

Reduced morbidity and mortality due to outbreaks and other Public Health emergencies

Outcome

Rapid deployment of RRTs to respond to public health emergencies and events

Early case detection through a functional IDSR system

Early detection and notification of public health alerts through a functional community Based Surveillance

Outputs

Timely data collection and notification of priority diseases, conditions and events at hospital and PHU level

Timely data collection and notification of Public Health Alerts at community Level

Well trained and equipped RRTs at district level

Timely specimen collection and shipment

Inputs

Investment in IDSR at DMHT, Hospitals, PHUs and Community Level
The Specific Goals of IDS are to:
- strengthen district-level surveillance and response,
- reduce duplication in reporting,
- share resources among disease control programs,
- integrate surveillance with laboratory support, and
- translate surveillance and laboratory data into specific public health action.