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

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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.

Health Sector Recovery Framework

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

Patient & Health Worker Safety Outputs ↔ **Health Workforce Outputs** ↔ **Essential Health Services Outputs** ↔ **Community Ownership Outputs** ↔ **Surveillance & Information Outputs**

Sierra Leone Basic Package for Essential Health Services (BPEHS) – Fully implemented by 2020

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

Health Workforce
- 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
- 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
- Revise policy and guidelines on Community leadership
- Community dialogue
- Community-based approaches
- Linkages between facility and community
- Improve community initiated health alerts

Information & Surveillance
- 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

Enabling Environment: Leadership & Governance, Efficient Health Care Financing Mechanism and Cross-Sectoral Synergies.

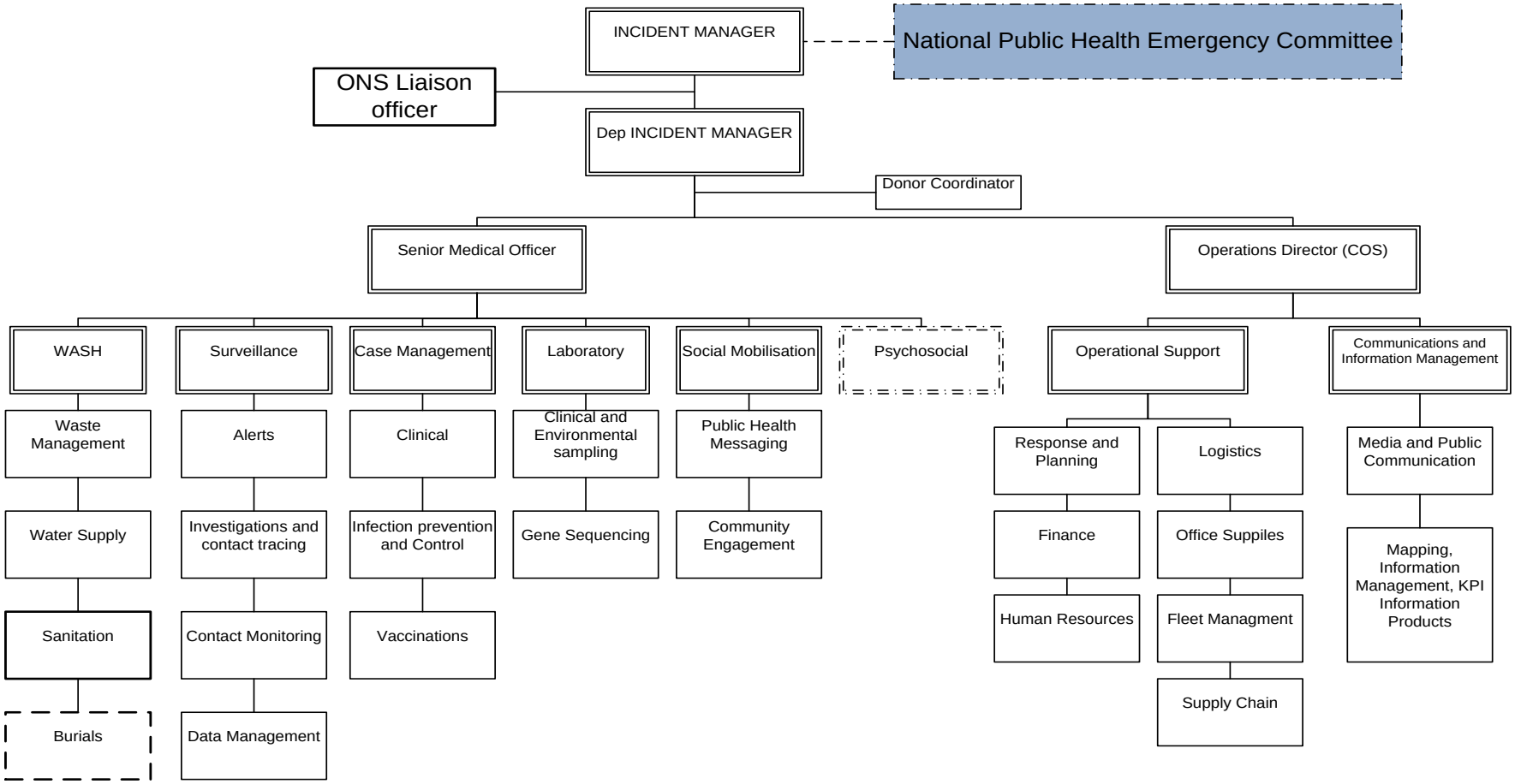
Recommendations (1)

- 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**

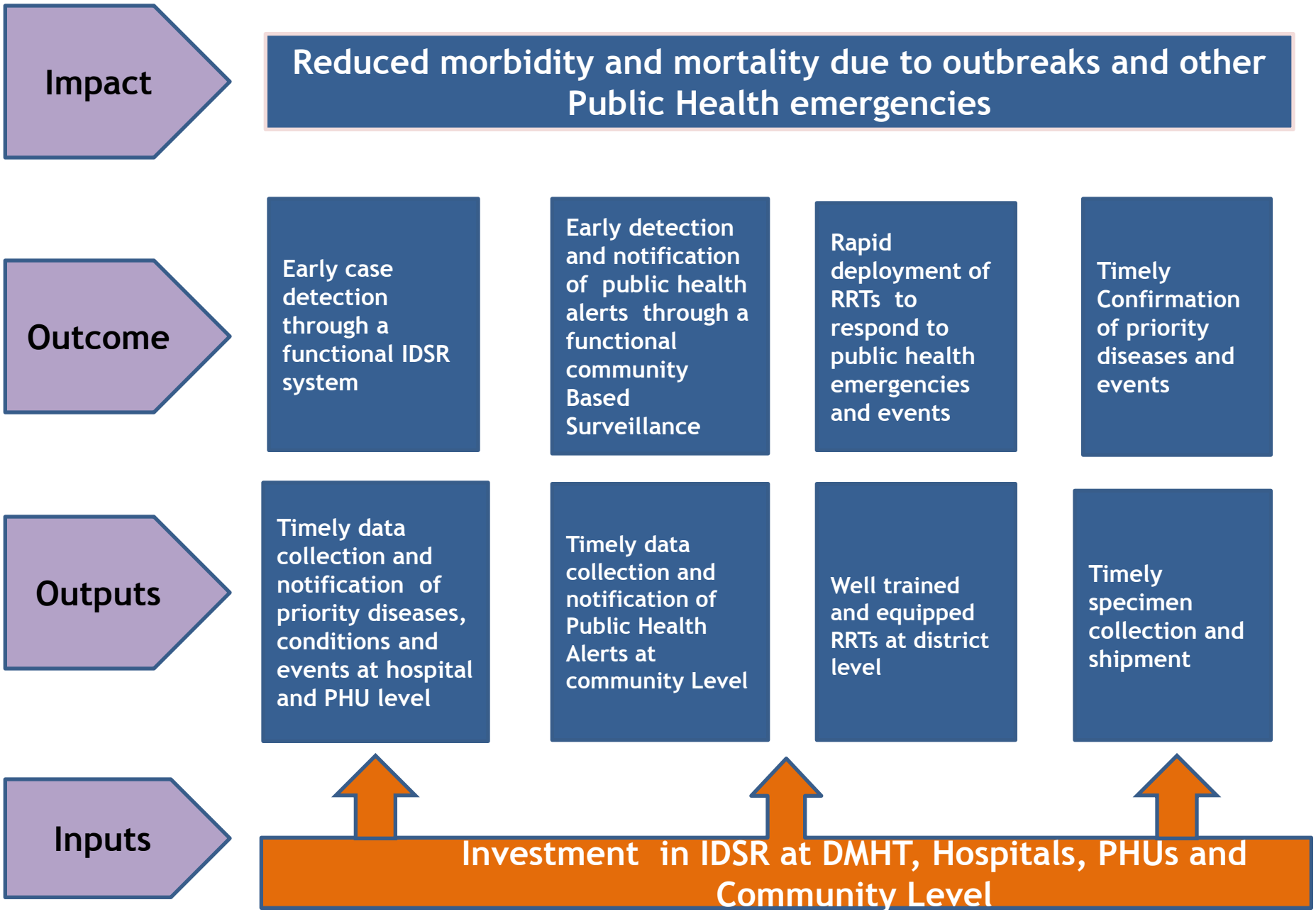
Recommendations (2)

- 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



Public Health Emergency Management at District Level



END STAGE

COMMUNITY

- Use simple case definitions to identify priority diseases
- Participate in public health action

HEALTH FACILITY

- Use standard case definition to detect priority diseases
- Record and report information
- Collect and transport laboratory specimens

DISTRICT • STATE • PROVINCE

- Analyze data
- Observe trends and thresholds
- Investigate outbreaks and unusual trends
- Decide if outbreak is confirmed
- Implement public health action

DISTRICT LABORATORY

- Receive, collect, and transport specimens
- Provide timely results
- Report on reportable diseases confirmed

NATIONAL

- Set policy and standard guidelines
- Advocate and mobilize resources for response
- Provide supervision and training

CENTRAL LAB

- Provide quality assurance
- Receive and test specimens
- Provide timely results
- Set policy and standard guidelines
- Provide supervision and training
- Advocate and mobilize resources for laboratories

The Specific Goals of IDSR 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