

Strategies to Prevent Spillover (STOP Spillover) Impact Brief - Sierra Leone

Zoonotic Disease Outbreak Risk Management Simulation Exercise

Activity 3.5.2: Scenario Development for Outbreak Risk Management. Convening interface partners and stakeholders to strengthen outbreak risk management coordination through a practical simulation workshop.

INTRODUCTION

During community-level stakeholder consultations in Sierra Leone, stakeholders described lessons learned during the Ebola outbreak. They emphasized the importance of local leaders and the implementation of local by-laws that helped mitigate and slow the rapid spread of Ebola. They repeatedly emphasized the importance of community leadership in outbreak risk management. Stakeholders highlighted the need for increased training programs and simulations to strengthen community capacity at all levels.

STOP Spillover Consortium member University of Nebraska Medical Center (UNMC) trained and supported STOP Spillover Sierra Leone staff to develop initial scenarios and tabletop exercises. With support from STOP Spillover staff, One Health partners conducted a simulation exercise to test interface-level preparedness and response systems to a potential Lassa fever outbreak in a high-risk community in Kenema District. A tabletop simulation exercise—though less intense than a full-scale simulation—provides an opportunity to assess community readiness, structure functionality and staff's ability to respond to an epidemic.

Expected Outcomes

- Community-level personnel able to respond to a Lassa fever epidemic (strengthened community capacity at the interface level).
- Improved stakeholder awareness of actions needed to prepare for and respond to Lassa Fever cases.
- Strengths and gaps in the zoonotic disease outbreak management system at the community level identified.
- Collaboration between stakeholders for zoonotic disease outbreak management strengthened.
- Awareness of stakeholder roles and responsibilities in zoonotic disease epidemic outbreak management improved.



Photos above: Participants at the simulation exercise workshop.

Photo credit: STOP Spillover Sierra Leone

Achievements

The high level of participation from community leaders, district stakeholders, and other partners demonstrated their commitment to improving response mechanisms at the community level. The simulation exercise provided valuable insights and opportunities for enhancing coordination among district and community response structures, ensuring timely and effective responses to emergencies. The simulation exercise identified community strengths in terms of alerts, reporting, and response to Lassa fever outbreaks, which clearly outlined stakeholder’s roles in response management. Healthcare workers and community health workers clearly explained the reporting and response mechanism using the Integrated Disease Surveillance Response (IDSR) system.

In addition, systemic spillover response gaps were identified and recommendations were made to address them:



Photo caption: Group photo at the simulation exercise workshop. Photo credit: STOP Spillover Sierra Leone

Gaps	Recommendations
Delay in sample collection, testing, turnaround time, and patient referral and treatment.	Preposition rapid diagnostic tests (RDT) for Lassa fever in selected health centers in high-risk zones, and establish community health structures to manage Lassa cases in hotspot areas.
The district team did not demonstrate an understanding of the Incident Management system.	Incident Management training should be conducted for the district team.
Limited community coordination efforts with all relevant One Health (OH) stakeholders regarding rodent control measures to address risks associated with crop harvest periods.	Engage community stakeholders on risks associated with crop harvests and involve OH stakeholders in community coordination efforts.

Participant Reflections

MoHS Representative: *This is a one-of-a-kind simulation exercise to test and refresh the emergency preparedness and response knowledge of community leaders and stakeholders and district-level responders’ One Health approach. Ebola taught the country a great lesson about the need for inclusion, especially traditional structures at the community level when responding to public health emergencies.*

Chieftom Speaker: *Activities targeting the community response structure are an opportunity to obtain relevant knowledge and skills in responding to Lassa fever, as we are a category of people that always*

serves as first responders and interact with outbreak events directly.

MAFF Representative: *Sources of most outbreaks are animals so all sectors must galvanize resources and expertise to share knowledge and build structures that will adequately respond to emergencies in a timely manner.*

ONS Representative: *Such platforms (simulation exercises) increase the knowledge of all parties on the functions of each sector to execute a well-coordinated response when there is an emergency.*

Next Steps

- Conduct similar exercises in other chiefdoms, especially known hotspot areas for Lassa Fever.
- The exercise scenarios should be reviewed by relevant partners including WHO to adapt them for use by other countries.
- Use the knowledge gained from the simulation exercise to develop interventions to address the structural, coordination, and technical weaknesses identified.