



Activity 3.5.2: Scenario Development for Outbreak Risk Management:

A Chiefdom Level Outbreak Simulation Exercise

A Report from STOP Spillover Sierra Leone

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STOP SPILLOVER

Strategies to Prevent Spillover (or “STOP Spillover”) enhances global understanding of the complex causes of the spread of a select group of known zoonotic viruses from animals to humans. The project builds government and stakeholder capacity in priority Asian and African countries to identify, assess, and monitor risks associated with these viruses, and to develop and introduce proven and novel risk reduction measures. “Spillover” refers to an event in which a zoonotic virus is transferred from a non-human animal host species (livestock or wildlife) to another species or to humans.

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EXECUTIVE SUMMARY

Over the years, One Health teams at the national, district and facility level in Sierra Leone have been trained on outbreak preparedness and response. Nonetheless, there is a strong need for exercises to test system readiness to respond to emergencies, and to ensure staff are up to date on current response activities, especially at the community level. In collaboration with the One Health platform in Sierra Leone, STOP Spillover developed a scenario for tabletop simulation exercises to test community-level response preparedness for Viral Hemorrhagic Fever (VHF) outbreaks. The scenario was first successfully tested at the community level in July 2023 and it was improved to be used in additional five chiefdoms. The work promotes relationship building between different levels of actors involved in epidemic response and improves local readiness for outbreak risk management. A simulation exercise was conducted in five chiefdoms (Tunkia, Nomo, Koya, Lower Bambara, and Dodo), in Kenema district from December 2023 to February 2024 with the objective of testing outbreak risk management (epidemic preparedness and readiness) at a high-risk interface.

This exercise focused on testing the efficiency of emergency recognition and management at the interface level, evaluating inter-sectoral and inter-community collaboration, examining risk communication mechanisms, and conducting a comprehensive review and evaluation of the community's readiness to tackle public health emergencies involving VHF. By simulating a VHF outbreak response, the exercise presented a sequence of progressively challenging scenarios. These scenarios tested the participants' operational capabilities in various facets of outbreak response, ranging from initial detection and reporting to the implementation of de-escalation strategies and the conclusion of the outbreak response.

The simulation helped foster a collaborative learning environment, as evidenced by the constructive discussions and actions it spurred. This was particularly notable in the context of community engagement, hygiene practices, healthcare utilization, awareness of disease transmission, and the adoption of preventive measures. The exercise, however, also laid bare several areas requiring improvement. Key among these were the challenges related to communications channels and the training needs of community-based surveillance teams. Enhancing these areas is crucial for improving early detection and management capabilities within the community. Furthermore, the feedback underscored the need for more robust inter-sectoral and inter-community collaboration, highlighting the importance of establishing formal mechanisms for cooperation among different sectors and communities.

In addition to identifying gaps, the simulation exercise unearthed several good practices that could serve as benchmarks for future simulations and real-world applications. These practices emphasized the effectiveness of using local languages for communication, the engagement of diverse community stakeholders, and the use of dialogue for fostering inter-sectoral and inter-community collaboration. Such practices underscore the value of community-led initiatives and

the significance of adopting inclusive and participatory approaches in emergency preparedness and response efforts.

In conclusion, the community level table-top simulation exercise has laid a solid foundation for continuous improvement in public health emergency preparedness and response within the community. Moving forward, leveraging the lessons learned, addressing identified gaps, and replicating good practices will be imperative for building a resilient community capable of confronting future health crises with confidence and competence. This exercise serves not only as a model for future public health preparedness efforts but also represents a crucial step towards safeguarding public health and well-being through enhanced community engagement and collaboration.

INTRODUCTION

Sierra Leone, like many countries, faces significant challenges in managing the risks associated with zoonotic diseases—illnesses that can be transmitted from animals to humans. These diseases pose a substantial threat to public health, economic stability, and community livelihoods. In the aftermath of the devastating Ebola outbreak in 2014-2015 and the ongoing global concerns around pandemics, the importance of preparedness and rapid response to infectious diseases has never been more apparent. Despite Sierra Leone's challenges with preparedness capacity, as identified in the Joint External Evaluation of International Health Regulations (IHR) related capacities, the country has demonstrated strong capabilities in emergency response operations. This resilience is credited partially to lessons learned from the Ebola outbreak, which underscored the significance of strong local leadership and the implementation of local bylaws to mitigate the spread of the disease.

Public Health Emergency Operation Centers (PHEOCs) were critical in the response to the 2014-2015 Ebola outbreak. Sierra Leone has constructed 14 district emergency operation structures and one national emergency operations center (EOC). To operationalize the EOC, the government invested in an incident management system, emergency operations plan and standard operations procedures, as well as surge capacity and supplies (i.e., vehicles, ambulances, biomedical supplies) for rapid response teams. These elements highlight the substantial public health emergency operations system in place in Sierra Leone. At the start of COVID-19 in 2020, the national EOC demonstrated the ability to activate a response within two hours of the identification of a public health emergency.

During interface-level Outcome Mapping (OM), which was conducted at the outset of this activity, stakeholders in Sierra Leone described important lessons learned during the Ebola outbreak. This included strong local leadership roles and responsibilities including drafting and implementing local bylaws that helped mitigate continued Ebola amplification and spread (Sierra Leone Outcome Mapping Report, 2022). The Ministry of Health and Sanitation (MOHS), in collaboration with other line ministries in the country's One Health (OH) platform, has conducted a couple of tabletop simulation exercises to test the emergency preparedness and response capacity for district- and national-level systems. Pandemic preparedness and response systems at the high spillover risk interface level, however, have not yet been tested. There is a need for increased training and simulations to maintain capacity at all levels (WHO 2017).

One Health partners (including the Ministries of Agriculture, Environment and Health), with support from STOP Spillover, conducted a simulation exercise to test community readiness to respond to a specific known zoonotic disease (Lassa Fever) outbreak, building on scenarios developed in 2022 in collaboration with the University of Nebraska Medical Center (UNMC), a former STOP Spillover consortium partner. The exercise focused on responders' responsibilities

and responses to the presence of a patient with suspected Viral Hemorrhagic Fever (VHF) within a community and healthcare setting. Furthermore, it explored the coordination and interplay between the multiple agencies and emergency response disciplines that make up the district and community emergency response team. By conducting a tabletop simulation exercise, interface level response teams tested existing procedures and stakeholder awareness of actions needed to prepare for and respond to Lassa Fever cases.

The results of this process demonstrated the need to test the outbreak risk management in five other communities, all of which are high-risk communities for a Lassa Fever outbreak. This initiative is underpinned by the broader goal of building sustainable systems that can effectively detect and mitigate the risks associated with known zoonotic diseases at all levels.

GOAL

The goal of this activity was to exercise the public health emergency preparedness and response of communities to a major outbreak of VHF and to determine the community dimensions which help build sustainable relationships and the effective long-term execution of the activity that incrementally improves readiness for outbreak risk management.

OBJECTIVES

The objectives of the exercise are:

- Test interface level emergency recognition and management: detect, report and risk assess the situation, activate emergency organization and plans, manage and monitor the emergency;
- Assess inter-sectoral collaboration: work effectively between the health and key related sectors to assess the risks and manage the emergency;
- Assess inter-community and community-district collaboration: interact effectively with contiguous and other communities in the district, and district authorities, to assess, manage, communicate and work collaboratively to address, mitigate and resolve the emergency;
- Test risk communication: to communicate effectively about the health risks, between community stakeholders, OH actors and the public.
- Review and evaluation: to reflect on potential lessons from the exercise related to the present state of preparedness for public health emergencies, involving VHF.

MATERIALS AND METHODS

A hands-on, non-computer-based tabletop simulation exercise was conducted in five chiefdoms (Tunkia, Koya, Nomor, Lower Bambara and Dodo) in Kenema district. The exercises were conducted from December 2023 to March 2024. The exercise aimed to build on this foundation by testing the readiness of community-level responders to manage a specific known zoonotic disease outbreak such as VHF. The exercise, which was conducted by One Health partners with support from STOP Spillover, focused on enhancing the coordination and interplay between multiple agencies and emergency response disciplines that constitute the district and community emergency response team.

Lessons learned from the previous exercises were taken into consideration during the planning for the later ones. They include the following:

- The objectives of the simulation exercise were reviewed to be more specific and to engage other sectors (security, agriculture and transport), by focusing on how each sector interacts within the community, with the aim of putting the community at the center of the exercise and showcasing the role of each sector.
- Tools (scenarios) were reviewed twice to have more of a multi-risk focus (i.e. consider VHFs in general instead of a single pathogen and foster discussions to address the objectives of the exercise).
- Ensure that marginalized groups were represented by including more youth, women and traditional healers to participate in the scenarios.
- Increase the engagement of participants and make the process more interactive by maintaining the same energy over the three days and using role plays, which were introduced especially for the last two communities. Role plays became an integral component, providing dynamic and engaging ways for participants to apply their knowledge practically.
- Participant evaluations and a closing session were also added to the session. These elements allowed participants to reflect on their experiences, discuss vital takeaways, and outline steps for implementing learning in their communities.
- By the end of the exercise, a work/contingency plan was developed based on observations and gaps identified earlier in the exercise.

SCENARIOS

The simulation exercise was based on a comprehensive and realistic scenario of a VHF outbreak. The scenario was developed to mimic a progressive, real-life health emergency situation over a short period of time. The outbreak began in a farming community where a hunter got sick after spending some time in the forest hunting wild meat. The symptoms started getting worse and led

to one suspected VHF case and then the spread of the disease over time. It was structured around six progressive injects (the many individual parts of the scenario that had been developed), each aimed at testing different facets of outbreak response—from initial detection and reporting to the final resolution of the outbreak. Using the injects gave participants a detailed framework to assess and enhance their preparedness and response strategies.

Inject Summaries

1. **Community Preparedness, Alert, and Reporting Systems:** Focused on assessing the initial readiness of the community to detect and report cases of VHF. Activities included identification and reporting through community health workers and notification to health authorities.
2. **Epidemic Response Activation and Rumor Management:** Focused on activation of emergency response teams, including community and chieftom task forces, managing rumors, and intersectoral coordination in activation of response. Activities included formulating and enforcing bylaws and quarantine measures, and emphasizing community sensitization.
3. **Burial Processes, Case Referral, and Resource Mobilization:** Safe management of burials, referral of treatment cases, and effective mobilization of limited resources. Activities included enhancing coordination between the community, healthcare facilities and the district structures through clear communication lines.
4. **Rodent Control Measures:** Implementing measures to control rodent populations to prevent the spread of Lassa Fever. Activities that were discussed included the utilization of traps, greater cleanliness around households and community-wide cleanliness campaigns, One Health intersectoral collaboration, and risk communication.
5. **De-escalation Mechanisms:** Focused on gradually reducing response activities as the outbreak stabilizes while maintaining vigilance. Activities included repurposing resources, continuous community sensitization and promoting preventive measures.
6. **Outbreak Conclusion Strategies:** Strategies for formally concluding the outbreak response and maintaining community-based surveillance and activities focused on the role of community leaders and healthcare workers in sustaining trust and promoting regular utilization of health services.

The scenarios were designed to test the participants' operational capabilities and foster a learning environment where they could identify strengths, uncover gaps, and collaboratively develop actionable recommendations for future preparedness.

PARTICIPANTS

The exercise included participants from different backgrounds, reflecting the multi-sectoral nature of emergency response. Participants from the local communities were mainly actors in emergency outbreak responses to pathogens such as VHFs. This included local health workers, who brought in frontline medical perspectives; traditional and religious leaders, essential for community engagement and promoting adherence to public health advisories; youth representatives and community health workers, both of which are key in community mobilization and information dissemination; traditional healers, who bridge the gap between traditional practices and modern medical advice; commercial bike riders, who highlight logistics and transportation challenges; extension workers and sanitary officers, who focus on environmental health aspects; societal and women's leaders, all of whom advocate for inclusive response strategies; and government officials from various relevant ministries, who provide policy and administrative support. The exercise also benefited from the input of national-level staff and partners, ensuring a comprehensive view of response strategies from local to national levels and fostering a deep understanding of the collaborative efforts needed to manage health emergencies effectively.

FORMAT OF EXERCISE

The exercise adopted a tabletop format, conducted in a familiar local chiefdom, to facilitate open and active participation. This setting allowed participants to engage with the scenario in a low-stress, no-fault environment, encouraging open discussion, active participation, collaboration, and critical thinking. Group discussions and presentations followed progressive scenarios (injects), allowing participants to present strategies and learn from each other's perspectives. The simulation was organized around a series of injects that unfolded over three days. Each inject was designed to challenge the participants with different aspects of the outbreak management process, from initial outbreak detection and response to the de-escalation and conclusion of the event. The exercise commenced with a general introduction to set the context, followed by detailed briefings on each scenario. Participants were grouped according to their roles and expertise to foster collaborative problem-solving and discussion. The format encouraged active participation, allowing teams to discuss, strategize, and present their approaches to each scenario, with facilitators guiding the discussions and providing feedback.

EXERCISE DELIVERY

The delivery of the exercise was structured to facilitate a realistic, interactive learning environment. The use of the local language (Mende) enhanced comprehension and participation. Each day began with a recap of the previous day's activities, reinforcing learning and setting the stage for new challenges. Role plays and plenary feedback sessions were integral components, giving dynamic and engaging ways for participants to apply their knowledge practically. Facilitators played a crucial role in guiding discussions, injecting new information, and ensuring that the exercise remained focused and productive. The final day included an evaluation and closing

session, where participants reflected on their experiences, discussed key takeaways, and outlined steps for implementing learning in their communities.

ROLE OF FACILITATORS

Facilitators played a crucial role in the execution of the simulation exercise. They were selected from among those who developed the scenarios by the Epidemic Preparedness and Response team. They introduced each scenario, guided the participants through the exercises, and ensured that the objectives of each session were met. Facilitators moderated discussions, gave situational updates, and clarified questions or issues that arose during the exercise. Their expertise was instrumental in fostering an environment of active learning and engagement, enabling participants to explore various response strategies and make decisions based on the scenarios presented. By effectively managing the flow of the exercise, facilitators ensured that discussions remained focused and productive, allowing participants to derive maximum benefit from the experience.

INDEPENDENT EXPERT EVALUATORS

Independent expert evaluators played a vital role in assessing the performance and outcomes of the simulation exercise. These were selected from among OH partners and were required to have a background in public health, emergency response or related fields. These experts offered objective assessments of how well participants managed the scenarios, the effectiveness of their communication and decision-making, and the overall coordination among different stakeholders. Evaluators shared constructive feedback and insights, highlighting strengths and identifying areas for improvement. Their analysis contributed to the development of evidence-based recommendations which were included in the exercise report, aimed at enhancing preparedness and response capabilities for future health emergencies. Through their independent assessment, expert evaluators helped ensure that the learning from the exercise were accurately captured and translated into actionable steps for improving public health emergency response in the community.

RESULTS

About 39 participants, including facilitators/exercise management team, took part in the exercise in each of the five communities (a total of 195). They represented all sectors at the communities, district, and national level. The results are divided into two sections, reflective evaluation and gaps and recommendations.

REFLECTIVE EVALUATION

Participants were evaluated based on their responses to the injects during group discussions. The evaluation contained five topics: interface-level emergency recognition and management; intersectoral collaboration; inter-community and community-district collaboration; risk communication; and good practices to be shared. The highlights include the following:

Interface level emergency recognition and management

Across all communities, participants were able to highlight the ways of identifying VHFs and the risks of contacting VHFs including contact with wild animals, drinking contaminated water and poor environmental sanitation. CHWs, who are trained regularly on community case identification, alert and notification, were identified as being critical in notifying the health facility in-charge, following up on cases, and giving feedback to the family and community. As expected, healthcare workers excelled at describing steps to take when faced with a suspected case including patient isolation, supportive treatment, notification of the DHMT per procedures under the Infectious Disease Surveillance and Reporting System (IDSR), which enhance early and accurate alert and reporting. They also described correct measures to take once someone manifests the signs and symptoms of a VHF as mentioned in the scenarios.

“Whenever I notice a suspected case in the community, I notify the health staff, refer the patient to the facility, record the case in my record book and follow up on the case while giving feedback to the family until s/he is discharged.” (A male CHW from Koya Chiefdom)

“As per my mandate I do not attend to pregnant women at home, I only do follow up on them to ensure they go to the health facility for appropriate care, if I find out they are manifesting such signs and symptoms, I will immediately refer them to the health facility.” (A Traditional Birth Attendant from Koya Chiefdom).

Traditional healers understand the importance of referring cases to the health facility but do not know when to refer the cases, meaning they do not know the case definition for VHFs.

“When a sick person visits me for care, if I cannot save him, the spirits will tell me not to touch him so I will refer them to the health facility... sometimes I treat patients with such signs and symptoms and they get well.” (A traditional Healer from Koya Chiefdom).

Participants felt that the community already had established structures that allowed a clear division of tasks and allocation of roles and responsibilities among members and. They were able to identify relevant community structures, including the facility management committee/health development committee¹, religious groups, women’s groups and youth groups and procedures that should be activated for community-level response activities. They noted that there was strong formulation/activation of bylaws and effective steps to address health issues at the community level by working in collaboration with the health facility staff. Community actions to reduce disease spread were discussed, including awareness raising, supporting sick people to visit health facilities. Some participants, however, raised concern about not getting the appropriate care from the health facility.

“Sometimes when we go to the health center for treatment, they do not provide medicines for us, instead they refer us to local drug store/peddlers to buy, that is why we don’t go there anymore, we just go straight to the drug store/peddler and get what we want.” (Youth leader from Koya Chiefdom).

Inter-sectoral collaboration

The participants from all communities discussed and recognized the need for collaboration with stakeholders in the community during outbreak preparedness and response by having stakeholder engagement and involving all stakeholders in terms of formulation and enforcement of bylaws and resource mobilization. Some communities highlighted key resource mobilization activities undertaken in the community when the need arises through a collaborative effort by all stakeholders. During their discussion, participants talked about the local, government and non-governmental structures and organizations that should be involved in the community's emergency preparedness and response activities. They recognized the roles of each sector, from detection to response, in terms of formulation and enforcement of bylaws and resource mobilization. Inter-sectoral collaboration is visible in the district under the umbrella of the One Health platform, even though it is imperfect. The individual sectors, however, have limited collaboration at the chiefdom level because the only visible sector in the communities is the Ministry of Health through the health facility; the others are not readily available in the community. This gap can be addressed by extending the structures of these sectors to the chiefdoms.

Inter-community and community-district collaboration

Inter-community collaborations occur in emergencies when there is a need for quarantine or restriction of movement; other communities are informed to be alert for people coming from the affected community. There is a certain level of collaboration between the community and the district. Community-district collaboration is very common especially within the Ministry of Health. When there is a suspected case of VHF, the healthcare worker from the community

¹ This is a committee at the community level that includes key community stakeholders such as the Village Chief, Mamy Queens and religious leaders. They liaise with the community and the health facility on health issues.

notifies the district team, who collaborates with the community team to investigate and manage the case accordingly. The gaps, which cut across all the chiefdoms, are in staff availability and coordination between communities and district authorities in other sectors, leading to recommendations for establishing community structures from other sectors and strengthening surveillance. The need for stronger, more proactive collaboration between communities and district authorities was emphasized, alongside the establishment of community structures from other sectors (e.g., MAF/EPA) to improve surveillance and response coordination.

Risk Communication

The participants discussed diverse ways of communicating health risks, especially to the public, including affected and non-affected communities. These included community engagement, radio discussions, IEC materials, banners and posters, and a rumor logbook for monitoring and addressing rumors in the community. They also recognized the importance of using specific structures in the community, such as the chiefdom taskforce and facility management committee, to pass on information about health risks. The central gap identified here is that health risk communication among health professionals did not stand out in their discussion. The solution is to revive and strengthen community reporting linkages among health professionals and strengthen coordination mechanisms through meetings.

Good practice to be shared

The community-based simulation exercises revealed the importance of testing community-level response teams who experience emergencies first hand in identifying the strengths and weaknesses of the emergency preparedness and response system. Participants could relate to the scenario, as it reflected real-life situations in the communities; this helped make the discussions go smoothly. The scenario, objectives, and the mode of delivery of the exercise were reviewed twice based on the lessons learned from workshops held in previous communities, thus ensuring improvement in discussions among all of the participants.

A notable highlight from the exercise was the strategic incorporation of local knowledge and languages, which played a pivotal role in enhancing communications. This approach guaranteed broader inclusivity and participation and reinforced the importance of cultural and linguistic considerations in executing public health strategies. The roleplay activities further amplified the learning experience, offering a tangible platform for participants to apply their proposed solutions. This practical application served to solidify the community's preparedness strategies, enhancing their confidence in their ability to confront actual health emergencies.

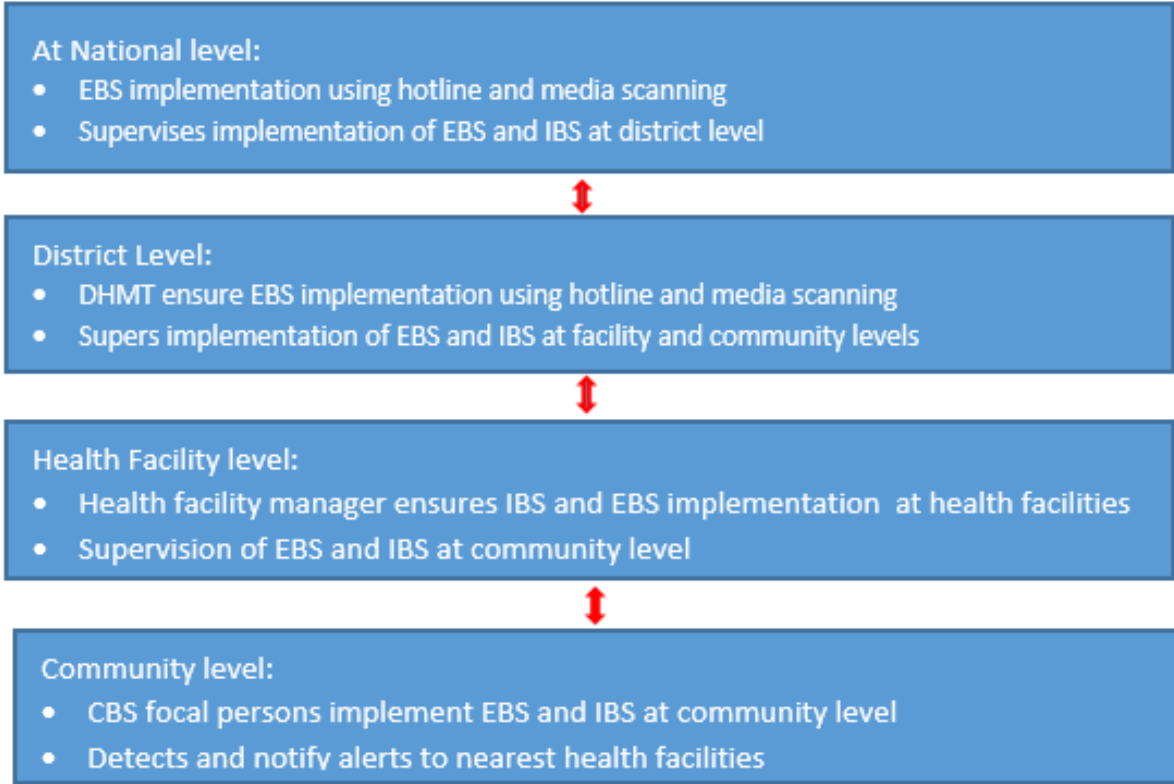
The participants highlighted some existing suitable structures and practices in their communities that encouraged prompt response to zoonotic disease outbreaks. These structures included the existence of CHWs, for community-based surveillance, which enhances the alert and reporting system; the existing chiefdom taskforce and facility management committee for preparedness and

response; implementation of the Integrated Disease Surveillance and Reporting (IDSR) system in the community; availability and use of case identification/definition forms in the health facilities; and use of a rumor logbook.

During the discussions and role plays, the participants shared experiences from previous outbreaks such as the 2014 Ebola outbreak and several outbreaks of Lassa Fever in the Lassa belt communities (Lower Bambara and Dodo). Most of the bylaws and other activities were developed as a result of those experiences. Some of the structures mentioned above were established during the Ebola outbreak and are being used now.

These good practices, which were identified through the simulation exercise, highlighted the potential for community-based strategies to enhance public health emergency preparedness and response. By incorporating these practices into regular training and response plans, communities can strengthen their resilience against future health emergencies, ensuring a swift, coordinated, and effective response that leverages local insights and fosters collaboration across all levels of society.

The 2014 Ebola outbreak was a major reference point for community members, who often related measures taken by community leaders to tackle Ebola. In some chiefdoms, participants related that these measures were so effective that they suffered minimal casualties from Ebola. Some of the measures included: developing and implementing bylaws relating to getting chief approval before hosting any guests or strangers (still being practiced); reporting deaths within the community to the chief before burial (still being practiced); and abiding to various bylaws instituted by chiefs. Most other measures, including having a community group for responding to emergencies, were no longer deemed necessary.



Flow chart from: Ministry of Health and Sanitation (2020) Technical Guidelines for Integrated Disease Surveillance and Response.

GAPS AND RECOMMENDATIONS

The table below notes the main gaps identified in the exercise and relevant recommendations.

Gaps	Recommendations
<p>Delay in sample collection, testing, turnaround time and patient referral and treatment</p>	<p>Preposition validated rapid diagnostic tests (RDT) for Lassa fever in selected community health centers (CHC) and establish structures to manage cases at the CHC level in Lassa fever hotspot areas.</p> <p>Provide targeted training to healthcare professionals on optimized sample collection techniques, ensuring samples are obtained swiftly and accurately. The deployment of dedicated mobile units by the Ministry of Health, equipped for sample collection could expedite this phase.</p> <p>Make provision for temporary treatment of cases in the CHCs and train health care workers on the treatment protocol.</p>
<p>Lack of standard patient isolation facilities in some communities</p>	<p>Establish standardized patient isolation centers in or near communities through collaboration with local stakeholders to identify suitable locations.</p>
<p>Challenges in sample transportation and staff access to PPE</p>	<p>Establish and implement a sample referral system as per the protocol developed by the public health laboratory.</p> <p>Ensure a regular supply of appropriate and adequate PPE to the health facilities.</p>
<p>Limited community engagement and coordination with other relevant stakeholders (agriculture and environment) in responding to health emergencies.</p>	<p>Organize regular community engagement to discuss response strategies.</p> <p>Engage community stakeholders about the importance of coordinating a response with One Health stakeholders in the community.</p> <p>Establish a One Health platform at the chiefdom and community level which will serve as a centralized coordination body comprising community leaders, local authorities, and relevant organizations.</p> <p>Designate roles and responsibilities to avoid duplication and ensure efficient resource allocation.</p>
<p>Limited awareness and preventive measures against causes of VHF in some communities.</p>	<p>Sensitize communities on their actions which should target the transmission pattern of the disease.</p> <p>Identify key target audiences, including households, schools, markets, and community leaders.</p> <p>Understand local cultural practices, beliefs, and behaviors related to the risk and prevention of VHF.</p> <p>Develop a social and behavior change strategy within the context of the locality and audiences to reduce human exposure to risk.</p> <p>Initiate a community sensitization campaign to educate individuals about actions that directly impact the transmission patterns of VHF. Enhance and refine these actions based on feedback and outcomes.</p>

<p>Inadequate strategies to address community resistance and misinformation</p>	<p>Conduct training sessions for in-charges, CHWs, CAHWs, and other relevant personnel. Focus on teaching them how to identify and report rumors using the rumor logbook and the rumor reporting platform (digital management tool). A digital management tool exists but is not yet widely disseminated or used.</p> <p>Provide training to district leadership on effectively utilizing the rumor/concern management dashboard, which is part of the digital management tool. This training should empower them to navigate and make use of the dashboard for managing and addressing rumors and concerns.</p> <p>Involve the media in addressing misinformation through regular broadcasts/programs using messages from the Ministry of Health, Ministry of Agriculture, and Ministry of Environment.</p>
<p>Gaps in maintaining routine health services during an outbreak</p>	<p>Train health workers on providing continuous/routine health services in times of an outbreak.</p> <p>Engage communities to seek routine health services even when there is an outbreak.</p>
<p>Gaps in strengthening community resilience and ongoing monitoring by chieftdom stakeholders.</p>	<p>Strengthen community-based surveillance to enhance early case detection.</p> <p>IEC materials and community case definition in local languages should be made available at community level.</p>
<p>Health workers mentioned that allowing family caregivers to attend to patients even when they test positive is a risk in spreading the disease.</p>	<p>Train health workers on the importance of isolating suspected cases of VHF and restricting community/family members to avoid interaction with suspected/confirmed cases.</p> <p>Engage the community to refrain from providing care to patients with signs and symptoms of VHFs.</p>
<p>Traditional healers do not understand the case definition of VHFs and when to refer suspected cases to the health facilities.</p>	<p>Train traditional healers on community case definition of VHFs.</p>

ANALYSIS & CONCLUSIONS

The innovative problem-solving in response to various challenges underscored the community's adaptability and resourcefulness, highlighting their readiness to tackle public health emergencies with creativity and resilience. Moreover, these exercises emphasized critical skills for outbreak management, including effective communication and teamwork, and spotlighted the collective effort needed for successful emergency response.

The participant's performance in reporting and responding to the outbreak was perceptible, underscoring the pivotal role of stakeholders. Focusing on community response structures was a strategic approach, given that it allowed first hand input from those who responded to the outbreak events. This exercise effectively refreshed responders' familiarity with outbreak alert and response protocols and leveraged contributions from the community in refining and informing the interlinkages, strategies, and mechanisms that enhance interface-level emergency recognition and management, inter-sectoral collaboration, inter-community and community-district collaboration and risk communication.

Emerging from the exercise, an action plan was meticulously crafted to capitalize on the strengths observed and to address the identified gaps. The plan advocates for ongoing training for CHWs and leaders to refine their proficiency in early disease detection and reporting. It also calls for improving communications infrastructure to support efficient emergency coordination and reporting. Additionally, the plan underscores the value of regular simulation exercises to maintain operational readiness and recommends continuous community education initiatives to raise awareness about zoonotic diseases and promote preventive practices.

The simulation exercise marks a significant step forward towards enhanced public health emergency preparedness and response in six chiefdoms in Kenema. It has laid a foundation for continuous improvement, emphasizing the need for robust infrastructure, training, collaboration, and effective communication. The exercise exemplifies the importance of simulation exercises in building and testing the readiness of communities to manage health emergencies. It highlights the need for continuous learning, adaptation, and collaboration at all levels to safeguard public health and well-being. Moving forward, leveraging the lessons learned, addressing identified gaps, and replicating good practices will be crucial for building resilient communities capable of confronting future health emergencies with confidence and competence.

ANNEX I: SIMULATION WORKSHOP PROGRAM

Time	Contents	Responsible
DAY ONE		
8:30-9:00	Registration	Admin
9:00 – 9:10	Prayer and introduction	All
9:10- 9: 15	Welcome statement	Host District Medical officer
9:15 – 9:30	Objective of workshop/ workshop expectation	Sahr Gbandeh
9:30 – 10:00	Statements: STOP Spillover, MoHS, EPA, MAFS, Section Chief.	Facilitator
10:00 - 10: 45	Group Photo followed by Tea Break	All
10:45 – 11:15	Introduction to the exercise	Sahr Gbandeh
11:15-12:00	Inject 1	Facilitators
12:00- 1:00	Plenary and feedback session	Facilitators
1:00 PM- 2:00 PM	Lunch	All
2:00 PM- 3:00 PM	Inject 2	Facilitators
3:00-4:00	Plenary and feedback session	Facilitators
DAY TWO		
9:00-9:30	Call to order and opening prayer	
9:30- 10:30	Recap/role play	Facilitators
10:30-11:30	Inject 3	Facilitators
11:30-12:00	BREAKFAST	
12:00 – 12:30	Plenary and feedback session	Facilitators
12:30-1:30	Inject 4	Facilitators
13:30-2:30	LUNCH	All
2:30-3:30	Plenary and feedback session	Facilitators
3:30-4:00	Closing	Facilitators
DAY THREE		
9:00-9:30	Call to order /opening prayer	All
9:30-10:00	Recap/role play	Facilitators

Time	Contents	Responsible
DAY ONE		
10:00-10:30	Inject 5	Facilitators
10:30-11:30	Breakfast	All
11:30- 12:00	Plenary and feedback session	Facilitators
12:00-12:30	Inject 6	Facilitators
12:30-1:00	Plenary and feedback session	Facilitators
1:00-1:30	Contingency Plan development	Facilitators
1:30-2:00	Lunch	All
2:00-2:30	Evaluation and closing	Sahr Gbandeh

ANNEX 2: CONTINGENCY PLAN

Theme	Observation	Recommendation	Corrective action	Responsible agencies/Person	Deadline	Status
Preparedness	Existence of Facility Management committee (FMC)	Include preparedness activities in the functions of FMC	Preparedness activities to be included in the agenda of FMC meetings	In-charge and FMC Chairman		
	Availability of CHWs	Active case search and continued sensitization by CHW	Develop a supervising plan to be used by the PS (CHW)	Peer supervisor (CHW)		
	Existence of other community-based organizations	Regular engagement of the community-based organization on outbreak preparedness	Conduct community engagement meetings focusing on preparedness	CHW Peer supervisor		
	No One health collaborative structure	Involvement of health environment and animal health sectors at community level	Form local One Health collaborative structure in the chiefdoms	District One Health coordination team		
Detection	Availability of IEC materials and community case definition for CHW	IEC materials and community case definition should be available for relevant stakeholders in the community	<ul style="list-style-type: none"> ● Request for IEC materials and community case definition from national and distribute to PHUs and communities ● Train traditional healers on community case identification 	DSMC and surveillance		
Reporting	Availability of alert reporting	Strengthen the alert reporting flow	Provide regular supervision of the CHWs	Health facility in-charge		

Theme	Observation	Recommendation	Corrective action	Responsible agencies/Person	Deadline	Status
	flow CHWs to health facilities					
Response	Confirmed Lassa fever cases are referred to Kenema Government hospital	Provide temporary treatment of cases in the nearest health facilities	<ul style="list-style-type: none"> ● Train health facility staff on treatment of Lassa fever case ● Provide treatment material at the community health center ● Provide patient isolation/treatment facilities at the health facilities 	DMO		

ANNEX 3: PARTICIPANTS FEEDBACK FORM

PARTICIPANT FEEDBACK QUESTIONNAIRE

Community/ Organization:

Designation:

Aim of the Exercise

To exercise the public health emergency preparedness and response of communities to a major outbreak of VHF, of community dimensions which aid sustainable relationship building and long-term execution of activities that incrementally improves readiness for outbreak risk management.

Exercise Objectives

The objectives of the exercise are:

Interface level emergency recognition and management: detect, report and risk assess the situation, activate emergency organization and plans, manage and monitor the emergency.

Inter-sectoral collaboration: work effectively between the health and key related sectors, to assess the risks and manage the emergency.

Inter-community and community-district collaboration: interact effectively with contiguous and other communities in the district, and district authorities, to assess, manage, communicate, and work collaboratively to address, mitigate, and resolve the emergency.

Risk communication: to communicate effectively regarding the health risks, between community stakeholders, professionals, and the public.

Review and evaluation: to reflect on potential lessons from the exercise relating to their present state of preparedness for public health emergencies, involving VHF.

Please list the main learning and key issues arising from today's exercise for you and your organization.

.....

No.	Exercise content	Strongly Agree	Agree	Disagree	Strongly Disagree
1.	The aim of the exercise was achieved				
2	The exercise generated valuable discussions and actions.				

3	The exercise identified important lessons.				
4	The exercise was well-organized.				
	<p>If you disagree with any of the statements, please explain why so that we can develop future exercises.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>				

Please add any further comments if you wish:

ANNEX 4: REFERENCES

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