



Lassa fever sentinel surveillance system evaluation - Kenema district, Sierra Leone, October 2016-September, 2017

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Presentation outline

- Introduction
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Introduction

- Lassa fever (LF)- an acute viral hemorrhagic infection
 - endemic in West Africa
- In Sierra Leone,
 - LF is endemic in Kenema district
 - ~40 cases reported yearly
- Control of LF is dependent on
 - presence of a robust surveillance system
 - to detect and confirm the diagnosis before instituting treatment
- LF sentinel surveillance system (LFSSS)
 - introduced in Kenema district >3 decades ago
 - has never been evaluated to determine its effectiveness in guiding LF control efforts
- Thus we set out to:
 - describe and assess the performance of the LFSSS on key attributes



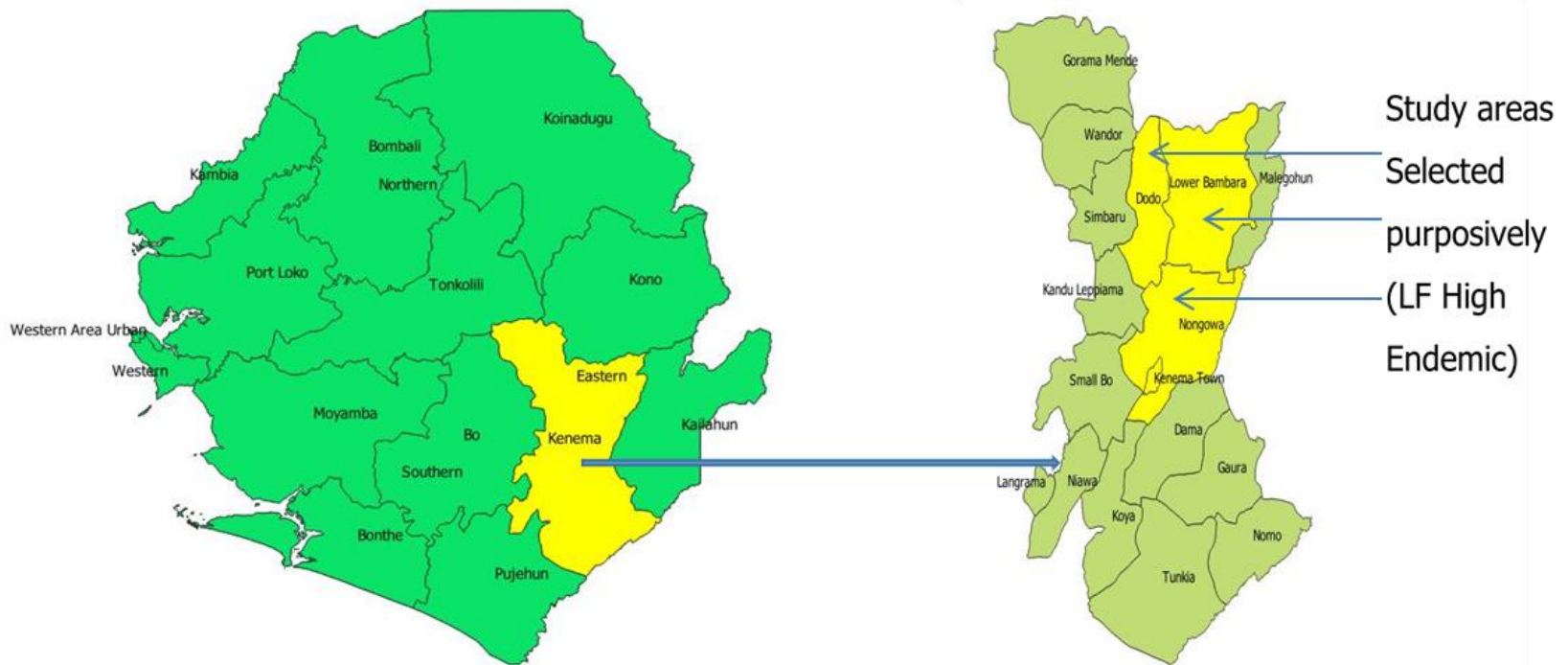
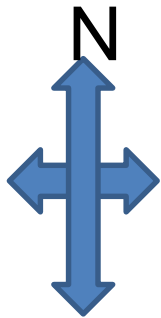
Objectives

- To describe the structure of the LFSSS
- To assess the performance of the LFSSS on key attributes,
 - simplicity,
 - stability,
 - acceptability,
 - positive predictive value
- To determine the usefulness of the LFSSS



Methods 1/2

Map of Sierra Leone showing study Areas





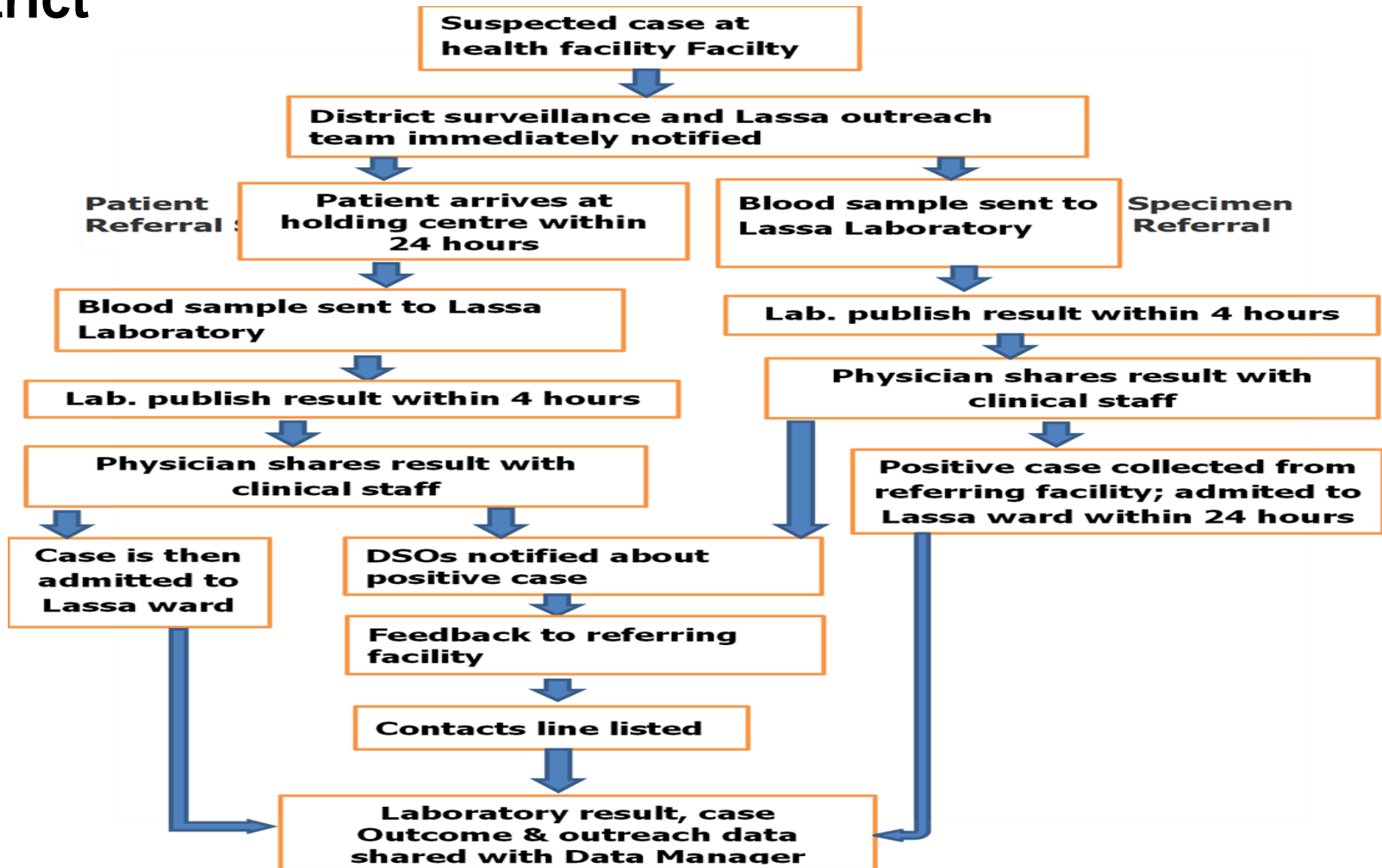
Methods 2/2

- We Evaluated LFSSS data, October 2016 to September 2017 in Kenema district
- Developed semi-structured questionnaires based on the CDC guidelines for surveillance system evaluations
- Interviewed 21 key informants:
 - 3 district surveillance officers
 - 3 LF-based laboratorians,
 - 6 clinicians, & 9 community members
- Reviewed
 - case forms, surveillance reports, & the LF database at the district
 - to determine the PVP, timeliness, & data quality
- Performed content analysis of the qualitative data to determine
 - simplicity, acceptability, stability, & usefulness



Results 1/3

Flow chart of patients' referral system and data flows within the Lassa fever Surveillance System in Kenema District





Results 2/3

- 15 to 18 of 21 (71 – 86%) respondents found the LFSSS simple, acceptable, and stable
- 18 of 21 (86%) respondents found the system not useful because the case definition detected cases too late to save lives
- Data discrepancy between the health facilities and district based records was 72%.
- PVP was 9.5% as only 23 of the 243 detected by the LFSSS had a positive laboratory confirmation



Results 3/3

- Median time between the dates of onset of symptoms and diagnosis
 - was six days (range 1-22 days)
 - against within seven days standard required to increase chance of survival



Discussion/Conclusions

- Even though more than 2/3 of the respondents found the LFSSS to be simple, acceptable and stable, it was not useful in guiding control efforts because the case definition was not sensitive to guide control measures



Recommendations

MOH and Partners to;

- Consider modification of the current case definition to make it more sensitive
- organize regular inservice trainings for health care workers on LF case management
- initiate processes to improve data quality and to harmonize data management among Lassa fever unit and DHMT



Public health action

- Mobilized resources through collaboration with partners
- Trained and provided job aides to health care providers in affected communities
- Held community stakeholders meeting in Panguma and emphasized the importance of early health care seeking behaviour



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