

Strengthening regional clinical trial capacity for Lassa fever: Lessons from a multi-country site assessment in West Africa

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Introduction

The World Health Organization (WHO) classifies Lassa fever as a priority pathogen due to its escalating burden and geographic spread, exacerbated by climate change and population growth. To accelerate vaccine development, the Coalition for Epidemic Preparedness Innovations (CEPI) launched the Advancing Research Capacity in West Africa (ARC-WA) project. Co-led by the Medical Research Council Unit, The Gambia (MRCG) and the International Vaccine Institute (IVI), this initiative aims to strengthen the region's ability to conduct high-quality clinical trials for Lassa fever and other outbreaks.

Methods

Potential sites were identified through clinical trial registries, expert consultations, and feasibility questionnaires. These were followed by on-site visits to assess site capacity across key focus areas including infrastructure, laboratories, data management, regulatory compliance, community engagement, and financial governance. Sites were then ranked against predefined criteria to and costed proposals developed.

Results

We evaluated 36 clinical trial sites across five Lassa-affected countries (Nigeria: 13, Liberia: 4, Sierra Leone: 5, Benin: 5, Guinea: 9). Some sites had strong existing capacity, including trained staff, functional IT systems, and effective communication structures. However, many exhibited a variety of critical gaps. These included limited epidemiological data necessary for Phase 3 trials, inadequate infrastructure in clinical units and emergency care, unreliable power supply, and underdeveloped ethics committees. Additionally, several institutions had limited experience with financial governance, highlighting a critical area of need to support effective research fund management.

Conclusion

Our findings highlight key barriers to trial readiness: inadequate infrastructure, weak regulatory systems, weak financial governance, and limited epidemiological data. Addressing these challenges will require targeted capacity-building, regulatory support, and sustained investment in laboratories and emergency care. These insights form the basis for a framework to enhance site preparedness,



strengthen clinical trial capacity, and support more effective epidemic response across West Africa.