

Strengthening epidemic preparedness and community resilience through trusted communication: An assessment of Lassa fever risk messaging in Bauchi State, Nigeria

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Introduction

Effective communication is critical for behavior change, public health preparedness and community resilience in epidemic-prone contexts. This study evaluated the performance of communication channels and trust dynamics in Lassa Fever (LF) Risk Communication and Community Engagement (RCCE) interventions in Bauchi State, Nigeria, from 2021 to 2023.

Methods

Using a quasi-experimental design, structured household interviews were conducted with 1,544 adults across intervention LGAs (Bauchi and Toro) and a control LGA (Dambam). Analysis was done using Stata, version 17, which assessed exposure to LF messaging, channel preference and trust, and associations between trusted sources and knowledge or behavior outcomes.

Results

Radio was the most commonly cited source of LF information across all LGAs. In intervention areas, access to information was more diverse, with community volunteers (38.5% Bauchi; 32.2% Toro) and healthcare workers (50%) cited more frequently than in the control area (21.1%). Health professionals were the most trusted sources of accurate information (70–80% across LGAs), while

trust in government sources and journalists was moderate (30–45%). Intervention LGAs showed a stronger alignment between trusted channels and correct knowledge of LF symptoms and preventive practices. However, preference did not always translate to action, indicating the need for strategies that close the gap between awareness and behavior. Respondents preferred receiving information from multiple, reinforcing sources, especially those embedded in social and religious structures and fluent in local languages.

Conclusion

Multichannel communication strategies that blend mass media with trusted, community-based messengers significantly improve trust, health literacy, and uptake of protective behaviors. Embedding trusted communication actors within RCCE frameworks strengthens epidemic preparedness and fosters community resilience. Sustained investment in diversified, culturally relevant communication approaches is essential for durable public health outcomes in high-risk settings.