Proceedings of the ECOWAS 2nd Lassa fever International Conference in Abidjan, September 8 – 11, 2025

Determinants of the 2025 Lassa fever outbreak among residents in selected local government areas in Taraba State Nigeria: A mixed-methods epidemiological investigation

Kingsley Ugochukwu Dike&[1,2,&], Shamsu Munzali[1], Ehichioya Ofeimun[1], Zuwaira Mohammed[3], Celestine Ameh[3], Emmanuel Omomoh[4], Oladipo Ogunbode[1]

[1]Nigeria Field Epidemiology and Laboratory Training Program Abuja Nigeria, [2]Nigeria Centre for Disease Control and Prevention, Abuja Nigeria, [3]Nigerian Red Cross Jalingo Taraba State, [4]African Centre for Disease Control and Prevention, Addis Ababa, Ethiopia

[&]Corresponding author: Kingsley Ugochukwu Dike, Nigeria Centre for Disease Control and Prevention, Abuja, Nigeria. **Email:** kingsley.dike@ncdc.gov.ng

Citation: Kingsley Ugochukwu Dike et al., Determinants of the 2025 Lassa fever outbreak among residents in selected local government areas in Taraba State, Nigeria: A mixed-methods epidemiological investigation. Journal of Interventional Epidemiology and Public Health. 2025;8(ConfProc5):00274.

DOI: https://doi.org/10.37432/jieph-confpro5-00274

LINK: https://afenet-journal.org/determinants-of-the-2025-lassa-fever-outbreak-among-residents-in-selected-local-government-areas-in-taraba-state-nigeria-a-mixed-methods-epidemiological-investigation/

Received: 27/03/2025 **Accepted:** 09/07/2025 **Published:** 07/08/2025

Keywords: Lassa fever, determinants, residents, Taraba, Nigeria

This is part of the proceedings of the ECOWAS 2nd Lassa fever International Conference in Abidjan, September 8 – 11, 2025

Introduction

The 2025 Lassa fever (LF) outbreak in Taraba State, Nigeria, was exponential with high fatalities. This study was aimed at identifying the determinants of LF transmission among residents in Taraba State.

Methods

A cross-sectional study was conducted in eight randomly selected local government areas. A validated structured questionnaire was used to gather quantitative data from 238 respondents, 26 of whom were LF patients chosen by simple random sampling. Two focus group discussions (LF cases and non-cases) were conveniently scheduled, and determinants of the infection transmission were inquired about. The qualitative data were examined using thematic analysis.

Results

The study observed a higher presence of rats in households (212, [89%]) compared with absence of rats in the homes (26, [11%]) ($p = 0.748$). Other environmental factors that were found to be higher than the absence of these factors included the use of poison to kill the rats (215, [90%]), open dumping of waste (144, [61%]), sun-drying food products 4 (90%), and daily cleaning of the environment (216, [91%]) ($p > 0.05$). The percentage of those with refuse bins in their homes was greater (185, [78%]) compared to those without it ($p=0.005$). The behavioural practices of handwashing before eating (224, [94%]) and storing food in the homes (159, [67%]) were more practiced ($p > 0.05$). The habit of leaving food uncovered (127, [53%]) and the use of sack bags to store food (159 [67%]) were more common ($p < 0.05$). The interviews conducted pointed out varied means of infection transmission among the residents.

Conclusion

This study recommends improved environmental sanitation and proper food storage practices to mitigate the spread of the infection in Taraba State, Nigeria. Concerted efforts should be made to understand more drivers and barriers to the infection in Nigeria.