Texila International Journal of Public Health
ISSN: 2520-3134
DOI: 10.21522/TIJPH.2013.13.02.Art045

The Impact of Targeted Training Programs on Lassa Fever Case Detection and Reporting Among Community Health Influencers in Ondo State, Nigeria

Ibukunoluwa Yejide Adewoye[1*], Motunrayo Florence Olanrewaju[1], Abosede Olorunnisola[1]
[1]*Department of Public Health, Babcock University, Ilishan-Remo, Nigeria*

Abstract

Lassa fever (LF), a viral haemorrhagic fever endemic to West Africa, poses a significant public health challenge due to frequent misdiagnosis and delayed detection, leading to high morbidity and mortality. Early case detection is crucial for effective control, but community health workers in endemic areas often lack the necessary skills. This study evaluated the impact of a training program on LF case detection and reporting among community health influencers in Ondo State, Nigeria, using the Community Health Influencers, Promoters, and Services (CHIPS) Program as a platform. A quasi-experimental design was employed, with 60 participants selected using multistage sampling and divided into two groups: an experimental group (EG) and a control group (CG). The EG received a 12-hour intervention over two weeks focused on LF symptoms, transmission, detection, and reporting, while the CG received a shorter program on monkeypox prevention. Assessments were conducted at baseline, during, and post-intervention using a validated questionnaire with Cronbach's alpha reliability coefficients ranging from 0.70 to 0.72. Data were analysed using descriptive and inferential statistics at a 0.05 significance level, with effect size computed to measure intervention impact. Baseline results showed comparable demographics and similar detection and reporting skills between groups ($p = 0.420$). Post-intervention, the EG demonstrated significant improvements in detection skills (2.76 ± 0.90 to 13.93 ± 2.63; $p < 0.001$) and reporting scores (0.00 ± 0.00 to 0.30 ± 0.048; $p < 0.001$), with an effect size of 0.48. The CG showed no significant changes. The study highlights the effectiveness of targeted training in enhancing knowledge, perception, detection skills, and reporting practices among community health influencers, underscoring its potential to strengthen LF prevention and control in endemic areas.

Keywords: *Case Detection, Community Health Influencers, Lassa Fever, Nigeria, Ondo State, Training Program.*

Introduction

Lassa Fever (LF) is a West African endemic acute viral hemorrhagic fever that shares symptoms with other feverish diseases, including malaria. These consist of muscle aches, headaches, nausea, weakness, and fever [1]. In severe cases, encephalitis and hemorrhagic complications may develop; fatality rates during outbreaks can reach 24–33%, whereas in ordinary cases they are only 1% [2, 3]. LF infections have been found in 3.5% of febrile infants and 6% of adults in endemic areas [4], and sensorineural hearing loss is a long-term consequence for 13.5% of survivors [5]. Fetal survival rates can be as low as 10%, making pregnant mothers far more at risk for death, especially during the third trimester [6, 7]. Although early administration of ribavirin can reduce mortality from 55% to 5%, access to timely treatment remains a challenge [6].

Received: 17.01.2025 ***Accepted: 26.03.2025*** ***Published on: 30.06.2025***
****Corresponding Author: adewoye0170@pg.babcock.edu.ng***

The multimammate rat (*Mastomys natalensis*) is the main reservoir of LF, and it spreads the virus through its urine and faeces [7]. Direct contact, eating tainted food, or breathing in infectious aerosols are the three ways that the disease is spread to humans [7]. During epidemics, hospitalised case mortality rates can vary from 15% to 50% [8]. While occasional cases have been documented in Côte d'Ivoire, Mali, and Ghana, LF is endemic in Sierra Leone, Guinea, Liberia, and Nigeria [9, 10]. In West Africa, an estimated one million illnesses and 5,000 fatalities occur each year [11]. With a 2–21-day incubation period, the disease frequently goes undetected due to its vague early symptoms, especially in areas with inadequate resources where malaria is common. Delays in case detection, therefore, make it more difficult to intervene promptly and make outbreaks worse [4,12].

The efforts to improve LF management include regional initiatives like ECOWAS response plans and Nigeria's Emergency Operations Centres [12]. The Community Health Influencers, Promoters, and Services (CHIPS) Programme was introduced in 2018 to bridge healthcare access gaps by training agents to provide basic healthcare services and referrals; however, CHIPS agents are not currently trained for LF surveillance. Nigeria has faced ongoing challenges in LF control due to delayed response measures and gaps in surveillance. Early outbreak response could be improved by incorporating them into case detection and reporting systems. Comprehensive education on LF symptoms, transmission, and prevention must be a top priority for training programs since knowledge, awareness, and risk perception are essential for successful case detection [13]. Increased awareness promotes vigilance, and elevated risk perception may help with proactive reporting.

This study assesses how a focused training program affects community health influencers' (CHIs') ability to identify and report Lassa fever cases in two endemic local government areas in Ondo State, Nigeria. This intervention seeks to enhance community-based monitoring and the promptness of LF case detection by providing CHIs with the requisite information, perspective, and abilities. Nigeria's attempts to prevent and control LF could be greatly improved by this strategy.

Materials and Methods

Study Design and Area

This study used a quasi-experimental approach with 60 community health influencers (CHIs) from two local government areas (LGAs) in Ondo State, Nigeria, that are endemic for Lassa disease. The study was divided into two stages: the baseline evaluation and the post-intervention assessment.

Sampling Technique

A multistage sampling approach was used to select participants.

Stage 1: Identification of Endemic LGAs

Retrospective data from the Nigeria Centre for Disease Control (NCDC) were analysed to identify seven LGAs that reported Lassa fever cases in the past three years. These included Owo, Akure South, Akure North, Ose, Akoko South-West, Akoko South-East, and Idanre.

Stage 2: Selection of Study Sites

Purposive sampling was used to select two LGAs—Idanre and Akoko South-East—based on population size and healthcare system capacity. While curative services in Ondo State are primarily delivered by specialists and general hospitals, the primary healthcare (PHC) system remains critically understaffed, particularly in low-population areas [14]. The selected LGAs had the lowest population densities among the endemic areas, making them suitable for evaluating community-based interventions.

Stage 3: Participant Selection and Group Assignment

Three CHIs were randomly selected from PHC facilities in each of the 10 wards per LGA, yielding a total of 30 participants per group. Balloting was used to assign Akoko South-East as the control group and Idanre as the experimental group.

Study Variables

With a 15-point Likert scale, the change in LF case detection and reporting skills was the primary variable. The training program's participation was the independent variable. There were Likert-scale and dichotomous (yes/no) questions in the study tool, and the scoring was modified according to how the questions were written. Higher ratings were given to positive responses, and lower marks were given to negative ones. A Likert scale in Sections C, D, and E ranged from "strongly agree" to "strongly disagree," with the highest scores going to the right answers. On a scale ranging from "Never" to "Very Often," case identification skills were evaluated, and scores were tailored to suitably represent positive and negative notions.

Instrumentation

A 43-item structured questionnaire, with construct reliability ranging from 0.708–0.726, assessed CHIs' knowledge, perception, and skills in Lassa fever case detection and reporting. Adapted from the Health Belief Model, it comprised five sections: socio-demographics (Section A), knowledge (10 multiple-choice questions, Section B), perception (16 Likert-scale questions on susceptibility, severity, barriers, and benefits, Section C), detection skills (6 Likert-scale questions, Section D), and self-efficacy (4 Likert-scale questions, Section E). Responses used a Likert scale, with positively and negatively worded items scored from 0–3. Lassa fever case detection skills were measured on a 15-point scale, emphasising correct and frequent responses.

Intervention

The experimental group received a two-week structured training program on Lassa fever case detection and reporting. The training program covered topics such as:

1. Lassa fever epidemiology and transmission.
2. Clinical presentation and diagnosis.
3. Safe handling of suspected cases.
4. Case detection and reporting procedures.
5. Prevention and control measures.
6. The control group received a standard health education program on monkeypox.

Data Analysis

SPSS software was used to examine the data. While inferential statistics, such as independent t-tests, were utilised to examine changes in knowledge, perception, and abilities between the experimental and control groups, descriptive statistics were utilised to summarise the results.

Ethical Considerations

Ethical approval was obtained from Babcock University Health Research Ethics Committee (BUHREC) and relevant bodies. Informed consent was also given through verbal communication, and written consent forms were signed. The information provided by respondents was kept confidential, and there was no penalty for not filling in the form or withdrawing at any time.

Results

Demographics Characteristics of Participants

Most participants were adults over 40 years old (mean age: 43.52 ± 7.59 years in the experimental group, 45.27 ± 5.26 years in the control group). The majority of participants in the experimental group identified as Christian (70.0%), while the control group had a higher percentage of Muslims (53.3%). Both groups mainly held a post-primary degree (60.0% in the experimental group, 73.3% in the control group). Both groups also had a high number of married participants (63.3% in the experimental group, 80.0% in the control group). Finally, most participants were employed in both the experimental (60.0%) and control groups (53.3%) (Table 1).

Table 1. Socio-Demographic Characteristics of Participants in the Experimental and Control Groups at Baseline

Variables	**Respondents in the study were N=30 each**	
	Experimental Group N (100%)	**Control Group N (100%)**
Age		
Mean age	44.62 ± 7.59	45.27 ± 5.26
Religion		
Islam	13 (43.3.0)	16 (53.3)
Christianity	9 (30.0)	11 (36.7)
Traditional	8 (26.7)	7 (23.3)
Level of education		
Primary	3 (10.0)	1 (3.3)
Secondary	18 (60.0)	22 (73.3)
Tertiary	9 (30.0)	7 (23.3)
Marital status		
Single	4 (13.3)	1 (3.30)
Married	19 (63.3)	24 (80.0)
Widowed	7 (23.3)	5 (16.6)
Occupation		
Employed	18 (60.0)	16 (53.3)
Self-employed	12 (40.0)	14 (46.7)
Total	30(100)	30(100)

* *$p<0.05$*

Baseline Assessment

At baseline, there were no significant differences between the experimental and control groups in terms of knowledge, perception and case detection skills/ reporting.

Knowledge of Lassa Fever

The level of knowledge of Lassa fever was measured on a 10-point rating scale; responses showed that the majority (55%) of all respondents (n=60) had above average knowledge, 5.43±1.83. Means of knowledge of Lassa fever for experimental and control groups were 5.67± 1.63 and 5.20± 1.40, respectively, which showed that both groups had above average levels of knowledge of Lassa fever at baseline. The computed independent sample t-test for knowledge revealed a p-value of 0.2358, indicating that both groups had an average level of knowledge of Lassa fever at baseline (Table 2).

Table 2. Comparing the means of Knowledge of Lassa fever in the Control and Experimental groups at Baseline

Variables	Rating scale	Respondents		p-value
		Idanre LGA (Experimental n=30)	Akoko South-East LGA (Control n=30)	
Knowledge	10	5.67± 1.63	5.20± 1.40	0.2358

**Significant at <0.05*

Perception of Lassa Fever and Case Detection

The perception of Lassa fever and case detection was measured on a 48-point rating scale; 55% of all respondents (n=60) had a positive perception towards Lassa fever and case detection. The mean scores of perceptions for experimental and control groups are scored mean scores were 19.01±5.27 and 17.73±4.74 for the experimental and control groups, respectively (Table 3). The independent t-test yielded a p-value of 0.326, indicating no significant difference between the groups. Subsequently, for perception sub-constructs, perceived susceptibility, measured on a 12-point rating scale, resulted in mean scores of 7.44± 2.94 and 7.89± 1.90 for the experimental and control groups, respectively, with a p-value of 0.4842, indicating non-significance. Perceived severity, measured on a 12-point rating scale, yielded mean scores of 8.07± 2.90 and 7.85± 1.73 for the experimental and control groups, respectively, with a p-value of 0.7225, also indicating non-significance. Furthermore, perceived benefit, measured on a 9-point rating scale, resulted in mean scores of 6.10±1.45 and 5.85±1.35 for the experimental and control groups, respectively, yielding a p-value of 0.4937, indicating no significant difference. Similarly, perceived barriers, measured on a 15-point rating scale, produced mean scores of 11.85±3.73 and 10.03±2.98 for the experimental and control groups, respectively, with a p-value of 0.1969, indicating non-significance (Table 3).

Table 3. Means of Perception towards Lassa fever and case detection in Control and Experimental groups at Baseline

Variables	Rating scale	Respondents		p-value
		Idanre LGA (Experimental n=30)	Akoko south-east LGA (Control n=30)	
Perception	48	19.01±5.27	17.73±4.74	0.326
Perceived Susceptibility	12	7.44± 2.94	7.89± 1.90	0.484
Perceived Severity	12	8.07± 2.90	7.85± 1.73	0.722
Perceived Benefit	9	6.10± 1.45	5.85± 1.35	0.493
Perceived Barrier	15	11.85± 3.73	10.03± 2.98	0.196
Total		30(100)	30(100)	

** p<0.05*

Lassa Fever Case-Detection Skill

The evaluation of Lassa fever case detection skill, measured on an 18-point rating scale, produced mean scores of 2.68±14.66 for all respondents (n=60), indicating a low level of case detection skill among the participants. Mean of case detection skill was 2.76± 0.90 and 2.60 ±0.70 for the experimental and control groups, respectively, with a p-value of 0.420, indicating no significant difference between the groups (Table 4).

Table 4. Level of Lassa Fever Case Detection and Reporting in the Control and experimental groups at Baseline

Variables	Rating scale	Respondents		p-value
		Idanre LGA (Experimental n=30)	Akoko south-east LGA (Control n=30)	
Lassa fever case detection skill	18			
Low (0-9)		30(100.0)	30(100.00)	0.4452
High (10-18)		0(0.0)	0(0.0)	0.000
Total		30(100)	30(100)	

** p<0.05*

Post-Intervention Assessment

Following the intervention, the experimental group showed significant improvements in all three domains: knowledge, perception, and skills. The control group did not show any significant changes.

Knowledge of Lassa Fever

The Knowledge of Lassa fever measured on a 10-point rating scale had a mean score of 5.67±1.63 at baseline and 8.23±1.80 at post-intervention in the experimental group (Idanre LGA) and 5.20±1.40 at baseline and 5.24±1.50 at post-intervention in the control group (Akoko south-east LGA). The computed independent sample t-test yielded a p-value of 0.000, indicating a statistically significant difference in knowledge between baseline and post-intervention in the experimental and a p-value of 0.9153, indicating no statistically significant difference between baseline and post-intervention in the control group. The intervention effected a change in the mean of the participants' knowledge of Lassa fever between the baseline and post-intervention with a difference of 2.560 ($p<0.01$) in the experimental group, as shown in Table 5.

Table 5. Comparison of the Mean of Knowledge of Lassa fever at Baseline and Post Intervention within Groups

Variables	Rating Scale	Akoko south-east LGA (Control n=30)		Idanre LGA (Experimental n=30)		t-value	ES (95%CI)	p-value
		Baseline	Post	Baseline	Post			
Knowledge	10	5.20±1.40	5.24±1.0	5.67±1.63	8.23±1.80	7.933	2.05	0.000

** p<0.05; ES: Cohen's d effect size; CI: Confidence Interval*

Perception of Lassa Fever and Case Detection

Perception of Lassa fever and case detection was measured on a 48-point rating scale. In the experimental group, mean perception scores significantly improved from 19.01 ± 5.20 at baseline to 38.40 ± 6.48 post-intervention ($p < 0.001$), while the control group showed no significant change (17.13 ± 4.80 to 17.81 ± 5.00, $p = 0.5931$). Sub-construct analysis revealed significant improvements in the experimental group across perceived susceptibility (7.44 ± 2.10 to 10.60 ± 2.50, $p < 0.001$), severity (8.07 ± 2.90 to 11.20 ± 2.20, $p < 0.001$), benefits (6.10 ± 1.40 to 7.93 ± 1.70, $p < 0.001$), and barriers (11.85 ± 3.20 to 6.01 ± 2.50, $p < 0.001$). In contrast, the control group showed no significant changes in any sub-constructs ($p > 0.05$). These findings demonstrate the intervention's effectiveness in significantly enhancing perception and addressing barriers to case detection, highlighting the importance of targeted training for improving Lassa fever management, as shown in Table 6.

Table 6. Comparison of Mean, Perception of Lassa fever and Case Detection Baseline and Post Intervention within Groups

Variables	Rating Scale	Akoko south-east LGA Control n=30		Idanre LGA Experimental n=30		t-value	ES (95%CI)	p-value
		Baseline	Post	Baseline	Post			
Perception	48	17.13(4.80)	17.81(5.00)	19.01(5.20)	38.40(6.48)	13.778	1.18 (0.9129-1.1831)	0.000
Perceived susceptibility	12	8.89(1.9)	9.02(2.00)	9.44(2.10)	10.60(2.50)	2.7031	0.45 (0.361-0.4564)	0.009
Perceived severity	12	7.85(1.7)	8.11(2.00)	8.07(1.90)	11.20(2.20)	5.6924	0.40 (0.361-0.4017)	0.000
Perceived benefits	9	5.85(1.3)	5.48(1.50)	6.10(1.40)	7.93(1.70)	5.9190	0.41 (0.2739-0.4104)	0.000
Perceived barriers	15	10.03(2.8)	10.85(3.00)	11.85(3.20)	6.01(2. 50)	6.7885	0.75 (0.5477-0.7564)	0.000

** p<0.05; ES: Cohen's d effect size; CI: Confidence Interval*

Lassa Fever Case-Detection Skill and Reporting

Lassa fever case detection skill, measured on an 18-point rating scale, yielded mean scores of 2.76± 0.9 and 2.60± 0.7 for the experimental and control groups, respectively, at baseline and 13.93± 2.63 and 2.41± 1.03 for the experimental and control groups at post-intervention. The computed independent t-test yielded a p-value of 0.000 in the experimental group, indicating a statistically significant difference in Lassa fever case detection skills, and 0.4068 in the control group, indicating no statistically significant difference. Reporting Lassa fever, measured on a 2-point rating scale, yielded mean scores of 0.00± 0.00 and 0.00± 0.00 for the experimental and control groups, respectively, at baseline and 0.3± 0.048 and 0.00± 0.00 for the experimental and control groups at post-intervention. The computed paired t-test yielded a p-value of 0.000 in the experimental group, indicating a statistically significant difference in Lassa fever case reporting. (Table 7).

Table 7. Comparison of the Mean of Lassa fever detection skill and reporting at Baseline and Post Intervention within Groups

Variables	Rating Scale	Akoko South-East LGA Control n=30		Idanre LGA Experimental n=30		t-value	ES (95%CI)	P-value
		Baseline	Post	Baseline	Post			
Case Detection Skill	18	2.6± 0.7	2.41±1.03	2.76± 0.9	13.93±2.63	22.006	0.48 (0.1643-0.4802)	0.000
Reporting	2	0.00±0.00	0.00±0.00	0.00±0.00	0.30 ±0. 450.	3.651	0.082(0.00-0.082)	0.000

8-Week Follow-Up

The improvements in the experimental group were sustained in the 8-week follow-up. Lassa fever case detection skill, measured on an 18-point rating scale, yielded mean scores of 13.93± 2.63 and 15.41± 3.16 for the experimental group at post-intervention and 8-week follow-up. The computed independent t-test yielded a p-value of 0.000, indicating a statistically significant difference in Lassa fever case detection skills in the experimental group. Reporting of Lassa fever, measured on a 2-point rating scale, yielded mean scores of 0.3±0.04 and 1.60±0.82 for the experimental and control groups at post-intervention and 8 weeks, respectively. The computed paired t-test yielded a p-value of 0.000 in the experimental group, indicating a statistically significant difference in Lassa fever case reporting as seen in Table 8.

Table 8. Comparison of the Mean of Lassa Fever Detection Skill and Reporting at Post-intervention and 8-week follow-up in the Experimental Group

Variables	**Rating Scale**	**Idanre LGA Experimental n=30**		**t-value**	**ES (95)**	**P-value**
		Post intervention	**8-week follow-up**			
Case Detection Skill	18	13.93± 2.63	15.41± 3.16	22.006	0.48 (0.1643-0.4802)	0.000
Reporting	2	0.3± 0.04	1.60± 0.82	3.651	0.082 (0.00-0.082)	0.000

** p<0.05; ES: Cohen's d effect size; CI: Confidence*

Discussion

Most participants were over 40, according to their demographics; the experimental group's mean age was 43.52 ± 7.59 years, whereas the control group's were 45.27 ± 5.26 years. A comparatively homogeneous sample in terms of socioeconomic background was suggested by the fact that the majority of participants were married, worked, and had completed more education than primary school. The efficiency of the randomisation method is confirmed by the lack of substantial baseline differences across groups, guaranteeing reliable comparison studies.

According to baseline evaluations, there was no statistically significant difference between the two groups' above-average Lassa fever knowledge ($p = 0.2358$). This result is consistent with research by [15,16], which found that healthcare professionals had a moderate degree of knowledge but that there were still gaps in their knowledge of early detection techniques, prevention tactics, and transmission dynamics. These gaps in knowledge highlight the necessity of organised training courses designed to raise comprehension above the level of basic awareness.

The groups' baseline perception levels were equivalent ($p > 0.05$), indicating that their views on the danger, severity, and preventative measures of Lassa fever were similar. This finding aligns with [17], which found that the main obstacles to efficient case detection and reporting were fear of infection, misunderstandings about how diseases spread, and a lack of resources for healthcare. Additionally, both groups' mean scores of 2.76 ± 0.90 (experimental) and 2.60 ± 0.70 (control) indicate low baseline case detection skills, which further supports earlier reports by [18] that linked inadequate exposure to real-life case identification scenarios and a lack of structured training programs to poor detection and reporting practices.

All examined domains showed notable improvements in the experimental group after the structured training intervention. Knowledge scores rose dramatically ($p < 0.001$, effect size

= 2.05), indicating that targeted education successfully fills in the knowledge and comprehension gaps about Lassa disease. Additionally, there was a substantial improvement in perception scores ($p < 0.001$), suggesting that the training changed attitudes regarding disease severity, susceptibility, and the perceived advantages of early diagnosis and reporting, in addition to improving factual knowledge. Detection skills significantly improved ($p < 0.001$), highlighting the value of hands-on, scenario-based training in developing competencies for real-world applications. Increased awareness and better detection abilities led to proactive participation in disease surveillance and case notification, as evidenced by the considerable rise in Lassa fever reporting rates ($p < 0.001$). However, there were no discernible changes in the perception, knowledge, or capacity to identify instances of monkeypox in the control group, which received a general health education session about the disease. This further highlights how well the targeted Lassa fever training program fills significant gaps in community-based surveillance and response, which is consistent with findings by [19]. The study's conclusions support the body of research showing that community-based training initiatives can greatly improve disease surveillance and outbreak response. It is possible to enhance early case identification and reporting capabilities, lower transmission, and improve outbreak containment by providing community health influencers (CHIs) with useful information and abilities. These findings are consistent with earlier studies showing the value of task-shifting strategies in environments with limited resources, where including non-specialist healthcare professionals in surveillance initiatives enhances response efficacy [19]. Scaling up comparable training programs inside community health systems, especially through Nigeria's CHIPS Programme, could improve grassroots surveillance efforts given the high prevalence of Lassa fever in endemic places. Long-term gains in illness management may also be maintained by implementing recurring refresher courses and utilising mobile health (mHealth) technologies for real-time case reporting. Systemic obstacles that continue to impede Lassa fever diagnosis and treatment, such as a lack of money, a shortage of healthcare workers, and gaps in laboratory tests, should also be addressed by policymakers.

According to this study, community health influencers' perceptions, knowledge, and abilities to detect Lassa fever cases are greatly enhanced by structured training programs. The intervention's ability to improve community-based monitoring and outbreak control was demonstrated by the quantifiable increases in case reporting that followed. Future studies should examine how well skills are retained over time and whether the intervention can be scaled to additional endemic areas.

Conclusion

This study highlights the importance of targeted training programs in strengthening community-based surveillance and control of Lassa fever. The findings suggest that investing in the training of community health influencers can significantly improve their ability to detect and report Lassa fever cases, ultimately contributing to better health outcomes for affected individuals and communities.

Conflict of Interest

There is no conflict of interest.

Acknowledgements

The author acknowledges the corresponding authors, Professor Motunrayo Florence Olanrewaju and Dr Abosede Olorunnishola, the participants and colleagues for their contribution to the study, as well as all research assistants who abetted in data collection

References

[1] Nigeria Centre for Disease Control (NCDC), 2021. Lassa Fever Outbreak Situation Report, Epi Week 35: 30th August - 5th September 2021. Retrieved from https://ncdc.gov.ng/themes/common/files/sitreps/06a32d0a05c6d1e6a1b2147dc99b5473.pdf

[2] Khare, B., Jain, D., Jain, M., Jain, S., Khangar, P. K., & Jain, D. K., 2022. An Overview of Lassa fever, a Rising Old World Hemorrhagic Viral Disease. *Asian Journal of Dental and Health Sciences*, 2(1), 20–26

[3] Naeem, A., Zahid, S., Hafeez, M. H., Bibi, A., Tabassum, S., & Akilimali, A., 2023. Re-emergence of Lassa fever in Nigeria: A new challenge for public health authorities. *Health science reports*, 6(10), e1628. https://doi.org/10.1002/hsr2.1628

[4] Akpede, G. O., Asogun, D. A., Okogbenin, S. A., Dawodu, S. O., Momoh, M. O., Dongo, A. E., & Agbonlahor, D. E., 2019. Caseload and case fatality of Lassa fever in Nigeria, 2001–2018: a specialist center's experience and its implications. *Frontiers in Public Health*, 7, 170.

[5] Elizabeth, J. M., Cheng, H., Nathan, Y. Shehu., Slobodan, P., 2018 Lassa fever–induced sensorineural hearing loss: A neglected public health and social burden Published: February 22, 2018 https://doi.org/10.1371/journal.pntd.0006187

[6] Loyinmi, A. C., Akinfe, T. K., & Ojo, A. A., 2021. Qualitative analysis and dynamical behavior of a Lassa hemorrhagic fever model with exposed rodents and saturated incidence rate. *Scientific African*, 14, e01028.

[7] Houlihan, C., Behrens R., 2017. Lassa fever, *BMJ, Br. Med. J.*

[8] Orji, M. L., Ajayi, N. A., Chika-Igwenyi, N. M., & Onyire, N. B., 2022. Tackling Lassa Virus Transmission in Endemic Regions: A Collective Responsibility. *Journal of Basic Medical and Clinical Sciences*, 1(1), pp xv-xvii.

[9] Pal, M., Areda, N. G., & Lema, A. G., 2022. A Comprehensive Review on Lassa Fever in Africa: Epidemiology, Diagnosis, Prevention and Control.

[10] Duvignaud, A., Jaspard, M., Etafo, I. C., Gabillard, D., Serra, B., Abejegah, C., & de Bruyne Mushenvula, J. P., 2021. Lassa fever outcomes and prognostic factors in Nigeria (LASCOPE): a prospective cohort study. *The Lancet global health*, 9(4), e469-e478.

[11] Happi, A.N., Happi, C.T. & Schoepp, R.J., 2019. Lassa fever diagnostics: past, present, and future. *Current opinion in virology*, 37, pp.132-138.

[12] WHO, 2020. Lassa fever - Nigeria. Retrieved from https://www.who.int/emergencies/disease-outbreak-news/item/2020-DON245#:~:text=From%201%20January%20through%209,and%20the%20Federal%20Capital%20Territory

[13] Olayinka, A. T., Oyemakinde, A., Balogun, M. S., Oke, O., Kassam, N., Abba, M., ... & Mba, N., 2015. Preparing for Ebola virus disease in Nigeria: experience from two states. *BMC Public Health*, 15(1), 1-10

[14] Ondo Budget, 2021. Medium Term Sector Strategy (MTSS) Health Sector. https://www.ondobudget.org/materials/Health%20MTSS%202022%20-%202024.pdf

[15] Azuka S. A., Adewale V. O., Chukwuma D. U., Okedo-Alex I. N., Usman A. B., Muawiyya B. S., 2021. Knowledge and practices of foodstuff traders on Lassa fever and rodent control in Izzi Local Government Area, Ebonyi State, Nigeria. *Journal of Interventional Epidemiology and Public Health*. 4(3).

[16] Ipadeola A.F., Akinnola, O. O., Kolawole, O. M., Isere, E. E., Timothy, T. A., Lazarus Oyenma Omenyi, L. O., Oladokun, O. D., Oyewunmi, K. O., Ekun, O. O., Stellamaris Uche Oparaocha8, Dorcas Yetunde Obazee9, Comfort Ndaks10, Ewa, E. E., Olasehinde, G. O., 2024 Assessment of knowledge and practices towards the diagnosis of arboviral infections amongst healthcare workers in Lagos State and the Federal Capital Territory: a cross-sectional study. *Pan African Medical Journal*. 49(124). Doi: 10.11604/pamj.2024.49.124.44504.

[17] Ilesanmi, O. S., Kareem, A. O., Afolabi, A. A., Kareem, A. J., & Ukwenya, V., 2021. Risk perception, knowledge, attitude and practices towards covid-19 and lassa fever prevention among doctors and nurses in a treatment centre in nigeria. *Annals of Ibadan postgraduate medicine*, 19(1), S8–S14.

[18] Kamara, A. S., Fatoma, P., & Moseray, A., 2024. The Perspectives of Healthcare Professionals on the Strategies, Challenges, and Community Responses to Health System Response and Interventions Towards Lassa Fever Infections and Mortality in Sierra Leone. *Risk management and healthcare policy*, 17, 1127–1149. https://doi.org/10.2147/RMHP.S455254

[19] Mamo, E., Tsehay, D., Hassen, S., Getahun, S., Mengiste, A., Tadesse, B., Tadesse, T., Legesse, M., Bobosha, K., 2024. Training and Active Case Detection to Prevent Leprosy: Effect on Knowledge, Attitude and Skills of Health Workers on Early Diagnosis of Leprosy in a Leprosy Hotspot District in Ethiopia. *Tropical Medicine and Infectious Disease*. 9(3), pg 51.