

Background

Lassa fever, a viral hemorrhagic zoonotic disease, has become increasingly endemic in Nigeria, with a concerning shift from seasonal to year-round transmission. This study analysed national Lassa fever trends from 2019 to 2023, examining the magnitude and distribution of cases by person, place, and time. The findings will inform public health policy and guide interventions to mitigate the impact of Lassa fever in Nigeria which shares borders with Benin Republic, Niger, Chad and Cameroon.

Methods

Study area:
Nigeria, West Africa

Study population:
Residents suspected for Lassa fever and confirmed by RT-PCR

Data Collection:
Lassa fever laboratory line list - MS Excel spreadsheets from Nigeria CDC

Study design:
Descriptive epidemiological study

Study period:
5 years, 2019 -2023

Data analysis:
Frequencies, proportions, MS Excel, QGIS

Ethical Approval:
NHREC/01/01/2007-01/04/2024

Results

Table 1: Demographics and incidence of confirmed Lassa fever cases in Nigeria 2019-2023

Demographics	2019	2020	2021	2022	2023	Cumm.
Age range (years)	0-90	0-91	0-90	0-90	0-93	0-93
Predominant age group	21-30	21-30	21-30	21-30	21-30	21-30
Male to female ratio	1:0.8	1:0.8	1:0.9	1:0.8	1:0.9	1:0.9
Cases, Incidence	2019	2020	2021	2022	2023	Cumm.
Suspected	5335 (15.6%)	6696 (19.8%)	4725 (14.0%)	7719 (22.8%)	9340 (27.6%)	33,815
Confirmed	726 (13.6%)	995 (14.9%)	702 (14.9%)	1019 (13.2%)	1207 (12.9%)	4,649
Incidence per million	3.43	4.56	3.12	4.38	5.03	4.12

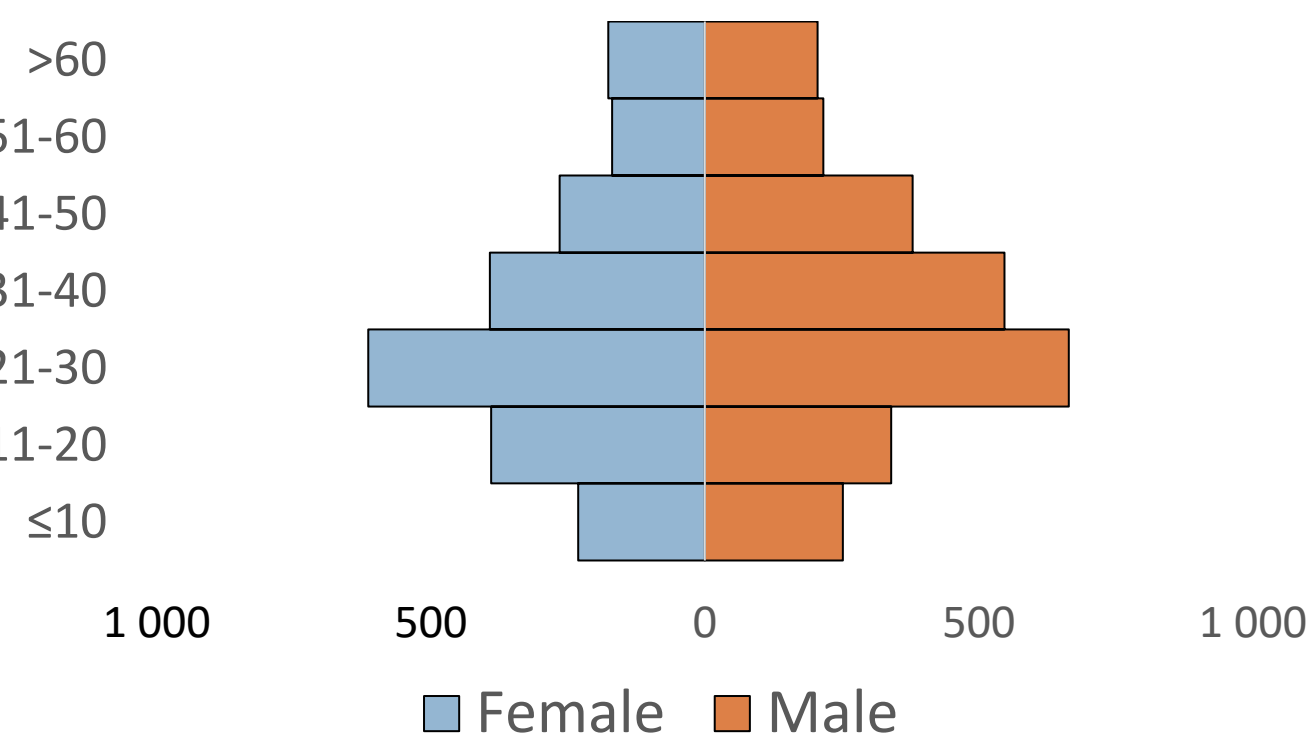


Figure 1: Age-Sex distribution of confirmed Lassa fever cases in Nigeria, 2019-2023

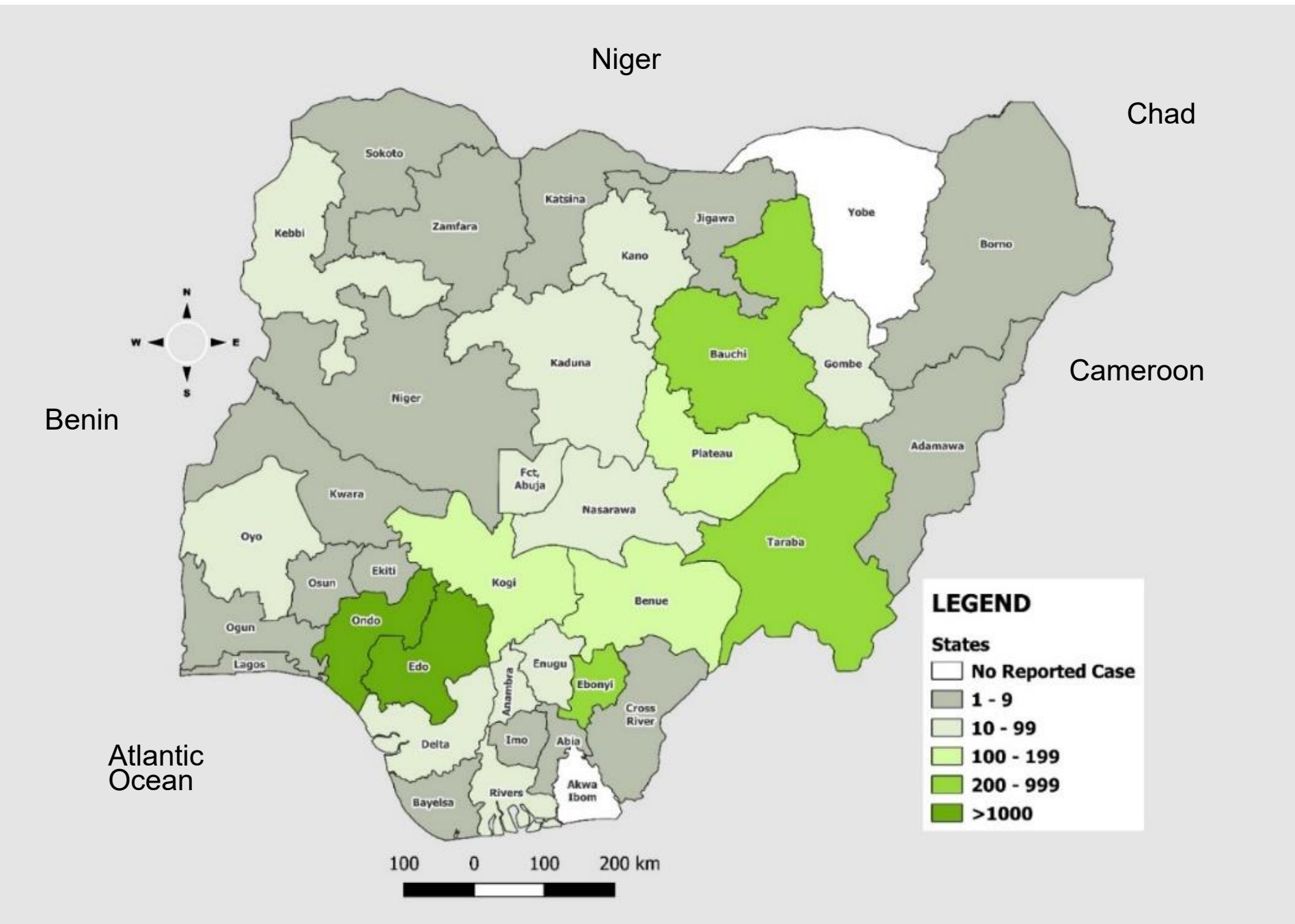


Figure 2: Distribution of confirmed Lassa fever cases across states in Nigeria, 2019-2023

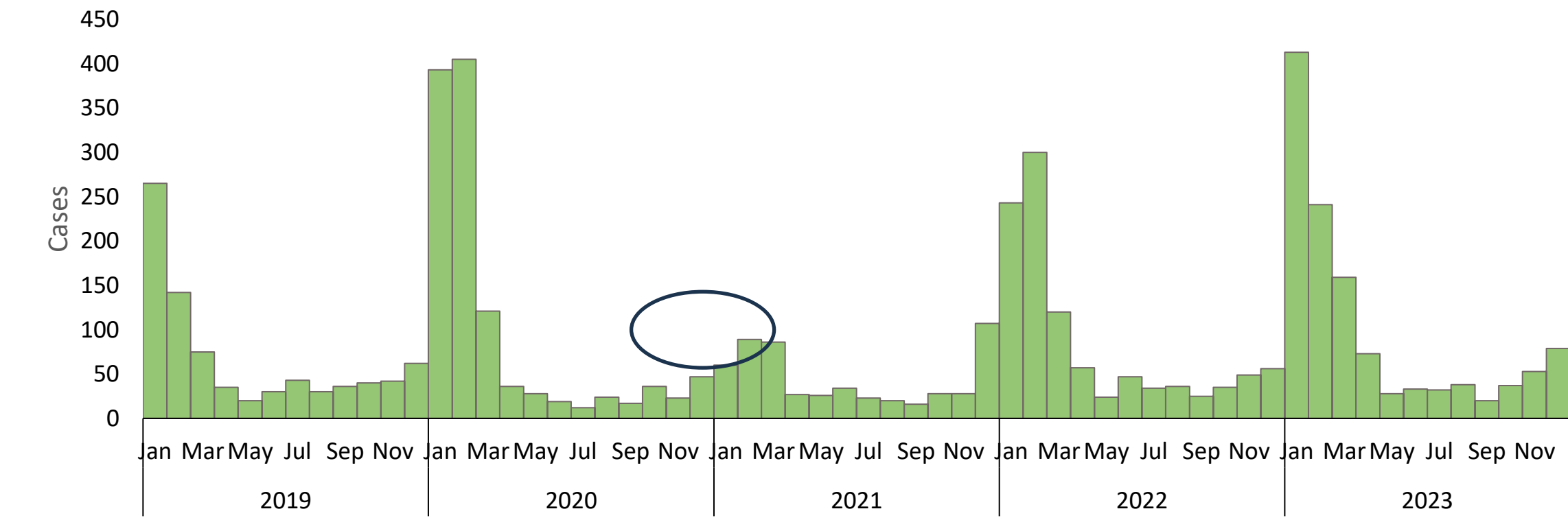


Figure 3: Epi-curve of confirmed Lassa fever cases in Nigeria, 2019-2023

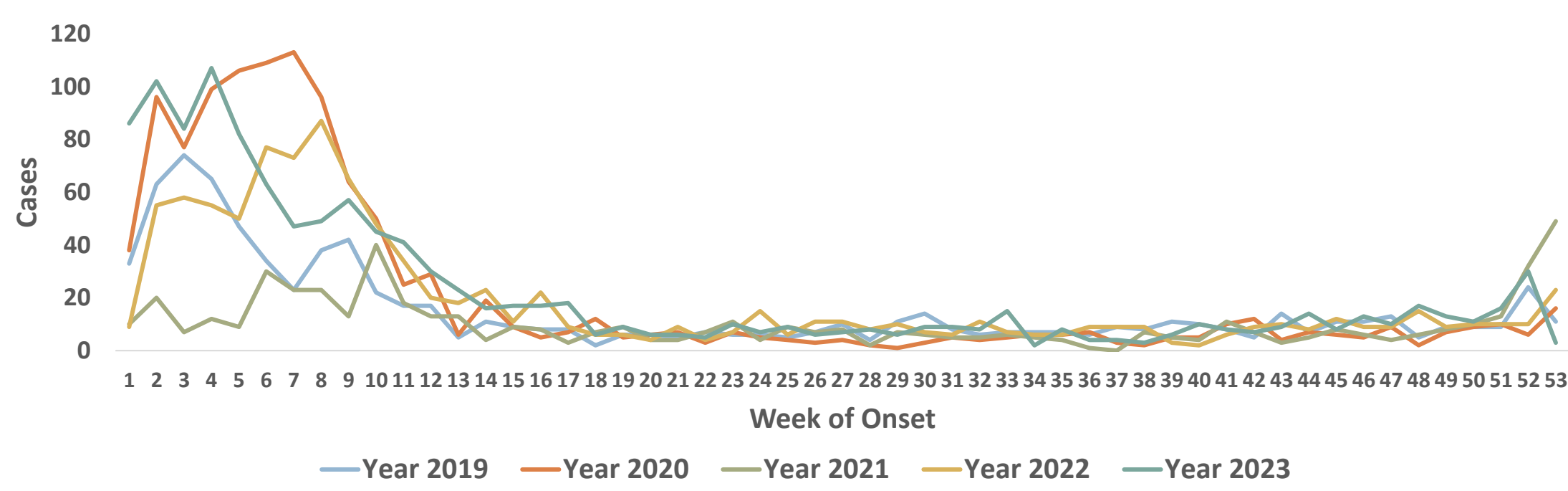


Figure 4: Weekly trend of confirmed Lassa fever cases in Nigeria, 2019-2023

Conclusions and Recommendations

- All year-round transmission with seasonality of outbreaks seems to have become the new normal for LF in Nigeria.
- The spread is across almost all states of the federation, affecting both sexes, all ages especially the young and strong age bracket
- Improved sensitisation, community stakeholder engagement, risk communication, detection and preparedness at the national and subnational levels are recommended especially before established outbreak seasons, as well as heightened cross-border surveillance and information sharing which are more important now with almost all border states having reported confirmed cases over the period.

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