COVID-19 Impact on Lassa Fever Spread and Mortality in Nigeria: Evidence from National Disease Surveillance Data

Victoria Etuk¹ Oyewole Oyedele¹ Imoiboho Williams¹

¹Institute Of Human Virology, Nigeria

The Global Health Network

URL: https://tghncollections.pubpub.org/pub/clj2o6eh
License: Creative Commons Attribution 4.0 International License (CC-BY 4.0)
Background: Lassa Fever (LF) is a disease of public health concern globally, with Nigeria as the epicenter of the disease. From 2020 till date, Nigeria has battled with dual epidemics of COVID-19 and Lassa Fever, with more attention on the former. This study seeks to investigate the spread pattern and case fatality rate of Lassa Fever before and during the COVID-19 pandemic in Nigeria.

Methodology: A secondary analysis of epidemiological data on Lassa fever from the weekly situation reports of the Nigeria Centre for Disease Control. Data from 2017 to 2019 were grouped as pre-COVID, while data from January 2020 to June 13, 2022 were grouped as intra-COVID. Descriptive statistics was used to report frequencies, while Shapiro-Wilk, t-test and ANOVA (Bonferonni posthoc test) was applied to assess difference across the periods. Analysis was carried out using Stata version 17.

Results: There was a 95% increase in the number of LF cases, from 1622 cases prior to the COVID-19 pandemic, to 3167 cases during the COVID-19 pandemic in Nigeria. LF spread across 30 states prior to the COVID pandemic, but was reported in 29 states during the pandemic. There was a 90% increase in the number of deaths pre and during COVID-19 pandemic from 360 deaths to 610 deaths. The case fatality rate changed from 22% prior to the COVID pandemic and 19% during the COVID-19 pandemic. The number of cases and mortality were significantly different (p<0.001) across different years (2017 - 2022), with posthoc analysis highlighting significant difference in the intra-COVID period (2020 – Mid 2022).

Conclusion: There has been a change in the infection pattern and mortality of LF pre and during the COVID-19 pandemic. While efforts have been geared towards curbing the COVID pandemic, Lassa Fever continues to spread with increase in fatality. Targeted public health strategies that can tackle the spread