

Low Lassa fever case count and the COVID-19 response in Nigeria: A cursory review of the 2021 COVID-19 and Lassa fever surveillance data January to May 2021

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Abstract Reference

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The low number of suspected and confirmed cases may be **reflective of reality and Lassa fever surveillance may not have been adversely affected by COVID-19 pandemic**

BACKGROUND

- In the last five years, more than 72% of annual Lassa fever (LF) cases in Nigeria occurred between January and May, commonly referred to as LF high transmission season
- However, 281 LF cases were reported within this period in 2021, significantly lower than 1027 cases reported in 2020
- It is generally proposed that the low LF cases may be due to COVID-19 pandemic
- This study aims to determine relationship between LF and COVID-19 surveillance in Nigeria between January and May 2021

METHODS

- The 2020 and 2021 data for LF and COVID-19 January to May were analyzed (2017-2021)
- Case counts were compared across states reporting confirmed cases for both diseases
- Number of suspected cases and test positivity rate were used as proxy for suspicion
- Relationship between suspected and confirmed COVID-19 and LF cases in the 14 states that reported confirmed LF cases between January and May 2021 was determined using Spearman correlation coefficient and test of significance was conducted

RESULT (1)

- There was 42.8% reduction in number of suspected LF cases in 2021 compared to 2020 in the 14 states that reported confirmed cases in 2021
- However, test positivity rate of 22.3% was recorded in 2020 compared to 15.1% recorded in 2021

RESULT (2)

- There was a moderate positive correlation ($r = 0.473$, p value = 0.103) between number of suspected LF and COVID-19 cases in the 14 states, but almost no correlation ($r = 0.017$, p value = 0.957) between number of confirmed LF and COVID-19 cases

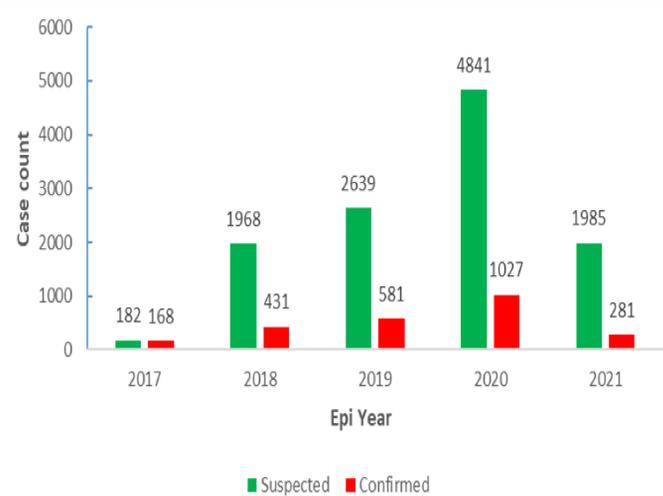


Figure 1. Lassa fever cases in Nigeria Jan- May, 2017-2021.

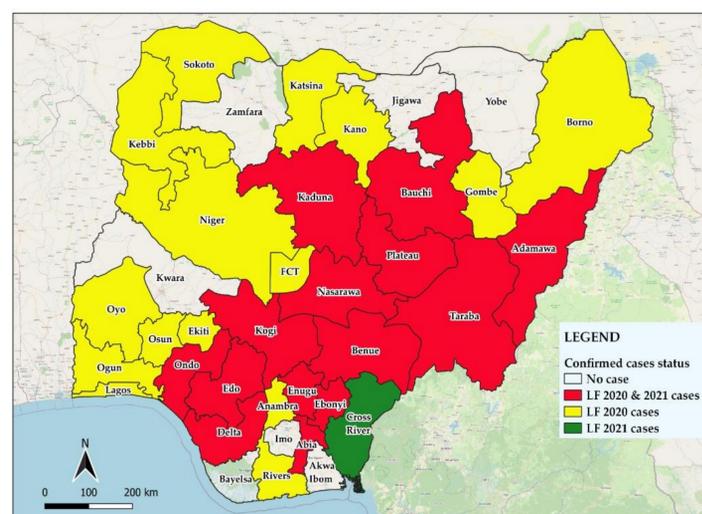


Figure 2. Maps showing states reporting LF and COVID-19 cases in Nigeria

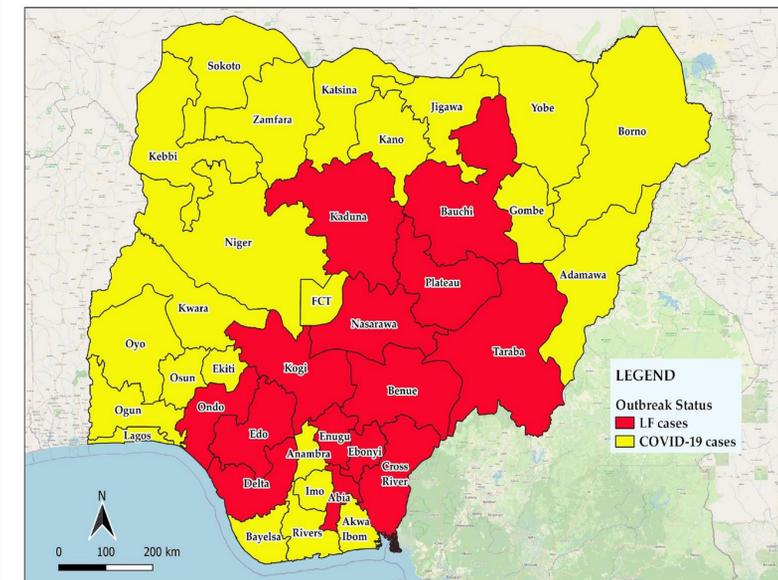


Figure 3. States reporting LF outbreaks and COVID-19 in Nigeria

CONCLUSIONS

- Suspicion for LF seems to increase with increasing suspicion for COVID-19 although cumulative cases were lower than previous years
- The low number of suspected and confirmed cases may be reflective of reality and LF surveillance may not have been adversely affected by COVID-19 pandemic. Hence, the need to explore the factors responsible for the reduction in 2021 LF cases

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