

**Methods** Serum samples obtained between December 2021 and April 2022 from 330 HIV-positive consented patients were tested for LASV IgG and/or IgM antibodies specific for LASV nucleoprotein and/or prefusion envelope glycoproteins using ReLASV® Pan-Lassa IgG/IgM ELISA Test Kit according to the manufacturer's instructions. Data were analysed using SPSS and GraphPad.

**Results** Analysis of these samples showed that IgG and IgM antibodies were detected in 2.4% (8/330) and 1.8% (6/330) samples respectively. All the IgM positive samples were also positive for IgG. Our data showed that both IgG and IgM antibodies do not depend ( $p>0.05$ ) on age, gender and duration of antiretroviral therapy (ART) though the prevalence was high in age group <25 years, males, and those who had taken ART for <5 years. The mean OD of both IgG (0.06 Vs 0.03) and IgM (0.88 Vs 0.04) were significantly higher ( $p<0.05$ ) between LAVS positive and negative cases.

**Conclusion** Our results are the first to detect LASV antibodies in Cameroon. With increase movement and porosity of the border, it is plausible that exposure to LASV is inevitable. This has direct implications for understanding the transmission risk, mitigation, and eventually the prevention and control of LASV in Cameroon. Our results indicate the urgent need to extend LASV surveillance in other part of Africa.

#### PA-45 LASSA FEVER OUTBREAK INVESTIGATION, SUAKOKO DISTRICT, BONG COUNTY, LIBERIA, 2023

<sup>1,2</sup>G Burgess Gbelee\*, <sup>1,2</sup>Louisa K Cassell, <sup>3</sup>James Kormosee, <sup>1</sup>Ralph Jetroh, <sup>2</sup>Harriet A Bonful, <sup>4</sup>Elijah Paa Edu-Quansah. <sup>1</sup>National Public Health Institute, Liberia, Liberia; <sup>2</sup>Ghana Field Epidemiology and Laboratory Training Program, Ghana; <sup>3</sup>Bong County Health Team, Liberia; <sup>4</sup>African Field Epidemiology Network, Liberia

10.1136/bmjgh-2023-EDC.69

**Background** Lassa fever causes morbidity and mortality in Africa. An estimated 100,000 to 300,000 cases of Lassa virus infection and 5,000 fatalities occur in West Africa annually. Lassa fever accounts for 10%–16% of hospital admissions in Liberia and Sierra Leone annually. On the 6th of January 2023, the Bong County Health Team confirmed Lassa fever in a student nurse at Phebe Hospital, Liberia. Five additional cases were reported before the 15th of January 2023. We investigated the source, magnitude, identified and traced contacts, and implemented control measures.

**Methods** We reviewed medical records from December 2022 in the hospital, and interviewed health workers and contacts. We modified the case definition, listed contacts, followed up for 21 days using checklist, and tested suspected cases. We performed descriptive analysis using Microsoft Excel 2016. Results were presented in frequencies, proportions, and median and displayed in tables, graphs, and maps.

**Results** A total of 15 persons were suspected and tested for the Lassa virus from January 6 - 31, 2023. Of these, 53.3% (8/15) were positive for the Lassa virus, with a case fatality rate of 25% (2/8). Fifty percent (4/8) were health workers. The median age range for the cases was 34 (6–48) years. Males accounted for 62.5% (5/8). Seventy-two contacts were listed, 4.2% (3/72) of the contacts became cases. Forty-two percent (3/7) of the additional cases were health workers linked to the index case. Fifty percent of the cases were imported from other counties. The index was a student nurse who worked in the hospital on December 12, 2022, on a missed Lassa fever case.

**Conclusion** The outbreak was sporadic, however among the health workers it was hospital-acquired due to a missed case of Lassa fever and improper hygiene measures. We recommend training and supplies for health workers, especially affiliating students.

#### PA-46 COVID-19 SURVEILLANCE DATA ANALYSIS, MONZE DISTRICT, ZAMBIA, 2022

<sup>1,2</sup>William Nsemami\*, <sup>2</sup>Bismark Sarfo, <sup>3</sup>Fortress Aku, <sup>2</sup>Charles Noora, <sup>2</sup>Donne Ameme, <sup>1</sup>Mildred Meleki, <sup>2</sup>Ernest Kenu. <sup>1</sup>Ministry of Health, Zambia; <sup>2</sup>Ghana Field Epidemiology and Laboratory Training Programme, School of Public Health, University of Ghana, Ghana; <sup>3</sup>Department of Epidemiology and Biostatistics, Fred Binka School of Public Health, University of Health and Allied Sciences, Ghana

10.1136/bmjgh-2023-EDC.70

**Background** COVID-19 remains a public health threat globally. As part of control measures, the Zambian government integrated it into the IDSR, hence the need to regularly analyse COVID-19 data to inform decisions. This analysis was done to assess COVID-19 descriptively, and to generate hypothesis of factors associated with its mortalities in Monze district.

**Methods** Between 31st October 2022 and 9th December 2022, we conducted a cross-sectional review of COVID-19 cases and mortalities for the period 1st June 2020 to 30th June 2022. Data were extracted from COVID-19 line list and analysed using EpiInfo. Results were presented in tables and graphs.

**Results** Between June 2020 and June 2022, Monze district recorded 3141 cases of COVID-19, where 54.2% (1702/3141) were females however, 66% (51/77) of males died of COVID-19 compared to females. The median age was 31 years (IQR 22 – 43) with case fatality rate of 2.5% (77/3141). Most 71.3% (2239/3141) of those who were infected reside in urban area. Majority 28.4% (891/3141) of cases were from 21 – 30 years whilst most 53.2% (41/77) of mortalities were from 71 years and above. Most 29% (912/3141) of cases and 32.5% (25/77) mortalities occurred in June 2021. Sex and age were associated with COVID-19 mortalities.

**Conclusion** More females were infected whilst more males died from COVID-19. The most infected age group was 21 – 30 years. Higher mortalities were recorded in the age group 71 years and above. Majority of the cases were from urban areas. Most cases and mortalities occurred in June 2021. Further studies are required to determine higher reported cases among females, urban settings, 21–30 age group and deaths in the elderly.

#### PA-49 LASSA FEVER OUTBREAK INVESTIGATION IN WEIJA-GBAWE MUNICIPALITY, GREATER ACCRA REGION, GHANA, 2023

<sup>1,2</sup>Grace Adjoo Ocansey\*, <sup>1</sup>Benedict Adzogble, <sup>1,2</sup>Happy Ametorwodua, <sup>1,2</sup>Ebenezer Owusu-Wireko, <sup>1</sup>Doris Aboagyewaa Edu-Quansah, <sup>1</sup>Valentine Opoku-Menkah, <sup>2</sup>Naomi Apea, <sup>2</sup>Sophia Armah, <sup>1</sup>Charles Lwanga-Noora, <sup>1</sup>Ernest Kenu. <sup>1</sup>Ghana Field Epidemiology and Laboratory Training Programme (GFELTP), School of Public Health, University of Ghana, Ghana; <sup>2</sup>Ghana Health Service, Ghana

10.1136/bmjgh-2023-EDC.71

**Background** Lassa fever, an acute viral haemorrhagic and zoonotic disease has high case-fatality among hospitalised patients. We investigated an outbreak of Lassa fever in Weija-Gbawe