SITUATION: LASSA FEVER OUTBREAK	**LOCATION: LIBERIA**
DATE OF REPORT: APRIL 19, 2024	**OUTBREAK START D ATE: JAN 6, 2022**
REPORTING PERIOD: APRIL 13 -19, 2024	**SITREP NO: 99**

HIGHLIGHTS

- Two (2) new confirmed cases including one death reported from Bong (dead) and Nimba Counties
- Thirty-six (36) contacts including 17 healthcare workers (HCWs) identified and line listed
- Total of 57 contacts including 17 HCWs under 21 days follow up
- Total of 145 confirmed cases including 43 deaths reported
- Cumulative Case Fatality Rate (CFR): 30% (43/145)
- Two counties (Bong & Nimba) currently in outbreak

SITUATIONAL CONTEXT

Lassa fever (LF) is an acute viral hemorrhagic illness that is endemic in West Africa, including Benin, Ghana, Guinea, Liberia, Mali, Sierra Leone, and Nigeria. The incubation period ranges from 2-21 days and transmitted to humans via contact with food or household items contaminated with infected rodent urine or feces. The signs and symptoms are usually gradual, but start with fever, general weakness, malaise, and later headache, sore throat, muscle pain, chest pain, nausea, vomiting, diarrhea, cough, and abdominal pain or facial swelling, and bleeding.

LF is a major public health concern in Liberia. To date, eight (8) out of the fifteen (15) counties (Bong, Grand Bassa, Nimba, Margibi, Lofa, Montserrado, Grand Kru, and River Gee) have reported confirmed cases. Bong, Grand Bassa, and Nimba counties are endemic, while Margibi, Lofa, Montserrado, Grand Kru, and River Gee have reported sporadic cases.

In 2021, the country recorded 12 outbreaks including 25 laboratory-confirmed cases with 15 deaths accounting for a 60% case fatality rate (CFR). These outbreaks generated 325 contacts of which 196 were healthcare workers (HCWs).

From January 6, 2022 to present, we recorded 16 outbreaks. The ongoing outbreak, which started January 6, 2022 in Bong County, has recorded 145 laboratory-confirmed cases including 43 deaths (CRF 30%). A total of 1179 contacts have been recorded including 416 healthcare workers.

Table 1: Summary of Lassa fever Outbreak, Liberia, January 6, 2022 – April 19, 2024

County	Outbreak Districts	Outbreak Start Date	Total suspected	Total confirmed	HCWs confirmed	Total Deaths	Deaths in HCWs	CFR %	Total Contacts	# HCW contacts	Contacts_ became cases	Contacts under follow up	Contacts completed	Days in countdown	Outbreak Status
Montserrado	Bushrod	13-Feb-23	17	1	0	0	0	0%	29	21	0	0	29	Completed	Over
	Central Monrovia	27-Nov-23	1	2	0	1	0	50%	49	0	0	0	49	Completed	Over
	Central Monrovia	3-Mar-23	38	2	0	1	0	50%	28	27	0	0	28	Completed	Over
	Suakoko	21-Apr-24	192	54	18	13	2	24%	496	114	6	0	417	Completed	Over
Bong	Jorquelleh	15-Oct-23	14	6	3	1	1	17%	121	86	3	0	169	Completed	Over
	Suakoko	23-Feb-24	8	2	0	0	0	0%	21	10	0	0	16	Active	Ongoing
	Salala	8-Mar-24	2	2	0	1	0	50%	21	0	0	21	0	Active	Ongoing
	Jorquelleh	11-Apr-24	2	1	0	1	0	0%	22	0	0	22	0	Active	Ongoing
Grand Bassa	District 3A&B	21-Aug-23	87	44	0	10	0	23%	177	40	40	0	159	Completed	Over
	Buchanan	11-Aug-23	2	1	0	1	0	100%	4	2	0	0	4	Completed	Over
Nimba	Saclepea-Mah	21-Nov-23	4	2	0	1	0	50%	5	0	0	0	5	Completed	Over
	Sanniquellie-Mah	6-Feb-23	42	15	0	6	0	40%	43	35	8	0	43	Completed	Over
	Tappita	20-Nov-23	12	5	0	3	0	60%	88	39	4	0	77	Completed	Over
	Bain-Garr	1-Jun-23	24	6	0	3	0	50%	61	25	0	0	31	Completed	Over
	Bain-Garr	15-Apr-24	1	1	0	0	0	0%	14	0	0	14	0	Active	Ongoing
River Gee	Putupo	25-Nov-22	1	1	0	1	0	100%	14	0	0	0	14	Completed	Over
Total			**447**	**145**	**21**	**43**	**3**	30%	**1193**	**399**	**61**	**57**	**1041**		

Bong County: Jorquelleh, Suakoko and Salala Districts

- One confirmed death reported from Jorquelleh District
  - A 37-year-old female resident of Brooklyn Community, Jorquelleh District. Symptoms onset was on March 29, 2024 and presented with fever, abdominal pain headache and weakness. On April 1, 2024, she visited the C.B. Dumbar Hospital very weak with fever. Initial laboratory test confirmed urinary tract infection and malaria and was admitted on the maternity ward for treatment. Obstetric history revealed the case to be a multigravida housewife and 29 weeks' gestational age. On April 7, 2024 the case condition declined to bleeding from IV injection sites and spotting vagina fluids. The Doctor suspected Lassa fever on April 8, 2024, notified the District Surveillance Officer on the same day. Two whole blood specimens were collected on the same day: one sent to the UNC research lab while the other specimen was sent to the National Public Health Reference Laboratory for confirmation. On April 9, 2024, the UNC research lab confirmed Lassa fever positive PCR through test and referred to Phebe Hospital Lassa fever treatment unit. On the same day, the DSO line listed 22 contacts including 17 HCWs, engaged and sensitized the family members, and organized community health volunteers to follow-up the contacts. The case died on April 11, 2024 at the Phebe Lassa fever treatment unit, safe & dignified burial conducted on April 12, 2024. On 15, 2024, the NPHRL released Lassa fever positive result.

- Cumulative confirmed cases: 5
  - Suakoko District: 2
  - Salala District: 2
  - Jorquelleh District: 1
- CFR (2/5): 40%
- Total of 65 contacts including 27 healthcare workers identified and line listed
  - Twenty-one (21) contacts including 10 HCWs completed 21 days follow up
  - Total of 44 contacts under 21 days follow up

Nimba County: Bain-Garr District

- One confirmed case was reported from Bain-Garr District
  - HN, a 10-year-old male resident of CNC Community, Bain-Gar District with onset on April 4, 2024 presented at the Ganta United Methods Hospital on April 11, 2024 with fever > 38.5°C, vomiting, abdominal pain, diarrhoea with visible blood, sore throat, nausea, anxiety, headache. According to the mother, the child was treated at home with antimalarial drugs and other antibiotics one week prior but unsuccessful. The attending clinician suspected Lassa fever, immediately isolated, and notified the health facility surveillance focal person. Specimen was collected on April 11, 2024, sent to the National Public Health Reference Laboratory on April 12, 2024, and ribavirin treatment initiated. A total of 14 contacts were line listed by the health facility surveillance focal person including 9 health care workers. On April 15, 2024, the National Public Health Reference Laboratory confirmed Lassa fever through RT-PCR test and released result on April 16, 2024. Upon receipt of the result, the county immediately informed the district and the health facility as well as the family of the patient. The patient is alive and improving in isolation. Risk assessment is ongoing to classify contacts as high or low risk.

- Cumulative confirmed cases: 1
- Bain-Garr District: 1
- CFR (0/1): 0%
- Fourteen (14) contacts identified and line listed

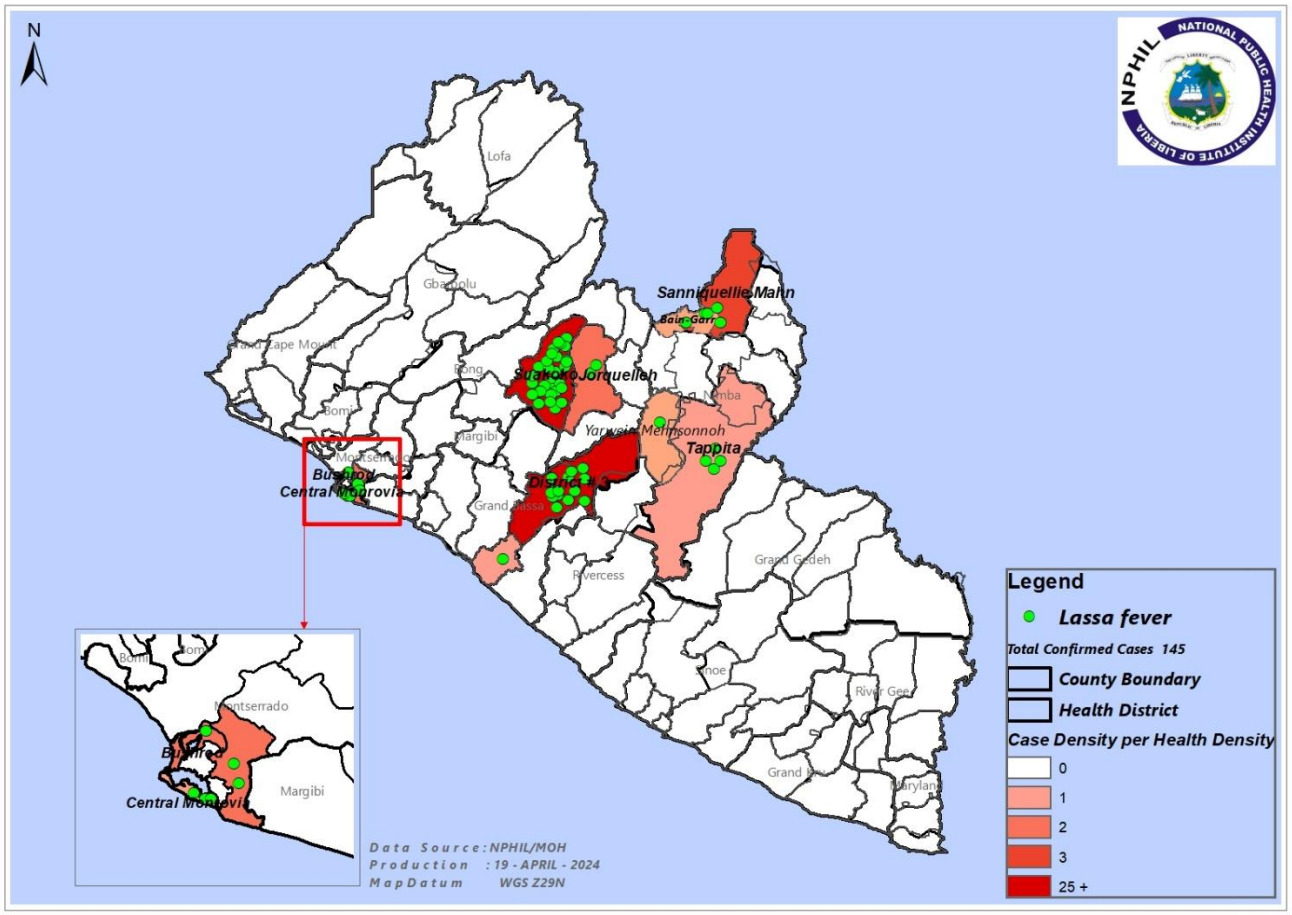

Figure 1: Distribution of Confirmed Lassa fever cases by Health District, Jan 6, 2022-April 19, 2024

Table 2: Summary of Lasa fever cases and samples, Liberia, Jan 6, 2022–April 19, 2024

Variables	2022 & 2023 Epi wk 1-52	2024 Epi wk 1-15	Total
Total suspected cases reported to the national level	**439**	**61**	**500**
Total samples collected	**437**	**61**	**498**
Total samples tested	**416**	**59**	**475**
Total samples not collected OR samples collected but not sent to NRL	**20**	**1**	**21**
Total samples pending testing	**0**	**2**	**2**
Total samples collected & rejected by the Laboratory	**3**	**0**	**3**
Total Laboratory confirmed	**138**	**7**	**145**
Total confirmed cases alive	**97**	**5**	**102**
Total deaths among confirmed cases	**41**	**2**	**43**
Overall case fatality rate (CFR)	**30%**	**0%**	**30%**
Total confirmed cases currently in isolation	**0**	**1**	**1**
Total suspected cases in isolation	**0**	**0**	**0**

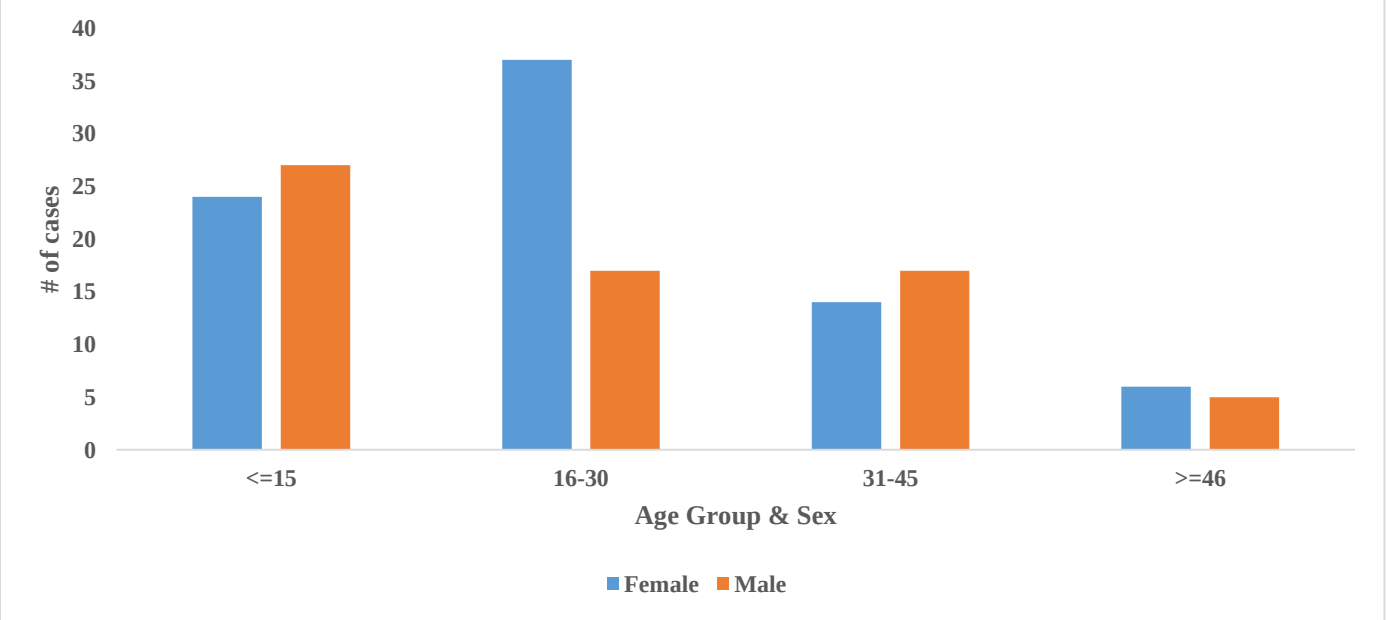

Figure 2: Distribution of confirmed Lassa fever cases by Age and Gender, Liberia, Jan. 6, 2022-April 19, 2024

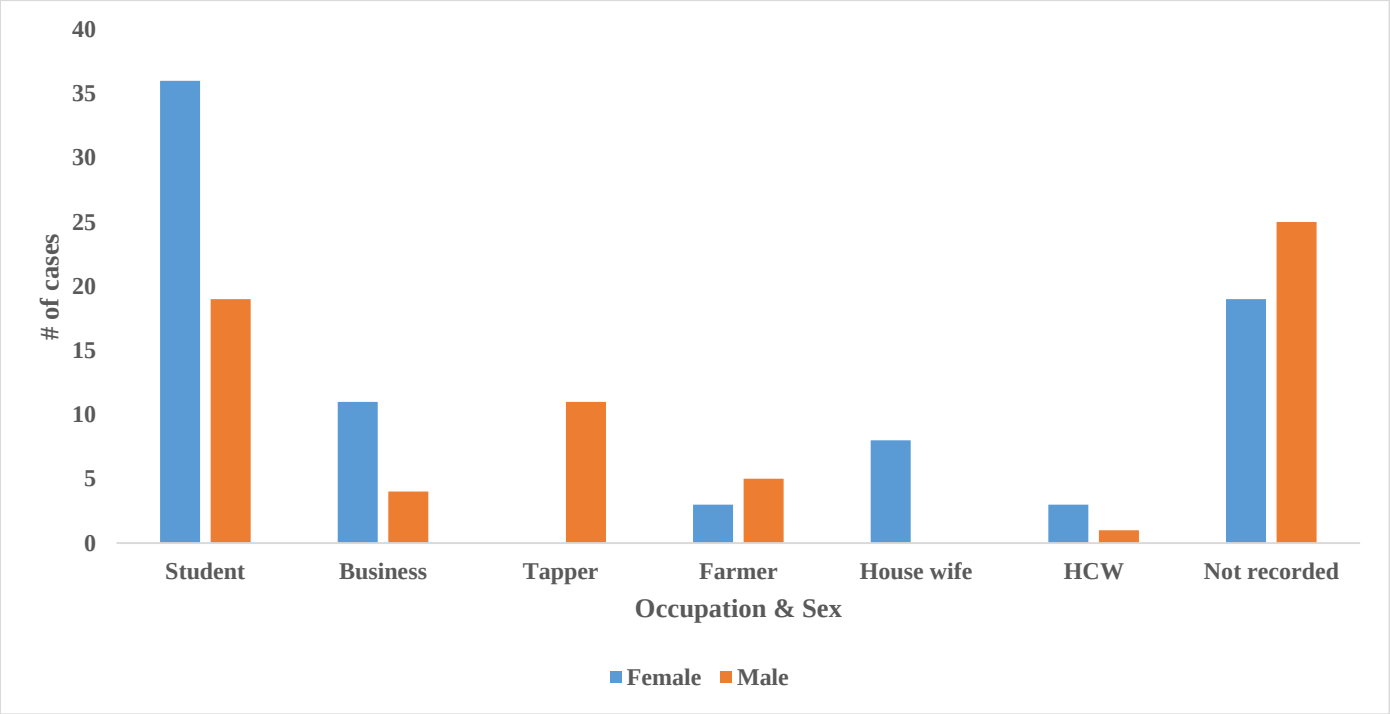

Figure 3: Distribution of confirmed Lassa fever cases by Occupation and Gender, Liberia, Jan. 6, 2022 – April 19, 2024

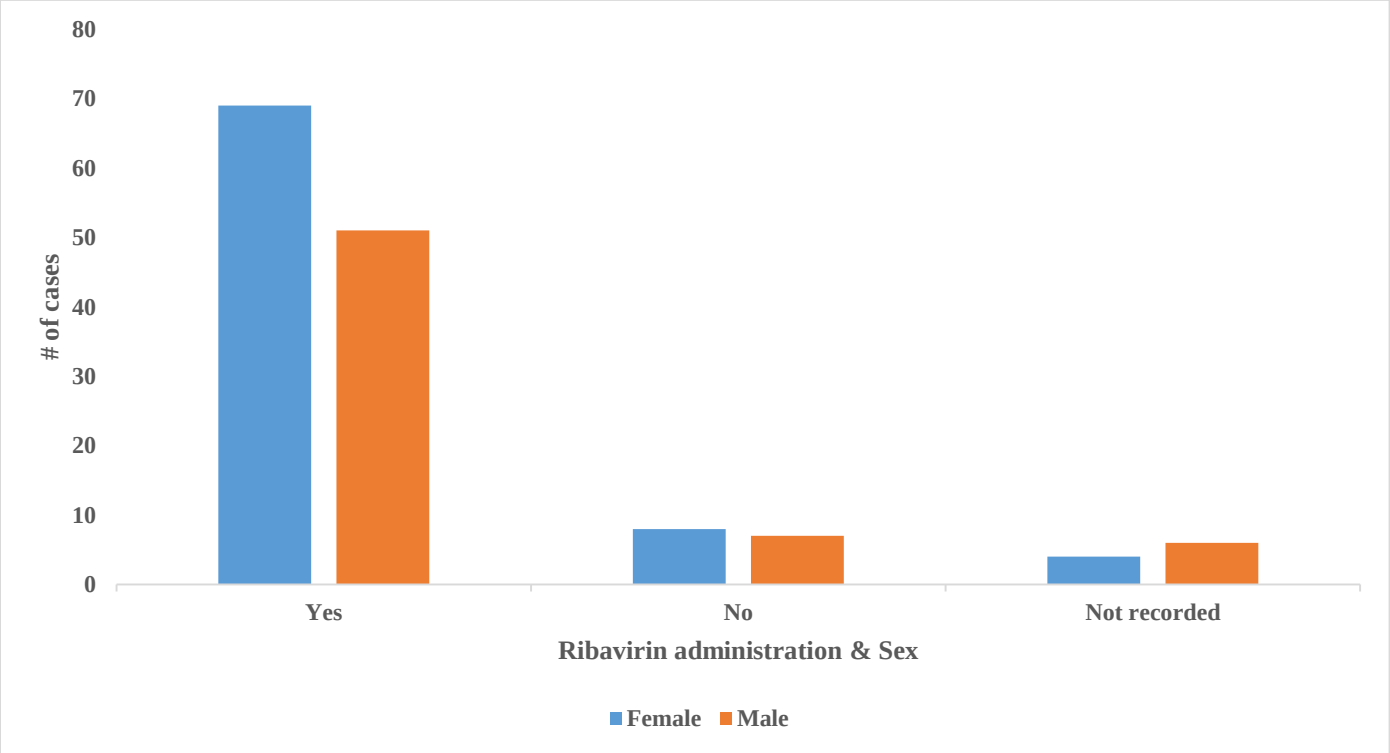

Figure 4: Confirmed Lassa fever cases by Ribavirin administration and Outcome, Liberia, Jan. 6, 2022 – April 19, 2024

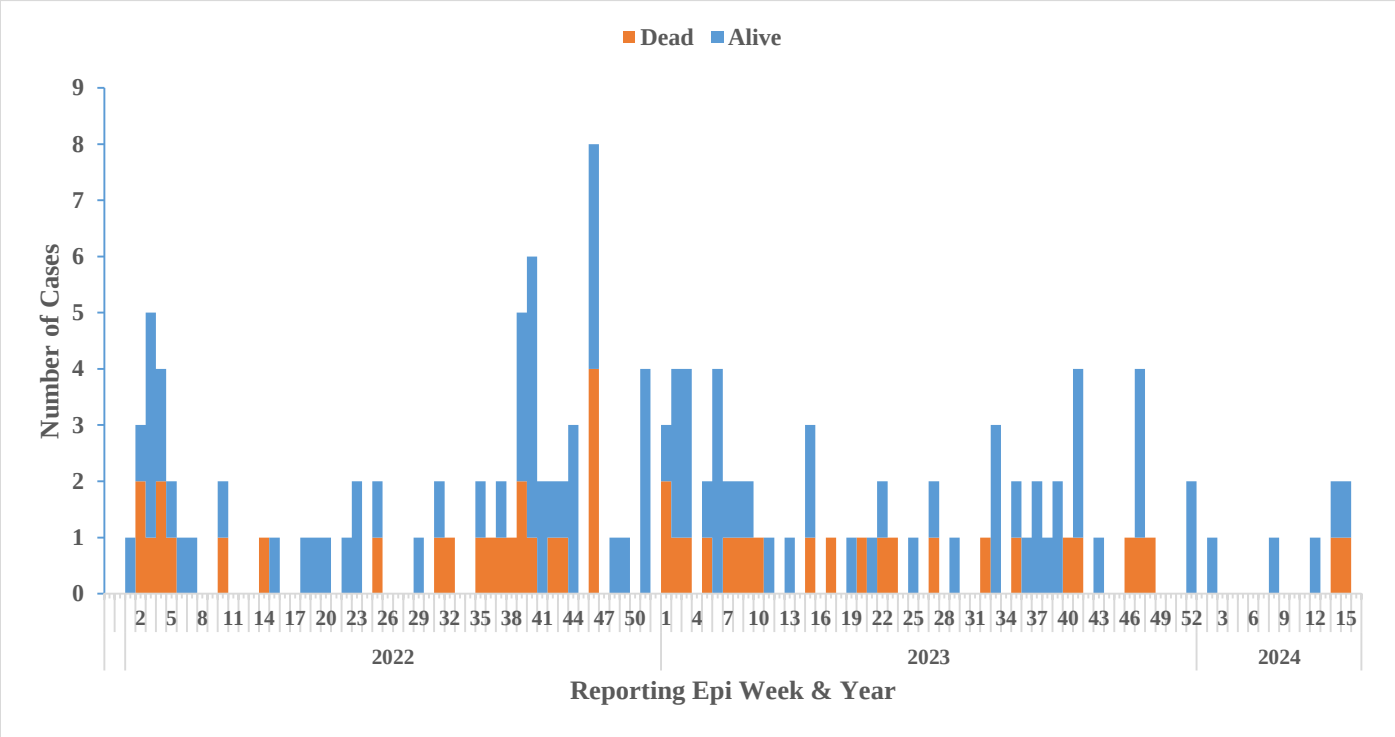

Figure 5: Epi-curve of confirmed Lassa fever cases and deaths by reporting Epi week & Year, Liberia, January 6, 2022-April 19, 2024

PUBLIC HEALTH INTERVENTIONS

Since the inception of the 2022 outbreak, several measures including response initiatives have been instituted including surveillance and laboratory testing, vector surveillance and control, case management, etc. These interventions aim to protect at-risk populations; prevent international spread; containing outbreaks rapidly. Below are details of the measures taken in the ongoing outbreak:

I. Coordination

- The response has been led by the County Health Teams with technical support from the National Public Health Institute of Liberia (NPHIL), the Ministry of Health (MOH) and partners
    - The Incident Management Systems (IMSs) have been activated in the affected counties
    - The PHEOCs in the response counties are in response mode coordinating the response

II. Epidemiological Surveillance

- Active case search and contact tracing ongoing in affected communities and districts
- Thirty-six (36) contacts including HCWs identified and line listed
- Situational reports have been developed and disseminated to stakeholders

III. Laboratory

- The National Public Health Reference Laboratory continues testing of Lassa fever samples
- Total of 145 Lassa fever cases have been confirmed since this outbreak

IV. Case management and IPC

- The confirmed case has been treated at Ganta United Methodist Hospital isolation

- Ribavirin supply in country and being distributed for treatment of Lf cases to affected counties

V. Risk Communication and Community Engagement

- Risk communication and community engagement ongoing in affected and surrounding communities

VI. Dead Body Management

- The confirmed death was buried under safe and dignified burial condition
- Total of 43 confirmed deaths recorded and buried under safe and dignified condition

VII. Key Challenges

- Limited supply of IPC materials in affected counties
- Lack of IEC materials for community sensitization
- Lack of logistics (gasoline, communication cards, fuel, etc) to support active case search and contact tracing in affected county
- Limited stationeries in the EOC to produce case alert forms, contact tracing form and other tools for investigation

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