



SITUATION: LASSA FEVER OUTBREAK	LOCATION: LIBERIA
DATE OF REPORT: SEPTEMBER 20, 2024	OUTBREAK START DATE: JAN 6, 2022
REPORTING PERIOD: SEPT 14-20, 2024	SITREP NO: 119

HIGHLIGHTS

- **Two (2) new confirmed cases reported from Grand Bassa and Nimba (death) Counties**
- Seventeen (17) contacts including 4 health care workers (HCWs) undergoing 21 days follow up
- A total of 170 confirmed cases including 50 deaths reported
- **Cumulative Case Fatality Rate (CFR): 29% (50/170)**
- Three counties are 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 an immediately reportable disease and 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 60% case fatality rate (CFR). These outbreaks generated 325 contacts including 196 were healthcare workers (HCWs). From January 6, 2022 to present, Liberia has recorded 23 outbreaks. This ongoing outbreak, which started January 6, 2022 in Bong County, has recorded 170 laboratory-confirmed cases including 50 deaths (CRF 29%). A total of 1,484 contacts have been recorded including 573 healthcare workers.

Table 1: Summary of Lassa fever Outbreak, Liberia, January 6, 2022 – September 20, 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	Ended
	Central Monro	27-Nov-23	1	2	0	1	0	50%	49	0	0	0	49	Completed	Ended
	Central Monro	3-Mar-23	38	2	0	1	0	50%	28	27	0	0	28	Completed	Ended
	Bushrod	30-Apr-24	2	1	0	0	0	0%	14	6	0	0	14	Completed	Ended
Bong	Suakoko	21-Apr-23	192	54	18	13	2	24%	496	114	6	0	417	Completed	Ended
	Jorquelleh	15-Oct-23	14	6	3	1	1	17%	121	86	3	0	169	Completed	Ended
	Kokoyah	6-Jun-24	3	1	0	0	0	0%	8	0	0	0	8	Completed	Ended
	Suakoko	29-Jul-24	11	5	1	0	0	0%	37	14	0	0	37	11	Countdown
	Suakoko	23-Feb-24	31	3	0	0	0	0%	29	14	0	0	29	Completed	Ended
	Salala	8-Mar-24	2	2	0	1	0	50%	21	0	0	0	21	Completed	Ended
	Jorquelleh	11-Apr-24	3	2	0	1	0	0%	41	30	0	0	41	Completed	Ended
Grand Bassa	District 3A&B	21-Aug-23	87	44	0	10	0	23%	177	40	40	0	159	Completed	Ended
	Buchanan	11-Aug-23	2	1	0	1	0	100%	4	2	0	0	4	Completed	Ended
	District 3A&B	30-Apr-24	7	3	0	1	0	33%	12	3	0	0	12	Completed	Countdown
	District 3A&B	3-Sep-24	2	2	0	0	0	0%	7	3	0	3	4	Active	Ongoing
Nimba	Saclepea-Mah	21-Nov-23	4	2	0	1	0	50%	5	0	0	0	5	Completed	Ended
	Sannique-lie-Mah	6-Feb-23	43	15	0	6	0	40%	43	35	8	0	43	Completed	Ended
	Tappita	29-Jul-24	5	2	0	1	0	50%	27	24	0	0	27	17	Countdown
	Tappita	20-Nov-23	12	5	0	3	0	60%	88	39	4	0	77	Completed	Ended
	Bain-Garr	1-Jun-23	25	6	0	3	0	50%	61	25	0	0	31	Completed	Ended
	Bain-Garr	15-Apr-24	5	2	0	1	0	50%	25	7	0	0	25	Completed	Ended
Bain-Garr	18-Jul-24	18	8	0	4	0	50%	148	83	1	14	134	Active	Ongoing	
River Gee	Putupo	25-Nov-22	2	1	0	1	0	100%	14	0	0	0	14	Completed	Ended
Total			526	170	22	50	3	29%	1484	573	62	17	1377		

Event Description:

Grand Bassa County: District 3 A&B

One new confirmed case reported from District 3 A&B

- The case patient, **E. L.**, is a 26-year-old male and resident of the MIE community, Compound #3, District #3A&B. He had onset of illness on September 10, 2024, seen and admitted at the Hospital on September 11, 2024 with fever ($>38.5^{\circ}\text{C}$), cough, headache, joint pain, and sore throat. He was initially diagnosed and treated for malaria. On September 12, 2024, he was suspected of Lassa fever and isolated due to persistent fever. A whole blood specimen was collected on September 12, 2024, sent to the National Public Health Reference Laboratory (NPHRL), and ribavirin treatment initiated on the same day. A Lassa fever positive RT-PCR Laboratory result was released to the county on September 19, 2024. Three (3) contacts were identified and line-listed (3 family members). Investigation shows that the case was not epidemiologically linked to any confirmed case. The case is currently in isolation undergoing ribavirin treatment at the Liberia Agriculture Company (LAC) Hospital.
- ☞ Cumulative confirmed cases for the current outbreak: 2
- ☞ CFR (0/2): 0%
- ☞ Total of 7 contacts including 3 HCWs were line listed
 - Four (4) contacts including 3 HCWs have completed 21 days follow up
 - Three (3) contacts are undergoing 21 days follow up
- ☞ One confirmed case was discharged and one is currently in isolation

Bong County: Jorquelleh, Suakoko and Kokoyah Districts

No new confirmed case reported

- ☞ Cumulative confirmed cases for the current outbreak: 13
 - Suakoko District: 8
 - Salala District: 2
 - Jorquelleh District: 2
 - Kokoyah: 1
- ☞ CFR (3/13): 23%
- ☞ The confirmed cases in isolation were treated with ribavirin and discharged
- ☞ Safe and dignified burials conducted for deceased cases
- ☞ Total of 137 contacts including 53 HCWs line listed
 - All contacts have completed 21 days follow up
- ☞ The county has gone 11 days in countdown since the last contact completed follow up (Sept 9, 2024)

Nimba County: Bain-Garr & Tappita Districts

One new confirmed case reported Bain-Garr District

- **PK** is 42-year-old male and resident of the LPRC Community, Bain Garr District, Nimba County. He presented at the E & J Medical Health Center September 10, 2024 with complaints of neck pain, headache, and fever $>38.5^{\circ}\text{C}$, with symptom onset on September 6, 2024. He was suspected of Lassa fever, immediately isolated, specimen collected, sent to the NPHRL and ribavirin treatment initiated on September 10, 2024. The patient died on the same day at about 5:45PM. On September 11, 2024, the health facility conducted safe and dignified burial under the supervision of the district health team. Psychosocial counselling was provided for the family and relatives of the deceased. A Lassa fever positive RT-PCR result was released on September 13, 2024 at about 6:20PM to the county and was immediately communicated to the district and the health facility as well as the family of the deceased. A total of 14 contacts including 10 family members and 4 HCWs were line listed and undergoing 21 days follow up. Risk communication and community engagement meetings are being held in the affected community. Active case search and contact tracing activities are also ongoing in the affected district and community.
- ☞ Cumulative confirmed cases for the current outbreak: 10

- Tappita District: 2
- Bain Garr District: 8
- ☞ CFR (5/10): 50%
- ☞ Total of 176 contacts including 102 HCWs line listed
 - Total of 14 contacts including 4 HCWs undergoing 21 days follow up
- ☞ The confirmed cases were treated and discharged
- ☞ Safe and dignified burials were conducted for the deceased cases

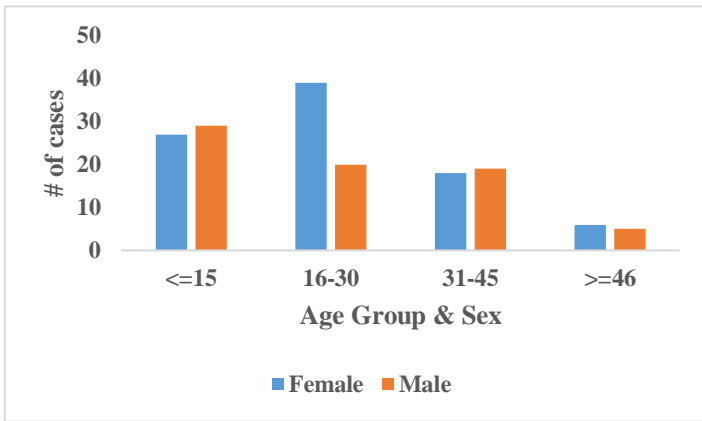


Figure 1: Confirmed Lassa fever cases by age & sex, Lib, Jan. 6, 2022-Sept 20, 2024

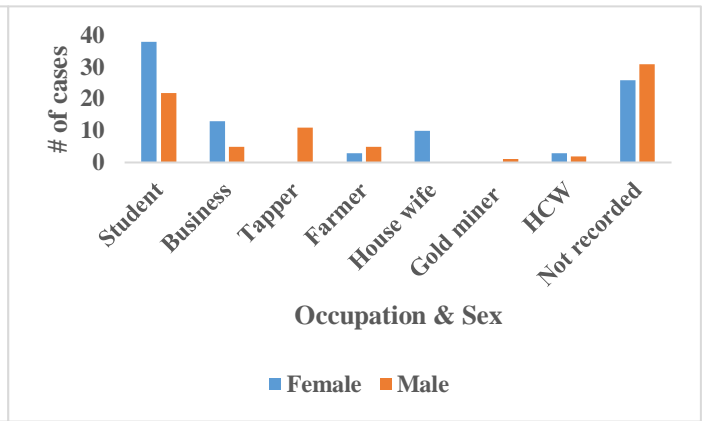


Figure 2: Confirmed Lassa fever cases by age & sex, Lib, Jan. 6, 2022-Sept 20, 2024

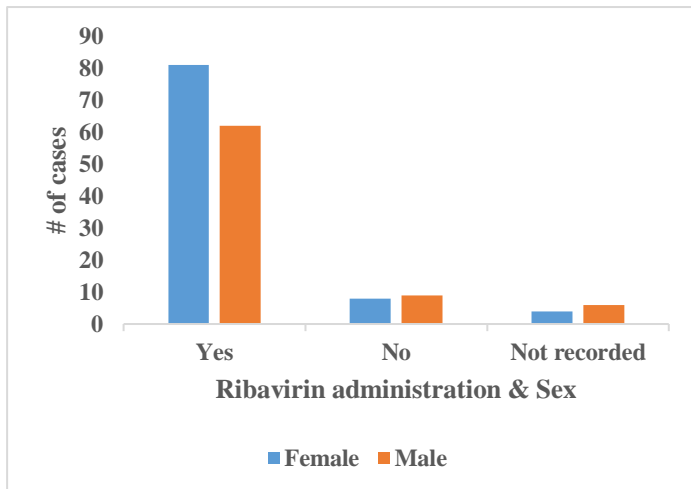


Figure 3: Confirmed Lassa fever cases by ribavirin treatment & sex, Lib, Jan. 6, 2022-Sept 20, 2024

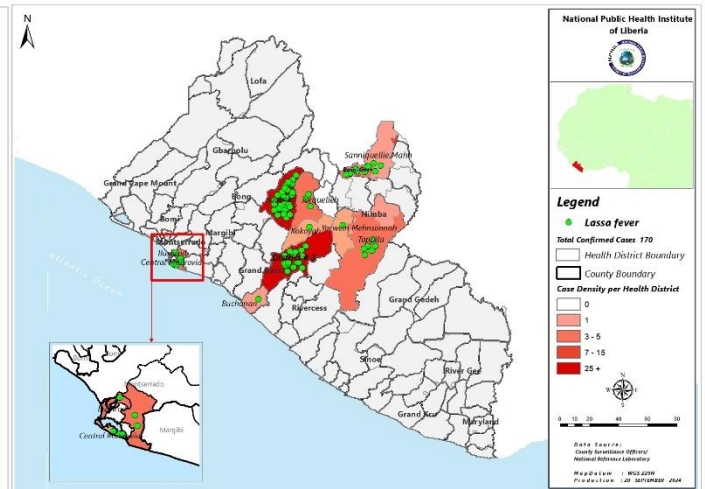


Figure 4: Distribution of confirmed Lassa fever cases by health district, Lib, Jan. 6, 2022-Sept 20, 2024

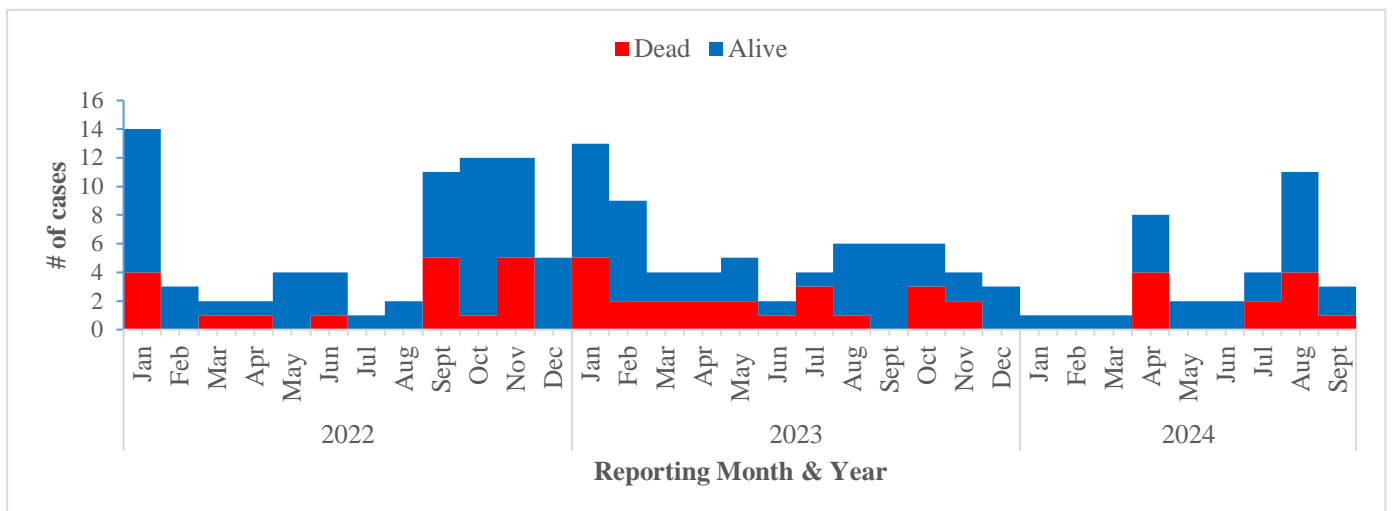


Figure 5: Epi-curve of confirmed Lassa fever cases and deaths by reporting month & year, Lib, Jan 6, 2022-Sept 20, 2024

Table 2: Summary of Lassa fever cases and samples, Liberia, Jan 6, 2022–Sept 20, 2024

Variables	2022 & 2023	2024	Total
	Epi wk 1-52	Epi wk 1-37	
Total suspected cases reported to the national level	439	192	631
Total samples collected	437	192	631
Total samples tested	416	184	600
Total samples not collected OR samples collected but not sent to NRL	20	6	26
Total samples pending testing	0	0	0
Total samples collected & rejected by the Laboratory	3	0	3
Total Laboratory confirmed	138	32	170
Total confirmed cases alive	97	23	120
Total deaths among confirmed cases	41	9	50
Overall case fatality rate (CFR)	30%	28%	29%
Total confirmed cases currently in isolation	0	1	1
Total suspected cases in isolation	0	0	0

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 (IMs) have been activated in the affected counties
 - The PHEOCs in the response counties are in response mode coordinating the response

II. Surveillance

- Active case search ongoing in affected communities
- Seventeen contacts including 4 HCWs line listed undergoing 21 days' follow-up
- Weekly sit-reps developed and disseminated to stakeholders

III. Case management and IPC

- Ribavirin distributed to affected counties
- Cases treated with ribavirin and discharged
- One confirmed case is currently in isolation undergoing treatment (Grand Bassa County)

IV. Laboratory

- The National Public Health Reference Laboratory continues testing of Lassa fever samples
- A total of 170 Lassa fever cases have been confirmed since this outbreak

V. Risk Communication and Community Engagement

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

VI. Dead Body Management

- A total of 50 confirmed deaths recorded and were buried under safe and dignified condition

Key Challenges

- Limited ribavirin supply in country
- Limited supply of IPC materials in affected counties
- Lack of logistics (gasoline, communication cards, fuel, etc) to support active case search and contact tracing in affected counties
- Limited stationeries in the EOCs to produce contact tracing form and other tools for investigation
- Limited computers for District and County Surveillance Officers (Bong & Nimba)

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