



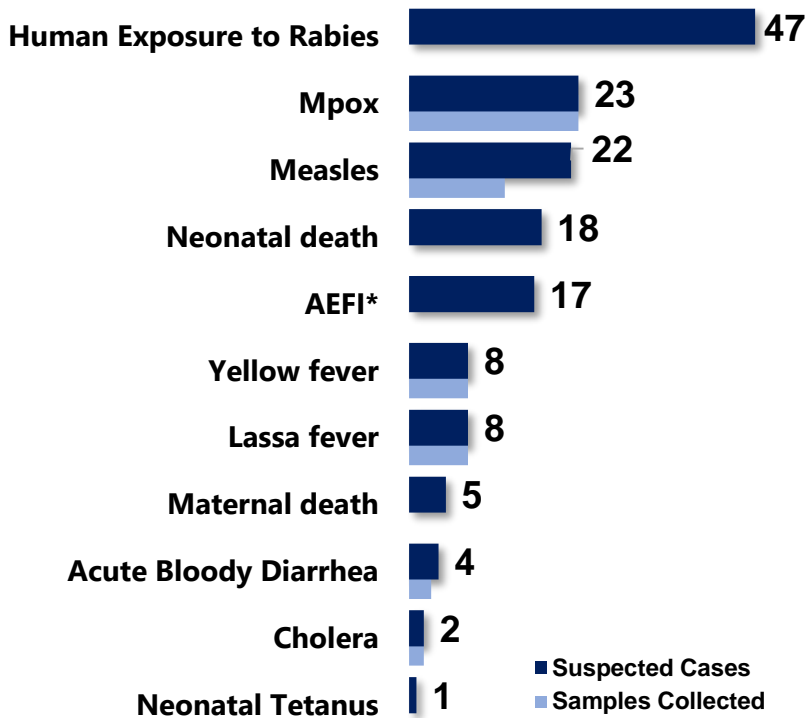
# Liberia IDSR Epidemiology Bulletin

2024 Epi-week 35 (August 26 – September 1)

Country Population: 5,406,374 | Volume 20 Issue 35 | August 19 – September 1, 2024 | Data Source: CSOs from 15 Counties and Laboratory

## Highlights

Figure 1. Public Health Events Reported



\*Adverse Event Following Immunization

## Keynotes and Events of Public Health Significance

- ◆ A total of 155 events of public health importance, including 26 deaths reported
- ◆ Completeness and Timeliness of health facility reports were 100% and 99% respectively
- ◆ Ongoing Lassa fever outbreak in three counties
- ◆ Ongoing Measles outbreak in two counties
- ◆ Ongoing circulating vaccine derived Polio virus type 2 outbreak
- ◆ Ongoing Mpox outbreak in two counties

## Reporting Coverage

Table 1. Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 35, 2024

County	Expected Reports from HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	29	29	29	100	100
Bong	64	64	64	100	100
Gbarpolu	18	18	18	100	100
Grand Bassa	38	38	38	100	100
Grand Cape Mount	36	36	36	100	100
Grand Gedeh	24	24	24	100	100
Grand Kru	25	25	25	100	100
Lofa	61	61	61	100	100
Margibi	64	64	64	100	100
Maryland	28	28	25	100	89
Montserrado	371	371	366	100	99
Nimba	102	102	102	100	100
Rivercess	21	21	21	100	100
River Gee	21	21	21	100	100
Sinoe	41	41	41	100	100
<b>Liberia</b>	<b>943</b>	<b>943</b>	<b>935</b>	<b>100</b>	<b>99</b>

943(100%)  
Health facilities reported IDSR data

98(100%)  
Health districts reported IDSR data

935(99%)  
Health facilities reported timely IDSR data

Legend: ≥80 <80

◆ The national target for weekly IDSR reporting is 80%. All counties reported on time except for Bong, Grand Cape Mount, Montserrado, and Nimba Counties reported late. Health facility timeliness is monitored at the health district level.

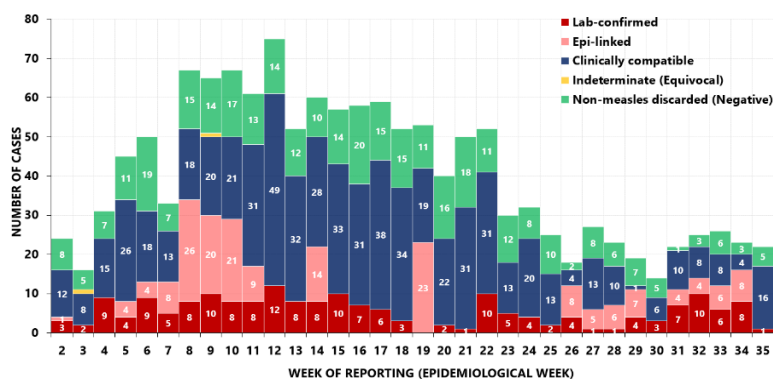
## Vaccine-Preventable Diseases

### Measles

- Twenty-two (22) suspected cases were reported from Nimba (8), Grand Gedeh (3), Grand Bassa (2), Bomi (2), Sinoe (3), Grand Kru (1), Rivercess (1), River Gee (1) and Montserrado (1) Counties
  - Thirteen (13) specimens were collected, and 1 tested positive, 5 negative, and 7 pending arrival at NRL
  - Sixty-eight percent (15/22) of the suspected cases were vaccinated for measles (*see Table 2*)
- Cumulatively, 1382 suspected cases have been reported since Epi-week 1 (*see Table 3*)
  - Of the total reported 1,032 confirmed cases,
    - 55% were reported to have previously been vaccinated,
    - 36% were unvaccinated
    - 9% had unknown vaccination status
  - Fifty-two percent (531/1032) of the confirmed cases are below 5 years
  - Proportion of suspected cases with sample collected 47% (651/1382)
  - Proportion of suspected cases with sample tested 83% (542/651) [negative – 351, positive – 189, indeterminate-2]
  - Proportion of negative Measles cases tested for Rubella 91% (320/351) [negative – 292, positive – 28]
- Liberia's annualized non-measles febrile rash illness rate now stands at **9.6 per 100,000**. Montserrado and Margibi Counties is below the target (*see Table 3*)

**Table 2. Distribution and Vaccination Status of Measles Cases, Liberia, Epi-week 35, 2024**

County	Reported cases	Vaccinated	Number of Doses Received		
			One Dose	Two Doses	Doses Not Indicated
Bomi	2	2	0	2	0
Grand Bassa	2	1	1	0	0
Grand Gedeh	3	2	0	0	2
Grand Kru	1	1	1	0	0
Montserrado	1	1	1	0	0
Nimba	8	4	4	0	0
River Gee	1	1	0	1	0
Rivercess	1	1	1	0	0
Sinoe	3	2	2	0	0
<b>Total</b>	<b>22</b>	<b>15</b>	<b>10</b>	<b>3</b>	<b>2</b>

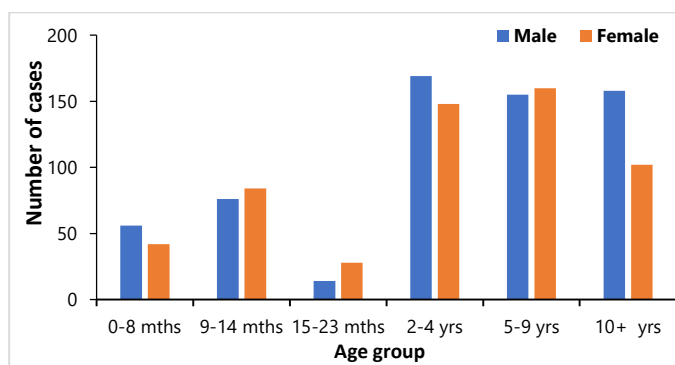


**Figure 2. Distribution of Measles Cases by Reporting Week and Epi-classification, Liberia, Epi-week 1 – 35, 2024**

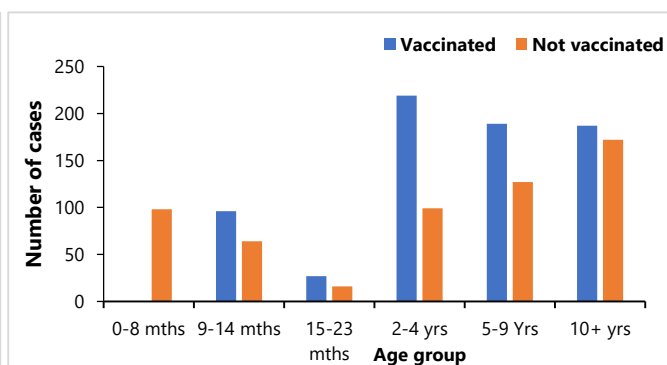
**Table 3. Classification of measles, reporting rate, and annualized non-measles rash illness rate per 100,000 population by County, Liberia, Epi-**

Reporting County	Epi-classification					Cumulative	Annualized Non Measles Febrile Rash Illness Rate
	Lab confirmed	Epi-linked	Clinically compatible	Indeterminate (Equivocal)	Discarded (Negative)		
Bomi	4	0	5	0	9	18	9.7
Bong	2	0	24	0	9	35	2.8
Gbarpolu	7	0	12	1	26	46	39.8
Grand Bassa	3	0	10	0	16	29	7.9
Grand Cape Mount	7	0	7	0	28	42	22.7
Grand Gedeh	35	28	65	0	38	166	25.1
Grand Kru	30	35	45	0	44	154	57.2
Lofa	4	0	21	0	15	40	5.9
Margibi	0	0	2	0	4	6	1.9
Maryland	21	13	165	0	8	207	6.8
Montserrado	4	0	26	0	20	50	1.5
Nimba	36	88	213	0	27	364	6.3
River Gee	23	13	46	1	38	121	44.5
Rivercess	1	0	4	0	6	11	9.4
Sinoe	12	1	18	0	62	93	59.6
<b>Liberia</b>	<b>189</b>	<b>178</b>	<b>663</b>	<b>2</b>	<b>350</b>	<b>1382</b>	<b>9.6</b>

Target Achieved ■ >=2      Below Target ■ <2



**Figure 3. Suspected Measles Cases by Age-group and Sex, Liberia, Epi-week 1 – 35, 2024**



**Figure 4. Vaccination status of Suspected Measles Cases by Age Group, Liberia, Epi-week 1 – 35, 2024**

**Table 4. Measles outbreak by County, and Case Status, Liberia, December 13, 2021 – September 4, 2024**

County	Total Cases	Active	Recovery	Deaths	No. of Districts
Montserrado	5,373	0	5,304	69	0/7
Nimba	1350	8	1338	4	4/11
Grand Bassa	924	0	917	7	0/8
Margibi	803	0	802	1	0/4
Bong	578	0	575	3	0/9
Maryland	1,316	0	1316	0	2/6
Lofa	292	0	292	0	0/6
Grand Kru	1,100	0	1,108	2	0/5
Grand Cape Mount	187	0	184	3	0/5
Bomi	147	0	142	5	0/4
Rivercess	84	0	83	1	0/6
Gbarpolu	64	0	64	0	0/5
Grand Gedeh	602	0	602	0	0/6
River Gee	134	0	134	0	0/6
Sinoe	247	0	247	0	0/10
<b>Total</b>	<b>13,201</b>	<b>8</b>	<b>13,098</b>	<b>95</b>	<b>6/98</b>

**PUBLIC HEALTH RESPONSE**

**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 (Maryland PIH)
- IMS meetings are being held for coordination and mobilization of resources in affected counties

**II. Epidemiological Surveillance**

- Active case search in affected and surrounding communities ongoing in Maryland and Nimba counties

**III. Case management**

- Case management ongoing in affected counties

**IV. Immunization**

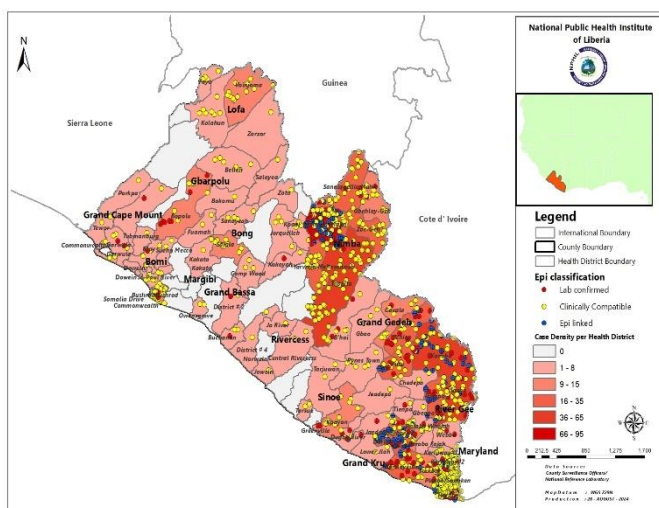
- Routine immunization ongoing across the country

**V. Laboratory**

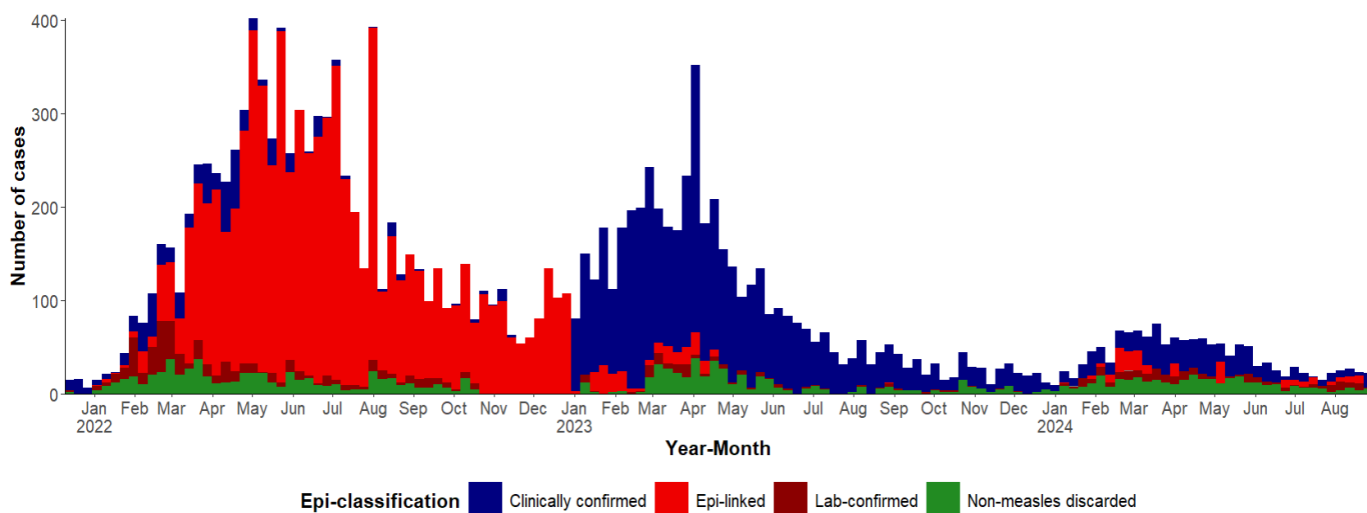
- The National Public Health Reference Laboratory (NPHRL) continues testing of Measles samples

**VI. Risk Communication & Community Engagement**

- Awareness and health education on the spread and prevention of Measles in health facilities and communities ongoing in Maryland County



**Figure 5. Measles outbreak by County and Case Status, Liberia, December 13, 2021 – September 4, 2024**



**Figure 6. Epi-curve of Measles Cases by monthly Epi-classification, Liberia, December 13, 2021 – September 4, 2024**

## Acute Flaccid Paralysis (AFP)

- Zero cases were reported
- Cumulatively, seventy (70) cases have been reported since Epi-week 1. One (1) cVDPV2<sup>1</sup>, 56 negative, 10 NPENT, and 3 AFP specimens pending testing at the laboratory
- As of week 35, the annualized non-polio AFP rate is at **4.3 per 100,000** population under 15 years of age.

**Table 5. Non-Polio AFP Rate 3/100,000 <15 years by County, Liberia, Epi-week 1 – 35, 2024**

County	< 15 years pop	# of AFP Cases Reported	# of Cases with Lab Result	Non-Polio AFP Rate	# of cases <14 days specimen collected	% of stool <14days	# of NPENTs	% of NPENT
Bomi	62196	2	2	4.8	2	100%	0	0%
Bong	215425	1	1	0.7	1	100%	0	0%
Gbarpolu	43630	2	2	6.8	2	100%	0	0%
Grand Bassa	134743	3	3	3.3	3	100%	0	0%
Grand Cape Mount	82471	5	5	9.0	5	100%	1	20%
Grand Gedeh	101412	5	5	7.3	5	100%	1	20%
Grand Kru	51467	2	2	5.8	2	100%	1	50%
Lofa	168626	7	6	6.2	7	100%	0	0%
Margibi	140931	1	1	1.1	1	100%	0	0%
Maryland	78808	3	2	5.7	3	100%	0	0%
Montserrado	898124	13	12	2.2	12	92%	2	15%
Nimba	285705	19	18	9.9	19	100%	4	21%
Rivercess	42729	1	1	3.5	1	100%	0	0%
River Gee	57047	1	1	2.6	1	100%	0	0%
Sinoe	69556	5	5	10.7	5	100%	1	20%
<b>Liberia</b>	<b>2432868</b>	<b>70</b>	<b>66</b>	<b>4.3</b>	<b>69</b>	<b>99%</b>	<b>10</b>	<b>14%</b>
<b>Non-Polio AFP Rate</b>	<b>&lt;3</b>	<b>Stool adequacy</b>		<b>&lt;80%</b>	<b>Non-Polio Enterovirus</b>	<b>&lt;10%</b>	<b>Silent</b>	
	<b>≥3</b>			<b>≥80%</b>		<b>≥10%</b>		

## Outbreak Section (February 23 – September 1, 2024)<sup>2</sup>

### ⇒ The outbreak of circulating type 2 poliovirus variant (cVDPV2) is currently ongoing

- February 23, 2024: 1<sup>st</sup> laboratory notification of cVDPV2 confirmation from an environmental surveillance (ES) site of Fiamah Treatment Plant (FTP)
- As of week 34, there are:
  - 17 cVDPV2s** isolations from **ES sites** in **Monrovia** with latest collected 07-MAY-24; nine (9) from Redemption Street Bridge (RSB), latest **ENV-LIB-MON-MON-RSB-24-012**; eight (8) from **FTP**, latest **ENV-LIB-MON-MON-FTP- 24-011**.
  - 9 cVDPV2s** from healthy community children/contacts in **Monrovia**, latest reported **LIB-MON-MON-24-CC068 on 20-MAR-24**.
  - 1 cVDPV2** from an AFP case: **LIB-SIN-KPA-24-059**, a 1y7mo old boy from Kpanyan Town, **Sinoe County**; Date of Onset 8-JUN-24; cVDPV2 report on 07- AUG-2024; closest match ENV-LIB-MON-MON-FTP-24-005.

### PUBLIC HEALTH RESPONSE

#### I. Coordination

- The GPEI coordination mechanism is operational with partner representations from WHO, UNICEF, CDC/US, BMGF, Gavi, Rotary Group, USAID, as well as Africa CDC, AFENET, MSF, and more
- Weekly sit-reps developed and disseminated to stakeholders

#### II. Epidemiological Surveillance

- Active case search ongoing in affected community
- Detailed investigation and risk analysis
- RI intensification activities ongoing

#### III. Laboratory

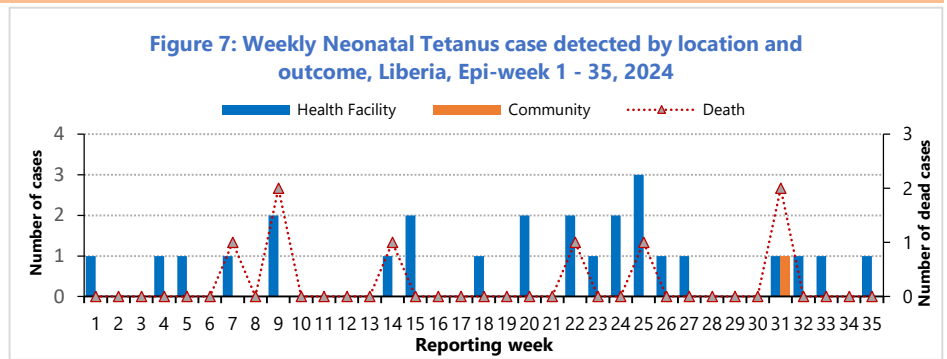
- ES sample is collected twice a month and tested by the Institut Pasteur Lab in Cote D'Ivoire

<sup>1</sup> circulating Vaccine-Derived Poliovirus type 2

<sup>2</sup> Liberia Polio Outbreak Response Situation Report

## Neonatal Tetanus

- One clinically confirmed case was reported from Grand Bassa
- Cumulatively, twenty-seven (27) cases have been reported, including 8 deaths since Epi-week 1. Case Fatality Rate is 30%, and community detection is at 4%.



## Influenza-Like Illnesses

### Coronavirus Disease (COVID-19)

- Zero suspected cases were reported
- Cumulatively, three (3) cases have been reported since Epi-week 1, with two positive and one negative

### Influenza

- Zero suspected cases were reported
- Cumulatively, seventy-one (71) suspected cases reported since Epi-week 1.
  - Seventy-one (71) specimens were collected: 65 tested negative, 5 specimens were discarded, and one positive

## Viral Hemorrhagic Fever

### Lassa fever

- Eight (8) suspected cases were reported from Nimba (3, including 1 death), Montserrado (2), Bong (2), and Grand Bassa (1) Counties
  - Specimens were collected and tested [negative – 6, positive – 1] and 1 pending testing
- Cumulatively, one hundred eighty-one (181) suspected cases have been reported since Epi-week 1.
  - Proportion of suspected cases with sample collected (181/181) 100%. Six of the collected samples were discarded
  - Proportion of suspected cases with sample tested (174/181) 96%
    - Thirty (30) positive, including 8 deaths, and 144 negative
    - Case fatality rate: (8/30) 27%
  - Bong County accounts for 43% of the total confirmed cases.

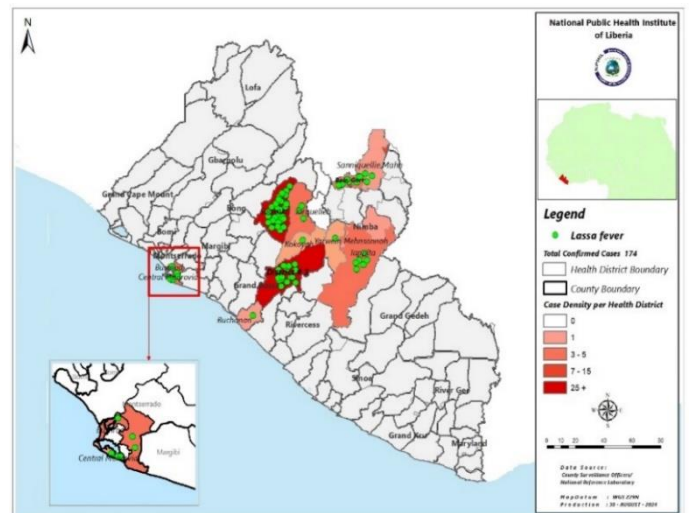
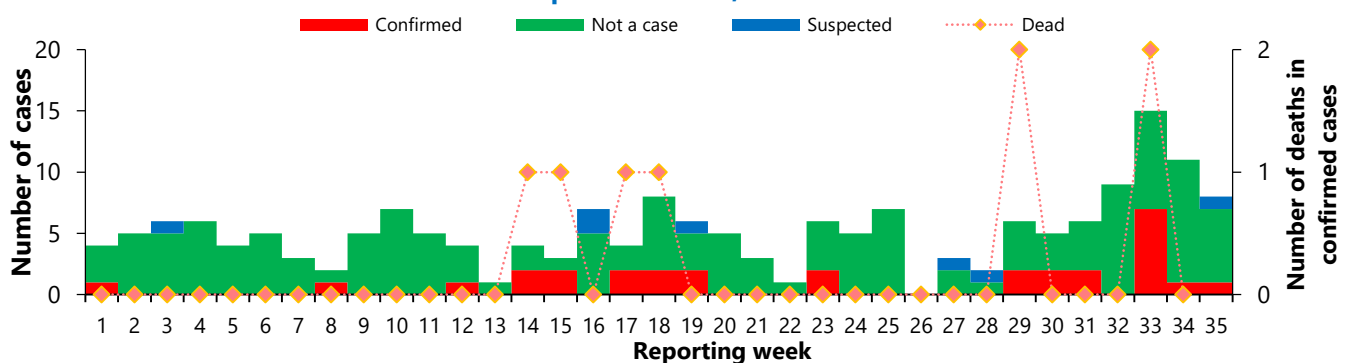


Figure 8. Geospatial distribution of confirmed Lassa fever by Health District, Liberia, Epi-week 1 – 35, 2024

Figure 9: Weekly distribution of Lassa fever cases by Epi-classification, Liberia, Epi-week 1 – 35, 2024



**Outbreak Section (January 6, 2022 – September 4, 2024)**

- One (1) new confirmed case reported from District 3A&B, Grand Bassa County
- A total of 168 confirmed cases, including 49 deaths reported
- Cumulative Case Fatality Rate (CFR): 29% (49/168)
- Three counties currently in outbreak

- Total of 106 contacts, including 65 healthcare workers undergoing 21 days follow-up
- Weekly sit-reps developed and disseminated to stakeholders

**PUBLIC HEALTH RESPONSE**

**I. Coordination**

- The National Public Health Institute of Liberia (NPHIL) and the Ministry of Health (MoH) are providing technical support to the affected counties with support from partners

**II. Epidemiological Surveillance**

- Active case search ongoing in affected communities
- One (1) contact line listed

**III. Case management**

- Ribavirin distributed to all affected counties
- Cases treated with ribavirin and discharged
- One (1) confirmed case in isolation undergoing ribavirin treatment (Grand Bassa)

**IV. Dead Body Management**

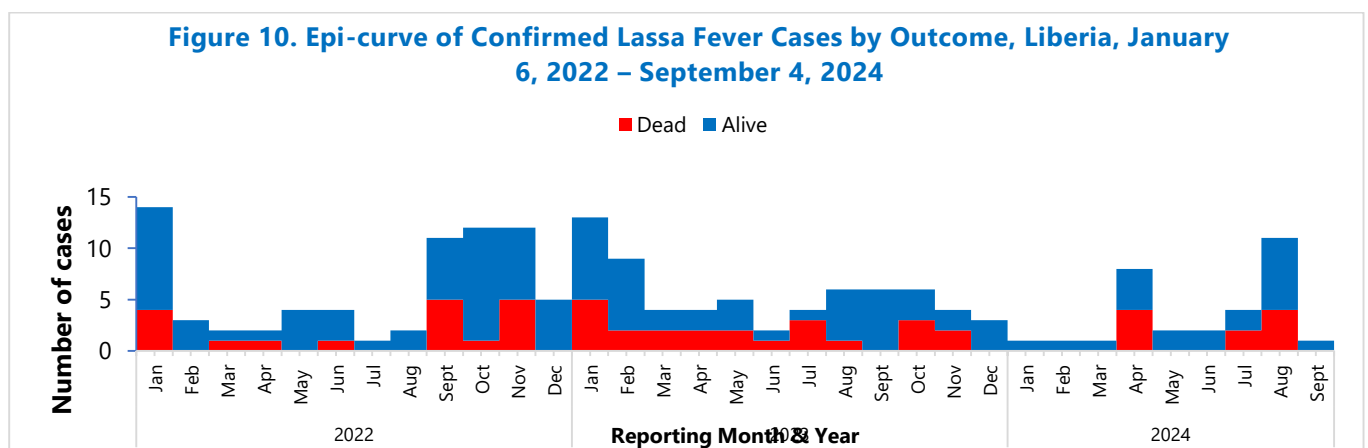
- Safe and dignified burial conducted for the deceased cases

**V. Laboratory**

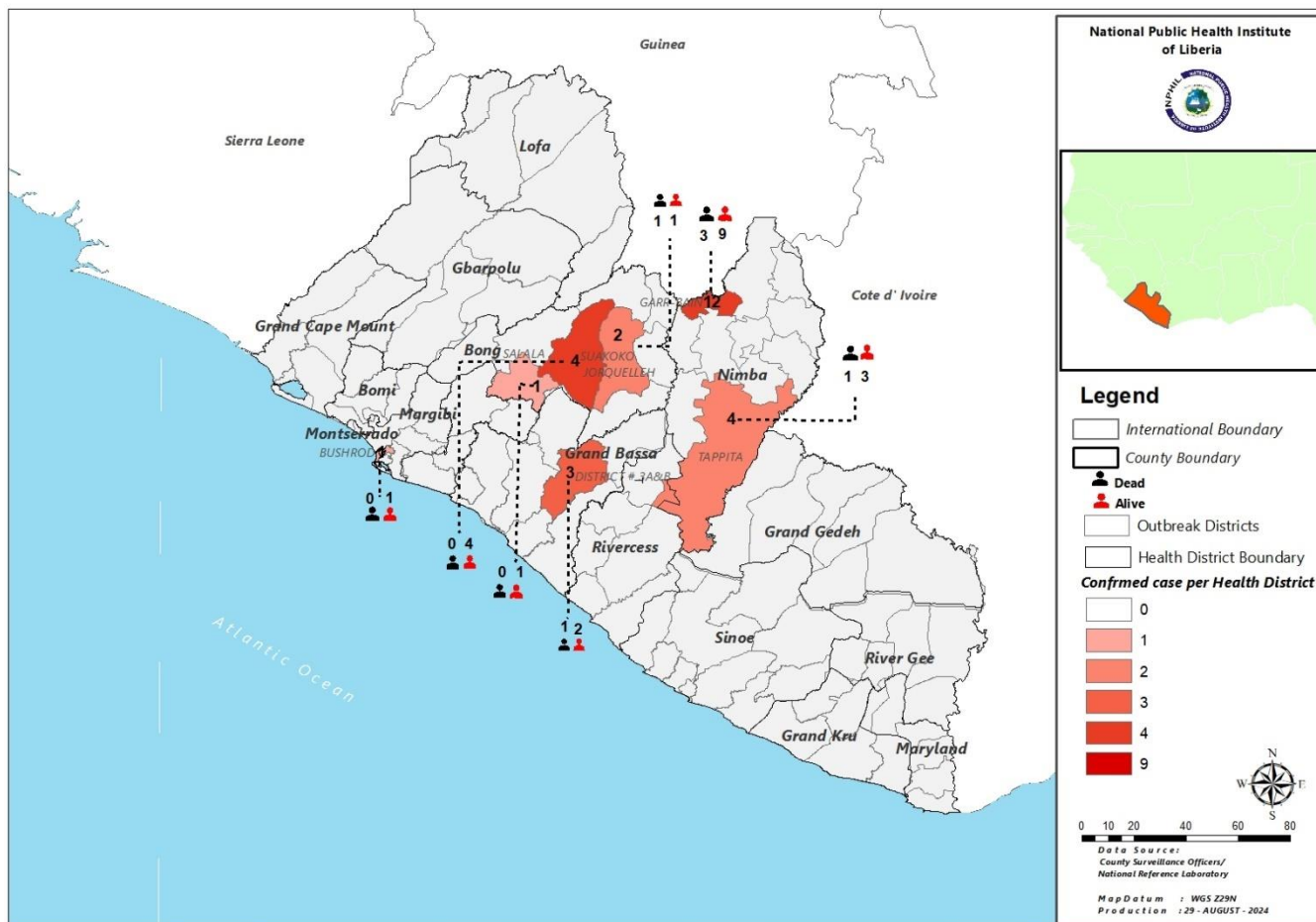
- The National Public Health Reference Laboratory continues testing of Lassa fever samples
- A total of 168 Lassa fever cases have been confirmed since this outbreak

**Table 6. Summary of Lassa fever Outbreak, Liberia, January 6, 2022 – September 4, 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 Monrovia	27-Nov-23	1	2	0	1	0	50%	49	0	0	0	49	Completed	Ended
	Central Monrovia	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
	<b>Suakoko</b>	<b>29-Jul-24</b>	<b>11</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0%</b>	<b>37</b>	<b>14</b>	<b>0</b>	<b>13</b>	<b>24</b>	<b>Active</b>	<b>Ongoing</b>
	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
Grand Bassa	Jorquelleh	11-Apr-24	3	2	0	1	0	0%	41	30	0	0	41	Completed	Ended
	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	Ended
	<b>District 3A&amp;B</b>	<b>1-Sep-24</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0%</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>Active</b>	<b>Ongoing</b>	
Nimba	Saclepea-Mah Sanniquellie-Mah	21-Nov-23	4	2	0	1	0	50%	5	0	0	0	5	Completed	Ended
	<b>Tappita</b>	<b>29-Jul-24</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>50%</b>	<b>27</b>	<b>24</b>	<b>0</b>	<b>18</b>	<b>9</b>	<b>Active</b>	<b>Ongoing</b>
	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
	<b>Bain-Garr</b>	<b>18-Jul-24</b>	<b>17</b>	<b>7</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>43%</b>	<b>119</b>	<b>78</b>	<b>0</b>	<b>74</b>	<b>45</b>	<b>Active</b>	<b>Ongoing</b>
River Gee	Putupo	25-Nov-22	2	1	0	1	0	100%	14	0	0	0	14	Completed	Ended
<b>Total</b>			<b>524</b>	<b>168</b>	<b>22</b>	<b>49</b>	<b>3</b>	<b>29%</b>	<b>1449</b>	<b>565</b>	<b>62</b>	<b>106</b>	<b>1253</b>		







**Figure 11. Geospatial distribution of outbreak district with number of confirmed Lassa fever cases, Liberia, Epi-week 1 – 35, 2024**

### Yellow Fever

- ☞ Eight suspected cases were reported from Grand Kru (3), Gbarpolu (2), Nimba (1), River Gee (1), and Rivercess (1, dead)
  - Specimens were collected, and 1 tested presumptive positive, 3 negative, and 4 pending testing
- ☞ Cumulatively, seventy-eight (78) cases have been reported since Epi-week 1.
  - Proportion of suspected cases with samples collected (75/78) 96%; however, 1 was rejected
  - Proportion of suspected cases with samples tested (69/75) 92% [presumptive positive – 3, negative – 65, indeterminate – 1]

### Dengue

- ☞ Zero suspected cases were reported
- ☞ Cumulatively, five (5) suspected cases were reported

### Diarrheal Diseases

#### Acute Bloody Diarrhoea (Suspected Shigellosis)

- ☞ Four (4) cases were reported from Grand Gedeh, Lofa, Montserrado, and Nimba Counties
  - Three (3) specimens were collected, 2 tested negative, and 1 pending testing at NRL
- ☞ Cumulatively, two hundred seventy-three (273) cases have been reported since Epi-week 1.
  - 161 specimens were collected, with 126 received at the Lab. Of the 126 specimens, 106 tested negative, 8 confirmed (*S. flexneri*-2 & *S. sonnei*-6), 7 rejected, and 1 pending testing

#### Severe Acute Watery Diarrhoea (Suspected Cholera)

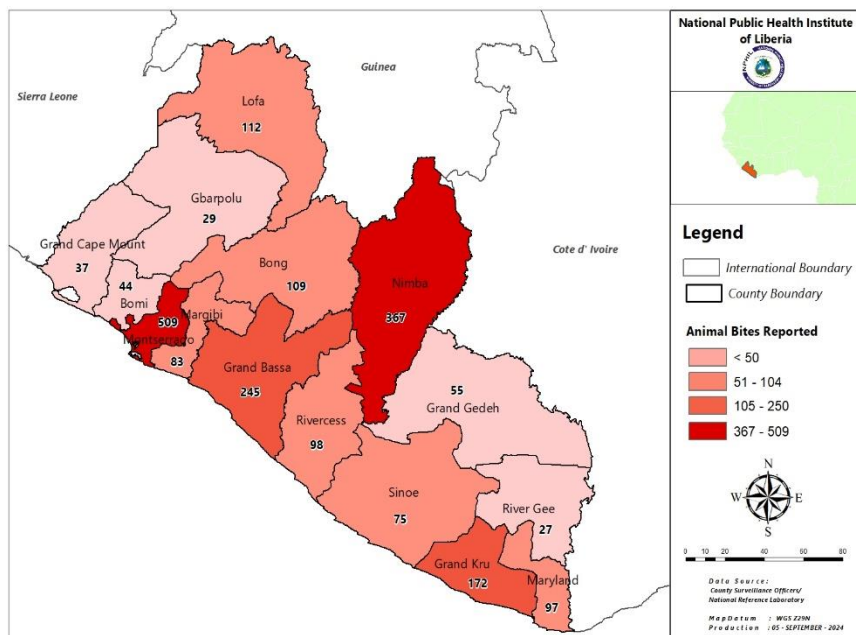
- ☞ Two (2) cases were reported from River Gee and Sinoe Counties
  - Two (2) specimens collected and pending testing at NRL
- ☞ Cumulatively, one hundred ninety-one (191) cases have been reported since Epi-week 1.
  - 123 specimens collected, 93 received at the Lab
  - 69 tested negative, 12 rejected, and 1 pending testing.

## Other Reportable Diseases

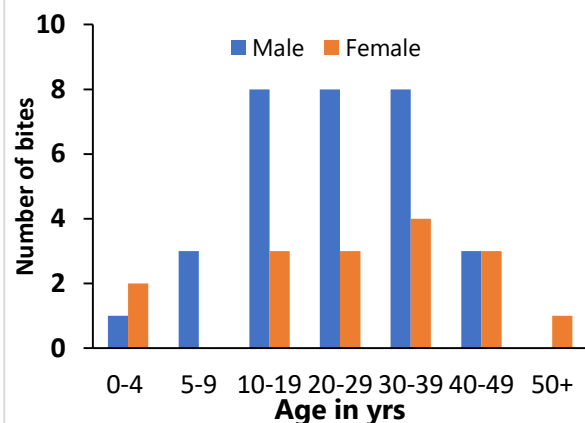
### Animal bite (Human Exposure to Rabies)

- ☞ Forty-seven (47) animal bite cases were reported from Nimba (12), Montserrado (8), Maryland (7), Bong (4), Grand Bassa (3), Lofa (3), Bomi (2), Margibi (2), Rivercess (2), Grand Gedeh (2), and Grand Kru (2) Counties
- ☞ Dog bites accounted for 98% (46/47), while snakebite 2% (1/47)
- ☞ Proportion of cases investigated: 43% (20/47)
- ☞ PEP was administered to 11 persons (23%) in Bong (3), Montserrado (3), Maryland (3), and Rivercess (2) Counties
- ☞ Cumulatively, 2,059 cases have been reported, including 2 deaths (*suspected human rabies*) since Epi-week 1.

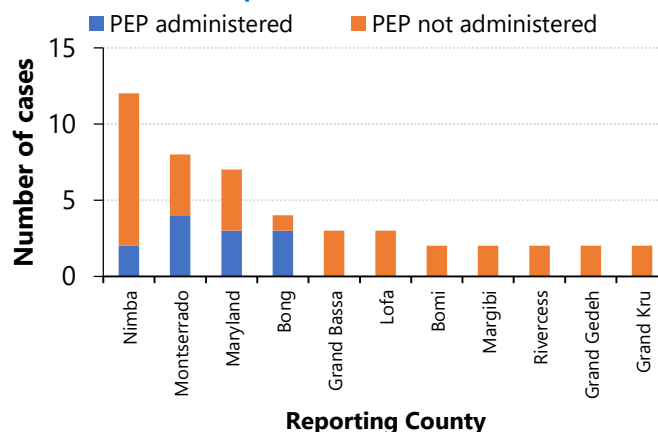
**Figure 12. Geospatial distribution of Human Exposure to Animal Bites Cases by County, Liberia, Epi-week 1 – 35, 2024**



**Figure 13. Distribution of Animal Bite Cases by Sex, Liberia, Epi week 35, 2024**



**Figure 14. Human Exposure to Animal Bites (Dog) by County & PEP Administration, Liberia Epi-week 35, 2024**



## Meningitis

- ☞ Zero cases were reported
- ☞ Cumulatively, twenty (20) suspected cases have been reported
  - Proportion of specimen collected (17/20) 85%, 3 specimens not collected
  - Proportion of specimens tested (17/17) 100% (15 negative, 2 positive)

## Mpox

- ☞ Twenty-three (23) suspected cases were reported from Sinoe (7), Bomi (5), Maryland (3), Gbarpolu (2), Montserrado (2), Grand Cape Mount (1), Margibi (1), Grand Kru (1), and Lofa (1) Counties
  - Specimens were collected, 1 tested positive, 15 negative, 4 pending testing, and 3 pending arrival at NRL
- ☞ Cumulatively, eighty-five (85) suspected cases have been reported, with 78 samples collected with 1 rejected:
  - Sixty-eight (68) tested, of which, 8 positive and 60 negative

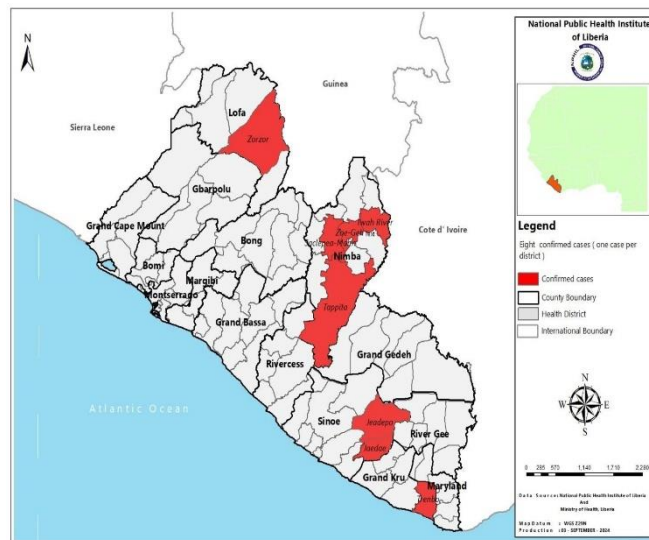


- ☞ Two (2) confirmed cases reported from Sinoe and Lofa Counties
- ☞ **Case 1:** A 24-year-old female resident of Doodwicken Community, Jedepo Health District, Sinoe County
  - presented with headache, fever, lack of appetite, generalized body pain, and rashes on Aug 24, 2024
  - Symptoms onset was Aug 20, 2024
  - Tested positive on Aug 31, 2024, by NRL
  - Case is currently in isolation
- ☞ Thirty (30) contacts (male-13, female-17) line-listed under follow up)
- ☞ **Case 2:** A 2-year-old male resident of Yeala Town, Zorzor Health District, Lofa County
  - presented with generalized body rash, fever, and a complaint of body pain for the past 4 days before seeking care on Aug 29, 2024
  - Symptoms onset was Aug 26, 2024
  - Tested positive on Sep 3, 2024, by NRL
  - Case is currently receiving home-based care
- ☞ Ten (10) contacts line-listed under follow-up, of which, eight (8) are high risk

**Table 7. Lab-confirmed cases of Mpox, Liberia, Jan 1 – 5 Sep. 2024**

Characteristics	Frequency	Proportion (%)
<b>Age (Years)</b>		
0 – 9	4	50
10-19	0	
20-29	2	25
30-39	2	25
<b>Sex</b>		
Male	4	50
Female	4	50
<b>Reporting County</b>		
Nimba	4	50
Grand Kru	1	12.5
Sinoe	1	12.5
Lofa	2	25
<b>Total</b>	<b>8</b>	<b>100</b>
<b>No death has been recorded.</b>		

**Figure 15. Distribution of Lab-confirmed Mpox cases by Health District, Liberia, Jan 1 – 5 Sep. 2024**



**PUBLIC HEALTH RESPONSE**

**I. Coordination**

- Cross-border collaboration with neighboring countries (Guinea and Sierra Leone) on surveillance activities
- Coordination meetings are scheduled for Tuesdays and Fridays at national and daily at sub-national levels in affected counties
- Resources (financial & logistical) are being mobilized to support the counties

**II. Epidemiological Surveillance**

- Active case finding ongoing in affected and adjacent districts
- Contacts to all confirmed cases under follow-up
- Active media scanning and community case finding continue

**III. Case management**

- Cases are being managed in isolation unit and home-based care, as well as assessment of Redemption isolation

**IV. Laboratory**

- Prepositioning of laboratory supplies (sample collection kits) and virtual orientation of diagnostic officers in all 15 counties ongoing as well as continual testing of Mpox samples

**V. Risk Communication & Community Engagement**

- Consolidated plan and budget, concluded with ECOWAS Radio and InterNews for free appearance and airing of jingles and ongoing coordination with CHF persons

**VI. Points of Entry**

- Ongoing cross-border information sharing with neighboring countries
- Ongoing entry screening for travellers from high-risk countries

## Other Events of Public Health Importance

### Maternal Mortality

- Five (5) deaths were reported from Maryland (2), Montserrado (1), Bong (1), and Nimba (1) Counties
- Primary causes of death were postpartum hemorrhage (2), eclampsia (1), and Respiratory failure (1)
- All of the deaths occurred in public health facility
- Cumulatively, two hundred and nineteen (219) deaths have been reported since Epi-week 1, of which (201) 92% were reported from health facilities and (18) 8% from communities.

**Table 8. Cumulative Maternal Mortality reporting rate and Annualized Maternal Mortality per 100,000 live births by County, Liberia, Week 1 – 35, 2024**

County	Estimated Annual Live birth (4.3%)	Current week	Cumulative	% of Cumulative Maternal deaths	Annualized Maternal Mortality Ratio/100,000
Grand Bassa	12875	0	18	8.2	208
Montserrado	85821	1	114	52.1	197
Margibi	13467	0	15	6.8	165
Nimba	27301	1	28	12.8	152
Maryland	7531	2	7	3.2	138
Grand Cape Mount	7881	0	7	3.2	132
Bomi	5943	0	5	2.3	125
Lofa	16113	0	9	4.1	83
Rivercess	4083	0	2	0.9	73
Grand Kru	4918	0	2	0.9	60
River Gee	5451	0	2	0.9	55
Grand Gedeh	9690	0	3	1.4	46
Bong	20585	1	6	2.7	43
Sinoe	6646	0	1	0.5	22
Gbarpolu	4169	0	0	0.0	0
<b>Liberia</b>	<b>232474</b>	<b>5</b>	<b>219</b>	<b>100.0</b>	<b>140</b>

- o Proportion of deaths reviewed (113/219) 52%.

- Annualized maternal mortality ratio is at **140 per 100,000 live births** (Table 8). The expected MMR based on 2019-20 Demographic Health Survey (DHS) is 742 deaths per 100,000 live births.

### Neonatal Mortality

- Eighteen (18) deaths were reported from Montserrado (12), Grand Gedeh (1), Maryland (1), Gbarpolu (1), Grand Kru (1), Lofa (1), and Nimba (1) Counties
- Primary causes of death were birth asphyxia (12), sepsis (4), prematurity (1), and neonatal tetanus (1)
- Eighty-three percent of the deaths occurred in health facility, while 17% at the community level
- Cumulatively, five hundred and eighty-five (585) deaths have been reported since Epi-week 1.

**Table 9. Cumulative Neonatal Mortality reporting rate and Annualized Neonatal Mortality per 1,000 live births by County, Liberia, Week 1 – 35, 2024**

County	Estimated Annual Live birth (4.3%)	Current Week	Cumulative	% of Cumulative Neonatal deaths	Annualized Neonatal Mortality Rate/1,000
Maryland	7347	1	76	13.0	15.4
Grand Kru	3130	1	22	3.8	10.4
Montserrado	62479	12	356	60.9	8.5
Sinoe	5534	0	16	2.7	4.3
Rivercess	3865	0	9	1.5	3.5
Gbarpolu	4507	1	13	2.2	4.3
Grand Gedeh	6770	1	12	2.1	2.6
River Gee	3610	0	4	0.7	1.6
Bong	18775	0	20	3.4	1.6
Margibi	11345	0	11	1.9	1.4
Lofa	14911	1	15	2.6	1.5
Nimba	24970	1	24	4.1	1.4
Bomi	4546	0	2	0.3	0.7
Grand Bassa	11981	0	4	0.7	0.5
Grand Cape Mount	6868	0	1	0.2	0.2
<b>Liberia (National)</b>	<b>190636</b>	<b>18</b>	<b>585</b>	<b>100.0</b>	<b>4.6</b>

- o Proportion of deaths reviewed (267/585) 46%

- Annualized neonatal mortality rate is at **4.6 per 1,000 live births** (Table 9).

### Adverse Events Following Immunization (AEFI)/Adverse Drug Reaction (ADR)

- Seventeen (17) events were reported from River Gee (7), Montserrado (4), Grand Gedeh (3), Rivercess (1), Maryland (1), and Lofa (1) Counties
- All reported cases were investigated and classified as non-serious. Related vaccines included: Penta (15/17) 88%, Measles (1/17) 6%, Pfizer (1/17) 6%
- Cumulatively, seven hundred and forty-five (745) events were reported since Epi-week 1.

## Neglected Tropical Diseases

### Buruli Ulcer

- ☞ Zero cases were reported
- ☞ Cumulatively, two confirmed cases have been reported since Epi-week 1.

## Border Surveillance Update

- ☞ A total of 5,208 travelers' were screened from eight (8) designated out of Forty-five (45) official Points of Entry, with incoming travellers accounting for 50% (2585/5208) ([Table 10](#)).

**Table 10. Cross-border activity at the POE for incoming and outgoing travelers, Liberia, Epi-week 35, 2024**

Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Total travelers with YB	Yellow Book Damage	Card Replaced	Travelers Vaccinated against YF & Issued book	Alerts detected/ Verified
Airport	James S. Paynes	6	0	0	0	0	0	0	0
	Robert Int'l Airport	4165	2030	2135	4050	0	0	0	0
Seaport	Freeport of Monrovia	176	88	88	176	0	0	0	0
	Buchanan Port	76	38	38	76	0	0	0	0
Ground Crossing	Bo Water Side	410	224	186	263	0	3	0	0
	Ganta	71	26	45	21	0	0	0	0
	Yekepa	0	0	0	0	0	0	0	0
	Loguatu	304	179	125	210	0	0	0	0
<b>Total</b>		<b>5208</b>	<b>2585</b>	<b>2617</b>	<b>4796</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>

**Note:** Yellow book issue for both arrival and departure; Vaccination coverage for both arrival and departure

## Public Health Measures

### National level

- ☞ National PHEOC activated in response mode
- ☞ Ongoing awareness and community engagement at Points of Entry on Mpox
- ☞ NPHIL intensifies Media Engagement on Mpox Outbreak at the MICAT Press Briefing
- ☞ Produced and disseminated situation reports (Lassa fever, Measles, etc...)
- ☞ Produced and disseminated weekly bulletin
- ☞ Ongoing reclassification of suspected cases (Lassa fever, Yellow fever, AFP, and Measles) based on laboratory result

### County-level

#### ☞ Surveillance

- Production of situational reports
- Active case search ongoing in affected and surrounding communities
- Multiple awareness on Mpox surveillance ongoing in border counties (Lofa, Nimba, Grand Cape Mount, etc...)
- Maternal and newborn death review ongoing in Counties

#### ☞ Case Management

- Administration of PEP
- Isolation, management, treatment, and active case search for Lassa fever and Measles cases ongoing in affected counties

**Appendix**

**Summary of Immediately Reportable Diseases, Conditions, and Events by County**

Counties		Bomi	Bong	Gbarpolu	Grand Bassa	Grand Cape Mount	Grand Gedeh	Grand Kru	Lofa	Margibi	Maryland	Montserrado	Nimba	Rivercess	River Gee	Sinoe	Total Weekly	Cumulative Reported	Cumulative Lab-confirmed		
No. of Expected Health District		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98				
No. of Health District Reported		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98				
Vaccine Preventable Diseases	Acute Flaccid Paralysis (Suspected Polio)	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	1	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	A	2	0	0	2	0	3	1	0	0	0	1	8	1	1	3	22	1382	189	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Neonatal Tetanus	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	19	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0
	Yellow fever	A	0	0	2	0	0	0	3	0	0	0	0	1	0	1	0	7	77	3	
		D	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0
Viral Hemorrhagic Fever	Dengue fever	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ebola Virus Disease	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lassa fever	A	0	2	0	1	0	0	0	0	0	0	2	2	0	0	0	7	157	30	
		D	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	24	8	
Influenza-Like Illnesses	COVID-19	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Influenza	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	1	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diarrheal Diseases	Acute Bloody Diarrhoea (Shigellosis)	A	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	4	273	8	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Severe Acute Watery Diarrhoea (Cholera)	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	191	0		
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Events of Public Health Importance	Maternal Mortality	D	0	1	0	0	0	0	0	0	2	1	1	0	0	0	5	219			
	Neonatal Mortality	D	0	0	1	0	0	1	1	1	0	1	12	1	0	0	18	585			
	Adverse Events Following Immunization (AEFI)	A	0	0	0	0	0	3	0	1	0	1	4	0	1	7	17	745	0		
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Unexplained Cluster of Health Events/Disease	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Reportable Diseases	Mpox	A	5	0	2	0	1	0	1	1	1	3	2	0	0	0	7	23	85	8	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tuberculosis	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Human Exposure to Rabies (Suspected Human Rabies)	A	2	4	0	3	0	2	2	3	2	7	8	12	2	0	0	47	2056	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
	Meningitis	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	2	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Unexplained Cluster of deaths	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neglected Tropical Diseases	Buruli Ulcer	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123	2	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Yaws	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>		<b>9</b>	<b>7</b>	<b>5</b>	<b>7</b>	<b>1</b>	<b>10</b>	<b>8</b>	<b>7</b>	<b>3</b>	<b>14</b>	<b>31</b>	<b>27</b>	<b>5</b>	<b>10</b>	<b>11</b>	<b>155</b>	<b>6117</b>	<b>253</b>		

D = Dead A = Alive

## Notes

- ☞ **Completeness** refers to the proportion of expected weekly IDSR reports received (target:  $\geq 80\%$ )
- ☞ **Timeliness** refers to the proportion of expected weekly IDSR reports received by the next level on time (target:  $\geq 80\%$ ). The time requirement for weekly IDSR reports:
  - Health facility - required on or before 5:00 pm every Saturday to the district level
  - Health district - required on or before 5:00 pm every Sunday to the county level
  - County - required on or before 5:00 pm every Monday to the national level
- ☞ **Non-polio AFP rate** is the proportion of non-polio AFP cases per 100,000 among the estimated population under 15 years of age in 2024 (annual target:  $\geq 2/100,000$ )
- ☞ **Non-measles febrile rash illness rate** refers to the proportion of Negative measles cases per 100,000 population
- ☞ **Annualized maternal mortality rate** refers to the maternal mortality rate of a given period of less than one year, and it is the number of maternal deaths per 100,000 live births
- ☞ **Annualized neonatal mortality rate** refers to the neonatal mortality ratio of a given period of less than one year, and it is the number of neonatal deaths per 1,000 live births
- ☞ **Epi-linked** refers to any suspected case that has not had a specimen taken for serologic confirmation but is linked to a laboratory-confirmed case
- ☞ **Confirmed case** refers to a case whose specimen has been tested positive or reactive upon laboratory testing, or has been classified as confirmed by either epidemiologic linkage with a confirmed case or clinical compatibility with the disease or condition

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### Data sources

Data and information is provided by the fifteen County Surveillance Officers and National Public Health Reference Laboratory via regular weekly reports, telephone calls and email exchanges. Situations are evolving and dynamic therefore numbers stated are subject to change.