



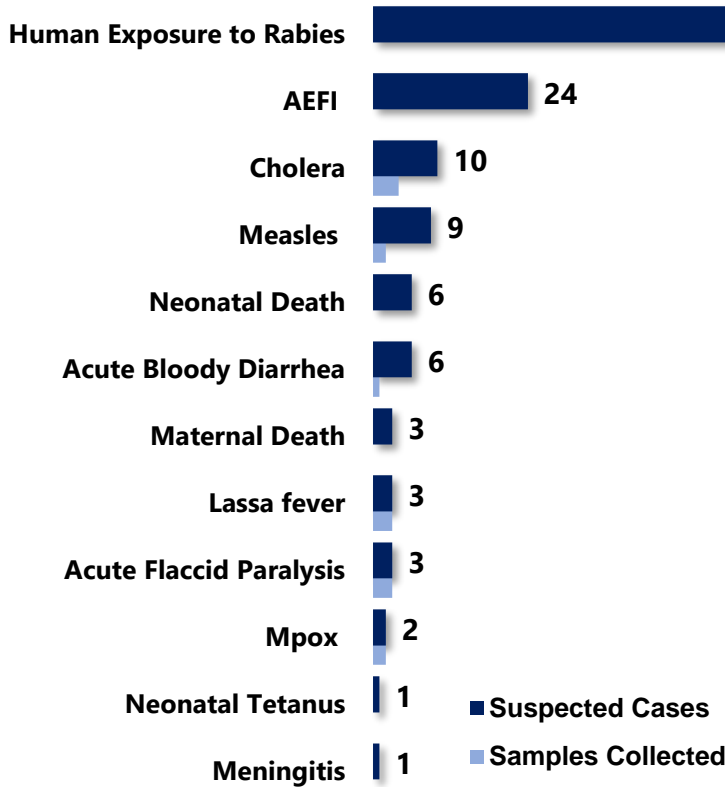
Liberia IDSR Epidemiology Bulletin

Epi-week 46 (November 13-19, 2023)

Country Population: 5,104,413 | Volume 19 Issue 46 | November 13-19, 2023 | Data Source: CSOs from 15 Counties and Laboratory

Highlights

Figure 1: Public Health Events Reported



Keynotes and Events of Public Health Significance

- ◆ A total of **133 events** of public health importance including **12 deaths** reported
- ◆ **Completeness and timeliness** of health facility reports were both **97%**
- ◆ **Ongoing Lassa fever outbreak** in 2 Counties
- ◆ **Ongoing Measles outbreak** in 5 Counties
- ◆ **Ongoing Mpox outbreak** in 4 Counties

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 45, 2023

County	Expected Reports From HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	28	28	28	100	100
Bong	67	67	67	100	100
Gbarpolu	18	18	18	100	100
Grand Bassa	37	37	37	100	100
Grand Cape Mount	34	34	34	100	100
Grand Gedeh	24	24	24	100	100
Grand Kru	24	24	24	100	100
Lofa	60	60	60	100	100
Margibi	66	63	63	95	95
Maryland	28	28	28	100	100
Montserrado	418	393	389	94	94
Nimba	92	92	92	100	100
Rivercess	21	21	21	100	100
River Gee	20	20	20	100	100
Sinoe	41	41	41	100	100
Liberia	978	950	948	97	97

950(97%)
Health facilities reported IDSR data

98(100%)
Health districts reported IDSR data

948 (97%)
Health facilities reported timely IDSR data

- ◆ The national target for weekly IDSR reporting is 80%. Health facility timeliness is monitored at the health district level
- ◆ All counties reported on time to the national level

Legend:



Vaccine-Preventable Diseases

Measles

- ☞ Ten (10) suspected cases were reported from 4 counties
- ☞ Four (4) were vaccinated
- ☞ Two (2) specimens were collected and pending testing

Table 2: Distribution of Measles cases per county and epi-classification, Liberia, Epi week 1-46, 2023

COUNTY	CUMULATIVE # SUSPECTED CASES	CUMULATIVE # CONFIRMED CASES	CLASSIFICATION OF CONFIRMED CASES			DEATHS	CFR (%)	# CONFIRMED CASES WEEK 45	# CONFIRMED CASES WEEK 46	% CHANGE
			Lab confirmed	Epi Linked	Clinically Compatible					
Bomi	80	68	2	13	53	0	0.0	0	0	0
Bong	209	209	3	6	200	1	0.5	0	0	0
Gbarpolu	42	41	0	0	41	0	0.0	0	0	0
Grand Bassa	178	175	0	0	175	0	0.0	0	1	0
Grand Cape Mount	77	69	1	2	66	0	0.0	1	0	-100
Grand Gedeh	435	391	6	27	358	0	0.0	5	2	-60
Grand Kru	742	736	10	72	654	2	0.3	2	1	-50
Lofa	139	131	0	0	131	0	0.0	0	0	0
Margibi	201	199	1	8	190	0	0.0	0	0	0
Maryland	759	757	0	0	757	0	0.0	5	5	0
Montserrado	1104	1096	4	53	1039	2	0.2	5	1	-80
Nimba	376	366	2	33	331	3	0.8	0	0	0
River Gee	145	119	1	0	118	0	0.0	0	0	0
Rivercess	36	31	1	0	30	0	0.0	0	0	0
Sinoe	151	131	6	11	114	0	0.0	3	0	-100

Table 3: Vaccination Status of Measles Cases, Liberia, Epi-week 46, 2023

County	Vaccinated	Number of Doses Received		
		One Dose	Two Doses	Doses Not Indicated
Grand Gedeh	1	1	0	0
Grand Kru	1	0	1	0
Maryland	1	1	0	0
Montserrado	1	1	0	0
National	4	3	1	0

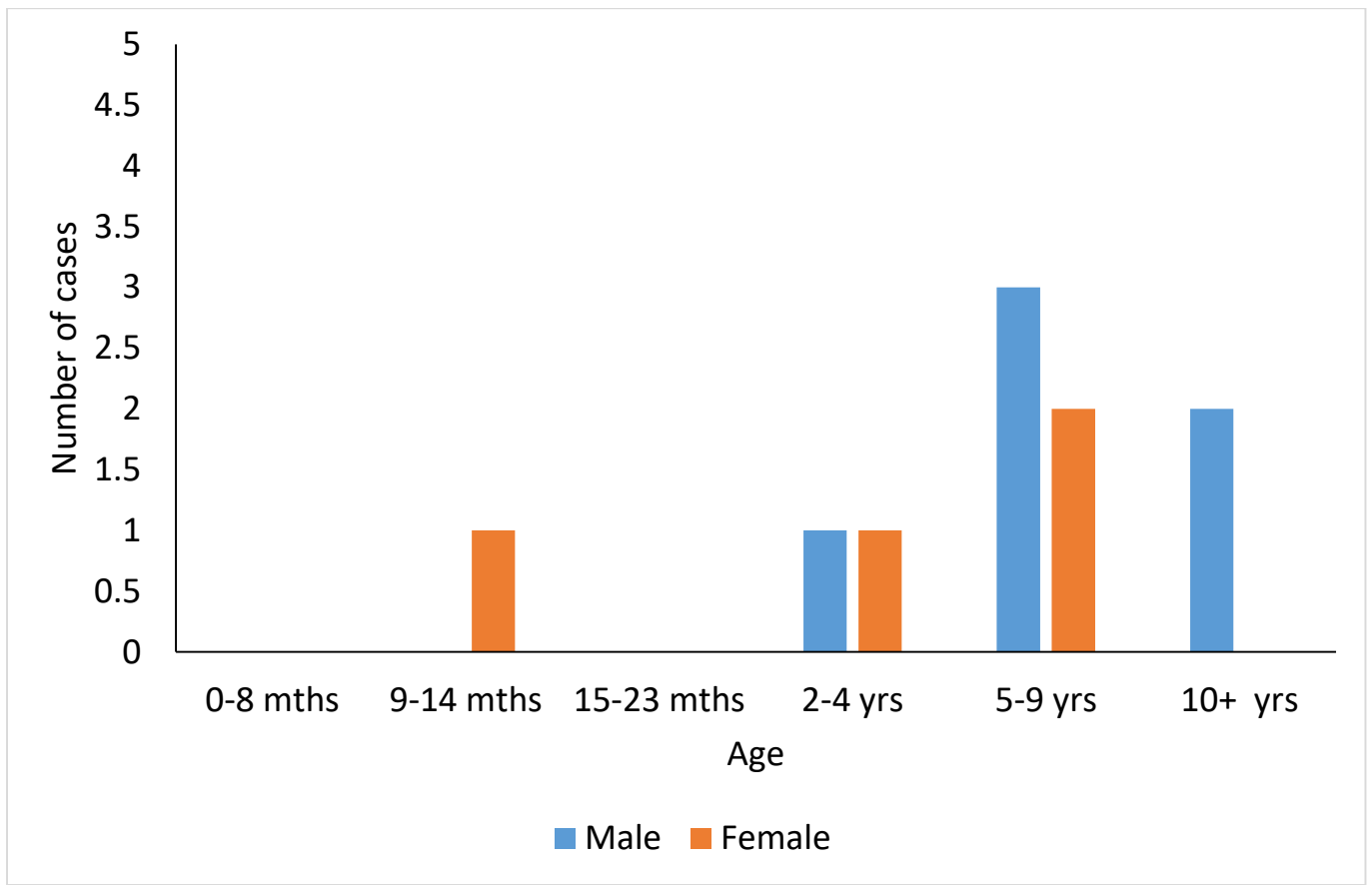


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 46, 2023

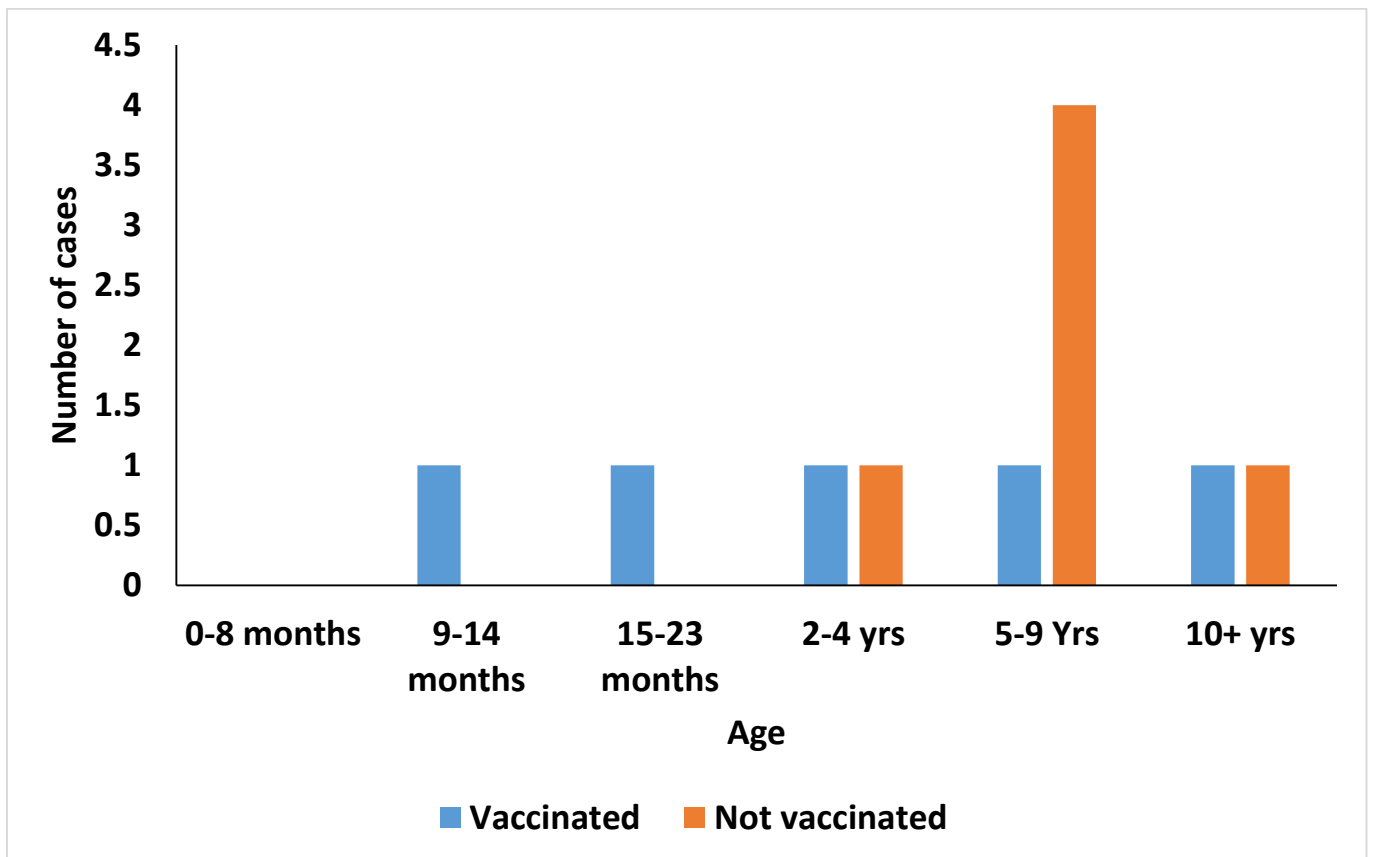


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 46, 2023

Outbreak Section

Table 4: Status of Confirmed Measles Cases by County, Liberia, December 13, 2021 – November 19, 2023

County	Total Cases	Active	Recovery	Deaths	# of Districts
Montserrado	5,369	1	5,299	69	3/7
Nimba	1,109	0	1,105	4	3/6
Grand Bassa	924	0	917	7	0/8
Margibi	803	0	802	1	0/4
Bong	578	0	575	3	0/9
Maryland	1096	3	1093	0	2/6
Lofa	284	0	284	0	0/6
Grand Kru	965	1	962	2	3/5
Grand Cape Mount	187	0	184	3	0/5
Bomi	147	0	142	5	0/4
Rivercess	84	0	83	1	0/6
Gbarpolu	46	0	46	0	0/5
Grand Gedeh	508	4	508	0	2/6
River Gee	79	0	79	0	0/6
Sinoe	231	0	231	0	0/10
Total	12,410	5	12, 310	95	13/98

Table 5: Cumulative Distribution of Measles Cases and Deaths, December 13, 2021- November 19, 2023

COUNTY	CUMULATIVE SUSPECTED CASES	CUMULATIVE CONFIRMED CASES	CLASSIFICATION OF CONFIRMED CASES			CLASSIFICATION OF CONFIRMED DEATHS			CUMULATIVE DEATHS	CFR (%)	# CONFIRMED CASES WEEK 43	# CONFIRMED CASES WEEK 44	% CHANGE	Outbreak Status
			Lab confirmed	Epi Linked	Clinically Compatible	Lab confirmed	Epi Linked	Clinically Compatible						
Montserrado	5, 452	5,369	145	1658	3, 565	3	61	5	69	1.3	5	1	-80	Ongoing
Nimba	1, 136	1109	37	187	885	0	1	3	4	0.4	0	0	-	Ongoing
Margibi	827	803	34	136	633	0	0	1	1	0.1	0	0	-	Ended
Grand Bassa	962	924	40	212	672	1	0	6	7	0.9	0	0	-	Ended
Lofa	353	284	32	66	186	0	0	0	0	0	0	0	-	Ended
Bong	603	578	22	21	535	0	1	2	3	0.5	0	0	-	Ended
Maryland	1116	1096	24	308	764	0	0	0	0	0	3	3	994	Ongoing
Grand Gedeh	652	508	34	48	426	0	0	0	0	0	4	0	-	Ongoing
Sinoe	284	231	36	84	111	0	0	0	0	0	0	0	-	Ended
Bomi	183	147	34	27	86	1	2	2	5	3	0	0	-	Ended
Grd Cape Mt	215	187	17	18	152	0	2	1	3	1.6	0	0	-	Ended
Grand Kru	994	965	22	106	837	0	0	2	2	0.2	2	1	-	Ongoing
Gbarpolu	67	46	4	2	40	0	0	0	0	0	0	0	-	Ended
Rivercess	112	84	23	54	7	0	1	0	1	1.1	0	0	-	Ended
River Gee	103	79	0	0	79	0	0	0	0	0	0	0	-	Ended
Total	13,059	12,410	504	2,927	8,979	5	68	22	95	7.8	14	5		

Public Health Response

I. Coordination

- ☞ IMS meetings are being held for coordination and mobilization of resources in response counties

II. Epidemiological Surveillance

- ☞ Active case search and contact tracing ongoing in Grand Kru County

III. Case management

- ☞ Case management ongoing in affected counties

IV. Immunization

- ☞ 70% of the cases reported were vaccinated
- ☞ Routine immunization ongoing in affected counties

V. Laboratory

- ☞ Five hundred seven (507) cases have been confirmed by the National Public Health Reference Laboratory from December 13, 2021 – November 15, 2023

VI. Risk Communication and Community Engagement

- ☞ Community engagement health education ongoing

VII. Challenges

- ☞ Limited support for response in affected counties

Acute Flaccid Paralysis (AFP)

- ☞ Three (3) cases were reported from Montserrado County
- ☞ Specimens were collected and shipped
- ☞ Cumulatively, fifty-eight (58) cases were reported
 - Thirty-six (36) tested negative
 - Twenty-two (22) pending

Neonatal Tetanus

- ☞ One case was reported from Nimba County
- ☞ Cumulatively, fifty-one (51) cases including 7 deaths reported

Influenza-Like Illnesses

Coronavirus Disease (COVID-19)

- ☞ Zero suspected cases reported
- ☞ Cumulatively, Ninety-five (95) cases have been reported

Influenza

- ☞ Zero suspected cases were reported
- ☞ Cumulatively, one hundred fifty-four (154) suspected cases reported
 - Proportion cases with sample collected (149/154) 97%
 - Proportion of cases with sample tested (64/149) 43% and all negative

Viral Hemorrhagic Diseases

Lassa fever

- ☞ Three (3) suspected cases were reported from Maryland, Nimba, and Bong Counties
- ☞ Specimens were collected and tested; 1 positive and 2 negative
- ☞ Cumulatively, two hundred ten (210) suspected cases reported
 - Proportion of suspected cases with a sample collected (194/210) 92%
 - Proportion of suspected cases with sample tested (194/194) 100% (confirmed 59, negative 135)
 - Death in Confirmed cases 18 (CFR=31%)

Current Outbreak

Lassa fever disease

- ☞ One new confirmed case was reported from Nimba County
- ☞ Cumulatively, one hundred three (103) laboratory-confirmed cases including 30 deaths reported (CFR=29%)

Table 6: Summary of Lassa fever Outbreak, Liberia, January 6, 2022 – November 19, 2023

County	Outbreak Districts	Outbreak Start Date	Total suspected cases	Total confirmed cases	Deaths in HCWs	Total Deaths	CFR %	Total Contacts	# HCW contacts	Contacts became cases	HCW became confirmed case	Contacts under follow up	Contacts completed	Days in countdown	Outbreak Status
Montserrado	Bushrod	13-Feb-23	15	2	0	1	50%	29	21	0	0	0	29	Completed	Over
	Central Monrovia	3-Mar-23	29	1	0	1	100%	28	27	0	0	0	28	Completed	Over
Bong	Suakoko	21-Apr-23	154	44	2	9	20%	473	191	6	18	44	366	Active	Ongoing
	Sanoyea	19-Sep-23	2	2	0	1	50%	36	18	0	0	0	37	Active	Ongoing
	Kokoya	3-Oct-23	1	1	0	0	0%	5	0	0	0	5	0	Active	Ongoing
	Jorquelleh	15-Oct-23	11	13	1	3	23%	121	86	3	3	41	128	Active	Ongoing
Grand Bassa	District 3A&B	21-Aug-23	86	32	0	9	28%	177	40	40	0	0	159	Completed	Over
	Buchanan	11-Aug-23	2	1	0	1	100%	4	2	0	0	0	0	Completed	Over
Nimba	Sanniquele-Mah	6-Feb-23	42	2	0	0	0%	43	35	8	0	0	43	Completed	Over
	Tappita	20-Nov-23	13	2	0	2	100%	36	17	4	0	0	36	Active	Ongoing
	Bain-Garr	1-Jun-23	10	3	0	3	100%	61	25	0	0	0	31	Completed	Over
Total			365	103	3	30	29%	1013	462	61	21	90	857		

Public Health Measures

- The National Public Health Institute of Liberia (NPHIL) and the Ministry of Health (MOH) are providing technical and logistical support to County Health Teams with support from partners.

I. Surveillance

- Active case search and contact tracing ongoing in affected communities and districts
- Development and dissemination of weekly sit-reps by affected counties

II. Laboratory

- The National Public Health Reference Laboratory continues testing of Lassa fever samples
- A total of 96 Lassa fever cases have been confirmed since this outbreak

Case management and IPC

- Cases isolated and managed at designated facilities

Environmental and Vector Control

- Ongoing clean-up campaigns and rodent control measures in Grand Bassa County

Risk Communication and Community Engagement

- Risk communication and community engagement ongoing in affected and surrounding communities
- Airing of jingles on Lassa fever prevention and control in Bong and Grand Bassa Counties

Yellow fever

- ☞ Zero cases were reported
- ☞ Cumulatively one hundred two (102) suspected cases were reported
 - Three (3) samples (3/86) 4% not transported (Epi week 5 from Grand Gedeh, River Gee, and Grand Kru Counties)
 - Proportion of suspected cases with samples collected (86/102) 84%
 - The proportion of samples tested is (71/86) 83%
 - The proportion of samples pending testing is (12/86) 14%

Dengue Fever

- ☞ Zero cases were reported

Ebola Virus Disease

- ☞ Zero cases were reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- ☞ Six (6) cases were reported from Sinoe (2), Grand Kru (1), Lofa (1), Grand Gedeh (1), and Rivercess (1) Counties
- ☞ One specimen was collected and pending testing
- ☞ Cumulatively, six hundred eighty-three (683) cases reported
 - Two hundred sixty-five (265) specimens were collected
 - 157 tested negative
 - 26 specimens rejected by NPHRL
 - 82 not tested

Severe Acute Watery Diarrhea (Suspected Cholera)

- ☞ Ten (10) suspected cases were reported from Grand Kru (5), Maryland (2), Margibi (1), River Gee (1), and Sinoe (1) Counties
- ☞ Four (4) specimens were collected and pending testing
- ☞ Cumulatively, eight hundred forty-eight (848) cases reported
 - Two hundred eighty-three (283) specimens were collected
 - 115 tested negative
 - 12 specimens rejected by NPHRL
 - 156 not tested

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

- ☞ Seventy- five (65) animal bites were reported

Table 7: Distribution of Animal Bite Cases and PEP Administration per County, Liberia, Epi week 46, 2023

Counties	Cases	Person receiving PEP	PEP doses administered	Cumulative cases (Wk 1-46)	Cumulative PEP administered (Wk 1-46)
Bomi	0	0	0	63	33
Bong	5	3	3	200	88
Gbarpolu	2	0	0	33	1
Grand Bassa	6	2	0	258	30
Grand Cape Mount	0	0	0	68	40
Grand Gedeh	3	0	0	106	15
Grand Kru	7	0	0	253	15
Lofa	3	2	0	225	89
Margibi	0	0	0	188	77
Maryland	4	4	4	186	68
Montserrado	12	3	3	941	248
Nimba	13	0	0	565	153
Rivercess	4	1	0	119	60
River Gee	1	0	1	49	0
Sinoe	5	0	0	135	6
Total	65	15	11	3389	923

Public Health Actions

- ☞ Ongoing monitoring and follow-up of cases

Meningitis

- ☞ One suspected case was reported Grand Bassa County
- ☞ No specimen was collected
- ☞ Cumulatively, thirty-nine (39) suspected cases reported
 - Proportion of suspected cases with samples collected (32/39) 82%
 - Proportion of sample tested (28/32) 88%
 - 24 negative and 4 positive (Streptococcal-3 & Hemophilus Influenza)

Mpox

- ☞ Two (2) suspected cases reported from Nimba County
- ☞ Specimens were collected and pending testing
- ☞ Cumulatively, one hundred forty (140) suspected cases reported
 - Seventeen (17) confirmed

Unexplained cluster of deaths

- ☞ Zero cases reported

Events of Public Health Importance

Maternal Mortality

- ☞ Three (3) deaths were reported from Bong (2), and Grand Cape Mount (1) Counties
- ☞ Reported causes: Post-partum hemorrhage (2), and Eclampsia (1)
- ☞ Reporting Site:
 - Health Facility (3/3) 100%
- ☞ Cumulatively, two hundred seventy-five (275) deaths reported
 - Proportion of death reviewed (70/275) 25%
 - Proportion of community death (31/70)44%

Neonatal Mortality

- ☞ Six (6) deaths were reported from Montserrado (4), Lofa (1), and Bong (1) Counties
- ☞ Reported causes: Birth asphyxia (4), Neonatal sepsis (1), and Preterm (1)
- ☞ Reporting site:
 - Health facility: 6/6 (100%)
- ☞ Cumulatively, seven hundred two (702) deaths reported

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

- ☞ Twenty-four (24) cases were reported: Sinoe (10), Montserrado (6), Gbarpolu (3), Grand Cape Mount (3), and Grand Bassa (2) Counties
- ☞ All reported cases were classified as non-serious
- ☞ Related vaccine:
 - Penta (13/24) 54%
 - TT (4/24) 17%
 - Others (7/24) 29%
- ☞ Cumulatively, nine hundred thirty-five (935) events were reported and COVID-19 accounted for (235/935) 25%

Neglected Tropical Diseases

YAWS

- ☞ Zero cases were reported
- ☞ Cumulatively, two hundred fifty-six (256) cases have been reported

Buruli Ulcer

- ☞ Zero cases were reported
- ☞ Cumulatively, one hundred seventy-one (171) cases have been reported

Border Surveillance Update

A total of 4,467 travelers were recorded for the week with incoming travelers accounting for 47% (2,078/4,467)

Table 8: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 46, 2023

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	COVID-19 Reactive	Evidence of COVID-19 vaccination card/certificate
Airport	James S. Paynes	202	92	110	10	0	0	0	0	0	20
	Robert Int'l Airport	3530	1610	1920	3518	12	12	16	0	0	3508
Seaport	Freeport of Monrovia	80	40	40	80	0	0	0	0	0	80
	Buchanan Port	38	19	19	38	0	0	0	0	0	38
Land Crossing	Bo Water Side	467	218	249	446	8	12	8	0	0	400
	Ganta	0	25	45	41	0	0	0	0	0	25
	Yekepa	69	45	24	24	0	0	0	0	0	30
	Loguatu	81	29	52	66	0	0	0	0	0	17
Total		4,467	2,078	2,459	4,223	20	24	24	0	0	4,118

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

Public Health Measures

National level

- ☞ Continue to distribute surveillance weekly ledgers and triplicate Lab alert and submission forms to the counties
- ☞ Providing remote technical and operational support to counties
- ☞ Produced and disseminated situation reports (Lassa fever, Measles, and Mpox outbreaks)

County-level

☞ Surveillance

- Publication of situational reports
- Active case search ongoing in affected and surrounding communities

☞ Case Management

- Administration of PEP
- Management of measles and Lassa fever cases ongoing in affected counties

Appendix

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

		Boni	Bong	Gbarpolu	Grand Bassa	Grand Cape Mount	Grand Gedehe	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 Disease	Acute Flaccid Paralysis (Suspected Polio)	A	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	8	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	A	0	0	0	1	0	2	1	0	0	5	1	0	0	0	0	10	4,674	37
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2
	Neonatal Tetanus	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	51	0
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	
Yellow fever	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	0	
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Viral Hemorrhagic	Dengue fever	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
		D	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
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lassa fever	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	41
	D	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	3	37	18	
Influenza-Like	COVID-19	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Influenza Like Illnesses	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	0
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Diarrheal Disease	Acute Bloody Diarrhoea (Shigellosis)	A	0	0	0	0	1	1	1	0	0	0	0	1	0	2	6	683	0	
		D	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	5	0	1	2	0	0	0	1	1	10	848	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Events of Public Health	Maternal Mortality	D	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	275		
	Neonatal Mortality	D	0	1	0	0	0	0	1	0	0	4	0	0	0	0	6	702		
	AEFI	A	0	0	3	2	3	0	0	0	0	6	0	0	0	10	24	935	0	
		D	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	
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Other Reportable Diseases	Mpox	A	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	140	14	
		D	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	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Human Exposure to Rabies (Suspected Human)	A	0	5	2	6	0	3	7	3	0	4	12	13	4	1	5	65	3,389	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Meningitis	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	39	0
	D	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		
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Neglected Tr	Buruli Ulcer	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	0
		D	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	241	4
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL		0	8	5	10	0	6	0	5	0	12	0	17	0	2	18	133	12598	77	

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 2017 (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

Epidemiological bulletin published with support from WHO and CDC

For comments or questions, please contact

Ralph W. Jetoh, MD, MPH

Director

Infectious Disease and Epidemiology Division

National Public Health Institute of Liberia

Republic of Liberia

Email: ralphica2000@gmail.com

Phone: +231 886526388/777372655

Website: www.nphil.gov.lr

National Public Health Institute of Liberia (NPHIL)

MISSION

To prevent and control public health threats by promoting healthy outcomes and serving as a source of knowledge

VISION

A center of excellence to create health outcomes for Liberians through a strong preventive health system and expertise

EDITORIAL TEAM

DIDE / NPHIL

A. N. Miannah

T. O. Yeabah

J. S. Kokro

E. Dwalu

A.B. Corvah

G. B. Williams

S. K. Zayzay

L. W. Colee

M. Tegli

T. L. Hall

S. L. Flomo

M. S. Quiah

J. O. Abel

P. J. Thomas

H. M. Sherman

M.D. Vaye

N. K. Dovillie

A. Coker

S. Nuwolo

Ministry of Health

WHO-Liberia Office

US-CDC- Liberia Office

AFENET-Liberia Office

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.