

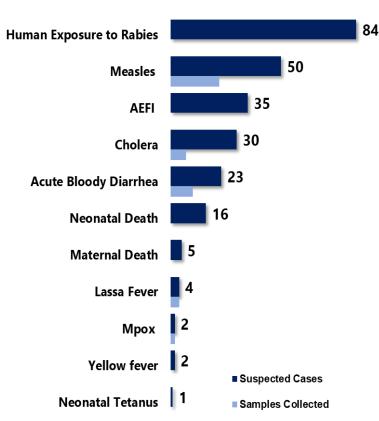
Liberia IDSR Epidemiology Bulletin

Epi-week 35 (August 28-Sept 3, 2023)

Country Population: 5,104,413 | Volume 35 Issue 18 | August 28-Sept 3, 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 252 events of public health importance including 23 deaths reported
- ◆ Completeness and timeliness of health facility reports were 97% & 98%
- Ongoing Lassa fever outbreak in 3 Counties
- ♦ Ongoing Measles outbreak in 7 Counties

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 35, 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	66	66	100	100
Maryland	28	28	28	100	100
Montserrado	418	395	393	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	945	943	98	97

- 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: ≥80

Health facilities reported IDSR data

96(98%) Health districts reported

943 (96%)
Health
facilities
reported
timely IDSR
data

Vaccine-Preventable Diseases

Measles

- Fifty (50) suspected cases were reported from 12 Counties (see distribution in Table 2)
- Twenty-two (22) specimens were collected and five pending testing
- Twenty-eight (28) were vaccinated (see distribution in Table 3)

Table 2: Distribution of Measles cases per county and epi-classification, Liberia, Epi week 35, 2023

	CUMULATIVE	CUMULATIVE :						#	# CONFIR	
COUNTY		# CONFIRMED CASES	Lab confirmed	CONFIRMED CASES ab irmed Epi Linked Clinically Compatible DEATHS CFR (%) CONFIRME D CASES WEEK 34 MED CASES WEEK 34 2 13 53 0 0.0 0 2 2 6 199 1 0.5 1 2 0 0 37 0 0.0 0 1 0 0 169 0 0.0 2 1 1 2 62 0 0.0 0 0 4 27 303 0 0.0 12 13 8 72 646 2 0.3 2 5 0 0 117 0 0.0 1 4 1 8 190 0 0.0 0 0	% CHANGE					
Bomi	77	68	2	13	53	0	0.0	0	2	0
Bong	207	207	2	6	199	1	0.5	1	2	100
Gbarpolu	38	37	0	0	37	0	0.0	0	1	0
Grand Bassa	171	169	0	0	169	0	0.0	2	1	-50
Grand Cape Mount	73	65	1	2	62	0	0.0	0	0	0
Grand Gedeh	377	334	4	27	303	0	0.0	12	13	8
Grand Kru	730	726	8	72	646	2	0.3	2	5	150
Lofa	125	117	0	0	117	0	0.0	1	4	300
Margibi	201	199	1	8	190	0	0.0	0	0	0
Maryland	677	675	0	0	675	0	0.0	8	5	-38
Montserrad o	1067	1059	4	53	1002	2	0.2	6	6	0
Nimba	339	333	2	33	298	3	0.9	7	5	-29
River Gee	135	114	0	0	114	0	0.0	3	3	0
Rivercess	34	29	1	0	28	0	0.0	0	0	0
Sinoe	129	112	5	11	96	0	0.0	2	4	100

Table 3: Vaccination Status of Measles Cases, Liberia, Epi-week 35, 2023

		Number of Doses Received							
County	Vaccinated	One Dose	Two Doses	Doses Not Indicated					
Bomi	1	0	1	0					
Bong	1	0	0	0					
Gbarpolu	1	1	0	0					
Grand Bassa	0	0	0	0					
Grand Cape Mount	0	0	0	0					
Grand Gedeh	8	8	0	0					
Grand Kru	0	0	0	0					
Lofa	4	2	0	2					
Margibi	0	0	0	0					
Maryland	0	0	0	0					
Montserrado	5	5	0	0					
Nimba	3	3	0	0					
River Gee	3	0	0	3					
Rivercess	0	0	0	0					
Sinoe	2	0	2	0					
National	28	19	3	5					

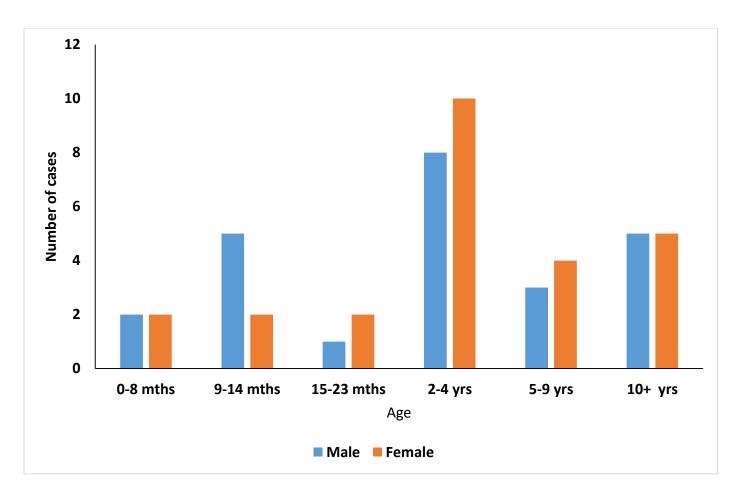


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 35, 2023

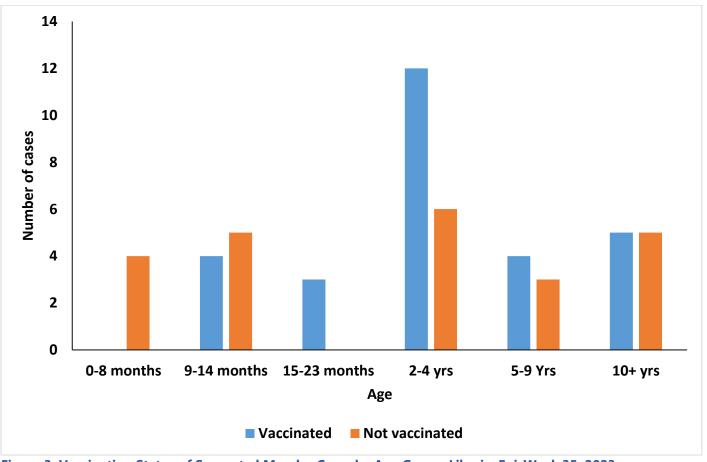


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 35, 2023

Outbreak Section

Table 4: Cumulative Distribution of Measles Cases and Deaths, December 13, 2021- September 3, 2023

COUNTY	CUMULA TIVE SUSPECT ED	CUMULATI VE CONFIRME		SIFICATI FIRMED			SIFICAT IRMED D		CUMULA TIVE DEATHS	CFR (%)	# CONFIR MED CASES	# CONFIRM ED CASES WEEK 35	% CHANGE	Outbre ak Status
	CASES	D CASES	Lab confirmed	Epi Linked	Clinically Compatible	Lab confirmed	Epi Linked	Clinically Compatible	22.111.0		WEEK 34			Status
Montserrado	5, 424	5,338	145	165 7	3, 535	3	61	5	69	1.3	6	5	17	Ongoi ng
Nimba	1, 105	1,074	37	187	850	0	1	3	4	0.4	7	5	-29	Ongoi ng
Margibi	827	803	34	136	633	0	0	1	1	0.1	0	0	-	Ended
Grand Bassa	946	908	40	212	656	1	0	6	7	0.9	2	1	-50	Ongoi ng
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	1	2	-100	Ongoi ng
Maryland	1064	1044	24	308	717	0	0	0	0	0	8	3	-63	Ongoi ng
Grand Gedeh	617	457	34	48	375	0	0	0	0	0	11	12	9	Ongoi ng
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	982	953	22	106	825	0	0	2	2	0.2	0	4	-	Ongoi ng
Gbarpolu	67	46	4	2	40	0	0	0	0	0	0	0	1	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	12,885	12,213	504	2,95 8	8,753	5	68	22	95	7.8	35	32		

Public Health Response

I. Coordination

- o IMS meetings are being held for coordination and mobilization of resources in response counties
- County and District Rapid Response Teams (RRTs) have been activated and taking the lead in the response in Grand
 Kru County

II. Epidemiological Surveillance

- Line listed 11 new contacts from Grand Kru County
- o Contact tracing is ongoing in the affected communities in Grand Kru County
- Daily monitoring of contacts at the community level by CHSS, CHAs, and CHPs ongoing in Grand Kru County

III. Case management

Case management ongoing

IV. Immunization

Routine immunization ongoing

V. Laboratory

- Specimens were collected from Bong-Jorquelleh, Nimba-Gbehlay-Geh, River Gee-Jedepo, and Sinoe- Pynes and Kpanyan Districts.
- Five hundred four (504) cases have been confirmed by the National Public Health Reference Laboratory from December 13, 2021 – September 6, 2023.

VI. Risk Communication and Community Engagement

Ongoing community advocacy meetings with local leaders and family members in the affected communities in Grand Kru County

 Awareness and health education are ongoing on the spread and prevention of Measles at health facility and community levels in Grand Kru County

Acute Flaccid Paralysis (AFP)

- Zero suspected cases reported
- Cumulatively, thirty-four (34) cases were reported
 - o Ten (10) tested negative
 - o Twenty-four (24) pending

Neonatal Tetanus

- One (1) case was reported from Montserrado county
- Cumulatively, forty-four (44) cases including 6 deaths reported

Influenza-Like Illnesses

Influenza

- Zero suspected cases were reported
- Cumulatively, eighty-nine (89) suspected cases reported
 - o Proportion cases with sample collected (84/89) 94%
 - o Proportion of cases with sample tested (24/84) 29% and all negative

Viral Hemorrhagic Diseases

Lassa fever

- Four (4) suspected cases were reported from Bong, Grand Bassa, Montserrado (death) and Nimba (death) Counties
- Specimens were collected; 2 positive and 2 negative
- Cumulatively, one hundred and seventy (170) suspected cases reported
 - o Proportion of suspected cases with a sample collected (157/170) 92%
 - o Proportion of suspected cases with sample tested (155/170) 91% (confirmed 46, negative 109)

Current Outbreak

Lassa fever disease

- No new confirmed cases reported
- Cumulatively, eighty-seven (87) laboratory-confirmed cases including 26 deaths reported (CFR=30%)

Table 6: Summary of Lassa fever Outbreak, Liberia, January 6, 2022- September 7, 2023

County	Outbreak Districts	Outbreak Start Date	Total suspected cases	Total confirmed cases	Deaths in HCWs	Total Deaths	CFR %	Total Contacts	#HCW contacts	Contacts_b ecame cases	HCW became confirmed case	Contacts under follow up	Contacts completed	Days in countdown	Outbreak Status
	Bushrod	13-Feb-23	15	2	0	1	50%	29	21	0	0	0	29	Completed	Over
Montserrado	Central Monrovia	3-Mar-23	28	1	0	1	100%	28	27	0	0	0	28	Completed	Over
	Suakoko	21-Apr-23	140	38	2	8	21%	342	168	6	4	8	334	Active	Ongoing
Bong	Sanoyea	5-Apr-22	1	1	0	1	100%	31	15	0	0	0	31	Completed	Over
	Jorquelleh	6-Jan-22	13	9	1	2	25%	107	69	3	3	0	107	Completed	Over
Grand Bassa	District 3A&B	9-Sep-22	86	32	0	9	28%	177	35	2	0	18	159	Active	Ongoing
	Buchanan	11-Aug-23	2	1	0	1	100%	4	2	0	0	4	0	Active	Ongoing
Nimba	Sanniquellie- Mah	6-Feb-23	36	2	0	0	0%	43	35	8	0	0	43	Completed	Over
Nilliba	Tappita	13-Mar-23	12	1	0	1	100%	36	17	4	0	0	36	Completed	Over
	Bain-Garr	1-Jun-23	10	3	0	3	100%	30	25	0	0	0	30	Active	Ongoing
Total	8		343	90	3	27	30%	827	414	23	7	30	797		

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 sitreps by affected counties

C

II. Laboratory

- The National Public Health Reference Laboratory continues testing of Lassa fever samples
- Total of 87 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
- o Airing of jingles on Lassa fever prevention and control in Bong and Grand Bassa Counties

Yellow fever

- Two (2) suspected cases were reported from Grand Kru County
- One specimen was collected and pending testing
- Cumulatively eighty-one (81) suspected cases were reported
 - Three (3) samples (3/63) 5% not transported (Epi week 5 from Grand Gedeh, River Gee, and Grand Kru Counties)
 - o Proportion of suspected cases with sample collected (67/81) 83%
 - o The proportion of samples tested is (40/64) 63%
 - o The proportion of samples pending testing is (24/64) 38%

Dengue Fever

Zero cases were reported

Ebola Virus Disease

Zero cases were reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- Twenty-three (23) cases were reported: Nimba (5), Sinoe (5), River Gee (3), Grand Kru (2), Grand Gedeh (2), Rivercess (2), Grand Bassa (1), Lofa (1), Margibi (1), and Maryland (1) Counties
- Ten (10) specimens were collected and pending testing
- Cumulatively, four hundred and ninety-three (493) cases were reported
 - One hundred seventy-two (172) specimens were collected
 - 79 tested negative
 - 83 specimens were not transported
 - 10 pending testing

Severe Acute Watery Diarrhea (Suspected Cholera)

- Thirty (30) suspected cases were reported: Nimba (10), Lofa (6), Grand Kru (4), Margibi (3), Maryland (3), Bomi (1), Bong (1), River Gee (1), and Rivercess (1) Counties
- Seven (7) specimens were collected and pending testing
- Cumulatively, six hundred fifty-nine (659) cases reported
 - Two hundred three (203) specimens collected
 - o 65 tested negative
 - 7 specimens rejected

- 125 specimens were not transported
- o 6 pending testing

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

Eighty-four (84) animal bites reported

Table 6: Distribution of Animal Bite Cases and PEP Administration per County, Liberia, Epi week 35, 2023

Counties	Cases	Person receiving PEP	PEP doses administered	Cumulative cases	Cumulative PEP administered (Wk 1-35)
Bomi	1	0	0	50	29
Bong	2	0	0	160	67
Gbarpolu	1	0	0	22	1
Grand Bassa	9	0	0	215	18
Grand Cape Mount	0	0	0	55	34
Grand Gedeh	4	0	0	84	10
Grand Kru	4	0	0	189	15
Lofa	7	4	4	177	70
Margibi	9	1	1	144	62
Maryland	3	1	1	136	48
Montserrado	27	7	7	708	178
Nimba	14	2	2	371	133
Rivercess	0	0	0	41	52
River Gee	1	0	0	91	0
Sinoe	2	0	0	94	6
Total	84	15	15	2537	723

Public Health Actions

Ongoing monitoring and follow-up of cases

Meningitis

- Zero cases were reported
- Cumulatively, thirty-one (31) suspected cases reported
 - Proportion of suspected cases with samples collected (26/31) 84%
 - o Proportion of sample tested (22/26) 85%
 - o 17 negative and 4 positive (Streptococcal-3 & Hemophilus Influenza)

Mpox

- Two (2) cases were reported from Grand Kru and Nimba Counties
- Two (2) specimens were collected and pending testing
- Cumulatively, one hundred thirteen (113) suspected cases reported
 - o Seven (7) confirmed

Unexplained cluster of deaths

Zero cases reported

Events of Public Health Importance

Maternal Mortality

- Five (5) deaths were reported: Nimba (2), Grand Gedeh (1), Grand Kru (1), and Sinoe (1) Counties
- Reported causes: Post-partum Hemorrhage (3), and Eclampsia (2)
- Reporting Site:
 - Health facility: 100% (5/5)
 - Community
- Cumulatively, two hundred twenty-seven (227) deaths reported
 - o Proportion of death reviewed (58/227) 26%
 - Proportion of community death (27/227)12%

Neonatal Mortality

- Fourteen (14) deaths were reported: Montserrado (10), Sinoe (2), Gbarpolu (1), and Maryland (1) Counties
- Reported causes: Asphyxia (6), Preterm (6) and Sepsis (2)
- Reporting sites:
 - Health facility: 100% (14/14)
 - o Community: 0
- Cumulatively, five hundred forty-six (546) deaths reported

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

- Thirty-five ((35) cases were reported: Lofa (11), Sinoe (9), Bomi (7), Grand Gedeh (3), Grand Bassa (2), Gbarpolu (1), Grand Cape Mount (1) and Rivercess (1) Counties
- All reported cases were non-serious
- Related vaccine:
 - o Penta (13/35) 37%
 - o COVID-19 (10/35) 29%
 - o Others (12/35) 34%
- Cumulatively, five hundred six (506) events were reported and COVID-19 accounted for (179/506) 35%

Neglected Tropical Diseases

YAWS

- Zero cases reported
- Cumulatively, one hundred ninety-two (192) cases have been reported

Buruli Ulcer

- Zero suspected cases reported
- Cumulatively, one hundred nineteen (119) cases have been reported

Border Surveillance Update

A total of 4,688 travelers were recorded for the week with incoming travelers accounting for 48% (2,242/4,688)

Table 7: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 35, 2023

Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Total traverlers with YB	Yellow Book Damage	Card Replaced	Travelers Vaccinate d against YF & Issued book	Alerts detected/ Verified	COVID-19 Reactive	Evidence of COVID-19 vaccination card/certificate
	James S. Paynes	164	81	83	5	0	0	0	0	0	10
Airport	Robert Int'l Airport	3503	1565	1938	3428	66	66	18	0	0	3417
Seaport	Freeport of Monrovia	136	68	68	136	0	0	0	0	0	136
	Buchanan Port	134	67	67	134	0	0	0	0	0	134
	Bo Water Side	463	277	186	460	3	3	0	0	0	430
Land Crassing	Ganta	119	81	38	41	0	0	0	0	0	34
Land Crossing	Yekepa	70	51	19	34	0	0	0	0	0	42
	Loguatuo	99	52	47	58	0	0	0	0	0	44
Total		4,688	2,242	2,446	4,296	69	69	18	0	0	4,247

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
- Distribution of 10 motorcycle to nine DSO's and one CSO from seven counties
- Providing remote technical and operational support to counties
- Produced and disseminated situation reports (Lassa fever, Measles, and Mpox outbreaks)

County-level

Coordination

Partner coordination and resource mapping

Surveillance

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

Case Management

- o Administration of PEP
- Management of measles cases ongoing

Appendix Summary of Immediately Reportable Diseases, Conditions, and Events by County **Cumulative Lab-confirmed Cumulative Reported Grand Cape Mount Grand Gedeh** Total Weekly **Grand Bassa Grand Kru** Maryland Gbarpolu Rivercess Sinoe Bong Lofa No. of Expected Health District No. of Health District Reported Acute Flaccid Paralysis (Suspected Polio) Dise D Viral Hemorrhagic Fe Vaccine Preventable 4,380 Α Measles D Α Neonatal Tetanus D Α Yellow fever D Α Dengue fever D Α Ebola Virus Disease D Α Lassa fever D Influe nza-Lik Α COVID-19 D Α Influenza Like Illnesses D Diarrheal Disea Α Acute Bloody Diarrhoea (Shigellosis) D Α Severe Acute Watery Diarrhoea (Cholera) D **Events of Public Health Ir** D Maternal Mortality Neonatal Mortality D Α D Unexplained Cluster of Health Events/Diseas D Α χοαΜ Other Reportable Diseases D Α **Tuberculosis** D 2,537 Human Exposure to Rabies (Suspected Hum D Α Meningitis D Α Unexplained Cluster of deaths D Neglected Tr Α Buruli Ulcer D Α

D = Dead **A** = Alive

Yaws

D

TOTAL 11

Notes

Completeness refers to the proportion of expected weekly IDSR reports received (target: ≥80%)

- Timeliness refers to the proportion of expected weekly IDSR reports received by the next level on time (target: ≥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: ≥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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For comments or questions, please contact

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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.