

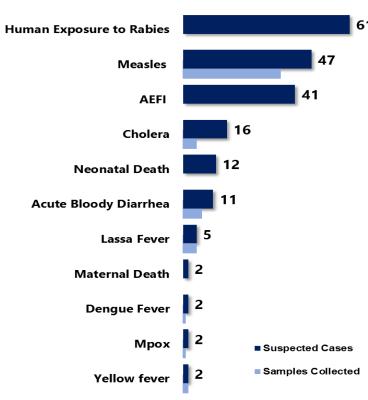
Liberia IDSR Epidemiology Bulletin

Epi-week 6 (February 5-11, 2024)

Country Population: 5,104,413 | Volume 20 Issue 6 | February 5-11, 2024 | 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 201 events of public health importance including 17 deaths reported
- Completeness and timeliness of health facility reports were both 97% respectively
- Ongoing Lassa fever outbreak in one County
- Ongoing Measles outbreak in 4
 Counties
- ♦ Ongoing Mpox outbreak in 1 county

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 6, 2024

County	Expected Reports From HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	28	28	28	100	100
Bong	67	62	62	93	93
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	397	396	94	95
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	949	948	97	97

The national target for weekly IDSR reporting is 80%. Health facility timeliness is monitored at the health district level

Legend:

≥80 <8

<80

949(97%)

98(100%)
Health
districts
reported
IDSR data

950(97%)

Vaccine-Preventable Diseases

<u>Measles</u>

- Forty-seven (47) suspected cases were reported (see table below)
- Thirty-six (36) specimens were collected and twenty-nine (29) tested: 10 positive, 19 negative
- Thirty-two (32) persons were vaccinated

Table 2: Distribution and vaccination Status of Measles Cases, Liberia, Epi-week 6, 2024

			N	lumber of D	oses Received
			One	Two	
County	# of cases	Vaccinated	Dose	Doses	Doses Not Indicated
Bomi	1	0	0	0	0
Bong	1	1	0	0	1
Grand Bassa	1	0	0	0	0
Grand Gedeh	7	3	3	0	0
Grand Kru	6	5	3	2	0
Lofa	1	1	1	0	0
Maryland	14	9	8	1	0
Montserrado	1	1	1	0	0
Nimba	9	7	7	0	0
River Gee	4	4	0	1	3
Sinoe	2	1	1	0	0
Total	47	32	24	4	4

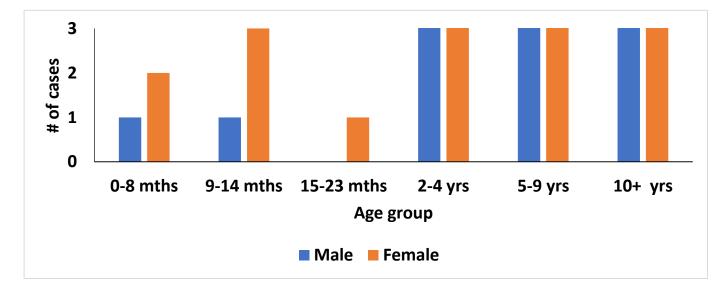


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 6, 2024

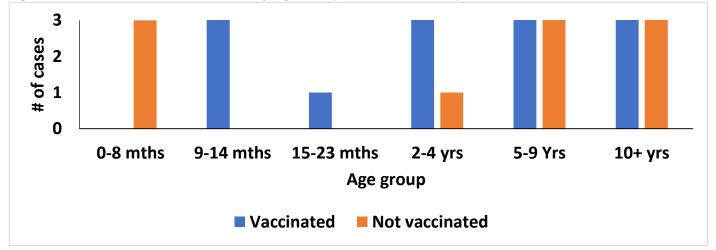


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 6, 2024

Current Outbreak

Table 3: Status of Confirmed (lab, clinically confirmed and epi-linked) Measles Cases by County, Liberia, December 13, 2021-February 11, 2024

COUNTY	CUMULA TIVE SUSPECT ED CASES	CUMULAT I VE CONFIRM E D CASES	CLASSIFIC CONFIRMI				SSIFICATIO NFIRMED DE		CUMUL ATIVE DEATHS	CFR (%)	# CONFIR MED CASES WEEK	# CONFIRM ED CASES WEEK 6	% CHAGE	Outbrea k Status
			Lab confirmed	Epi Linked	Clinically Compati ble	Lab confirmed	Epi Linke d	Clinically Compati ble			5			
Montserra do	5, 456	5,373	148	1658	3, 567	3	61	5	69	1.3	0	0	-	Ended
Nimba	1, 141	1114	48	191	875	0	1	3	4	0.4	0	4	-	Ongoing
Margibi	827	803	37	136	630	0	0	1	1	0.1	0	0	_	Ended
Grand Bassa	962	924	41	212	671	1	0	6	7	0.9	0	0	-	Ended
Lofa	353	284	35	66	183	0	0	0	0	0	0	0	_	Ended
Bong	603	578	25	21	532	0	1	2	3	0.5	0	0	-	Ended
Maryland	1,204	1184	26	308	850	0	0	0	0	0	15	13	-13	Ongoing
Grand Gedeh	667	518	57	52	409	0	0	0	0	0	5	5	-	Ongoing
Sinoe	284	231	48	84	99	0	0	0	0	0	0	0	-	Ended
Bomi	183	147	37	27	83	1	2	2	5	3	0	0	_	Ended
Grd Cape MT	215	187	23	18	146	0	2	1	3	1.6	0	0	-	Ended
Grand Kru	994	965	42	106	817	0	0	2	2	0.2	0	0	-	Ended
Gbarpolu	67	46	5	2	39	0	0	0	0	0	0	0	_	Ended
Rivercess	112	84	26	54	4	0	1	0	1	1.1	0	0	-	Ended
River Gee	106	82	21	3	58	0	0	0	0	0	0	3	-	Ongoing
Total		13,174	12,520	619	2,938	8,963	5	68	22	95	7.8	20	25	

Table 4: Distribution of Measles Cases by County, from December 13, 2021 - February 11, 2024

County	Total Cases	Active	Recovery	Deaths	# of Districts
Montserrado	5,373	0	5,304	69	0/7
Nimba	1,114	0	1,106	4	1/6
Grand Bassa	924	0	917	7	0/8
Margibi	803	0	802	1	0/4
Bong	578	0	575	3	0/9
Maryland	1184	13	1171	0	3/6
Lofa	284	0	284	0	0/6
Grand Kru	965	0	963	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	46	0	46	0	0/5
Grand Gedeh	518	5	513	0	2/6
River Gee	82	3	79	0	1/6
Sinoe	231	0	231	0	0/10
Total	12,520	25	12, 400	95	7/98

I. Coordination

IMS meetings are being held for coordination and mobilization of resources

II. Epidemiological Surveillance

 Active case search and contact tracing ongoing in affected Districts (Pleebo, Konobo, Tchien, Karluway-II, Potupo, and Harper) in Maryland, River Gee, Nimba, and Grand Gedeh Counties.

III. Case management

Case management ongoing in Maryland, Nimba, River Gee and Grand Gedeh Counties

IV. Immunization

Routine immunization intensified in affected districts (Pleebo, Konobo, Karluway-II, and Harper) in Maryland County

V. Laboratory

- National Public Health Reference Laboratory confirmed two measles cases from Konobo-2, Grand Gedeh County and Saclepea Mahn-1, Nimba County
- Six hundred nineteen (619) cases have been confirmed by the NPHRL from December 13, 2021 February 11, 2024.

VI. Risk Communication and Community Engagement

Community engagement and health education ongoing in affected and surrounding communities.

VII. Challenges

Limited support for response in Counties

Acute Flaccid Paralysis (AFP)

- Zero case was reported
- Cumulatively, three (3) cases reported and pending testing

Neonatal Tetanus

- Zero case was reported
- Cumulatively, three (3) cases have been reported

Influenza-Like Illnesses

Coronavirus Disease (COVID-19)

Zero case was reported

Influenza

- Five (5) cases reported from Montserrado County
- Specimens collected and tested negative
- Cumulatively, ten (10) suspected cases reported
 - o Ten specimens collected: 5 tested negative, 5 pending verification

Viral Hemorrhagic Fever

Lassa fever

- Five (5) suspected cases including two (2) deaths were reported from Nimba (3 including 1 death), Montserrado (1 including 1 death), and Bong (1) Counties
- Specimens were collected and tested negative
- Cumulatively, twenty-eight (28) suspected cases have been reported
 - o Proportion of suspected cases with sample collected (28/28) 100%
 - o Proportion of suspected cases with sample tested (28/28) 100% (negative 27, Confirmed 1)

Current Outbreak

- No new confirmed case reported
- All contacts completed 21 days follow up

- Cumulative Case Fatality Rate (CFR): 29% (32/110)
- One county currently in countdown (Nimba)

Table 5: Summary of Lassa fever Outbreak, Liberia, January 6, 2022- February 11, 2024

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
	Bushrod	13-Feb-23	15	2	0	1	50%	29	21	0	0	0	29	Completed	Over
Montserrado	Central Monrovia	27-Nov-23	1	1	0	0	0%	49	0	0	0	0	49	Completed	Over
	Central Monrovia	3-Mar-23	29	1	0	1	100%	28	27	0	0	0	28	Completed	Over
	Suakoko	21-Apr-23	160	47	2	10	21%	480	194	6	18	0	417	Completed	Over
Bong	Sanoyea	19-Sep-23	2	2	0	1	50%	36	18	0	0	0	37	Completed	Over
Dong	Kokoya	3-Oct-23	1	1	0	0	0%	5	0	0	0	0	5	Completed	Over
	Jorquelleh	15-Oct-23	12	13	1	3	23%	121	86	3	3	0	169	Completed	Over
Grand Bassa	District 3A&B	21-Aug-23	86	32	0	9	28%	177	40	40	0	0	159	Completed	Over
Grand Dassa	Buchanan	11-Aug-23	2	1	0	1	100%	4	2	0	0	0	0	Completed	Over
	Sanni quellie-Mah	6-Feb-23	42	2	0	0	0%	43	35	8	0	0	43	Completed	Over
Nimba	Tappita	20-Nov-23	16	4	0	3	75%	88	39	4	0	0	77	11	Countdown
	Bain-Garr	1-Jun-23	10	3	0	3	100%	61	25	0	0	0	31	Completed	Over
Total			376	110	3	32	29%	1121	487	61	21	0	1044		

Public Health Measures

Coordination

• The National Public Health Institute of Liberia (NPHIL) and the Ministry of Health (MOH) are providing technical support to the surveillance team with support from partners.

Surveillance:

- Active case search ongoing in affected communities and districts
- Weekly situation reports developed and disseminated to stakeholders

Laboratory

- The National Public Health Reference Laboratory continues testing of Lassa fever samples
- o A total of 110 Lassa fever cases have been confirmed since this outbreak

Case management and IPC

- o Cases are being isolated and managed at designated facilities
- o Ribavirin supply in country are being distributed for treatment of Lf cases to affected counties

Risk Communication and Community Engagement

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

Yellow fever

- Two (2) suspected cases were reported from River Gee, and Grand Kru Counties
- Two (2) specimens were collected and pending testing
- Cumulatively, nine (9) cases have been reported
 - o Proportion of suspected cases with samples collected (9/9) 100%
 - o Proportion of suspected cases with samples tested (3/9) 33% (negative 3)
 - o Proportion of specimen did not reach the lab (4/9) 44%

Dengue Fever

- Two (2) suspected cases were reported from Maryland County
- One (1) specimen collected and pending arrival
- Cumulatively, three (3) suspected case reported

Ebola Virus Disease

Zero cases were reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- Eleven (11) cases were reported from Grand Gedeh (3), Montserrado (2), Nimba, (1), Lofa (1), Sinoe (1), Maryland (1), Grand Kru (1), Grand Cape Mount (1) Counties
- Seven (7) specimens were collected: 6 pending and 1 rejected
- Cumulatively, forty-one (41) cases have been reported
 - o 17 specimen collected, 8 reached the Lab
 - o 6 tested negative, while 2 rejected

Severe Acute Watery Diarrhea (Suspected Cholera)

- Sixteen (16) cases were reported from Maryland (6), Lofa (4), Nimba (3), Sinoe (1), Grand Bassa (1), and Grand Gedeh (1) Counties
- Three (3) Specimen were collected and pending testing
- Cumulatively, forty (40) cases have been reported
 - 10 samples received, 2 samples rejected
 - o 5 tested negative, others pending result

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

- Sixty-one (61) animal bite cases were reported from Montserrado (21), Nimba (7), Grand Kru (7), Maryland (4), Bomi (4 including one death attributed to snake bite), Margibi (3), Lofa (3), Grand Bassa (3), Bong (2), River Gee (2), Rivercess (2), Gbarpolu (1), Grand Gedeh (1), and Grand Cape Mount (1) Counties
- 60 bites were attributed to dog
- 1 bite attributed to snake
- Proportion of cases investigated: 36/61 (59%)
- Proportion of dogs vaccinated: 0/36 (0%)
- Cumulatively, 377 cases have been reported

Public Health Actions

- All cases were clinically managed and sent home
- FEP Administered to 8 persons: Maryland (3), Bong (2), Lofa (2), and Grand Gedeh (1) Counties
- Twenty-three (23) dogs restrained and undergoing 14 days' follow-up
 - All cases were investigated only by the human health surveillance team

Tuberculosis

- Zero case was reported
- Cumulatively, twenty-five (25) cases have been reported

Meningitis

- Zero suspected cases reported
- Cumulatively, five (5) suspected cases have been reported
 - o Proportion of specimen collected (5/5) 100%
 - o Proportion of specimen tested (5/5) 100% (4 negative, 1 positive)

Mpox

- Two (2) suspected cases reported from Bomi, and Sinoe Counties
- Two (2) Specimen collected: 1 tested negative and 1 rejected (Sinoe)
- Cumulatively, eight (8) suspected cases have been reported, 1 tested positive, 5 negative, 1 rejected, 1 sample not tested

Unexplained cluster of deaths

Zero cases reported

Unexplained cluster of Health Events

Zero cases reported

Events of Public Health Importance

Maternal Mortality

- Two (2) deaths were reported from Lofa (1), and Montserrado (1) Counties
- Reported causes: PPH (2)
 - Reporting sites
 - o Health facility (2/2) 100%
- Cumulatively, twenty-seven (27) deaths reported
 - o Proportion of deaths reviewed (11/27) 41%

Neonatal Mortality

- Twelve (12) deaths were reported from Montserrado (7), Bong (4), and Grand Gedeh (1) Counties
- Reported causes: Neonatal sepsis (6), Birth asphyxia (4), and pending review (1)
 - o Reported sites:
 - Health facility (10/12) 83%
 - Community (2/12) 17%
- Cumulatively, forty-six (46) deaths reported
 - o Proportion of deaths reviewed (8/46) 17%

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

- Forty-one (41) suspected cases were reported from Grand Cape Mount (13), Sinoe (11), Bomi (4), Maryland (4), River Gee (3), Lofa (2), Grand Kru (2), Grand Gedeh (1), and Montserrado (1) Counties
- All reported cases were classified as non-serious
- Related drugs: Mectizan (3/41) 7%
- Related vaccine:
 - o Penta (15/41) 37%
 - o COVID-19 (12/41) 29%
 - o Others (12/41) 29%
- Cumulatively one hundred thirty-four (134) events were reported

Neglected Tropical Diseases

YAWS

Zero cases were reported

Buruli Ulcer

Zero cases were reported

Border Surveillance Update

A total of 4939 travelers were recorded for the week with incoming travelers accounting for 51% (2508/4879)

Table 6: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 6, 2024

				<u> </u>		<u>, </u>				
Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Total traverlers with YB	Yellow Book Damage	Card Replaced	Vaccinate d against YF & Issued	Alerts detected/ Verified	Evidence of COVID-19 vaccination card/certificate
	James S. Paynes	91	43	48	10	0	0	0	0	5
Airport	Robert Int'l Airport	3888	2045	1843	3865	3	18	5	0	2032
Seaport	Freeport of Monrovia	89	45	44	89	0	0	0	0	89
Зеароп	Buchanan Port	120	60	60	120	0	0	31	0	120
	Bo Water Side	479	328	151	474	0	5	0	0	239
Ground	Ganta	121	38	83	65	9	9	0	0	33
Crossing	Yekepa	60	36	24	16	0	0	0	0	23
	Loguatuo	91	52	39	75	0	0	0	0	16
Total		4,939	2,647	2,292	4,714	12	32	36	0	2,557

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

Public Health Measures

National level

- Providing remote technical and operational support to counties
- Produced and disseminated situation reports (Lassa fever, Measles, and Mpox outbreaks)
- Produced and disseminate weekly bulletin

County-level

Surveillance

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

Case Management

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

Appendi				6-				l e			C									
summar	y of Immediately Reportable Di	sea	ses,	Col	nait	ions	, an	a Ev	ent	s by	Col	inty								<u> </u>
			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 Expec	No. of Expected Health District		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98		
No. of Healt	h District Reported		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98		
Vaccine Preventable Diseas	Acute Flaccid Paralysis (Suspected Polio)	A D	0	0	0	0	0	0 0 7	0	0	0	0	0	0	0	0	0	0	3 0 174	0 0 10
ntabl	Measles	A D	0	0	0	0	0	0	6	0	0	0	0	9	0	0	0	47 0	0	0
reve	Neonatal Tetanus	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
cine F		D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	0
Vacı	Yellow fever	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Viral Hemorrhagic Fe	Dengue fever	A D	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	3 0	0
rrha		A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
e mo	Ebola Virus Disease	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
/iral	Lassa fever	A D	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	24 4	0
	COMP 10	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nza-l	COVID-19	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diarrheal Disea Influenza-Like	Influenza Like Illnesses	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10 0	0
liseal	Acute Bloody Diarrhoea (Shigellosis)	Α	0	0	0	0	1	3	1	1	0	1	2	1	0	0	1	11	41	0
eal D	redic bloody blaimoca (Shigehosis)	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
iarrh	Severe Acute Watery Diarrhoea (Cholera)	A D	0	0	0	0	0	0	0	0	0	6	0	3	0	0	0	16 0	40 0	0
	Maternal Mortality	D	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2	27	U
Events of Public Health Ir	Neonatal Mortality	D	0	4	0	0	0	1	0	0	0	0	7	0	0	0	0	12	46	
l plic I	iveoriatal ivioriality	A	4	0	0	0	13	1	2	2	0	4	1	0	0	3	11	41	92	0
of Pu	AEFI	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ents	Unexplained Cluster of Health Events/Disease	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ā	,, 5,000	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Şi	Мрох	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	0
sease	·	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0
le Dis	Tuberculosis	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ortab	Human Exposure to Rabies (Suspected Huma		3 1	2	0	3	0	1	7	3	3	4 0	21	7	2	2	0	60 1	376 1	0
Rep	Tuberculosis Human Exposure to Rabies (Suspected Human A) Meningitis D A D A D A		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1
)ther			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
J	Unexplained Cluster of deaths		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ė	Buruli Ulcer	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ectec	Buluii Oicei	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neglected Tr	Yaws	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TO	TAL	10	7	2	5	0	14	0	12	0	31	0	23	0	10	16	201	891	3

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

Epidemiological bulletin published with support from WHO and CDC

For comments or questions, please contact

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National Public Health Institute of Liberia (NPHIL)

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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

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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.