



Liberia IDSR Epidemiology Bulletin

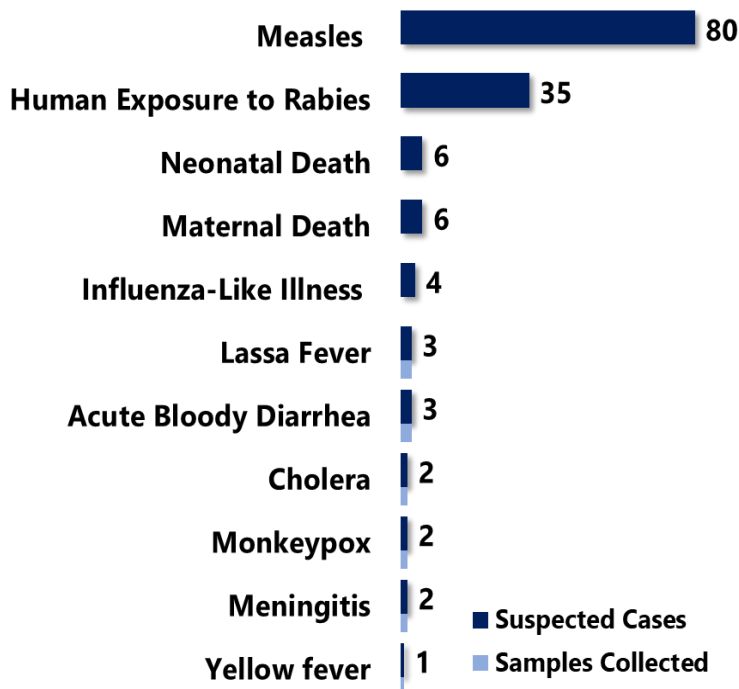
Epi-week 1 (January 2 - 8, 2023)

Country Population: 5,104,413 | Volume 18 Issue 1 | Jan 2 -8, 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 144 events of public health importance including 12 deaths reported
- ◆ Completeness and timeliness of health facility reports were 100% respectively
- ◆ Ongoing Lassa fever outbreak in 3 Counties
- ◆ Ongoing Measles outbreak in 13 Counties
- ◆ Ongoing Monkeypox outbreak in Rivercess and Lofa Counties

Adverse Events Following Immunization/Adverse Drug Reaction

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 1, 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	418	418	100	100
Nimba	91	91	91	100	100
Rivercess	21	21	21	100	100
River Gee	20	20	20	100	100
Sinoe	41	41	41	100	100
Liberia	977	977	977	100	100

977(100%)
Health facilities reported IDSR data

93 (100%)
Health districts reported IDSR data

977(100%)
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

Legend: ≥80 <80



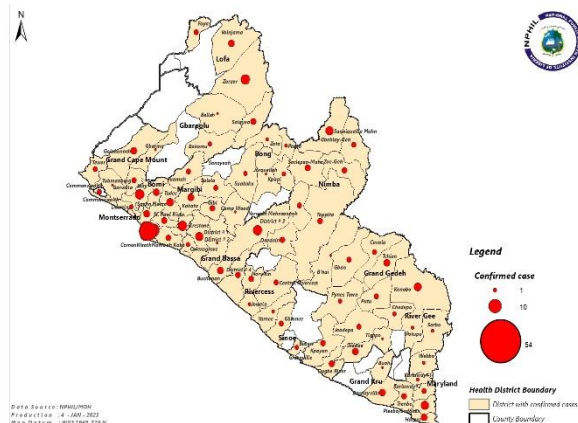
Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

Vaccine-Preventable Diseases

Measles

- ☞ Eighty (80) suspected cases were reported: Grand Kru (25), Maryland (21), Montserrado (18), Nimba (8), Margibi (3), Bomi (1), Rivercess (1), Grand Bassa (1), Lofa (1), and Sinoe (1) Counties
 - All cases were epidemiologically linked
- ☞ Vaccination status among suspected cases
 - Vaccinated: (51) 64%
 - Not vaccinated: (11) 13%
 - Unknown: (18) 23%
- ☞ Age distribution among suspected cases
 - < 5 years: (32) 40%
 - ≥5 years: (48) 60%



Outbreak

Distribution of Measles Cases per county and epi-classification

80 suspected cases

Zero specimens collected

CFR: 0.0%

COUNTY	CUMULATIVE # SUSPECTED CASES	CUMULATIVE # CONFIRMED CASES	CLASSIFICATION OF CONFIRMED CASES			DEATHS	CFR (%)	# CONFIRMED CASES WEEK 1
			Lab confirmed	Epi-Linked	Clinically Compatible			
Grand Kru	25	25	0	25	0	0	0.0	25
Maryland	21	21	0	21	0	0	0.0	21
Montserrado	18	18	0	18	0	0	0.0	18
Nimba	8	8	0	8	0	0	0.0	8
Margibi	3	3	0	3	0	0	0.0	3
Grand Bassa	1	1	0	1	0	0	0.0	1
Lofa	1	1	0	1	0	0	0.0	1
Sinoe	1	1	0	1	0	0	0.0	1
Bomi	1	1	0	1	0	0	0.0	1
Rivercess	1	1	0	1	0	0	0.0	1
Total	80	80	0	80	0	0	0.0	80



Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

Vaccination Status of Measles Cases, Liberia, Epi week 1, 2023

COUNTY	Total Cases vaccinated	Number of Doses Received		Dose Not Indicated
		One Dose	Two Doses	
Montserrado	17	8	8	1
Nimba	6	6	0	0
Grand Bassa	0	0	0	0
Margibi	0	0	0	0
Maryland	1	0	1	0
Lofa	1	1	0	0
Sinoe	1	0	0	1
Grand Kru	24	2	1	21
Bomi	1	0	1	0
Rivercess	0	0	0	0
Total	51 (64%)	17 (33%)	11 (22%)	23 (45%)

Vaccinated: 51/80 (64%)

Public Health Response

I. Coordination

- ☞ Ongoing monitoring of measles surveillance data with the provision of feedback to relevant stakeholders and developmental partners

II. Epidemiological Surveillance

- ☞ Active case search and line listing of cases ongoing

III. Case Management

- ☞ Isolation and treatment of cases ongoing

V. Laboratory

- ☞ Four hundred eighty-eight (488) cases have been confirmed by the laboratory across the 15 counties

VI. Risk Communication and Community Engagement

- Community engagement and health education ongoing in affected counties

Next steps

- NPHIL/MOH to procure essential drugs for case management
- Develop national Measles preparedness and response guide.
- Develop and validate the national Measles and Rubella Surveillance guide.
- Develop and validate Measles SOP

Acute Flaccid Paralysis (AFP)

- ☞ Zero case reported



Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

Neonatal Tetanus

- Zero case reported

Influenza-Like Illnesses

Coronavirus Disease (COVID-19)

Outbreak

- No new confirmed was reported
- A total of one thousand one hundred-fourteen (1,114) confirmed cases have been reported since epi week 1
- Cumulatively, eight thousand fifty-three (8,053) confirmed cases, including 294 deaths
 - 601 healthcare workers
- A total of 17,827 contacts have been generated
 - 1,772 healthcare workers

Public Health Actions

- IMS coordination meeting ongoing.
- Surveillance activities including active case search and case investigation ongoing in the affected counties using WHO interim guidelines
- Case management ongoing for confirmed cases
- Compulsory testing among outgoing travelers as required by the country of destination ongoing

Influenza Like Illnesses

- Four (4) suspected cases reported from Montserrado County
- No specimens collected

Viral Hemorrhagic Diseases

Lassa fever

- Three (3) suspected cases reported from Grand Bassa (2), and Bong (1) Counties
- 3 specimens collected, 1 tested positive and 2 pending testing
 - One (1) confirmed case was recorded
 - Proportion of suspected cases with a sample collected (2/2) 100%
 - Proportion of suspected cases with sample tested (1/2) 50%

Outbreak

Lassa fever disease: (Sitrep update as of January 2-8, 2023)

- One new confirmed case reported
- Twelve (12) contacts under 21 days' follow-up
- Cumulatively, seventy-four (74) laboratory-confirmed cases including 23 deaths reported (CFR=31%)



Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

Summary of Lassa fever Outbreak, Liberia, Jan 6, 2022-Jan 6, 2023

County	Outbreak Start Dates	Outbreak Districts	Total suspected cases	Total confirmed cases	Total Deaths	CFR %	Total Contacts	# HCW contacts	Contacts under follow up	Contacts completed
Bong	January 6, 2022 to date	Suakoko, Sanoyea, & Jorquelleh	73	26	5	19	215	130	0	215
Nimba	January 18 April 15, 2022	Sanniquellie-Mah	14	7	4	57	294	187	0	294
	August 15 to date	Sanniquellie-Mah, Tappita, & Saclepea-Mah	28	10	7	70				
Grand Bassa	November 5, 2021, to April 2, 2022	District #3 A&B	12	5	1	20	152	21	12	140
	May 5 to August 14, 2022	District #3 A&B	13	6	1	17				
	September 9 to date	District #3 A&B	31	20	5	25				
Total		7	171	74	23	208	661	338	12	649

Public Health Measures

NPHIL provides technical support to the county

- A one-day district meeting on Lassa fever prevention and control creating awareness of the prevention of Lassa fever was conducted in two districts (District 3A&B and district 2 in Grand Bassa County) two districts in (Sanniquellie-Mah Mah & Saclepea-Mah Districts in Nimba County)
- Affected communities were empowered with the WASH package to enable them to undertake short-term interventions that will improve the sanitation situation in each community thereby helping in Lassa fever prevention and control
- Health workers and visitors are encouraged to enhance IPC practices by regular washing of hands
- Limited community engagement

Surveillance:

- Heighten surveillance in affected communities and districts
- Situational reports are produced and shared regularly at the National Level
- Daily follow up/monitoring of contacts

RCCE

- Health Education in affected and surrounding communities

Case Management

- Isolation and treatment of confirmed cases



Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

Yellow fever

- ☞ One (1) suspected case reported from Grand Bassa County
- ☞ One specimen was collected and pending testing
 - Proportion of suspected cases with samples collected (1/1) 100%

Ebola Virus Disease

- ☞ Zero suspected case reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- ☞ Three (3) cases were reported from Grand Gedeh (2), and Lofa (1) Counties
- ☞ Three (3) specimen was collected and pending testing

Severe Acute Watery Diarrhea (Suspected Cholera)

- ☞ Two (2) cases were reported from Maryland County
- ☞ Two specimen was collected and pending testing

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

- ☞ Thirty -five (35) animal bite cases were reported: Montserrado (9), Lofa (8), Margibi (4), Grand Bassa (2), Grand Kru (3), Nimba (2), Bomi (2), Grand Cape Mount (1), Maryland (1), Rivercess (1), Bong (1), and Sinoe (1) Counties
 - PEP was administered (3/35) 8%

Public Health Actions

- ☞ Ongoing monitoring and follow-up of cases
- ☞ Six (6) dogs under quarantine

Meningitis

- ☞ Two (2) suspected cases reported from Nimba and Maryland counties
- ☞ Two (2) specimens were collected: one (1) tested positive and one pending
 - Proportion of suspected cases with samples collected (2/2) 100%
 - Proportion of sample tested (1/2) 50%

Monkeypox

- ☞ Two (2) suspected cases reported from Bong County
- ☞ Specimens collected and pending testing

Outbreak

Monkeypox:

- ☞ No new case reported
- ☞ Three (3) contacts are currently under follow-up
- ☞ Total of 16 contacts generated
 - 13 completed 21 days follow-up
- ☞ Total confirmed cases reported: 3
- ☞ Counties currently in outbreak: 2



Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

Summary of Monkey pox Outbreak, Liberia, December 5, 2022-Jan 8, 2023

County	Outbreak Start Date	Outbreak Districts	Total suspected cases	Total confirmed cases	Total Deaths	CFR %	Total Contacts	# HCW contacts	Contacts under follow up	Contacts completed
Rivercess	Dec 5 to date	Central "C"	2	1	0	0	6	2	1	5
Lofa	Dec 22 to date	Salayea	2	1	0	0	10	0	1	9
	Dec 22 to date	Voinjama	2	1	0	0				

Public Health Measures

I. Coordination

- National Public Health Institute of Liberia (NPHIL) and the Ministry of Health (MOH) along with partners are also providing technical support to the County Health Team
- Incident Management System activated to coordinate the response
- The county Rapid Response Team has been activated to assess the progress of the confirmed Monkeypox response activities

II. Epidemiological Surveillance

- Active case search, case investigation, and contact tracing ongoing in the affected and neighboring communities and districts
- Development and dissemination of Sitrep by affected county and national

III. Laboratory

- The National Public Health Reference Laboratory continues testing of Monkeypox samples
- Three (3) specimens collected and tested
- Three (3) monkeypox cases have been confirmed

IV. Case management and IPC

- Supportive management is ongoing for confirmed cases
- Symptomatic treatment of the suspected case initiated
- One case has been treated and discharged
- IPC measures instituted in affected communities and schools
- All affected communities advised following IPC protocol

V. Risk Communication and Community Engagement

- Community engagement and awareness with local leaders and community development health committees in the affected community and surrounding towns ongoing
- Radio talk show ongoing to create public awareness in the affected community and surrounding towns

Key Challenges

- No specimen collection kits for monkeypox
- Limited support to enhance active case finding in Monkeypox affected and neighboring districts



Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

- No support from county-based partners for response activities
- Delay in sending lab results to the Counties
- Lack of IPC materials for response activities
- Shortages of updated samples collection (EDTA blood tubes) materials
- Limited case-based forms for the case investigators (Lofa)
- Limited monkeypox standard case definitions

Events of Public Health Importance

Maternal Mortality

- ☞ Six (6) deaths were reported from Nimba (2), Grand Gedeh (1), Montserrado (1), Grand Bassa (1), and Gbarpolu (1) Counties
- ☞ Reported causes: PPH (2), and 4 pending review
- ☞ Reported sites:
 - Health facility: (4) 67%
 - Communities: (2) 33%

Neonatal Mortality

- ☞ Six (6) deaths were reported: Montserrado (4), Maryland (1), and Bomi (1) Counties
- ☞ Reported causes: Sepsis (3), birth asphyxia (1), and 2 pending review
 - Health facility: (5) 83%
 - Community: (1) 17%

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

- ☞ Zero cases were reported

Border Surveillance Update

- ☞ A total of 10,635 travelers were recorded for the week with incoming travelers accounting for 54% (5,720/10,635)

Table 2: Border activity at the PoE for Incoming and Outgoing Travelers, Liberia, Epi week 1, 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	Alerts detected/ Verified	COVID-19 Reactive	Evidence of COVID-19 vaccination card/certificate
Airport	James S. Paynes	0	0	0	0	0	0	0	0	0	0
	Robert Int'l Airport	3922	1983	1939	3920	0	0	2	0	0	3886
Seaport	Freeport of Monrovia	260	130	130	260	0	0	0	0	0	260
	Buchanan Port	82	41	41	82	0	0	0	0	0	82
Land Crossing	Bo Water Side	523	318	205	519	0	0	0	0	0	519
	Ganta	286	139	147	103	10	4	0	0	0	126
	Yekepa	0	28	19	38	0	0	0	0	0	38
	Loguatu	161	64	97	0	0	0	0	0	0	0
	Yeala	563	283	280	0	0	0	0	0	0	0
	Kpazagizzia	100	50	50	0	0	0	0	0	0	0
	Bolongoidu	481	313	168	0	0	0	0	0	0	0
	Lawalazu	163	133	30	0	0	0	0	0	0	0
	Safedu	274	185	89	0	0	0	0	0	0	0
	Konadu	429	285	154	0	0	0	0	0	0	0
	Foya Tengia	647	335	312	0	0	0	0	0	0	0
	Mendicoma	935	505	430	0	0	0	0	0	0	0
	Sorlumba	1065	565	500	0	0	0	0	0	0	0
Worsonga	744	363	381	0	0	0	0	0	0	0	
Total		10,635	5,720	4,912	4,922	10	4	2	0	0	4,911

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



Liberia IDSR Epidemiology Bulletin

Epi-week 1 (January 2 - 8, 2023)

Public Health Measures

National level

- ☞ Ongoing distribution of post-exposure prophylaxis for rabies to counties
- ☞ Ongoing Environmental interventions in Lassa fever hotspot communities
- ☞ Continued support for operational activities ongoing

County-level

☞ Surveillance

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

☞ Case Management

- Administration of PEP and ribavirin
- Management of measles cases ongoing

Appendix

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

		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	6	6	6	10	93			
No. of Health District Reported		4	9	5	8	5	6	5	6	4	6	7	6	6	6	10	93			
Vaccine Preventable Disease	Acute Flaccid Paralysis (Suspected Polio)	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
	Measles	A	1	0	0	1	0	0	25	1	3	21	18	8	1	0	1	80	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Neonatal Tetanus	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
Yellow fever	A	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Viral Hemorrhagic Disease	Dengue fever	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
	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	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Influenza-Like Illness	COVID-19	A	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	0	0	
		D	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	4	0	0	0	0	4	0	0	
		D	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	2	0	1	0	0	0	0	0	0	0	3	0	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	0	0	0	2	0	0	0	0	0	2	0	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Events of Public Health Interest	Maternal Mortality	D	0	0	1	1	0	1	0	0	0	1	2	0	0	0	6	0		
	Neonatal Mortality	D	1	0	0	0	0	0	0	0	1	4	0	0	0	0	6	0		
	Adverse Events Following Immunization (AEFI)	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	
	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	0		
Other Reportable Diseases	Monkeypox	A	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	
		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	2	1	0	2	1	0	3	8	4	1	9	2	1	0	1	35	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Meningitis	A	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	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	0		
Neglected Tropical Diseases	Buruli Ulcer	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	
	Yaws	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	
TOTAL		4	4	1	7	0	3	0	10	0	26	0	13	0	0	2	151	0	0	

D = Dead **A** = Alive

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 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 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. Mianah
I. P. Pewu
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
C. T. Yeah
L. K. Seepoe
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

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.