

# Liberia IDSR Epidemiology Bulletin

Epi-week 7 (February 12-18, 2024)

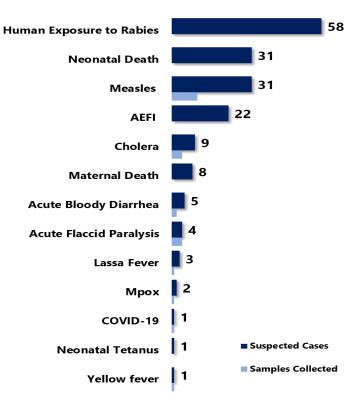
Country Population: 5,104,413 Volume

Volume 20 Issue 7 February 12-18, 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 176 events of public health importance including 41 deaths reported
- Completeness and timeliness of health facility reports were both 96% respectively
- Ongoing Lassa fever outbreak in 1
   County
- Ongoing Measles outbreak in 4 Counties
- ♦ Ongoing Mpox outbreak in 2 counties

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

# **Reporting Coverage**

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 7, 2024

County	Expected Reports From HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	28	28	28	100	100
Bong	67	64	64	96	96
Gbarpolu	18	18	18	100	100
Grand Bassa Grand Cape	37	37	37	100	100
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	25	25	89	89
Montserrado	418	392	392	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	943	943	96	96

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

Legend:

≥80

<80

943(96%)

98(99%) Health districts reported IDSR data

943(96%)

# Vaccine-Preventable Diseases

#### Measles

- Thirty-one (31) suspected cases were reported (see table below)
  - Ten (10) specimens were collected, three (3) positive and 7 pending testing
- Twenty (20) persons were vaccinated
- Cumulatively, two hundred six (206) cases reported
  - Proportion of suspected cases with sample collected (109/206) 53%
  - o Proportion of suspected cases with sample tested (81/109) 74% (negative 50, confirmed 31)
  - o Proportion of negative Measles cases tested for Rubella (40/50) 80% (negative 35, confirmed 5)

Table 2: Distribution and Vaccination Status of Measles Cases, Liberia, Epi-week 7, 2024

			N	lumber of D	oses Received
			One	Two	
County	# of cases	Vaccinated	Dose	Doses	<b>Doses Not Indicated</b>
Bong	2	2	0	0	2
<b>Grand Bassa</b>	3	3	1	1	1
<b>Grand Gedeh</b>	10	4	2	0	2
Grand Kru	4	3	1	2	0
Maryland	3	1	1	0	0
Nimba	5	3	3	0	0
River Gee	2	2	2	0	0
Sinoe	2	2	2	0	0
Total	31	20	12	3	5

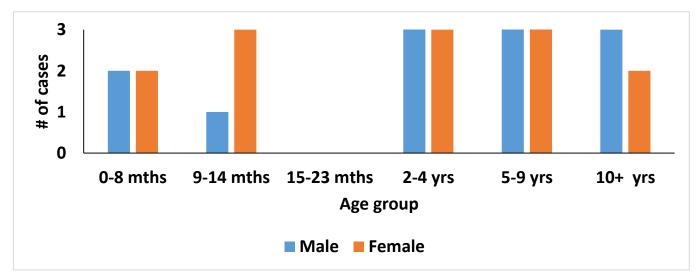


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi-Week 7, 2024

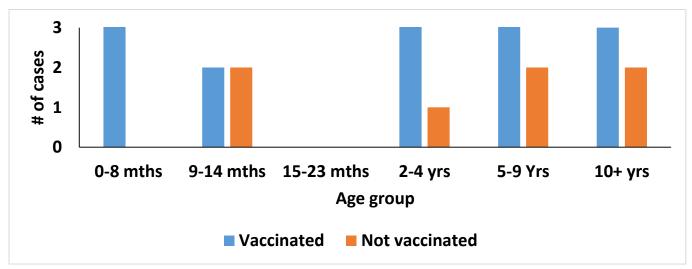


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 7, 2024

# **Outbreak**

Table 3: Status of Confirmed (lab, clinically confirmed and epi-linked) Measles Cases by County, Liberia, December 13, 2021 February 18, 2024

COUNTY	CUMULA TIVE SUSPECT	CUMULATI	CLASSII CONFIR					TION OF DEATHS	CUMUL ATIVE	CFR (%)	# CONFIR MED CASES	# CONFIRM ED CASES WEEK 7		Qutbrea k Status
	ED CASES	D CASES	Lab confirm ed	Epi Linke d	Clinically Compati ble	Lab confirm ed	Epi Linke d	Clinically Compati ble	DEATHS	(70)	WEEK 6		CHAGE	K Status
Montserrado	5, 456	5,373	148	1658	3, 567	3	61	5	69	1.3	0	0	-	Ended
Nimba	1, 143	1116	50	195	871	0	1	3	4	0.4	4	2	-	Ongoing
Margibi	827	803	37	136	630	0	0	1	1	0.1	0	0	1	Ended
Grand Bassa	962	924	41	212	671	1	0	6	7	0.9	0	0	1	Ended
Lofa	353	284	35	66	183	0	0	0	0	0	0	0	1	Ended
Bong	603	578	25	21	532	0	1	2	3	0.5	0	0	-	Ended
Maryland	1208	1188	26	308	854	0	0	0	0	0	13	4	-13	Ongoing
Grand Gedeh	676	527	57	62	408	0	0	0	0	0	5	9	-	Ongoing
Since	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 Kry	994	965	42	106	817	0	0	2	2	0.2	0	0	-	Ended
Gharpolu	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	108	84	21	5	58	0	0	0	0	0	3	2	-	Ongoin
Total	13,191	12,537	621	2,954	8,962	5	68	22	95	7.8	25	17		

Table 4: Status of Confirmed Measles Cases by County, Liberia, December 13, 2021 February 18, 2024

County	Total Cases	Active	Recovery	Deaths	# of Districts
Montserrado	5,373	0	5,304	69	0/7
Nimba	1,116	2	1,110	4	0/6
Grand Bassa	924	0	917	7	0/8
Margibi	803	0	802	1	0/4
Bong	578	0	575	3	0/9
Maryland	1188	4	1184	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	527	9	518	0	2/6
River Gee	84	2	81	0	1/6
Sinoe	231	0	231	0	0/10
Total	12,537	17	12, 425	95	6/98

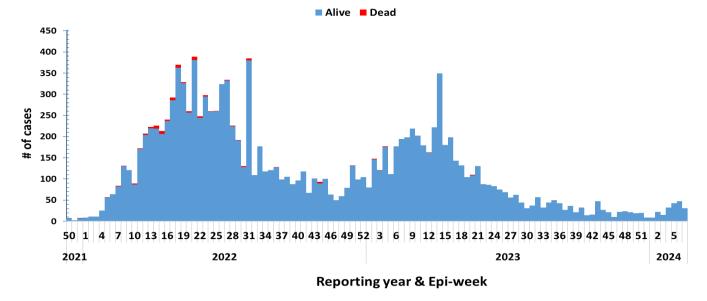


Figure 4: Epi Curve of Measles Cases Liberia, Epi week 50, 2021 – Epi week 7, 2024

#### **Public Health Measures**

#### I. Coordination

IMS meetings are being held for coordination and mobilization of resources in Maryland County.

# II. Epidemiological Surveillance

Active case search and contact tracing ongoing in affected Districts (Pleebo, Konobo, Tchien, Karluway-II, Potupo,
 Putu, 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

- The Expanded Program on Immunization (EPI) conducted a 7-day periodic intensification Routine Immunization (PIRI) from January 30 to February 5, 2024 in 14 counties and 94 health districts excluding Margibi County. The activity targeted children 9-23 months and used one-month (January) target as the denominator: 17,363, vaccinated: dose one: 8893 (51%) and dose two: 4528 (26%).
- Routine immunization intensified in affected districts (Pleebo, Konobo, Karluway-II, Tchien, Putu and Harper) in Maryland, Grand Gedeh, River Gee and Nimba Counties.

#### V. Laboratory

- The National Public Health Reference Laboratory (NPHRL) confirmed two measles cases from Saclepea-Mah and Sanniquellie-Mah districts for the week.
- Six hundred twenty-one (621) cases have been confirmed by the NPHRL from December 13, 2021 February 22, 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 the affected counties
- Limited isolation space for cases in Grand Gedeh County
- Lack of needed resources to adequately respond (logistics)

# Acute Flaccid Paralysis (AFP)

- Four (4) cases were reported from Nimba (2), Lofa (1), and Grand Cape Mount (1) Counties
  - o Four (4) specimens were collected: Three shipped and one pending arrival
- Cumulatively, seven (7) cases reported

#### **Neonatal Tetanus**

- One death was reported from Montserrado County
- Cumulatively, four (4) cases have been reported including one death

# Influenza-Like Illnesses

# Coronavirus Disease (COVID-19)

- One (1) suspected case was reported from Grand Bassa County
  - o One specimen was collected and tested positive
- Cumulatively, one (1) case has been reported

#### Influenza

- Zero cases have been reported
- Cumulatively, ten (10) suspected cases reported
  - o Ten specimens collected: 5 tested negative, 5 pending verification

# Viral Hemorrhagic Fever

#### Lassa fever

- Three (3) suspected cases were reported from Bong (2), and Grand Kru (1) Counties
  - Specimens were collected and tested negative
- Cumulatively, thirty-one (31) suspected cases have been reported
  - Proportion of suspected cases with sample collected (31/31) 100%
  - o Proportion of suspected cases with sample tested (30/31) 97%
    - Negative 29, confirmed 1, suspected 1

# **Outbreak**

- No new confirmed case reported
- All contacts completed 21 days follow up
- Cumulative Case Fatality Rate (CFR): 29% (41/139)
- One county currently in countdown (Nimba)

Table 5: Summary of Lassa fever Outbreak, Liberia, January 6, 2022- February 23, 2024

County	Outbreak Districts	Outbreak Start Date	Total suspected	Total confirmed	HCWs confirmed		Deaths in HCWs	CFR %	Total Contacts	# HCW contacts	Contacts_ became cases	Contacts under follow up	completed	Days in countdown	Outbreak Status
	Bushrod	13-Feb-23	17	1	0	0	0	0%	29	21	0	0	29	Completed	Over
Montserrado	Central Monrovia	27-Nov-23	1	2	0	1	0	50%	49	0	0	0	49	Completed	Over
	Central Monrovia	3-Mar-23	38	2	0	1	0	50%	28	27	0	0	28	Completed	Over
Bong	Suakoko	21-Apr-23	190	54	18	13	2	24%	480	194	6	0	417	Completed	Over
Dong	Jorquelleh	15-Oct-23	14	6	3	1	1	17%	121	86	3	0	169	Completed	Over
Grand Bassa	District 3A&B	21-Aug-23	87	44	0	10	0	23%	177	40	40	0	159	Completed	Over
Granu Dassa	Buchanan	11-Aug-23	2	1	0	1	0	100%	4	2	0	0	4	Completed	Over
	Saclepea-Mah	21-Nov-23	4	2	0	1	0	50%	5	0	0	0	5	Completed	Over
Nimba	Sanniquellie-Mah	6-Feb-23	41	15	0	6	0	40%	43	35	8	0	43	Completed	Over
Millioa	Tappita	20-Nov-23	11	5	0	3	0	60%	88	39	4	0	77	19	Countdown
	Bain-Garr	1-Jun-23	24	6	0	3	0	50%	61	25	0	0	31	Completed	Over
River Gee	Putupo	25-Nov-22	1	1	0	1	0	100%	14	0	0	0	14	Completed	Over
Total			430	139	21	41	3	29%	1085	469	61	0	1025		

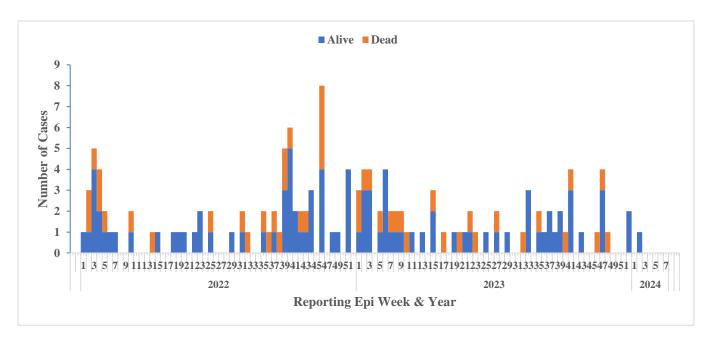


Figure 5: Epi-curve of Lassa fever cases, Liberia, January 6, 2022- February 18, 2024

#### **Public Health Measures**

#### I. 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.

#### II. Surveillance:

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

# III. Laboratory

- The National Public Health Reference Laboratory continues testing of Lassa fever samples
- A total of 139 Lassa fever cases have been confirmed since this outbreak

### IV. Case management and IPC

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

# V. Risk Communication and Community Engagement

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

#### Yellow fever

- One (1) suspected case was reported from Rivercess County
  - Specimen was collected and pending testing
- Cumulatively ten (10) cases have been reported
  - Proportion of suspected cases with samples collected (10/10) 100%
  - o Proportion of suspected cases with samples tested (7/10) 70% (negative 7)
  - o Proportion of specimens that did not reach the lab (2/10) 20%

# Dengue Fever

- Zero suspected cases were reported.
- Cumulatively three (3) suspected cases reported,
- 2 specimens collected and pending testing

#### **Ebola Virus Disease**

Zero cases were reported

#### **Diarrheal Diseases**

# Acute Bloody Diarrhea (Suspected Shigellosis)

- Five (5) suspected cases were reported from Sinoe (2), Lofa (1), River Gee (1), and Rivercess (1) Counties
  - o Three (3) specimens were collected, 1 rejected and 2 pending testing
- Cumulatively, forty-six (46) cases have been reported
  - o 20 specimens collected, 13 reached the Lab
  - 8 tested negative, 3 rejected

# Severe Acute Watery Diarrhea (Suspected Cholera)

- Nine (9) cases were reported from Maryland (3), Nimba (2), Bong (2), Grand Kru (1), and Lofa (1) Counties
  - Six (6) specimens were collected, 2 tested negative, 2 not sent and 2 pending testing
- Cumulatively, fifty (50) cases have been reported
  - 21 specimens collected, 9 reached the Lab
  - 7 tested negative, 2 rejected

# Other Reportable Diseases

# Animal bite (Human Exposure to Rabies)

- Fifty-eight (58) animal bite cases were reported from, Nimba (17), Montserrado (11), Grand Kru (8), Bong (4), Grand Bassa (4), Lofa (3), Maryland (3), Grand Gedeh (2), Sinoe (2), Margibi (1), Grand Cape Mount (1), River Gee (1), and Rivercess (1) Counties
- All bites were attributed to dog
- \*Proportion of cases investigated: 37/58 (64%)
  - Proportion of dogs vaccinated: 0/37
     (0%)
- Cumulatively, 435 cases have been reported

# Geographical Distribution of Suspected Animal Bite By County, Epi week 1-7, 2024 Lofa 22 Gharpolu Grand Gedeh Logend County Boundary Manber of Suspected Animal Bites River Gee 20 21-25 River Gee 21-25 River Gee 21-25 River Gee 21-25 River Gee 22-78BANIMATO-2024 Manber 22-78BANIMATO-2024 Map Data Wiss 22M

#### **Public Health Actions**

- All cases were clinically managed and sent home
- PEP Administered to 4 persons: Lofa, Maryland, Montserrado and Nimba counties
- Thirty-eight (38) dogs restrained and underwent 10-14 days' follow-up
  - All cases were investigated only by the human health surveillance team

# **Tuberculosis**

- Zero case was reported
- Cumulatively, twenty-five (25) drug susceptible TB cases have been reported
  - Twenty (20) are notified
  - Five (5) not notified
  - o Zero MDRTB

# **Meningitis**

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

# **Mpox**

Two (2) suspected cases were reported from Grand Kru (1), and Sinoe (1) Counties

- One (1) specimen was collected and tested positive from Sinoe County
- Cumulatively, ten (10) suspected cases have been reported, 2 tested positive, 4 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**

- Fight (8) deaths were reported from Montserrado (6), Sinoe (1), and Grand Bassa (1) Counties
- Reported causes: Eclampsia (3), PPH (2), Antepartum Hemorrhage (2), and Sepsis (1)
- Reporting sites
  - Health facility (8/8) 100%
- Cumulatively, thirty-six (36) deaths reported
  - o Proportion of deaths reviewed (10/36) 28%

# **Neonatal Mortality**

- Thirty-one (31) deaths were reported from Montserrado (23), Maryland (2), Bong (1), Nimba (1), Gbarpolu (1), Rivercess (1), Bomi (1), and Grand Gedeh (1) Counties
- Reported causes: Birth asphyxia (11), Neonatal sepsis (8), and under investigation (12)
  - o Reported sites:
    - Health facility (29/31) 94%
    - Community (2/31) 6%
- Cumulatively, seventy-seven (77) deaths reported
  - o Proportion of deaths reviewed (8/77) 10%

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

- Twenty-two (22) suspected cases were reported from Grand Kru (6), Sinoe (6), Grand Cape Mount (5), Bomi (3), and Grand Gedeh (2) Counties
- All reported cases were classified as non-serious
- Related vaccine:
  - o Penta (11/22) 50%
  - o COVID-19 (5/22) 23%
  - o Others (6/22) 27%
- ☐ Cumulatively one hundred fifty-six (156) events were reported

# **Neglected Tropical Diseases**

#### YAWS

Zero cases were reported

# Buruli Ulcer

Zero cases were reported

# **Border Surveillance Update**

A total of 5059 travelers were recorded for the week with incoming travelers accounting for 49% (2491/5059)

Table 6: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 7

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	97	39	58	3	0	0	0	0	4
Airport	Robert Int'l Airport	3741	1841	1900	1882	4	28	0	0	3710
Seaport	Freeport of Monrovia	308	154	154	308	0	0	0	0	308
Seaport	Buchanan Port	82	41	41	82	0	0	0	0	82
	Bo Water Side	495	211	284	491	0	4	0	0	195
Ground	Ganta	117	73	44	68	0	0	0	0	45
Crossing	Yekepa	97	70	27	14	0	0	0	0	22
	Loguatuo	122	62	60	66	0	0	0	0	41
Total		5,059	2,491	2,568	2,914	4	32	0	0	4,407

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

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

# Case Management

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

	Appendix																			
Summary	of Immediately Reportable D	Dise	ease	es, C	onc	litio	ns,	and	Eve	ents	by	Cou	nty	ı		ı				
			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 Expect	ted Health District		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98		
	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 D A	0 0	0 0 2	0 0	0 0 3	0 0	0 0 10	0 0 4	0 0	0 0	0 0 3	0 0	0 5	0 0	0 0 2	0 0 2	4 0 31	7 0 206	0 0 31
ntab	Measles	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prevei	Neonatal Tetanus	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
	Yellow fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	1 0	0	0	1	10	0
nagic Fe	Dengue fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Viral Hemorrhagic Fe	Ebola Virus Disease	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lassa fever	A D	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	3	26 5	0
Diarrheal Dised Influenza-Liko	COVID-19	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Influe	Influenza Like Illnesses	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10 0	0
eal Dise	Acute Bloody Diarrhoea (Shigellosis)	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5 0	46 0	0
Diarrho	Severe Acute Watery Diarrhoea (Cholera)	A D	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	9	50 0	0
ealth Ir	Maternal Mortality	D	0	0	0	1	0	0	0	0	0	0	6	0	0	0	1	8	38	
i H	Neonatal Mortality	D	1	1	1	0	0	1	0	0	0	2	23	1	1	0	0	31	77	
Events of Public Health I	AEFI	A D	0	0	0	0	5	0	6	0	0	0	0	0	0	0	6	0	156 0	0
Events	Unexplained Cluster of Health Events/Disease	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ës	Мрох	A D	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	10 0	0
Other Reportable Diseases	Tuberculosis	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25 0	0
oortable	Human Exposure to Rabies (Suspected Huma	A D	0	4	0	4	1 0	2	8	3	1 0	3	11 0	16 1	1 0	1	2	57 1	434 1	0
her Re p	Meningitis	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1 0
	Unexplained Cluster of deaths	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neglected Tr	Buruli Ulcer	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Neglec	Yaws	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	то	TAL	4	11	1	9	0	15	0	6	0	11	0	27	0	4	14	176	1115	4

# 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

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

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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.