

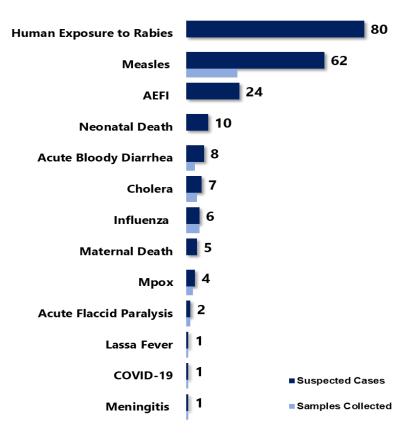
# **Liberia IDSR Epidemiology Bulletin**

Epi-week 8 (February 19-25, 2024)

Country Population: 5,104,413 | Volume 20 Issue 8 February 19-25, 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 211 events of public health importance including 15 deaths reported
- **Completeness and timeliness of** health facility reports were both 97% respectively
- Ongoing Lassa fever outbreak in one county
- Ongoing Measles outbreak in four counties
- Ongoing Mpox outbreak in one county

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

## **Reporting Coverage**

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 8, 2024

County	Expected Reports From HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	29	28	28	97	97
Bong	66	59	59	89	89
Gbarpolu	18	18	18	100	100
Grand Bassa	38	38	38	100	100
Grand Cape Mount	35	35	35	100	100
Grand Gedeh	25	25	25	100	100
Grand Kru	25	25	25	100	100
Lofa	60	60	60	100	100
Margibi	62	62	62	100	100
Maryland	27	27	27	100	100
Montserrado	391	367	367	94	94
Nimba	102	102	102	100	100
Rivercess	21	21	21	100	100
River Gee	21	21	21	100	100
Sinoe	41	41	41	100	100
Liberia	961	929	929	97	97

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

Legend: ≥80

97(99%) Health districts reported **IDSR** data

929(97%)

## **Vaccine-Preventable Diseases**

#### Measles

- Sixty-two (62) suspected cases were reported (see table below)
  - o Twenty-three (23) specimens were collected, 3 tested positive, 11 negative and 9 pending testing
  - o Proportion of suspected cases that were vaccinated (40/62) 65%
- Cumulatively, two hundred seventy-one (271) cases reported
  - Proportion of suspected cases with sample collected (135/271) 49%
  - o Proportion of suspected cases with sample tested (105/135) 78% (negative 68, confirmed 37)
  - Proportion of negative Measles cases tested for Rubella (67/68) 99% (negative 56, confirmed 11, pending testing 1)

Table 2: Distribution and Vaccination Status of Measles Cases, Liberia, Epi-week 8, 2024

			Numbe	Number of Doses Received			
County	# of cases	Vaccinated	One Dose	Two Doses	Doses Not Indicated		
Bomi	1	1	0	1	0		
Bong	5	5	0	4	1		
Grand Bassa	1	0	0	0	0		
Grand Cape Mount	2	2	2	0	0		
Grand Gedeh	12	2	2	0	0		
Grand Kru	3	2	0	2	0		
Maryland	3	2	2	0	0		
Montserrado	1	1	1	0	0		
Nimba	23	15	14	1	0		
River Gee	7	7	0	1	6		
Sinoe	4	3	3	0	0		
Total	62	40	24	9	7		

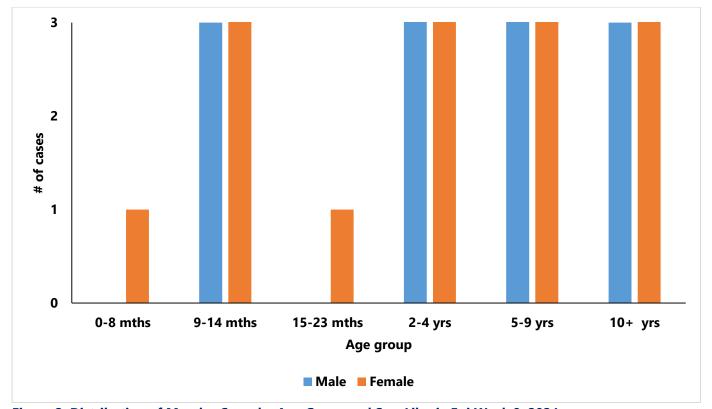


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 8, 2024

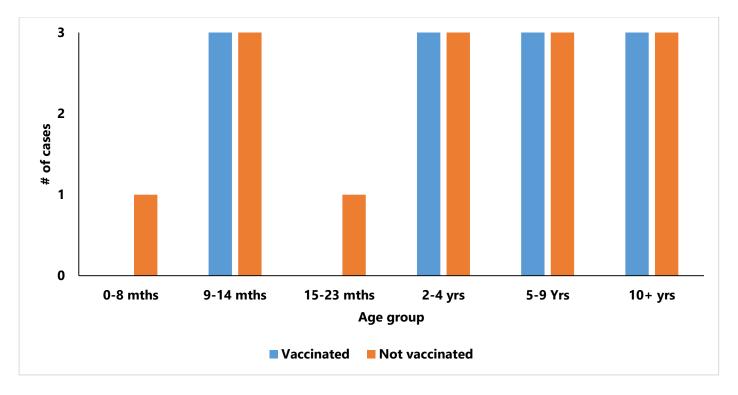


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 8, 2024

# **Outbreak**

Table 3: Status of Confirmed (lab, clinically confirmed and epi-linked) Measles Cases by County, Liberia, December 13, 2021 - February 25, 2024

COUNTY	CUMULA TIVE SUSPECT	CUMULATI VE CONFIRME	CLASSIFICA CONFIRMEI		F		SSIFICAT FIRMED I		CUMUL ATIVE DEATHS	CFR (%)	# CONFIR MED CASES	# CONFIRM ED CASES WEEK 8
	ED CASES	D CASES	Lab confirm ed	Epi Linke d	Clinically Compati ble	Lab confirm ed	Epi Linke d	Clinically Compati ble	DEATHS		<b>WEEK</b> 7	
Montserrado	5, 456	5,373	148	1658	3, 567	3	61	5	69	1.3	0	0
Nimba	1, 154	1,127	50	206	871	0	1	3	4	0.4	2	11
Margibi	827	803	37	136	630	0	0	1	1	0.1	0	0
Grand Bassa	962	924	41	212	671	1	0	6	7	0.9	0	0
Lofa	353	284	35	66	183	0	0	0	0	0	0	0
Bong	603	578	25	21	532	0	1	2	3	0.5	0	0
Maryland	1211	1191	26	305	860	0	0	0	0	0	4	3
Grand Gedeh	687	538	57	73	408	0	0	0	0	0	9	11
Since	284	231	48	84	99	0	0	0	0	0	0	0
Bomi	183	147	37	27	83	1	2	2	5	3	0	0
Grd Cape Mt	215	187	23	18	146	0	2	1	3	1.6	0	0
Grand Kru	994	965	42	106	817	0	0	2	2	0.2	0	0
Gbarpolu	67	46	5	2	39	0	0	0	0	0	0	0
Rivercess	112	84	26	54	4	0	1	0	1	1.1	0	0
River Gee	112	88	21	9	58	0	0	0	0	0	2	4
Total	13,220	12,566	621	2,977	8,968	5	68	22	95	7.8	17	29

Table 4: Status of Confirmed Measles Cases by County, Liberia, December 13, 2021 February 25, 2024

County	<b>Total Cases</b>	Active	Recovery	Deaths	# of Districts
Montserrado	5,373	0	5,304	69	0/7
Nimba	1,127	11	1,112	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	1,191	3	1188	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	538	11	527	0	2/6
River Gee	88	2	84	0	1/6
Sinoe	235	4	231	0	0/10
Total	12,566	29	12, 442	95	6/98

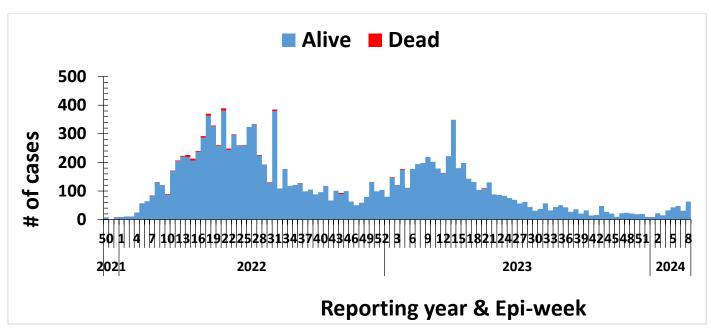


Figure 4: Epi Curve of Measles Cases Liberia, Epi week 50, 2021 to Epi week 8, 2024

#### **Public Health Measures**

#### I. Coordination

o 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

o 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: 4,528 (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**

Six hundred twenty-one (621) cases have been confirmed by the NPHRL from December 13, 2021 – February 25,
 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
- o Limited isolation space for cases in Grand Gedeh County
- Lack of needed resources to adequately respond (logistics)

## Acute Flaccid Paralysis (AFP)

- Two (2) cases were reported from Grand Cape Mount and Bomi Counties
  - o Specimens were collected and pending shipment
- Cumulatively, nine (9) cases reported (6 shipped, 2 pending shipment and 1 pending arrival at the NPHRL)

#### **Neonatal Tetanus**

- Zero cases have been reported
- Cumulatively, four (4) cases have been reported including one death

## Influenza-Like Illnesses

## Coronavirus Disease (COVID-19)

- One (1) suspected case was reported from Montserrado County
  - o Specimen was collected and tested positive
- Cumulatively, two (2) cases have been reported

## Influenza

- Six (6) suspected cases were reported from Montserrado County
  - o All specimens were collected and tested negative
- Cumulatively, sixteen (16) suspected cases reported
  - Sixteen specimens collected: 11 tested negative, 5 pending

# Viral Hemorrhagic Fever

#### <u>Lassa fever</u>

- Two (2) suspected cases were reported from Bong County
  - Two specimens were collected and tested: 1 positive and 1 negative
- Cumulatively, thirty-three (33) suspected cases have been reported
  - Proportion of suspected cases with sample collected (33/33) 100%
  - Proportion of suspected cases with sample tested (32/33) 97%
    - o Negative 30, confirmed 2

# Outbreak

- One new confirmed case reported from Suakoko District, Bong County
- Sixteen (16) contacts including 10 healthcare workers line listed and under follow up

- Cumulative Case Fatality Rate (CFR): (41/140) 29%
- Two counties currently in outbreak (Bong & Nimba)

Table 5: Summary of Lassa fever Outbreak, Liberia, January 6, 2022- February 25, 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	23-Feb-24	192	55	18	13	2	24%	496	114	6	16	417	Active	Ongoing
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
ПШОА	Tappita	20-Nov-23	11	5	0	3	0	60%	88	39	4	0	77	26	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			432	140	21	41	3	29%	1101	389	61	16	1025		

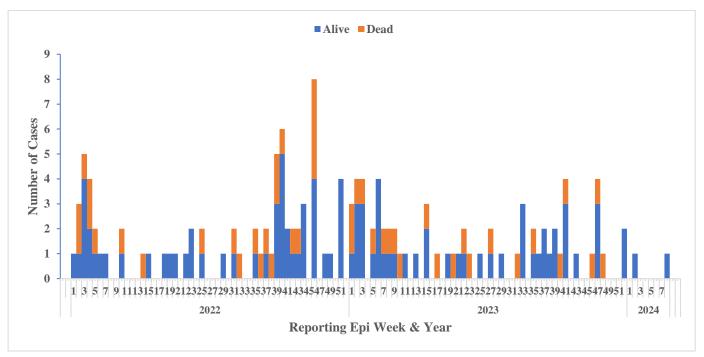


Figure 5: Epi-curve of Lassa fever cases, Liberia, January 6, 2022- February 28, 2024

#### **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

- o The National Public Health Reference Laboratory continues testing of Lassa fever samples
- o A total of 140 Lassa fever cases have been confirmed since this outbreak

## Case management and IPC

- o The current case is being isolated and managed at designated Phebe Hospital
- o Ribavirin supply in country are being distributed for treatment of Lassa fever cases to affected counties
- o Ribavirin is being administered to the current confirmed case

## **Risk Communication and Community Engagement**

Risk communication and community engagement ongoing in affected and surrounding communities

#### Yellow fever

- Zero cases were reported
- Cumulatively, ten (10) cases have been reported
  - o Proportion of suspected cases with samples collected (10/10) 100%
  - 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

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

#### **Ebola Virus Disease**

Zero cases have been reported

#### **Diarrheal Diseases**

## Acute Bloody Diarrhea (Suspected Shigellosis)

- Eight (8) cases were reported from Sinoe (3), Grand Kru (2), Grand Gedeh (1), Montserrado (1), and Maryland (1) Counties
  - o Four (4) specimens were collected, 2 pending testing and 2 pending arrival at NPHRL
- Cumulatively, fifty-six (56) cases have been reported
  - o 25 specimens collected, 15 reached the Lab
  - o 8 tested negative, 3 rejected, 4 pending testing

#### Severe Acute Watery Diarrhea (Suspected Cholera)

- Seven (7) cases were reported from Maryland (2), Bong (2), Gbarpolu (1), Bomi (1), and River Gee (1) Counties
  - o Five (5) specimens were collected, 4 pending arrival and 1 pending testing
- Cumulatively, fifty-seven (57) cases have been reported
  - o 26 specimens collected, 10 reached the Lab
  - 7 tested negative, 2 rejected, 1 pending testing

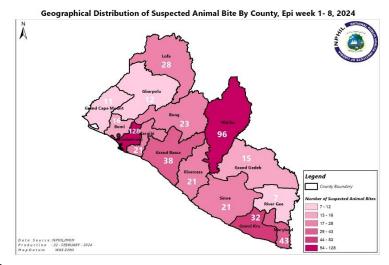
## **Other Reportable Diseases**

#### Animal bite (Human Exposure to Rabies)

- Eighty (80) animal bite cases were reported from, Montserrado (14), Grand Bassa (13), Nimba (12), Grand Kru (8), Lofa (6), Margibi (5), Bong (4), Maryland (4), Grand Cape Mount (3), Bomi (3), Gbarpolu (3), Grand Gedeh (2), Rivercess (2), and Sinoe (1) Counties
- All bites were attributed to dog
- Proportion of cases investigated: (29/80) 36%
  - Proportion of dogs vaccinated: (0/80) 0%
- Cumulatively, 516 cases have been reported

#### **Public Health Actions**

- All cases were clinically managed and sent home
- PEP Administered to 13 persons (16%): Bong, Lofa, Margibi, Maryland, Montserrado and Nimba Counties



- Forty-one (41) dogs restrained and underwent 10-14 days' follow-up
  - All cases were investigated only by the human health surveillance team

## **Tuberculosis**

- Zero cases were reported
- Cumulatively, twenty-five (25) drug susceptible Tuberculosis cases were reported
  - Twenty (20) cases diagnosed and placed on treatment
  - o Five (5) cases diagnosed and not placed on treatment
  - o Zero Multi-Drug Resistance/Rifampicin Resistance TB

#### **Meningitis**

- One (1) suspected case was reported from Nimba County
- Specimen was collected and tested negative
- Cumulatively, six (6) suspected cases have been reported
  - Proportion of specimen collected (6/6) 100%
  - Proportion of specimen tested (6/6) 100% (5 negative, 1 positive)

## Mpox

- Four (4) suspected cases were reported from Grand Kru County
  - o Three (3) specimens were collected, 2 tested negative and 1 pending arrival
- Cumulatively, fourteen (14) suspected cases have been reported, 2 tested positive, 6 negative, 1 rejected, 2 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

- Five (5) deaths were reported from Montserrado (3), Nimba (1), and Bong (1) Counties
- Reported causes: Eclampsia (2), PPH (1), Anemia (1), and Sepsis (1)
- Reporting sites
  - Health facility (5/5) 100%
- Cumulatively, forty-one (41) deaths reported
  - Proportion of deaths reviewed (10/41) 24%

## **Neonatal Mortality**

- Ten (10) deaths were reported from Montserrado (6), Grand Kru (1), Bomi (1), Bong (1), and Maryland (1) Counties
- Reported causes: Birth asphyxia (7) and Prematurity (3)
  - o Reported sites:
    - Health facility (10/10) 100%
- Cumulatively, eighty-seven (87) deaths reported
  - Proportion of deaths reviewed (8/87) 9%

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

- Twenty-four (24) cases were reported from Sinoe (6), Grand Cape Mount (5), Maryland (5), Grand Bassa (2), Lofa (2) Gbarpolu (2), Grand Kru (1), and Bomi (1) Counties
- All reported cases were classified as non-serious
- Related vaccine:
  - o Penta (16/24) 67%
  - o Measles (2/24) 8%

- o Others (6/24) 25%
- ☐ Cumulatively, one hundred eighty (180) events were reported and all classified as non-serious.

# **Neglected Tropical Diseases**

#### **YAWS**

Zero cases were reported

#### Buruli Ulcer

Zero cases were reported

# **Border Surveillance Update**

A total of 5,341 travelers were recorded for the week with incoming travelers accounting for 52% (2801/5341)

Table 6: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 8

					Total			Vaccinated against YF	Alerts	Evidence of COVID-19
Type of Ports	Point of Entry	Weekly total	Arrival	Departure	traverlers with YB	Yellow Book Damage	Card Replaced	& Issued book	detected/ Verified	vaccination card/certificate
	James S. Paynes	133	79	54	5	0	0	0	0	10
Airport	Robert Int'l Airport	4346	2262	2084	4313	0	66	0	0	4304
Seaport	Freeport of Monrovia	92	46	46	92	0	0	0	0	92
Seaport	Buchanan Port	36	18	18	36	0	0	0	0	36
	Bo Water Side	450	218	232	444	0	4	2	0	381
Ground	Ganta	138	102	36	16	0	0	0	0	18
Crossing	Yekepa	42	22	20	13	0	0	0	0	17
	Loguatuo	104	54	50	93	0	0	0	0	28
Total		5,341	2,801	2,540	5,012	0	70	2	0	4,886

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

<u>nmar</u>	ry of Immediately Reportable I	Disc	ease	es, C	onc	litio	ns,	and	Eve	ents	by	Cou	nty			ı				1
			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	9
of Expec	ted Health District		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98	<u> </u>	
	h District Reported		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98		
Disea	Acute Flaccid Paralysis (Suspected Polio)	A D	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	9	
ntable	Measles	A D	1	5	0	1 0	2	12 0	3	0	0	3	1 0	23 0	0	7	4	62 0	271 0	
Preve	Neonatal Tetanus	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
accine	Yellow fever	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Viral Hemorrhagic F Vaccine Preventable Disea	Dengue fever	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
norrha	Ebola Virus Disease	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ral Her	Lassa fever	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0 28	
	COVID-19	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 1	5 2	
I Diarrheal Dise Influenza-Lik		D A	0	0	0	0	0	0	0	0	0	0	0 6	0	0	0	0	0 6	0 16	
sedInfl	Influenza Like Illnesses	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 65	
ieal Di	Acute Bloody Diarrhoea (Shigellosis)	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 57	
Diarr	Severe Acute Watery Diarrhoea (Cholera)	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
돧	Maternal Mortality	D	0	1	0	0	0	0	0	0	0	0	3	1	0	0	0	5	41	
Events of Public Hea	Neonatal Mortality	D A	1	0	2	0	5	0	1	0	0	5	6	0	0	0	0	10 24	87 180	
ts of Pu	AEFI	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Even	Unexplained Cluster of Health Events/Disease	D	0	0	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	
ses	Мрох	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14 0	
Disea	Tuberculosis	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
ortable	Human Exposure to Rabies (Suspected Human	A	3	4 0	3	13 0	3	2	8	6	5	4	14	12 0	2	1 0	0	80	516 1	
Other Reportable Diseases	Meningitis	A	0	0	0	0	0	0	0	0	0	0	0	1 0	0	0	0	1 0	6	
Q.	Unexplained Cluster of deaths	A	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	
ed Tı	Buruli Ulcer	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Neglected Tr	Yaws	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ž		D TAL	<b>7</b>	0 <b>14</b>	0 <b>6</b>	0 <b>16</b>	0	0 <b>16</b>	0	0 <b>8</b>	0 <b>0</b>	0	0	0 <b>37</b>	0	0 <b>9</b>	0 13	0 211	1336	

#### 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

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# 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.