



# Liberia IDSR Epidemiology Bulletin

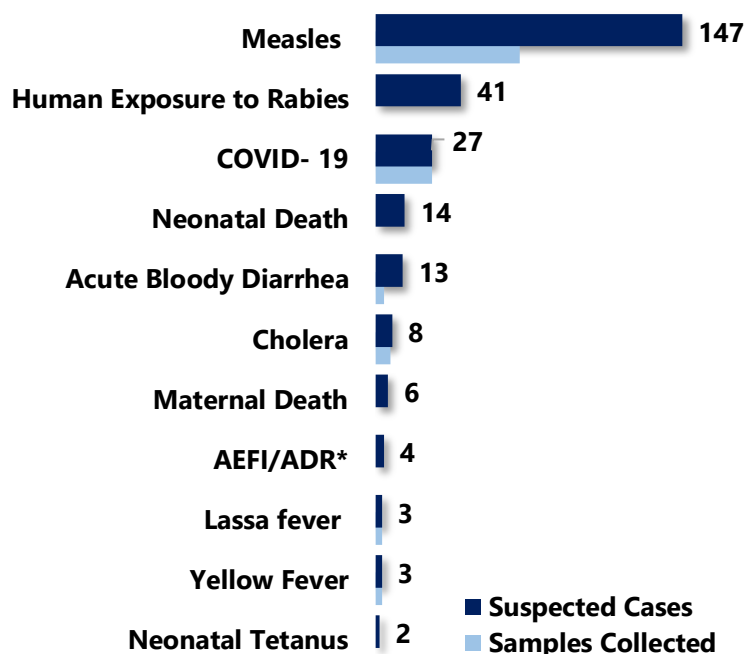
Epi-week 9 (February 28-March 6, 2022)

Country Population: 5,104,413 | Volume 18 Issue 9 | Feb 28-March 6, 2022 | Data Source: CSOs from 15 Counties and Laboratory

## Highlights

Figure 1: Public Health Events Reported during this week

## Keynotes and Events of Public Health Significance



- ♦ A total of **268** events of public health importance including **20** deaths were reported
- ♦ Completeness and timeliness of health facility reports were both **98%** respectively
- ♦ **Ongoing Lassa fever** outbreak in three Counties
- ♦ **Ongoing Measles** outbreak in eight Counties
- ♦ **Twenty-seven new confirmed COVID-19** cases reported from three counties

\*Adverse Event Following Immunization/Adverse Drug Reaction

## Reporting Coverage

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi week 9, 2022

County	Expected Report from Health Facility	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	26	26	26	100	100
Bong	57	57	57	100	100
Gbarpolu	16	15	15	94	94
Grand Bassa	36	36	36	100	100
Grand Cape Mount	34	34	34	100	100
Grand Gedeh	24	24	24	100	100
Grand Kru	23	23	23	100	100
Lofa	66	66	66	100	100
Margibi	55	54	54	98	98
Maryland	27	27	27	100	100
Montserrado	329	326	326	99	99
Nimba	91	88	88	97	97
Rivercess	21	21	21	100	100
River Gee	20	20	20	100	100
Sinoe	37	37	37	100	100
<b>Liberia</b>	<b>862</b>	<b>854</b>	<b>854</b>	<b>98</b>	<b>98</b>

- ♦ The national target for weekly IDSR reporting is 80%. Health facility timeliness is monitored at health district level
- ♦ All counties submitted weekly IDSR reports to the national level on times.

Legend: ≥80 <80

**854 (98%)**  
Health facilities reported IDSR data

**93 (100%)**  
Health districts reported IDSR data

**854 (98%)**  
Health facilities reported timely IDSR data

## Vaccine Preventable Diseases

### Measles

One hundred forty-seven (147) suspected cases were reported from Montserrado (45), Nimba (33), Grand Bassa (16), Maryland (13), Grand Cape Mount (12), Lofa (7), Bomi (7), Margibi (6), Bong (4), Grand Gedeh (2), River Gee (1), and Grand Kru (1) counties

- Sixty-nine (69) specimens were collected and pending testing

Vaccination status among suspected cases

- Vaccinated - 73 (50%)
- Not vaccinated - 57 (37%)
- Unknown - 4 (15%)

Age distribution among suspected cases

- < 5 years: 74 (50%)
- ≥ 5 years: 73 (50%)

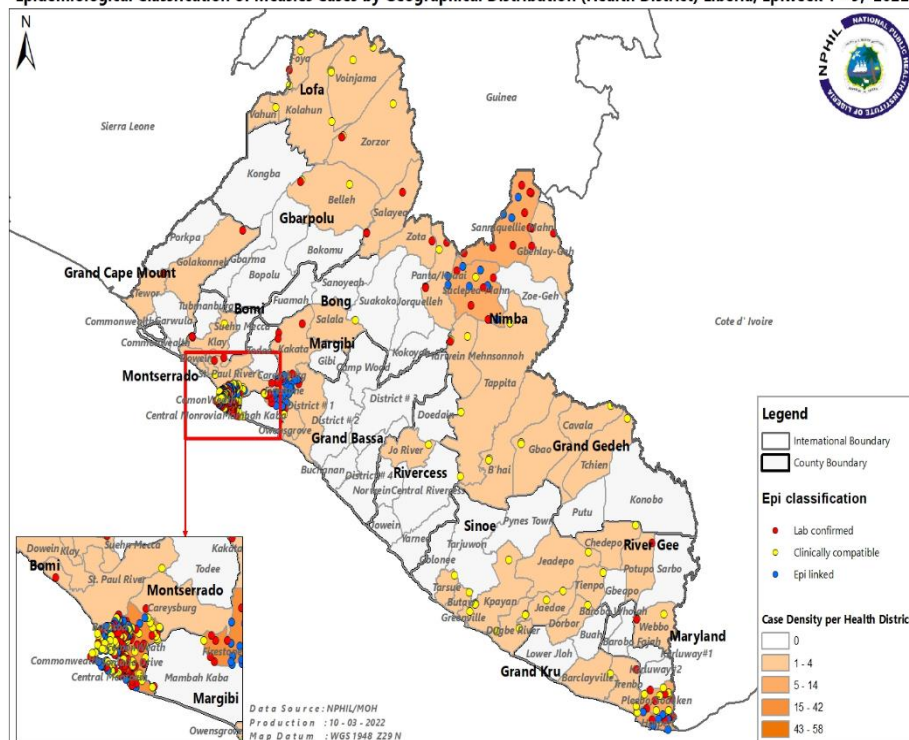
Proportion of samples collected: 57% (365/646)

Proportion of samples tested: 64% (233/365)

Cumulatively, six hundred forty-six (646) suspected cases have been reported

- Laboratory confirmed: 131 clinically compatible: 254, epidemiologically linked: 159, non-measles discarded cases: 102

Epidemiological Classification of Measles Cases by Geographical Distribution (Health District) Liberia, Epiweek 1 - 9, 2022



## Outbreak

**Montserrado County: Commonwealth, Bushrod, Somalia Drive, and Central Monrovia Districts (Situation update as of the 14<sup>th</sup> December 2021-February 27, 2022)**

- Forty-four (44) new cases recorded from Bushrod (21), Commonwealth (12), Careysburg (4), Central Monrovia (4), and Somalia Drive (3)
- A total of 297 cases line listed up to date, Bushrod (100), Commonwealth (85), Careysburg (4), Somalia Drive (72), Central Monrovia (42), and St. Paul (5) of which 71 laboratories confirmed
- All reported cases are undergoing treatment
- Median age 4 years (range 8months- 31 years)
- Death in confirmed -1
- CFR is (2%)

### Vaccination status among lab confirmed:

- Vaccinated by record- 34% (24/71)
- Vaccinated by history- 4% (3/71)
- Not vaccinated – 54% (38/71)
- Unknown - 8% (6/71)



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Epi-week 9 (February 28-March 6, 2022)

## Bong County: Zota and Panta Districts (Situation update as of the 28<sup>th</sup> February – 6<sup>th</sup> March, 2022)

- No new case recorded
- A total of 49 cases line listed of which 4 laboratories confirmed Zota (27), and Panta (22)
- All reported cases are undergoing treatment
- Median age 4 (range 1 - 11 years)

### Vaccination status among lab confirmed:

- Vaccinated by history - 50% (2/4)
- Not vaccinated - 25% (1/4)
- Unknown - 25% (1/4)

## Margibi County: Firestone District (Situation update as of February 28- March 6, 2022)

- Six (6) new suspected cases reported
- Total of forty-four (44) cases recorded
- Nine (9) laboratory confirmed
- All reported cases are undergoing treatment
- Median age 3 range (range 1-12 years)

### Vaccination status in lab confirmed:

- Vaccinated 89% (8/9)
- Not vaccinated 11% (1/9)

## Nimba County: Saclepea-Mah, Sanniquellie-Mah, Gbehlay Geh, and Zoe-Geh Districts (Situation update as of the 26<sup>th</sup> January – 21<sup>st</sup> February, 2022)

- Thirty-three (33) new cases reported
- Total of One hundred (100) cases line listed; Sanniquellie-Mah (15), Saclepea-Mah (6), Gbehlay Geh (1), and Zoe-Geh (11)
- Eighteen (18) laboratory confirmed
- All reported cases are undergoing treatment
- Median age 5 (range 7 months - 20 years)

### Vaccination status in lab confirmed:

- Vaccinated by record 44% (8/18)
- Vaccinated by history 11% (2/18)
- Not vaccinated 33% (6/18)
- Unknown-11% (2/18)

## Maryland County: Harper and Pleebo Districts (Situation update as of the 31<sup>st</sup> January – 6<sup>th</sup> February, 2022)

- Thirteen (13) new cases recorded
- Total of 44 cases recorded line listed
- Nine (9) laboratory confirmed
- All reported cases are undergoing treatment
- Median Age 4, (range 2-18 years)



# Liberia IDSR Epidemiology Bulletin

Epi-week 9 (February 28-March 6, 2022)

## Vaccination status in lab confirmed:

- Unknown-100% (9/9)

## Grand Bassa County: District #2 (Situation update as of March 3, 2022)

- Eleven (11) suspected cases reported
- All reported cases are undergoing treatment
- Median age 11 months (range 9 months - 3 years)

## Grand Cape Mount County: Gola Konneh District (Situation update as of March 2, 2022)

- Ten (10) suspected cases reported
- All reported cases are undergoing treatment
- Median age 10 years (range 5 months - 22 years)

## Lofa County: Voinjama District (Situation update as of March 4, 2022)

- Six (6) suspected cases reported
- All reported cases are undergoing treatment
- Median age 6 (range 2 - 13 years)

## Public Health Actions

- 👉 Community sensitization on utilization of vaccination services
- 👉 Case investigation, active case search and line listing ongoing
- 👉 Case management of cases ongoing

## Challenges

- Limited logistical and operational support for response activities
- Stock out of measles vaccines and vitamin A, in some counties (Bong and Margibi Counties)
- Delay in specimen's transportation and feedback
- Limited medical supplies for case management

## Acute Flaccid Paralysis (AFP)

- 👉 Zero suspected case reported
- 👉 Cumulatively, twenty-one (21) AFP cases have been reported

## Neonatal Tetanus

- 👉 Two (2) cases reported from Grand Bassa and Montserrado counties
- 👉 Cumulatively, fourteen (14) clinically diagnosed cases reported

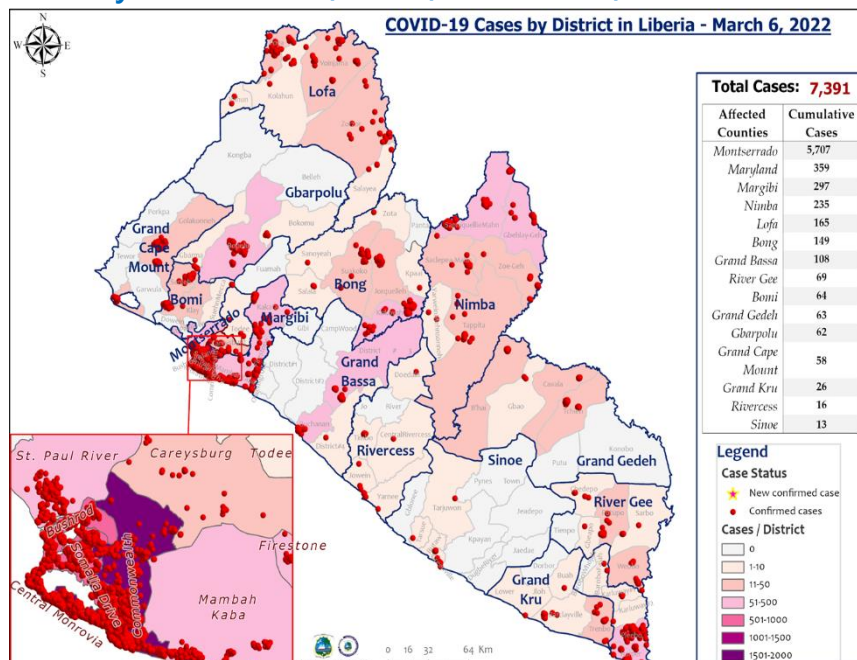
## Influenza-Like Illnesses

### Coronavirus Disease (COVID-19)

#### Outbreak

- ☞ Twenty-seven (27) new cases were reported from Montserrado (24), Nimba (2), and Grand Bassa (1) Counties
  - Seven (7) contacts are being followed up in Montserrado-2, and Nimba-5 Counties
- ☞ A total of five hundred fifty-five (555) confirmed cases have been reported since epi week 1
- ☞ Cumulatively, seven thousand three hundred ninety-one (7,391) confirmed cases recorded including 294 deaths and 601 healthcare workers reported with 17,627 contacts generated

**Figure 2: Geographical Distribution of Laboratory Confirmed COVID-19 Cases by Health Districts, Liberia, as of March 6, 2022**



#### Public Health Actions

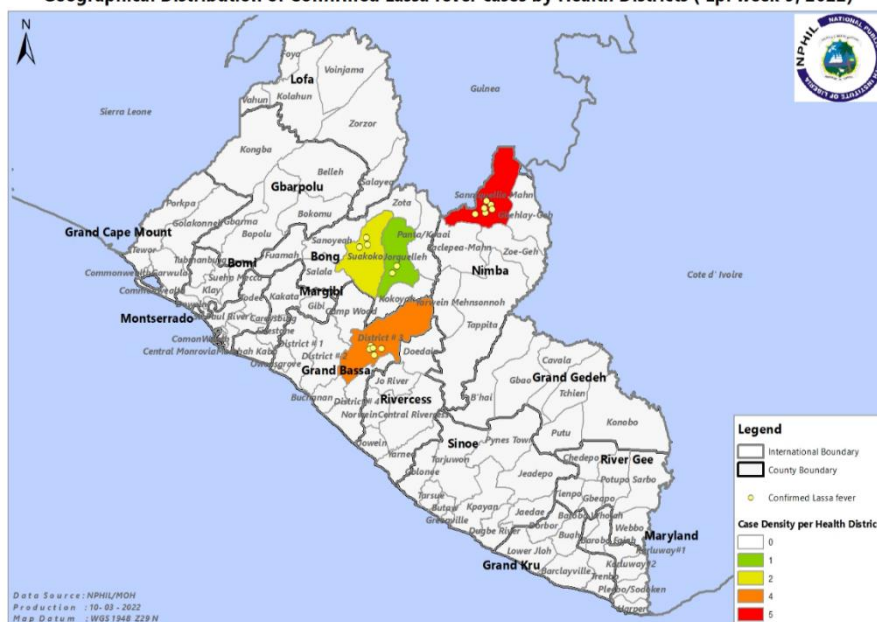
- ☞ Weekly IMS coordination meeting On-going.
- ☞ Surveillance activities including active case search, contact tracing and case investigation on-going in affected counties using WHO interim guidelines
- ☞ Reinforcing hand washing in all public areas (markets, health facilities, public offices, checkpoints etc.)
- ☞ Case management ongoing for confirmed cases
- ☞ Compulsory testing among outgoing and incoming travelers ongoing

## Viral Hemorrhagic Diseases

### Lassa fever

- ☞ Three (3) suspected cases reported from Nimba (2), and Bong (1) counties
- ☞ Three specimens collected: 2 tested negative and 1 pending testing
- ☞ Cumulatively, forty-one (41) suspected cases reported including 7 deaths
- ☞ Proportion of suspected cases with sample collected 100% (41/41)
  - Proportion of suspected cases with sample tested 98% (40/41)
  - Seventeen (17) confirmed including 5 deaths CFR 29.4%

**Geographical Distribution of Confirmed Lassa fever cases by Health Districts ( Epi week 9, 2022)**







# Liberia IDSR Epidemiology Bulletin

Epi-week 9 (February 28-March 6, 2022)

## Outbreak

### Three Counties currently in Outbreak: Grand Bassa, Nimba, and Bong, Grand Bassa County: District 3 A&B (Countdown begin)

- ✎ No new suspected or confirmed case reported
- ✎ A total of 17 days gone by since the last confirmed case was discharged from admission.
- ✎ Zero active case
- ✎ Zero active contact
- ✎ Total confirmed cases five. CFR 20% (n=1/5)
- ✎ A total of 24 contacts generated. All 24 contacts were family and community members and have completed 21 days' follow-up.

### Nimba County: Sanniquellie-Mah District (Countdown begin)

- ✎ Two new suspected case reported and tested negative
- ✎ Zero active case
- ✎ Zero active contact
- ✎ Total confirmed cases seven. CFR 57% (n=4/7)
- ✎ A total of 104 contacts generated. All 104 contacts (47 HCWs & 57 family) completed 21 days' follow-up

### Bong County: Jorquellie, and Suakoko Districts

- ✎ One new suspected case reported and pending testing
- ✎ Total confirmed cases five. CFR 0% (all cases alive).
- ✎ A total 50 contacts generated from epi-week 1-8, 2022 of which 39 contacts completed 21 days' follow-up and 11 contacts still under follow-up (8 HCWs & 3 family).

## Public Health Actions

- ✎ Case management ongoing for the confirmed cases in isolation
- ✎ Continue to air LF prevention and control message in affected and surrounding districts

## Yellow fever

- ✎ Three (3) suspected cases reported from Grand Gedeh, Grand Cape Mount and Grand Bassa Counties
  - Specimens collected and pending testing
- ✎ Cumulatively, twenty (20) suspected cases reported
  - Proportion of suspected cases with sample collected 90% (18/20)
  - Proportion of suspected cases with sample tested 44% (8/18)

## Diarrheal Diseases

### Acute Bloody Diarrhea (Suspected Shigellosis)

- ✎ Thirteen (13) suspected cases reported from Sinoe (6), Grand Kru (3), Lofa (1), Rivercess (1), River Gee (1) and Grand Gedeh (1) Counties
  - Four (4) specimens collected and pending testing
- ✎ Cumulatively, one hundred thirty-seven (137) suspected shigellosis cases reported with 48 specimens collected: 28 negative, 1 positive 19 pending



# Liberia IDSR Epidemiology Bulletin

Epi-week 9 (February 28-March 6, 2022)

## Severe Acute Watery Diarrhea (Suspected Cholera)

- ✎ Eight (8) suspected cases reported from Maryland (2), Grand Gedeh (1), River Gee (1), Grand Kru (1), Nimba (1), Bomi (1) and Lofa (1) Counties
  - Seven (7) specimens collected and pending testing
- ✎ Cumulatively, seventy-eight (78) suspected cholera cases reported with 41 specimens collected and 13 tested negative

## Other Reportable Diseases

### Animal bite (Human Exposure to Rabies)

- ✎ Forty-one (41) animal bite cases reported from Nimba (8), Montserrado (6), Maryland (5), Grand Bassa (5), Bong (3), Grand Gedeh (3), Margibi (4), Lofa (2), Grand Cape Mount (2), River Gee (1), Grand Kru (1) and Bomi (1), Counties
- ✎ Dog bites account for 100%
- ✎ Cumulatively, four hundred forty-four (444) animal bite cases reported

## Public Health Actions

- ✎ 1-4 doses of post exposure prophylaxis administered to about 10% (4/41) persons
- ✎ Cumulatively, 1-4 doses of post exposure prophylaxis were administered to about 16% (69/444)

## Meningitis

- ✎ Zero suspected case reported
- ✎ Cumulatively, eleven (11) suspected cases reported including one confirmed

## Monkeypox

- ✎ Zero suspected cases reported
- ✎ Cumulatively, seven (7) suspected cases reported, two (2) specimens collected pending shipment

## Events of Public Health Importance

### Maternal Mortality

- ✎ Six (6) deaths reported from Montserrado (4), Grand Gedeh (1), and Bong (1) Counties
  - Causes of death: Peripartum Cardiomyopathy (1), Eclampsia (1), Gullen Barrel Syndrome (1) and pending review (1)
  - All deaths occurred at the health facility
- ✎ Cumulatively, fifty-nine (59) deaths reported
  - Proportion of deaths reviewed 27% (16/59)
  - Proportion of community deaths 19% (11/59)
    - Proportion of deaths reviewed in the community 44% (4/9)

### Neonatal Mortality

- ✎ Fourteen (14) deaths reported from Montserrado (5), Nimba (3), Grand Gedeh (2), River Gee (1), Lofa (1), Bong (1), and Bomi (1) Counties
- ✎ Causes of deaths: sepsis (6), birth asphyxia (6), Pneumonia (1) and pending review (1)
- ✎ Thirteen (13) deaths occurred at the health facility and one in the community
- ✎ Cumulatively: one hundred thirty- three (133) deaths have been reported
  - Proportion of deaths reviewed 10.9% (10/109)
  - Proportion of community deaths 5% (7/133)
    - Proportion of deaths reviewed from the community 20% (2/10)



# Liberia IDSR Epidemiology Bulletin

Epi-week 9 (February 28-March 6, 2022)

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

- 👉 Four (4) cases reported from Grand Bassa (3) and Bomi (1) Counties
- 👉 Cumulatively: fifty-five (55) events reported with 84% (44/55) related to COVID-19
  - Proportion of J&J - 80% (42/55)
  - Proportion of AstraZeneca - 4% (2/55)
  - Proportion of other related events -20% (11/55)

## Public Health Actions

- 👉 All events were investigated, categorized as *non-serious AEFI and symptomatically treated*
- 👉 Active case search and community engagement ongoing

## Unexplained death

- 👉 Zero case reported
- 👉 No specimen was collected

## Border Surveillance Update

- 👉 A total of 11,366 travelers recorded for the week with incoming travelers accounting for 51% (5833/11,366)
- 👉 Two travelers reactive for COVID-19.

**Table2: Border activity at the PoE for Incoming and Outgoing Travelers, Liberia, Epi week 8, 2022**

Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Yellow Book Issued	Yellow Book Damage	Card Replaced	Travelers Vaccinated	Alerts detected/ Verified	COVID-19 Reactive	Fully vaccinated for COVID-19
Airport	James S. Paynes	44	28	16	0	0	0	0	0	0	9
	Robert Int'l Airport	3691	1897	1794	37	37	0	0	0	3	3683
Seaport	Freeport of Monrovia	270	135	135	0	0	0	0	0	0	135
	Harper	0	0	0	0	0	0	0	0	0	0
	Buchanan Port	88	44	44	0	0	0	0	0	0	44
Land Crossing	Bo Water Side	727	342	385	0	0	0	0	0	0	31
	Ganta	330	148	182	12	12	0	0	0	0	77
	Yekepa	209	112	97	0	0	0	0	0	0	0
	Loguatu	192	88	104	0	0	0	0	0	0	0
	Yeala	1531	775	756	0	0	0	0	0	0	0
	Kpazagizzia	167	110	57	0	0	0	0	0	0	0
	Safedu	347	194	153	0	0	0	0	0	0	0
	Konadu	596	362	234	0	0	0	0	0	0	0
	Bolongoidu	721	285	436	0	0	0	0	0	0	0
	Lawalazu	610	307	303	0	0	0	0	0	0	0
	Foya Tengia	351	156	195	0	0	0	0	0	0	0
	Sorlumba	727	412	315	0	0	0	0	0	0	0
	Mendicoma	444	234	210	0	0	0	0	0	0	0
	Worsonga	321	204	117	0	0	0	0	0	0	0
Total travelers		11,366	5,833	5,533	49	49	0	0	0	3	3979

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

## Public Health Measures

### National level





# Liberia IDSR Epidemiology Bulletin

Epi-week 9 (February 28-March 6, 2022)

- 👉 Providing technical, logistical, and financial support to counties
  - Publication of situational reports
  - 3<sup>rd</sup> edition IDSR training ongoing in Bomi County including 54 participants from 27 health facility
- 👉 Operational Activity
  - Continued support for operational activities ongoing

## County level

### 👉 Surveillance

- Quarantine and monitoring of domestic animal (Dog) and cases possibly exposed to rabies
- Publication of situational reports
- Active case search ongoing in affected and surrounding communities

### 👉 Case Management

- PEP administered to four cases
- Management of admitted cases ongoing
- Ensure the appropriate medical protocol in place

# Appendix

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

Counties		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	8	5	8	5	6	5	6	4	5	7	6	6	6	10	91			
No. of Health District Reported		4	8	3	8	5	6	5	6	4	5	7	6	6	6	10	89			
Vaccine Preventable Diseases	Acute Flaccid Paralysis (Suspected Polio)	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	A	7	4	0	16	12	2	1	7	6	13	45	33	0	1	0	147	646	131
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
	Neonatal Tetanus	A	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	14	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Yellow fever	A	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	20	0	
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Viral Hemorrhagic Fever	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	0	0	0	0	0	0	0	0	2	0	0	0	3	34	12
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	5	
Influenza-Like Illnesses	COVID-19	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	504	7382
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	294
Diarrheal Diseases	Acute Bloody Diarrhoea (Shigellosis)	A	0	0	0	0	1	3	1	0	0	0	0	1	1	6	13	137	1	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Severe Acute Watery Diarrhoea (Cholera)	A	1	0	0	0	1	1	1	0	2	0	1	0	1	0	8	78	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Events of Public Health Importance	Maternal Mortality	D	0	1	0	0	1	0	0	0	0	4	0	0	0	0	6	59		
	Neonatal Mortality	D	1	1	0	0	2	0	1	0	0	5	3	0	1	0	14	133		
	Adverse Events Following Immunization (AEFI)	A	1	0	0	3	0	0	0	0	0	0	0	0	0	0	4	55	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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	0
D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other Reportable Diseases	Monkeypox	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
		D	0	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	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Human Exposure to Rabies (Suspected Human Rabies)	A	1	3	0	5	2	3	1	2	4	5	6	8	0	1	0	41	444	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
	Meningitis	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
		D	0	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	0	
	D	0	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	0
		D	0	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	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL		11	10	0	27	15	11	6	12	10	20	60	47	1	5	6	241	2165	7825	

D = Dead A = Alive

## Notes

- ✎ **Completeness** refers to the proportion of expected weekly IDSR reports received (target:  $\geq 80\%$ )
- ✎ **Timeliness** refers to the proportion of expected weekly IDSR reports received by the next level on time (target:  $\geq 80\%$ ). Time requirement for weekly IDSR reports:
  - Health facility - required on or before 5:00pm every Saturday to the district level
  - Health district - required on or before 5:00pm every Sunday to the county level
  - County - required on or before 5:00pm 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:  $\geq 2/100,000$ )
- ✎ **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 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)

### 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.