



# Liberia IDSR Epidemiology Bulletin

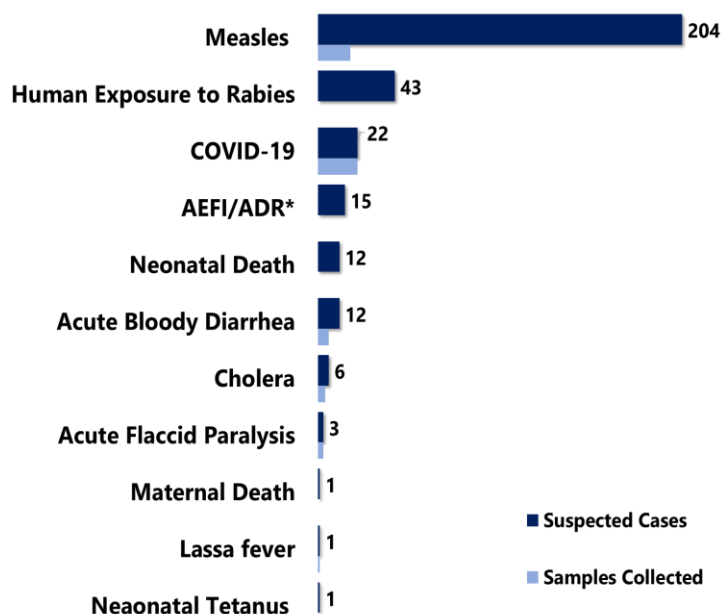
Epi-week 14 (April 4 - 10, 2022)

Country Population: 5,104,413 | Volume 14 Issue 14 | April 4-10, 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 **320** events of public health importance including **17** deaths were reported
- ♦ Completeness and timeliness of health facility reports were **100%** and **99%**
- ♦ **Ongoing Lassa fever** outbreak in two counties
- ♦ **Ongoing Measles** outbreak in twelve counties
- ♦ **Twenty-two** new COVID-19 cases reported from two counties

\*Adverse Events Following Immunization /Adverse Drug Reaction

## Reporting Coverage

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi Week 14, 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	14	93	93
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	334	324	324	97	97
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>867</b>	<b>852</b>	<b>851</b>	<b>100</b>	<b>99</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

851 (99%)  
Health  
facilities  
reported  
IDSR data

93 (100%)  
Health  
districts  
reported  
IDSR data

852 (99%)  
Health  
facilities  
reported  
timely IDSR  
data

## Vaccine Preventable Diseases

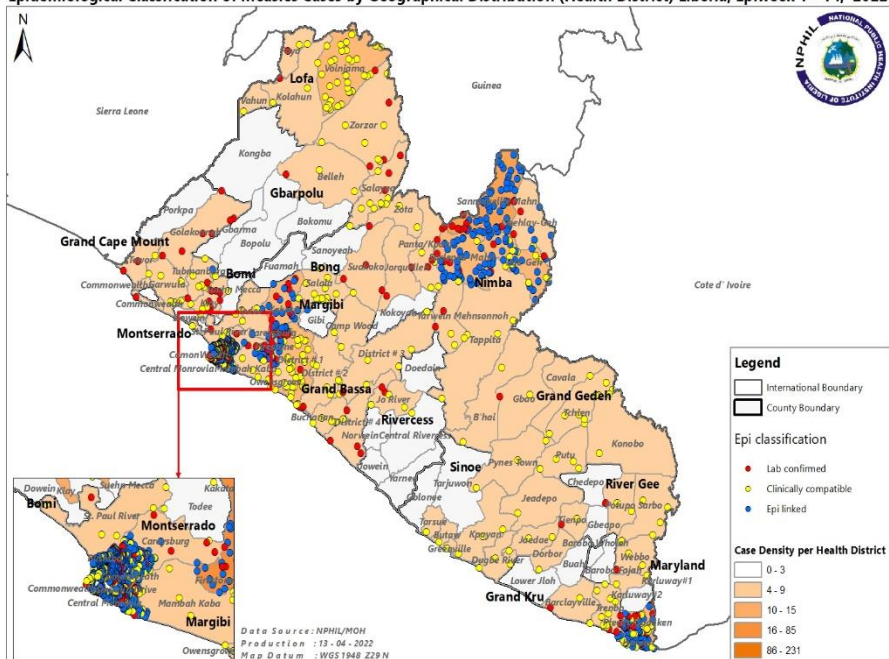
### Measles

- 👉 Two hundred four (204) suspected cases were reported from Montserrado (135) (3 deaths), Nimba (21), Grand Bassa (17), Lofa (12), Margibi (8), Grand Gedeh (3), Sinoe (2), Grand Cape Mount (2), River Gee (1), Bomi (1), Maryland (1), and Grand Kru (1) counties
- 👉 Eighteen (18) specimens collected and pending testing:

### Vaccination status among suspected cases

- Vaccinated - 82 (40%)
- Not vaccinated- 112 (55%)
- Unknown – 10 (5%)
- Age distribution among suspected cases
  - < 5 years: 136 (67%)
  - ≥ 5 years: 68 (33%)
- 👉 Cumulatively, one thousand, six hundred forty (1,640) cases have been reported including 15 deaths
  - Confirmed: 1480 (90%)
    - ✓ Laboratory confirmed: 213
    - ✓ Clinically compatible: 419
    - ✓ Epidemiologically linked: 848
  - Non-measles discarded cases: 160
  - Proportion of samples collected: 35% (572/1640)
  - Proportion of samples tested: 65% (373/572)

Epidemiological Classification of Measles Cases by Geographical Distribution (Health District) Liberia, Epiweek 1 - 14, 2022



## Outbreak

### Montserrado County: Commonwealth, Bushrod, Somalia Drive, St. Paul and Central Monrovia and Careysburg Districts (Situation update as of the 13th December 2021-April 10, 2022)

- 👉 One hundred thirty-five (135) new cases reported
  - Bushrod (82), Central Monrovia (19), Somalia Drive (19), Commonwealth (12), and Careysburg (3)
- 👉 A total of 843 suspected cases line listed up to date
  - 97 lab confirmed
  - Range 6 months -48 years
  - Death: 11
  - CFR in lab confirmed 2% (2/97)
  - All reported cases are undergoing treatment

### Vaccination status among lab confirmed:

- Vaccinated by record- 41% (40/97)
- Not vaccinated – 42% (41/97)
- Unknown - 17% (16/97)



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## Bong County: Suakoko, Zota, Salala and Panta Districts (Situation update as of the 28th February – April 3, 2022)

- 👉 No new case reported
- 👉 A total of 95 suspected cases have been recorded
  - Six (6) labs confirmed
  - Range 1- 36 years
  - 50% (4/8) not vaccinated

## Lofa County: Voinjama and Salayea (Situation update as of April 3, 2022)

- 👉 Twelve (12) new cases reported
  - Salayea (7), and Voinjama (5)
- 👉 A total of 84 suspected cases have been recorded
  - Six (6) laboratory confirmed
  - 50% (3/6) vaccinated
  - Range 2 months-66 years

## Nimba County: Saclepea-Mah, Sanniquellie-Mah, Gbehlay Geh and Zoe-Geh Districts (Situation update as of the 26th January – April 3, 2022)

- 👉 Nineteen (19) new cases reported
  - Sanniquellie-Mah (15), and Zoe-Geh (4)
- 👉 A total of One hundred ninety-seven (197) cases line listed
  - Twenty-five (25) laboratories confirmed
  - Range 2 months- 45years
  - 44% (11/25) were vaccinated
  - 36% (9/25) not vaccinated
  - 20% (5/25) Unknow

## Maryland County: Harper and Pleebo Districts (Situation update as of the 31st January – April 3, 2022)

- 👉 Five (5) new case reported
  - Pleebo (3) and Harper (2)
- 👉 A total of 72 suspected cases have been recorded
  - Fifteen (15) laboratory confirmed
  - Range 2 months-48 years
  - 93% (14/15) vaccinated

## Grand Bassa County: District # 1 &3 (Situation update as of March 10- April 3, 2022)

- 👉 Fourteen (14) new cases reported
  - District #1 (3) and District #3 A&B (11)
- 👉 A total of 55 cases have been recorded
  - Two (2) laboratory confirmed
  - Range 6 months-34 years



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## Bomi County: Suehn Mecca, Senjeh, and Klay Districts (Situation update as of March 7- April 3, 2022)

- 👉 One (1) new case recorded from Senjeh District
- 👉 A total of 43 cases have been reported
  - Sixteen (16) laboratory confirmed
  - Range 4 months-67 years
  - 50% (4/8) were vaccinated

## Grand Kru: Trehn District (Situation update as of March 14-April 3, 2022)

- 👉 No new case reported
- 👉 A total of 14 suspected cases reported
  - Two (2) lab confirmed

## Rivercess: (Situation update as of March 16-April 3, 2022)

- 👉 No new case reported from Joe Rive
- 👉 A total 8 suspected cases reported

## Margibi County: Firestone District (Situation update as of February 28- April 3, 2022)

- 👉 Eight new cases reported
- 👉 A total of 101 suspected cases reported
  - Twenty (20) laboratory confirmed
  - Range 4 months - 43 years
  - 13 (87%) were vaccinated

## Cape Mount County: Gola Konneh (Situation update as of March 10- April 3, 2022)

- 👉 No new case recorded
- 👉 A total of 17 cases have been reported
  - Nine (9) laboratory confirmed
  - 7 (78%) were vaccinated

## Gbarpolu: (Situation update as of Feb 14-April 10, 2022)

- 👉 No new case reported
- 👉 A total 8 suspected cases recorded
  - Two laboratory confirmed

## Public Health Actions

- 👉 Case investigation, active case search and line listing ongoing
- 👉 Case management ongoing
- 👉 Radio talk show ongoing in (Lofa county)
- 👉 Limited specimen collection kits in (Margibi)

## 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

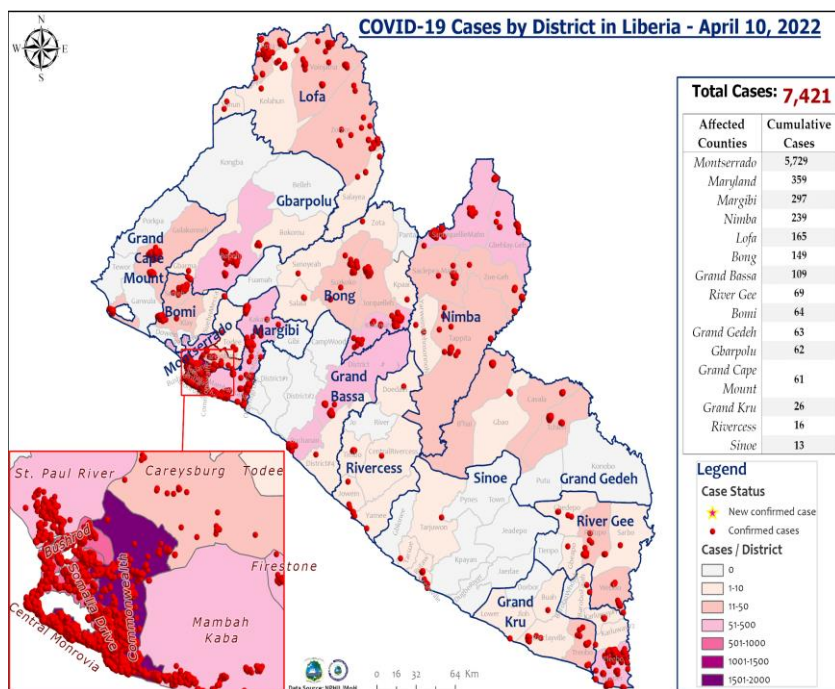
## Influenza-Like Illnesses

### Coronavirus Disease (COVID-19)

#### Outbreak

- ☞ Twenty-two (22) new cases were reported from Grand Bassa (1) and Montserrado (21) Counties
- ☞ A total of five hundred eighty-four (584) confirmed cases have been reported since epi week 1
- ☞ Cumulatively, seven thousand four hundred twenty-one (7,421) confirmed cases recorded including 294 deaths 601 healthcare workers reported with 17,646 contacts generated

**Figure 2: Geographical Distribution of Laboratory Confirmed COVID-19 Cases by Health Districts, Liberia, as of April 10, 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

### Acute Flaccid Paralysis (AFP)

- ☞ Three (3) cases reported from Montserrado (2), and Lofa (1) Counties
  - Specimens collected for all cases, two shipped and one pending shipment
- ☞ Cumulatively, thirty-four (34) AFP cases have been reported

### Neonatal Tetanus

- ☞ One (1) case was reported from Nimba County
- ☞ Cumulatively, eighteen (18) clinically diagnosed cases reported

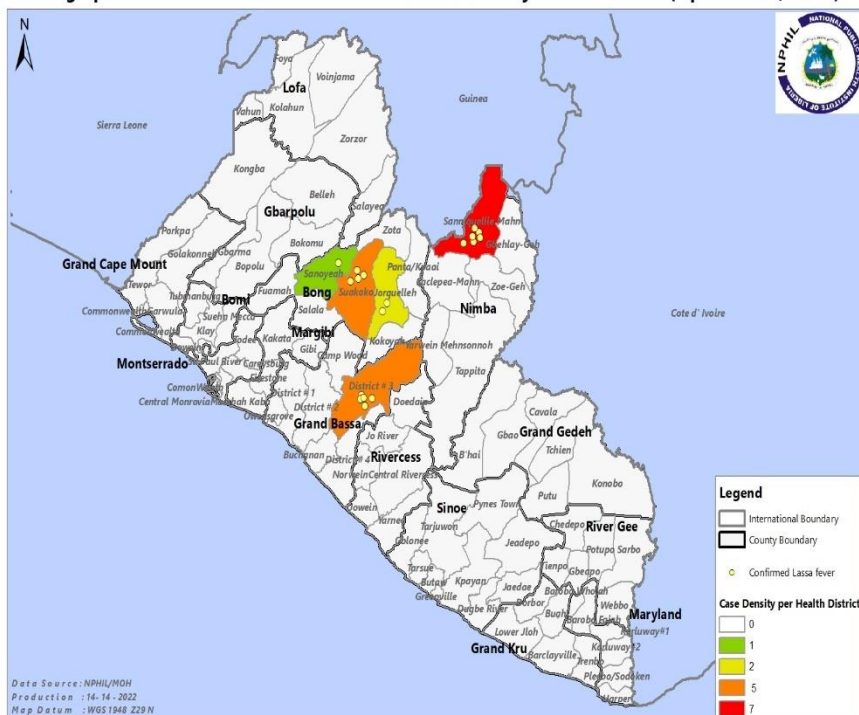


## Viral Hemorrhagic Diseases

### Lassa fever

- 👉 One (1) confirmed (death) case was reported from Bong County
- 👉 Cumulatively, fifty-two (52) suspected cases reported including 8 deaths
  - Proportion of suspected cases with sample collected 100% (52/52)
  - Proportion of suspected cases with sample tested 100% (52/52)
  - Twenty (20) confirmed including 7 deaths CFR 35% (7/20)

Geographical Distribution of Confirmed Lassa fever cases by Health Districts (Epi week 14, 2022)



### Outbreak

Two counties currently in Outbreak: Nimba and Bong

#### Nimba County: Sanniellie-Mah District (Countdown)

- 👉 No new suspected case reported
- 👉 Countdown to end of outbreak: 40 days
- 👉 Total confirmed cases seven. CFR 57% (n=4/7)
- 👉 A total of 104 contacts were generated. All 104 contacts (47 HCWs & 57 families) completed 21 days' follow-up

#### Bong County: Sanoyea District

- 👉 One (1) new confirmed case reported
- 👉 One (1) suspected case reported for epi-week 14
- 👉 Cumulatively eight confirmed cases including 3 health care workers. CFR 25% (n=2/8)
- 👉 A total of 104 contacts were generated from epi-week 1-14, 2022. 73 contacts completed 21 follow-ups on March 31, 2022 and remaining 31 contacts (15 HCWs & 16 families)

### Public Health Actions

- 👉 Continue to air LF prevention and control messages in affected and surrounding districts
- 👉 Cleanup campaign ongoing in affected and surrounding communities in Nimba county
- 👉 Active case search ongoing in Nimba and Bong counties



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## Yellow fever

- ✎ No new case reported
- ✎ Cumulatively, twenty-eight (28) suspected cases reported
  - Proportion of suspected cases with sample collected 89% (25/28)
  - Proportion of suspected cases with sample tested 32% (8/25)

## Diarrheal Diseases

### Acute Bloody Diarrhea (Suspected Shigellosis)

- ✎ Twelve (12) suspected cases were reported from River Gee (3), Grand Bassa (2), Montserrado (2), Grand Gedeh (1), Nimba (1), Bomi (1), Sinoe (1), and Bong (1) Counties
  - Six (6) specimens collected and pending testing
- ✎ Cumulatively, one hundred ninety-six (196) suspected shigellosis cases reported with seventy-nine (79) specimens collected: 47 negative, 1 positive, 42 pending

### Severe Acute Watery Diarrhea (Suspected Cholera)

- ✎ Six (6) suspected cases reported from Lofa (2), Bong (2), Grand Bassa (1), and Bomi (1) Counties
  - Four (4) specimens collected and pending testing
- ✎ Cumulatively, one hundred-ten (110) suspected cholera cases reported with 56 specimens collected and 23 tested negative

## Other Reportable Diseases

### Animal bite (Human Exposure to Rabies)

- ✎ Forty-three (43) animal bite cases reported Montserrado (13), Lofa (5), Grand Bassa (4), River Gee (4), Margibi (4), Nimba (4), Grand Kru (2), Bong (2), Rivercess (2), Maryland (1), Bomi (1), and Gbarpolu (1) counties
  - 12% (5/43) persons received PEP
- ✎ Cumulatively, six hundred ninety (690) animal bite cases reported
- ✎ Dog bites account for 100%
- ✎ 1-4 doses (PEP) administered to about 15% (106/690) of patients

## Public Health Actions

- ✎ 1-4 doses of post exposure prophylaxis administered to about 17% (8/47) persons
- ✎ Cumulatively, 1-4 doses of post exposure prophylaxis were administered to about 15% (106/690)

## Meningitis

- ✎ No new suspected case reported
- ✎ Cumulatively, thirteen (13) 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

- ✎ One (1) death reported from Nimba County
  - Cause of death: post-partum hemorrhage
  - Death occurred at the health facility



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- ☞ Cumulatively, eighty-seven (87) deaths reported
  - The proportion of deaths reviewed was 18% (16/87)
  - The proportion of community deaths 15% (13/87)
    - The proportion of deaths reviewed in the community was 5% (4/87)

## Neonatal Mortality

- ☞ Twelve (12) deaths reported from Grand Bassa (3), Nimba (3), Bong (2), Margibi (2), and Maryland (2) Counties
  - Causes of death: Birth asphyxia (9), Sepsis (2), and Preterm (1),
  - All deaths occurred at the health facility
- ☞ Cumulatively: two hundred eighteen (218) deaths have been reported
  - The proportion of deaths reviewed 12% (26/218)
  - The Proportion of community deaths 7% (8/218)
    - The proportion of deaths reviewed from the community 25% (2/8)

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

- ☞ Fifteen (15) cases reported from Sinoe (5), Bomi (5), Grand Cape Mount (3), Montserrado (1), and Nimba (1) Counties
- ☞ Cumulatively: ninety-two (92) events reported with 86% (79/92) related to COVID-19
  - Proportion of J&J -84% (77/92)
  - Proportion of AstraZeneca – 2% (2/92)
  - Proportion of other related events -14% (13/92)

## 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





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## Border Surveillance Update

**Table2: Border activity at the PoE for Incoming and Outgoing Travelers, Liberia, Epi week 13 2022**

👉 A total of 5,798 travelers recorded for the week with incoming travelers accounting for 45% (2623/5798)

👉 One traveler reactive for COVID-19

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	46	31	15	0	0	0	0	0	0	10
	Robert Int'l Airport	3506	1592	1914	23	20	0	3	0	1	3492
Seaport	Freeport of Monrovia	280	140	140	0	0	0	0	0	0	0
	Harper	0	0	0	0	0	0	0	0	0	0
	Buchanan Port	120	60	60	0	0	0	0	0	0	60
Land Crossing	Bo Water Side	622	276	346	57	57	0	0	0	0	44
	Ganta	529	230	299	0	0	0	0	0	0	0
	Yekepa	327	104	223	16	16	0	0	0	0	0
	Loguatu	368	190	178	7	7	0	0	0	0	0
	Yeala	0	0	0	10	10	0	0	0	0	0
	Kpazagizzia	0	0	0	0	0	0	0	0	0	0
	Safedu	0	0	0	0	0	0	0	0	0	0
	Konadu	0	0	0	0	0	0	0	0	0	0
	Bolongoidu	0	0	0	0	0	0	0	0	0	0
	Lawalazu	0	0	0	0	0	0	0	0	0	0
	Foya Tengia	0	0	0	0	0	0	0	0	0	0
	Sorlumba	0	0	0	0	0	0	0	0	0	0
	Mendicoma	0	0	0	0	0	0	0	0	0	0
	Worsonga	0	0	0	0	0	0	0	0	0	0
Total travelers		5,798	2,623	3,175	113	110	0	3	0	1	3606

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

## Public Health Measures

### National level

- 👉 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



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## 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	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 Diseases	Acute Flaccid Paralysis (Suspected Polio)	A	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	3	31	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	17	2	3	1	12	8	1	132	21	0	1	2	201	1427	213	
		D	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	
	Neonatal Tetanus	A	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	17	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	0	0	0	0	0	0	0	0	0	0	0	0	0	28	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	19	
D	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	6		
Influenza-Like Illnesses	COVID-19	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	562	7399	
		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	1	1	0	2	0	1	0	0	0	0	2	1	0	3	1	12	182	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	2	0	1	0	0	0	2	0	0	0	0	0	0	0	6	104	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	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	86		
	Neonatal Mortality	D	0	2	0	3	0	0	0	0	2	2	0	3	0	0	0	12	205		
	Adverse Events Following Immunization (AEFI)	A	5	0	0	0	3	0	0	0	0	0	1	1	0	0	5	15	77	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	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	0	7	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	2	1	4	0	0	2	5	4	1	13	4	2	4	0	43	646	0	
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
	Meningitis	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	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			9	8	1	27	5	4	3	20	14	4	153	32	2	8	8	298	3445	7932	

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

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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.