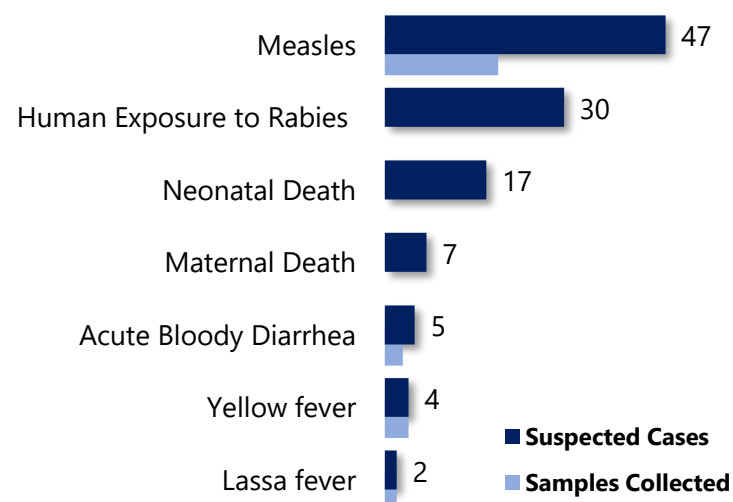


Highlights

Figure 1: Public Health Events reported during this week



Keynotes and Events of Public Health Significance

- ◆ **A total of 112** events of public health importance including **25** deaths were reported
- ◆ **Completeness and timeliness** of health facility reports were both **97%**

Reporting Coverage

Table 1. Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi week 25, 2019

County	Number of Expected Report	Number of Reports Received	Number Received on Time	Completeness (%)	Timeliness (%)
Bomi	26	26	26	100	100
Bong	57	57	57	100	100
Gbarpolu	16	16	16	100	100
Grand Bassa	34	34	34	100	100
Grand Cape Mount	34	34	34	100	100
Grand Gedeh	24	24	24	100	100
Grand Kru	19	19	19	100	100
Lofa	59	59	59	100	100
Margibi	59	55	55	93	93
Maryland	26	26	26	100	100
Montserrado	351	333	333	95	95
Nimba	84	83	83	99	99
Rivercess	20	18	18	90	90
River Gee	20	20	20	100	100
Sinoe	37	37	37	100	100
Liberia	866	841	841	97	97

841 (97%)
Health facilities reported IDSR data

93 (100%)
Health districts reported IDSR data

841 (97%)
Health facilities out of 866 reported timely IDSR data

Legend: ≥80 <80

- ◆ The national target for weekly IDSR reporting is 80%
- ◆ Health facility timeliness is monitored at County level
- ◆ All Counties submitted their weekly IDSR report on time to the national level

Vaccine Preventable Diseases

Measles

- ◆ Forty- seven (47) suspected cases were reported from Sinoe (18), Margibi (9), Lofa (5), Bomi (4), Rivercess (3), Montserrado (2), River Gee (2), Nimba (2), Grand Cape Mount (1) and Bong (1) Counties
 - Twenty-seven specimens were collected, 25 tested, and 2 pending laboratory confirmation
 - 10 positive and 15 negative
- ◆ Vaccination status:
 - Among suspected cases: 37 (78.7%) vaccinated, 0 (0%) not vaccinated and 10 (21.3%) unknown
- ◆ Age distribution
 - Among suspected cases: <1 year: 0 (0%), 1 – 4 years: 14 (29.8%), ≥5 years: 33 (70.2%)
- ◆ Cumulatively, since Epi-week one, 1074 suspected cases have been recorded; Of these, 383 have been tested by the laboratory and results showed 98 positive, 279 negative and 6 indeterminate
- ◆ Epi-classification is as follows: 787 (73.2%) confirmed (98 lab confirmed, 610 clinically confirmed, 79 epi-linked), 279 (26%) negative, 6 (0.6%) indeterminate, and 2 (0.2%) pending (*See Table 2, Figure 2*)
 - Cumulative vaccination status among lab confirmed: 30 (30.6%) vaccinated, 39 (39.8%) not vaccinated, 29 (29.6%) unknown
 - Age distribution among lab confirmed: <1 year: 9 (9.2%), 1 – 4 years: 12 (12.2%), ≥5 years: 77 (78.6%)
 - Of the 279 specimens tested negative for measles, 186 specimens were tested for rubella, as follows: 94 positive, 83 negative, and 9 indeterminate

Public Health Action

- ◆ Case Management, active case search, health education, and community engagement are ongoing in districts that

Table 2. Annualized Non-Measles Febrile Rash Illness Rate by Counties, Liberia, Epi-week 1 - 25, 2019

Reporting County	Epi-classification						Total	Annualized Non-Measles Febrile Rash Illness Rate
	Lab confirmed	Epi-linked	Clinically confirmed	Indeterminate (Equivocal)	Discarded (Negative)	Pending		
Bomi	1	0	12	0	10	0	23	19.7
Bong	10	2	30	1	14	0	57	6.7
Gbarpolu	4	27	48	0	5	0	84	9.9
Grand Bassa	2	2	29	1	17	0	51	12.7
Grand Cape Mount	0	0	6	0	11	0	17	14.3
Grand Gedeh	17	14	17	0	13	0	61	17.2
Grand Kru	12	20	33	0	10	0	75	28.6
Lofa	7	0	81	0	15	0	103	9.0
Margibi	10	0	35	1	27	0	73	21.3
Maryland	0	0	0	0	1	0	1	1.2
Montserrado	11	4	79	1	64	1	160	9.2
Nimba	7	10	34	1	27	0	79	9.7
River Gee	11	0	59	0	24	0	94	59.5
Rivercess	2	0	47	0	34	1	84	78.7
Sinoe	4	0	100	1	7	0	112	12.9
Liberia	98	79	610	6	279	2	1074	13.1

Target Achieved

>=2

Below Target

<2

Figure 2. Cumulative Epi-classification Measles Cases by Reporting weeks, Liberia, Epi-week 1 - 25, 2019

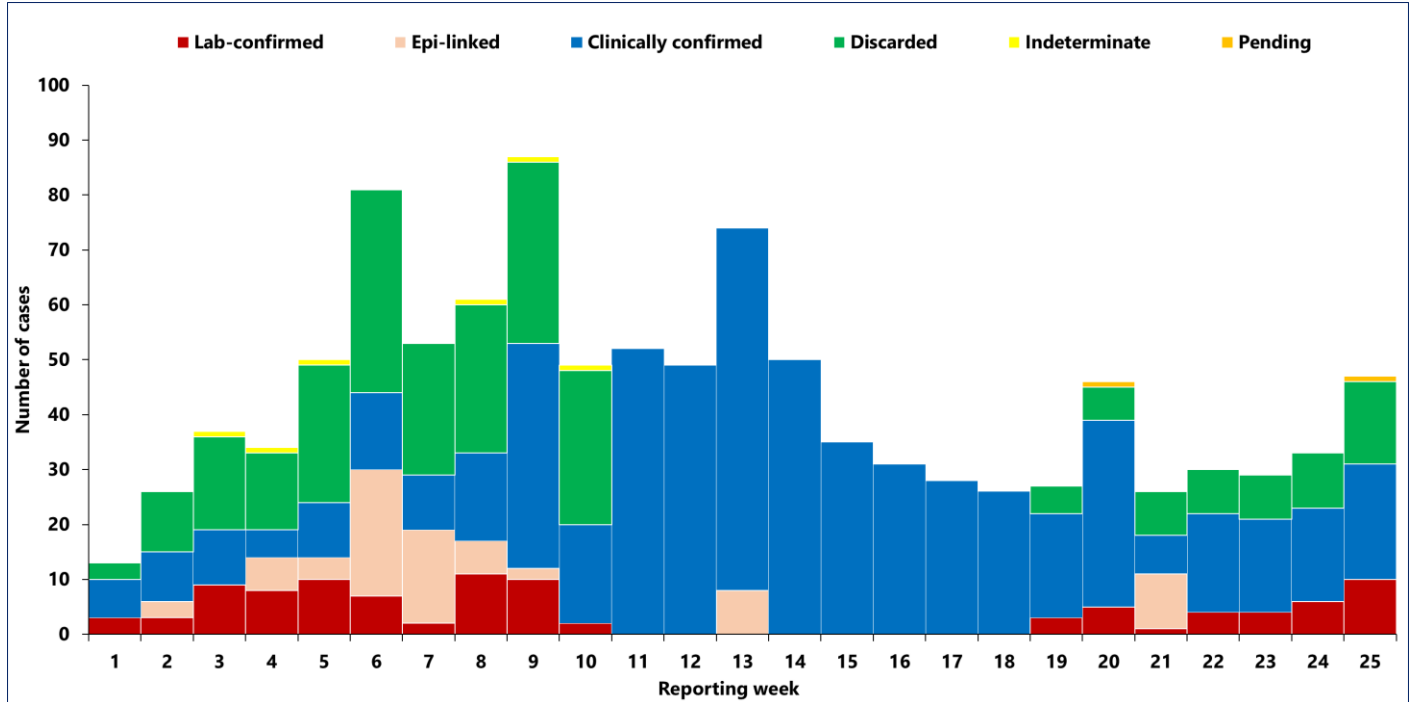
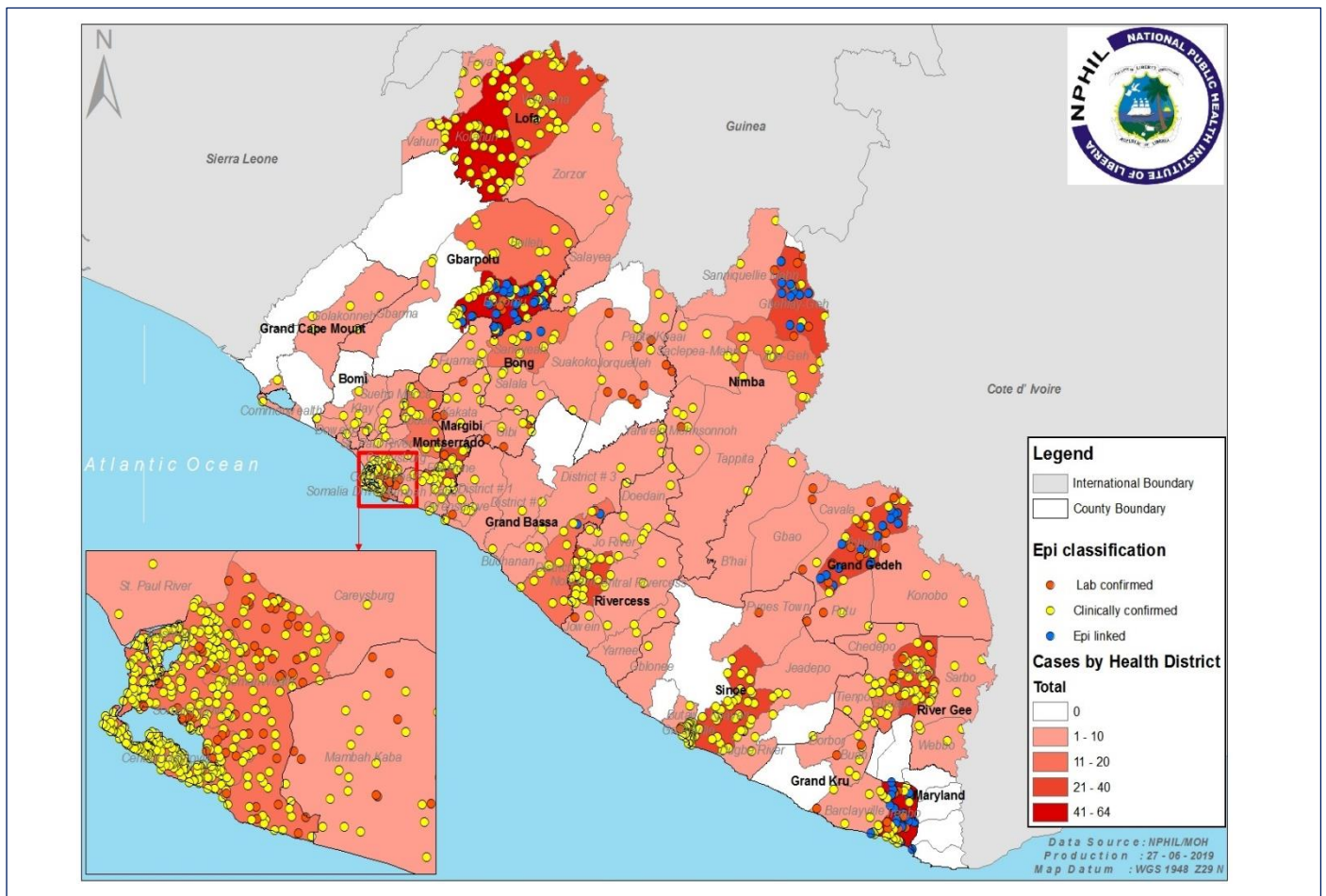


Figure 3. Cumulative Confirmed Measles Cases Reported by Health District, Liberia, Epi-week 1 - 25, 2019





Liberia IDSR Epidemiology Bulletin

2019 Epi-week 25 (June 17 – 23, 2019)



Acute Flaccid Paralysis (Suspected Polio)

- ◆ Zero cases reported this week
- ◆ Cumulatively, since Epi week one, 32 cases have been recorded:
 - Proportion of suspected cases reported with sample collected and tested is 100%
 - Laboratory confirmed (+) zero

Neonatal Tetanus

- ◆ Zero cases reported this week
- ◆ Cumulatively, since Epi-week one, 18 clinically diagnosed cases have been recorded:
 - Attributable clinically confirmed death 33% (n=6)

Viral Hemorrhagic Diseases

Ebola Virus Disease (EVD)

- ◆ Zero alerts were reported this week
- ◆ Cumulatively, since Epi-week one, 11 EVD alerts have been recorded with 11 negative results

Lassa fever

- ◆ Two (2) suspected cases were reported from Nimba and Margibi Counties
 - Specimens were collected and pending laboratory confirmation
- ◆ Cumulatively, since Epi week one, 71 suspected cases have been recorded:
 - Proportion of suspected cases reported with sample collected and tested is 100%
 - Laboratory confirmed 33% (n=22)
 - Case fatality in confirmed cases is 36% (n=8)
 - Epi-classification is as follows: 22 positive, 39 negative and 10 pending laboratory confirmation

Yellow fever

- ◆ Four (4) suspected cases were reported from Grand Bassa, Grand Kru, Bomi and Maryland Counties
 - Specimens were collected and pending laboratory confirmation
- ◆ Cumulatively, since Epi-week one, 56 suspected cases have been recorded:
 - Zero laboratory confirmed
 - Proportion of suspected cases reported with sample collected and tested is 86% (n=48)
 - Zero attributable death

Monkeypox

- ◆ Zero case was reported
- ◆ Cumulatively, since Epi week one, 50 suspected cases have been reported and 12 specimens have been shipped to Atlanta for confirmation

Meningitis

- ◆ Zero case reported
- ◆ Cumulatively, since Epi-week one, 29 suspected cases have been recorded with one death, 26 tested negative, and 1 pending laboratory confirmation

Events of Public Health Importance

Maternal Mortality

- ◆ Seven (7) deaths were reported from Montserrado (5), Grand Cape Mount (1), and Grand Gedeh (1) Counties
- ◆ Causes of death: postpartum hemorrhage (3), eclampsia (3), and antepartum hemorrhage
- ◆ Reporting sites: health facilities 6 (85.7%) and community 1(14.3%)

- ◆ Cumulatively, since Epi-week one, 138 maternal deaths have been recorded and the top three causes are: 69 (50%) postpartum hemorrhage, 17 (12.3%) eclampsia, and 10 (7.2%) anemia (*See Table 3*)

Table 3. Annualized and Cumulative Maternal Death Reported by County, Liberia, Epi-week 1 - 25, 2019

County	Estimated Annual Live birth (4.3%)	Current week	Cumulative	% of Cumulative Maternal deaths	Annualized Maternal Mortality Ratio/100,000
Grand Gedeh	6770	1	10	7	307
Maryland	7347	0	9	7	255
Bong	18775	0	20	14	222
Margibi	11345	0	11	8	202
Gbarpolu	4507	0	4	3	185
Nimba	24970	0	20	14	167
Rivercess	3865	0	3	2	161
Sinoe	5534	0	4	3	150
Montserrado	62479	5	38	28	127
Grand Bassa	11981	0	7	5	122
Grand Cape Mount	6868	1	4	3	121
Bomi	4546	0	2	1	92
Grand Kru	3130	0	1	1	66
River Gee	3610	0	1	1	58
Lofa	14911	0	4	3	56
Liberia (National)	190636	7	138	100	151

Neonatal Mortality

- ◆ Seventeen (17) deaths were reported from Montserrado (9), Bong (2) and one each from Grand Kru, Grand Gedeh, River Gee, Gbarpolu, Margibi, and Bomi Counties
- ◆ Causes of deaths: sepsis (8), asphyxia (7), prematurity (1) and *investigation ongoing* (1)
- ◆ Reported sites: health facilities 16 (94%) and community 1(6%)
- ◆ Cumulatively, since Epi-week one, 345 neonatal deaths have been reported (*See Table 4*) and the top three causes are: asphyxia 161 (47%), sepsis 128 (37%) and preterm 29 (8.3%)

Table 4. Annualized and Cumulative Neonatal Death Reported by County, Liberia, Epi-week 1 - 25, 2019

County	Estimated Annual Live birth (4.3%)	Current Week	Cumulative	% of Cumulative Neonatal deaths	Annualized Neonatal Mortality Rate/1000
Grand Kru	3130	1	24	7	15.9
Grand Gedeh	6770	1	26	8	8.0
Rivercess	3865	0	10	3	5.4
Margibi	11345	1	28	8	5.1
Bong	18775	2	46	13	5.1
Montserrado	62479	9	128	37	4.3
Maryland	7347	0	14	4	4.0
River Gee	3610	1	7	2	4.0
Sinoe	5534	0	9	3	3.4
Lofa	14911	0	17	5	2.4
Gbarpolu	4507	1	6	2	2.8
Bomi	4546	1	5	1	2.3
Nimba	24970	0	20	6	1.7
Grand Cape Mount	6868	0	2	1	0.6
Grand Bassa	11981	0	3	1	0.5
Liberia (National)	190636	17	345	100	3.8

Other Reportable Diseases

Animal Bites (Human Exposure to Rabies)

- ◆ Thirty (30) cases were reported from Bong (7), Margibi (4), Grand Cape Mount (3) Montserrado (3), Gbarpolu (3), Rivercess (2), Maryland (2) and one each from Grand Bassa, Grand Gedeh, Grand Kru, Lofa, Nimba, and Sinoe Counties
- ◆ Cumulatively, since Epi-week one, 915 cases of animal bites have been recorded including one death

Acute Bloody Diarrhea (Suspected Shigellosis)

- ◆ Five (5) suspected cases were reported from Montserrado (2), and one each from Grand Bassa, Grand Gedeh and Bong Counties
 - Three specimens were collected and pending laboratory confirmation
- ◆ Cumulatively, since Epi-week one, 137 acute bloody diarrhea cases have been recorded with 79 stool specimens collected and tested. Result: 10 positive, 66 negative and 3 pending laboratory confirmation

Severe Watery Diarrhea (Cholera)

- ◆ Zero cases reported
- ◆ Cumulatively, since Epi-week one, 67 suspected cases have been recorded with 53 specimens collected out of which; 46 negative, while 14 specimens were not collected

Unexplained Cluster of Health Events

- ◆ Zero case reported
- ◆ Cumulatively, since Epi-week one, 11 cases of unexplained death has been reported

Points of Entry

- ◆ Zero IDSR alert detected and verified
- ◆ A total of 5433 travelers were recorded for the week (*See Table 5*)

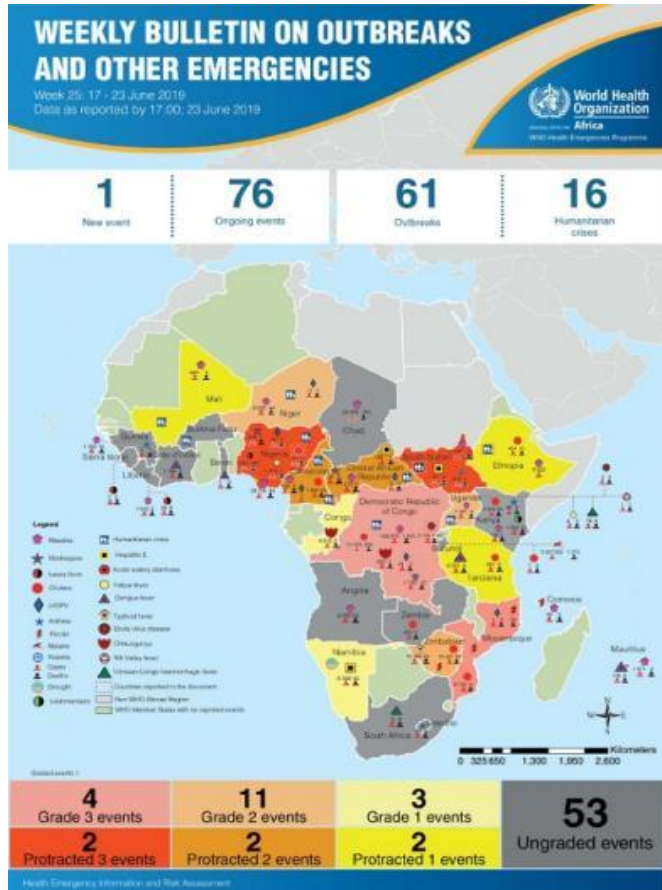
Table 5. Total Travelers, IDSR Alerts Detected and Verified at Points of Entry, Liberia, Epi-week 25, 2019

Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Yellow Book Issued	Yellow Book Damage/Card Replaced	Travelers Vaccinated	IDSR Alerts	Alerts Verified
Airport	James S. Paynes	133	80	53	0	0	0	0	0
	Robert International Airport	4058	2090	1968	50	38	12	0	0
Seaport	Freeport of Monrovia	194	97	97	0	0	0	0	0
	Buchanan Port	34	17	17	0	0	0	0	0
Ground Crossing	Bo Water Side	466	304	162	35	35	0	0	0
	Ganta	376	150	226	0	0	0	0	0
	Yekepa	52	33	19	0	0	0	0	0
	Loguatu	120	75	45	0	0	0	0	0
Total Traveler for the Week		5433	2846	2587	85	73	12	0	0

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

AFRO Public Health Events

The National Public Health Institute of Liberia continues to monitor acute public health emergencies and outbreaks occurring in the African Region in order to ensure preparedness and preventive measures are implemented



During this week, 77 events are being monitored through WHO Health Emergencies Program in the African Region. Key events highlighted during the week include the following:

- Cholera in Nigeria
- Ebola virus disease in Democratic Republic of the Congo
- Humanitarian crisis in Ethiopia
- Humanitarian Crisis in South Sudan

Public Health Measures

National level

- ◆ Providing technical remote support to Counties
 - Heighten surveillance in affected and surrounding communities

County level

- ◆ Case management for all reported cases ongoing
- ◆ Active case searches ongoing in affected communities for Measles and Lassa fever

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



Liberia IDSR Epidemiology Bulletin

2019 Epi-week 25 (June 17 – 23, 2019)



- ◆ *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
- ◆ *Case Fatality Rate (CFR)* is the proportion of deaths among confirmed cases

**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*

Epidemiological bulletin published with support of WHO and CDC

For comments or questions, please contact

Thomas K. Nagbe, MPH

Director, Infectious Disease and Epidemiology Division
National IHR Focal Person
National Public Health Institute of Liberia
Republic of Liberia

Email: tnknie31112@gmail.com

Phone: +231 886 937386/777442444

Website: www.nationalphil.org

Ralph W. Jetoh, MD

Deputy 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.nationalphil.org

EDITORIAL TEAM

NPHIL

Roseline N. George

Advertus N. Mianah

Irene Pewu

Godwina B. Williams

Samuel Zayzay

Lasee W. Colee

T. Lafayette Hall

Sumor L. Flomo

McAllen S. Quiah

Trokon O. Yeabah

Ministry of Health

Partners: WHO & US CDC