

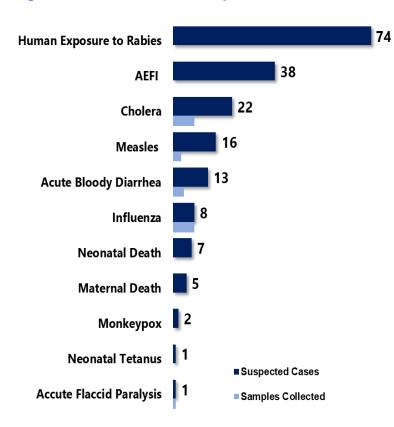
Liberia IDSR Epidemiology Bulletin

Epi-week 42 (October 16-22, 2023)

Country Population: 5,104,413 | Volume 19 Issue 42 | October 16-22, 2023 | 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 187 events of public health importance including 12 deaths reported
- ◆ Completeness and timeliness of health facility reports were both 97%
- ♦ Ongoing Lassa fever outbreak in 3 Counties
- ◆ Ongoing Measles outbreak in 6 Counties

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 42, 2023

	Expected				
	Reports From	Reports	Received on	Completeness	Timeliness
County	HF*	Received	Time	(%)	(%)
Bomi	28	28	28	100	100
Bong	67	67	67	100	100
Gbarpolu	18	18	18	100	100
Grand Bassa	37	37	37	100	100
Grand Cape 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	66	66	100	100
Maryland	28	28	28	100	100
Montserrado	418	394	394	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	954	953	97	97

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

Legend:

≥80 <80

953 (97%)
Health
facilities
reported
IDSR data

98(100%)
Health
districts
reported
IDSR data

Vaccine-Preventable Diseases

<u>Measles</u>

- Sixteen (16) suspected cases were reported from 6 Counties (see distribution in Table 2)
- Three (3) specimens were collected and pending testing
- Five (5) were vaccinated (see distribution in Table 3)

Table 2: Distribution of Measles cases per county and epi-classification, Liberia, Epi week 42, 2023

COUNTY	# SUSPECTED	#		SIFICAT FIRMED		DEATHS	CFR (%)	# CONFIRMED CASES WEEK 41	# CONFIRMED CASES WEEK 42	% CHANGE					
	CASES	CASES	Lab confirmed	Epi Linked	Clinically Compatible										
Bomi	80	68	2	13	53	0	0.0	0	0	0					
Bong	209	209	3	6	200	1	0.5	0	0	0					
Gbarpolu	41	40	0	0	40	0	0.0	0	0	0					
Grand Bassa	174	171	0	0	171	0	0.0	0	0	0					
Grand Cape Mount	76	68	1	2	65	0	0.0	1	0	-100					
Grand Gedeh	415	371	6	27	27 338		0.0	3	6	100					
Grand Kru	739	733	10	72	651	2	0.3	0	1	0					
Lofa	136	128	0	0	128	0	0.0	0	0	0					
Margibi	201	199	1	8	190	0	0.0	0	0	0					
Maryland	727	725	0	0	725	0	0.0	8	3	-63					
Montserrado	1091	1083	4	53	1026	2	0.2	2	3	50					
Nimba	362	352	2	33	317	3	0.9	0	1	0					
River Gee	143	117	1	0	116	0	0.0	0	2	0					
Rivercess	35	30	1	0	29	0	0.0	0	0	0					
Sinoe	140	120	6	11	103	0	0.0	0	0	0					

Table 3: Vaccination Status of Measles Cases, Liberia, Epi-week 42, 2023

Bomi Bong Bong Bong Brand Bassa Brand Cape Mount Brand Gedeh Brand Kru Lofa Margibi Maryland Montserrado Nimba River Gee			Number of Dos	ses Received
County	Vaccinated	One Dose	Two Doses	Doses Not Indicated
Bomi	0	0	0	0
Bong	0	0	0	0
Gbarpolu	0	0	0	0
Grand Bassa	0	0	0	0
Grand Cape Mount	0	0	0	0
Grand Gedeh	0	0	0	0
Grand Kru	1	0	0	1
Lofa	0	0	0	0
Margibi	0	0	0	0
Maryland	0	0	0	0
Montserrado	3	3	0	0
Nimba	1	1	0	0
River Gee	0	0	0	0
Rivercess	0	0	0	0
Sinoe	0	0	0	0
National	5	4	0	1

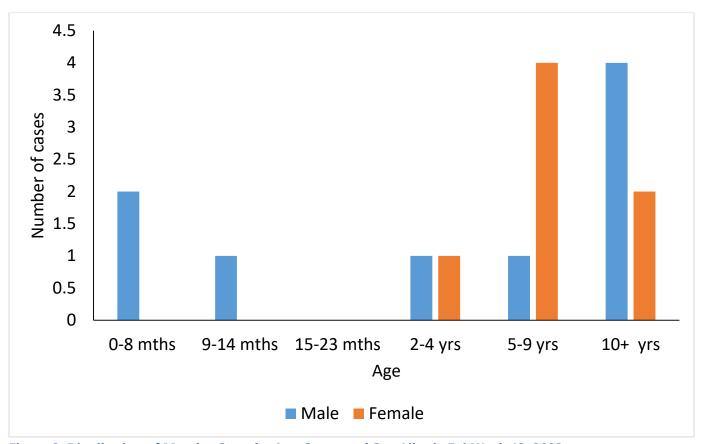


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 42, 2023

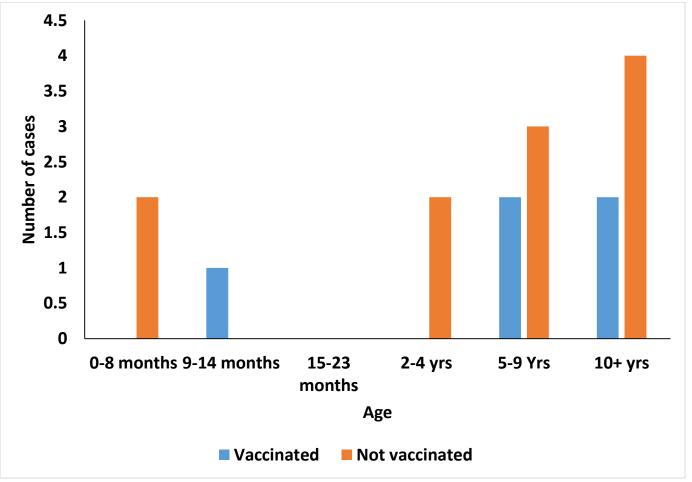


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 42, 2023

Table 4: Status of Confirmed Measles Cases by County, Liberia, December 13, 2021 October 22, 2023

County	Total Cases	Active	Recovery	Deaths	# of Districts
Montserrado	5,357	3	5,285	69	7/7
Nimba	1,096	1	1,091	4	6/6
Grand Bassa	924	0	917	7	3/8
Margibi	803	0	802	1	0/4
Bong	578	0	575	3	3/9
Maryland	1070	1	1069	0	2/6
Lofa	284	0	284	0	0/6
Grand Kru	962	1	959	2	3/5
Grand Cape Mount	187	0	184	3	0/5
Bomi	147	0	142	5	0/4
Rivercess	84	0	83	1	0/6
Gbpolu	46	0	46	0	0/5
Grand Gedeh	472	7	472	0	0/6
River Gee	79	0	79	0	0/6
Sinoe	231	0	231	0	0/10
Total	12,320	6	12, 219	95	24/98

Table 5: Cumulative Distribution of Measles Cases and Deaths, December 13, 2021- October 16. 2023

COUNTY	CUMULATIVE SUSPECTED CASES	CUMULATIVE CONFIRMED CASES		SSIFICATION (SIFIRMED (SSIFICATI FIRMED D		CUMUL ATIVE DEATHS	CFR (%)	# CONFIR MED CASES	# CONFIRME D CASES WEEK 42	% CHANGE	Outbre ak Status
	C.1525	0.1015	Lab confirmed	Epi Linked	Clinically Compatible	Lab confirmed	Epi Linked	Clinically Compatible	DEATHS		WEEK 41			Status
Montse rrado	5, 443	5,357	145	165 8	3, 554	3	61	5	69	1.3	3	3	-	Ongoi ng
Nimba	1, 124	1096	37	187	872	0	1	3	4	0.4	1	1	1	Ongoi ng
Margib i	827	803	34	136	633	0	0	1	1	0.1	0	0	-	Ended
Grand Bassa	962	924	40	212	672	1	0	6	7	0.9	0	0	-	Ongoi ng
Lofa	353	284	32	66	186	0	0	0	0	0	0	0	-	Ended
Bong	603	578	22	21	535	0	1	2	3	0.5	0	0	-	Ongoi ng
Maryla nd	1090	1070	24	308	738	0	0	0	0	0	8	1	88	Ongoi ng
Grand Gedeh	635	473	34	48	391	0	0	0	0	0	7	0	-100	Ended
Sinoe	284	231	36	84	111	0	0	0	0	0	0	0	-	Ended
Bomi	183	147	34	27	86	1	2	2	5	3	0	0	-	Ended
Grd Cape Mt	215	187	17	18	152	0	2	1	3	1.6	0	0	-	Ended
Grand Kru	991	961	22	106	833	0	0	2	2	0.2	0	1	-100	Ongoi ng
Gbarpo lu	67	46	4	2	40	0	0	0	0	0	0	0	1	Ended
Riverc ess	112	84	23	54	7	0	1	0	1	1.1	0	0	-	Ended
River Gee	103	79	0	0	79	0	0	0	0	0	0	0	-	Ended
Total	12,992	12,320	504	2,92 7	8,890	5	68	22	95	7.8	19	6		

Public Health Response

I. Coordination

IMS meetings are being held for coordination and mobilization of resources in response counties

II. Epidemiological Surveillance

Active case search and contact tracing ongoing in Grand Kru County

III. Case management

Case management ongoing in affected counties

IV. Immunization

- Expanded Program on Immunization (EPI) program conducted a Periodic Intensification of Routine Immunization (PIRI) in 14 Counties supported by WHO from August 9-15, 2023. Counties involved were Bomi, Bong, Gbarpolu, Grand Bassa, Grand Cape Mount, Grand Gedeh, Grand Kru, Lofa, Maryland, Montserrado, Nimba, Rivercess, River Gee, and Sinoe. The activity target children <2 years. The annual surviving infants under 2 years is 189,934 and Based on the period of implementation, the adjusted target of 66.7% (n=126622)
- The PIRI activity is a national intervention strategic; Mop-up to vaccinate defaulters in health facilities catchment areas, to improve immunization coverage equitably in all health facilities. The PIRI was conducted in 94 health districts and 691 health facilities
- A total of 10.4% (13224/126622) children received Measles vaccine dose 1 and 6.7% (8511/126622) received Measles vaccine dose 2.

V. Laboratory

- NPHRL confirmed 3 measles cases from Chedepo District-River Gee County, and One from Panta District-Bong County
- Five hundred four (504) cases have been confirmed by the National Public Health Reference Laboratory from December 13, 2021 October 25, 2023.

VI. Risk Communication and Community Engagement

Community engagement health education ongoing on prevention and control in Grand Kru County

VII. Challenges

Insufficient gasoline to intensify response activities in Grand Kru and Grand Gedeh Counties

Acute Flaccid Paralysis (AFP)

- One (1) suspected case reported from Montserrado County
- Specimen was collected and pending testing
- Cumulatively, forty-one (41) cases were reported
 - Ten (10) tested negative
 - o Thirty-one (31) pending

Neonatal Tetanus

- One (1) case was reported River Gee County
- Cumulatively, forty-nine (49) cases including 6 deaths reported

Influenza-Like Illnesses

Coronavirus Disease (COVID-19)

- Zero suspected cases reported
- Cumulatively, Ninety-five (95) cases have been reported

Influenza

Eight (8) suspected cases were reported from Montserrado County

- Specimens were collected and all tested negative
- Cumulatively, one hundred-eighteen (118) suspected cases reported
 - Proportion cases with sample collected (113/118) 96%
 - o Proportion of cases with sample tested (52/113) 46% and all negative

Viral Hemorrhagic Diseases

Lassa fever

- Zero suspected cases were reported
- Cumulatively, two hundred one (201) suspected cases reported
 - o Proportion of suspected cases with a sample collected (185/201) 92%
 - o Proportion of suspected cases with sample tested (185/185) 100% (confirmed 57, negative 128)

Current Outbreak

Lassa fever disease

- No new confirmed case was reported
- Cumulatively, ninety-six (96) laboratory-confirmed cases including 27 deaths reported (CFR=28%)

Table 6: Summary of Lassa fever Outbreak, Liberia, January 6, 2022 - October 16, 2023

County	Outbreak Districts	Outbreak Start Date	Total suspected cases	Total confirmed cases	Deaths in HCWs	Total Deaths	CFR %	Total Contacts	# HCW contacts	Contacts_ became cases	HCW became confirmed case	Contacts under follow up	Contacts completed	Days in countdow	Outbreak Status
Montserra	Bushrod	13-Feb-23	15	2	0	1	50%	29	21	0	0	0	29	Completed	Over
do	Central Monrovia	3-Mar-23	28	1	0	1	100%	28	27	0	0	0	28	Completed	Over
	Suakoko	21-Apr-23	148	42	2	8	19%	423	177	6	4	26	334	Active	Ongoing
Bong	Sanoyea	19-Sep-23	2	2	0	1	50%	36	18	0	0	6	31	Completed	Over
Dong	Kokoya	3-Oct-23	1	1	0	0	0%	5	0	0	0	5	0	Active	Ongoing
	Jorquelleh	6-Jan-22	13	9	1	2	25%	107	69	3	3	0	107	Completed	Over
Grand	District 3A&B	9-Sep-22	86	32	0	9	28%	177	40	40	0	23	159	Active	Ongoing
Bassa	Buchanan	11-Aug-23	2	1	0	1	100%	4	2	0	0	4	0	Active	Ongoing
Nimbo	Sanniquell ie-Mah	6-Feb-23	36	2	0	0	0%	43	35	8	0	0	43	Completed	Over
Nimba	Tappita	13-Mar-23	12	1	0	1	100%	36	17	4	0	0	36	Completed	Over
	Bain-Garr	1-Jun-23	10	3	0	3	100%	61	25	0	0	31	30	Active	Ongoing
Total			353	96	3	27	28%	1000	424	61	7	95	797		

Public Health Measures

o The National Public Health Institute of Liberia (NPHIL) and the Ministry of Health (MOH) are providing technical and logistical support to County Health Teams with support from partners.

I. Surveillance:

- Active case search and contact tracing ongoing in affected communities and districts
- o Development and dissemination of weekly sit-reps by affected counties

II. Laboratory

- o The National Public Health Reference Laboratory continues testing of Lassa fever samples
- A total of 96 Lassa fever cases have been confirmed since this outbreak

III. Case management and IPC

Cases isolated and managed at designated facilities

IV. Environmental and Vector Control

o Ongoing clean-up campaigns and rodent control measures in Grand Bassa County

V. Risk Communication and Community Engagement

- o Risk communication and community engagement ongoing in affected and surrounding communities
- Airing of jingles on Lassa fever prevention and control in Bong and Grand Bassa Counties

Yellow fever

- Zero suspected cases were reported
- Cumulatively eighty-nine (89) suspected cases were reported
 - Three (3) samples (3/86) 3% not transported (Epi week 5 from Grand Gedeh, River Gee, and Grand Kru Counties)

- o Proportion of suspected cases with samples collected (71/89) 80%
- o The proportion of samples tested is (52/71) 73%
- o The proportion of samples pending testing is (13/71) 18%

Dengue Fever

Zero cases were reported

Ebola Virus Disease

Zero cases were reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- Fourteen (14) cases were reported: Sinoe (8), Grand Gedeh (2), Gbarpolu (1), Maryland (1), Lofa (1), and Rivercess (1) Counties
- Four (4) specimens were collected and pending testing
- Cumulatively, six hundred fifty-three (653) cases were reported
 - o Two hundred fifty-six (256) specimens were collected
 - One hundred sixty-eight (168) specimens were received by NPHRL
 - 121 tested negative
 - 16 specimens pending testing by NPHRL
 - 31 specimens rejected by NPHRL
 - o 88 specimens not received by NPHRL

Severe Acute Watery Diarrhea (Suspected Cholera)

- Twenty (20) suspected cases were reported: Maryland (10), Lofa (4), Bong (3), Grand Kru (1), Sinoe (1), and Rivercess (1) counties
- Eight (8) specimens were collected and pending arrival at NPHRL
- Cumulatively, seven hundred seventy-four (774) cases reported
 - o Two hundred fifty-five (255) specimens were collected
 - o One hundred four (104) specimens were received by NPHRL
 - 76 tested negative
 - 10 pending testing by NPHRL
 - 18 specimens rejected by NPHRL
 - 10 pending arrival at NPHRL
 - 141 specimens were not received by NPHRL

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

Seventy-four (74) animal bites were reported

Table 7: Distribution of Animal Bite Cases and PEP Administration per County, Liberia, Epi week 42, 2023

Counties	Cases	Person receiving PEP	PEP doses administered	Cumulative cases (Wk 1-42)	Cumulative PEP administered (Wk 1-42)
Bomi	0	0	0	60	33
Bong	2	2	2	176	73
Gbarpolu	0	0	0	29	1
Grand Bassa	5	0	0	244	28
Grand Cape Mount	0	0	0	63	36
Grand Gedeh	1	0	0	92	13
Grand Kru	2	0	0	231	15
Lofa	5	1	0	208	82
Margibi	7	2	2	175	73
Maryland	5	2	1	170	59
Montserrado	25	12	12	868	232
Nimba	14	2	2	504	147
Rivercess	4	0	0	105	57
River Gee	0	0	0	45	0
Sinoe	4	0	0	123	6
Total	74	21	19	3093	855

Public Health Actions

- Ongoing monitoring and follow-up of cases
- Coordination meeting with six counties (Bong, Nimba, Lofa, Margibi, Grand Bassa, and Montserrado) to discuss intervention strategies

Meningitis

- Zero suspected cases reported
- Cumulatively, thirty-three (33) suspected cases reported
 - Proportion of suspected cases with samples collected (27/33) 82%
 - Proportion of sample tested (22/27) 81%
 - o 17 negative and 4 positive (Streptococcal-3 & Hemophilus Influenza)

Mpox

- Two (2) suspected cases reported Lofa (2) County
- No specimen collected
- Cumulatively, one hundred twenty-two (121) suspected cases reported
 - Twelve (12) confirmed

Unexplained cluster of deaths

Zero cases reported

Events of Public Health Importance

Maternal Mortality

- Five (5) deaths were reported from Nimba (2), Grand Kru (1), Margibi (1), and Sinoe (1) counties
- Reported causes: PPH (4), and Eclampsia (1)
- Reporting Site:
 - Health Facility (5/5) 100%
- Cumulatively, two hundred fifty-seven (257) deaths reported
 - o Proportion of death reviewed (70/257) 27%
 - o Proportion of community death (31/70) 44%

Neonatal Mortality

- Seven (7) deaths were reported from Maryland (3), Montserrado (2), Bong (1), and Grand Gedeh (1) Counties
- Reported causes: Birth asphyxia (5), Neonatal sepsis (1), and Preterm (1)
- Reporting site:
 - Health facility: (7/7) 100%
- Cumulatively, six hundred forty-five (645) deaths reported

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

- Thirty-eight (38) cases were reported: Sinoe (16), Lofa (7), Bomi (3), Grand Cape Mount (3), Maryland (3), Montserrado (2), Grand Bassa (2), Margibi (1), and Grand Gedeh (1)
- All reported cases were classified as non-serious
- Related vaccine:
 - o Penta (21/38) 55%
 - Tetanus (5/38) 13%
 - o Others (12/38) 32%
- Cumulatively, seven hundred twenty-seven (727) events were reported and COVID-19 accounted for (210/727) 29%

Neglected Tropical Diseases

YAWS

- Zero cases were reported
- Cumulatively, two hundred forty-six (246) cases have been reported

Buruli Ulcer

- Zero cases were reported
- Cumulatively, one hundred seventy-one (171) cases have been reported

Border Surveillance Update

A total of 3,826 travelers were recorded for the week with incoming travelers accounting for 48% (1,820/3,826)

Table 8: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 42, 2023

		Weekly			Total traverlers	Yellow	Card	Travelers Vaccinated against YF & Issued	Alerts detected/	COVID-19	Evidence of COVID-19 vaccination
Type of Ports	Point of Entry	total	Arrival	Departure	with YB	Book Damage	Replaced	book	Verified	Reactive	card/certificate
	James S. Paynes	156	109	47	10	0	0	0	0	0	15
Airport	Robert Int'l Airport	2759	1277	1482	2697	52	52	20	0	0	2726
Seaport	Freeport of Monrovia	128	64	64	128	0	0	0	0	0	128
	Buchanan Port	36	18	18	36	0	0	0	0	0	36
	Bo Water Side	489	223	266	476	0	0	13	0	0	461
Land Crossing	Ganta	68	52	16	30	2	2	0	0	0	73
Land Crossing	Yekepa	87	44	43	36	0	0	0	0	0	46
	Loguatuo	103	33	70	77	0	0	0	0	0	33
Total		3,826	1,820	2,006	3,490	54	54	33	0	0	3,518

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

Public Health Measures

National level

- Conducted engagement meeting with six counties (Bong, Nimba, Lofa, Margibi, Grand Bassa, and Montserrado) to discuss rabies intervention strategies
- Providing remote technical and operational support to counties
- Produced and disseminated situation reports (Lassa fever, Measles, and Mpox outbreaks)

County-level

Surveillance

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

Case Management

- o Administration of PEP
- Management of measles cases ongoing

Appendia	X																			
Summary	y of Immediately Reportable D	Dise	ease	s, C	ond	litio	ns, a	and	Eve	nts	by (Cou	nty							
			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	ed 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		
e Disea	Acute Flaccid Paralysis (Suspected Polio)	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41 0	0
entabl	Measles	A D	0	0	0	0	0	6 0	0	0	0	3 0	3	0	0	0	0	16 0	4,569 8	37 2
e Prev	Neonatal Tetanus	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49 6	0
Vaccin	Yellow fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86 0	0
Events of Public Health I Diarrheal Dise: Influenza-Lik: Viral Hemorrhagic f Vaccine Preventable Disea	Dengue fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
lemorr	Ebola Virus Disease	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Viral H	Lassa fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154 34	30 16
za-Like	COVID-19	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11 0	0
nfluen:	Influenza Like Illnesses	A D	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	118	0
Dise	Acute Bloody Diarrhoea (Shigellosis)	A	0	0	1 0	0	0	2	0	1 0	0	0	0	0	1 0	0	8	13	630	0
arrheal	Severe Acute Watery Diarrhoea (Cholera)	Α	0	3	0	0	0	0	2	4	0	11	0	0	1	0	1	22	774	0
= <u>=</u> <u>=</u>	Maternal Mortality	D D	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0 257	0
ic Hea	Neonatal Mortality	D	0	0	0	0	0	1	0	0	0	3	2	0	0	1	0	7	645	
of Publ	AEFI	A D	3 0	0	0	0	3	0	0	7	0	3 0	0	0	0	0	16 0	38 0	727 0	0
vents (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
	Мрох	А	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	121	7
)isease	Tuberculosis	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Reportable Diseases	Human Exposure to Rabies (Suspected Human	D A	0	2	0	5	0	0	2	5	7	5	25	14	0	0	0	74	3,093	0
r Repo	Meningitis	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0
Othe	Unexplained Cluster of deaths	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Į p	Buruli Ulcer	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1119	0
Neglected Ti	Yaws	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	241	4
Ž		D TAL	0 3	0 5	0 1	0 7	0 0	0 11	0 0	0 19	0 0	0 25	0 0	0 17	0 0	0 4	0 30	0 187	0 11718	0 57

D = Dead **A** = Alive

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

EDITORIAL TEAM

DIDE / NPHIL

A. N. Mianah

I. P. Pewu

T. O. Yeabah

J. S. Kokro

E. Dwalu

A.B. Corvah

G. B. Williams

S. K. Zayzay

L. W. Colee

M. Tegli

T. L. Hall

S. L. Flomo

M. S. Quiah

<u>J. O. A</u>bel

P. J. Thomas

H. M. Sherman

M.D. Vaye

N. K. Dovillie

A. Coker

S. Nuwolo

N. Sesay

Ministry of Health WHO Liberia Office US CDC Liberia Office

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.