

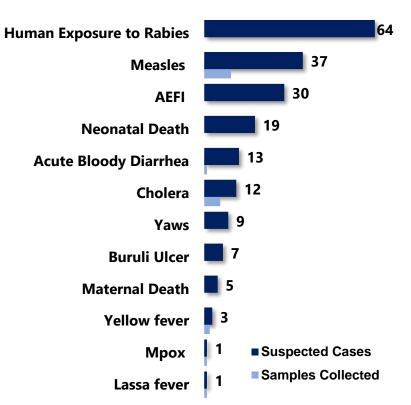
Liberia IDSR Epidemiology Bulletin

Epi-week 31 (July 31- Aug 6, 2023)

Country Population: 5,104,413 | Volume 31 Issue 18 | July 31-Aug 6, 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 201 events of public health importance including 26 deaths reported
- Completeness and timeliness of health facility reports were 98% & 97%
- Ongoing Lassa fever outbreak in 2 Counties
- ♦ Ongoing Measles outbreak in 9 Counties

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 31, 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	396	390	95	93
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	956	951	98	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

956(98%)
Health
facilities
reported
IDSR data

98(100%)
Health
districts
reported
IDSR data

951 (97%)
Health
facilities
reported
timely IDSR

Vaccine-Preventable Diseases

Measles

- Thirty-seven (37) suspected cases were reported from 7 Counties (see distribution in Table 2)
- □ Ten (10) specimens collected and pending testing
- Twenty (20) were vaccinated (see distribution in Table 3)

Table 2: Distribution of Measles cases per county and epi-classification, Liberia, Epi week 31, 2023

COUNTY	Cases Week	Lab confirmed Epi Week		SIFICATION	ON OF S, EPI WEEK	Deaths	CFR (%)	CUMULATIVE # SUSPECTED CASES, EPI	CUMULATIVE # CONFIRMED CASES, EPI	
	31	31	Lab confirmed	Epi Linked	Clinically Compatible		(/5/	WEEK 1-31	WEEK 1-31	
Bomi	0	0	0	13	51	0	0.0	75	66	
Bong	0	0	2	6	193	1	0.5	201	201	
Gbarpolu	0	0	0	0	34	0	0.0	35	34	
Grand Bassa	1	0	0	0	165	0	0.0	167	165	
Grand Cape Mount	0	0	0	2	62	0	0.0	73	65	
Grand Gedeh	3	0	4	26	267	0	0.0	340	297	
Grand Kru	4	0	6	72	640	2	0.3	720	718	
Lofa	7	0	0	0	110	0	0.0	118	110	
Margibi	0	0	1	8	189	0	0.0	200	198	
Maryland	6	0	0	0	634	0	0.0	636	634	
Montserrado	10	0	4	53	974	2	0.2	1039	1031	
Nimba	6	0	2	33	277	3	1.1	314	312	
River Gee	0	0	0	0	108	0	0.0	128	108	
Rivercess	0	0	1	0	27	0	0.0	33	28	
Sinoe	0	0	4	11	88	0	0.0	117	103	
Grand Total	37	0	27	224	3,819	8	2	4,196	4070	

Table 3: Vaccination Status of Measles Cases, Liberia, Epi-week 31, 2023

			Number of Doses Received									
Bong Gbarpolu Grand Bassa Grand Cape Mount Grand Gedeh Grand Kru	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	1	0	1	0								
Grand Cape Mount	0	0	0	0								
Grand Gedeh	1	1	0	0								
Grand Kru	1	0	1	0								
Lofa	7	5	1	1								
Margibi	0	0	0	0								
Maryland	0	0	0	0								
Montserrado	7	7	0	0								
Nimba	3	3	0	0								
River Gee	0	0	0	0								
Rivercess	0	0	0	0								
Sinoe	0	0	0	0								
National	20	16	3	1								

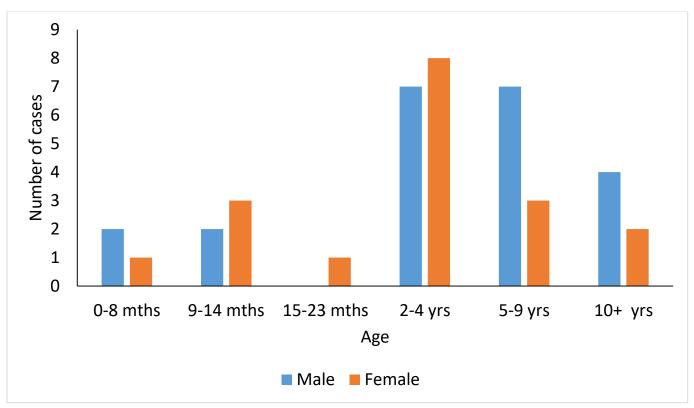


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 31, 2023

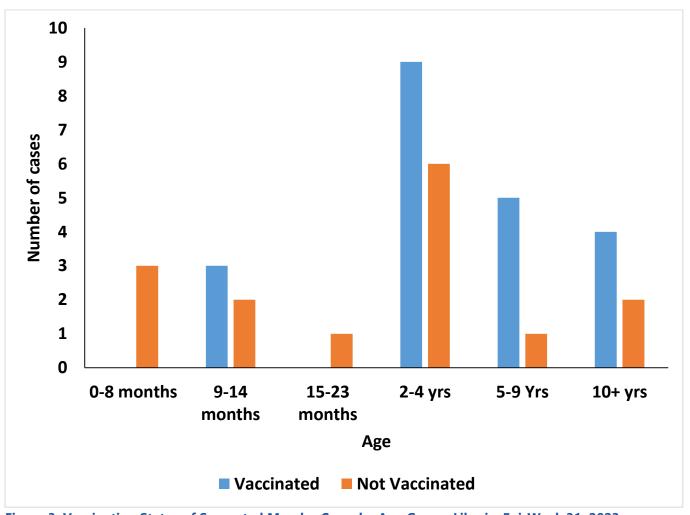


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 31, 2023

Table 4: Cumulative Distribution of Measles Cases and Deaths, December 13, 2021- August 6, 2023

COUNTY	CUMULA TIVE SUSPECT ED CASES	CUMULATI VE CONFIRME D CASES	CLASSIFICATION OF CONFIRMED CASES				SIFICAT IRMED I		CUMUL ATIVE DEATHS	CFR (%)	# CONFIR MED CASES	# CONFIRM ED CASES WEEK 31	% CHANGE	Outbrea k Status
			Lab confirm ed	Epi Linke d	Clinically Compati ble	Lab confirm ed	Epi Linke d	Clinically Compati ble	DEATHS		WEEK 30			
Montserrado	5, 397	5,410	145	1657	3, 608	3	61	5	69	1.3	7	10	43	Ongoing
Nimba	1, 080	1,049	37	187	825	0	1	3	4	0.4	2	6	200	Ongoing
Margibi	827	803	34	136	633	0	0	1	1	0.1	0	0	-	Ongoing
Grand Bassa	943	905	40	212	653	1	0	6	7	0.9	0	0	-	Ongoing
Lofa	353	284	32	66	186	0	0	0	0	0	0	4	-	Ongoing
Bong	599	574	22	21	531	0	1	2	3	0.5	0	0	-	Ongoing
Maryland	1026	1006	24	308	679	0	0	0	0	0	10	5	-50	Ongoing
Grand Gedeh	582	422	34	48	340	0	0	0	0	0	6	1	-83	Ongoing
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	976	947	22	106	819	0	0	2	2	0.2	1	4	300	Ongoing
Gbarpolu	67	46	4	2	40	0	0	0	0	0	0	0	-	Ended
Rivercess	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	12,747	12,179	504	2,926	8,625	5	68	22	95	7.8	26	30		

Public Health Response

I. Coordination

IMS meeting is held weekly for coordination and mobilization of resources in response counties

II. Epidemiological Surveillance

Active case search ongoing in Affected counties

III. Case management

All reported cases were treated and send for home isolation in Nimba County

IV. Immunization

Routine immunization ongoing in affected counties

V. Laboratory

- Specimens were collected from 4 districts in 4 counties (Grand Kru-Barclayville, Lofa-Foya, Nimba Zoe-Geh, and Grand Gedeh-Trehn)
- o Five hundred nine (509) cases have been confirmed by laboratory from December 13, 2021 –August 6, 2023.

VI. Risk Communication and Community Engagement

Community engagement ongoing in affected counties

VII. Challenges

- o DSO in Bong, Grand Gedeh, and Montserrado Counties are constrained in submitting report due to lack of computers
- o Limited functional laptop computers for DSOs (Gbarpolu, Bomi, Bong, Montserrado, Rivercess, and Margibi)
- Limited specimen collection kits for priority diseases in Montserrado County

Acute Flaccid Paralysis (AFP)

- Zero suspected cases were reported
- Cumulatively, thirty-one (31) cases were reported
 - o Ten (10) tested negative
 - Twenty-one (21) pending

Neonatal Tetanus

- Zero cases were reported
- Cumulatively, forty-one (41) cases including 5 deaths reported

Influenza-Like Illnesses

Influenza

- Zero cases reported
- Cumulatively, sixty-nine (69) suspected cases reported

Viral Hemorrhagic Diseases

Lassa fever

- One (1) suspected case were reported from Montserrado (1 dead) County
- Specimen was collected: pending testing
- © Cumulatively, one hundred and fifty-three (153) suspected cases reported
 - o Proportion of suspected cases with a sample collected (137/153) 90%
 - o Proportion of suspected cases with sample tested (137/138) 99%

Current Outbreak

Lassa fever disease

- No new confirmed case was reported
- Cumulatively, eighty-three (83) laboratory-confirmed cases including 25 deaths reported (CFR=30%)

Table 5: Summary of Lassa fever Outbreak, Liberia, Sept 9, 2022, to present

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 countdown	Outbreak Status
Montserrad	Bushrod	13-Feb-23	5	2	0	1	50%	29	21	0	0	0	29	Completed	Over
0	Central Monrovia	3-Mar-23	13	1	0	1	100%	28	27	0	0	0	28	Completed	Over
	Suakoko	21-Apr-23	125	36	2	8	21%	320	154	6	4	15	313	A ctive	Ongoing
Bong	Sanoyea	5-Apr-22	1	1	0	1	100%	31	15	0	0	0	31	Completed	Over
	Jorquelleh	6-Jan-22	11	8	1	2	25%	115	75	3	3	0	107	Completed	Over
Grand Bassa	District 3A&B	9-Sep-22	60	30	0	9	30%	159	30	2	0	0	159	Completed	Over
Nimba	Sanniquellie- Mah	6-Feb-23	2	2	0	0	0%	43	35	8	0	0	43	Completed	Over
	Tappita	13-Mar-23	5	1	0	1	100%	36	17	4	0	0	36	Completed	Over
	Bain-Garr	1-Jun-23	12	2	0	2	100%	30	25	0	0	0	30	Active	Ongoing
	8		234	83	3	25	30%	791	399	23	7	15	776		

Public Health Measures

o NPHIL continues to provide technical support to the affected counties

I. Surveillance:

- o Heightened case detection and reporting in affected communities and districts
- o Situational reports are produced and shared regularly at the national level
- Daily follow-up/monitoring of contacts

II. RCCE

- o Health education in affected and surrounding communities
- Health workers and visitors are encouraged to enhance IPC practices by regular washing of hands

III. Case Management

o The case was isolated and ribavirin treatment was administered but later expired

IV. IPC

 Affected communities were empowered with the WASH package to enable them to undertake short-term interventions that will improve the sanitation situation in each community thereby helping in Lassa fever prevention and control

Yellow fever

- Three (3) suspected cases were reported from Nimba (1), Grand Cape Mount (1), and Grand Gedeh (1) Counties
 - Two (2) samples collected and pending testing
- Cumulatively sixty-nine (69) suspected cases were reported
 - Three (3) samples (3/57) 5% not transported (Epi week 5 from Grand Gedeh, River Gee, and Grand Kru Counties)
 - The proportion of samples tested is (38/57) 67%
 - o The proportion of samples pending testing is (13/57) 23%

Dengue Fever

Zero cases were reported

Ebola Virus Disease

Zero cases were reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- Thirteen (13) cases were reported Montserrado (4), Grand Gedeh (3), Margibi (2), Grand Kru (2), Lofa (1), and Nimba (1) Counties
- One (1) specimen was collected and pending testing
- Cumulatively, four hundred eighteen (418) cases were reported
 - o One hundred fifty (150) specimens were collected
 - 73 tested negative
 - 7 specimens rejected
 - 70 specimens were not transported

Severe Acute Watery Diarrhea (Suspected Cholera)

- Twelve (12) suspected cases were reported: Lofa (3), Maryland (3 including one death), Grand Kru (2), River Gee (2), Montserrado (1), and Nimba (1) Counties
- Six (6) specimens were collected and pending testing
- Cumulatively, five hundred sixty-three (563) cases reported
 - One hundred seventy-nine (179) specimens collected
 - 63 tested negative
 - 7 specimens rejected
 - 109 specimens were not transported

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

Sixty -four (64) animal bites reported

Table 6: Distribution of Animal Bite Cases and PEP Administration per County, Liberia, Epi week 31, 2023

Counties	Cases	Person receiving PEP	PEP doses administered	Cumulative cases (Wk 1-31)	Cumulative PEP administered (Wk 1-31)
Bomi	0	0	0	46	27
Bong	4	2	3	150	66
Gbarpolu	2	0	0	19	0
Grand Bassa	6	2	0	179	15
Grand Cape Mount	0	0	2	51	33
Grand Gedeh	2	0	0	72	9
Grand Kru	1	0	0	169	15
Lofa	3	2	3	157	60
Margibi	1	1	2	120	58
Maryland	5	1	4	119	42
Montserrado	22	3	0	607	162
Nimba	13	2	1	291	117
Rivercess	3	1	2	86	50
River Gee	1	0	0	39	0
Sinoe	1	0	0	80	6
Total	64	14	17	2,185	660

Public Health Actions

Ongoing monitoring and follow-up of cases

Meningitis

- Zero cases were reported
- Cumulatively, twenty-seven (27) suspected cases reported
 - o Proportion of suspected cases with samples collected (24/27) 89%
 - o Proportion of sample tested (20/24) 83%
 - o 16 negative and 4 positive (Streptococcal-3 & Hemophilus Influenzae)

Mpox

- One (1) case was reported from Maryland (1) County
- One specimen collected and pending testing
- Cumulatively, one hundred-four (104) suspected cases reported
 - o Seven (7) confirmed

Unexplained cluster of deaths

Zero cases reported

Events of Public Health Importance

Maternal Mortality

- Five (5) deaths were reported: Montserrado (4), and Margibi (1) Counties
- Reported causes: Sepsis (2), Eclampsia (2) postpartum hemorrhage (1)
- Reporting Site:
 - o Health facility (5/5) 100%
- Cumulatively, one hundred ninety-nine (199) deaths reported
 - Proportion of death reviewed (41/199) 21%
 - Proportion of community death (27/199)14%

Neonatal Mortality

- Nineteen (19) deaths were reported: Montserrado (10), Maryland (5), Margibi (2), and Nimba (2) Counties
- Reported causes: birth asphyxia (10), prematurity (6) and neonatal sepsis (3)
- Reporting sites:
 - Health facility (19/19) 100%
- Cumulatively, four hundred ninety-one (491) deaths reported

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

- Thirty (30) cases were reported from Sinoe (22), Lofa (4), Grand Gedeh (3), and Nimba (1) Counties
- All reported cases were non-serious
- Related vaccine:
 - o Penta (12/30) 40%
 - o Measles (8/30) 27%
 - o Others (10/30) 33%
- Cumulatively, three hundred ninety-one (391) events were reported and COVID-19 accounted for (158/391) 40%

Neglected Tropical Diseases

YAWS

- Nine (9) cases were reported: Lofa (4), Maryland (3), Rivercess (1), and Nimba (1) Counties
- No specimen collected
- Cumulatively, one hundred eighty-four (184) cases have been reported

Buruli Ulcer

- Seven (7) suspected cases reported from Margibi (3), and Nimba (4) Counties
- Cumulatively, one hundred nineteen (119) cases have been reported

Border Surveillance Update

A total of 4,994 travelers were recorded for the week with incoming travelers accounting for 55% (2,749/4,994)

Table 7: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 31, 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	178	102	76	25	0	0	0	0	0	25
Airport	Robert Int'l Airport	3859	2054	1805	3777	82	82	0	0	0	3783
Seaport	Freeport of Monrovia	124	62	62	124	0	0	0	0	0	124
	Buchanan Port	20	10	10	20	0	0	0	0	0	20
	Bo Water Side	450	281	169	442	8	8	0	0	0	439
land Crassins	Ganta	166	127	39	62	0	0	0	0	0	62
Land Crossing	Yekepa	87	54	33	44	0	0	0	0	0	52
	Loguatuo	110	59	51	96	0	0	0	0	0	54
Total	•	4,994	2,749	2,245	4,590	90	90	0	0	0	4,559

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

Public Health Measures

National level

- Community engagement and border meeting airing messages on Lassa fever, Monkey pox, COVID-19, and Measles in Nimba, Grand Cape Mount, and Grand Bassa Counties
- Review and validation of AEFI guidelines and SOP
- Providing remote technical and operational support to counties
- Produced and disseminated situation reports (Lassa fever, Measles, and Mpox outbreaks)

County-level

o Partner coordination and resource mapping

Surveillance

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

Case Management

- Administration of PEP
- Management of measles cases ongoing

Appendiz		•				• . •						6								
Summary	y of Immediately Reportable D)ISE	ease	s, C	ond	itio	ns, a	and	Eve	nts	by (Loui	nty	<u> </u>		l				
			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	ted Health District		4	9	5	0	5	6	5	6	4	6	0	6	6	6	10	93		
	n District Reported		4	9	5	0	5	6	5	6	4	6	0	6	6	6	10	93		
Diarrheal Disea Influenza-Like Viral Hemorrhagic Fe Vaccine Preventable Diseass	Acute Flaccid Paralysis (Suspected Polio) Measles	A D A	0 0	0 0 0	0 0 0	0 0 1	0 0	0 0 3	0 0 4	0 0 7	0 0 0	0 0 6	0 0 10	0 0 6	0 0 0	0 0 0	0 0	0 0 37	31 0 4,128	0 0 27
Prevent	Neonatal Tetanus	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0
Vaccine	Yellow fever	A D	0 0	0 0	0 0	0 0	0 1 0	0 1 0	0 0	0 0	0 0	0 0	0 0	0 1 0	0 0	0 0	0 0	3	5 64 0	0 0
nagic Fe	Dengue fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Hemorr	Ebola Virus Disease	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ke Viral	Lassa fever	A D A	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 1 0	0 0	0 0	0 0	0 0	0 1 0	120 27 0	26 14 0
uenza-Li	COVID-19	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
isea Infile	Influenza Like Illnesses	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 391	0
iarrheal Di	Acute Bloody Diarrhoea (Shigellosis) Severe Acute Watery Diarrhoea (Cholera)	D A	0	0	0	0	0	0	0 2	0	0	0	0	0	0	0 2	0	0 11	0 540	0
Public Health D	Maternal Mortality	D D	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5	0 192	0
Ë	Neonatal Mortality	D	0	0	0	0	0	0	0	0	2	5	10	2	0	0	0	19	462	
J	AEFI	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30 0	355 0	0
Events	Unexplained Cluster of Health Events/Disease	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ases	Мрох	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	0
Other Reportable Diseases	Tuberculosis	A D	0 0	0	0	0 0	0 0	0 0 2	0 0 1	0	0	0	0 0 22	0 0 13	0	0	0	0	0	0
Reporta	Human Exposure to Rabies (Suspected Huma	A D A	0	0 0	0 0	0	0	0	0	0 0	0 0	5 0 0	0	0	0 0	0 0	0 0	64 0 0	2,041 0 25	0 0
Other F	Meningitis	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ě	Unexplained Cluster of deaths Buruli Ulcer	D A	0	0	0	0	0	0	0	0	3	0	0	4	0	0	0	7	1	0
Neglected Tr	Yaws	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 9	0 170	0 4
ž		D TAL	0	0 4	0 2	0 7	0 0	0 12	0 0	0 22	0 0	0 23	0 0	0 30	0 0	0 3	0 23	0 201	0 8867	0 51

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

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For comments or questions, please contact

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National Public Health Institute of Liberia (NPHIL)

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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.