

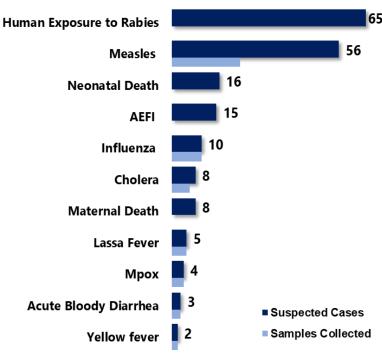
Liberia IDSR Epidemiology Bulletin

Epi-week 11 (March 11-17, 2024)

Country Population: 5,104,413 | Volume 20 Issue 11 | March 11-17, 2024 | 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 192 events of public health importance including 24 deaths reported
- Completeness and timeliness of health facility reports were both 99%
- Ongoing Lassa fever outbreak in one County
- Ongoing Measles outbreak in five Counties
- Ongoing Mpox outbreak in two Counties

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 11, 2024

County	Expected Reports From HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	29	29	29	100	100
Bong	66	64	64	97	97
Gbarpolu Grand Bassa Grand Cape Mount	18 38 36	18 38 36	18 38 36	100 100 100	100 100 100
Grand Gedeh	25	25	25	100	100
Grand Kru	25	25	25	100	100
Lofa	60	60	60	100	100
Margibi	62	62	62	100	100
Maryland	27	27	27	100	100
Montserrado	391	385	384	98	98
Nimba Rivercess	102 21	102 21	102 21	100 100	100 100
River Gee	21	21	21	100	100
Sinoe	41	41	41	100	100
Liberia	962	954	953	99	99

• The national target for weekly IDSR reporting is 80%. Health facility timeliness is monitored at the health district level

• Bomi did not meet target for both completeness and timeliness, while Gbarpolu did not reach target for timeliness.

Legend: ≥80 <80

reported IDSR data

954 (99%)

97(99%) Health districts reported IDSR data

953 (99%)
Health
facilities
reported
timely IDSR
data

Vaccine-Preventable Diseases

Measles

- Fifty-six (56) suspected cases were reported (see table below)
 - o Twenty-three (23) specimens were collected: 7 tested negative and 16 pending testing
 - o Proportion of suspected cases that were vaccinated (26/56) 46%
- Cumulatively, four hundred sixty-one (461) cases reported
 - o Proportion of suspected cases with sample collected (209/461) 45%
 - o Proportion of suspected cases with sample tested (166/209) 79% (negative 107, confirmed 59)
 - Proportion of negative Measles cases tested for Rubella (106/107) 99% (negative 93, confirmed 13, pending testing 1)

Table 2: Distribution and Vaccination Status of Measles Cases, Liberia, Epi-week 11, 2024

omi ong Grand Bassa Grand Cape Mount Grand Gedeh Grand Kru ofa			Number of Doses Received							
County	# of cases	Vaccinated	Number of Doc One Dose Two Doses 0 0 0 0 0 2 0 0 0 0 2 2 0 1 7 1 1 1 1 0 2 0		Doses Not Indicated					
Bomi	2	0	0	0	0					
Bong	1	1	0	0	1					
Grand Bassa	2	2	0	2	0					
Grand Cape Mount	1	0	0	0	0					
Grand Gedeh	3	0	0	0	0					
Grand Kru	9	4	2	2	0					
Lofa	1	1	0	1	0					
Maryland	17	8	7	1	0					
Nimba	15	5	1	1	3					
River Gee	3	1	1	0	0					
Sinoe	2	2	2	0	0					
Total	56	24	13	7	4					

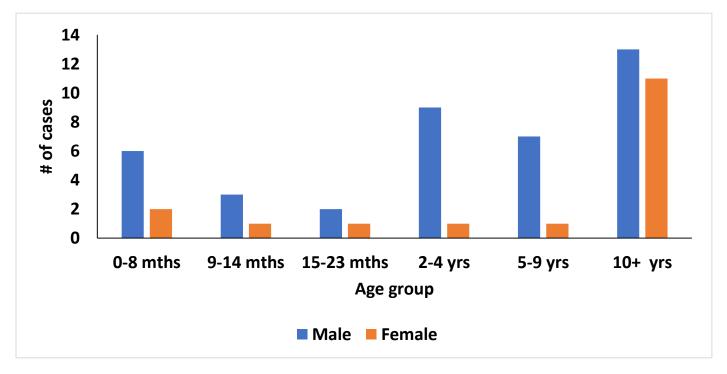


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 11, 2024

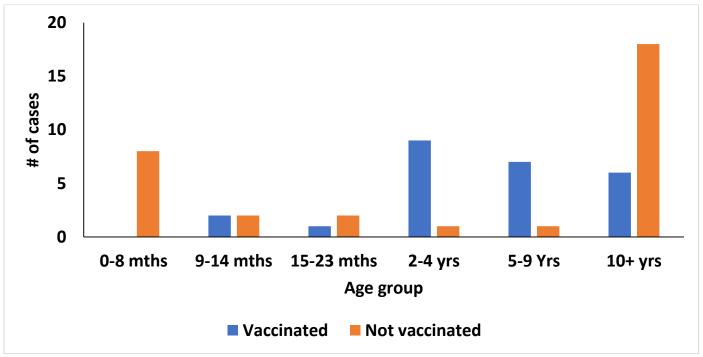


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 11, 2024

Outbreak Section

Table 3: Status of Confirmed (lab, clinically confirmed and epi-linked) Measles Cases by County, Liberia, December 13, 2021- March 20, 2024

COUNTY	CUMULA TIVE SUSPECT	CUMULATI VE CONFIRME	CLASSI	FICATION OI CASES	F CONFIRMED		SIFICATIO IRMED D		CUMUL ATIVE DEATHS	CFR (%)	# CONFIR MED CASES	# CONFIR M ED CASES WEEK 11	% CHAGE	Outbrea k Status	
	ED CASES	D CASES	Lab confir m ed	Epi Linke d	Clinically Compati ble	Lab confir m ed	Epi Linke d	Clinica Ily Compa ti ble			WEEK 10				
Montserrado	5, 456	5,373	148	1658	3, 567	3	61	5	69	1.3	0	0	-	Ended	
Nimba	1, 175	1,148	50	227	871	0	1	3	4	0.4	6	2	67	Ongoing	
Margibi	827	803	37	136	630	0	0	1	1	0.1	0	0	-	Ended	
Grand Bassa	962	924	41	212	671	1	0	6	7	0.9	0	0	-	Ended	
Lofa	353	284	35	66	183	0	0	0	0	0	0	0	-	Ended	
Bong	603	578	25	21	532	0	1	2	3	0.5	0	0	-	Ended	
Maryland	1236	1217	30	308	879	0	0	0	0	0	7	15	-13	Ongoing	
Grand Gedeh	702	553	64	94	395	0	0	0	0	0	4	2	-50	Ongoing	
Sinoe	284	231	48	84	99	0	0	0	0	0	0	0	-	Ended	
Bomi	183	147	37	27	83	1	2	2	5	3	0	0	-	Ended	
Grd Cape Mt	215	187	23	18	146	0	2	1	3	1.6	0	0	-	Ended	
Grand Kru	1031	1,002	47	124	831	0	0	2	2	0.2	25	9	-64	Ongoing	
Gbarpolu	67	46	5	2	39	0	0	0	0	0	0	0	-	Ended	
Rivercess	112	84	26	54	4	0	1	0	1	1.1	0	0	-	Ended	
River Gee	119	95	23	16	56	0	0	0	0	0	0	2	-	Ongoing	
Total	13,325	12,672	639	3,047	8,986	5	68	22	95	7.8	42	30			

Table 4: Status of Confirmed Measles Cases by County, Liberia, December 13, 2021 - March 20, 2024

County	Total Cases	Active	Recovery	Deaths	# of Districts
Montserrado	5,373	0	5,304	69	0/7
Nimba	1,148	2	1,142	4	1/6
Grand Bassa	924	0	917	7	0/8
Margibi	803	0	802	1	0/4
Bong	578	0	575	3	0/9
Maryland	1,217	15	991	0	3/6
Lofa	284	0	284	0	0/6
Grand Kru	1,002	9	966	2	2/5
Grand Cape Mount	187	0	184	3	0/5
Bomi	147	0	142	5	0/4
Rivercess	84	0	83	1	0/6
Gbarpolu	46	0	46	0	0/5
Grand Gedeh	553	2	551	0	2/6
River Gee	95	2	93	0	1/6
Sinoe	231	0	231	0	0/10
Total	12,672	30	12, 547	95	9/98

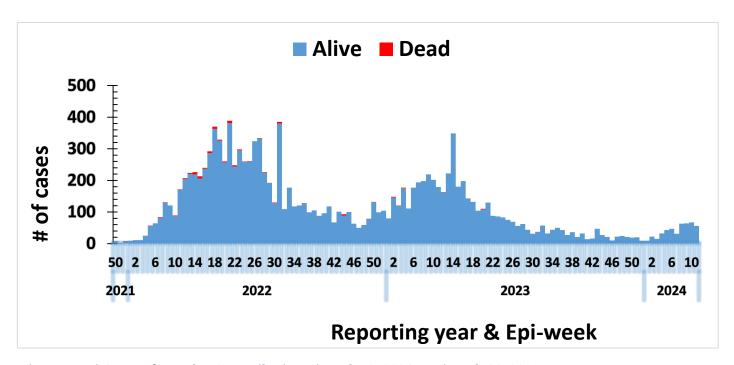


Figure 4: Epi Curve of Measles Cases Liberia, Epi week 50, 2021 – Epi week 11, 2024

PUBLIC HEALTH RESPONSE

I. Coordination

o IMS meetings are being held for coordination and mobilization of resources in affected Counties.

II. Epidemiological Surveillance

 Active case search and contact tracing ongoing in affected Counties/Districts; Maryland (Pleebo, Karluway-II, and Harper), River Gee (Potupo), Nimba (Saclepea-Mah), Grand Kru (Buah and Barclayville), and Grand Gedeh (Konobo and Tchien).

III. Case management

Cases are being treated with Vitamin A, calamine lotion, and amoxicillin tablet

IV. Immunization

Routine immunization intensified in affected districts (Pleebo, Harper, Karluway-II, Tchien, Konobo, Buah,
 Barclayville, Saclepea-Mah, and Putu) in Maryland, Grand Gedeh, Grand Kru, Nimba, and River Gee Counties.

V. Laboratory

 Six hundred thirty-nine (639) cases have been confirmed by the NPHRL from December 13, 2021 – March 20, 2024.

VI. Risk Communication and Community Engagement

Community engagement and health education ongoing in affected and surrounding communities.

VII. Logistics

Distributed 950 tablets of 250mg Amoxicillin, 3,500 capsules of vitamin A (200.000 IU) and 700 capsules of vitamin A (100,000 IU) with support from UNICEF to four (4) Health districts (Konobo, Putu, Tchien and Cavalla).

Challenges

- Limited supply of essential medications and medical supplies for case management
- o No movement and communication support for surveillance team for field work
- Lack of needed logistical resources to adequately respond

Acute Flaccid Paralysis (AFP)

- Zero (0) cases were reported
- Cumulatively, fourteen (14) cases have been reported (13 shipped, 1 pending sixty (60) days follow-up)

Neonatal Tetanus

- Zero (0) cases were reported
- Cumulatively, six (6) cases have been reported including three (3) deaths

Influenza-Like Illnesses

Coronavirus Disease (COVID-19)

- Zero suspected cases were reported
- Cumulatively, two (2) cases have been reported

Influenza

- Ten (10) suspected cases (SARI) were reported from Montserrado County
 - o Specimens were collected and tested negative
- Cumulatively, forty (40) suspected cases reported
 - Thirty-five (35) specimens were collected: 35 tested negative and 5 specimens were discarded

Viral Hemorrhagic Fever

<u>Lassa fever</u>

- Five (5) suspected cases were reported from Nimba 2, Bong 2, and Margibi 1 Counties
 - All specimens were collected and tested negative
- Cumulatively, forty-nine (49) suspected cases have been reported
 - o Proportion of suspected cases with sample collected (49/49) 100%
 - Proportion of suspected cases with sample tested (48/49) 98%
 - Negative 46, confirmed 2 and 1 sample under review

Outbreak

- No new confirmed case reported
- All sixteen (16) contacts including 10 healthcare workers completed 21 days follow up
- Cumulative Case Fatality Rate (CFR): (41/140) 29%

Table 5: Summary of Lassa fever Outbreak, Liberia, January 6, 2022- March 17, 2024

County	Outbreak Districts	Outbreak Start Date	Total suspected	Total confirmed	HCWs confirmed		Deaths in HCWs	CFR %	Total Contacts	# HCW contacts	Contacts_ became cases	Contacts under follow up	Completed	Days in countdown	Outbreak Status
	Bushrod	13-Feb-23	17	1	0	0	0	0%	29	21	0	0	29	Completed	Over
Montserrado	Central Monrovia	27-Nov-23	1	2	0	1	0	50%	49	0	0	0	49	Completed	Over
	Central Monrovia	3-Mar-23	38	2	0	1	0	50%	28	27	0	0	28	Completed	Over
	Suakoko	21-Apr-24	192	54	18	13	2	24%	496	114	6	0	417	Completed	Over
Bong	Suakoko	23-Feb-24	7		0	0	0	0%	16	10	0	0	16	3	Ongoing
	Jorquelleh	15-Oct-23	14	6	3	1	1	17%	121	86	3	0	169	Completed	Over
Grand Bassa	District 3A&B	21-Aug-23	87	44	0	10	0	23%	177	40	40	0	159	Completed	Over
Granu Dassa	Buchanan	11-Aug-23	2	1	0	1	0	100%	4	2	0	0	4	Completed	Over
	Saclepea-Mah	21-Nov-23	4	2	0	1	0	50%	5	0	0	0	5	Completed	Over
Nimba	Sanniquellie-Mah	6-Feb-23	42	15	0	6	0	40%	43	35	8	0	43	Completed	Over
Niiiioa	Tappita	20-Nov-23	12	5	0	3	0	60%	88	39	4	0	77	Completed	Over
	Bain-Garr	1-Jun-23	24	6	0	3	0	50%	61	25	0	0	31	Completed	Over
River Gee	Putupo	25-Nov-22	1	1	0	1	0	100%	14	0	0	0	14	Completed	Over
Total			441	140	21	41	3	29%	1131	399	61	0	1041		

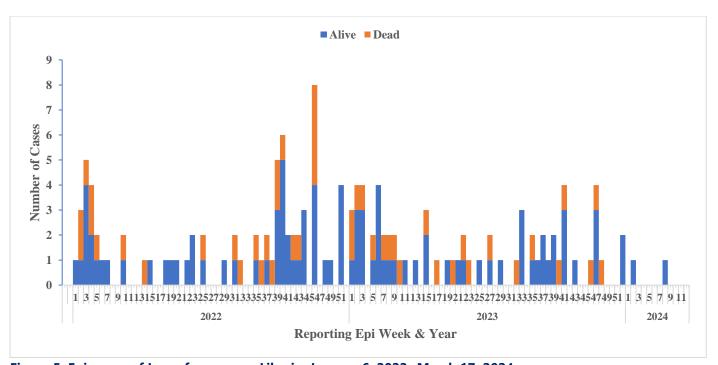


Figure 5: Epi-curve of Lassa fever cases, Liberia, January 6, 2022- March 17, 2024

Public Health Measures

Coordination

 The National Public Health Institute of Liberia (NPHIL) and the Ministry of Health (MOH) are providing technical support to the surveillance team with support from partners.

Surveillance

- o Active case search ongoing in affected communities and districts
- Weekly SitReps developed and disseminated to stakeholders

Laboratory

- o The National Public Health Reference Laboratory continues testing of Lassa fever samples
- o A total of 140 Lassa fever cases have been confirmed since this outbreak

Case management and IPC

- The last case was treated and discharged from Phebe Hospital
- o Ribavirin supply in country are being distributed for treatment of Lf cases to affected counties

Ribavirin is being administered to the current confirmed case

Challenges

- o Limited of support for communication and transportation to enhance contact tracing and active case search
- Limited stationeries in the EOC to produce case alert forms, contact tracing form and other tools for investigation

Yellow fever

- Two (2) suspected cases were reported from Grand Kru and Grand Cape Mount Counties
 - Specimens were collected and pending testing
- Cumulatively, sixteen (16) cases have been reported
 - o Proportion of suspected cases with samples collected (14/16) 88% however, 2 samples were discarded
 - o Proportion of suspected cases with samples tested (12/14) 86% (negative 12)
 - Two samples pending testing

Dengue

- Zero cases were reported
- Cumulatively, three (3) suspected cases reported,
- 2 specimens collected and pending testing

Ebola Virus Disease

Zero cases have been reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- Three (3) cases were reported from Rivercess (2), and Grand Kru (1) Counties
 - Three (3) specimens were collected: and pending testing
 - Cumulatively, eighty-eight (88) cases have been reported
 - o 48 specimens collected, 35 reached the Lab
 - 22 tested negative, 3 rejected, 10 pending testing

Severe Acute Watery Diarrhea (Suspected Cholera)

- 🖙 Eight (8) cases were reported from Maryland (4), Grand Bassa (2), River Gee (1), and Nimba (1) Counties
 - Three (3) specimens were collected: 1 rejected and 2 pending testing
- Cumulatively, eighty (80) cases have been reported
 - 42 specimens collected, and 27 reached the Lab
 - 15 tested negative, 3 rejected and 9 pending testing

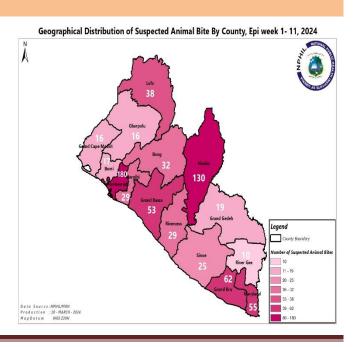
Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

- Sixty-five (65) animal bite cases were reported from Nimba (16), Montserrado (15), Grand Kru (6), Lofa (5), Grand Bassa (4), Maryland (4), Margibi (4), Grand Cape Mount (4), Gbarpolu (2), Bong (2), Rivercess (2), and Grand Gedeh (1) Counties
- All bites were attributed to dog
- Proportion of cases investigated: (38/65) 58%
- Proportion of dogs vaccinated: (0/65) 0%
- Cumulatively, 636 cases have been reported

Public Health Actions

- All cases were clinically managed and sent home
- PEP Administered to 11 persons (17%): Grand Bassa, Lofa, Margibi, Nimba, and Montserrado Counties



- Twenty-three (3)4 dogs restrained and underwent 10-14 days' follow-up
 - All cases were investigated only by the human health surveillance team

<u>Tuberculosis</u>

- Zero cases were reported
- Cumulatively, twenty-five (25) drug susceptible Tuberculosis cases were reported
 - Twenty (20) cases diagnosed and placed on treatment
 - Five (5) cases diagnosed and not placed on treatment
 - o Zero Multi-Drug Resistance/Rifampicin Resistance TB

Meningitis

- Zero (0) cases were reported
- Cumulatively, eight (8) suspected cases have been reported
 - o Proportion of specimen collected 8/8 100%
 - o Proportion of specimen tested (6/8) 75% (5 negative, 1 positive)

Mpox

- Four (4) suspected cases were reported from Nimba County
 - o Specimens were collected: 2 positive and 2 negative
- Cumulatively, twenty-three (23) suspected cases have been reported, 4 tested positive, 13 negative, 2 discarded and 1 rejected

Unexplained cluster of deaths

Zero cases reported

<u>Unexplained cluster of Health Events</u>

Zero cases reported

Events of Public Health Importance

Maternal Mortality

- Eight (8) deaths were reported from Montserrado (7), and Bong (1) Counties
- Reported causes: PPH (3), Sepsis (2), Eclampsia (2), and 1 pending investigation
- Reporting sites
 - Health facility (7/8) 88%
 - o Community (1/8) 12%
- Cumulatively, fifty-six (56) deaths reported
 - o Proportion of deaths reviewed (29/56) 52%.

Neonatal Mortality

- Sixteen (16) deaths were reported from Montserrado (9), Maryland (3), Grand Kru (1), Lofa (1), Sinoe (1), and Rivercess (1) Counties
- Reported causes: Birth asphyxia (11), Prematurity (3), Neonatal sepsis (1), and pending investigation (1).
 - Reported sites:
 - Health facility (16/16) 100%
- Cumulatively, one hundred thirty-four (134) deaths reported
 - Proportion of deaths reviewed (55/134) 41%

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

- Fifteen (15) cases were reported from Sinoe (4), Maryland (4), Lofa (2), Montserrado (2) Nimba (1), Grand Cape Mount (1), and Bomi (1) Counties
- All reported cases were classified as non-serious
- Related vaccine:
 - o Penta (6/15) 40%
 - o Measles (3/15) 20%

- o Others (6/15) 40%
- ☞ Cumulatively two hundred seventy- two (272) events were reported and all classified as non-serious.

Neglected Tropical Diseases

YAWS

Zero cases were reported

Buruli Ulcer

Zero cases were reported

Border Surveillance Update

A total of 5303 travelers were recorded for the week with incoming travelers accounting for 54% (2,869/5,303)

Table 6: Border activity at the PoE for incoming and outgoing travelers. Liberia. Epi week 11

Tuble 0. bo.	der activity a		101 11		and odige	ing daveler	o, Liberio	Vaccinated	<u> </u>	Evidence of
					Total			against YF	Alerts	COVID-19
		Weekly			traverlers	Yellow	Card	& Issued	detected/	vaccination
Type of Ports	Point of Entry	total	Arrival	Departure	with YB	Book Damage	Replaced	book	Verified	card/certificate
	James S. Paynes	73	37	36	0	0	0	0	0	3
Airport	Robert Int'l Airport	4439	2391	2048	4395	0	44	0	0	4397
Seaport	Freeport of Monrovia	48	24	24	48	0	0	0	0	48
Seaport	Buchanan Port	20	10	10	20	0	0	0	0	20
	Bo Water Side	515	283	232	510	0	5	0	0	401
Ground	Ganta	97	58	39	49	6	6	0	0	39
Crossing	Yekepa	61	39	22	12	0	0	0	0	20
	Loguatuo	50	27	23	36	0	0	0	0	20
Total		5,303	2,869	2,434	5,070	6	55	0	0	4,948

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

Public Health Measures

National level

- Providing remote technical and operational support to counties
- Produced and disseminated situation reports (Lassa fever, Measles, and Mpox outbreaks)
- Produced and disseminate weekly bulletin

County-level

☞ Surveillance

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

Case Management

- Administration of PEP
- Management of measles and Lassa fever cases ongoing in affected counties

ppendix																				
ummary	of Immediately Reportable D	Dise	ease	es, 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
o. of Expect	ed Health District		4	9	5	8	5	6	5	6	4	6	7	11	6	6	10	98		
o. of Health	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) Measles Neonatal Tetanus	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14 0	0
ntabk		A D	0	0	0	0	0	3	9	0	0	17 0	0	15 0	0	3	0	56 0	461 0	50 0
Preve		A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
ccine		A	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	16	0
	Tellow Tevel	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hagic	Dengue fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
morr	Ebola Virus Disease	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
al He		D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0 42	2
<u> </u>	Lassa fever	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
za-Lil	COVID-19		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diarrheal Dise Influenza-Lik	Influenza Like Illnesses	A D	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10 0	40 0	0
Dise	Acute Bloody Diarrhoea (Shigellosis)	Α	0	0	0	0	0	0	1 0	0	0	0	0	0	2	0	0	3	88	0
rrheal	Course Aguta Watani Diawhaga (Chalara)	D A	0	0	0	2	0	0	0	0	0	4	0	0	0	0	0	8	80	0
- Diar	Severe Acute Watery Diarrhoea (Cholera)	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
_	Maternal Mortality	D	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0	8	56	
Events of Public Health	Neonatal Mortality	D	0	0	0	0	0	0	1	1	0	3	9	0	1	0	1	16	132	
f Pub	AEFI	A D	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	15 0	272 0	(
ents o	Unexplained Cluster of Health Events/Disease	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
Eve	Onexplained cluster of freditif Events, Disease	D	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	(
ses	Мрох	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23 0	(
Disea	Tuberculosis	Α	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
able I		D A	0	0	0	0	0	0	6	5	0	0	0 16	0 15	0	0	0	0 65	636	(
Tuberculosis Meningitis Meningitis	Human Exposure to Rabies (Suspected Human	D	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	1	(
	Meningitis	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8 0	
ğ	Unexplained Cluster of deaths	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ė	Buruli Ulcer	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Neglected Tr	Burull Olici	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
Neg	Yaws	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
	то	TAL	3	6	2	8	0	4	0	9	0	32	0	38	0	4	7	192	1907	7

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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To prevent and control public health threats by promoting healthy outcomes and serving as a source of knowledge

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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.