

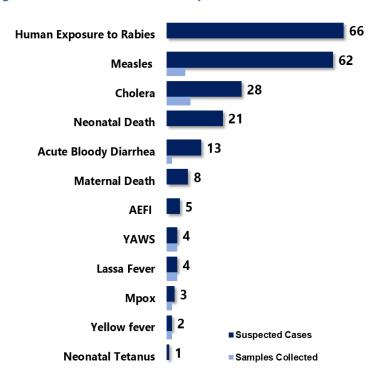
# **Liberia IDSR Epidemiology Bulletin**

Epi-week 28 (July 10- 16, 2023)

Country Population: 5,104,413 | Volume 28 Issue 18 | July 10-16, 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 217 events of public health importance including 30 deaths reported
- ◆ Completeness and timeliness of health facility reports were 98% & 97%
- Ongoing Lassa fever outbreak in 3 Counties
- ♦ Ongoing Measles outbreak in 9 Counties
- ♦ Four confirmed Yaws from 1 county

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

## Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 28, 2023

County	Expected Reports From HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
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	389	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

98(100%) Health districts reported IDSR data

951 (97%)

## Vaccine-Preventable Diseases

## <u>Measles</u>

- Fifty-five (55) suspected cases were reported from 12 Counties (see distribution in Table 2)
- Seven (7) specimens collected and pending testing
- Thirty-five (35) were vaccinated (see distribution in Table 3)

Table 2: Distribution of Measles cases per county and epi-classification, Liberia, Epi week 28, 2023

COUNTY	Cases Week	Lab confirmed Epi Week	CONFIRM	SIFICATION CASES 1-28	S, EPI WEEK	Deaths	CFR (%)	CUMULATIVE # SUSPECTED CASES, EPI	CUMULATIVE # CONFIRMED
	28	28	Lab confirmed	Epi Linked	Clinically Compatible		( )	WEEK 1-28	CASES, EPI WEEK 1-28
Bomi	1	0	0	13	51	0	0.0	75	66
Bong	2	0	2	6	193	1	0.5	201	201
Gbarpolu	0	0	0	0	33	0	0.0	34	33
Grand Bassa	7	0	0	0	161	0	0.0	163	161
Grand Cape Mount	0	0	0	2	60	0	0.0	71	63
Grand Gedeh	8	0	4	26	254	0	0.0	327	284
Grand Kru	3	0	6	72	631	2	0.3	711	709
Lofa	2	0	0	0	98	0	0.0	106	98
Margibi	2	0	1	8	188	0	0.0	199	197
Maryland	13	0	0	0	605	0	0.0	607	605
Montserrado	16	0	4	53	949	2	0.2	1014	1006
Nimba	1	0	2	33	266	3	1.1	303	301
River Gee	2	0	0	0	105	0	0.0	125	105
Rivercess	0	0	1	0	27	0	0.0	33	28
Sinoe	5	0	4	11	86	0	0.0	115	101
<b>Grand Total</b>	62	0	27	224	3,707	8	2	4,084	3,958

Table 3: Vaccination Status of Measles Cases, Liberia, Epi-week 28, 2023

			Number of Doses Received										
County	Vaccinated	One Dose	Two Doses	Doses Not Indicated									
Bomi	1	0	1	0									
Bong	0	0	0	0									
Gbarpolu	0	0	0	0									
Grand Bassa	3	0	0	3									
Grand Cape Mount	0	0	0	0									
Grand Gedeh	4	3	0	1									
Grand Kru	2	1	0	1									
Lofa	2	0	2	0									
Margibi	1	1	0	0									
Maryland	3	0	3	0									
Montserrado	15	15	0	0									
Nimba	1	1	0	0									
River Gee	2	1	0	1									
Rivercess	0	0	0	0									
Sinoe	1	0	1	0									
National	35	22	7	6									

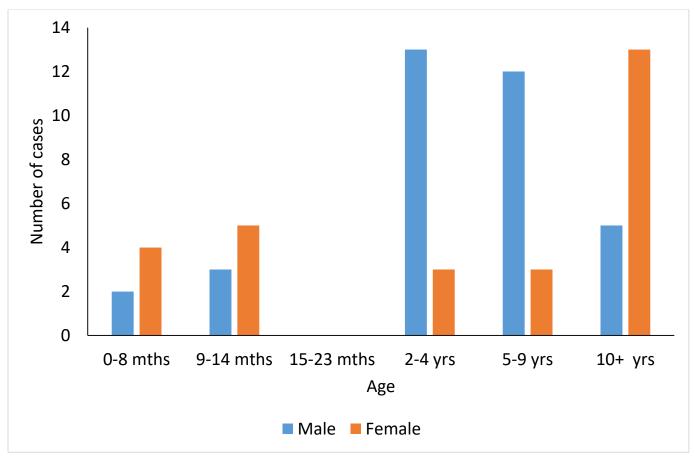


Figure 2: Distribution of Measles Cases by Age Group and Sex, Liberia Epi Week 28, 2023

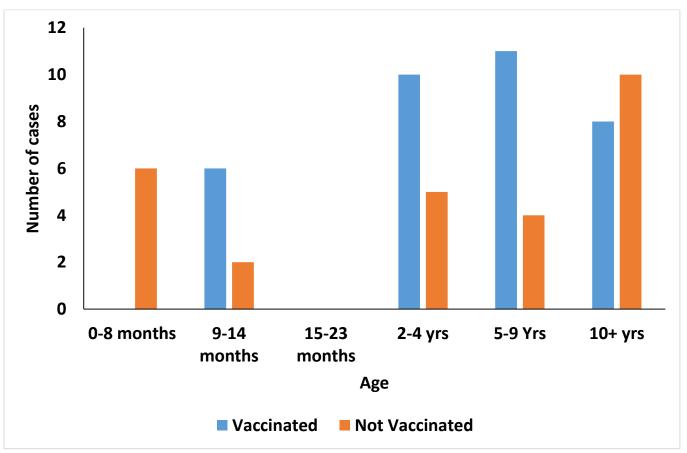


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 28, 2023

#### **Outbreak Section**

Table 4: Cumulative Distribution of Measles Cases and Deaths, December 13, 2021- July 16, 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 28	% CHANGE	Outbrea k Status
			Lab confirm ed	Epi Linke d	Clinically Compati ble	Lab confirm ed	Epi Linke d	Clinically Compati ble	DEATHS		WEEK 27			
Montserrado.	5, 380	5,303	145	1657	3, 501	3	61	5	69	1.3	15	16	0.6	Ongoing
Nimba.	1,072	1,041	37	187	817	0	1	3	4	0.4	4	1	-75	Ongoing
Margibi	827	803	34	136	633	0	0	1	1	0.1	1	0	-100	Ongoing
Grand Bassa	943	905	40	212	653	1	0	6	7	0.9	0	6	6	Ongoing
Lofa	349	280	32	66	182	0	0	0	0	0	2	2	-	Ongoing
Bong	599	574	22	21	531	0	1	2	3	0.5	1	2	100	Ongoing
Maryland	1011	996	24	308	664	0	0	0	0	0	7	9	-29	Ongoing
Grand Gedeh	575	415	34	48	333	0	0	0	0	0	7	7	-	Ongoing
Sinne	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	971	942	22	106	814	0	0	2	2	0.2	4	3	-25	Ongoing
Gharpolu	67	46	4	2	40	0	0	0	0	0	0	0	-	Ended
Rivetcess.	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	12,691	12,033	504	2,926	8,603	5	68	22	95	7.8	41	46		

#### 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 Grand Gedeh County with support from Last Mile Health
- o 26 contacts are under follow-up

## III. Case management

 All reported cases were treated and sent for home isolation (Nimba, Grand Kru, Maryland, Grand Gedeh, Bong, and Montserrado Counties

#### **IV. Immunization**

Routine immunization intensified

## **V. Laboratory**

- Specimens were collected from 6 districts in 4 counties (Bong-Sala and Sanoyeah, Montserrado-Bushrod, Maryland-Harper and Pleebo, and Grand Gedeh-Putu and Gbao)
- Submitted the listing of 34 districts that have gone more than 4 weeks in the response to National Public Health Reference Laboratory for re-testing.
- o Five hundred nine (504) cases have been confirmed by the laboratory from December 13, 2021 –July 5, 2023.

#### VI. Risk Communication and Community Engagement

Risk communication and community engagement ongoing in affected counties

#### **Challenges**

- Lack of funding for measles outbreak response in Grand Gedeh and Grand Bassa Counties
- DSO in Bong, Grand Gedeh, and Montserrado Counties are constrained in submitting reports due to a lack of computers
- No functional motorbike for CSOs in Margibi and Nimba Counties, Garwula District, Grand Cape Mount, all
   DSOs in Nimba, and all districts in Margibi Counties. Thus limiting their movement

- o Limited specimen collection kits for priority diseases in Montserrado County
- Limited functional laptop computers for DSOs (Gbarpolu, Bomi, Bong, Montserrado, Rivercess, and Margibi)

## Acute Flaccid Paralysis (AFP)

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

#### **Neonatal Tetanus**

- One case was reported from Bong County
- Cumulatively, thirty-eight (38) cases including 5 deaths reported

## Influenza-Like Illnesses

#### Influenza

- Zero suspected cases reported
- Cumulatively, fifty-seven (57) suspected cases reported

## **Viral Hemorrhagic Diseases**

#### Lassa fever

- Four (4) suspected cases were reported: Nimba (3 including 1 death), and Montserrado (1) Counties
- All four specimens were collected and tested negative
- Cumulatively, one hundred forty-four (144) suspected cases reported
  - o Proportion of suspected cases with a sample collected (131/144) 91%
  - o Proportion of suspected cases with sample tested (131/131) 100%

## **Current Outbreak**

#### Lassa fever disease

- No new confirmed cases were reported
- Cumulatively, eighty-two (82) laboratory-confirmed cases including 24 deaths reported (CFR=29%)

## 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
	Bushrod	13-Feb-23	5	2	0	1	50%	29	21	0	0	0	29	Completed	Over
Montserrado	Central Monrovia	3-Mar-23	13	1	0	1	100%	28	27	0	0	0	28	Completed	Over
	Suakoko	21-Apr-23	122	35	2	7	21%	310	150	6	4	0	310	Ongoing	Active
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%	100	69	3	3	0	100	Completed	Over
Grand Bassa	District 3A&B	9-Sep-22	60	30	0	9	30%	159	28	2	0	0	159	Active	Ongoing
Nimba	Sanniquellie- Mah	6-Feb-23	2	2	0	0	0%	43	35	8	0	0	43	Completed	Over
Nimbo	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	16	14	Active	Ongoing
	8		231	82	3	24	29%	766	387	23	7	16	750		

## **Public Health Measures**

o NPHIL continues to provide technical support to the affected counties

#### I. Surveillance:

- Heightened case detection and reporting in affected communities and districts
- 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
- o Health workers and visitors are encouraged to enhance IPC practices by regular washing of hands

#### **III. Case Management**

Cases were isolated and ribavirin treatment was administered

#### 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

- Two (2) suspected cases were reported from Grand Kru and Bong Counties
- Specimens were collected and pending testing
- Cumulatively sixty-four (64) suspected cases were reported
  - o Fifty-three (53) samples (53/64) 83% were collected
  - Three (3) samples (3/53) 6% not transported (Epi week 5 from Grand Gedeh, River Gee, and Grand Kru Counties)
  - The proportion of samples tested is 66% (35/53)
  - o The proportion of samples pending testing is 23% (12/53)

#### 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 Grand Kru (6), Grand Gedeh (3), Gbarpolu (1), Lofa (1), Sinoe (1), and Montserrado (1) Counties
- Two (2) specimens were collected and pending testing
- Cumulatively, three hundred seventy-six (376) cases were reported
  - o One hundred forty-nine (149) specimens were collected
    - 69 tested negative
    - 7 specimens rejected
    - 73 specimens were not transported

## Severe Acute Watery Diarrhea (Suspected Cholera)

- Twenty-eight (28) suspected cases were reported: Lofa (8), Maryland (5), Nimba (4), Grand Kru (3), Bong (3), River Gee (2), Grand Bassa (2), and Margibi (1) counties
- Nine (9) specimens were collected and pending testing
- Cumulatively, five hundred twenty-six (526) cases reported
  - One hundred sixty-one (161) specimens collected
  - 58 tested negative
  - 7 specimens rejected
  - 96 specimens were not transported

## **Other Reportable Diseases**

## Animal bite (Human Exposure to Rabies)

Sixty-six (66) animal bites including one snake bite reported

Table 6: Distribution of Animal Bite Cases and PEP Administration per County, Liberia, Epi week 28, 2023

Counties	Cases	Person receiving PEP	PEP doses administered	Cumulative cases (Wk 1-28)	Cumulative PEP administered (Wk 1-28)
Bomi	1	0	0	44	27
Bong	5	1	1	138	60
Gbarpolu	0	0	0	16	0
Grand Bassa	4	0	0	157	11
Grand Cape Mount	1	1	1	47	30
Grand Gedeh	2	0	0	67	9
Grand Kru	7	0	0	155	15
Lofa	4	2	1	145	55
Margibi	2	0	0	113	53
Maryland	3	0	0	104	37
Montserrado	20	5	5	544	151
Nimba	15	5	5	251	121
Rivercess	0	0	0	36	44
River Gee	2	0	0	76	0
Sinoe	0	0	0	75	6
Total	66	14	13	1,968	619

## **Public Health Actions**

Ongoing monitoring and follow-up of cases

## **Meningitis**

- Zero cases were reported
- Cumulatively, twenty-five (25) suspected cases reported
  - o Proportion of suspected cases with samples collected (23/25) 92%
  - o Proportion of sample tested (19/23) 83%
  - o 16 negative and 3 positive

## **Mpox**

- Three (3) cases were reported from Nimba, Sinoe, and Rivercess Counties
- Two specimens were collected and pending testing
- Cumulatively, ninety-eight (98) suspected cases reported
  - o Seven (7) confirmed

## **Unexplained cluster of deaths**

Zero cases reported

## **Events of Public Health Importance**

## **Maternal Mortality**

- Eight (8) deaths were reported: Montserrado (6), and Grand Bassa (2) Counties
- Reported causes: postpartum hemorrhage (4), maternal sepsis (2), and eclampsia (2)
- Reporting Site:
  - Health facility (8/8) 100%
- Cumulatively, one hundred eighty-eight (188) deaths reported
  - o Proportion of death reviewed (41/188) 22%
  - o Proportion of community death (25/188)13%

## **Neonatal Mortality**

- Twenty-one (21) deaths were reported: Montserrado (13), Maryland (4), Nimba (3), and Bong (1) Counties
- Reported causes: neonatal sepsis (10), birth asphyxia (6), preterm (4), and neonatal tetanus (1)
- Reporting sites:
  - Health facility (21/21) 100%
- Cumulatively, four hundred forty-seven (447) deaths reported

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

- Five (5) cases were reported from Grand Bassa (2), Grand Gedeh (1), Rivercess (1), and Bong (1) Counties
- All reported cases were non-serious
- Related vaccine:
  - Penta (3/5) 60%
  - o Measles (1/5) 20%
  - o PEP (1/5) 20%
- Cumulatively, three hundred forty-nine (349) events were reported and COVID-19 accounted for (154/349) 44%

## **Neglected Tropical Diseases**

## **YAWS**

- Four (4) cases were reported from Maryland County
- Four (4) specimens were collected and tested positive
- Cumulatively, four (4) cases have been reported

## **Buruli Ulcer**

- No new cases were reported
- Cumulatively, one hundred three (103) cases have been reported

## **Border Surveillance Update**

A total of 5,070 travelers were recorded for the week with incoming travelers accounting for 48% (2,429/5,070)

Table 7: Border activity at the PoE for incoming and outgoing travelers, Liberia, Epi week 28, 2023

					Total	Yellow		Travelers Vaccinate d against YF &	Alerts		Evidence of COVID-19
Type of Ports	Point of Entry	Weekly total	Arrival	Departure	traverlers with YB	Book Damage	Card Replaced	Issued book	detected/ Verified	COVID-19 Reactive	vaccination card/certificate
Type or rons	James S. Paynes	146	54	92	10	0	0	0	0	0	20
Airport	Robert Int'l Airport	3806	1862	1944	3697	109	99	0	0	0	3733
	Freeport of Monrovia	74	37	37	74	0	0	0	0	0	74
	Buchanan Port	40	20	20	0	0	0	0	0	0	0
	Bo Water Side	688	270	418	675	13	13	0	0	0	553
Land Crossing	Ganta	122	63	59	99	0	0	0	0	0	83
Land Crossing	Yekepa	90	56	34	47	0	0	0	0	0	55
	Loguatuo	104	67	37	87	0	0	0	0	0	63
Total		5,070	2,429	2,641	4,689	122	112	0	0	0	4,581

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, Mpox, 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
- o Active case search ongoing in affected and surrounding communities

## Case Management

- o Administration of PEP
- Management of measles cases ongoing

Appendi	x																			
Summary	y of Immediately Reportable I	Dise	ease	s, C	ond	itio	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
	ted Health District		4	9	5	8	5	6	5	6	4	6	7	6	6	6	10	93		
	District Reported		4	9	5	8	5	6	5	6	4	6	7	6	6	6	10	93		
Viral Hemorrhagic Fe Vaccine Preventable Disease	Acute Flaccid Paralysis (Suspected Polio)  Measles	A D A	0 0 1	0 0 2	0 0	0 0 7	0 0	0 0 8	0 0 3	0 0 2	0 0 2	0 0 13	0 0 16	0 0 1	0 0 2	0 0	0 0 5	0 0 62	31 0 4,084	0 0 27
. Preven	Neonatal Tetanus	A D	0 0	0 0 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0 1	25 6	0 0
Vaccine	Yellow fever	A D	0	1	0	0	0	0	1 0	0	0	0	0	0	0	0	0	2	64 0	0
rhagic Fe	Dengue fever	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
l Hemor	Ebola Virus Disease	A D A	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0 1	0 0 2	0 0	0 0	0 0	0 0 3	0 0 117	0 0 58
Like Vira	Lassa fever  COVID-19	D A	0	0	0	0	0	0	0	0	0	0	0	1 0	0	0	0	1	27	24
of Public Healt‡ Diarrheal Dised Influenza-Like	Influenza Like Illnesses	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0
I Disea Ir	Acute Bloody Diarrhoea (Shigellosis)	A D	0 0	0 0	0 1 0	0 0	0 0	0 3 0	0 6 0	0 1 0	0 0	0 0	0 1 0	0 0	0 0	0 0	0 1 0	0 13 0	0 376 0	0 0
Diarrhea	Severe Acute Watery Diarrhoea (Cholera)	A D	0	3	0	2	0	0	3	8	1 0	5 0	0	4	0	2	0	28 0	526 0	0
alth	Maternal Mortality	D	0	0	0	2	0	0	0	0	0	0	6	0	0	0	0	8	188	
升	Neonatal Mortality	D	0	1	0	0	0	0	0	0	0	4	13	3	0	0	0	21	447	
	AEFI	A D	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5 0	349 0	0
Events	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
ses	Мрох	A D	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	98 0	7
Other Reportable Diseases	Tuberculosis	A D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
eportab	Human Exposure to Rabies (Suspected Huma	D	0	0	0	0	0	0	7 0	0	0	0	0	0	0	0	0	0	1,968	0
Other R	Meningitis	A D A	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	25 0 0	0 0
	Unexplained Cluster of deaths	D A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1 103	0
Neglected Tr	Buruli Ulcer	D A	0	0	0	0	0	0	0	0	0	0 4	0	0	0	0	0	0	0	0 4
Z S S	Yaws	D	0	0	0	0	0	0	0	0 <b>15</b>	0	0 <b>29</b>	0	0	0	0	0	0 217	0 8506	0

**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

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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.