Liberia IDSR Epidemiology Bulletin Epi-week 9 (February 26- March 3, 2024) Volume 20 Issue 9 February 26 - March 3, 2024 Country Population: 5,104,413 Data Source: CSOs from 15 Counties and Laboratory Highlights **Keynotes and Events of Public Health Figure 1: Public Health Events Reported** Significance A total of 199 events of public health 62 Measles importance including 23 deaths 52 Human Exposure to Rabies reported 41 AEFI **Completeness and timeliness** of 10 Neonatal Death health facility reports were 99% and Influenza 98% Acute Bloody Diarrhea Ongoing Lassa fever outbreak in 2 Lassa Fever Counties **Maternal Death** Ongoing Measles outbreak in 4 Δ Cholera Counties 2 Мрох **Ongoing Mpox outbreak** in **1** county 2 **Neonatal Tetanus** Acute Flaccid Paralysis Suspected Cases 1 Yellow fever Samples Collected

Adverse Events Following Immunization/Adverse Drug Reaction (AEFI)

Reporting Coverage

Table 1: Health Facility Weekly IDSR Reporting Coverage, Liberia, Epi-week 9, 2024

County	Expected Reports From HF*	Reports Received	Received on Time	Completeness (%)	Timeliness (%)	949 (99%) Health facilities
Bomi	29	22	22	76	76	reported
Bong	66	66	66	100	100	IDSR data
Gbarpolu	18	18	13	100	72	
Grand Bassa	38	38	38	100	100	
Grand Cape Mount	36	36	36	100	100	
Grand Gedeh	25	25	25	100	100	97(99%)
Grand Kru	25	25	25	100	100	Health districts
Lofa	60	60	60	100	100	reported
Margibi	62	62	62	100	100	IDSR data
Maryland	27	27	27	100	100	
Montserrado	391	385	384	98	98	
Nimba	102	102	102	100	100	
Rivercess	21	21	21	100	100	
River Gee	21	21	21	100	100	943(98%)
Sinoe	41	41	41	100	100	Health
Liberia	962	949	943	99	98	facilities

• 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

Vaccine-Preventable Diseases

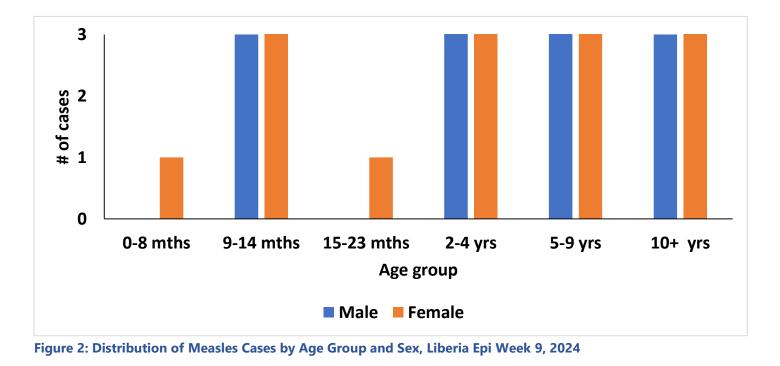
Measles Sixty

- Sixty-two (62) suspected cases were reported (see table below)
- Twenty-three (23) specimens were collected and pending testing
- Proportion of suspected cases that were vaccinated (41/62) 66%
- Cumulatively, three hundred thirty-five (335) cases reported
 - Proportion of suspected cases with sample collected (158/335) 47%
 - Proportion of suspected cases with sample tested (105/158) 66% (negative 68, confirmed 37)
 - o Proportion of negative Measles cases tested for Rubella (67/68) 99% (negative 56, confirmed 11, pending testing

1)

Table 2: Distribution and Vaccination Status of Measles Cases, Liberia, Epi-week 9, 2024

	ong33oarpolu33rand Bassa10rand Gedeh111rand Kru66fa32aryland42mba2117	Number of Doses Received								
County	# of cases	– Vaccinated	One Dose	Two Doses	Doses Not Indicated					
Bong	3	3	2	0	1					
Gbarpolu	3	3	3	0	0					
Grand Bassa	1	0	0	0	0					
Grand Gedeh	11	1	1	0	0					
Grand Kru	6	6	3	3	0					
Lofa	3	2	1	1	0					
Maryland	4	2	1	1	0					
Nimba	21	17	14	0	3					
River Gee	7	6	3	0	3					
Sinoe	3	1	1	0	0					
Total	62	41	29	5	7					



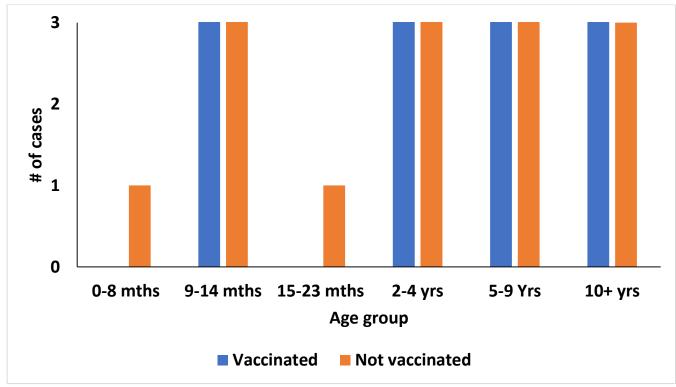


Figure 3: Vaccination Status of Suspected Measles Cases by Age Group, Liberia, Epi-Week 9, 2024

Outbreak Section

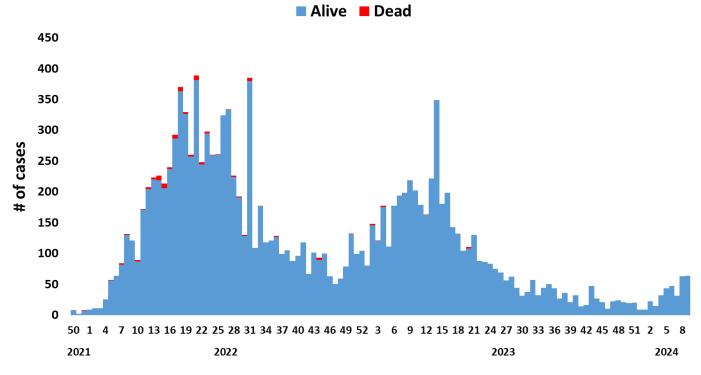
Table 3: Status of Confirmed (lab, clinically confirmed and epi-linked) Measles Cases by County, Liberia,December 13, 2021 - March 3, 2024

COUNTY	CUMULA TIVE SUSPECT	CUMULATI VE CONFIRME	CLASSIFI CONFIRM					FION OF DEATHS	CUMUL ATIVE	CFR (%)	# CONFIR MED CASES	# CONFIRM ED CASES WEEK 9
	ED CASES		Lab confirm ed	Epi Linke d	Clinically <u>Compati</u> ble	Lab confirm ed	Epi <u>Linke</u> d	Clinically <u>Compati</u> ble	DEATHS	(70)	WEEK 8	
Montserrado	5, 456	5,373	148	1658	3, 567	3	61	5	69	1.3	0	0
Nimba	1, 166	1,139	50	218	871	0	1	3	4	0.4	11	12
Margibi	827	803	37	136	630	0	0	1	1	0.1	0	0
Grand Bassa	962	924	41	212	671	1	0	6	7	0.9	0	0
Lofa	353	284	35	66	183	0	0	0	0	0	0	0
Bong	603	578	25	21	532	0	1	2	3	0.5	0	0
Maryland	1214	1194	26	308	860	0	0	0	0	0	3	3
Grand Gedeh	696	547	57	82	408	0	0	0	0	0	11	9
Sinoe	284	231	48	84	99	0	0	0	0	0	0	0
Bomi	183	147	37	27	83	1	2	2	5	3	0	0
Grd Cape Mt	215	187	23	18	146	0	2	1	3	1.6	0	0
Grand Kru	994	965	42	106	817	0	0	2	2	0.2	0	0
Gbarpolu	67	46	5	2	39	0	0	0	0	0	0	0
Rivercess	112	84	26	54	4	0	1	0	1	1.1	0	0
River Gee	117	93	21	14	58	0	0	0	0	0	4	5
Total	13,249	12,566	621	3,006	8,968	5	68	22	95	7.8	29	29

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County	Total Cases	Active	Recovery	Deaths	# of Districts
Montserrado	5,373	0	5,304	69	0/7
Nimba	1,139	12	1,123	4	0/6
Grand Bassa	924	0	917	7	0/8
Margibi	803	0	802	1	0/4
Bong	578	0	575	3	0/9
Maryland	1,194	3	1191	0	3/6
Lofa	284	0	284	0	0/6
Grand Kru	965	0	963	2	0/5
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	547	9	538	0	2/6
River Gee	93	5	88	0	1/6
Sinoe	231	0	231	0	0/10
Total	12,595	29	12, 471	95	6/98





Reporting year & Epi-week

Figure 4: Epi Curve of Measles Cases Liberia, Epi week 50, 2021 – Epi week 9, 2024

Public Health Measures

I. Coordination

• IMS meetings are being held for coordination and mobilization of resources in Maryland County.

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), and Grand Gedeh (Konobo, Tchien) Counties.

III. Case management

o Case management ongoing in Maryland, Nimba, River Gee and Grand Gedeh Counties.

IV. Immunization

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

V. Laboratory

• Six hundred twenty-one (621) cases have been confirmed by the NPHRL from December 13, 2021 – March 3, 2024.

VI. Risk Communication and Community Engagement

o 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

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

Acute Flaccid Paralysis (AFP)

- One (1) case was reported from Grand Bassa County
 Specimen was collected and shipped
- Cumulatively, ten (10) cases reported (9 shipped, 1 pending sixty (60) days follow-up)

Neonatal Tetanus

- ☞ Two (2) deaths were reported from Bong County
- 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

- Seven (7) suspected cases (SARI) were reported from Montserrado County
 - o All specimens were collected and all tested negative
- Cumulatively, twenty-three (23) suspected cases reported
 - Twenty-three (23) specimens were collected: 18 tested negative and 5 specimens were discarded

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- Seven (7) suspected cases were reported from Bong (6), and Nimba (1) Counties
 - o All specimens were collected and tested negative
 - Cumulatively, thirty-eight (38) suspected cases have been reported
 - Proportion of suspected cases with sample collected (38/38) 100%
 - Proportion of suspected cases with sample tested (37/38) 97%
 - Negative 35, confirmed 2 and 1 sample under review

Outbreak

- No new confirmed case reported
- Sixteen (16) contacts including 10 healthcare workers under 21 days follow up
- Cumulative Case Fatality Rate (CFR): 29% (41/140)
- Free Two counties currently in outbreak (Bong & Nimba)

Table 5: Summary of Lassa fever Outbreak, Liberia, January 6, 2022- March 3, 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	Contacts	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	6	1	0	0	0	0%	16	10	0	16	0	Active	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
TNIIIDa	Tappita	20-Nov-23	11	5	0	3	0	60%	88	39	4	0	77	31	Countdown
	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			439	140	21	41	3	29%	1131	399	61	16	1025		

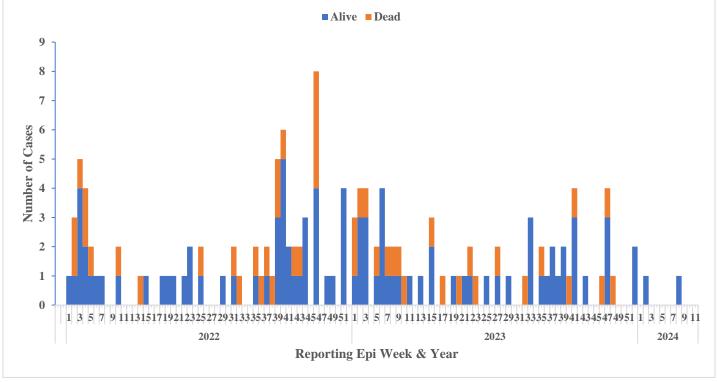


Figure 5: Epi-curve of Lassa fever cases, Liberia, January 6, 2022- March 3, 2024

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
- o Weekly Sit-Reps 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 recent case was treated and discharged from Phebe Hospital
- o Ribavirin supply in country are being distributed for treatment of Lf cases to affected counties
- o Ribavirin is being administered to the current confirmed case

Risk Communication and Community Engagement

o Risk communication and community engagement ongoing in affected and surrounding communities

Challenges

- 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

- One (1) suspected case was reported from Lofa County
- Specimen was collected and pending testing
- Cumulatively eleven (11) cases have been reported
 - Proportion of suspected cases with samples collected (11/11) 100% however, 2 samples were discarded
 - Proportion of suspected cases with samples tested (7/11) 64% (negative 7)
 - Two (2) 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)

- Seven (7) cases were reported from Bomi (2), Sinoe (2), Rivercess (1), Grand Cape Mount (1), and Nimba (1) Counties
 Four (4) specimens were collected and pending testing
- Cumulatively, sixty-eight (68) cases have been reported
 - \circ $\,$ 35 specimens collected, 23 reached the Lab $\,$
 - o 16 tested negative, 3 rejected, 4 pending testing

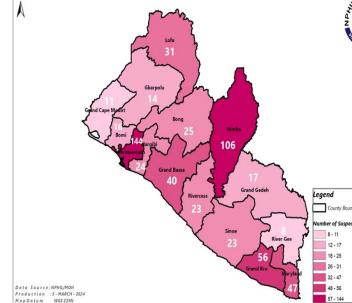
Severe Acute Watery Diarrhea (Suspected Cholera)

- Four (4) cases were reported from Lofa, Nimba, Margibi, and Maryland Counties
 - \circ $\;$ Two (2) specimens were collected and pending testing
- Cumulatively, sixty-six (66) cases have been reported
 - 32 specimens collected, 17 reached the Lab
 - 13 tested negative, 2 rejected and 2 pending testing

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

- Fifty-two (52) animal bite cases were reported from, Montserrado (16), Nimba (10), Maryland (4), Grand Kru (3), Lofa (3), Margibi (3), Grand Gedeh (2), Gbarpolu (2), Rivercess (2), Bong (2), Grand Bassa (2), Sinoe (2), and River Gee (1) Counties
- All bites were attributed to dog
- Proportion of cases investigated: 32/52 (62%)
- Proportion of dogs vaccinated: 0/52 (0%)
- Cumulatively, 568 cases have been reported
- Public Health Actions
- Main All cases were clinically managed and sent home
- PEP Administered to 15 persons (60%): Bong,
 Lofa, Margibi, and Maryland Counties
- Twenty-three (23) dogs restrained and underwent
 10-14 days' follow-up



• All cases were investigated only by the human health surveillance team

Tuberculosis

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

Meningitis

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

<u>Mpox</u>

- Two (2) suspected cases were reported from Grand Kru, and Sinoe Counties
 All specimens were collected, one (1) tested negative and 1 pending testing
- Cumulatively, sixteen (16) suspected cases have been reported, 2 tested positive, 8 negative, 2 discarded and 1 rejected

Unexplained cluster of deaths

Zero cases reported

Unexplained cluster of Health Events

Zero cases reported

Events of Public Health Importance

Maternal Mortality

- Five (5) deaths were reported from Montserrado (3), Nimba (1), and Bong (1) Counties
- Reported causes: PPH (2), Eclampsia (2), and Sepsis (1)
- Reporting sites
 - Health facility (5/5) 100%

Geographical Distribution of Suspected Animal Bite By County, Epi week 1-9, 2024

Cumulatively, forty-six (46) deaths reported

• Proportion of deaths reviewed (29/46) 63%

Neonatal Mortality

- Sixteen (16) deaths were reported from Montserrado (10), Bong (2), Grand Kru (1), Sinoe (1), Grand Gedeh (1), and Maryland (1) Counties
- Reported causes: Neonatal sepsis (10), Birth asphyxia (4), and Neonatal tetanus (2)
 - Reported sites:
 - Health facility (16/16) 100%
- Cumulatively, one hundred three (103) deaths reported
 - Proportion of deaths reviewed (55/103) 53%

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

- Forty-one- (41) cases were reported from Sinoe (16), Lofa (5), Grand Cape mount (4), Gbarpolu (3), Bong (3), Maryland (3), Montserrado (3), Grand Bassa (2), and Grand Kru (2) Counties
- All reported cases were classified as non-serious
- Related vaccine:
 - Penta (20/41) 49%
 - o Tetanus Toxoid (7/41)17%
 - o Measles (5/41) 12%
 - o Others (9/41) 22%

F Cumulatively, two hundred twenty-nine (229) events were reported and all classified as non-serious.

Neglected Tropical Diseases

YAWS

Zero cases were reported

<u>Buruli Ulcer</u>

Zero cases were reported

Border Surveillance Update

A total of 5743 travelers were recorded for the week with incoming travelers accounting for 50% (2897/5743) Table 7: Border activity at the PoE for incoming and outgoing travelers Liberia. Eni week 9

Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Total traverlers with YB	Yellow Book Damage	Card Replaced	Vaccinated against YF & Issued book	Alerts detected/ Verified	Evidence of COVID-19 vaccination card/certificate
	James S. Paynes	138	45	93	4	0	0	0	0	6
Airport	Robert Int'l Airport	4411	2203	2208	4399	0	70	0	0	4366
Seanort	Freeport of Monrovia	256	128	128	256	0	0	0	0	256
eaport	Buchanan Port	74	37	37	74	0	0	0	0	74
	Bo Water Side	559	290	269	542	0	7	10	0	199
Ground	Ganta	153	102	51	47	3	3	10	0	27
Crossing	Yekepa	56	36	20	13	0	0	0	0	19
	Loguatuo	96	56	40	77	0	0	0	0	54
Total		5,743	2,897	2,846	5,412	3	80	20	0	5,001

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

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

Case Management

- Administration of PEP
- \circ $\;$ Management of measles and Lassa fever cases ongoing in affected counties $\;$

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Influ	Influenza Like Illnesses	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
ise	Acute Bloody Diarrhoea (Shigellosis)		2	0	0	0	1	0	0	0	0	0	0	1	1	0	2	7	68	
alD	Acute bloody Diarmoea (Shigeliosis)	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
rhe	Course A suite Matter Diserts as (Chalass)	Α	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	4	66	
Diar	Severe Acute Watery Diarrnoea (Choiera)	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
th I	Maternal Mortality	D	0	1	0	0	0	0	0	0	0	0	3	1	0	0	0	5	46	
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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
- Image: 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

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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.