



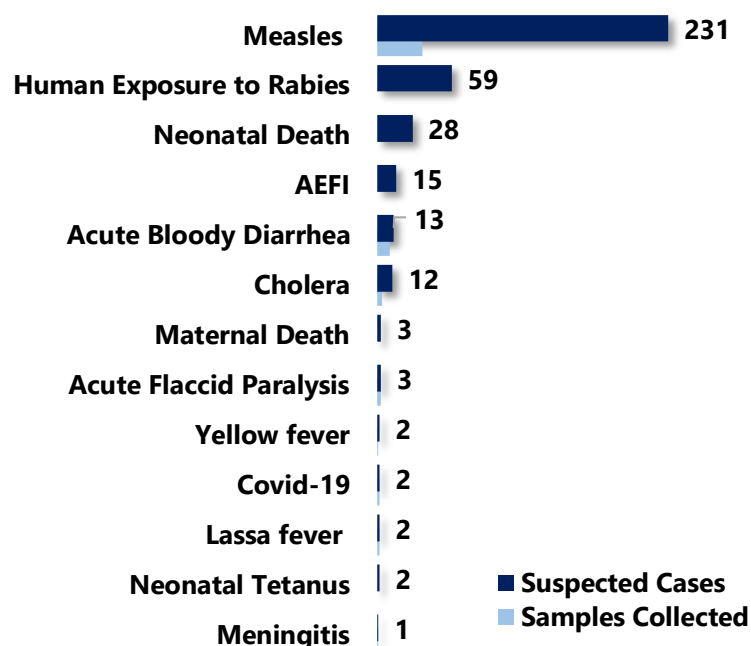
Liberia IDSR Epidemiology Bulletin

Epi-week 13 (March 28- April 3, 2022)

Country Population: 5,104,413 | Volume 18 Issue 13 | March 28- April 3, 2022 | Data Source: CSOs from 15 Counties and Laboratory

Highlights

Figure 1: Public Health Events Reported during this week



Keynotes and Events of Public Health Significance

- ♦ A total of **373** events of public health importance including **31** deaths were reported
- ♦ Completeness and timeliness of health facility reports were both **98%** respectively
- ♦ **Ongoing Lassa fever** outbreak in two counties
- ♦ **Ongoing Measles** outbreak in eleven counties
- ♦ **Two new confirmed COVID-19 cases** reported from two counties

*Adverse Events Following Immunization /Adverse Drug Reaction

Reporting Coverage

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi Week 13, 2022

County	Expected Report from Health Facility	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	26	26	26	100	100
Bong	57	57	57	100	100
Gbarpolu	16	15	15	94	94
Grand Bassa	36	36	36	100	100
Grand Cape Mount	34	34	34	100	100
Grand Gedeh	24	24	24	100	100
Grand Kru	23	23	23	100	100
Lofa	66	66	66	100	100
Margibi	55	54	54	98	98
Maryland	27	27	27	100	100
Montserrado	334	329	329	99	99
Nimba	91	88	88	97	97
Rivercess	21	21	21	100	100
River Gee	20	20	20	100	100
Sinoe	37	37	37	100	100
Liberia	867	857	857	98	98

857 (98%)
Health facilities reported IDSR data

93 (100%)
Health districts reported IDSR data

857 (98%)
Health facilities reported timely IDSR data

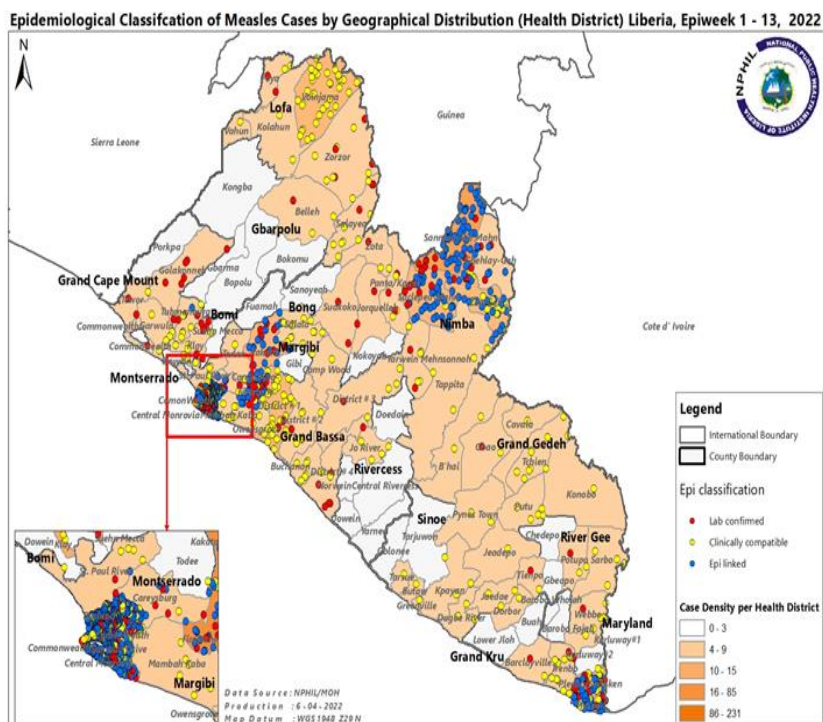
- ♦ The national target for weekly IDSR reporting is 80%. Health facility timeliness is monitored at health district level
- ♦ All counties submitted weekly IDSR reports to the national level on times.

Legend: ≥80 <80

Vaccine Preventable Diseases

Measles

- ☞ Two hundred thirty-one (231) suspected cases were reported from Montserrado (132), Nimba (35), Grand Bassa (30), Lofa (13), Grand Gedeh (6), Maryland (5), Bong (4), Grand Kru (2), Sinoe (2), River Gee (1), and Bomi (1) counties
- ☞ Thirty-six (36) specimens collected and pending testing:
- ☞ Vaccination status among suspected cases
 - Vaccinated - 101 (44%)
 - Not vaccinated- 99 (43%)
 - Unknown - 31 (13%)
- ☞ Age distribution among suspected cases
 - < 5 years: 135 (58%)
 - ≥ 5 years: 96 (42%)
- ☞ Cumulatively, one thousand four hundred thirty (1,430) suspected cases have been reported
 - Confirmed: 1270 (89%)
 - ✓ Laboratory confirmed: 213
 - ✓ Clinically compatible: 393
 - ✓ Epidemiologically linked: 664
 - Non-measles discarded cases: 160
 - Proportion of samples collected: 41% (579/1430)
 - Proportion of samples tested: 64% (373/579)



Outbreak

Montserrado County: Commonwealth, Bushrod, Somalia Drive, St. Paul and Central Monrovia Districts

(Situation update as of the 14th December 2021-April 3, 2022)

- ☞ One hundred thirty-two (132) new cases recorded:
 - Bushrod (51), Commonwealth (42), Somalia Drive (23), Central Monrovia (14), Careysburg (1), and St. Paul (1)
- ☞ A total of 716 suspected cases line listed up to date
 - 97 lab confirmed
 - Median age 6 (range 1 day-48 years)
 - Death: 7
 - CFR in laboratory confirmed 2% (2/97)
 - All reported cases are undergoing treatment

Vaccination status among lab confirmed:

- Vaccinated by record- 41% (40/97)
- Not vaccinated – 42% (41/97)
- Unknown - 17% (16/97)



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Bong County: Suakoko, Zota, Salala and Panta Districts (Situation update as of the 28th February – April 3, 2022)

- 👉 Two (2) new cases reported from Salala
- 👉 A total of 62 suspected cases reported
 - Eight (8) laboratory confirmed
 - Median age 3 (range 1- 36 years)
 - 50% (4/8) not vaccinated

Margibi County: Firestone District (Situation update as of February 28- April 3, 2022)

- 👉 No new case reported
- 👉 A total of 88 suspected cases reported
 - Fifteen (15) laboratory confirmed
 - Median age 3 (range 1- 36 years)
 - 13 (87%) were vaccinated

Nimba County: Saclepea-Mah, Sanniquellie-Mah, Gbehlay Geh and Zoe-Geh Districts (Situation update as of the 26th January – April 3, 2022)

- 👉 Eighteen (18) new cases reported
 - Sanniquellie-Mah (13), Saclepea-Mah (2), Zoe-Geh (3),
- 👉 A total of One hundred eighty-three (183) cases line listed
 - Twenty-two (22) laboratories confirmed
 - Median age 6 (range 2 months- 45years)
 - 45% (10/22) were vaccinated
 - 32% (7/22) not vaccinated

Maryland County: Harper and Pleebo Districts (Situation update as of the 31st January – April 3, 2022)

- 👉 Five (5) new cases reported
 - Pleebo (3) and Harper (2)
- 👉 A total of 69 suspected cases reported
 - Fifteen (15) laboratory confirmed
 - Median age 7 (range 4 months-48 years)
 - 93% (14/15) vaccinated

Bomi County: Suehn Mecca, Senjeh, and Klay Districts (Situation update as of March7- April 3, 2022)

- 👉 One (1) new case recorded from Senjeh district
- 👉 A total of 35 cases reported
 - Eight (8) laboratory confirmed
 - Median age 10(range 5 months-35 years)
 - 50% (4/8%) were vaccinated



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Grand Bassa County: District #2 (Situation update as of March 10- April 3, 2022)

- 👉 Twenty-nine (29) new cases recorded from District # 1
- 👉 Total of 41 cases line listed
 - Median age 3 (range 6 months-34 years)

Cape Mount County: Gola Konneh (Situation update as of March 10- April 3, 2022)

- 👉 No new case recorded
- 👉 A total of 10 cases have been reported
 - Six (6) laboratory confirmed
 - 5 (53%) were vaccinated

Lofa County: Voinjama and Salayea (Situation update as of April 3, 2022)

- 👉 Twelve (12) new cases reported
 - Voinjama (8), Zorzor (2), and Salayea (2)
- 👉 A total of 55 suspected cases reported
 - Six (6) laboratory confirmed
 - 50% (3/6) vaccinated

Grand Kru: Trehn District (Situation update as of March 14-April 3, 2022)

- 👉 No new case reported
- 👉 A total of 12 suspected cases reported

Rivercess: (Situation update as of March 16-April 3, 2020)

- 👉 No new case reported from Joe River
- 👉 A total 6 suspected cases reported

Public Health Actions

- 👉 Case investigation, active case search and line listing ongoing
- 👉 Case management ongoing

Challenges

- Limited logistical and operational support for response activities
- Stock out of measles vaccines and vitamin A, in some counties (Bong and Margibi Counties)
- Delay in specimen's transportation and feedback
- Limited medical supplies for case management

Influenza-Like Illnesses

Coronavirus Disease (COVID-19)

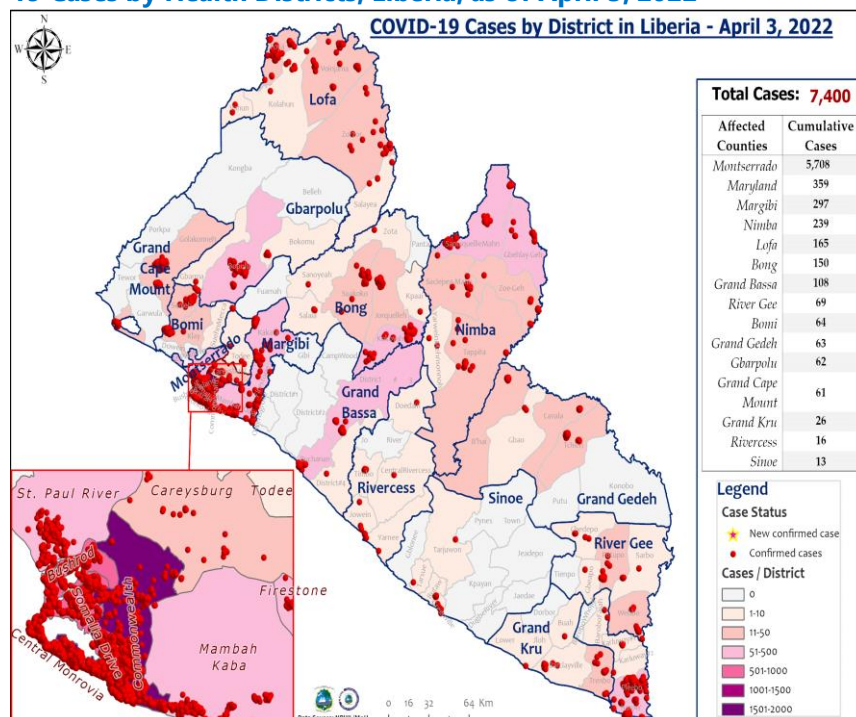
Outbreak

- ☞ Two (2) new cases were reported from Bong and Montserrado Counties
- ☞ A total of five hundred sixty-four (564) confirmed cases have been reported since epi week 1
- ☞ Cumulatively, seven thousand four hundred (7,400) confirmed cases recorded including 294 deaths 601 healthcare workers reported with 17,646 contacts generated

Public Health Actions

- ☞ Weekly IMS coordination meeting on-going.
- ☞ Surveillance activities including active case search, contact tracing and case investigation on-going in affected counties using WHO interim guidelines
- ☞ Reinforcing hand washing in all public areas (markets, health facilities, public offices, checkpoints etc.)
- ☞ Case management ongoing for confirmed cases
- ☞ Compulsory testing among outgoing and incoming travelers ongoing

Figure 2: Geographical Distribution of Laboratory Confirmed COVID-19 Cases by Health Districts, Liberia, as of April 3, 2022



Acute Flaccid Paralysis (AFP)

- ☞ Three (3) cases reported from Bong (1), Lofa (1) and Grand Gedeh (1) Counties
 - Three (3) specimens were collected and pending shipment
- ☞ Cumulatively, thirty-one (31) AFP cases have been reported

Neonatal Tetanus

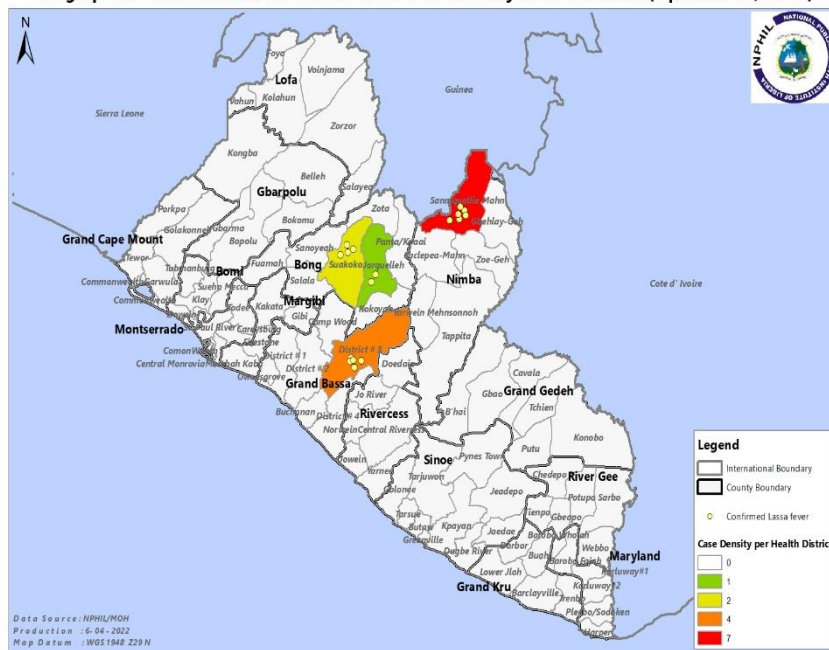
- ☞ Two (2) cases were reported from Grand Bassa and Montserrado Counties
- ☞ Cumulatively, seventeen (17) clinically diagnosed cases reported

Viral Hemorrhagic Diseases

Lassa fever

- ☞ Two (2) suspected cases were reported from Bong County
 - Two specimens were collected and tested negative
- ☞ Cumulatively, fifty-one (51) suspected cases reported including 7 deaths
- ☞ Proportion of suspected cases with sample collected 100% (51/51)
 - Proportion of suspected cases with sample tested 100% (51/51)
 - Nineteen (19) confirmed including 6 deaths CFR 32% (6/19)

Geographical Distribution of Confirmed Lassa fever cases by Health Districts (Epi week 13, 2022)



Outbreak

Two counties currently in Outbreak: Nimba and Bong

Nimba County: Sanniquellie-Mah District (Countdown)

- ☞ No new suspected case reported
- ☞ A total of 35 days gone by since last confirmed case was discharged from admission
- ☞ Zero active case
- ☞ Zero active contact
- ☞ Total confirmed cases seven. CFR 57% (n=4/7)
- ☞ A total of 104 contacts were generated. All 104 contacts (47 HCWs & 57 families) completed 21 days' follow-up

Bong County: Jorquellieh & Suakoko Districts (Countdown begin April 3,2022)

- ☞ No new confirmed case reported
- ☞ Two suspected cases reported for epi-week 13
- ☞ Total confirmed cases seven. CFR 14% (n=1/7)
- ☞ A total of 70 contacts were generated from epi-week 1-13, 2022. 49 contacts completed 21 follow-ups on March 31, 2022 and remaining 21 contacts (13 HCWs & 8 families) completed follow-up April 2, 2022.

Public Health Actions

- ☞ Case management ongoing for the confirmed cases in isolation
- ☞ Continue to air LF prevention and control messages in affected and surrounding districts



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Yellow fever

- 👉 Two (2) suspected cases were reported from Grand Kru and Nimba Counties
- 👉 Cumulatively, twenty-eight (28) suspected cases reported
 - Proportion of suspected cases with sample collected 89% (25/28)
 - Proportion of suspected cases with sample tested 32% (8/25)

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- 👉 Thirteen (13) suspected cases were reported from Grand Gedeh (3), Nimba (3), River Gee (2), Rivercess (2), Gbarpolu (1), Margibi (1), and Grand Bassa (1) Counties
 - Ten (10) specimens collected and pending testing
- 👉 Cumulatively, one hundred eighty-four (184) suspected shigellosis cases reported with seventy-three (73) specimens collected: 42 negative, 1 positive, 30 pending

Severe Acute Watery Diarrhea (Suspected Cholera)

- 👉 Twelve (12) suspected cases reported from Lofa (4), Bong (3), Montserrado (1), Maryland (1), Nimba (1) and Grand Bassa (1), and Bomi (1) Counties
 - Four (4) specimens collected and pending testing
- 👉 Cumulatively, one hundred-four (104) suspected cholera cases reported with 52 specimens collected and 21 tested negative

Other Reportable Diseases

Animal bite (Human Exposure to Rabies)

- 👉 Fifty-nine (59) animal bite cases reported Montserrado (17), Grand Bassa (7), Bong (6), Nimba (5), Maryland (4), Lofa (4), Margibi (4), Bomi (2), Gbarpolu (2), Grand Cape Mount (2), Grand Kru (2), Sinoe (2), Rivercess (1), and River Gee (1) Counties
 - 14% (8/59) persons received PEP
- 👉 Cumulatively, six hundred forty-six (646) animal bite cases reported
- 👉 Dog bites account for 100%
- 👉 1-4 doses (PEP) administered to about 16% (101/646) of patients

Public Health Actions

- 👉 1-4 doses of post exposure prophylaxis administered to about 17% (8/47) persons
- 👉 Cumulatively, 1-4 doses of post exposure prophylaxis were administered to about 16% (92/587)

Meningitis

- 👉 One suspected case reported from River Gee County
 - One specimen was collected and pending testing
- 👉 Cumulatively, thirteen (13) suspected cases reported including one confirmed

Monkeypox

- 👉 Zero suspected cases reported
- 👉 Cumulatively, seven (7) suspected cases reported, two (2) specimens collected pending shipment



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Events of Public Health Importance

Maternal Mortality

- 👉 Three (3) deaths reported from Montserrado (1), Margibi (1), and Nimba (1) Counties
 - Causes of death: Eclampsia (2) and 1 pending investigation
 - All three deaths occurred at the health facility
- 👉 Cumulatively, eighty-six (86) deaths reported
 - The proportion of deaths reviewed was 34% (29/86)
 - The proportion of community deaths 15% (13/86)
 - The proportion of deaths reviewed in the community was 54% (7/13)

Neonatal Mortality

- 👉 Twenty-eight (28) deaths reported from Montserrado (22), Bong (3), Gbarpolu (1), Margibi (1) and Nimba (1), Counties
- 👉 Causes of deaths: Birth asphyxia (18), Sepsis (8), Preterm (1), Necrotizing enterocolitis (1) and (1) pending investigation
- 👉 Twenty-seven deaths occurred at the health facility and one in the community
- 👉 Cumulatively: two hundred five (205) deaths have been reported
 - The proportion of deaths reviewed 20% (41/205)
 - The Proportion of community deaths 4% (8/205)
 - The proportion of deaths reviewed from the community 38% (3/8)

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

- 👉 Fifteen (15) cases reported from Sinoe (13), Maryland (1) and Grand Bassa (1) Counties
- 👉 Cumulatively: seventy-seven (77) events reported with 84% (65/77) related to COVID-19
 - Proportion of J&J -81% (63/77)
 - Proportion of AstraZeneca – 3% (2/77)
 - Proportion of other related events -16% (12/77)

Public Health Actions

- 👉 All events were investigated, categorized as *non-serious AEFI and symptomatically treated*
- 👉 Active case search and community engagement ongoing

Unexplained death

- 👉 Zero case reported
- 👉 No specimen was collected



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Border Surveillance Update

Table2: Border activity at the PoE for Incoming and Outgoing Travelers, Liberia, Epi week 13 2022

👉 A total of 944 travelers recorded for the week with incoming travelers accounting for 46% (438/944)

👉 Zero travelers reactive for COVID-19

Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Yellow Book Issued	Yellow Book Damage	Card Replaced	Travelers Vaccinated	Alerts detected/ Verified	COVID-19 Reactive	Fully vaccinated for COVID-19
Airport	James S. Paynes	46	32	14	0	0	0	0	0	0	2
Seaport	Freeport of Monrovia	208	104	104	0	0	0	0	0	0	104
	Buchanan Port	116	58	58	0	0	0	0	0	0	58
Land Crossing	Bo Water Side	574	244	330	0	0	0	0	0	0	30
Total travelers		944	438	506	0	0	0	0	0	0	194

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

Public Health Measures

National level

- 👉 Providing technical, logistical, and financial support to counties
 - Publication of situational reports
 - 3rd edition IDSR training ongoing in Bomi County including 54 participants from 27 health facility
- 👉 Operational Activity
 - Continued support for operational activities ongoing

County level

👉 Surveillance

- Quarantine and monitoring of domestic animal (Dog) and cases possibly exposed to rabies
- Publication of situational reports
- Active case search ongoing in affected and surrounding communities

👉 Case Management

- PEP administered to four cases
- Management of admitted cases ongoing
- Ensure the appropriate medical protocol in place

Appendix

Summary of Immediately Reportable Diseases, Conditions, and Events by County

Counties			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 Expected Health District			4	9	5	8	5	6	5	6	4	6	7	6	6	6	10	93		
No. of Health District Reported			4	9	5	8	5	6	5	6	4	6	7	6	6	6	10	93		
Vaccine Preventable Diseases	Acute Flaccid Paralysis (Suspected Polio)	A	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	3	31	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	A	1	4	0	30	0	6	2	13	0	5	132	35	0	1	2	231	1427	213
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Neonatal Tetanus	A	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2	17	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Yellow fever	A	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	28	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Viral Hemorrhagic Fever	Dengue fever	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ebola Virus Disease	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lassa fever	A	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	51	19
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	6
Influenza-Like Illnesses	COVID-19	A	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2	546	7400
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	294
Diarrheal Diseases	Acute Bloody Diarrhoea (Shigellosis)	A	0	0	1	1	0	3	0	0	1	0	0	3	2	2	0	13	182	1
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Severe Acute Watery Diarrhoea (Cholera)	A	1	3	0	1	0	0	0	4	0	1	1	1	0	0	0	12	104	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Events of Public Health Importance	Maternal Mortality	D	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	3	86	
	Neonatal Mortality	D	0	3	1	0	0	0	0	0	1	0	22	1	0	0	0	28	205	
	Adverse Events Following Immunization (AEFI)	A	0	0	0	1	0	0	0	0	0	1	0	0	0	0	13	15	77	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Unexplained Cluster of Health Events/Disease	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other Reportable Diseases	Monkeypox	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tuberculosis	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Human Exposure to Rabies (Suspected Human Rabies)	A	2	6	2	7	2	0	2	4	4	4	17	5	1	1	2	59	646	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	Meningitis	A	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	13	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unexplained Cluster of deaths	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Neglected Tropical Diseases	Buruli Ulcer	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Yaws	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL			4	20	4	41	2	10	5	22	7	11	175	47	3	5	17	373	3429	7933

D = Dead A = Alive

Notes

- 👉 **Completeness** refers to the proportion of expected weekly IDSR reports received (target: $\geq 80\%$)
- 👉 **Timeliness** refers to the proportion of expected weekly IDSR reports received by the next level on time (target: $\geq 80\%$). Time requirement for weekly IDSR reports:
 - Health facility - required on or before 5:00pm every Saturday to the district level
 - Health district - required on or before 5:00pm every Sunday to the county level
 - County - required on or before 5:00pm 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: $\geq 2/100,000$)
- 👉 **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 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 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 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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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.