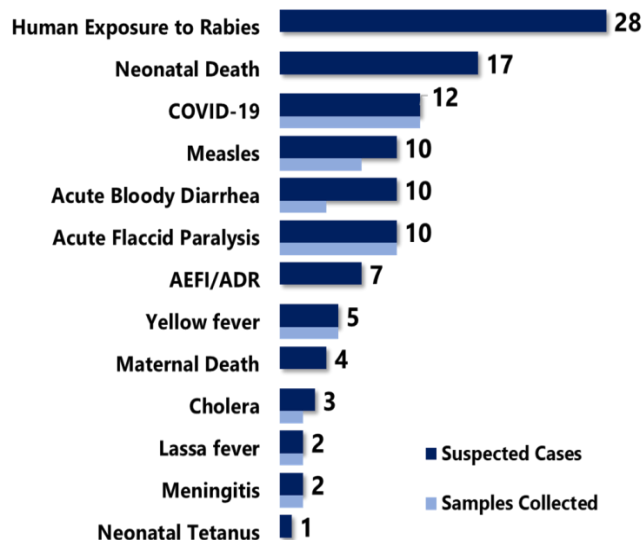


Highlights

Figure 1: Public Health Events Reported during this week



Keynotes and Events of Public Health Significance

- ♦ A total of **111** events of public health importance including **20** deaths reported
- ♦ Completeness and timeliness of health facility reports were both **99%**
- ♦ **Adverse Events Following Immunization** surveillance heightened following the introduction of new vaccines (nOPV2, TCV, COVID-19)
- ♦ **Ongoing Lassa fever** outbreak in Grand Bassa County
- ♦ **Ongoing EVD preparedness engagement** initiated at all levels
- ♦ **Twelve** new confirmed COVID-19 cases recorded from one county

Reporting Coverage

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi week 16, 2021

County	Expected Report	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	26	26	26	100	100
Bong	57	57	57	100	100
Gbarpolu	15	15	15	100	100
Grand Bassa	36	36	36	100	100
Grand Cape Mount	34	34	34	100	100
Grand Gedeh	24	24	24	100	100
Grand Kru	22	22	22	100	100
Lofa	61	61	61	100	100
Margibi	55	55	55	100	100
Maryland	27	25	25	100	100
Montserrado	367	367	367	100	100
Nimba	91	87	87	96	96
Rivercess	20	20	20	100	100
River Gee	20	20	20	100	100
Sinoe	37	37	37	100	100
Liberia	889	883	883	99	99

- ♦ The national target for weekly IDSR reporting is 80%. Health facility timeliness is monitored at health district level
- ♦ Bomi county submitted weekly IDSR report late to the national level. Grand Kru additional three health facilities

Legend: ≥80 <80

883(99%)
Health
facilities
reported
IDSR data

93(100%)
Health
districts
reported
IDSR data

883(99%)
Health
facilities
reported
timely IDSR
data

Vaccine Preventable Diseases

Measles

- 👉 Ten (10) suspected cases were reported from Nimba (4), Lofa (3), Grand Gedeh (1), Margibi (1), and Montserrado (1) Counties
 - Seven (7) specimens were collected and tested four with negative results while three pending laboratory confirmation
- 👉 Vaccination status among suspected cases
 - Vaccinated: 7 (70%)
 - Not vaccinated: 3(30%)
- 👉 Age distribution among suspected cases
 - <5 years: 7 (70%)
 - ≥5 years: 3 (30%)
- 👉 Cumulatively, since Epi week one, one hundred thirty-two (132) suspected cases have been reported
- 👉 Epi-classification is as follows: 77 confirmed (16 lab-confirmed, 50 clinically confirmed, 11 epi-linked), 53 negatives and 2 indeterminate (equivocal)

Figure 2: Geographical Distribution of Reported Measles Cases by Health Districts, Liberia, Epi week 1 – 16, 2021

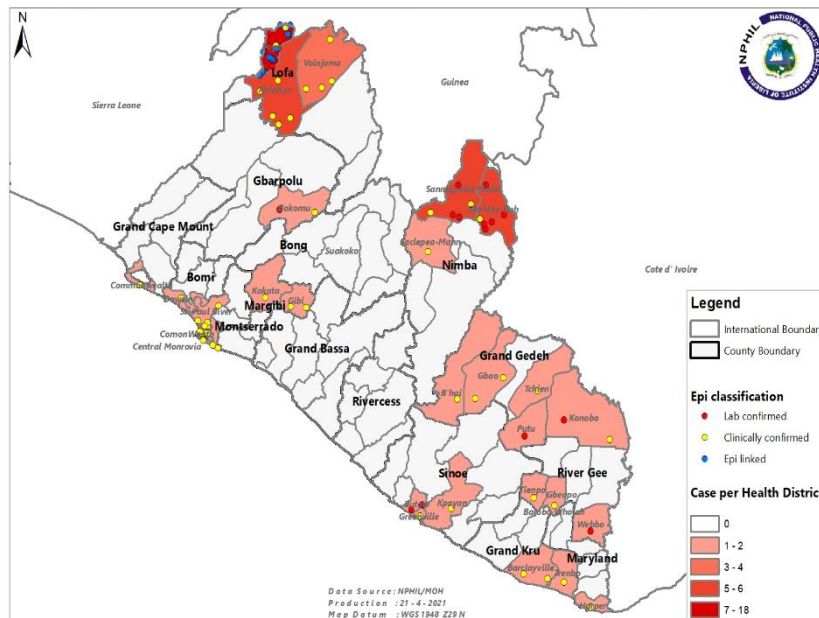
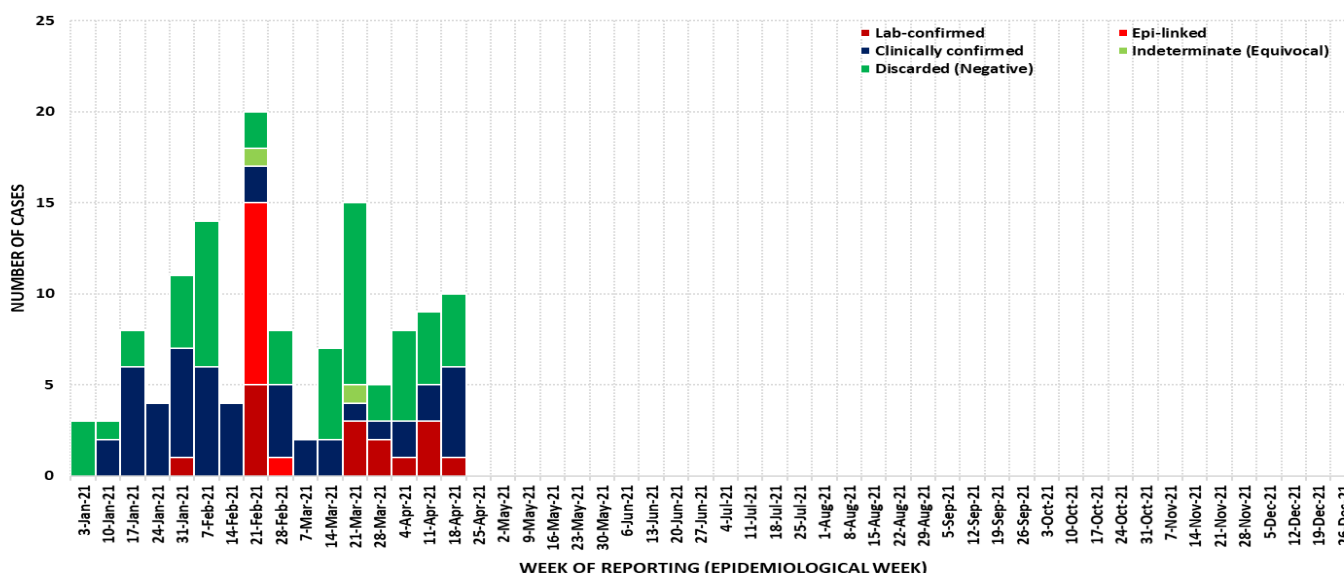


Figure 3: Count of Measles Cases by Week of Reporting and Epi-classification, Liberia, Epi week 1 - 16, 2021



Acute Flaccid Paralysis

- 👉 Ten (10) cases were reported from Bomi (2), Grand Bassa (2), Bong (2), Margibi (2), Maryland (1) and Nimba (1) Counties
- 👉 Ten specimens were collected, shipped and pending testing
- 👉 Cumulatively, since Epi week one, forty-nine (49) cases have been reported
- 👉 Epi-classification is as follows: 50 clinically confirmed, 5 discarded (negative) and 1 NPENT

Neonatal Tetanus

- 👉 One (1) case was reported from Nimba County
- 👉 Cumulatively, since Epi week one, seven (7) cases have been reported

Influenza-Like Illnesses

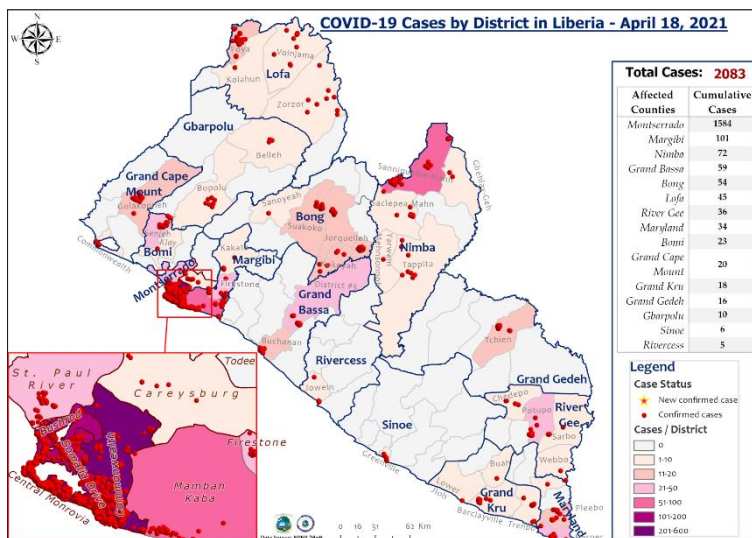
Coronavirus Disease (COVID-19)

Outbreak

- 👉 Twelve (12) new confirmed cases were reported from Montserrado County with male accounting for 58.3%
- 👉 Since Epi week one, a total of two hundred sixty-five (265) confirmed cases have been reported
- 👉 Cumulatively, two thousand eighty-three (2,083) confirmed cases recorded including 85 deaths

Public Health Actions

- 👉 Daily 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



Viral Hemorrhagic Diseases

Lassa fever

- 👉 Two (2) suspected cases were reported from Grand Bassa County
- 👉 Specimens were collected and tested positive
- 👉 Cumulatively, since Epi week one, thirty-one (31*) suspected cases have been reported including six (6) deaths
 - 4 positive, 21 negative and 6 specimens not collected
 - Proportion of suspected cases with sample collected 81% (25/31)
 - Proportion of suspected cases with sample tested 81% (25/31)

* Six suspected cases have been delisted due to lack of specimen collection: Bong (5) and Grand Bassa (1) Counties

Outbreak

District 3A&B, Grand Bassa County

- 👉 Two new confirmed cases reported April this week
- 👉 **Case One:** 50-year-old male, resident of Baboon Camp, LAC
 - Illness onset was April 2, presented with fever, cough, weakness, red eyes, chest pain, nausea; Admitted at LAC Hospital April 8, and treated for Malaria
 - Isolated and specimen collected on April 12 and confirmed positive April 14, 2021
 - 7 contacts and line listed and being follow up: 4 HCWs, 3 family members
 - The case was discharged April 22, 2021
- 👉 **Case Two:** 24-year-old male, resident of B-four Camp, LAC
 - Onset of illness was April 10, presented with fever, generalized body pain, nausea, sore throat, and swollen neck
 - Sought care at LAC Hospital, Isolated and specimen collected April 13 and confirmed positive April 19, 2021
 - 6 contacts line listed and being follow up: 2 HCWs, 4 community members

Public Health Actions

- 👉 Active case search and community engagement ongoing
- 👉 Continue to air messages on prevention of Lassa fever and rodents control measures in LAC

Yellow fever

- 👉 Five (5) suspected cases were reported from Grand Gedeh (2), Grand Kru (1), Rivercess (1), and Maryland (1) Counties
- 👉 Specimens were collected and pending testing
- 👉 Cumulatively since Epi week one, thirty-three (33*) suspected cases have been reported with 17 negative, 14 pending testing and 2 specimens were not collected

- Proportion of suspected case with sample collected 94% (31/33)
- Proportion of suspected case with sample tested 51% (17/33)

* Two suspected cases have been delisted due to lack of specimen collection: (insert counties)

Monkeypox

- 📁 Zero suspected cases were reported
- 📁 Cumulatively since Epi week one, one (1) suspected case reported

Ebola Virus Disease

- 📁 Zero alerts were reported
- 📁 Cumulatively since Epi week one, sixteen (16) alerts have been reported: 15 tested negative and 1 specimen not collected
 - Proportion of suspected case with sample collected 94% (15/16)
 - Proportion of suspected case with sample tested 94% (15/16)

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- 📁 Ten (10) cases were reported from Nimba (2), Margibi (2), Sinoe (2), Grand Gedeh (1), Grand Kru (1), Rivercess (1) and River Gee (1) Counties
 - Four specimens were collected and pending testing
- 📁 Cumulatively, since Epi week one, one hundred and twenty-six (126) suspected shigellosis cases have been reported with 50 specimens collected, 12 tested negative and thirty-five (35) pending laboratory testing

Severe Acute Watery Diarrhea (Suspected Cholera)

- 📁 Three (3) suspected cases were reported from Rivercess (1), Sinoe (1), and Lofa (1) Counties
- 📁 Two specimens were collected and pending testing
- 📁 Cumulatively, since Epi week one, forty-three (43) suspected cholera cases have been reported

Other Reportable Diseases

Animal Bites (Human Exposure to Rabies)

- 📁 Twenty-eight (28) animal bite cases were reported from: Montserrado (7), Nimba (6), Maryland (4), Lofa (3), Grand Gedeh (2), Grand Bassa (2), Margibi (2), Rivercess (2), Gbarpolu (1), River Gee (1) Counties
 - No prophylaxes were administered at health facility
- 📁 Cumulatively, since Epi week one, five hundred and twenty-nine (529) animal bite cases have been reported

Meningitis

- 📁 Two (2) suspected cases were reported from River Gee (1) and Rivercess (1) Counties
- 📁 Two specimens collected and tested negative
- 📁 Cumulatively, since Epi week one, eighteen (18) suspected cases have been reported

Events of Public Health Importance

Maternal Mortality

- 📁 Four (4) deaths were reported from Nimba (3) and Sinoe (1) Counties
- 📁 Causes of death: Rupture uterus (2), Postpartum hemorrhage (1), and Pending review (1)
- 📁 Health facility accounted for 100% of the death reported
- 📁 Cumulatively, since Epi week one, seventy-two (72) deaths have been reported

Neonatal Mortality

- 📁 Seventeen (17) deaths were reported from Montserrado (12), Lofa (2), Maryland (1), Nimba (1), and Rivercess (1) Counties
- 📁 Causes of deaths: Birth asphyxia (11) and Neonatal sepsis (6)

- Health facility accounted for 100% of the death reported
- Cumulatively, since Epi week one, two hundred and thirty-two (231) deaths have been reported

Unexplained Death

- Zero (0) deaths were reported
- Cumulatively, since Epi week one, one (1) death has been reported

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

- Seven (7) cases were reported from Lofa (3), Nimba (2), Grand Gedeh (1) and Grand Kru (1) Counties
- Cumulatively, since Epi week one, thirty-four (34) events have been reported with Lofa County accounting for 56%
 - 44% of the events related to nOPV2
 - 38% of the events related to TCV
 - 18% of the events related to ADR

Public Health Actions

- All events investigated, with one of the event categorized as serious and being treated symptomatically
- All reporting tools are currently being distributed across the 15 counties
- Active case search and community engagement ongoing

Cross Border Surveillance Update

- A total of 3,847 travelers recorded for the week with incoming travelers accounting for 49% and outgoing travelers 51%
- None of the travelers were reactive for COVID-19
- The airport accounted for the highest number of travelers for the week

Table 2: Cross border activity at the PoE for Incoming and Outgoing Travelers, Liberia, Epi week 16, 2021

Type of PoE	Point of Entry	Weekly Total	Arrival	Departure	Yellow Book Issued	Yellow Book Damaged	Card Replaced	Travelers Vaccinated	Alerts Verified	COVID-19 Reactive
Airport	James S. Paynes	33	15	18	0	0	0	0	0	0
	Robert International Airport	1740	808	932	20	20	0	0	0	0
	Freeport of Monrovia	268	134	134	0	0	0	0	0	0
Seaport	Harper	0	0	0	0	0	0	0	0	0
	Buchanan Port	40	20	20	0	0	0	0	0	0
	Bo Water Side	1266	562	704	5	5	0	0	0	0
Land Crossing	Ganta	345	240	105	9	9	0	0	0	0
	Yekepa	117	69	48	5	5	0	0	0	0
	Longuatu	38	23	15	2	2	0	0	0	0
Total travelers		3,847	1,871	1,976	41	41	0	0	0	0

Public Health Measures

National level

- Providing technical, logistical and financial support to counties
- Heighten surveillance in affected and surrounding communities
- Publishing situational reports to inform stakeholders

County level

- Publication of situational reports to inform stakeholders
- Active case search ongoing in affected and surrounding communities
- Contact tracing, health education, and community engagement ongoing in affected communities
- Case management ongoing for isolated cases

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	8	5	8	5	6	5	5	4	6	7	6	6	6	10	91		
Vaccine Preventable Diseases	Acute Flaccid Paralysis (Suspected Polio)	A	2	2	0	2	0	0	0	0	2	1	0	1	0	0	0	10	49	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	A	0	0	0	0	0	1	0	3	1	0	1	4	0	0	0	10	132	16
		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	0	0	0	0	0	0	0	0	1	0	0	0	1	7	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	2	1	0	0	1	0	0	1	0	0	5	33	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	16	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lassa fever	A	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	31	4
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Influenza-Like Illnesses	COVID-19	A	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	265	265
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diarrheal Diseases	Acute Bloody Diarrhoea (Shigellosis)	A	0	0	0	0	0	1	1	0	2	0	0	2	1	1	2	10	126	0
		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	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	3	43	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	0	0	0	3	0	0	1	4	72	
	Neonatal Mortality	D	0	0	0	0	0	0	0	2	0	1	12	1	1	0	0	17	231	
	Adverse Events Following Immunization (AEFI)	A	0	0	0	0	0	1	1	3	0	0	0	2	0	0	0	7	34	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	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 Animal bites (Suspected Rabies)	A	0	0	1	2	0	2	0	3	2	4	7	6	0	1	0	28	529	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Meningitis	A	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	18	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			2	2	1	6	0	7	4	11	7	7	32	20	5	3	4	111	1588	0

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
- 👉 **Non-serious AEFI** refers to an event that is not 'serious' and does not pose a potential risk to the health of the recipient and should be carefully monitored because they may signal a potentially larger problem with the vaccine or immunization or have an impact on the acceptability of immunization in general.
- 👉 **Serious AEFI** refers to an event that results in death, is life-threatening, requires in-patient hospitalization or prolongation of existing hospitalization, results in persistent or significant disability/incapacity, or is a congenital anomaly/birth defect.

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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