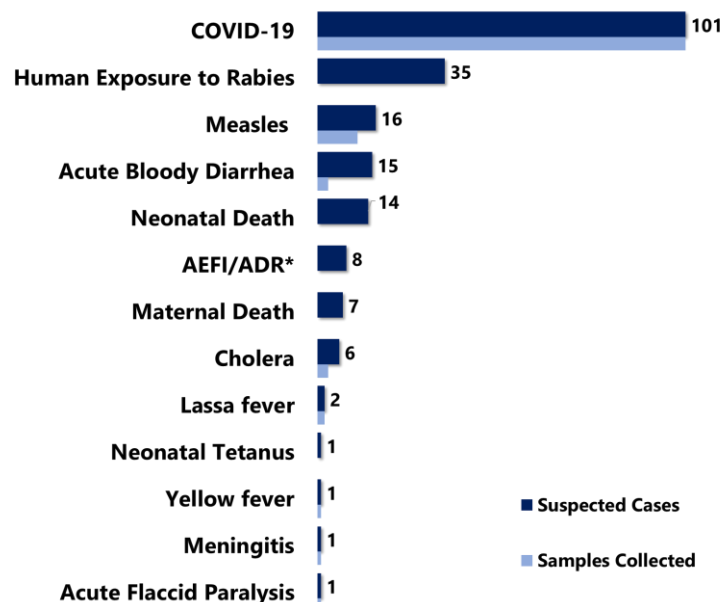


Highlights

Figure 1: Public Health Events Reported during this week



*Adverse Event Following Immunization/Adverse Drug Reaction

Keynotes and Events of Public Health Significance

- ♦ A total of **208** events of public health importance including **24** deaths were reported
- ♦ Completeness and timeliness of health facility reports were both **98% and 97% respectively**
- ♦ **Ongoing Lassa fever** outbreaks in Bong and Grand Bassa Counties
- ♦ **Ongoing Measles** outbreak in Montserrado County
- ♦ **One hundred one new confirmed COVID-19 cases** reported from nine counties

Reporting Coverage

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi week 2, 2022

County	Expected Report from Health Facility	Reports Received	Received on Time	Completeness (%)	Timeliness (%)
Bomi	26	26	26	100	100
Bong	57	53	53	93	93
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	100	100
Maryland	27	24	24	100	100
Montserrado	334	322	316	98	96
Nimba	91	87	87	96	96
Rivercess	21	21	21	100	100
River Gee	20	20	20	100	100
Sinoe	37	37	37	100	100
Liberia	867	847	841	98	97

- ♦ 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

847 (98%)
Health facilities reported IDSR data

92 (99%)
Health districts reported IDSR data

841 (97%)
Health facilities reported timely IDSR data

Vaccine Preventable Diseases

Measles

- ☞ Sixteen (16) suspected cases were reported from Nimba (4), Grand Gedeh (4), Maryland (3), Bomi (2), Sinoe (2), and Bong (1) Counties
 - Eleven specimens were collected with two tested positive, seven negative and two pending laboratory testing
- ☞ Vaccination status among suspected cases
 - Vaccinated: 7 (44%)
 - Not vaccinated: 6 (38%)
 - Unknown: 3 (18%)
- ☞ Vaccination status among lab-confirmed cases
 - Not vaccinated: 1 (50%)
 - Unknown: 1 (50%)
- ☞ Age distribution among suspected cases
 - < 5 years: 10 (63%)
 - ≥ 5 years: 6 (37%)
- ☞ Proportion of samples tested: 48% (13/27)
- ☞ Cumulatively, twenty-seven (27) suspected cases have been reported
 - Laboratory confirmed: 6, clinically compatible: 12, epidemiologically linked: 0, non-measles discarded cases (negative): 9

Outbreak

Montserrado: Commonwealth District

- No new case reported during this week
- On 3 January 2022, the Montserrado County Health Team notified the National Public Health Institute of an increase in the detection of clinically confirmed measles cases in the Zone 1500, Commonwealth Health District at the Iron Factory Community Clinic (annex II) in Pepper Wulu Town, Johnsonville. On December 13, 2021, cases were detected and on December 14, 2021 the MCHT was notified about increase detection of clinically confirmed measles cases. Six specimens were collected and sent to the National Reference Laboratory. Positive results were communicated by the National Reference Laboratory on January 8, 2022. A total of eighteen (18) suspected cases were recorded including one laboratory confirmed and one death, with CFR of 5%. Female accounted for 61% (11/18), with median age of 4 ranging from 11 months to 16 years. The vaccination status recorded are vaccinated by record (22%), vaccinated by history (61%) and unknown (17%).

Public Health Actions

- ☞ Mini campaign initiated with intensive community engagement
- ☞ Additional specimen collection and case management ongoing in the affected and surrounding districts

Acute Flaccid Paralysis (AFP)

- ☞ One case was reported from Bong County
 - Specimen was collected, properly packaged and shipped for laboratory testing
- ☞ Cumulatively, two (2) AFP cases have been reported awaiting laboratory result

Neonatal Tetanus

- ☞ One case (dead) was reported from Bong County
- ☞ Cumulatively, two (2) clinically diagnosed cases have been reported

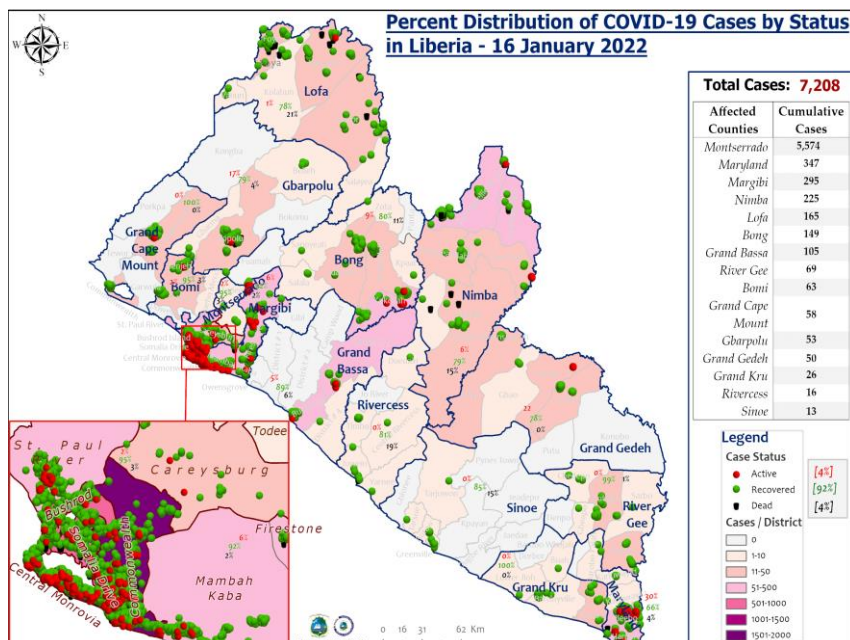
Influenza-Like Illnesses

Coronavirus Disease (COVID-19)

Outbreak

- One hundred one (101) new confirmed cases were reported from Montserrado (66), Gbarpolu (14), Margibi (7), Grand Bassa (5), Maryland (4), Grand Gedeh (3), Bong (1), and Grand Cape Mount (1) Counties
 - Seven hundred eleven (711) contacts are being followed up in Maryland (313), Margibi (199), Montserrado (99), Bong (48), Grand Gedeh (41), Nimba (6) and Grand Bassa (5) Counties
- A total of three hundred ninety (390) confirmed cases have been reported since epi week 1
- Cumulatively, seven thousand two hundred eight (7,208) confirmed cases recorded including 288 deaths and 358 healthcare workers reported with 17,268 contacts generated

Figure 2: Geographical Distribution of Laboratory Confirmed COVID-19 Cases by Health Districts, Liberia, as of January 16, 2022



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

Viral Hemorrhagic Diseases

Lassa fever

- Two (2) suspected (all dead) cases were reported from Grand Bassa and Nimba Counties
 - Specimens were collected and pending testing
- Cumulatively, six (6) suspected cases have been reported including 2 deaths with 4 lab-confirmed and 2 not a case
 - Proportion of suspected cases with sample collected 100% (6/6)
 - Proportion of suspected cases with sample tested 100% (6/6)

Outbreak

Grand Bassa: District #4

From March 8, 2021, to present, the county has recorded a total of 4 outbreaks including 10 confirmed cases and 4 deaths (CFR=40%) which generated 83 contacts including 46 HCWs. Three of these outbreaks were reported from District 3A&B with 9 confirmed cases including three deaths (CFR=30%) and generated 78 contacts (44 HCWs) while one reported from Buchanan District with a confirmed case (CFR 100%) and generated 5 contacts including 2 HCWs.

The most recent confirmed case involved an 18-year-old female from Koko David Town, District #3A&B with date of symptom onset January 6, 2022. The case was seen and admitted at LAC hospital on January 10, 2022, with symptoms of fever, weakness, poor appetite, sore throat, headache, swelling neck and bleeding. Based on the prevailing outbreak in the county, the case was immediately isolated and whole blood specimen collected and sent to the NRL January 10, 2022. On January 10, 2022, the case expired, shortly

after specimen was collected. A positive result was sent to the county on January 12, 2022. To date, the county has generated a total of six contacts (1HCW).

Bong County: Jorquelleh & Suakoko Districts

On January 9, 2022, the second confirmed case, a 9-years-old female from Suakoko Town in Suakoko District with date of symptom onset December 29, 2021. She presented at the Phebe hospital accompanied by her father complaining of headache and weakness. Her specimen was collected January 9, 2022, and sent on January 12, 2022, to the National Reference Laboratory. On January 12, 2022, the father of the 9-year-old took his daughter from the Phebe ER ward without doctor's approval. On January 13, 2022, a positive Lab results was sent to the county. The chief of medical staffs, nursing director, medical director including CHO were all informed about the situation and have appealed to the father to return his daughter to Phebe hospital but refuses. The father has also refused to disclose the daughter's location. According to unreliable source, the child was relocated to her mother who live in Margibi County. The Bong CHT have informed the Margibi CSO and provide some vital information regarding the child. A total of 8 contacts were generated of which 7 HCWs line listed.

Nimba County: Sanniquelleh-Mah District

One new confirmed case was reported from Sanniquelleh-Mah District with date of symptom onset on January 2, 2022. The confirmed case is a 18 years old female, resident of LPMC Community in Ganta City presented at the E & J Hospital with fever $>38^{\circ}\text{C}$, headache, nausea, vomiting and generalized weakness on January 11 2022. She was isolated immediately, and sample was collected and sent to the National Reference Laboratory on the 12th of January 2022 for testing. On the 12th of January 2022, the patient was placed on the ribavirin but expired on the 14th of the January 2022 at which a safe and dignified burial was done. A total of 21 contacts have been line listed no healthcare workers with fourteen (14) high risks being enlisted. On 17th January 2022, the Laboratory tested Positive of Lassa fever and result was shared with the county. All contacts are asymptomatic for now

A 18 years old female with date of symptom onset 16th January 2022 from Gbarpa community in Sanniquelleh-Mah. She sought care at the G. W. Harley hospital on 16th January 2022. She was suspected of Lassa fever immediately isolated, and sample collected January 17, 2022, and sent 18th January 2022 to the National Public Health Reference Laboratory January 2022. On the 20th of January 2022 the Lab released positive results. A total of 11 contacts including 4 HCWs were linelisted.

Public Health Actions

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

Yellow fever

- ☞ One suspected case was reported from Sinoe County
 - No specimen was collected
- ☞ Cumulatively, two (2) suspected cases have been reported

Diarrheal Diseases

Acute Bloody Diarrhea (Suspected Shigellosis)

- ☞ Fifteen (15) suspected cases were reported from Sinoe (6), Margibi (3), Grand Gedeh (2), Maryland (1), Bong (1), Rivercess (1), and Nimba (1) Counties
 - Three specimens were collected with two (2) tested negative and positive and one (1) pending laboratory testing
- ☞ Cumulatively, twenty-six (26) suspected shigellosis cases have been reported with five (5) specimens collected, one (1) laboratory confirmed, one (1) not a case, and three (3) pending laboratory testing

Severe Acute Watery Diarrhea (Suspected Cholera)

- ☞ Six (6) suspected cases were reported from Grand Gedeh (2), Lofa (1), Gbarpolu (1), Bong (1) and Maryland (1) Counties
 - Three specimens collected, two (2) tested negative and one (1) pending laboratory testing
- ☞ Cumulatively, ten (10) suspected cholera cases have been reported with three (3) specimens collected with two (2) not a case

Other Reportable Diseases

Human Exposure to Rabies (Suspected Human Rabies)

- ☞ Thirty-five (35) animal bite cases were reported from Montserrado (9), Grand Kru (4), Nimba (3), Sinoe (3), Maryland (3), Grand Bassa (3), Grand Gedeh (3), Margibi (2), Grand Cape Mount (2), Bomi (1), Bong (1), and River Gee (1) Counties
- ☞ 99% account for dog bites and 1% snake bite
- ☞ Cumulatively, seventy-seven (77) animal bite cases have been reported including one (1) death

Public Health Actions

- ☞ 1-4 doses of post exposure prophylaxis have been administered to about 16% (12/77) patients

Meningitis

- ☞ One suspected case was reported from Bomi County
 - Specimen was collected and tested negative
- ☞ Cumulatively, one case has been reported and classified as not a case

Events of Public Health Importance

Maternal Mortality

- ☞ Seven (7) deaths were reported from Bong (2), Gbarpolu (1), Margibi (1), Grand Gedeh (1), Montserrado (1) and Nimba (1) Counties
 - Causes of death: postpartum hemorrhage (2), antepartum hemorrhage (1), anemia (1), sepsis (1), eclampsia (1), and anesthesia complication (1)
- ☞ Four of the deaths occurred at the health facility (57%) and three in the community (43%)
- ☞ Cumulatively, thirteen (13) deaths have been reported with the Annualized Maternal Mortality Ratio of 170 deaths by 100,000 livebirths¹

Neonatal Mortality

- ☞ Fourteen (14) deaths were reported from Montserrado (7), Grand Bassa (2), Bong (1), Lofa (1), Grand Gedeh (1), Rivercess (1) and Nimba (1) Counties
- ☞ Causes of deaths: birth asphyxia (12) and sepsis (2)
- ☞ All of the death occurred at the health facility
- ☞ Cumulatively, twenty-seven (27) deaths have been reported

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

- ☞ Eight (8) cases were reported from Montserrado (3), Bomi (3), and River Gee (2) Counties
- ☞ Cumulatively, twenty-one (21) events have been reported related to COVID-19

Public Health Actions

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

¹ The estimated maternal mortality ratio for 2019-20 LDHS is 742 maternal deaths per 100,000 live births. 4.3% of the overall population

Cross Border Surveillance Update

- ✚ A total of 8,644 travelers recorded for the week with incoming travelers accounting for 68%
- ✚ Fifteen travelers were reactive for COVID-19

Table 2: Cross border activity at the PoE for Incoming and Outgoing Travelers, Liberia, Epi week 2, 2022

Type of Ports	Point of Entry	Weekly total	Arrival	Departure	Yellow Book Issued	Yellow Book Damage	Card Replaced	Travelers Vaccinated	Alerts Verified	COVID-19 Reactive
Airport	James S. Paynes	34	17	17	0	0	0	0	0	0
	Robert Int'l Airport	0	1462	2181	28	25	0	3	0	15
Seaport	Freeport of Monrovia	102	51	51	0	0	0	0	0	0
	Harper	0	0	0	0	0	0	0	0	0
	Buchanan Port	120	60	60	0	0	0	0	0	0
Land Crossing	Bo Water Side	114	17	97	5	0	0	5	0	0
	Ganta	516	205	311	15	15	0	0	0	0
	Yekepa	130	72	58	24	24	0	0	0	0
	Loguatu	209	111	98	15	15	0	0	0	0
	Yeala	1265	605	660	0	0	0	0	0	0
	Kpasagizia	654	280	374	0	0	0	0	0	0
	Safedu	663	471	192	0	0	0	0	0	0
	Konadu	776	382	394	0	0	0	0	0	0
	Bolinquidu	971	510	461	0	0	0	0	0	0
	Lawalazu	351	227	124	0	0	0	0	0	0
	Foya Tengia	930	530	400	0	0	0	0	0	0
	Sorlumba	915	460	455	0	0	0	0	0	0
	Mendicoma	664	314	350	0	0	0	0	0	0
	Worsonga	230	110	120	0	0	0	0	0	0
Total travelers		8,644	5,884	6,403	87	79	0	8	0	15

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
 - Conducting IDSR training in Montserrado County
- ✚ Operational
 - Provision of financial assistance to enhance operational activities

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 seven 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	8	5	8	5	6	5	6	4	6	7	6	6	6	10	92		
Vaccine Preventable Diseases	Acute Flaccid Paralysis (Suspected Polio)	A	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	A	2	1	0	0	0	4	0	0	0	3	0	4	0	0	2	16	27	6
		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	0	0	0	0	0	1	0
		D	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
	Yellow fever	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2
		D	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	2	2
Influenza-Like Illnesses	COVID-19	A	0	1	14	5	1	3	0	0	7	4	66	0	0	0	0	101	389	389
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Diarrheal Diseases	Acute Bloody Diarrhoea (Shigellosis)	A	0	1	0	0	0	2	0	0	3	1	0	1	1	0	6	15	26	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	0	1	1	0	0	2	0	1	0	1	0	0	0	0	0	6	10	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	2	1	0	0	1	0	0	1	0	1	1	0	0	0	7	7	
	Neonatal Mortality	D	0	1	0	2	0	1	0	1	0	0	7	1	1	0	0	14	14	
	Adverse Events Following Immunization (AEFI)	A	3	0	0	0	0	0	0	0	0	0	3	0	0	2	0	8	21	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 Rabies (Suspected Human Rabies)	A	1	1	0	3	2	3	4	0	2	3	9	3	0	1	3	35	77	0
		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Meningitis	A	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	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			7	10	16	11	3	16	4	2	13	12	86	11	2	3	12	208	585	401

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

Epidemiological bulletin published with support of WHO and CDC

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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.