Liberia IDSR Epidemiology Bulletin
2020 Epi-week 4 (January 20 – 26, 2020)

Figure 1: Public Health Events Reported during this week

<table>
<thead>
<tr>
<th>Event Type</th>
<th>Number of Reports</th>
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<tbody>
<tr>
<td>Human Exposure to Rabies</td>
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<tr>
<td>Lassa Fever</td>
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<tr>
<td>Measles</td>
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<tr>
<td>Acute Bloody Diarrhea</td>
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<tr>
<td>Neonatal Death</td>
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<td>Maternal Death</td>
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<tr>
<td>Yellow Fever</td>
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<td>Cholera</td>
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</table>

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi week 4, 2020

<table>
<thead>
<tr>
<th>County</th>
<th>Expected Report from Health Facility</th>
<th>Reports Received</th>
<th>Reports Received on Time</th>
<th>Completeness (%)</th>
<th>Timeliness (%)</th>
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Legend:
- The national target for weekly IDSR reporting is 80%
- Health facility timeliness is monitored at District level
- All fifteen counties submitted their weekly IDSR report to the national level on time

A total of 112 events of public health importance including 19 deaths were reported.

Completeness and timeliness of health facility reports were both 99%.

Ongoing Lassa fever outbreaks in six counties.

Ongoing Measles outbreak in one county.

837 (99%) Health facilities reported IDSR data.
93 (100%) Health districts reported IDSR data.
837 (99%) Health facilities reported timely IDSR.
### Vaccine Preventable Diseases

#### Measles

- **Fifteen (15)** suspected cases were reported from Lofa (4), Nimba (3), Rivercess (3), Grand Cape Mount (2), River Gee (2) and Grand Bassa (1) Counties
  - Twelve (12) specimens were collected, 7 negative and 5 pending

- **Vaccination status among suspected cases**
  - Vaccinated 13 (86.6%), and Unknown 2 (13%)

- **Age distribution among suspected cases:**
  - 1–4 years: 3 (20%), ≥5 years: 12 (80%)

- **Cumulatively, since epi week 1, fifty-eight (58)** suspected cases have been reported. Of the total, 35 have been tested by the National Reference Laboratory and results showed 4 positive, 29 negative and 2 equivocal

- **Epi classification is as follow:** 46.5% confirmed cases (lab confirmed 4, clinically confirmed 23, epi-linked 0), 37.9% (29) negative, and 3.5% (2) indeterminate
  - Of the sample tested negative for measles, 9 tested for rubella and results showed 8 positive and 1 equivocal

#### Public Health Action

- Case management, active case search, health education, and community engagement are ongoing in affected districts and communities

### Acute Flaccid Paralysis (Suspected Polio)

- Zero cases were reported
- Cumulatively, since epi week 1, five (5) suspected cases have been reported

### Neonatal Tetanus

- One (1) case was reported from Margibi County
- Cumulatively, since epi week 1, one (1) suspected case have been reported

### Viral Hemorrhagic Diseases

#### Ebola Virus Disease (EVD)

- Zero alert was reported

#### Lassa fever

- Twenty-three (22) suspected cases were reported from Grand Bassa (9), Bong (8 including 1 death), Montserrado (3) and Nimba (2) Counties
  - Twenty-three (23) specimens were collected and tested and results showed 9 positive and 13 negative

- **Cumulatively, since epi week 1, forty-seven (47)** suspected cases have been reported
  - Proportion of suspected cases with sample collected 100% (n=22)
  - Proportion of suspected cases with specimen tested 100% (n=22)
  - Laboratory confirmed: 22
  - Case fatality rate in confirmed cases: 18.2%
  - Epi classification is as follows: 22 lab confirmed and 25 not a case
Yellow fever

- Two (2) suspected cases reported from Grand Cape Mount County
- Specimens were collected for all and tested negative
- Cumulatively, since epi week 1, eight (8) suspected cases have been reported

Monkeypox

- One suspected case was reported from Nimba County
- Cumulatively, since epi week 1, two (2) suspected case have been reported

Meningitis

- Five (5) suspected cases reported from Grand Gedeh (2), Maryland (2) and Montserrado (1) Counties
  - Three (3) specimens were collected; 1 tested positive and 2 negative
- Cumulatively, since epi week 1, nine (9) suspected cases have been reported including two (2) confirmed

Events of Public Health Importance

Maternal Mortality

- Five (5) deaths were reported from Montserrado (3), Nimba (1) and Grand Kru (1) Counties
- Causes of deaths: sepsis, postpartum hemorrhage, septic abortion, eclampsia and asthmatic attack
- Reporting site: health facilities 3 (60%); Community 2(40%)
- Cumulatively, since epi week 1, eighteen (18) deaths have been recorded

Neonatal Mortality

- Thirteen (13) deaths were reported from Montserrado (8), Maryland (2), Nimba (2), and Bong (1) Counties
- Causes of deaths: asphyxia (9), and sepsis (3) and 1 pending investigation
- Reporting sites: health facilities 11 (84.6%) and community 2 (15.3%)
- Cumulatively, since epi week 1, forty-two (42) deaths have been recorded

Other Reportable Diseases

Animal Bites (Human Exposure to Rabies)

- Thirty-two (32) suspected cases reported from Montserrado (15), Nimba (4), Lofa (3), Grand Kru (2), Margibi (2), Rivercess (2), Sinoe (1), Bong (1), River Gee (1) and Grand Bassa (1) Counties
- Cumulatively, since Epi week one, 113 suspected cases have been recorded

Acute Bloody Diarrhea (Suspected Shigellosis)

- Fourteen (14) suspected cases reported from Grand Gedeh (3), Grand Bassa (2), Montserrado (2), Grand Cape Mount (2), Rivercess (2) Gbarpolu (1), Maryland (1) and Sinoe (1) Counties
- Seven (7) specimens were collected; 2 tested negative and 5 pending laboratory confirmation
- Cumulatively, since epi week 1, thirty (30) cases have been recorded and one tested positive
Severe Acute Watery Diarrhea (Suspected Cholera)

- Two (2) suspected cases reported from Nimba County
  - Two (2) specimens were collected and pending laboratory confirmation
- Cumulatively, since epidemiological week 1, eight (8) cases have been reported

Points of Entry

- Zero IDS alert detected and verified across the points of entry
- A total of 4509 travelers were recorded for the week (See Table 2)

Table 2: Total Travelers, IDS Alerts Detected and Verified at Points of Entry, Liberia, Epi-week 4, 2020

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<thead>
<tr>
<th>Type of Ports</th>
<th>Point of Entry</th>
<th>Weekly total</th>
<th>Arrival</th>
<th>Departure</th>
<th>Yellow Book Issued</th>
<th>Yellow Book Damage</th>
<th>Card Replaced</th>
<th>Travelers Vaccinated</th>
<th>Alerts Verified</th>
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<td>Total Traveler for the Week</td>
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<td>7</td>
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</tr>
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</table>

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

AFRO Public Health Events

The National Public Health Institute of Liberia continues to monitor acute public health emergencies and outbreaks occurring in the African Region in order to ensure preparedness and preventive measures are implemented.

During this week, 70 ongoing events are being monitored through WHO Health Emergencies Program in the African Region. Key events highlighted during the week include the following:

- Lassa fever in Nigeria
- Lassa fever in Sierra Leone
- Ebola virus disease in Democratic Republic of the Congo
- Humanitarian crisis in South Sudan
- Humanitarian crisis in Burkina Faso

Source: WHO Week 4 Bulletin on Outbreaks and Other Emergencies
Outbreaks

Lassa fever

District 3A & B, Grand Bassa County

- No new confirmed case reported
  - A total of 45 contacts line listed and follow up
  - Three cases discharged from isolation
  - Four confirmed cases currently in isolation
- From January 1, 2020 to date, 11 confirmed cases have been recorded
  - 9 alive
  - 2 confirmed deaths (CFR 18.1%)
- Since the declaration of the outbreak in August 2019, twenty-three (23) confirmed cases including 3 deaths have been reported

Jorquelleh District, Bong County

- Two new confirmed cases reported January 28, 2020
  - A total of 86 contacts line listed under follow-up
  - Four confirmed cases in isolation
- From January 1, 2020 to date, 9 confirmed cases have been recorded
  - 3 alive
  - 6 confirmed deaths (CFR 66.6%)
- Since declaration of the outbreak in August 2019, 15 confirmed cases including 7 deaths have been reported

Commonwealth District, Montserrado County

- One new confirmed case reported January 26, 2020
- Seventeen contacts line listed for this new case
- Total contacts under follow up 66

- From January 1, 2020 to date, one confirmed case has been recorded
- Since the declaration of the outbreak in November 2019, three (3) confirmed cases have been reported
  - CFR 66.6%
- No new confirmed case reported
- Six contacts completed follow up on January 28, 2020
  - 3 high risk, 2 low risk and 1 no risk
- From January 1, 2020 to date, one confirmed case recorded, and case was discharged from ELWA hospital

Voinjama District, Lofa

- No new confirmed case reported
- Fourteen (14) contacts completed follow up on January 28, 2020
  - 8 high risk (4 HWs & 4 Family members)
  - 6 low risk
- Since the declaration of the outbreak in December 2019, two (2) confirmed cases reported

Measles

Tienpo District, River Gee County

- No new case reported
- A total of 47 cases including 7 lab confirmed recorded
- Tienpo District 2019 Measles coverage is 67%
- Gmamoken health facility 2019 Measles coverage 63%

Public health action

- Plan to conduct a mini campaign in affected and surrounding, target seven hundred (700) children ages 9-23 month

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
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%). 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: ≥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

- **Case Fatality Rate (CFR)** is the proportion of deaths among confirmed cases
Appendix 1: Summary of immediately reportable diseases, conditions, and events by County during Epi week 4 report, Liberia, 2020

<table>
<thead>
<tr>
<th>Counties</th>
<th>No. of Health District</th>
<th>Acute Flaccid Paralysis (Suspected Polio)</th>
<th>Acute Bloody Diarrhoea (Shigellosis)</th>
<th>Severe Acute Watery Diarrhoea (Cholera)</th>
<th>Human Exposure to Animal bites (Suspected Rabies)</th>
<th>Lassa fever</th>
<th>Measles</th>
<th>Meningitis</th>
<th>Maternal Mortality</th>
<th>Neonatal Mortality</th>
<th>Neonatal Tetanus</th>
<th>Ebola Virus Disease</th>
<th>Yellow fever</th>
<th>Monkeypox</th>
<th>Dengue fever</th>
<th>Buruli Ulcer</th>
<th>MDR Tuberculosis</th>
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D = Dead
A = Alive
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.