Liberia IDSR Epidemiology Bulletin 2020 Epi-week 7 (February 10 – 16, 2020)

Country Population: 4,999,425  Volume 12 Issue 7  February 10 – 16, 2020  Data Source: CSOs from 15 Counties and Lab

Highlights

Figure 1: Public Health Events Reported during this week

<table>
<thead>
<tr>
<th>Event</th>
<th>Reports Received</th>
<th>Samples Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Human Exposure to Rabies</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Neonatal Death</td>
<td>16</td>
<td></td>
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<tr>
<td>Maternal Death</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Acute Bloody Diarrhea</td>
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<td></td>
</tr>
<tr>
<td>Yellow Fever</td>
<td>3</td>
<td></td>
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<tr>
<td>Lassa Fever</td>
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<td></td>
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<tr>
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<tr>
<td>Monkey pox</td>
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<td>Cholera</td>
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<tr>
<td>Unexplained death</td>
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<tr>
<td>Neonatal Tetanus</td>
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</table>

Keynotes and Events of Public Health Significance

♦ A total of 106 events of public health importance including 22 deaths were reported

♦ Completeness and timeliness of health facility reports were both 97%

♦ Ongoing Lassa fever outbreaks in five counties

♦ Ongoing Measles outbreak in two counties

Reporting Coverage

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi week 7, 2020

<table>
<thead>
<tr>
<th>County</th>
<th>Expected Report from Health Facility</th>
<th>Reports Received</th>
<th>Received on Time</th>
<th>Completeness (%)</th>
<th>Timeliness (%)</th>
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</thead>
<tbody>
<tr>
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<td>26</td>
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<td>Sinoe</td>
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<td>Liberia</td>
<td>846</td>
<td>822</td>
<td>822</td>
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</table>

Legend:
- ≥80
- <80
- The national target for weekly IDSR reporting is 80%
- Health facility timeliness is monitored at District level
- Fourteen of the fifteen counties submitted their weekly IDSR report to the national level on time while Maryland reported late
Vaccine Preventable Diseases

Measles

☞ Thirty-five (38) suspected cases were reported from Grand Kru (9), Sinoe (9), Gbarpolu (6), Lofa (5), Grand Gedeh (5), River Gee (1), Montserrado (1), Bong (1), and Rivercess (1) counties
  o Thirteen (13) specimens were collected, 8 tested; 6 positive, 2 negative, and 5 pending
  o Vaccination status among suspected cases:
    - Vaccinated 30 (79%), unknown 7 (18%) and not vaccinated 1 (3%)
  o Age distribution among suspected cases:
    - 1–4 years: 10 (26.3%), ≥5 years: 28 (73.6%)
  o Cumulatively, since epi week 1, one hundred sixty-nine (169) suspected cases have been reported. Of the total, 96 have been tested by the National Reference Laboratory and results showed 35 positive, 58 negative and 3 equivocal.
  o Epi classification is as follow: 108 (64%) confirmed cases (lab confirmed 35, clinically confirmed 53, epi-linked 20), 58 (34%) negative, and 3 (2%) indeterminate
    - Of the samples tested negative for measles, 34 tested for rubella and results showed 19 positive, 14 negative and 1 equivocal

Public Health Action

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

Figure 2: Confirmed Measles Cases Reported by Health Districts, Liberia, Epi-week 1 - 7, 2020

Figure 3: Cumulative Epi-classification of Measles cases by reporting week, Liberia, Epi-week 1 – 5, 2020

Acute Flaccid Paralysis (Suspected Polio)

☞ Zero case was reported
  ☞ Cumulatively, since epi week 1, four (4) suspected cases have been reported
Neonatal Tetanus

☞ One case (dead) was reported from Grand Gedeh County
☞ Cumulatively, since epi week 1, four (4) clinically diagnosed cases have been reported

Viral Hemorrhagic Diseases

Ebola Virus Disease (EVD)

☞ Zero alert were reported

Lassa fever

☞ Three (3) suspected cases were reported from Bong (1), Gbarpolu (1) and Nimba (1) Counties
  o Specimens were collected for all and 2 tested; 1 positive 1 negative and 1 pending
☞ Cumulatively, since epi week 1, seventy-three (73) suspected cases have been reported
  o Proportion of suspected cases with sample collected 100% (n=73)
  o Proportion of suspected cases with specimen tested 98.6% (n=72)
  o Laboratory confirmed: 42% (n=30)
  o Case fatality rate in confirmed cases: 46.7% (n=14/30)
  o Epi classification is as follows: 30 lab confirmed, 42 not a case, 1 pending

Yellow fever

☞ Three (3) suspected cases reported from Grand Kru (2), and River Gee Counties
  o Three (3) specimens were collected, 1 tested negative, 1 pending results, and 1 specimen was inadequate for transport
☞ Cumulatively, since epi week 1, twenty (20) suspected cases have been reported of which 15 negative and 4 pending

Monkeypox

☞ One suspected case was reported from Grand Gedeh
☞ Cumulatively, since epi week 1, four (4) suspected cases have been reported

Meningitis

☞ One suspected case (dead) was reported from Grand Kru County
  o Specimen was collected and tested negative
☞ Cumulatively, since epi week 1, fourteen (14) suspected cases have been reported with 3 confirmed (2 streptococcal and 1 meningococcal)
Events of Public Health Importance

Maternal Mortality

Six (6) deaths were reported from Montserrado (3), Grand Cape Mount (1), Grand Gedeh (1) and Lofa (1) Counties

Causes of deaths: Sepsis (2), Eclampsia (2), Unsafe Abortion (1), and Post-partum hemorrhage (1)

Reporting site: health facilities 5 (83.3%) and Community 1 (16.6%)

Cumulatively, since epi week 1, Thirty-three (33) deaths have been recorded

Neonatal Mortality

Sixteen (16) deaths were reported from Montserrado (12), Margibi (2), Grand Gedeh (1), and River Gee (1) Counties

Causes of deaths: Birth asphyxia (14), and Neonatal sepsis (2)

Reporting sites: health facilities 16 (100%)

Cumulatively, since epi week 1, eighty-two (82) deaths have been recorded

Other Reportable Diseases

Animal Bites (Human Exposure to Rabies)

Thirty-two (32) suspected cases reported from Montserrado (13), River Gee (5), Margibi (4), Nimba (2), Maryland (2), Lofa (2), Rivercess (1), Sinoe (1), Grand Kru (1), and Grand Gedeh (1) Counties

Cumulatively, since Epi week one, 241 suspected cases have been recorded

Acute Bloody Diarrhea (Suspected Shigellosis)

Three (3) suspected cases reported from Montserrado (1), Nimba (1), and Lofa (1) Counties

  - One specimen was collected and pending testing

Cumulatively, since epi week 1, fifty-five (55) cases have been recorded, one tested positive and 17 negative

Severe Acute Watery Diarrhea (Suspected Cholera)

One suspected case reported from Bong

Cumulatively, since epi week 1, ten (10) cases have been reported

Unexplained death

One unexplained death reported from Lofa

Specimen collected for VHF and tested negative

Safe and dignified burial conducted

Points of Entry

Zero IDSR alert detected and verified across the points of entry

A total of 4,391 travelers were recorded for the week (See Table 2)
Table 2: Total Travelers, IDSR Alerts Detected and Verified at Points of Entry, Liberia, Epi-week 7, 2020

<table>
<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>
</tr>
</thead>
<tbody>
<tr>
<td>Airport</td>
<td>James S. Paynes Robert International Airport Freeport of Monrovia Buchanan Port Bo Water Side</td>
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<td>53</td>
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<tr>
<td>Total Traveler for the Week</td>
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<td>2,368</td>
<td>68</td>
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</tr>
</tbody>
</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, 69 ongoing events are being monitored through WHO Health Emergencies Program in the African Region. Key events highlighted during the week include the following:

- Measles in Central African Republic
- Measles in Chad
- Cholera in Democratic Republic of the Congo
- Ebola virus disease in Democratic Republic of the Congo

Source: WHO Week 7 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, 25 completed and 20 under follow up
- No case 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-two (22) confirmed cases including 3 deaths have been reported

Suakoko District, Bong County
- One new confirmed case reported on February 18, 2020
  - A total of 226 contacts line listed, 164 completed and 62 under follow-up
- From January 1, 2020 to date, 15 confirmed cases have been recorded
  - 7 alive
  - 8 confirmed deaths (CFR 53.3%)
- Since declaration of the outbreak in August 2019, twenty-four (24) confirmed cases including 10 deaths have been reported

Commonwealth District, Montserrado County
- No new confirmed case reported as of February 21, 2020
- Total contacts under follow up 101
  - From January 1, 2020 to date, two confirmed cases have been recorded
  - CFR 50%
- Since the declaration of the outbreak in November 2019, four (4) confirmed cases have been reported

Voinjama District, Lofa County
- No new confirmed case reported as of February 14, 2020
- 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

Jadæe District, Sinoe County
- Nine (9) new cases reported
- A total of seventeen (17) suspected cases have been recorded from Jadæe district
  - 95% (16) of the cases vaccinated
- Age range is 5 months to 31 years
- All reported cases were treated
- Routine and SIA immunization coverages for 2019 are 75% and 65.4% respectively

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

Bokomu District, Gbarpolu County
- Six (6) new cases reported
- A total of eleven (11) suspected cases including 3 labs confirmed were reported
- Routine and SIA immunization coverage for 2018 and 2019 are 90% and 64% respectively

Public health action
- All cases were treated and discharged
- Plan to conduct a mini campaign targeting 3,032 children ages 6-59 months in affected and surrounding communities
## 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 case

## 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 7 report, Liberia, 2020

<table>
<thead>
<tr>
<th>Counties</th>
<th>No. of Expected Health District</th>
<th>No. of Health District Reported</th>
<th>Acute Paralytic Polio</th>
<th>Acute Diarrhea (Shigellosis)</th>
<th>Acute Diarrhea (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>
<th>Yaws</th>
<th>Unexplained Cluster of Deaths</th>
<th>Unexplained Cluster of Health Events/Disease</th>
<th>Other Diseases/Events</th>
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D = Dead  
A = Alive
For comments or questions, please contact

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J. S. Sesay

**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.