Highlights

Figure 1: Public Health Events Reported during this week

- **Human Exposure to Rabies**: 36
- **Measles**: 19
- **Neonatal Death**: 11
- **Lassa Fever**: 9
- **Maternal Death**: 7
- **Acute Bloody Diarrhea**: 6
- **Yellow Fever**: 3
- **Meningitis**: 2
- **Cholera**: 2

Keynotes and Events of Public Health Significance

- A total of 94 events of public health importance including 20 deaths were reported.
- Completeness and timeliness of health facility reports were both 98% and 96%.
- Ongoing Lassa fever outbreaks in five counties.
- Ongoing Measles outbreak in one county.

Reporting Coverage

Table 1: Health Facility Weekly DSR Reporting Coverage, Liberia, Epi week 3, 2020

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Expected Report from Health Facility</th>
<th>Number of Reports Received</th>
<th>Number of Reports Received on Time</th>
<th>Completeness (%)</th>
<th>Timeliness (%)</th>
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Legend:

- ≥80
- <80

- 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.
Vaccine Preventable Diseases

Measles
☞ Nineteen (19) suspected cases were reported from Bomi (6), Rivercess (3), Nimba (2), Grand Kru (2), Sinoe (2), Grand Gedeh (1), Lofa (1), River Gee (1) and Bong (1) Counties
   o Fifteen (15) specimens were collected, 2 tested positive, 2 negative and 2 equivocal
☞ Vaccination status among suspected cases
   o Vaccinated 17 (89%), not vaccinated 1 (5%) and Unknown 1 (9%)
☞ Age distribution among suspected cases:
   o <1 year: 1 (5%), 1–4 years: 4 (21%), ≥5 years: 14 (79%)
☞ Cumulatively, since epi week 1, forty-three (43) suspected cases have been reported. Of the total, 21 have been tested by the National Reference Laboratory and results showed 4 positive, 15 negative and 2 equivocal
☞ Epi classification is as follow: 60% confirmed cases (lab confirmed 4, clinically confirmed 22, epi-linked 0), 34.9% (15) negative, and 4.7% (2) indeterminate
   o 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
☞ Zero cases were reported

Viral Hemorrhagic Diseases

Ebola Virus Disease (EVD)
☞ Zero alert reported

Lassa fever
☞ Nine (9) suspected cases were reported from Bong (5 including 1 death), Grand Bassa (1), Margibi (1), Montserrado (1) and Nimba (1) Counties
   o Nine(9) specimens were collected and tested and results showed 5 positive and 4 negative
☞ Cumulatively, since epi week 1, twenty-six (26) suspected cases have been reported
   o Proportion of suspected cases with sample collected 100% (n=25)
   o Proportion of suspected cases with specimen tested 100% (n=25)
   o Laboratory confirmed: 13
   o Case fatality rate in confirmed cases: 33.3%
   o Epi classification is as follows: 13 lab confirmed and 12 not a case
### Yellow fever
- Three (3) suspected cases reported from Grand Cape Mount, Rivercess and Gbarpolu Counties
- Specimens were collected for all and tested negative
- Cumulatively, since epi week 1, five (5) suspected cases have been reported

### Monkeypox
- Zero cases were reported
- Cumulatively, since epi week 1, one (1) suspected case have been reported

### Meningitis
- Two (2) suspected cases reported from Nimba and Bomi Counties
  - Specimen was collected and all tested negative
- Cumulatively, since epi week 1, four (4) suspected cases have been reported including one (1) confirmed

### Events of Public Health Importance
#### Maternal Mortality
- Seven (7) deaths were reported from Montserrado (3), Grand Bassa (1), Maryland (1), Nimba (1) and Gbarpolu (1) Counties
- Causes of deaths: eclampsia, ruptured ectopic pregnancy, obstructed labour, postpartum hemorrhage, anemia (2) and abortion
- Reporting site: health facilities 5 (71.4%); Community 2 (28.6%)
- Cumulatively, since epi week 1, thirteen (13) deaths have been recorded

#### Neonatal Mortality
- Eleven (11) deaths were reported from Montserrado (7), Margibi (1), Sinoe (1), Rivercess (1) and Maryland (1) Counties
- Causes of deaths: sepsis (5), asphyxia (5), and preterm (1)
- Reporting sites: health facilities 10 (90.9%) and community 1 (9.1%)
- Cumulatively, since epi week 1, twenty-nine (29) deaths have been recorded

### Other Reportable Diseases
#### Animal Bites (Human Exposure to Rabies)
- Thirty-five (35) suspected cases reported from Nimba (8), Montserrado (7), Bong (6), Grand Bassa (4), Gbarpolu (3), Grand Cape Mount (2), Rivercess (2), Grand Kru (1), Margibi (1), Bomi (1), and Maryland (1) Counties
- Cumulatively, since Epi week 1, eighty-one (81) suspected cases have been recorded

#### Acute Bloody Diarrhea (Suspected Shigellosis)
- Six (6) suspected cases reported from Grand Gedeh (2), Sinoe (1), Bomi (1), Lofa (1), and Gbarpolu (1) Counties
- Three (3) specimens were collected and pending testing
- Cumulatively, since epi week 1, fifteen (15) cases have been recorded and one tested positive
Severe Acute Watery Diarrhea (Suspected Cholera)

Two (2) suspected case reported from Lofa and Grand Gedeh Counties
  - Two (2) specimens were collected: 1 tested negative and 1 pending
  - Cumulatively, since epi week 1, six (6) cases have been reported

Points of Entry

- Zero IDSR alert detected and verified across the points of entry
- A total of 5241 travelers were recorded for the week (*See Table 5* )

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<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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</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, 68 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 Chad
- Ebola virus disease in Democratic Republic of the Congo
- Humanitarian crisis in Democratic Republic of the Congo
- Humanitarian crisis in Mali

*Source: WHO Week 3 Bulletin on Outbreaks and Other Emergencies*
## Outbreaks

### Lassa fever

**District 3A & B, Grand Bassa County**
- One new confirmed case reported
  - A total of 140 contacts line listed and follow up
  - Three cases discharged from isolation
  - Three confirmed cases currently in isolation
- From January 1, 2020 to date, 7 confirmed cases have been recorded
  - 6 alive
  - 1 confirmed death (CFR 14.2%)
- Since the declaration of the outbreak in August 2019, twenty-one (21) confirmed cases including 2 deaths have been reported

**Jorquelleh District, Bong County**
- Three new cases reported to date
  - A total of 205 contacts line listed under follow-up
  - Three confirmed cases in isolation
- From January 1, 2020 to date, 7 confirmed cases have been recorded
  - 3 alive
  - 4 confirmed deaths (CFR 57.1%)
- Since declaration of the outbreak in August 2019, 15 confirmed cases including 7 deaths have been reported

**Commonwealth District, Montserrado County**
- No new confirmed case reported up to date
- Fourteen (14) contacts still under follow up
  - 8 high risk (4 HWs & 4 Family members)
  - 6 low risk

**Kakata District, Margibi County**
- No new confirmed case reported
- Six contacts still under follow up (3 high risk, 2 low risk and 1 no risk)
- From January 1, 2020 to date, one confirmed case recorded, and case discharged from ELWA hospital

**Voinjama District, Lofa**
- No new confirmed case reported
- Fourteen (14) contacts still under follow up
  - 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**

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## 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
### Liberia IDSR Epidemiology Bulletin

#### 2020 Epi-week 3 (January 13 – 19, 2020)

#### Appendix 1: Summary of immediately reportable diseases, conditions, and events by County during Epi week 3 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 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>
<th>Unexplained Cluster of Deaths</th>
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**D** = Dead

**A** = Alive

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For comments or questions, please contact

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National Public Health Institute of Liberia (NPHIL)

MISSION
To prevent and control public health threats by promoting healthy outcomes and serving as a source of knowledge

VISION
A center of excellence to create health outcomes for Liberians through a strong preventive health system and expertise

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.