

# Republic of Sierra Leone



## INTEGRATED DISEASE SURVEILLANCE AND RESPONSE (IDSR)

**Vol. 10 Issue 17** 

#### WEEKLY EPIDEMIOLOGICAL BULLETIN

Week 17: 24th April- 30th Apr, 2017

#### Highlights of the week

- All the 14 districts submitted timely reports to the national level this
  week using the eIDSR platform. The average district reporting timeliness for weeks 1 to 17 of 2017 is 98%.
- Countrywide, 97% of health facilities (HFs) submitted weekly IDSR reports to the district level this week.
- Ninety one percent (91%) of the trained Community Health Workers (CHWs) in the 9 Community Based Surveillance (CBS) implementing districts reported in the week. The reports included Acute watery diarrhea (47), suspected Measles (11), and Acute Flaccid Paralysis (2).
- Tonkolili district reported one suspected Cholera case from Lion Heart Hospital. A cholera Rapid Diagnostic Test (RDT) was negative and a sample was sent to the Central Public Health Reference Laboratory (CPHRL) for further laboratory testing
- One (1) case of suspected Yellow Fever was reported from Western Area Rural district. The case was investigated by the District Rapid Response Team (DRRT) and a blood sample submitted to CPHRL for confirmatory testing.
- Suspected Measles cases reduced to 41 from 92 cases in week 16. Majority of the cases were from Western Area Urban (23) and Kambia (9) districts. Seven (7) districts did not report any case in the week. Out of the 525 samples tested for Measles so far this year, 15 (3%) were positive for Measles while 408 (78%) tested positive for Rubella.
- Eleven (11) maternal deaths were reported this week from Western Area Urban (2), Kono (2), Kenema (2), Bo (1), Kailahun (1), Kambia (1),

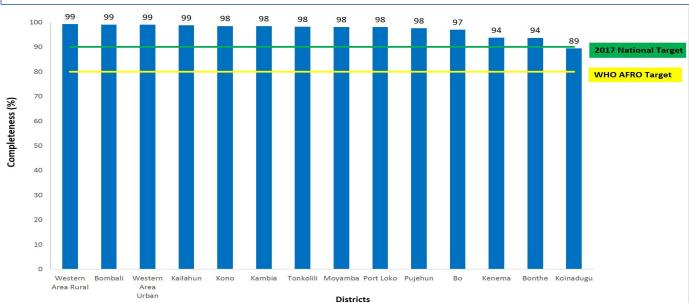
- Moyamba (1) and Tonkolili (1) districts
- Clinical Malaria cases totaling 57,431 were reported in the week. Of these, 56,832 (99%) were tested, out of which 31,482 were confirmed positive, giving a positivity rate of 55%. A total of 45 deaths from confirmed Malaria cases were reported in the week.
- Reported Dysentery (bloody diarrhea) cases reduced to 52 in week 17 from 72 cases in week 16. Districts that reported the highest number of cases in the week were Pujehun (13), Kenema (9) and Koinadugu (7).
- A total of 34 animal bites cases were reported in week 17, an increase by 2 compared to week 16. Moyamba (6), Western Area Urban (6), Western Area Rural (5), Pujehun (5) and Kono (5) districts reported the highest number of cases in the week.
- A total of 587 cases of Severe malnutrition with 2 deaths were reported during the week. Port Loko (113), Moyamba (76), Bo (61), Kenema (53) and Western Area Urban (52) districts reported the highest number of cases in the week

# Suspected Cholera case in Tonkolili District tested negative

On 24th April 2017, a female aged 50 years was admitted at Lion Heart Hospital in Gbonkolenken chiefdom with acute watery diarrhoea and dehydration. She had attended a funeral ceremony in the same chiefdom the previous day. A stool sample was taken and tested negative for cholera by RDT and Culture (at CPHRL). The case improved and was discharged after 2 days of admission

| Intra-District Reporting Rate for Week 17 |                 |  |  |  |  |  |  |  |
|---|-----------------|--|--|--|--|--|--|--|
| Bombali (100%)                            | Bo (99%)        |  |  |  |  |  |  |  |
| Bonthe (100%)                             | Kono (99%)      |  |  |  |  |  |  |  |
| Kambia (100%)                             | Port Loko (98%) |  |  |  |  |  |  |  |
| Moyamba (100%)                            | Kailahun (97%)  |  |  |  |  |  |  |  |
| Tonkolili (100%)                          | Pujehun (92%)   |  |  |  |  |  |  |  |
| Western Area Rural (100%)                 | Kenema (90%)    |  |  |  |  |  |  |  |
| Western Area Urban (100%)                 | Koinadugu (81%) |  |  |  |  |  |  |  |

#### Figure 1: Average Intra-District Health Facility Reporting Rate For Weeks 1 to 17, 2017

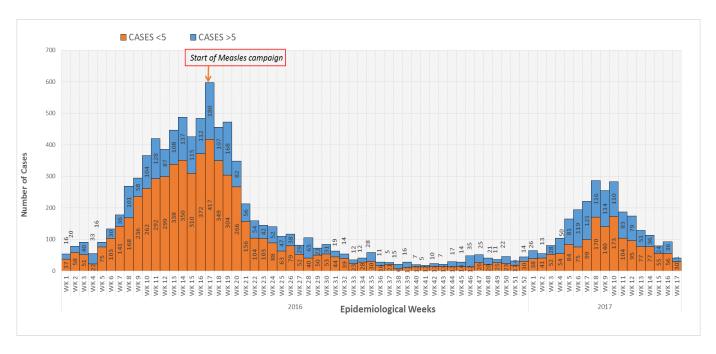


In the period of week 1 to week 17 of 2017, all districts, except Koinadugu, achieved the average national intra-district health facility reporting rate target of ≥90%\*. Cumulatively, 97% of the expected health facility reports have been submitted to the district level since the beginning of the year

<sup>\*</sup>The country revised the IDSR reporting rate (completeness) target from ≥80% to ≥90% tested week 7 of 2017

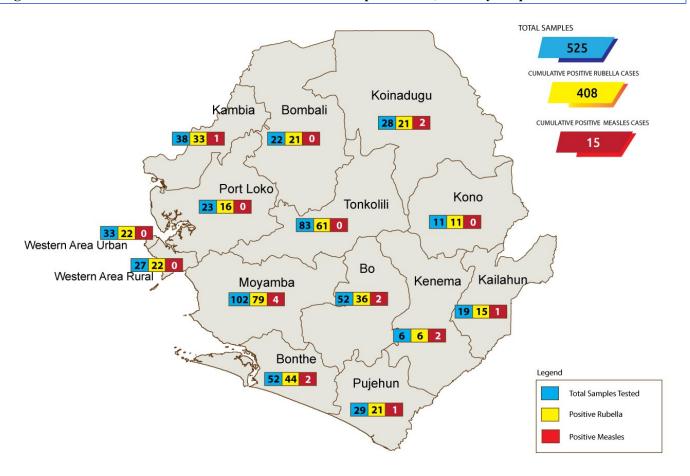
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Figure 2: Trend of Suspected Measles Cases Reported from Week 1, 2016 to Week 17, 2017



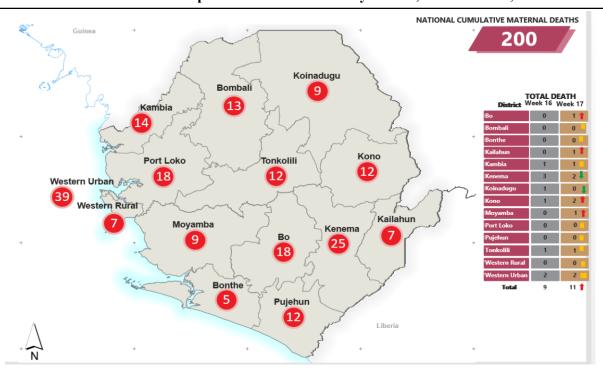
The number of reported suspected Measles cases reduced to 41 in week 17 of 2017 from 92 cases in the previous week. Of the cases reported in the current week, 73% (30/41) were in children under five years of age. Western Area Urban (23) and Kambia (9) districts reported the highest number of suspected Measles cases in all ages this week.

Figure 3: Cumulative Measles - Rubella Samples Tested, January – April 2017



Three percent (15/525) of the samples tested for Measles at the CPHRL since the beginning of the year were positive, while 408 (78%) samples tested positive for Rubella. The results suggest that the upsurge in suspected Measles cases observed in the previous four months was due to Rubella virus circulation

#### Figure 4: Cumulative Reported Maternal Deaths by district, Weeks 1 to 17, 2017



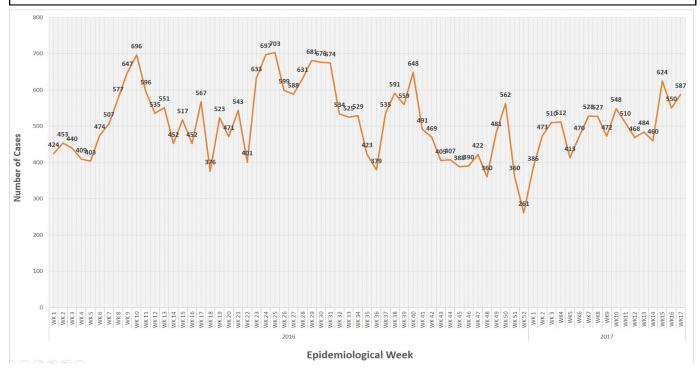
Eleven (11) maternal deaths were reported in the week, increasing the national reported maternal deaths since the beginning of the year to 200. Western Area Urban district (39) has reported the highest number in the year so far followed by Kenema (25), Port Loko (18) and Bo (18) districts. DHMTs are supported to ensure all reported maternal deaths are reviewed and linelisted accordingly.

Table 1: Summary report of Priority Diseases, Conditions and Events Reported Through CBS, Week 17, 2017

| District                       | Bombali | Bonthe | Kailahun | Kambia | Koinadugu | Kono | Moyamba | Port Loko | Pujehun | Total |
|--------------------------------|---------|--------|----------|--------|-----------|------|---------|-----------|---------|-------|
| CHWs Expected to Report        | 839     | 809    | 890      | 1,105  | 829       | 974  | 1,000   | 921       | 1,000   | 8,367 |
| CHWs Reported this week        | 711     | 778    | 867      | 1,006  | 659       | 874  | 947     | 884       | 884     | 7,610 |
| Completeness of CHWs Reporting | 85%     | 96%    | 97%      | 91%    | 79%       | 90%  | 95%     | 96%       | 88%     | 91%   |
| Total Alerts Reported          | 14      | 0      | 2        | 11     | 16        | 0    | 0       | 0         | 17      | 60    |
| Total Alerts Verified          | 14      | 0      | 2        | 11     | 16        | 0    | 0       | 0         | 17      | 60    |
| Total Alerts Investigated      | 13      | 0      | 2        | 11     | 16        | 0    | 0       | 0         | 17      | 59    |
| AFP                            | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 2       | 2     |
| AWD                            | 12      | 0      | 2        | 2      | 16        | 0    | 0       | 0         | 15      | 47    |
| Cluster of Deaths              | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 0       | 0     |
| Guinea Worm                    | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 0       | 0     |
| Maternal Death                 | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 0       | 0     |
| Measles                        | 2       | 0      | 0        | 9      | 0         | 0    | 0       | 0         | 0       | 11    |
| Neonatal Death                 | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 0       | 0     |
| Neonatal Tetanus               | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 0       | 0     |
| Suspected Ebola                | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 0       | 0     |
| Yellow Fever                   | 0       | 0      | 0        | 0      | 0         | 0    | 0       | 0         | 0       | 0     |

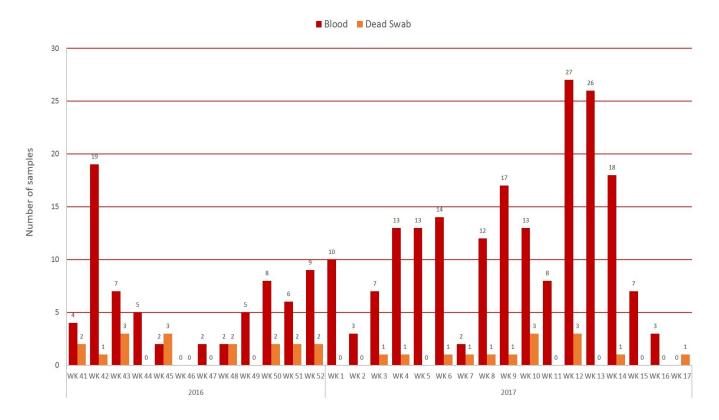
Community Based Surveillance (CBS) reports were received from 91% of the Community Health Workers (CHWs) in the 9 trained districts that are currently implementing CBS. The reports for the week included alerts of Acute watery diarrhea (47), suspected Measles (11) and Acute Flaccid Paralysis (AFP) (2). Alerts reported through CBS are verified by health workers and included in the IDSR report of the verifying health facility if they meet the standard case definition. DHMTs are urged to ensure CBS reports are sent to national level in a timely and complete manner.

Figure 5: Trend of Reported Severe Malnutrition Cases in Children Under Five, Week 1, 2016 to Week 17, 2017



Reported cases of severe malnutrition in children under five increased to 587 in week 17 from 560 in week 16. Port Loko (113) reported the highest number of cases in the week, followed by Moyamba (76), Bo (61), Kenema (53) and Western Area Urban (52) districts. DHMTs are urged to sensitize health facility staff and facilitate community interventions that will contribute to prevention, detection, reporting and management of severe acute malnutrition cases in children under five years of age





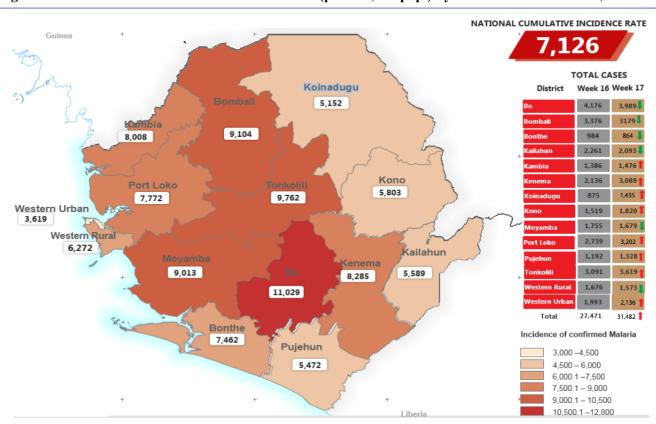
The number of samples tested for EVD decreased to 1 this week from 3 samples tested in week 16. The sample was from a live alert and tested negative for EVD. DHMTs are urged to maintain vigilance in detecting, reporting and investigating suspected EVD cases and deaths both at community and health facility levels

Figure 7: Cumulative Reported Animal Bite Cases by district, Weeks 1 to 17, 2017



In week 17, a total of 34 animal bites cases were reported from 9 districts. Moyamba (6), Western Area Urban (6), Western Area Rural (5), Kono (5), and Pujehun (5) districts reported the highest number of cases. Since the beginning of the year, a total of 589 animal bites cases have been reported nationwide, with 2 deaths from Kono (1) and Kenema (1) districts. The national incidence rate of animal bites cases in the 17 weeks of 2017 is 8 cases per 100,000 population

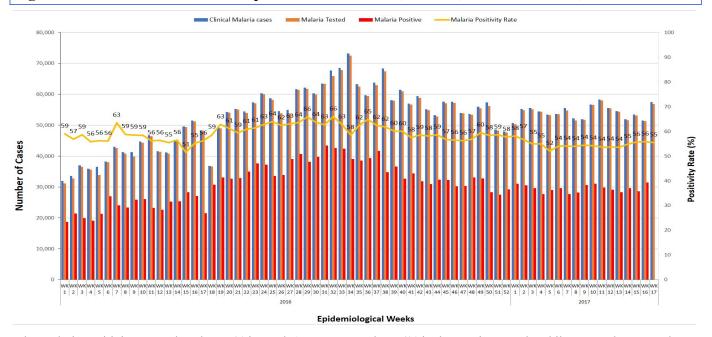
Figure 8: Incidence of Confirmed Malaria Cases (per 100,000 pop.) by district - Weeks 1 to 17, 2017



The national cumulative incidence rate of confirmed Malaria cases for weeks 1 to 17 of 2017 is 7,126 per 100,000 population. Bo district has reported the highest burden of confirmed Malaria cases in the period, recording a cumulative incidence rate of 11,029 cases per 100,000 population. Other districts with high incidence rates are Tonkolili (9,762), Moyamba (9,013), Bombali (9,104) and Kenema (8,285). For week 17, the national Malaria incidence rate is 445 per 100,000 population, an increase from 405 per 100,000 population in week 16. The highest incidence rate of Malaria cases in week 17 was recorded in Bo (695) and Tonkolili (682) districts.

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Figure 9: National Trend of Reported Malaria Cases, Week 1, 2016 to Week 17, 2017



The Malaria positivity rate reduced to 55% in week 17 as compared to 56% in the previous week, while reported suspected Malaria cases increased by 3% compared to week 16. DHMTs are urged to ensure that health facility staff in collaboration with Community Health workers (CHWs) strengthen detection, reporting and management of Malaria cases

Table 2: Reported Priority Diseases, Conditions and Events by District, Week 17, 2017

| Diseases                            | Во    | Bombali | Bonthe | Kailahun | Kambia | Kenema | Koinadugu | Kono  | Moyamba | Port Loko | Pujehun | Tonkolili | Western<br>Rural | Western<br>Urban | TOTAL<br>Cases | Deaths | CFR(%) |
|-------------------------------------|-------|---------|--------|----------|--------|--------|-----------|-------|---------|-----------|---------|-----------|------------------|------------------|----------------|--------|--------|
| Acute Flaccid Paralysis             | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| AVHF                                | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Acute jaundice syndrome             | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| AEFI                                | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Animal bite case (dog/cat)          | 1     | 0       | 0      | 0        | 2      | 1      | 0         | 5     | 6       | 3         | 5       | 0         | 5                | 6                | 34             | 0      | 0      |
| Suspected Anthrax                   | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Suspected Buruli ulcer              | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Suspected Chikungunya               | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Suspected Cholera                   | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 1         | 0                | 0                | 1              | 0      | 0      |
| Suspected Dengue Fever              | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Diarrhea severe dehydration < 5s    | 4     | 24      | 5      | 2        | 4      | 25     | 11        | 4     | 0       | 20        | 16      | 7         | 0                | 10               | 132            | 2      | 1.5    |
| Dracunculiasis (Guinea worm)        | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Dysentery (Bloody diarrhea)         | 1     | 3       | 0      | 1        | 0      | 9      | 7         | 3     | 3       | 5         | 13      | 4         | 3                | 0                | 52             | 0      | 0      |
| Suspected Influenza due to new sub- | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Suspected Malaria cases             | 6,839 | 6,037   | 1,512  | 4,011    | 2,969  | 5,149  | 2,369     | 3,542 | 2,546   | 6,476     | 2,584   | 6,525     | 2,793            | 4,079            | 57,431         |        |        |
| Suspected Malaria cases tested      | 6,839 | 6,008   | 1,512  | 4,011    | 2,969  | 5,149  | 2,368     | 3,542 | 2,546   | 6,026     | 2,584   | 6,406     | 2,793            | 4,079            | 56,832         | 45     | 0.1    |
| Malaria positive Cases              | 3,989 | 3,179   | 864    | 2,093    | 1,476  | 3,089  | 1,435     | 1,820 | 1,679   | 3,202     | 1,328   | 3,619     | 1,573            | 2,136            | 31,482         |        |        |
| Severe Malnutrition                 | 61    | 34      | 45     | 28       | 27     | 53     | 20        | 7     | 76      | 113       | 17      | 35        | 19               | 52               | 587            | 2      | 0.3    |
| Maternal death                      | 1     | 0       | 0      | 1        | 1      | 2      | 0         | 2     | 1       | 0         | 0       | 1         | 0                | 2                |                | 11     |        |
| Suspected Measles (All ages)        | 0     | 2       | 0      | 0        | 9      | 0      | 3         | 0     | 0       | 1         | 0       | 1         | 2                | 23               | 41             | 0      | 0      |
| Suspected Meningococcal Meningitis  | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Suspected Monkey pox                | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Neonatal Tetanus                    | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Suspected Plague                    | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Severe Pneumonia                    | 35    | 40      | 36     | 11       | 3      | 23     | 42        | 20    | 2       | 57        | 29      | 19        | 4                | 99               | 420            | 17     | 4.0    |
| Suspected Small pox                 | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 0                | 0                | 0              | 0      | 0      |
| Suspected Typhoid fever             | 74    | 152     | 13     | 22       | 69     | 49     | 2         | 172   | 56      | 71        | 40      | 53        | 83               | 357              | 1,213          | 1      | 0.1    |
| Suspected Yellow fever              | 0     | 0       | 0      | 0        | 0      | 0      | 0         | 0     | 0       | 0         | 0       | 0         | 1                | 0                | 1              | 0      | 0      |

Source: MOHS - DHIS 2/eIDSR

NR=No Report, AFP=Acute Flaccid Paralysis, AEFI=Adverse Effects Following Immunization, AVHF=Acute Viral Hemorrhagic Fever, NNT=Neonatal Tetanus

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Table 3: Summary report of Priority Diseases, Conditions and Events for Weeks 1 to 17, 2017

| Disease                                |        | Current Week : 17 | 7       | Cumulative : Weeks 1 — 17 |        |         |  |
|--|--------|-------------------|---------|---------------------------|--------|---------|--|
|  | Cases  | Deaths            | CFR (%) | Cases                     | Deaths | CFR (%) |  |
| Acute Flaccid Paralysis                | 0      | 0                 | 0       | 20                        | 0      | 0       |  |
| AVHF                                   | 0      | 0                 | 0       | 33                        | 17     | 51.5    |  |
| Acute jaundice syndrome                | 0      | 0                 | 0       | 5                         | 1      | 20      |  |
| AEFI                                   | 0      | 0                 | 0       | 22                        | 0      | 0       |  |
| Animal bite case (dog/cat)             | 34     | 0                 | 0       | 589                       | 2      | 0.3     |  |
| Suspected Anthrax                      | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Suspected Buruli ulcer                 | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Suspected Chikungunya                  | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Suspected Cholera                      | 1      | 0                 | 0       | 22                        | 0      | 0       |  |
| Suspected Dengue Fever                 | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Diarrhea severe dehydration < 5s       | 132    | 2                 | 1.5     | 4,820                     | 48     | 1.0     |  |
| Dracunculiasis (Guinea worm)           | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Dysentery (Bloody diarrhea)            | 52     | 0                 | 0       | 1,402                     | 5      | 0.4     |  |
| Suspected Influenza due to new subtype | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Suspected Malaria cases                | 57,431 |                   |         | 929,756                   |        |         |  |
| Suspected Malaria cases tested         | 56,832 | 45 0.1            |         | 924,190                   | 625    | 0.1     |  |
| Malaria positive Cases                 | 31,482 |                   |         | 505,336                   |        |         |  |
| Severe Malnutrition                    | 587    | 2                 | 0.3     | 8,532                     | 54     | 0.6     |  |
| Maternal death                         |        | 11                |         |                           | 200    |         |  |
| Suspected Measles (All ages)           | 41     | 0                 | 0       | 2,518                     | 1      | 0.0     |  |
| Suspected Meningococcal Meningitis     | 0      | 0                 | 0       | 22                        | 4      | 18.2    |  |
| Suspected Monkey pox                   | 0      | 0                 | 0       | 1                         | 0      | 0       |  |
| Neonatal Tetanus                       | 0      | 0                 | 0       | 9                         | 3      | 33.3    |  |
| Suspected Plague                       | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Severe Pneumonia                       | 420    | 17                | 4.0     | 8,902                     | 152    | 1.7     |  |
| Suspected Small pox                    | 0      | 0                 | 0       | 0                         | 0      | 0       |  |
| Suspected Typhoid fever                | 1,213  | 1                 | 0.1     | 23,917                    | 23     | 0.1     |  |
| Suspected Yellow fever                 | 1      | 0                 | 0       | 15                        | 0      | 0       |  |

### Table 4: Timeliness and completeness of weekly reports for Week 17, 2017

| Districts          | No. of Health Facilities in each district | No. of Health Facilities that reported to the district | % of Health Facilities that reported to the district | Timeliness of districts reports<br>to the national level |  |  |
|--------------------|---|--|--|--|--|--|
| Во                 | 130                                       | 129  | 99   | Т  |  |  |
| Bombali            | 116                                       | 116  | 100  | Т  |  |  |
| Bonthe             | 57  | 57   | 100  | Т  |  |  |
| Kailahun           | 86  | 83   | 97   | Т  |  |  |
| Kambia             | 71  | 71   | 100  | Т  |  |  |
| Kenema             | 124                                       | 111  | 90   | Т  |  |  |
| Koinadugu          | 74  | 60   | 81   | Т  |  |  |
| Kono               | 90  | 89   | 99   | Т  |  |  |
| Moyamba            | 103                                       | 103  | 100  | Т  |  |  |
| Port Loko          | 111                                       | 110  | 98   | Т  |  |  |
| Pujehun            | 78  | 72   | 92   | Т  |  |  |
| Tonkolili          | 107                                       | 107  | 100  | Т  |  |  |
| Western Area Rural | 54  | 54   | 100  | Т  |  |  |
| Western Area Urban | 67  | 67   | 100  | Т  |  |  |
| Total              | 1,268                                     | 1,229  | 97   |  |  |  |

Completeness <50% >50% TO <80% ≥80% Timeliness Late report Timely No Report

In week 17, all the 14 districts submitted timely reports to the national level. Of the 1,268 health facilities that are expected to report, a total of 1,229 (97%) submitted their reports to the district level.

 $For more information \ or \ to \ report \ any \ unusual \ public \ health \ event, \ please \ contact \ Mr. \ Roland \ Conteh, \ Surveillance \ Programme \ Manager, \ Directorate \ of \ Disease \ Prevention \ and \ Control, \ Ministry \ of \ Public \ Health \ and \ Sanitation. \ Mobile: \ +23276612812 \ | \ rmconteh09@gmail.com$