



WEEK 4

**GOVERNMENT OF SIERRA LEONE
MINISTRY OF HEALTH AND SANITATION
DIRECTORATE OF HEALTH SECURITY AND EMERGENCIES**

WEEKLY NATIONAL EPIDEMIOLOGICAL BULLETIN

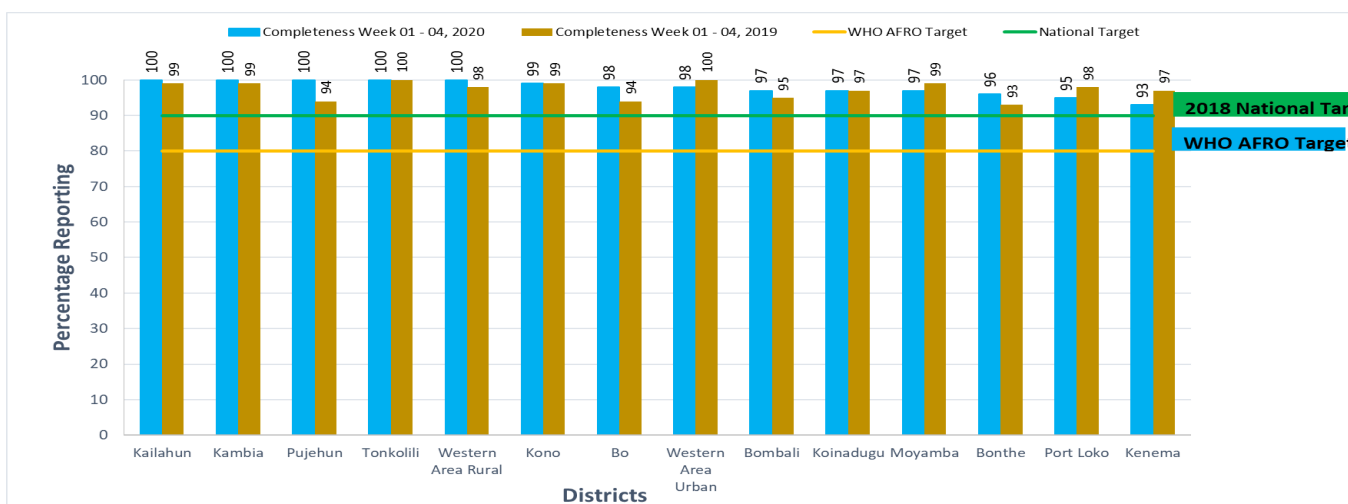
Disease specific report

Week 04, 20th to 26th January 2020

- **Acute Viral Haemorrhagic fever:** Ten (10) suspected cases of AVHF reported, Kenema 9 and Western Area Urban 1 district. Of the 10 cases, 3 were under fives and 7 were above 5. Nine of the samples tested negative for VHFs and 1 tested positive for Lassa fever.
- **Adverse Event Following Immunization:** One case of AEFI was reported this week from Bonthe district. The case was treated at health facility and has improved.
- **Maternal death:** 14 maternal deaths were reported country-wide from 8 districts, an increase from the 8 reported the previous week. Of these, Kambia, Bombali and Western Area Urban 3 each and Kailahun, Kenema, Koinadugu, Moyamba and Port Loko reported 1 each per district.
- **Animal bite:** In total, 29 animal bite cases were reported countrywide with the exception of Bo and Tonkolili that reported zero case. Of the total cases, 4 were under fives and 25 above fives. The highest number of cases were reported from Western Area Rural and Koinadugu 5 cases each, Bombali 4 and Kailahun 3 cases.
- **Dysentery (Bloody diarrhoea):** In total, 57 cases of bloody diarrhoea were reported. Nineteen were under fives and 27 above fives. The highest number of cases were from Kono 11, Tonkolili 8, Koinadugu and Pujehun 6 and Bombali 6 cases.
- **Severe malnutrition in under five :** In total, 586 cases including 6 deaths were reported. Kenema 74, Pujehun 70, Moyamba 67, Kailahun 54 and Bonthe 50, reported the highest number of cases.
- **Malaria:** Of the 56,767 suspected malaria cases reported for week four, 56,062 (98.7%) were tested and 31,881 were positive, giving a positivity rate of (56.9%). The national cumulative incidence for week four is 18 per 1000 population. A total of 37 malaria related deaths were reported
- **Yellow Fever:** One case of suspected yellow fever was reported this week from Moyamba district. Sample was collected and tested negative.
- **Zero reporting:** Zero cases were reported for Acute Flaccid Paralysis, Acute jaundice syndrome, Anthrax, Buruli ulcer, Chikungunya, Cholera, Dengue Fever, Dracunculiasis (Guinea worm), Influenza due to new subtype, Measle, Neonatal Tetanus, Meningococcal Meningitis, Monkeypox, Plague and Smallpox.

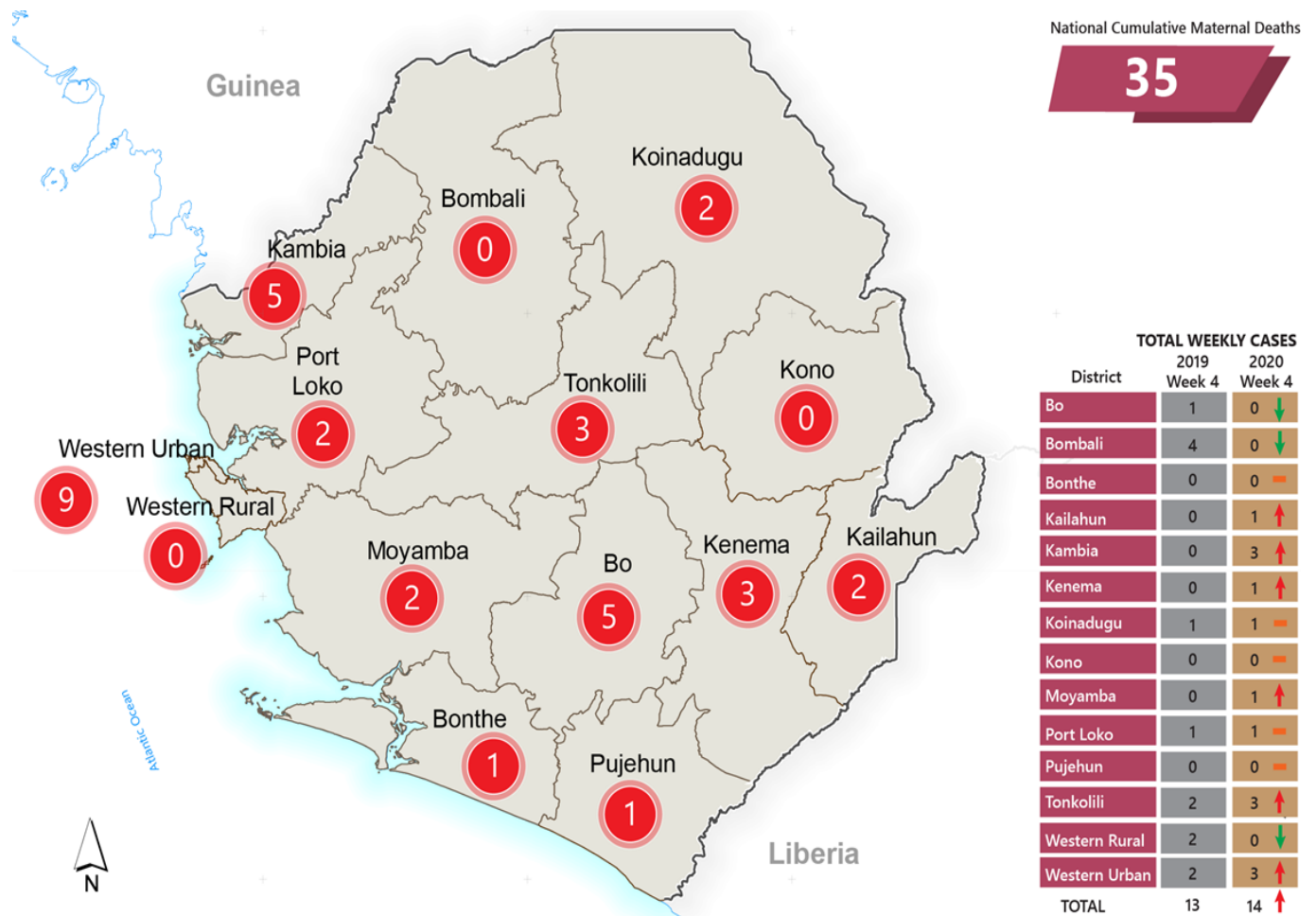
Intra-District Health Facility Reporting Rate for Week 16. 2019	
Bombali (100%)	Western Area Rural (100%)
Kailahun (100%)	Koinadugu (98.6%)
Kambia (100%)	Western Area Urban (98.6%)
Kono (100%)	Port Loko (98.2%)
Moyamba (100%)	Bo (97.0%)
Pujehun (100%)	Bonthe (95.4%)
Tonkolili (100%)	Kenema (95.3%)

Note :Data downloaded on Tuesday 28th January, 2020 at 16:30am



In the period of week 1 to 4 of 2020, all districts achieved the national intra-district health facility reporting rate target of $\geq 90\%$. Overall, 98% of the expected health facility reports have been submitted to the district level since the beginning of the year
*The country revised the weekly IDSR reporting rate (completeness) target from $\geq 80\%$ to $\geq 90\%$ since week 7 of 2017

Figure 4: Cumulative Reported Maternal Deaths by district, Week 1 to 4, 2020



Fourteen (14) maternal deaths were reported in week 4 of 2020, an increase from 8 deaths reported in week 3 of 2020. This raises the national cumulative maternal deaths to 35 since the beginning of the year. Districts with leading numbers of maternal deaths so far this year are Western Area Urban (9), Kambia and Bo (5) each and Tonkolili and Kenema (3) each. So far, Western Area Rural, Kono and Bombali have not reported any maternal death. DHMTs are encouraged to promote interventions such as community sensitization that will contribute towards the reduction in maternal mortality.

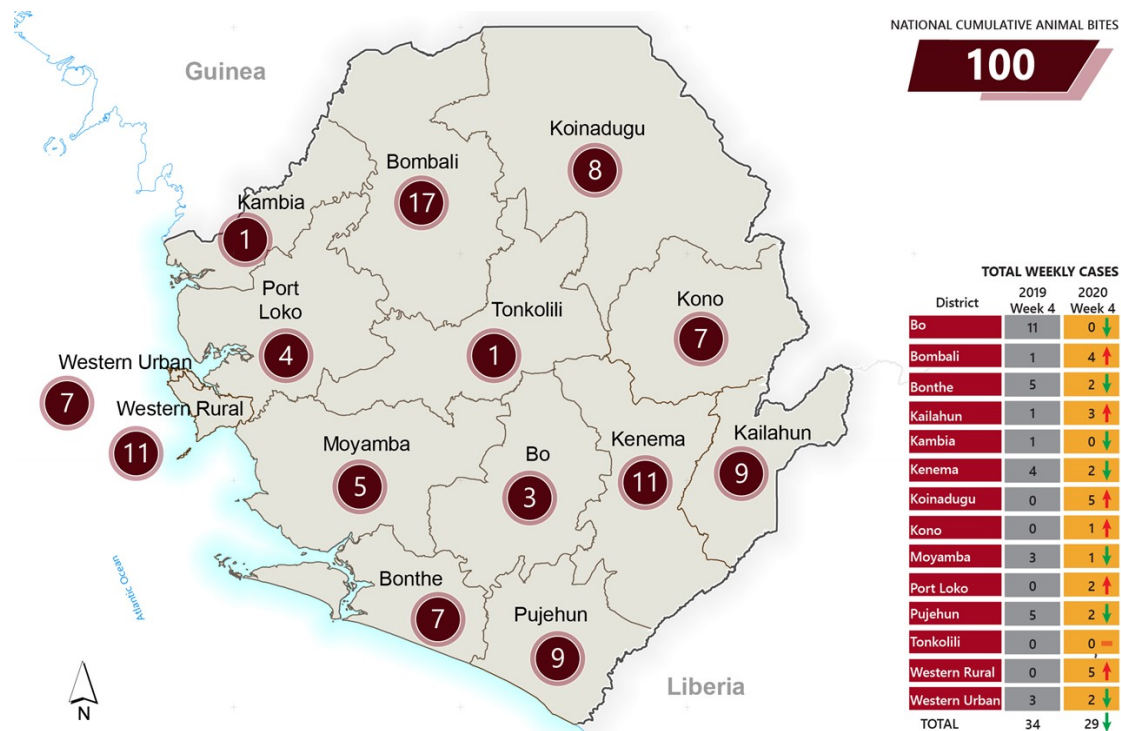
Table 1: Summary of Priority Diseases, Conditions and Events Reported Through CBS, Week 4, 2020

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	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Completeness of CHWs Reporting (%)	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Total Alerts Reported	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Total Alerts Verified	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Total Alerts Investigated	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
AFP	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
AWD	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Cluster of Deaths	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Suspected Guinea Worm	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Maternal Death	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Suspected Measles	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Neonatal Death	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Neonatal Tetanus	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Suspected Ebola	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Suspected Yellow Fever	NR	NR	NR	NR	NR	NR	NR	NR	NR	0
Other Unusual Event	NR	NR	NR	NR	NR	NR	NR	NR	NR	0

NR = No Report

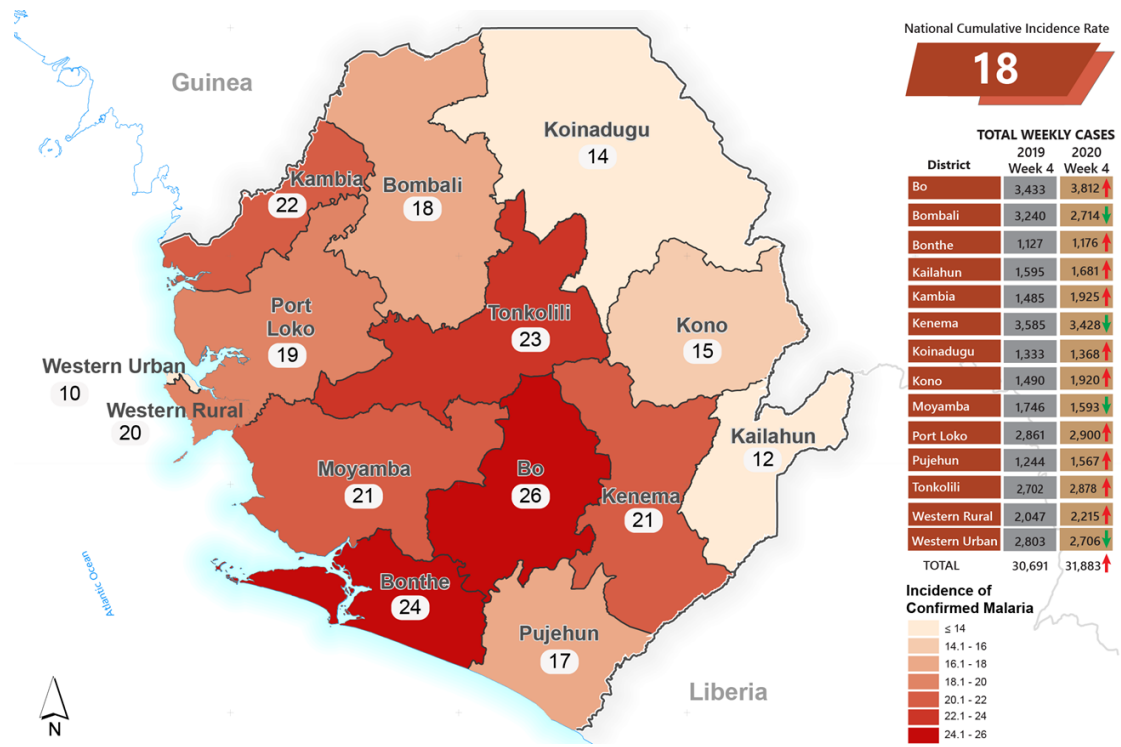
In week 4 of 2020, out of the 9 districts currently implementing Community Based Surveillance (CBS), none submitted report to the national level. No alerts were notified by Community Health Workers (CHWs) in the week. All DHMTs are urged to ensure continuity of CBS reporting because it is key in alerting the health system of what is happening at community level.

Figure 7: Cumulative Reported Animal Bite Cases by district, Week 1—4, 2020



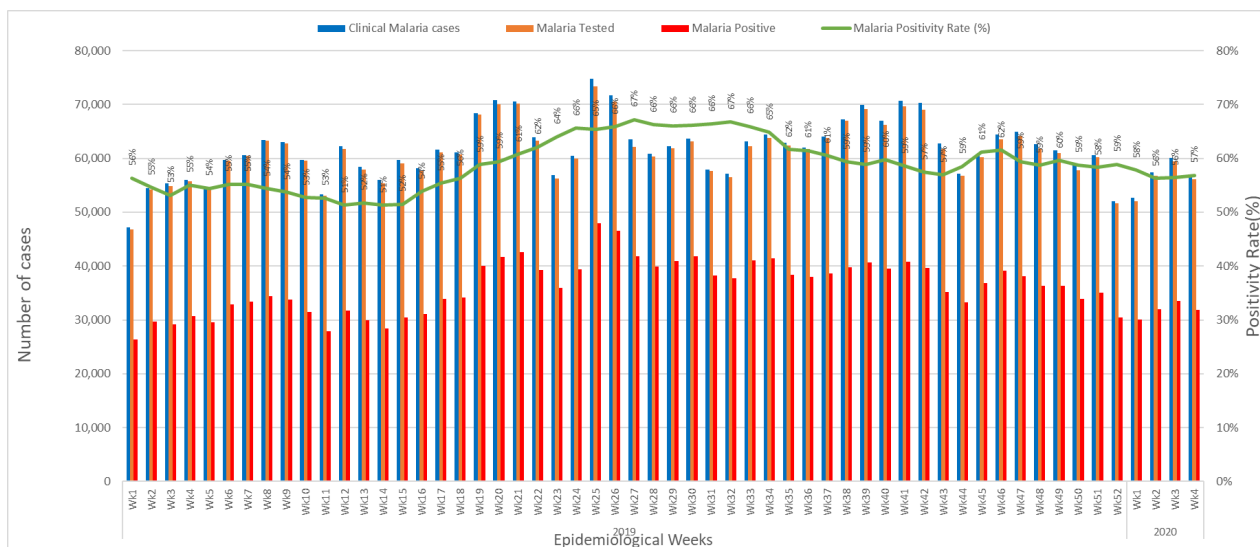
A total of 29 animal (dog and cat) bite cases were reported in week 4 of 2020, an increase from 24 cases reported in the previous week. Western Area Rural and Koinadugu (5) cases each Bombali (4) and Kailahun (3) reported the highest numbers of animal bite cases in the week. Since the beginning of the year, a total of 100 animal bite cases have been reported nationwide.

Figure 8: Incidence of Confirmed Malaria Cases (per 100,000 pop.) by district - Week 1 - 4, 2020



The national cumulative incidence rate of confirmed Malaria cases recorded from week 1 to 4 of 2020 is 18 per 1,000 population. Bo (26 per 1,000 population), Bonthe (24 per 1,000 population), districts have so far recorded the highest cumulative incidence of confirmed malaria cases in the year 2020. For week 4, the district with leading incidence rates of confirmed Malaria cases per 1000 population is Bo (26),

Figure 9: National Trend of Reported Malaria Cases, Week 01 of 2019 to Week 4 of 2020



The Malaria positivity rate for week 4 of 2020 is 56.9%, a slight decrease from 56.4% recorded in the previous week. Moyamba district recorded the highest positivity rate of 69.9% in the week and Kailahun (53.8%) districts recorded the lowest positivity rates in the week. DHMTs are encouraged to emphasize community engagement for Malaria prevention, including but not limited to use of bed nets and environmental sanitation, as well as to sensitize health workers on Malaria case management.

Table 2: Reported Priority Diseases, Conditions and Events by District, Week 4, 2020

Diseases	Bo	Bombali	Bonthe	Kailahun	Kambia	Kenema	Koinadugu	Kono	Moyamba	Port Loko	Pujehun	Tonkolili	Western Rural	Western Urban	TOTAL Cases	Deaths	CFR(%)
Acute Flaccid Paralysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Acute Viral Haemorrhagic Fever	0	0	0	0	0	9	0	0	0	0	0	0	0	1	10	0	0
Acute jaundice syndrome	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Adverse events following immunization	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Animal bite case (dog/cat)	0	4	2	3	0	2	5	1	1	2	2	0	5	2	29	0	0
Suspected Anthrax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Buruli ulcer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Chikungunya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Dengue Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Diarrhea with severe dehydration < 5s	6	16	5	0	5	35	13	4	2	4	12	7	0	19	128	3	2.3
Dracunculiasis (Guinea worm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Dysentery (Bloody diarrhea)	1	5	0	0	0	2	6	11	0	3	6	8	2	2	46	0	0
Suspected Influenza due to new sub-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Malaria cases	6207	5323	1846	3260	3208	6002	2628	4107	2289	5280	3087	5233	3349	4948	56767		
Suspected Malaria cases tested	6166	4908	1826	3122	3208	6002	2628	4107	2289	5276	3079	5154	3349	4948	56062		
Malaria positive Cases	3812	2714	1176	1681	1925	3428	1368	1920	1593	2900	1567	2878	2215	2706	31881	37	0.1
Severe Malnutrition	33	31	50	54	36	74	10	24	67	49	70	31	10	47	586	6	1.0
Maternal death	0	0	0	1	3	1	1	0	1	1	0	3	0	3		14	
Suspected Measles (All ages)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Meningococcal Meningitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Monkey pox	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Neonatal Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Plague	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Severe Pneumonia	42	56	1	3	2	48	31	18	9	94	32	42	0	31	409	10	2.4
Suspected Small pox	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NA
Suspected Typhoid fever	99	300	48	63	45	154	35	729	9	248	90	60	192	715	2787	0	NA
Suspected Yellow fever	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0

Source: Sierra Leone IDSR Disease Database
 AFP=Acute Flaccid Paralysis, AEFI=Adverse Effects Following Immunization, AVHF=Acute Viral Hemorrhagic Fever, NNT=Neonatal Tetanus

WEEKLY EPIDEMIOLOGICAL BULLETIN

Table 3: Comparison of Priority Diseases, Conditions and Events reported in 2019 and 2020

Year Period	2020						2019					
	Week : 4, 2020			Week 1– 4, 2020			Week : 4, 2019			Week 1– 4 2019		
Completeness of HF Reporting (%)	98.6%			97.8%			96.1%			96.4%		
Disease	Cases	Deaths	CFR (%)	Cases	Deaths	CFR (%)	Cases	Deaths	CFR (%)	Cases	Deaths	CFR (%)
Acute Flaccid Paralysis	0	0	NA	1	0	0	3	0	0.0	8	0	0.0
Acute Viral Haemorrhagic Fever	10	0	0	37	0	0	1	0	0.0	3	0	0.0
Acute jaundice syndrome	0	0	NA	1	0	0	0	0	NA	3	0	0.0
Adverse events following immunization	1	0	0	2	0	0	4	0	0.0	23	0	0.0
Animal bite case (dog/cat)	29	0	0	100	0	0	34	0	0.0	96	0	0.0
Suspected Anthrax	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Suspected Buruli ulcer	0	0	NA	0	0	NA	0	0	NA	8	0	0.0
Suspected Chikungunya	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Suspected Cholera	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Suspected Dengue Fever	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Diarrhea with severe dehydration < 5s	128	3	2.3	390	5	1.3	185	1	0.5	536	2	0.4
Dracunculiasis (Guinea worm)	0	0	NA	0	0	NA	0	0	NA	2	0	0.0
Dysentery (Bloody diarrhea)	46	0	0	198	0	0	80	0	0.0	199	1	0.5
Suspected Influenza due to new subtype	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Suspected Malaria cases	56767			227636			55,779			212,931		
Suspected Malaria cases tested	56062			225038			55,560			211,833		
Malaria positive Cases	31881	37	0.1	127840	193	0.2	30,608	52	0.2	116,019	201	0.2
Severe Malnutrition	586	6	1.0	2456	25	1.0	422	4	0.9	1,671	28	1.7
Maternal death		14			35			11			33	
Suspected Measles (All ages)	0	0	NA	7	0	0	17	0	0.0	59	0	0.0
Suspected Meningococcal Meningitis	0	0	NA	0	0	NA	0	0	NA	1	0	0.0
Suspected Monkey pox	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Neonatal Tetanus	0	0	NA	1	1	100	1	0	0.0	3	0	0.0
Suspected Plague	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Severe Pneumonia	409	10	2.4	1843	42	2.3	553	8	1.4	1,845	35	1.9
Suspected Small pox	0	0	NA	0	0	NA	0	0	NA	0	0	NA
Suspected Typhoid fever	2787	0	NA	10144	0	0	1,344	2	0.1	5,372	5	0.1
Suspected Yellow fever	1	0	0	3	1	33.3	2	0	0.0	4	0	0.0

Table 4: Timeliness and completeness of weekly reports for Week 4, 2020

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 to the national level
Bo	132	128	97.0	T
Bombali	121	121	100.0	T
Bonthe	65	62	95.4	T
Kailahun	87	87	100.0	T
Kambia	71	71	100.0	T
Kenema	127	121	95.3	T
Koinadugu	74	73	98.6	T
Kono	91	91	100.0	T
Moyamba	103	103	100.0	T
Port Loko	112	110	98.2	T
Pujehun	82	82	100.0	T
Tonkolili	107	107	100.0	T
Western Area Rural	62	62	100.0	T
Western Area Urban	71	70	98.6	T
Total	1,305	1288	98.7	

Completeness	<50%	>50% TO <90%	≥90%	Timeliness	Late report	Timely	No Report
---------------------	------	--------------	------	-------------------	-------------	--------	-----------

In week 4 of 2020, all the 14 districts submitted timely reports to the national level and all achieved the national target for completeness of health facility reporting (≥90%). Of the 1,305 health facilities that are expected to report, a total of 1,288 (98.7%) submitted their reports to the district level.

For more information or to report any unusual public health event, please contact Dr. James Squire, Surveillance Programme Manager, Directorate of Health Security and Emergencies, Ministry of Health and Sanitation. Mobile: +23279614005, email: jmssquire@yahoo.com

SPECIAL PUBLICATIONS

Week four's special publication is on the topic *Analysis of Acute Flaccid Paralysis Surveillance data in Sierra Leone, 2009 - 2018*.

The Objectives of the Analysis ;

- *To describe the demographic, clinical features and trend of reported AFP cases from 2009 to 2018*
- *To describe the geographic distribution of reported AFP cases*
- *To assess the performance of the AFP surveillance indicators*

Female	605	48.7
Clinical presentation		
Sudden onset of paralysis¶	1,214	98.2
Fever at onset of paralysis‡	1,217	98.3
Paralysis progresses within 3 days†	1,154	94.2
Asymmetric paralysis§	626	51.1
Doses of OPV received‡		
0	8	0.6
1 - 2	130	10.5
≥ 3	1,053	85.1
Unknown	47	3.8
Classification of reported AFP cases‡		
Confirmed WPV1	12	1.0
Discarded	1,199	99.0

¶Data missing for 5 records; ‡ Data missing for 3 records; †Data missing for 16 records; §Data missing for 15 records; ‡Data missing for 3 records; ‡Data missing for 30 records; AFP = Acute Flaccid Paralysis; OPV = Oral Polio Vaccine; WPV1 = Wild Polio Virus type 1

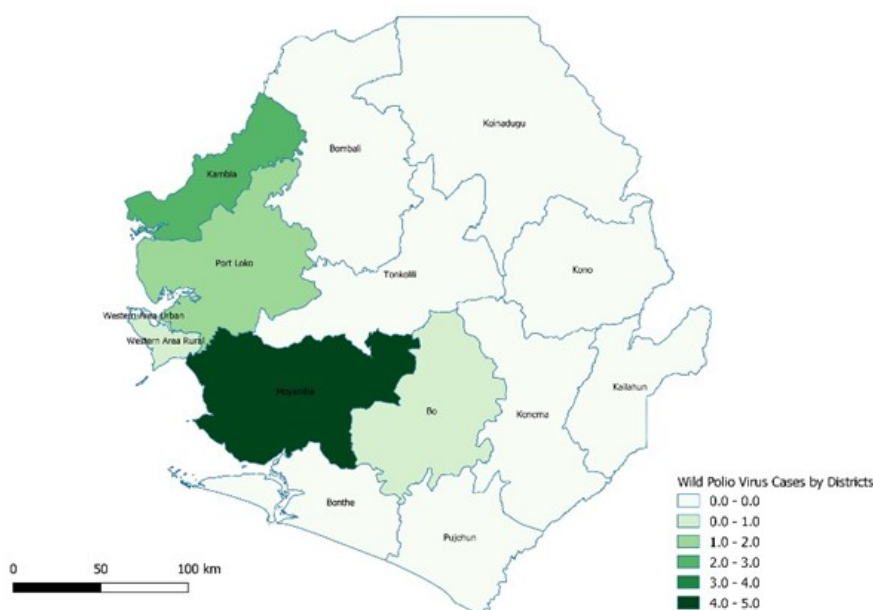


Figure 2: Distribution of confirmed WPV cases by districts, Sierra Leone 2009 - 2010

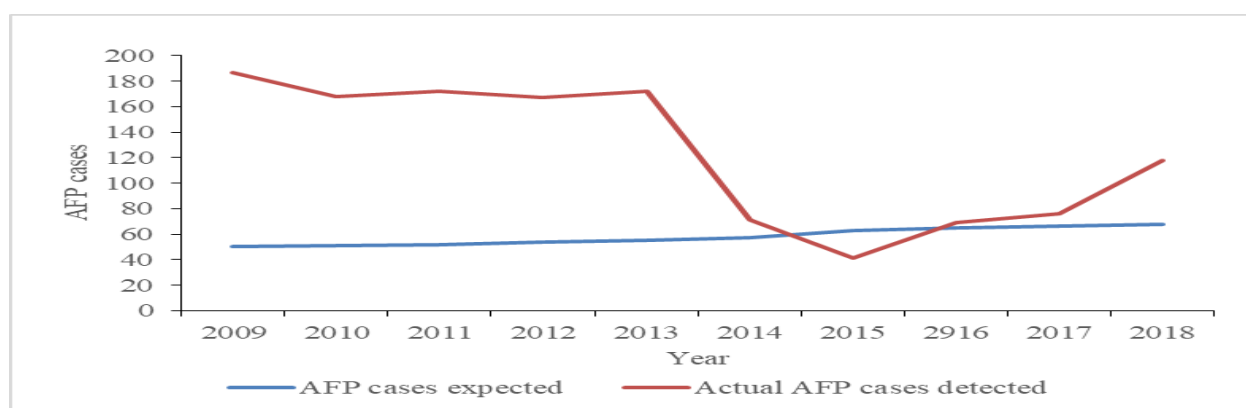


Figure 3: Trend of reported and expected AFP cases, Sierra Leone, 2009 – 2018