

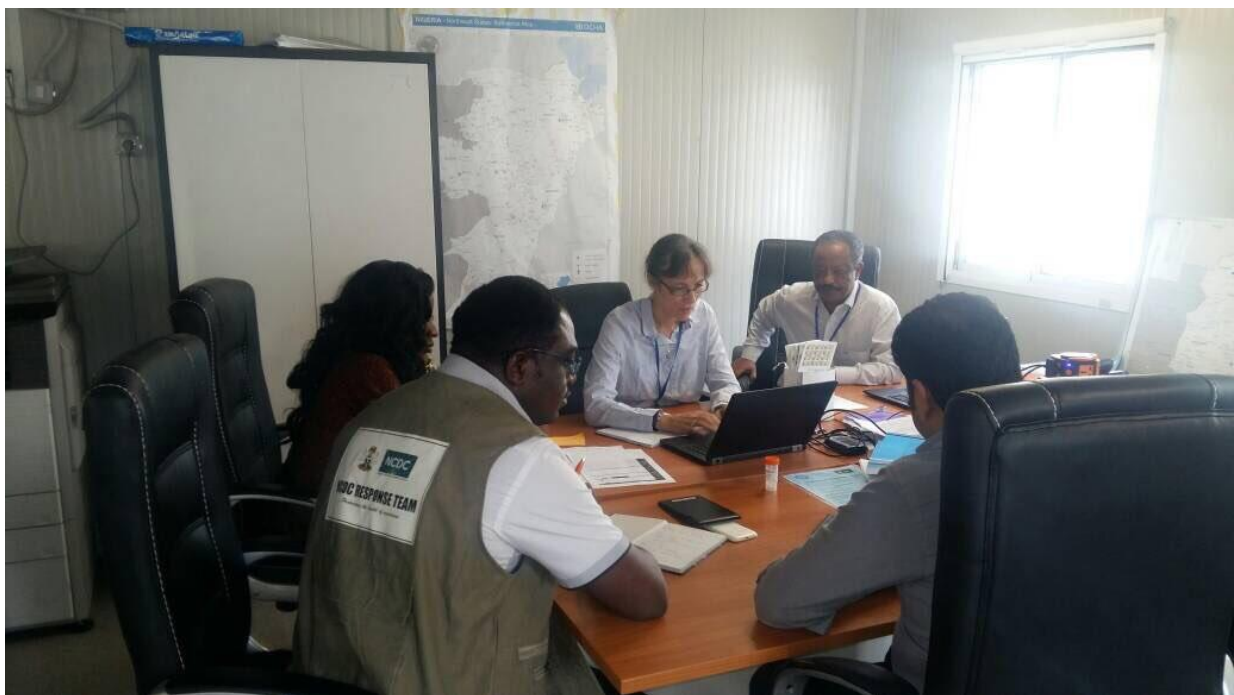


NIGERIA CENTRE FOR DISEASE CONTROL

Weekly Epidemiological Report

Main Highlight of the week

PREVENTION AND CONTROL OF HEPATITIS E INFECTION



For the past four weeks, there has been an outbreak of Hepatitis E in Borno state. As at Epi-week 29 (17th-23rd July), a total of 562 suspected cases have been reported in 10 Local Government Areas (LGAs)-Ngala, Mobbar, Munguno, Chibok, Askira Uba, Bayo, Dikwa, Gubio, Mafa and Maiduguri. 84% of these cases were reported from Ngala LGA. A total of 252 samples were collected for laboratory testing, of which 64 have been tested. 42 (64%) of samples tested came out positive. Six deaths in unconfirmed cases have been reported, giving a case

fatality rate of 1.1%. 52 suspected cases have been reported amongst pregnant women spread across 3 LGAs-Ngala, Damask, and Munguno, with four deaths recorded giving a CFR of 7.6 % in this population.

Hepatitis E is a viral infection of the liver with an incubation period that ranges from 2 to 8 weeks. It is transmitted via faeco-oral route, through faecal contamination of food and water supplies. Poor environmental hygiene practices have been associated with the disease. Most times, outbreaks occur after heavy rainfalls which usually cause a disruption of public water supplies.

Pregnant women are a susceptible population for Hepatitis E infection, particularly in their third trimester causing a severe form of the disease and leading to liver failure. In addition, people living in refugee camps or temporary overcrowded houses after natural disasters are at risk of Hepatitis E infection.

Signs and symptoms are usually non-specific-mild fever, reduced appetite, nausea and vomiting, jaundice, abdominal pain, fatigue, skin itching, joint pains, dark urine and clay-coloured stool. Case detection requires a high index of suspicion. Surveillance for Hepatitis E infection can be done in line with Hepatitis A infection as clinical manifestation of the two disease conditions are similar.

Prevention and Control Measures for Hepatitis E infection should be geared towards providing safe and clean water supply, ensuring food hygiene practices and improvement of environmental hygiene practices.

1. Clean Water Supply

- Institute and maintain quality standards for public water supplies
- Boil Drinking water
- Water Chlorination
- Avoid consumption of water and/ice of unknown origin and purity

2. Food Hygiene Practices

- Wash your hands frequently with clean water and soap, particularly before handling food
- Ensuring sanitary food preparation and preservation practices
- Clean food preparation areas and kitchen utensils with soap and safe water and dry completely before reuse

3. Environmental Hygiene Practices

- Good sanitation practices in living areas
- Proper waste disposal systems, particularly for faecal waste
- Clear drainages and all bodies of stagnant water

The Nigeria Centre for Disease Control (NCDC) has been working with the Borno State Government, the World Health Organisation and other partners to support the response to the

Hepatitis E outbreak. It is important that ongoing control measures and strategies are sustained in the State even after the outbreak, given the peculiarity of the region.

States are advised to create increased awareness on Hepatitis E infection in their communities and implement preventive measures, in view of the heavy rainfalls recorded recently in the country.

In the reporting week ending on the 16th July, 2017:

- There were 483 new cases of Acute Flaccid Paralysis (AFP) reported. None was confirmed as Polio. The last reported case of Polio in Nigeria was in August 2016. Active case search for AFP is being intensified as Nigeria has assiduously reinvigorated its efforts at eradicating Polio.
- 36 suspected cases of Cholera were reported from three LGAs in two States with two laboratory confirmed cases and two deaths.
- There were 14 suspected cases of Cerebrospinal Meningitis (CSM) reported from ten LGAs in eight States. Of these, none was laboratory confirmed and no death was recorded. Ongoing surveillance for CSM has been intensified in the States.
- There were 399 suspected cases of Measles reported from 31 States. Eight were laboratory confirmed and six deaths were recorded.

In the reporting week, Gombe State failed to send in any report. Timeliness of reporting remains at 82% in both previous and current weeks (Week 27 and 28) while completeness increases from 99% to 100%. It is very important for all States to ensure timely and complete reporting at all times, especially during an outbreak.

Summary Table 1 (IDSR Weekly Report as at 21/07/2017)

Disease	Variables	Week 27	Week 28		Cumulative Weeks	
		2017	2017	2016	01 - 28, 2017	01 - 28, 2016
AFP	Cases	326	483	239	8,787	7207
	Deaths	0	0	0	0	0
	CFR	0.00%	0.00%	0.00%	0.00%	0.00%
Polio	WPV Types 1 & 3	0	0	0	0	0
	WPV Types 1	0	0	0	0	0
	WPV Types 3	0	0	0	0	0
Cholera	Cases	109	36	8	819	324
	Deaths	1	2	0	20	4
	CFR	0.92%	5.56%	0.00%	2.44%	1.23%
Lassa Fever	Cases	12	6	1	338	745
	Deaths	1	1	0	55	87
	CFR	8.33%	16.67%	0.00%	16.27%	11.68%
CSM	Cases	11	14	8	9711	529
	Deaths	0	0	1	602	28
	CFR	0.00%	0.00%	12.50%	6.20%	5.29%
Measles	Cases	409	399	197	14,853	20579
	Deaths	2	6	0	88	83
	CFR	0.49%	1.50%	0.00%	0.59%	0.40%
Guinea Worm	Cases	0	0	0	0	0
	Deaths	0	0	0	0	0
	CFR	0.00%	0.00%	0.00%	0.00%	0.00%

1. Lassa fever

Please note that the data reflects the routine reports i.e. all suspected cases including the laboratory positive and negative cases

- 1.1. Six suspected cases of Lassa fever with three Laboratory confirmed and one death (CFR, 16.67%) were reported from five LGAs (three States; Katsina – 1, Ondo – 2 & Plateau - 3) in week 28, 2017 compared with one case from Ibadan North LGA (Oyo State) at the same period in 2016.
- 1.2. Laboratory results of the six suspected cases were three positives (Plateau – 1 & Ondo - 2) for Lassa fever while three were negative (Katsina -1 & Plateau – 2) for Lassa fever and other VHF.
- 1.3. Between weeks 1 and 28 (2017), 338 suspected Lassa fever cases with 85 laboratory confirmed cases and 55 deaths (CFR, 16.27%) from 66 LGAs (22 States) were reported compared with 745 suspected cases with 72 laboratory confirmed cases and 87 deaths (CFR, 11.68%) from 127 LGAs (27 States) during the same period in 2016 (Figure 1).

- 1.4. Between weeks 1 and 52 2016, 921 suspected Lassa fever cases with 109 laboratory confirmed cases and 119 deaths (CFR, 12.92%) from 144 LGAs (28 States and FCT) were reported compared with 430 suspected cases with 25 laboratory confirmed cases and 40 deaths (CFR, 9.30%) from 37 LGAs (14 States and FCT) during the same period in 2015 (Figure 2).
- 1.5. Investigation and active case search ongoing in affected States with coordination of response activities by the NCDC with support from partners.
 - 1.5.1. National Lassa Fever Working Group meeting and weekly National Surveillance and Outbreak Response meeting on-going at NCDC to keep abreast of the current Lassa fever situation in the country.
 - 1.5.2. Response materials for VHF prepositioned across the country by NCDC at the beginning of the dry season
 - 1.5.3. New VHF guidelines have been developed by the NCDC (Interim National Viral Haemorrhagic Fevers Preparedness guidelines and Standard Operating Procedures for Lassa fever management)
 - 1.5.4. Ongoing reclassification of reported Lassa fever cases
 - 1.5.5. Ongoing review of the variables for case-based surveillance for VHF
 - 1.5.6. VHF case-based forms completed by affected States are being entered into the new VHF management system. This system allows for the creation of a VHF database for the country.
 - 1.5.7. NCDC team sent to Edo State to support Lassa fever data harmonization & Updating of VHF case-based management database
 - 1.5.8. Confirmed cases are being treated at identified treatment/isolation centres across the States with Ribavirin and necessary supportive management also instituted
 - 1.5.9. Onsite support was earlier provided to Ogun, Nasarawa, Taraba, Ondo and Borno States by the NCDC and partners
 - 1.5.10. Offsite support provided by NCDC/partners in all affected States
 - 1.5.11. NCDC and partners are providing onsite support in Ondo and Plateau State
 - 1.5.12. States are enjoined to intensify surveillance and promote Infection, Prevention and Control (IPC) measures in health facilities.

Figure 1: Map of Nigeria showing areas affected by Lassa fever, week 1- 28, 2016 & 2017

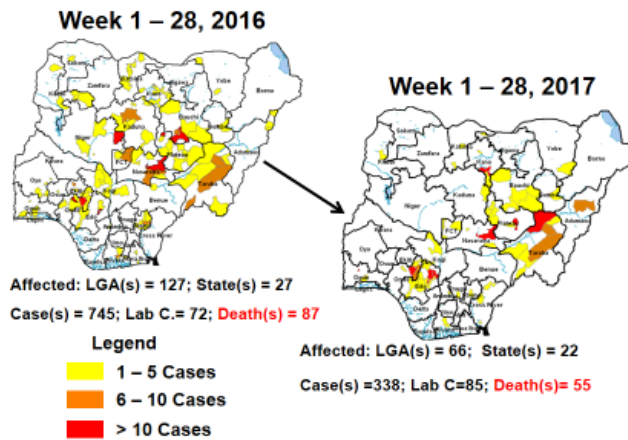
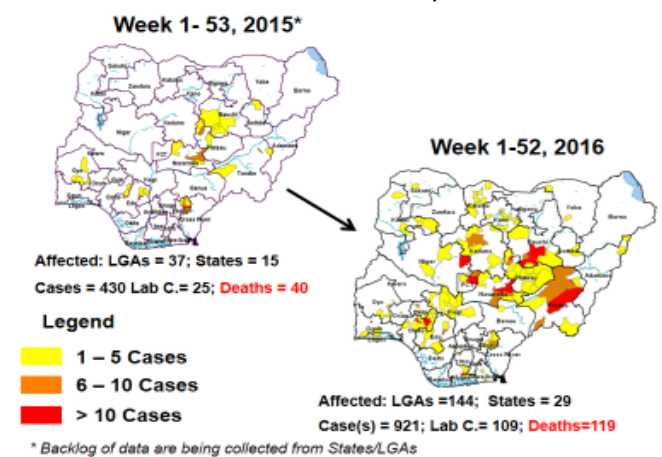


Figure 2: Map of Nigeria showing areas affected by Lassa fever, week 1 - 53, 2015 and week 1 – 52, 2016



2. MEASLES

- 2.1. In the reporting week, 399 suspected cases of Measles with eight Laboratory confirmed and six deaths (CFR, 1.50%) were reported from 31 States compared with 197 suspected measles cases from 22 States during the same period in 2016.
- 2.2. So far, 14,853 suspected Measles cases with 108 laboratory confirmed cases and 88 deaths (CFR, 0.59%) have been reported in 2017 from 36 States and FCT (Figure 4) compared with 20,579 suspected cases and 83 deaths (CFR, 0.40%) from 36 States and FCT during the same period in 2016.
- 2.3. In 2016 (week 1 -52), 25,251 suspected Measles cases with 102 deaths (CFR, 0.40%) were reported from 36 States and FCT compared with 24,421 suspected cases with 127 deaths (CFR, 0.52%) during the same period in 2015 (Figure 5)
- 2.4. Response measures include immunization for all vaccine-preventable diseases in some selected/affected wards/LGAs during SIAs, as well as case management.
- 2.5. Scheduled Measles campaigns in the North East were conducted from 12th – 17th January, 2017 in Adamawa, Borno and Yobe States (Phase I) and Phase II from 21st – 25th January, 2017 in Borno State and 4th – 8th February, 2017 in Yobe State
- 2.6. Concluded Measles Surveillance Evaluation and Establishment of the burden of Congenital Rubella Syndrome (CRS) in 12 selected States in the six geopolitical zones from the 17th -21st July 2017
- 2.7. Harmonization of measles surveillance data with laboratory confirmed cases

Figure 3: Suspected Measles attack rate by States, week 28, 2017 as at 21st July, 2017

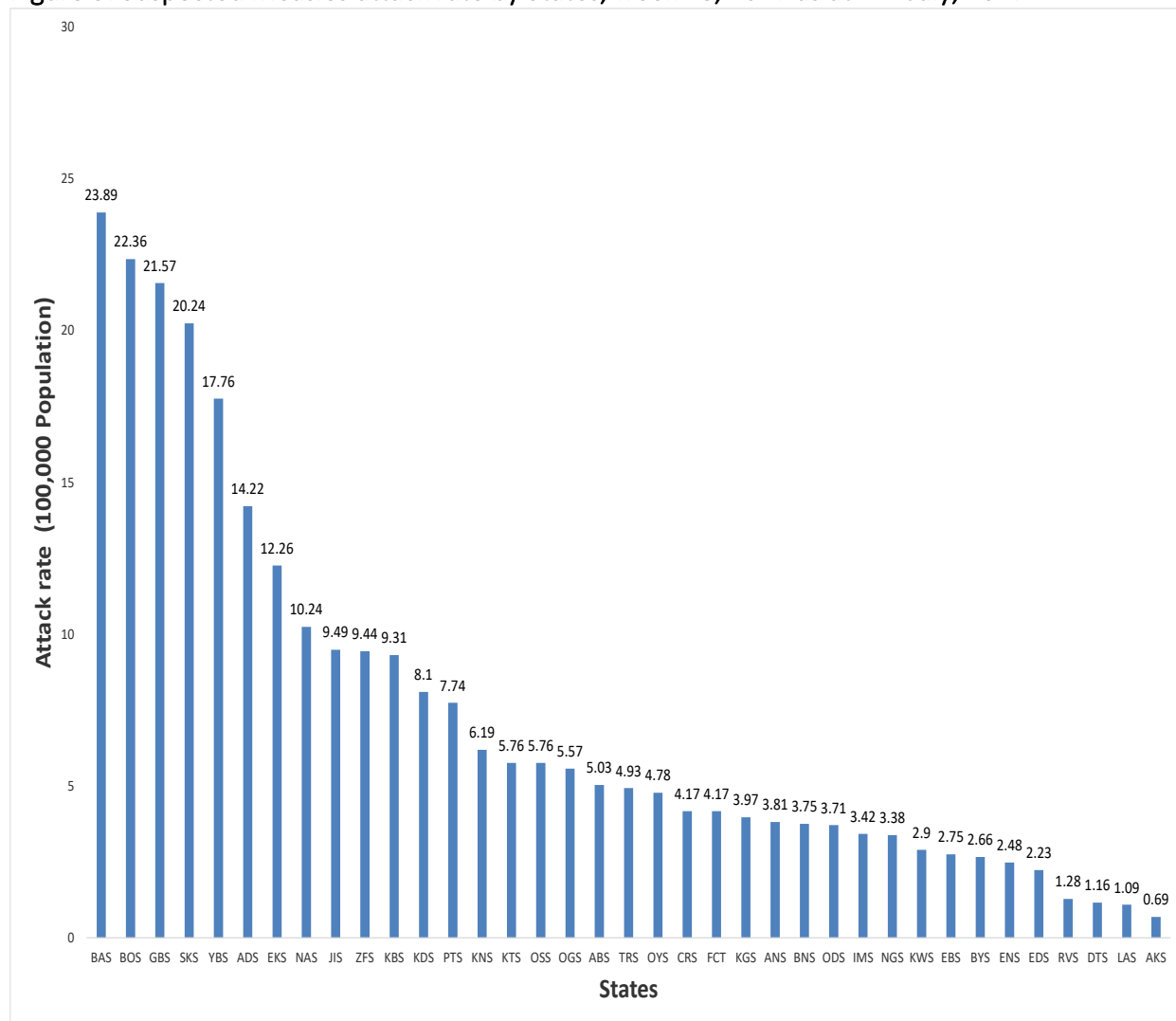


Figure 4: Map of Nigeria showing Distribution of suspected Measles cases, Weeks 1- 28, 2017as at 21/07/2017

Distribution of Suspected Measles Cases, Wks01-28 2017

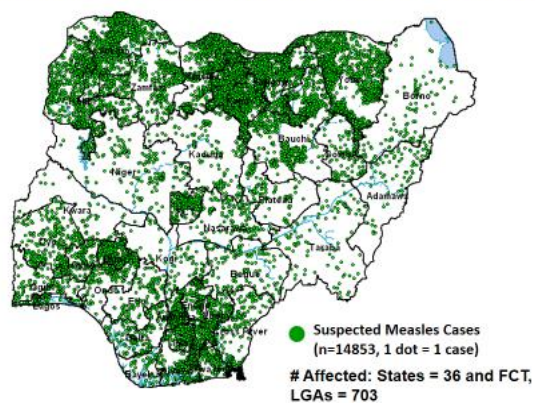
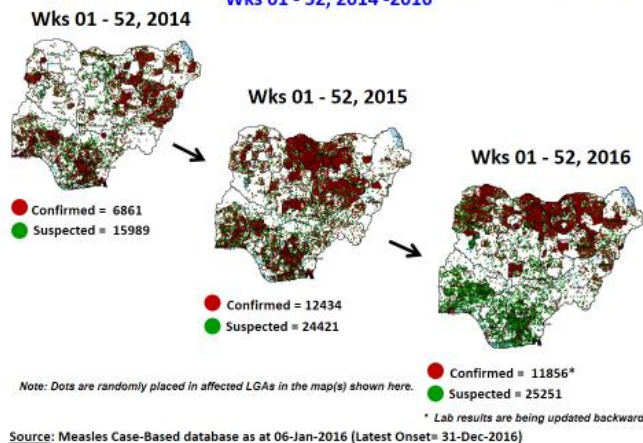


Figure 5: Suspected & confirmed (Lab + Epi Link + Clinical) Measles cases weeks 1 – 52, 2014 - 2016
Suspected and Confirmed (Lab + Epi Link + Clinical) Measles Cases, Wks 01 - 52, 2014 -2016



3. POLIOMYELITIS

- 3.1. As at July 9th 2017, no new case of WPV was recorded
- 3.2. Three new cVDPV2, environmental derived and Polio compatible cases identified
 - 3.2.1. In the reporting week, 483 cases of AFP were reported from 297 LGAs in 35 States and FCT
 - 3.2.2. AFP Surveillance has been enhanced and outbreak response is on-going in Borno and other high risk States
 - 3.2.3. The 1st round of SIPDs in 2017 was conducted from 28th – 31st January 2017 in the 18 high risk States. This was carried out using mOPV2 (2nd mOPV2 OBR). The schedule for other SIAs is as described in Table 2
 - 3.2.4. The 2nd and 3rd round of SIPDs completed (25th-28th February and 8th – 11th July, 2017) in 14 & 18 high risk States using bOPV respectively.
 - 3.2.5. The 1st and 2nd rounds of NIPDs completed (from 25th – 28th March, 2017 and 22nd – 25th April, 2017) nationwide respectively.
 - 3.2.6. Between weeks 1 and 52 in 2016, four WPVs were isolated from Borno State compared to no WPV isolated during the same period in 2015.
- 3.3. No circulating Vaccine Derived Polio Virus type 2 (cVDPV2) was isolated in week 1 - 52, in both 2016 and 2015.
- 3.4. Between weeks 1 and 52, 2016 two (2) cVDPV2 were isolated in two LGAs (two States) while one (1) cVDPV2 was isolated from Kwali, FCT during the same period in 2015.
- 3.5. Six confirmed WPVs were isolated in 2014.
- 3.6. The SIAs were strengthened with the following events:
 - 3.6.1. Immunization for all vaccine-preventable diseases in some selected wards/LGAs.
 - 3.6.2. Use of health camp facilities.
 - 3.6.3. Field supportive supervision and monitoring.
 - 3.6.4. Improved Enhanced Independent Monitoring (EIM) and Lots Quality Assessments (LQAs) in all Polio high risk States.
 - 3.6.5. High level of accountability framework

Figure 6: Polio Compatible cases in Nigeria as at Week 1 - 52, 2014 - 2016 (Data as at 09/07/17)

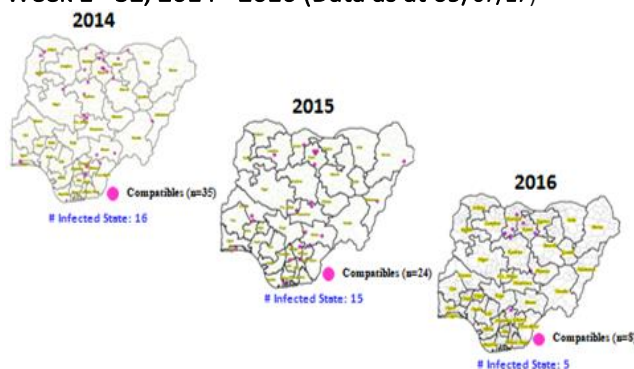


Table 2: 2017 SIAs

S/N	Month	Dates	Scope	Remarks	Target Populations	Antigen
1	January	28 th - 31 st	SIPDs (18 States)	2nd mOPV2 OBR in 18 states	33,478,035	mOPV2
2	February	25 th - 28 th	SIPDs (14 High Risk States)	List of high risk states reviewed using the HR Algorithm and local information on risk	26,256,251	bOPV
3	March	25 th - 28 th	NIPDs (36+1)	Nationwide	59,961,520	bOPV
4	April	22 nd - 25 th	NIPDs (36+1)	Nationwide	59,961,520	bOPV
5	July	8 th -11 th	SIPDs (18 High Risk States)	High Risk States	33,478,035	bOPV
6	October	14 th - 17 th	SIPDs (18 High Risk States)	High Risk States	33,478,035	bOPV
7	December	9 th - 12 th	SIPDs (6 High Risk States)	High Risk States		bOPV

4. CHOLERA

- 4.1. 36 suspected cases of Cholera cases with two laboratory confirmed and two deaths (CFR, 5.56%) were reported from three LGAs (two States) in week 28 compared with eight suspected cases from Bichi and Kabo LGAs (Kano State) at the same period in 2016.
- 4.2. Between weeks 1 and 28 (2017), 819 suspected Cholera cases with 14 laboratory confirmed and 20 deaths (CFR, 2.44%) from 29 LGAs (13 States) were reported compared with 324 suspected cases and four deaths (CFR, 1.23%) from 30 LGAs (ten States) during the same period in 2016 (Figure 7).
- 4.3. Between weeks 1 and 52 (2016), 768 suspected Cholera cases with 14 laboratory confirmed cases and 32 deaths (CFR, 4.17%) from 57 LGAs (14 States) were reported compared with 5,301 cases with 29 laboratory confirmed cases and 186 deaths (CFR, 3.51%) from 101 LGAs (18 States and FCT) during the same period in 2015 (Figure 8).
- 4.4. Cholera preparedness workshop held from 31st May – 1st June, 2017 in Abuja to develop Cholera preparedness plan as the season set in.
- 4.5. NCDC/partners are provided onsite support in Kwara and Zamfara State.
- 4.6. States are enjoined to intensify surveillance, implement WASH activities and ensure early reporting.

Figure 7: Status of LGAs/States that reported Cholera cases in week 1- 28, 2016 & 2017

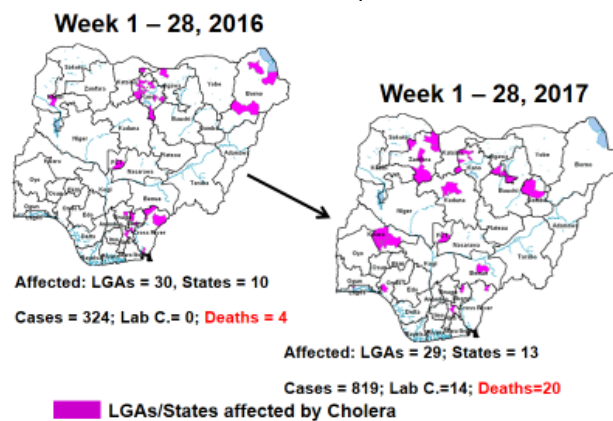
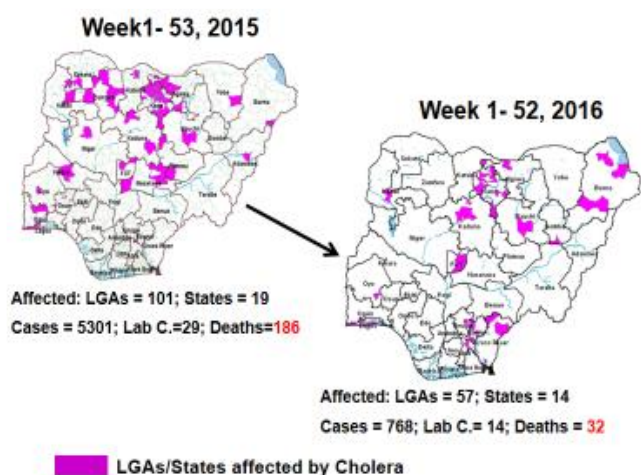


Figure 8: Status of LGAs/States that reported Cholera cases in week 1- 52, 2015 & 2016



5. CEREBROSPINAL MENINGITIS (CSM)

- 5.1. In the reporting week 28, 14 suspected Cerebrospinal Meningitis (CSM) cases were reported from ten LGAs (eight States) compared with eight suspected cases and one death (CFR, 12.50%) from six LGAs (four States) at the same period in 2016.
- 5.2. Between weeks 1 and 28 (2017), 9711 suspected CSM cases with 108 laboratory confirmed cases and 602 deaths (CFR, 6.20%) were recorded from 299 LGAs (31 States) compared with 529 suspected cases and 28 deaths (CFR, 5.29%) from 124 LGAs (27 States) during the same period in 2016 (Figure 9).
- 5.3. Between weeks 1 and 52, 2016, 831 suspected CSM cases with 43 laboratory confirmed cases and 33 deaths (CFR, 3.97%) were recorded from 154 LGAs (30 States and FCT) compared with 2,711 suspected cases and 131 deaths (CFR, 4.83%) from 170 LGAs (28 States and FCT) during the same period in 2015 (Figure 10)

Figure 9: Map of Nigeria showing areas affected by CSM, Week 1 - 28, 2016 & 2017

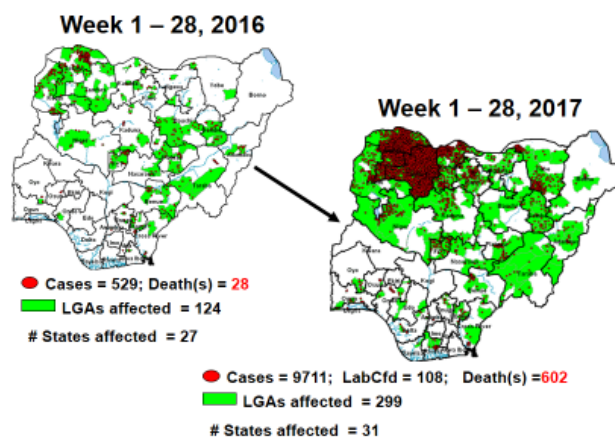
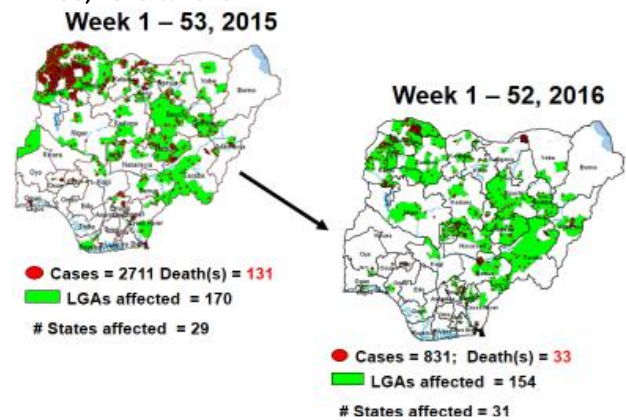


Figure 10: Nigeria: Dot maps of CSM cases, week 1 - 53, 2015 & 2016



- 5.4. Timeliness/completeness of CSM case-reporting from States to the National Level (2017 versus 2016): on average, 80.4% of the 26 endemic States sent CSM reports in a timely manner while 98.2% were complete in week 1 – 28, 2017 as against 83.9% timeliness and 99.3% completeness recorded within the same period in 2016
- 5.5. CSM preparedness checklist sent to 36 States and FCT ahead of 2017 meningitis season
- 5.6. Confirmed cases treated at identified treatment centres in affected States (Zamfara, Sokoto, Katsina, Kebbi, Niger, Kano, Yobe and Jigawa) and necessary supportive management also instituted
- 5.7. CSM National Emergency Operations Centre constituted at the Nigeria Centre for Disease Control
- 5.8. Onsite support provided to Zamfara, Sokoto, Katsina, Kebbi, Kano, Yobe and Niger States by NCDC and partners
- 5.9. Off-site support provided to other States
- 5.10. Intensive Surveillance in high risk States.
- 5.11. Reactive vaccination completed in Zamfara State for people aged one to 29 years using polysaccharide meningococcal A & C vaccine.
- 5.12. Reactive vaccination completed in two wards (Gada and Kaffe) in Gada LGA in Sokoto State using polysaccharide meningococcal A & C vaccine for people aged two to 29 years.

- 5.13. Reactive vaccination completed in nine LGAs in Sokoto State using monosaccharide meningococcal conjugate C vaccine for aged one to 20 years.
- 5.14. Reactive vaccination campaign completed in Yobe State for people aged two to 29 years using polyvalent ACW conjugate vaccine.
- 5.15. Medical teams were trained and deployed to support case management in Sokoto and Zamfara States completed (from Friday 5th - 26th May, 2017).
- 5.16. Deployed mobile testing laboratory to Zamfara State to aid diagnosis
- 5.17. A Team was deployed by NCDC/WHO to support surveillance activities, laboratory data harmonization and monitoring of the implementation plan in Yobe state
- 5.18. National CSM EOC has been stepped down
- 5.19. Evaluation of the CSM outbreak response in Zamfara and Sokoto States is ongoing by NCDC and WHO
- 5.20. National CSM After-Action Review meeting conducted in Sokoto State from the 24th – 25th of July 2017.

6. GUINEA WORM DISEASE

- 6.1. In the reporting week, no rumour report of Guinea Worm disease was received from any State.
- 6.2. Nigeria has celebrated eight consecutive years of zero reporting of Guinea worm disease in the country. The Country has been officially certified free of Dracunculiasis transmission by the International Commission for the Certification of Dracunculiasis Eradication (ICCDE).

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SNO	State	Sars-vl Report	APP		CSM		Cholera		Measles		Lassa Fever		Guineavom Disease		HPAI		Other Diseases/Events		Remarks			
			New	Cumulative Data Wk-3	New	Cumulative Data Wk-3	New	Cumulative Data Wk-3	New	Cumulative Data Wk-3	New	Cumulative Data Wk-3	New	Cumulative Data Wk-3	New	Cumulative Data Wk-3	New	Cumulative Data Wk-3				
1	Abia	3,729,645	4	116																		
2	Adamawa	4,332,705	3	275	23	5																
3	Abia Dom	5,322,260	1	90																		
4	Abia Dom	5,036,457	7	168	7																	
5	Abia Dom	6,355,294	0	348	10	1	4	30,7														
6	Abia Dom	2,327,377	5	114	1																	
7	Abia Dom	5,900,420	94	195	21																	
8	Abia Dom	5,935,147	13	221	21	2	532															
9	Abia Dom	3,655,603	9	160	37	3	8,11															
10	Abia Dom	5,755,480	9	84	12	1																
11	Abia Dom	2,944,692	62	161	15																	
12	Abia Dom	4,144,254	12	257	2	1	30,0															
13	Abia Dom	3,035,725	10	250	8	1	1,33															
14	Abia Dom	4,338,862	9	101	49	2	7,428															
15	Abia Dom	3,377,200	10	208	40	2	4,00															
16	Abia Dom	3,203,994	15	245	4																	
17	Abia Dom	5,564,026	9	200																		
18	Abia Dom	5,555,577	60	507	48	2	1,20															
19	Abia Dom	3,975,547	26	320	1																	
20	Abia Dom	6,414,682	55	738	292	24	23,738															
21	Abia Dom	8,008,203	20	367	56	20	61,032															
22	Abia Dom	4,571,029	46	622	111	19	10,910															
23	Abia Dom	4,538,193	7	144																		
24	Abia Dom	3,222,142	1	55																		
25	Abia Dom	4,245,937	3	199	15	2	1,33															
26	Abia Dom	2,579,208	5	164	21																	
27	Abia Dom	5,702,245	5	145	114	33	28,59															
28	Abia Dom	5,323,207	5	238	15	2	1,33															
29	Abia Dom	4,753,102	10	170	18																	
30	Abia Dom	4,841,182	9	201	7	1	4,28															
31	Abia Dom	8,077,205	8	171	19																	
32	Abia Dom	4,251,143	15	257	30	2	3,00															
33	Abia Dom	7,400,455	10	255	28																	
34	Abia Dom	5,177,511	6	215	397	164	4,72															
35	Abia Dom	3,423,712	4	215	21																	
36	Abia Dom	3,339,453	10	314	3																	
37	Abia Dom	4,932,712	10	111	399	19	233,537	31	2	174	2	13	7,10	4	1	448	17	6	1,34			
Total		99,952,315	467	2003	14	101	1,010	102	1,210	36	2	814	14	21	244	398	6	1,633	100	1,539	65	6,27

Please note that the reporting status in this table is from WHO State office

Source: Nigeria Centre for Disease Control, NMCDC

Status Report: Estimated - Lassa Fever Report