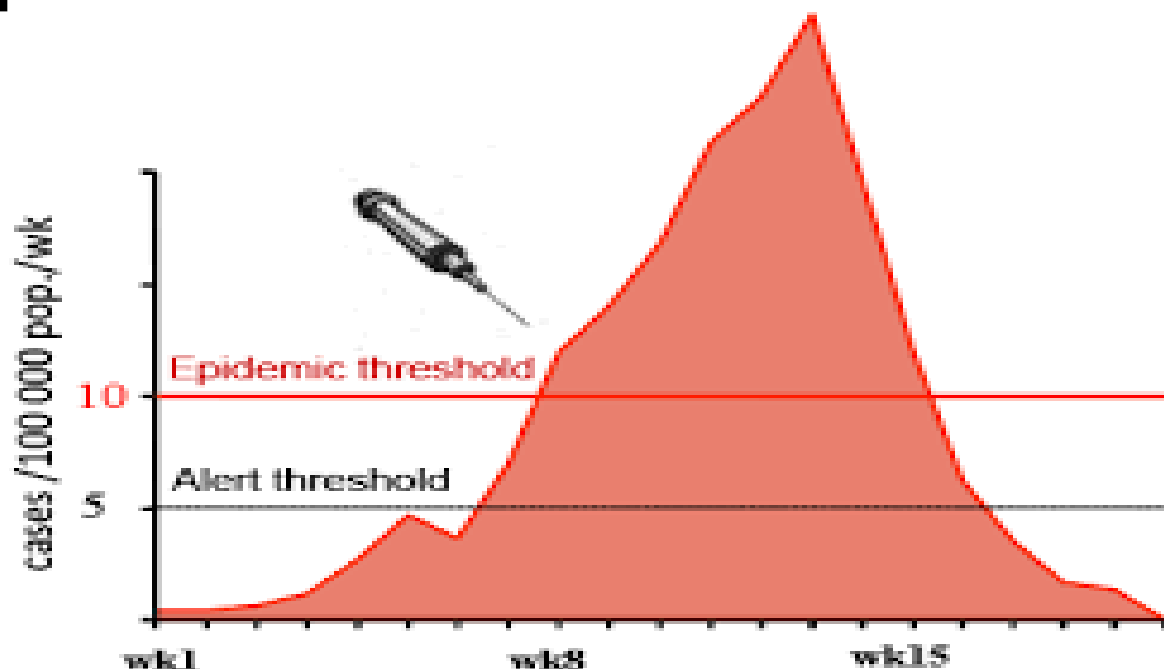


NIGERIA CENTRE FOR DISEASE CONTROL

Weekly Epidemiological Report

Main Highlight of the week

Thresholds are the starting point for outbreak identification



This week, the ongoing Cerebrospinal meningitis (CSM) outbreak entered its 18th week. The outbreak is seen to have spread to more LGAs across affected states as they reach either an alert or epidemic threshold of the disease. In this reporting week, a total of 193 LGAs are reported to be affected i.e. have reached an alert or an epidemic threshold.

The Integrated Disease Surveillance Report strategy being implemented in Nigeria provides guidance on how outbreaks can be identified using markers called thresholds. Thresholds signify when public health action should be taken and is assessed based on the total population in a given location (i.e. a Ward, Local Government Area (LGA) or State. Thresholds are applicable to all epidemic-prone diseases.

In 2016, the Nigeria Centre for Disease Control (NCDC) conducted a session for the review of CSM thresholds. This was done to enhance the sensitivity of case detection and

early institution of response measures, in the event of an outbreak. A summary of the thresholds can be seen in the Table below:

Table 1: CSM Threshold

	Population	
	30,000-100,000	Less than 30,000
Alert Threshold	3 Suspected cases /100,000 inhabitants/week (minimum of 2 cases in one week)	2 suspected cases in one week Or An increased incidence compared to previous non-epidemic years
Epidemic Threshold	10 Suspected cases/ 100,000 inhabitants/week	5 suspected cases in one week Or Doubling of the number of cases in a three-week period (e.g. week 1: 1 case, week 2: 2 cases week 3: 4 cases)

It is important that Surveillance Officers in the facility/LGA/State are able to identify thresholds. This begins with timely data collection and analysis. Data analysis provides an insight into happenings across locations and helps to inform decision-making. Thresholds are the templates on which outbreaks are founded and responses are mounted. The onus therefore lies on the LGA DSNO/State Surveillance team to ensure that data analysis is carried out across reporting facilities/LGAs and reports of such analysis are reviewed periodically. Early identification of thresholds helps for proper planning of response activities and prompt implementation of such.

The Nigeria Centre for Disease Control (NCDC), together with partner agencies, have been in the forefront of coordinating the response to the current outbreak in affected States. All States are encouraged to undertake accurate interpretation of data to inform a prompt and appropriate response.

In the reporting week:

- There were 226 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.
- There were seven suspected cases of Cholera reported from two LGAs (Zamfara State). No death was reported.
- There were 2048 suspected cases of Cerebrospinal Meningitis (CSM) reported from 116 LGAs in 21 States. Of these, 19 cases were laboratory confirmed and 52 deaths were recorded. Surveillance for CSM is ongoing and intensified in the States, especially as the dry season has set in.
- There were 425 suspected cases of Measles reported from 31 States including the FCT. Four laboratory confirmed cases and seven deaths were recorded.

In the reporting week, two States (Abia and Adamawa) failed to report while three States reported late. Timeliness of reporting increased from 78.0% in the previous week to 79.0% in the current week while completeness remains 99.0% in both previous and current weeks. It is very important for all States to ensure timely and complete reporting at all times.

Summary Table 2 (IDSR Weekly Report as at 21/04/2017)

Disease	Variables	Week 14	Week 15		Cumulative Weeks	
		2017	2017	2016	01 - 15, 2017	01 - 15, 2016
AFP	Cases	270	226	223	4,369	3206
	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	0	7	0	74	196
	Deaths	0	0	0	4	1
	CFR	0.00%	0.00%	0.00%	5.41%	0.51%
Lassa Fever	Cases	4	3	31	238	616
	Deaths	1	2	1	46	74
	CFR	25.00%	66.67%	3.23%	19.33%	12.01%
CSM	Cases	1517	2048	25	6485	454
	Deaths	114	52	0	458	25
	CFR	7.51%	2.54%	0.00%	7.06%	5.51%
Measles	Cases	623	425	845	8,686	13972
	Deaths	1	7	0	58	44
	CFR	0.16%	1.65%	0.00%	0.67%	0.31%
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. Three suspected cases of Lassa fever and two deaths (CFR, 66.670%) were reported from three LGAs (three States) in week 15, 2017 compared with 31 suspected cases with two laboratory confirmed and one death (CFR, 3.2%) from seven LGAs (four States) during the same period in 2016.
- 1.2. Laboratory results of the three suspected cases are still pending (Bauchi – 1, Taraba -1 and Yobe - 1).
- 1.3. Between weeks 1 and 15 (2017), 238 suspected Lassa fever cases with 58 laboratory confirmed cases and 46 deaths (CFR, 19.33%) from 48 LGAs (18 States) were reported compared with 616 suspected cases with 60 laboratory confirmed cases and 74 deaths (CFR, 12.01%) from 119 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 VHFs 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. Confirmed cases are being treated at identified treatment/isolation centres across the States with Ribavirin and necessary supportive management also instituted
- 1.5.8. Onsite support was earlier provided to Ogun, Nasarawa, Taraba, Ondo and Borno States by the NCDC and partners
- 1.5.9. Offsite support provided by NCDC/ Partners in all affected States
- 1.5.10. States are enjoined to intensify surveillance

Figure 1: Map of Nigeria showing areas affected by Lassa fever, week 1- 15, 2016 & 2017

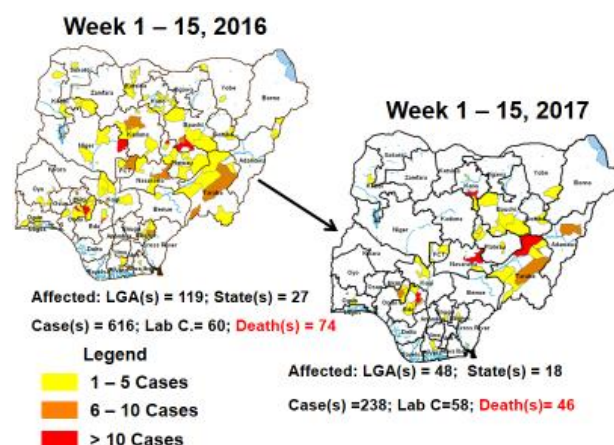
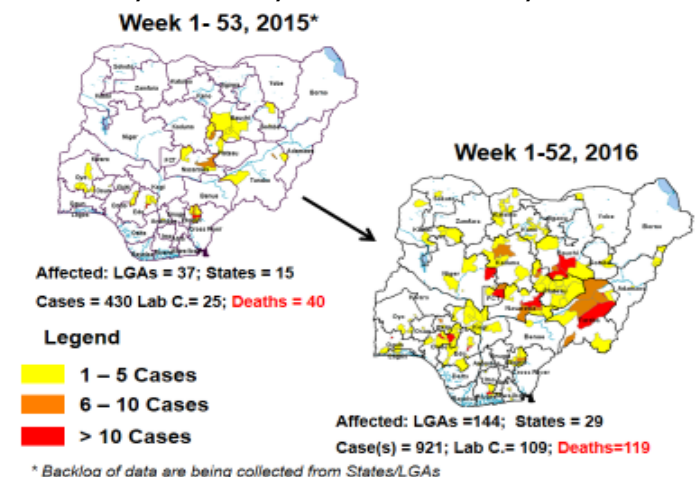


Figure 2: Map of Nigeria showing areas affected by Lassa fever, week 1 - 53, 2015 and week 1 – 52, 2016



2. MEASLES

- 2.1. In the reporting week, 425 suspected cases of Measles with four laboratory confirmed cases and seven deaths (CFR, 1.65%) were reported from 30 States and FCT compared with 845 suspected measles cases from 32 States during the same period in 2016.
- 2.2. So far, 8,686 suspected Measles cases with 59 laboratory confirmed cases and 58 deaths (CFR, 0. 67%) have been reported in 2017 from 36 States and FCT (Figure 4) compared with 13,972 suspected cases and 44 deaths (CFR, 0.31%) 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 immunisation for all vaccine-preventable diseases in some selected/affected wards/LGAs during SIAs, as well as case management.
- 2.5. Scheduled Measles campaign in the North East was 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

Figure 3: Suspected Measles attack rate by States, week 15, 2017 as at 21st April, 2017

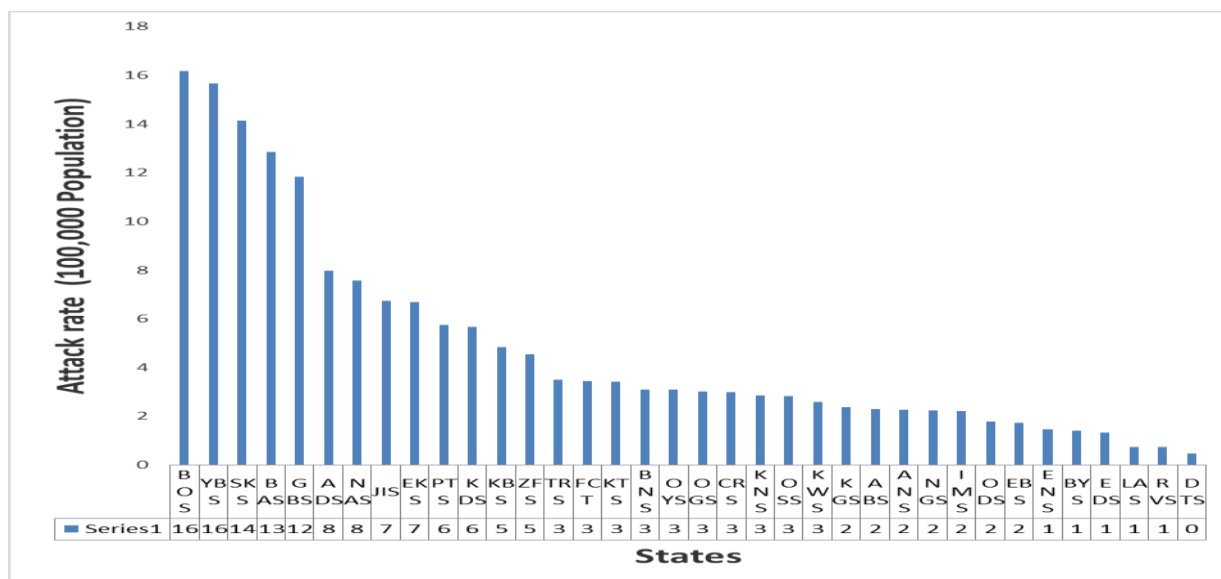


Figure 4: Nigeria Distribution of suspected Measles cases, Week 1- 15, 2017as at 21/04/2017

Distribution of Suspected Measles Cases, Wks01-15 2017

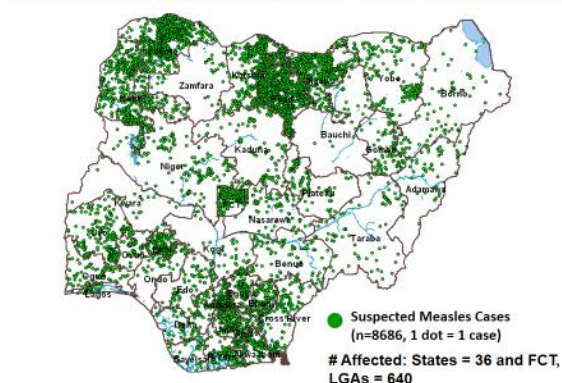
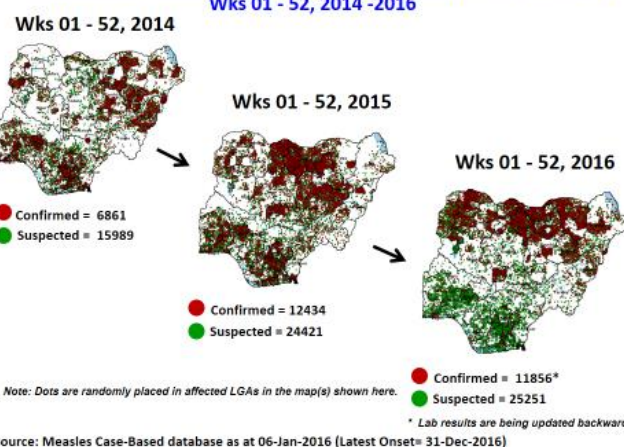


Figure 5: Suspected & confirmed (Lab + Epi Link + Clinical) Measles cases 2014, 2015 and 2016

Suspected and Confirmed (Lab + Epi Link + Clinical) Measles Cases, Wks 01 - 52, 2014 -2016



3. POLIOMYELITIS

- 3.1. As at April 14th 2017, no new case of WPV recorded
- 3.2. Three new cVDPV2, environmental derived and Polio compatible cases identified
- 3.2.1. In the reporting week, 226 cases of AFP were reported from 166 LGAs in 33 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 3
- 3.2.4. The 2nd round of SIPDs completed (25th-28th February, 2017) in 14 high risk States using bOPV.
- 3.2.5. The 3rd and 4th rounds of NIPDs completed (from 25th – 28th March, 2017 & 22nd – 25th April, 2017) nationwide respectively.
- 3.2.6. Between weeks 1 and 52, 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 2 LGAs (2 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. Immunisation 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 for 2017

Week 52, 2014 - 2016 (Data as at 07/04/17)

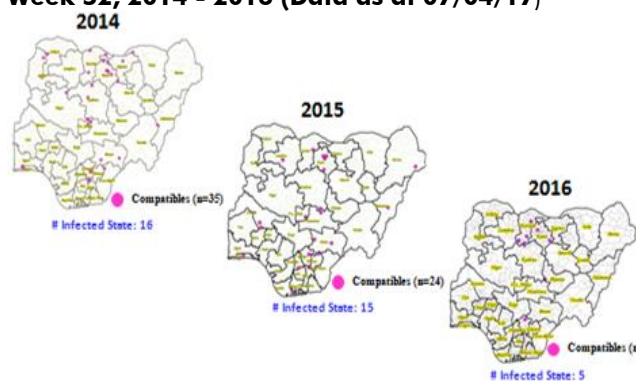


Table 3: EOC Planned SIAs Calendar

S/No	Month	Dates	Scope	Remarks	Target Populations	Antigen	Outcome
1	January	28 th - 31 st	SIPDs (18 States)	2nd mOPV2 OBR in 18 states	33,478,035	mOPV2	Completed
	January	28 th - 31 st	Bodinga LGA & 2 wards in Shagari	the missed bOPV round in Dec 16	84,632	bOPV	
2	February	25 th - 28 th	SIPDs (14 High Risk States)	List of high risk states reviewed using the HR26,256,251 Algorithm and local information on risk	26,256,251	bOPV	Completed
3	March	25 th - 28 th	NIPDs (36+1)	Nationwide	59,961,520	bOPV	Completed
4	April	22 nd - 25 th	NIPDs (36+1)	Nationwide	59,961,520	bOPV	Pending
5	July	1 st - 4 th	SIPDs (14 High Risk States)	High Risk States	26,256,251	bOPV	Pending
6	September	9 th - 12 th	SIPDs (14 High Risk States)	High Risk States	26,256,251	bOPV	Pending
7	October	14 th - 17 th	SIPDs (6 High Risk States)	High Risk States	26,256,251	bOPV	Pending
8	December	9 th - 12 th	SIPDs (18 High Risk States)	High Risk States	26,256,251	bOPV	Pending

4. CHOLERA

- 4.1. Seven suspected cases of Cholera were reported from two LGAs (Zamfara State) in week 15 (2017), compared with zero case during the same period in 2016.
- 4.2. Between weeks 1 and 15 (2017), 74 suspected Cholera cases and four deaths (CFR, 5.41%) from 12 LGAs (ten States) were reported compared with 196 suspected cases and one death (CFR, 0.52%) from 22 LGAs (eight 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. States are enjoined to intensify surveillance.

Figure 7: Status of LGAs/States that reported Cholera cases in week 1- 15, 2016 & 2017

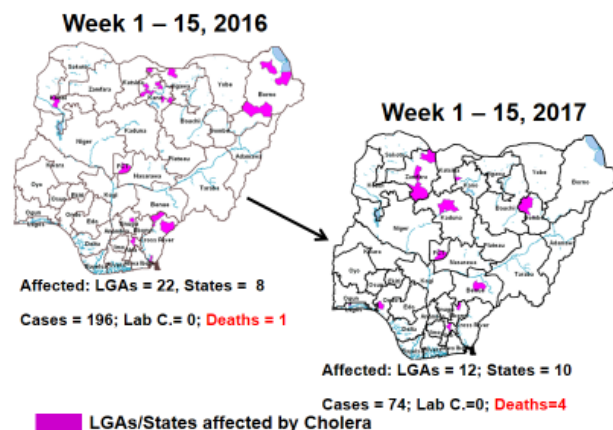
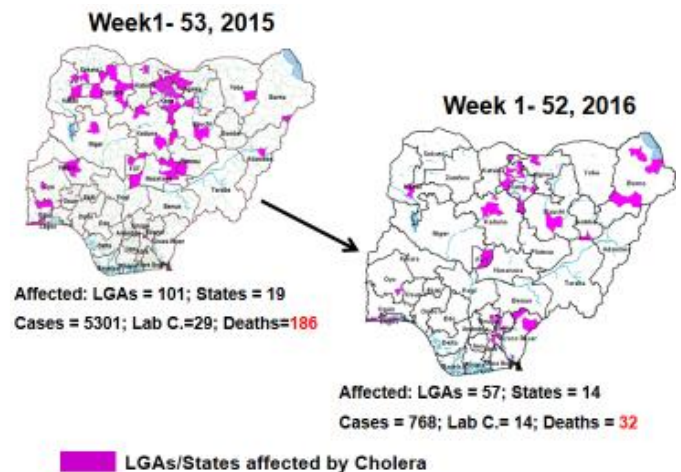


Figure 8: Status of LGAs/States that reported Cholera cases in week 1- 52, 2015 & 2016



5. CEREBROSPINAL MENINGITIS (CSM)

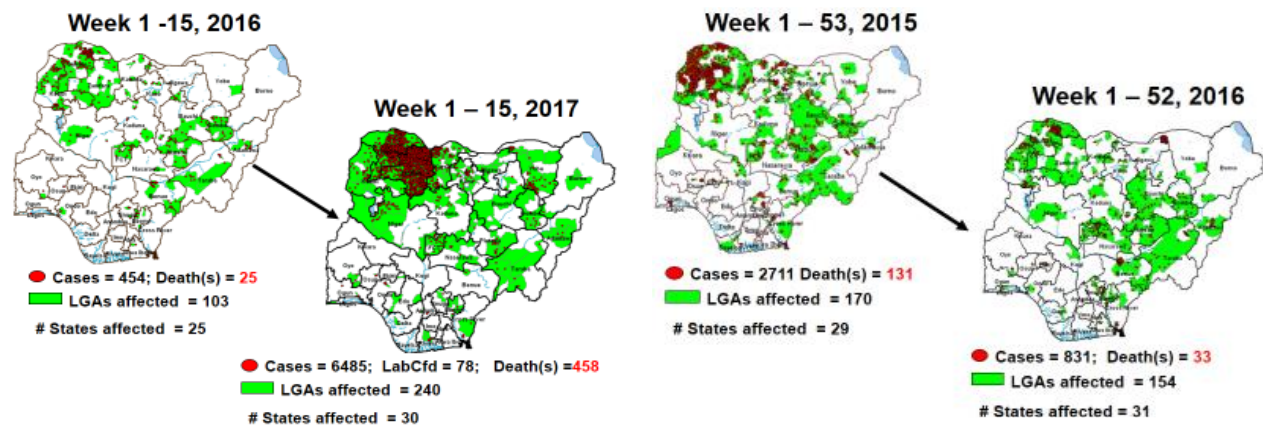
5.1. In the reporting week, 2048 suspected Cerebrospinal Meningitis (CSM) cases with 19 laboratory confirmed cases and 52 deaths (CFR, 2.54%) were reported from 116 LGAs (21 States) compared with 25 suspected cases from nine LGAs (seven States) during the same period in 2016.

5.2. Between weeks 1 and 15 (2017), 6485 suspected CSM cases with 78 laboratory confirmed cases and 458 deaths (CFR, 7.06%) were recorded from 240 LGAs (30 States) compared with 454 suspected cases and 25 deaths (CFR, 5.51%) from 103 LGAs (25 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 – 15, 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 National Level (2017 versus 2016): on average, 78.5% of the 26 endemic States sent CSM reports in a timely manner while 96.2% were complete in week 1 – 15, 2017 as against 82.8% timeliness and 96.7% completeness recorded within the same period in 2016
- 5.5. CSM preparedness checklist sent to 36 States and FCT ahead of 2017 meningitis season completed
- 5.6. Confirmed cases are being treated at identified treatment centres in three States (Zamfara, Sokoto and Katsina) and necessary supportive management also instituted
- 5.7. Onsite support was earlier provided to Zamfara State and still ongoing.
- 5.8. Onsite support ongoing Sokoto, Katsina, Kebbi, Kano and Niger States by NCDC and partners
- 5.9. Intensive Surveillance is on-going in high risk States.
- 5.10. Reactive vaccination completed in Zamfara State for people aged one to 29 years using polysaccharide meningococcal A & C vaccine.
- 5.11. 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.
- 5.12. Reactive vaccination ongoing in nine LGAs in Sokoto State using monosaccharide meningococcal conjugate C vaccine for aged one to 20 years.
- 5.13. Proposed reactive vaccination in Katsina States in progress.

6. GUINEA WORM DISEASE

- 6.1. In the reporting week, no rumour reports 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).

(For further information, contact NIGEP NC/Director: Mrs. I, Anagbogu: +2348034085607, ifechuba@yahoo.co.uk)

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www.ncdc.gov.ng/reports
0800-970000-10

Table 4: Status of Reporting by the State Epidemiologists, Nigeria, Weeks 1 - 15, 2017, as at 21st April, 2017

Table 5: Updates on Epidemics, Week 1- 15 (10th – 16th April, 2017) as at 21st April, 2017)

SNo	State	Location	WGS	Year	Sampled	IPP			CSM			Cholera			Measles			Lassa Fever			Guinea Worm Disease			HPV			Other Diseases/Events			Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Please note that the reporting status in this table is from WHO Surveillance

Source: Nigeria Centre for Disease Control (NCDC), Abia State
Status in Report: 1 = Confirmed, 2 = Suspected, 3 = Probable, 4 = Possible, 5 = Unlikely