

NIGERIA CENTRE FOR DISEASE CONTROL

# Weekly Epidemiological Report

Main Highlight of the week

## A high index of suspicion is important for case identification of Lassa fever



It has been 12 weeks since the first Lassa fever case in this ongoing outbreak was reported in December 2016. In this reporting week (week 8, 2017), Gombe and Cross River States each reported their first case, bringing the total number of affected states to 12. In this week, 15 new suspected cases were reported from six States. Laboratory investigations carried out confirmed six of these cases as positive for Lassa fever, and three deaths recorded.

So far, 240 suspected cases have been reported with 69 cases classified as confirmed and five cases classified as probable. There have been 41 deaths reported (36 in

confirmed cases and five in probable cases). The case fatality rate for all cases is 21.3% and 55.4% for all confirmed/probable cases.

Various strategies are utilized in disease preparedness and response. One of such steps recently used by the NCDC is the administration of a preparedness checklist to all 36 States in Nigeria and the FCT. The checklist was provided to all State Epidemiologists to gather information on the level of preparedness of each State for disease-specific outbreaks. The information provided would not only inform decision making, but also advocacy for improved surveillance activities at every State.

The NCDC has continuously coordinated the outbreak response in the affected States while providing support (on-site and off-site) to these States. Pre-positioning of commodities in all States of the Federation was strictly for immediate response and emergency purposes during outbreaks. Subsequently, States have the responsibility of sustaining their stock of PPEs, drugs and other medical supplies.

### Case Identification: The Cross River Story

The first confirmed case of Lassa fever in Cross Rivers was reported to the NCDC on the 23<sup>rd</sup> of February 2017. The index case was a 22 year old pregnant woman who traveled with her husband to Port Harcourt, Rivers State to visit her father on the 12<sup>th</sup> of January 2017. She was in Rivers State till the 28<sup>th</sup> of January and afterwards, traveled to Otukpo, Benue State. She started feeling ill during her stay in Otukpo and sought care at an unnamed health facility. She returned to Calabar, Cross River State on the 13<sup>th</sup> of February and on the following day, registered for Ante-natal Care (ANC) at a military hospital. She was treated for malaria in pregnancy but her symptoms did not abate and she returned to the military hospital, two days later (16<sup>th</sup> February 2017).

On re-presentation, she had developed dryness in her throat, cough (with blood), epigastric pain and lower abdominal pain. At this point, she was admitted and after two days, she had a miscarriage and expelled the fetus. She was referred to the Teaching Hospital in Calabar on account of profuse bleeding. She was however, taken to the Navy Hospital by her relatives. It was at the Navy Hospital that the managing team, with a high index of suspicion took her sample for Lassa fever testing. She was transfused with 2 pints of blood and then referred to the Teaching Hospital for further management. At the Teaching Hospital, she was taken to the theatre for evacuation but the patient died a few hours later. Her body was taken to the mortuary on the same day and corpse was later taken away from mortuary by her father for burial in Gokana, Rivers State.

Contact tracing has been instituted and the NCDC has supported with provision of oral Ribavirin to the State for the identified contacts as well as off-site technical support. The Rivers State Ministry of Health has been notified about the burial and contact tracing for people who had contact with the corpse during the burial proceedings has commenced.

This scenario highlights the importance of **universal care precautions** and **high index of suspicion** by health workers, which has been the crux of recent campaigns by the NCDC. There was no suspicion of Lassa fever until the later stage of the disease, despite her non-response to malaria medication. A better response would have been immediate isolation and early test and treatment for Lassa fever.

States are encouraged to support sensitization activities, in different dialects to reach out to the communities in their individual States. Such messages are intended to provide necessary information on the seasonality of the disease, signs and symptoms to look out for and place to seek help. Health workers are also encouraged to always apply universal care precautions while handling patients, and suspect for Lassa fever if a malaria test returns negative or symptoms persist despite treatment.

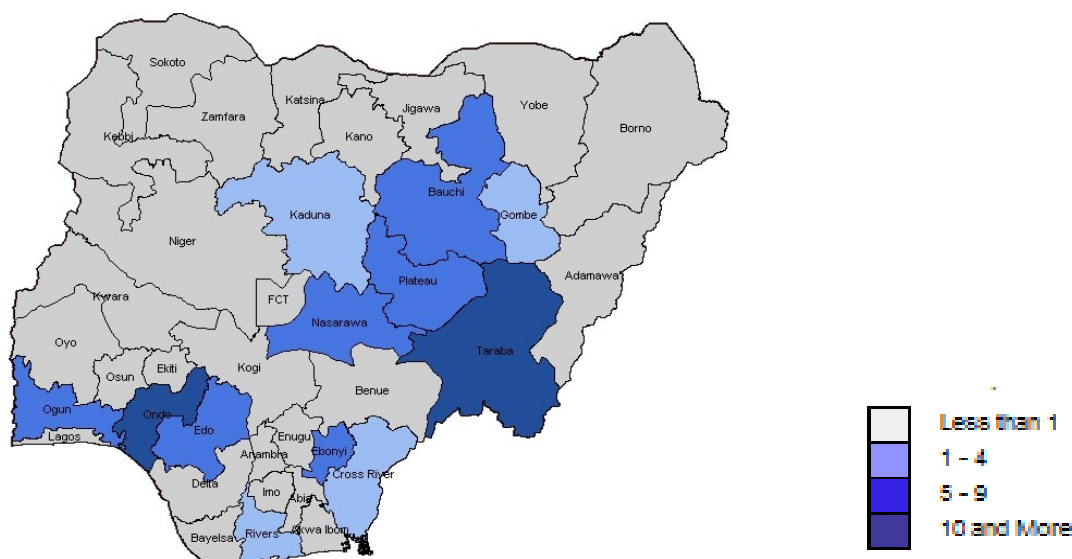
In the reporting week, ending 24<sup>th</sup> February 2017:

- There were 250 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 reinvested its efforts to eradicate Polio.
- One suspected case of Cholera was reported from Gombe LGA (Gombe State). Further investigation confirmed it to be gastroenteritis.
- There were 26 suspected cases of Cerebrospinal Meningitis (CSM) reported from nine LGAs in seven States. Of this, two were laboratory confirmed and no death was recorded. Surveillance for CSM is ongoing and intensified in the States, particularly as the dry season has set in.
- There were 352 suspected cases of measles reported from 29 States including the FCT. None was laboratory confirmed and no death was recorded.

In the reporting week, seven States (Akwa-Ibom, Benue, Borno, Cross River, Delta, Imo and Kaduna) failed to report and three States reported late. Timeliness of reporting remains 73.0% in the previous week and current week while completeness stands at 92.0% in both the previous and current week.

Summary Table (IDSR Weekly Report as at 17/02/2017)

Disease	Variables	Week 06	Week 07		Cumulative Weeks	
		2017	2017	2016	01 - 7, 2017	01 - 7, 2016
AFP	Cases	221	250	194	1,735	1007
	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	1	0	37	94
	Deaths	0	0	0	4	0
	CFR	0.00%	0.00%	0.00%	10.81%	0.00%
Lassa Fever	Cases	8	8	19	146	396
	Deaths	2	2	4	23	64
	CFR	25.00%	25.00%	21.05%	15.75%	16.16%
CSM	Cases	71	26	31	268	102
	Deaths	10	0	3	32	5
	CFR	14.08%	0.00%	9.68%	11.94%	4.90%
Measles	Cases	438	352	991	2,945	4503
	Deaths	0	0	0	22	13
	CFR	0.00%	0.00%	0.00%	0.75%	0.29%
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%



**Figure 1. States with confirmed cases of Lassa Fever - Dec. 2016 to Feb. 2017 (updated as at Feb. 24 2017), N = 74**

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. Eight suspected cases of Lassa fever with one laboratory confirmed and two deaths (CFR, 25.0%) were reported from six LGAs (six States) in week 7, 2017 compared with 19 suspected cases with four laboratory confirmed and four deaths (CFR, 21.1%) from 14 LGAs (8 States) at the same period in 2016 (Figure 2).
  - 1.2. Laboratory results of the eight suspected cases were one positive & two negative for Lassa fever and other VHFs.
  - 1.3. Between weeks 1 and 7 (2017), 146 suspected Lassa fever cases with 38 lab-confirmed and 23 deaths (CFR, 15.75%) from 29 LGAs (10 States) were reported compared with 396 suspected cases with 39 lab-confirmed and 64 deaths (CFR, 16.16%) from 101 LGAs (25 States) at the same period in 2016 (Figure 2).
  - 1.4. Between weeks 1 & 52 2016, 921 suspected Lassa fever cases with 109 laboratory confirmed and 119 deaths (CFR, 12.92%) from 144 LGAs (28 States & FCT) were reported compared with 430 suspected cases with 25 lab-confirmed and 40 deaths (CFR, 9.30%) from 37 LGAs (14 States & FCT) at the same period in 2015 (Figure 3).
  - 1.5. Investigation and active case search ongoing in affected States with coordination of all response activities by NCDC and support from partners.
    - 1.5.1. National Lassa Fever Working Group meeting and National Surveillance and Outbreak Response Working Group meeting on-going weekly at NCDC to assess the current Lassa fever situation in the country, as well as preparedness and response activities for other diseases.
    - 1.5.2. Response materials for VHFs prepositioned across the country by NCDC at the beginning of the dry season,
    - 1.5.3. Revised VHF guidelines being developed by NCDC
    - 1.5.4. Reclassification of reported Lassa fever cases is ongoing
    - 1.5.5. Review of variables for case based surveillance for VHF is ongoing
    - 1.5.6. VHF case based forms completed by affected States are being entered into the new VHF management system. This system allows for creation of a VHF database for the country.
    - 1.5.7. Confirmed cases are being treated at identified treatment/isolation centers

- across the states with Ribavirin and necessary supportive management also instituted
- 1.5.8. Onsite support was earlier provided to Ogun, Nasarawa, Taraba and Ondo States.
  - 1.5.9. NCDC provided Ribavirin tablets to Cross-River State as part of the ongoing response.
  - 1.5.10. States are enjoined to intensify surveillance

Figure 2: Map of Nigeria showing areas affected by Lassa fever, week 1 - 7, 2016 & 2017

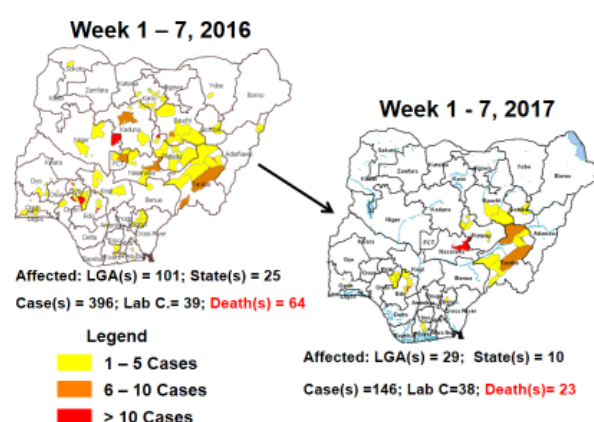
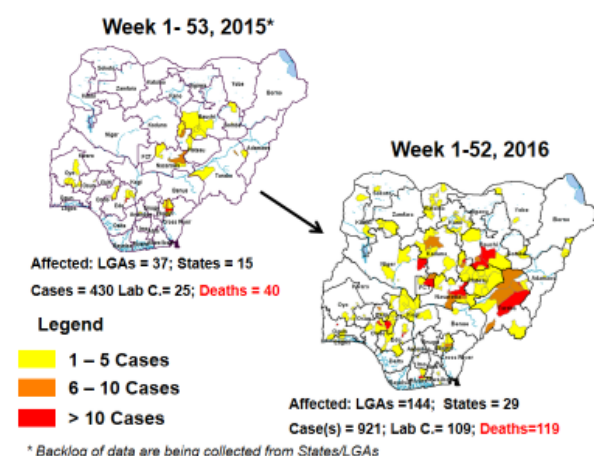


Figure 3: Map of Nigeria showing areas affected by Lassa fever, week 1 - 53, 2015 & 2016



## 2. MEASLES

- 2.1. In the reporting week, three hundred & fifty-two (352) suspected cases of Measles and 0 death were recorded from 28 States & FCT compared with 991 suspected measles cases from 33 States at the same period in 2016.

- 2.2. So far, 2,945 suspected Measles cases with 35 Lab. Confirmed and 22 deaths (CFR, 0.75%) have been reported in 2017 from 36 states & FCT (Figure 3 & 4) compared with 4,503 suspected cases and 13 deaths (CFR, 0.29%) from 36 states & FCT at 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%) at the same period in 2015
- 2.4. Response measure includes immunization for all vaccine-preventable diseases in some selected/ affected wards/LGAs during SIAs with case management.
- 2.5. Scheduled measles campaign in the North East conducted from 12th - 17th January, 2017 in Adamawa, Borno & Yobe States (Phase I) and phase II from 21<sup>st</sup> - 25<sup>th</sup> January, 2017, Borno State & 4<sup>th</sup> - 8<sup>th</sup> February, 2017, Yobe State

Figure 4: Suspected measles cases by States, week 7, 2017 as at 24th February, 2017

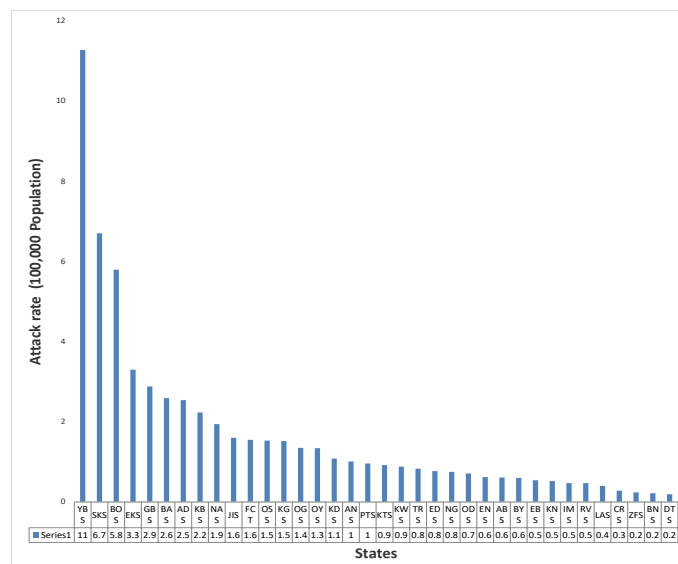
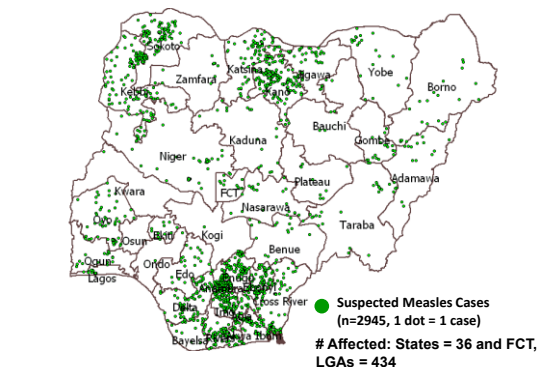




Figure 5: Nigeria: Distribution of suspected measles cases, week 1 - 7, 2017 as at 24/02/2017

**Distribution of Suspected Measles Cases, Wks01-07 2017**



Source: Measles Case-Based database as at 24-Feb-2016

**Suspected and Confirmed (Lab + Epi Link + Clinical) Measles Cases, Wks01-52, 2014 -2016**

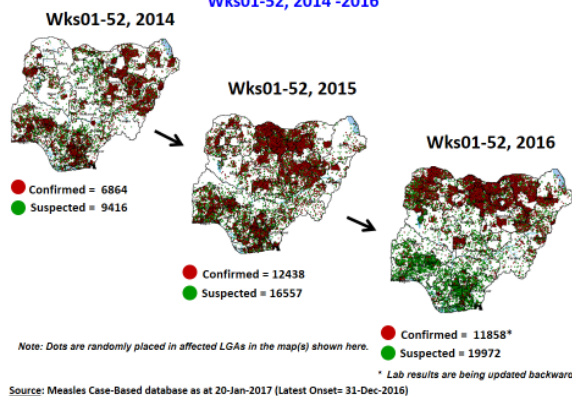


Figure 6 Nigeria: Suspected & Confirmed (Lab+Epi Link + Clinical) Measles cases 2014, 2015 & 2016

### 3. POLIOMYELITIS

- 3.1. As at February 17<sup>th</sup> 2017, no new case of WPV recorded
- 3.2. No new cVDPV2, environmental derived and Polio compatible cases identified
  - 3.2.1. In the reporting week, 250 cases of AFP were reported from 183 LGAs in 28 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 1<sup>st</sup> round of NIPDs in 2017 was conducted from 28<sup>th</sup> – 31<sup>st</sup> January 2017 in the 18 high risk states. This was carried out using mOPV2 (2<sup>nd</sup> mOPV2 OBR). The schedule for other SIAs is as in Figure 8.

- 3.2.4. The 2<sup>nd</sup> round of SIPDs is ongoing (25<sup>th</sup>-28<sup>th</sup> February, 2017) in 14 high risk States
- 3.2.5. Between weeks 1 & 52, 2016 four WPVs were isolated from Borno State compared to no WPV isolated at the same period in 2015.
- 3.3. No circulating Vaccine Derived Polio Virus type 2 (cVDPV2) was isolated in both week 1 - 5, 2016 and 2015.
- 3.4. Between weeks 1 & 52, 2016 two (2) cVDPV2 were isolated in 2 LGAs (2 States) while one (1) cVDPV2 were isolated from Kwali, FCT at the same period in 2015.
- 3.5. Six (6) confirmed WPV 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 7: Polio Compatible cases in Nigeria as at week 52, 2014 - 2016 (Data as at 17/02/17)

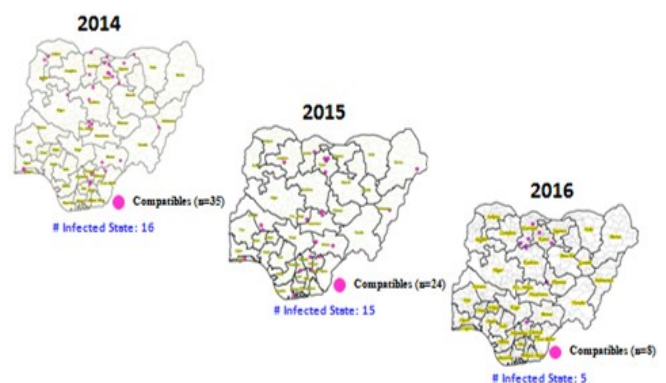


Figure 8: EOC Planned SIAs Calendar for 2017

S/No	Month	Dates	Scope	Remarks	Target Populations	Antigen	Outcome
1	January	28 <sup>th</sup> - 31 <sup>st</sup>	SIIDs (18 States)	2nd mOPV2 OBR in 18 states	33,478,035	mOPV2	Completed
	January	28 <sup>th</sup> - 31 <sup>st</sup>	SIIDs (18 States)	2nd mOPV2 OBR in 18 states	33,478,035	mOPV2	
2	February	25 <sup>th</sup> - 28 <sup>th</sup>	SIIDs (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	Ongoing
3	March	25 <sup>th</sup> - 28 <sup>th</sup>	NIPDs (36+1)	Nationwide	59,961,520	bOPV	Pending
4	April	22 <sup>nd</sup> - 25 <sup>th</sup>	NIPDs (36+1)	Nationwide	59,961,520	bOPV	Pending
5	July	1 <sup>st</sup> - 4 <sup>th</sup>	SIIDs (14 High Risk States)	High Risk States	26,256,251	bOPV	Pending
6	September	9 <sup>th</sup> - 12 <sup>th</sup>	SIIDs (14 High Risk States)	High Risk States	26,256,251	bOPV	Pending
7	October	14 <sup>th</sup> - 17 <sup>th</sup>	SIIDs (6 High Risk States)	High Risk States	26,256,251	bOPV	Pending
8	December	9 <sup>th</sup> - 12 <sup>th</sup>	SIIDs (18 High Risk States)	High Risk States	26,256,251	bOPV	Pending

#### 4. CHOLERA

- 4.1. One suspected case of Cholera was reported from Gombe LGA (Gombe State) in week 7 (2017), compared with zero case at the same period in 2016 (Figure 9).
- 4.2. Between weeks 1 and 7 (2017), 37 suspected cholera cases and four deaths (CFR, 10.81%) from six LGAs (six States) were reported compared with 94 suspected cases from five LGAs (three States) at the same period in 2016 (Figure 9).
- 4.3. Between weeks 1 and 52 (2016), 768 suspected cholera cases with 14 lab-confirmed and 32 deaths (CFR, 4.17%) from 57 LGAs (14 States and FCT) were reported compared with 5,301 cases with 29 lab confirmed and 186 deaths (CFR, 3.51%) from 101 LGAs (18 States and FCT) at the same period in 2015 (Figure 10).
- 4.4. States are enjoined to intensify surveillance.

Figure 9: Status of LGAs/States that reported Cholera cases in week 1 - 6, 2016 & 2017

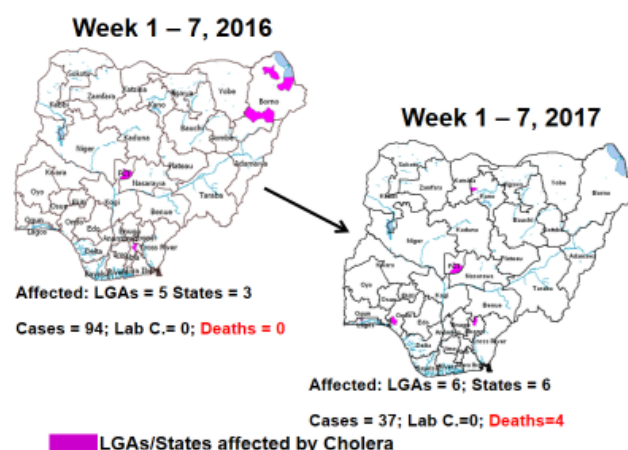
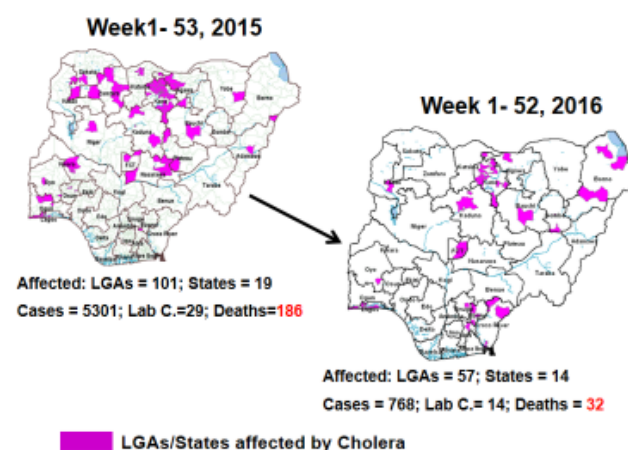


Figure 10: Status of LGAs/States that reported Cholera cases in week 1 - 52, 2015 & 2016



#### 5. CEREBROSPINAL MENINGITIS (CSM)

- 5.1. In the reporting week, 26 suspected cerebrospinal meningitis (CSM) cases with 2 Lab. Confirmed were reported from 9 LGAs (7 States) compared with 31 cases with 3 Lab confirmed and 3 deaths (CFR, 9.68%) from 17 LGAs (12 States) at the same period in 2016.
- 5.2. Between weeks 1 & 7 (2017), 268 suspected CSM cases with 6 Lab. confirmed and 32 deaths (CFR, 11.94%) were recorded from 56 LGAs (21 States) compared with 102 suspected cases and 5 deaths (CFR, 4.90%) from 44 LGAs (17 States) at the same period in 2016 (Figure 11).
- 5.3. Between weeks 1 & 52, 2016, 831 suspected CSM cases with 43 lab-confirmed and 33 deaths (CFR, 3.97%)

were recorded from 154 LGAs (30 States and FCT) compared with 2711 suspected cases and 131 deaths (CFR, 4.83%) from 170 LGAs (28 States and FCT) at the same period in 2015 (Figure 12)

Figure 11: Map of Nigeria showing areas affected by CSM, week 1 – 7, 2016 & 2017

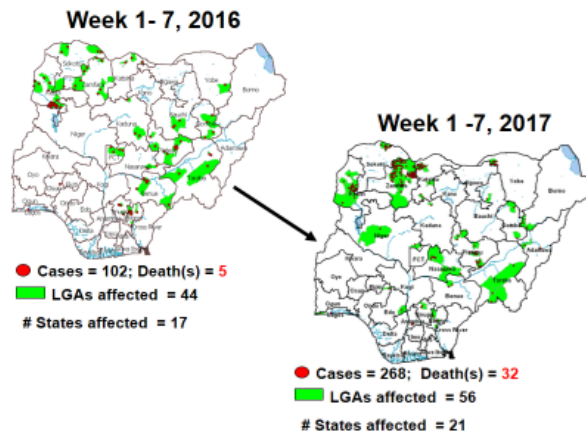
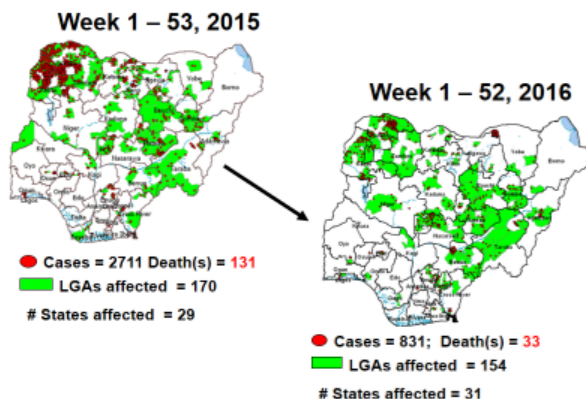


Figure 12: Nigeria: Dot maps of CSM cases, week 1 - 53, 2015 & 2016



- 5.4. Timeliness/completeness of CSM case-reporting from States to National Level (2017 versus 2016): on the average, 76.4% of the 26 endemic states sent CSM reports timely while 91.2% were complete in week 1 – 7, 2017 as against 82.4% timeliness and 94.0% completeness recorded within the same period in 2016.

- 5.5. CSM preparedness checklist sent to 36 States and FCT in response to 2017 meningitis season
- 5.6. CSM surveillance evaluation to be held in first quarter of 2017
- 5.7. Intensive Surveillance is on-going in high risk States.
- 5.8. Request for reactive vaccination campaign in Zamfara State made to the National Primary Healthcare Development Agency (NPHCDA)

## 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 8 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](mailto:ifechuba@yahoo.co.uk))

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0800-970000-10



Keys:										Timely Reports	<50%	Poor	10 States		
T= Arrived on Time											50-79%	Good	5 States		
L= Arrived late											N	Report not received	80-100%	Excellent	22 States
N= No Report (Report not received)															
State	GeoZones	W01	W02	W03	W04	W05	W06	W07	Expected (Es)	Timely Rpts (Ts)	Late Rpts (Ls)	Rpts Not Recvd (Ns)	% Timely	% Complete	
Abia	SEZ	N	N	N	N	N	T	L	7	1	1	5	14%	29%	
Adamawa	NEZ	L	L	L	L	L	L	T	7	1	6	0	14%	100%	
Akwa Ibom	SSZ	T	L	T	T	T	T	N	7	5	1	1	71%	86%	
Anambra	SEZ	T	T	T	T	L	T	T	7	6	1	0	86%	100%	
Bauchi	NEZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Bayelsa	SSZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Benue	NCZ	T	T	T	T	T	T	N	7	6	0	1	86%	86%	
Borno	NEZ	L	T	T	T	T	T	N	7	5	1	1	71%	86%	
Cross River	SSZ	N	N	N	N	N	N	N	7	0	0	7	0%	0%	
Delta	SSZ	L	T	L	L	L	T	N	7	2	4	1	29%	86%	
Ebonyi	SEZ	T	L	L	L	T	L	T	7	3	4	0	43%	100%	
Edo	SSZ	L	L	L	L	T	L	T	7	2	5	0	29%	100%	
Ekiti	SWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Enugu	SEZ	L	L	L	L	T	L	T	7	2	5	0	29%	100%	
FCT	NCZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Gombe	NEZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Imo	SEZ	L	L	L	L	N	N	N	7	0	4	3	0%	57%	
Jigawa	NWZ	T	T	T	L	L	L	L	7	3	4	0	43%	100%	
Kaduna	NWZ	T	T	T	T	L	T	N	7	5	1	1	71%	86%	
Kano	NWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Katsina	NWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Kebbi	NWZ	T	T	T	T	L	L	T	7	5	2	0	71%	100%	
Kogi	NCZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Kwara	NCZ	L	L	L	L	L	L	L	7	0	7	0	0%	100%	
Lagos	SWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Nasarawa	NCZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Niger	NCZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Ogun	SWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Ondo	SWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Osun	SWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Oyo	SWZ	T	T	L	T	T	T	T	7	6	1	0	86%	100%	
Plateau	NCZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Rivers	SSZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Sokoto	NWZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Taraba	NEZ	T	T	T	T	T	T	T	7	7	0	0	100%	100%	
Yobe	NEZ	T	L	T	T	T	T	T	7	6	1	0	86%	100%	
Zamfara	NWZ	T	T	T	L	T	L	N	7	4	2	1	57%	86%	
Total number of reports expected (E)		37	37	37	37	37	37	37	259						
Total reports sent on time (T)		28	27	27	26	27	27	26		188					
Total reports sent late (L)		7	8	8	9	7	8	3			50				
Total number of reports not received (N)		2	2	2	2	3	2	8				21			
Timeliness of reports =100*(T/E)		75.7	73.0	73.0	70.3	73.0	73.0	70.3					73%		
Completeness of reporting=100*(E-N)/E		94.6	94.6	94.6	94.6	91.9	94.6	78.4						92%	
Latest Week		7											Last updated 24th February, 2017		

**Business and Finance**