

NIGERIA CENTRE FOR DISEASE CONTROL

Weekly Epidemiological Report

Main Highlight of the week

ESTABLISHING LABORATORY SUPPORT FOR PUBLIC HEALTH SURVEILLANCE



This week, we round up our series on laboratory and its role in surveillance and disease control by focusing on establishing laboratory support for public health surveillance.

It is important to note that at every level of laboratory service delivery, certain activities are important in strengthening and driving the activities of the laboratory in public health surveillance. Below is a summary of some important outbreak preparedness and response activities, where laboratory support is essential.

1. Identification and diagnosis of diseases of public health importance
2. Mapping of laboratory facilities and human resources including reference laboratories
3. Establishment of communication linkage between the laboratory and disease surveillance unit at each level, particularly for prompt and regular report of results and feedback
4. Identification of a focal person to coordinate laboratory activities
5. Identification of laboratory supplies and logistics needed
6. Provision of appropriate laboratory guidelines and forms
7. Development of epidemic preparedness and response plans

Evidently, the laboratory is a very crucial component of an effective public health surveillance system. It is important that focus on this area is established and sustained at every level of the health sector with public health officers at each level taking responsibility for activities as it concerns them.

Reference

1. http://www.who.int/ihr/lyon/surveillance/lab_surveillance/en/

In the reporting week ending on December 17, 2017:

- o There were 113 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 reinvigorated its efforts at eradicating Polio.
- o 165 suspected cases of Cholera were reported from 14 LGAs in two States (Kano – 106 and Zamfara – 59). Six were laboratory confirmed and five deaths were recorded.
- o Six suspected cases of Lassa fever were reported from four LGAs in four States (Edo – 1, FCT – 1, Ondo - 1 & Osun - 3). Two were laboratory confirmed and one death was recorded.

- There were 53-suspected cases of Cerebrospinal Meningitis (CSM) reported from 13 LGAs in four States (Katsina - 9, Oyo – 4, Sokoto - 2 & Zamfara – 38). Of these, three were laboratory confirmed and four deaths were recorded. Ongoing surveillance for CSM has been intensified in all the 26 States in the Nigeria meningitis belt and case based surveillance commenced from 4th December, 2017.
- There were 238 suspected cases of Measles reported from 31 States. None was laboratory confirmed and two deaths were recorded.

In the reporting week, all States sent in their report. This is a remarkable improvement! Timeliness of reporting remains 86% in both previous and current weeks (Week 49 and 50) while completeness remains at 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 22/12/2017)

Disease	Variables	Week 49	Week 50		Cumulative Weeks	
		2017	2017	2016	01 - 50, 2017	01 - 50, 2016
AFP	Cases	119	113	167	14,044	13408
	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	4
	WPV Types 1	0	0	0	0	4
	WPV Types 3	0	0	0	0	0
Cholera	Cases	11	165	0	3,911	768
	Deaths	0	5	0	93	32
	CFR	0.00%	3.03%	0.00%	2.38%	4.17%
Lassa Fever	Cases	18	6	16	720	902
	Deaths	1	1	2	70	114
	CFR	5.56%	16.67%	12.50%	9.72%	12.64%
CSM	Cases	11	53	4	9992	826
	Deaths	1	4	0	611	33
	CFR	9.09%	7.55%	0.00%	6.11%	4.00%
Measles	Cases	238	298	171	21,698	25023
	Deaths	2	3	0	117	102
	CFR	0.84%	1.01%	0.00%	0.54%	0.41%
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 two Laboratory confirmed and one death (CFR, 16.67%) were reported from four LGAs (four States: Edo – 1, FCT – 1, Ondo - 1 & Osun - 3) in week 50, 2017 compared with 16 suspected cases and two deaths (CFR, 12.50%) reported from ten LGAs (five States) at the same period in 2016
- 1.2. Laboratory results of the six suspected cases; two positive for Lassa fever (Edo – 1 & Ondo – 1), four were negative for Lassa fever & other VHFs (FCT – 1 & Osun - 3)
- 1.3. Between weeks 1 and 50 (2017), 720 suspected Lassa fever cases with 141 laboratory confirmed cases and 70 deaths (CFR, 9.72%) from 95 LGAs (29 States) were reported compared with 902 suspected cases with 98 laboratory confirmed cases and 114 deaths (CFR, 12.64%) from 142 LGAs (29 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 provided to support States
 - 1.5.3. New VHF guidelines have been developed by the NCDC (National Viral Haemorrhagic Fevers Preparedness guidelines, Infection Prevention and Control of VHF and Standard Operating Procedures for Lassa fever management) and are available on the NCDC website- <http://ncdc.gov.ng/diseases/guidelines>
 - 1.5.4. 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. Data from the VHF database is currently being analysed to inform decision making in the coming year

- 1.5.5. Confirmed cases are being treated at identified treatment/isolation centres across the States with Ribavirin and necessary supportive management also instituted
- 1.5.6. Onsite support was earlier provided to Ogun, Nasarawa, Taraba, Ondo and Borno States by the NCDC and partners
- 1.5.7. Offsite support provided by NCDC/partners in all affected States
- 1.5.8. States are enjoined to intensify surveillance and promote Infection, Prevention and Control (IPC) measures in health facilities
- 1.5.9. NCDC Lassa fever working group visited priority States, to provide support in developing preparedness and response plans ahead of dry season

Figure 1: Map of Nigeria showing areas affected by Lassa fever, week 1- 50, 2016 & 2017

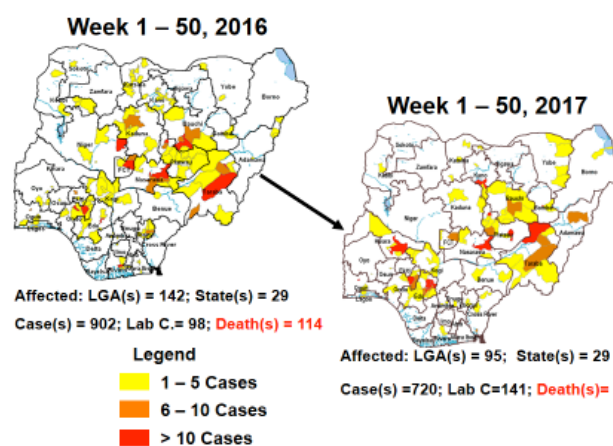
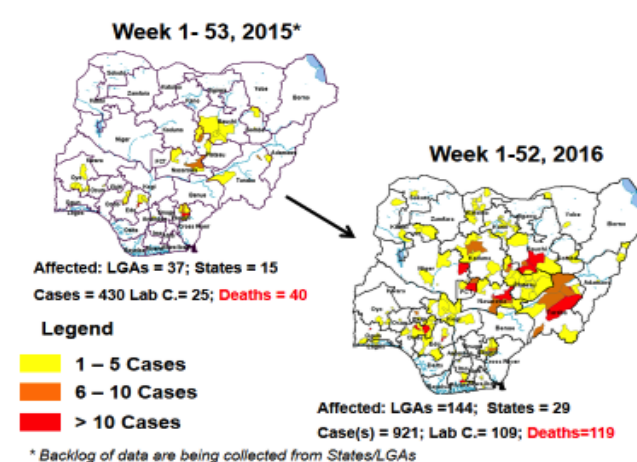


Figure 2: Map of Nigeria showing areas affected by Lassa fever, week 1 - 53, 2015 and week 1 – 52, 2016



2. MEASLES

- 2.1. In the reporting week, 298 suspected cases of Measles and three deaths (CFR, 1.01%) were reported from 31 States compared with 171 suspected cases with three Laboratory confirmed cases reported from 23 States during the same period in 2016
- 2.2. So far, 21,698 suspected Measles cases with 109 laboratory confirmed cases and 117 deaths (CFR, 0. 54%) have been reported in 2017 from 36 States and FCT (Figure 4) compared with 25,023 suspected cases and 102 deaths (CFR, 0.41%) 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. 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 conducted
- 2.7. Measles mass campaign conducted in seven North West and North East States from 9th – 14th November, 2017 and 30th November – 5th December, 2017 respectively.

Figure 3: Suspected Measles attack rate by States, week 50, 2017 as at 22nd December, 2017

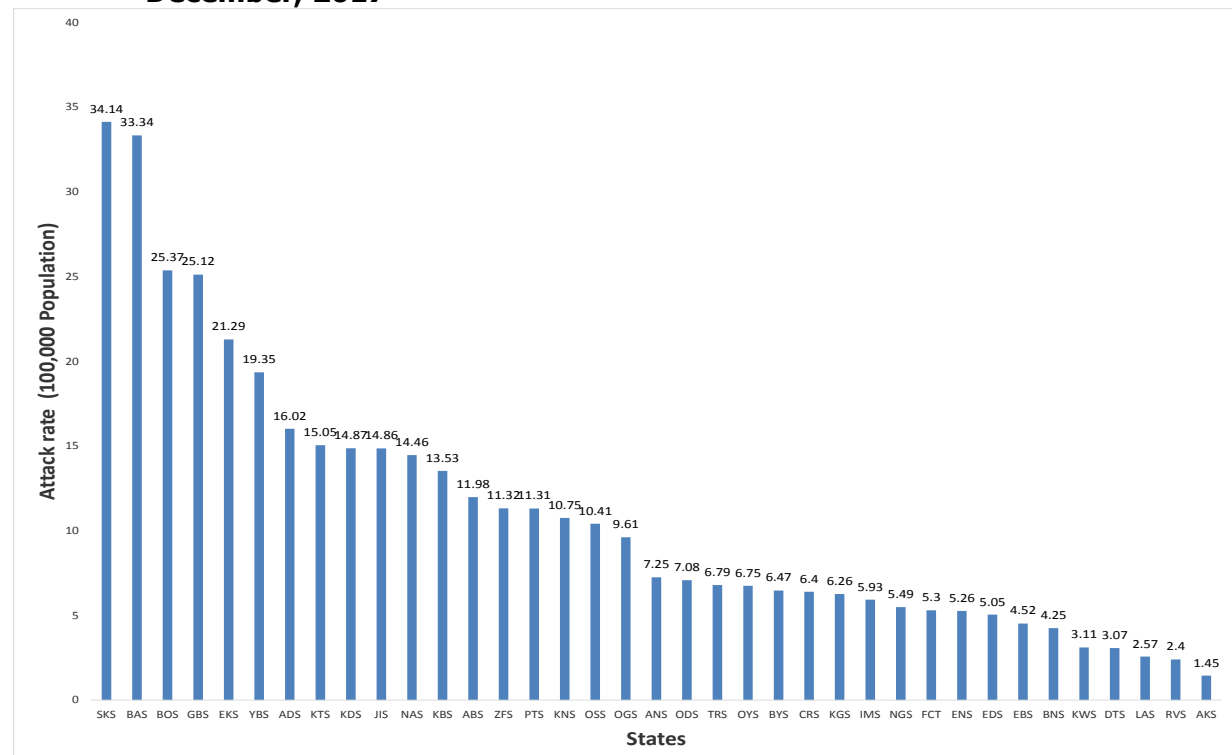


Figure 4: Map of Nigeria showing Distribution of suspected Measles cases, Weeks 1- 50, 2017as at 22/12/2017

Distribution of Suspected Measles Cases, Wks01-50 2017

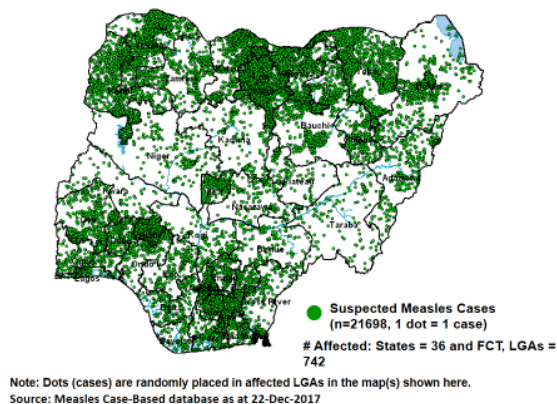
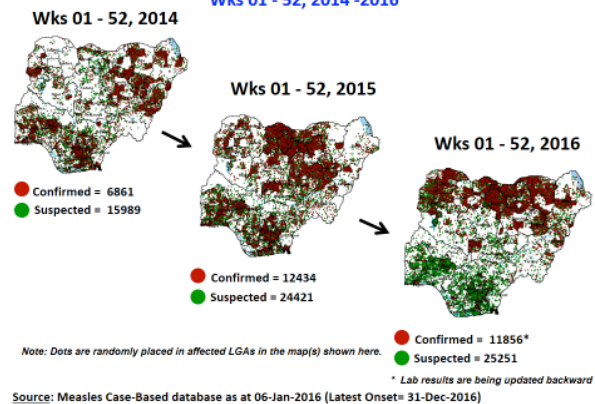


Figure 5: Suspected & confirmed (Lab + Epi Link + Clinical) Measles cases weeks 1 – 52, 2014 – 2016

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



3. POLIOMYELITIS

- 3.1. As at December 15th 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, 113 cases of AFP were reported from 104 LGAs in 27 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 highrisk 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. The 4th round of SIPDs completed from 14th - 17th October, 2017 in 18 high risk States using bOPV.
 - 3.2.7. The 5th round of SIPDs completed from 9th - 12th December, 2017 in 6 high risk States using bOPV.
 - 3.2.8. 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. 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 Week 1 - 52, 2014 - 2017

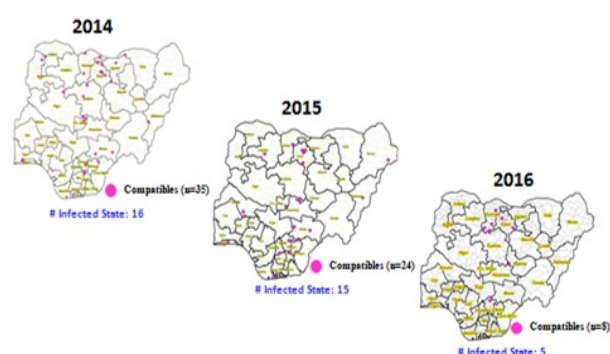


Table 2: 2017 SIAs (Data as at 15/12/17)

S/N	Month	Dates	Scope	Remarks	Target Populations	Antigen
1	January	28 th - 31 st	SIIDs (18 States)	2nd mOPV2 OBR in 18 states	33,478,035	mOPV2
2	February	25 th - 28 th	SIIDs (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	NIIDs (36+1)	Nationwide	59,961,520	bOPV
4	April	22 nd - 25 th	NIIDs (36+1)	Nationwide	59,961,520	bOPV
5	July	8 th - 11 th	SIIDs (18 High Risk States)	High Risk States	33,478,035	bOPV
6	October	14 th - 17 th	SIIDs (18 High Risk States)	High Risk States	33,478,035	bOPV
7	December	9 th - 12 th	SIIDs (6 High Risk States)	High Risk States		bOPV

4. CHOLERA

- 4.1. 165 suspected cases of Cholera with six Laboratory confirmed and five deaths (CFR, 3.03%) were reported from 14 LGAs (two States; Kano – 106 & Zamfara - 59) in week 50 compared with zero case reported during the same period in 2016.
- 4.2. Between weeks 1 and 50 (2017), 3911 suspected Cholera cases with 51 laboratory confirmed and 93 deaths (CFR, 2.38%) from 80 LGAs (20 States) were reported compared with 768 suspected cases and 32 deaths (CFR, 4.17%) from 57 LGAs (14 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 provided onsite support earlier in Borno, Kwara, Zamfara and Kebbi States. Rapid Response Teams currently in Nassarawa and Kano States.
- 4.6. Preparedness and Response to Acute Watery Diarrhoea/ Cholera Guidelines have been finalised:
http://ncdc.gov.ng/themes/common/docs/protocols/45_1507196550.pdf
- 4.7. 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- 50, 2016 & 2017

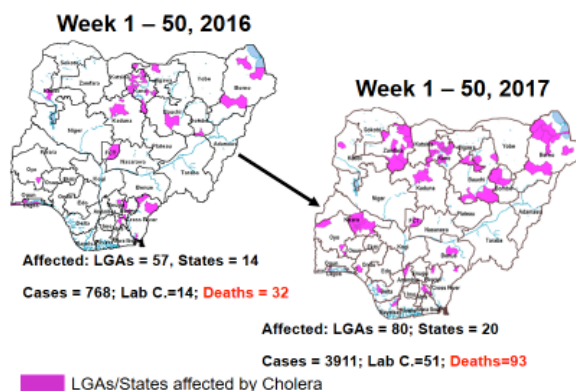
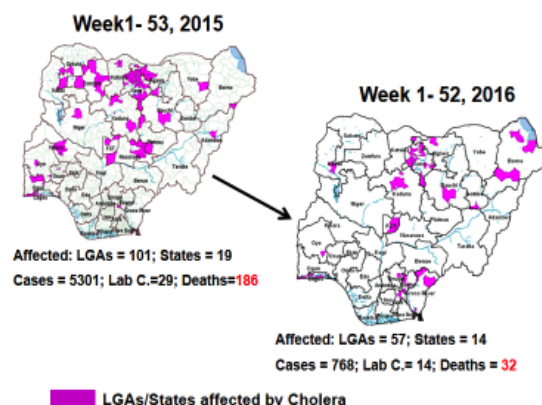


Figure 8: Status of LGAs/States that reported Cholera cases in week 1- 52, 2015 & 2016



4. CEREBROSPINAL MENINGITIS (CSM)

- 5.1 In the reporting week 50, 53 suspected Cerebrospinal Meningitis (CSM) cases with three Laboratory confirmed and four deaths (CFR, 7.55%) were reported from 13 LGAs (four States; Katsina - 9, Oyo – 4, Sokoto - 2 & Zamfara – 38) compared with four suspected cases from three LGAs (three States) at the same period in 2016

- 5.2 Between weeks 1 and 50 (2017), 9992 suspected CSM cases with 111 laboratory confirmed cases and 611 deaths (CFR, 6.11%) were recorded from 326 LGAs (34 States) compared with 826 suspected cases and 33 deaths (CFR, 4.0%) from 154 LGAs (31 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 - 50, 2016 & 2017

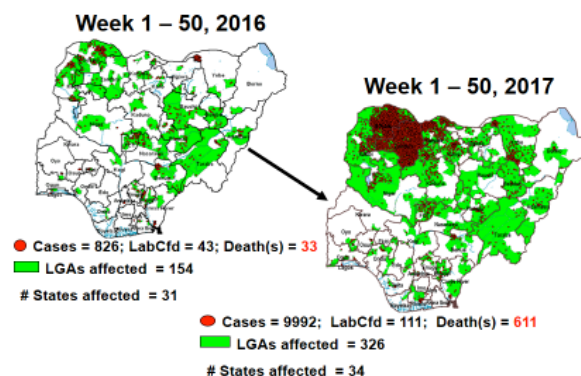
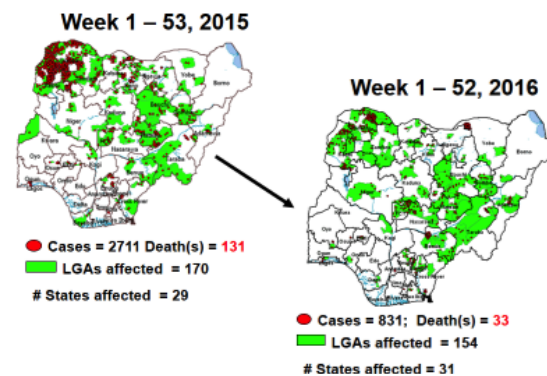


Figure 10: Nigeria: Dot maps of CSM cases, Week 1- 53, 2015 & 2016



- 5.4 Timeliness/completeness of CSM case-reporting from States to the National Level (2017 versus 2016): on average, 83.2% of the 26 endemic States sent CSM reports in a timely manner while 99.1% were complete in week 1 – 50, 2017 as against 85.2% timeliness and 98.2% completeness recorded within the same period in 2016
- 5.5 The National CSM Emergency Operations Centre has been activated and is currently on response mode
- 5.6 Enhanced surveillance/ case based surveillance began 1st of December 2017
- 5.7 Rapid Response Teams currently deployed to support response in Zamfara and Katsina States
- 5.8 The National CSM Guidelines have been finalised and available via http://ncdc.gov.ng/themes/common/docs/protocols/51_1510449270.pdf

- 5.9 Development of State specific CSM Epidemic Preparedness & Response plan completed in 11 Northern States within the Meningitis belt
- 5.10 Letters of alert developed and disseminated to all States with clear recommendations and action points

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).

(For further information, contact Nigeria Guinea Worm Eradication Program /Neglected Tropical Diseases Division, Public Health Department/Federal Ministry of Health)

7. UPDATE ON NATIONAL INFLUENZA SENTINEL SURVEILLANCE, NIGERIA WEEK 1 - 50, 2017

- 7.1. From week 1-50, 107-suspected cases were reported, of which 99 were Influenza like-illness (ILI), eight Severe Acute Respiratory Infection (SARI).
- 7.2 107 samples were received and all samples were processed. Of the processed samples, 99(92.5%) were ILI cases, eight (7.5%) were Severe Acute Respiratory Infection (SARI).
- 7.3 Of the 99 processed ILI samples, 1(1.01%) was positive for Influenza A; two (2.02%) positive for Influenza B and 96(96.97%) were negative.
- 7.4. Of the eight processed SARI samples, none was positive for Influenza A and Influenza B.

- 7.5. Three (2.80%) of the processed 107 samples were positive for Influenza, with one (33.3%) of these positive for Influenza A and two (66.7%) positive for Influenza B.
- 7.6. The subtypes A seasonal H3, 2009A/H1N1 and A/not subtyped account for (100%), 0 (0.0%) and 0 (0.0%) of the total influenza A positive samples respectively.
- 7.7. The percentage influenza positive was highest (50.0%) in week 14, 2017.
- 7.8. In the reporting week 50, none samples were left unprocessed

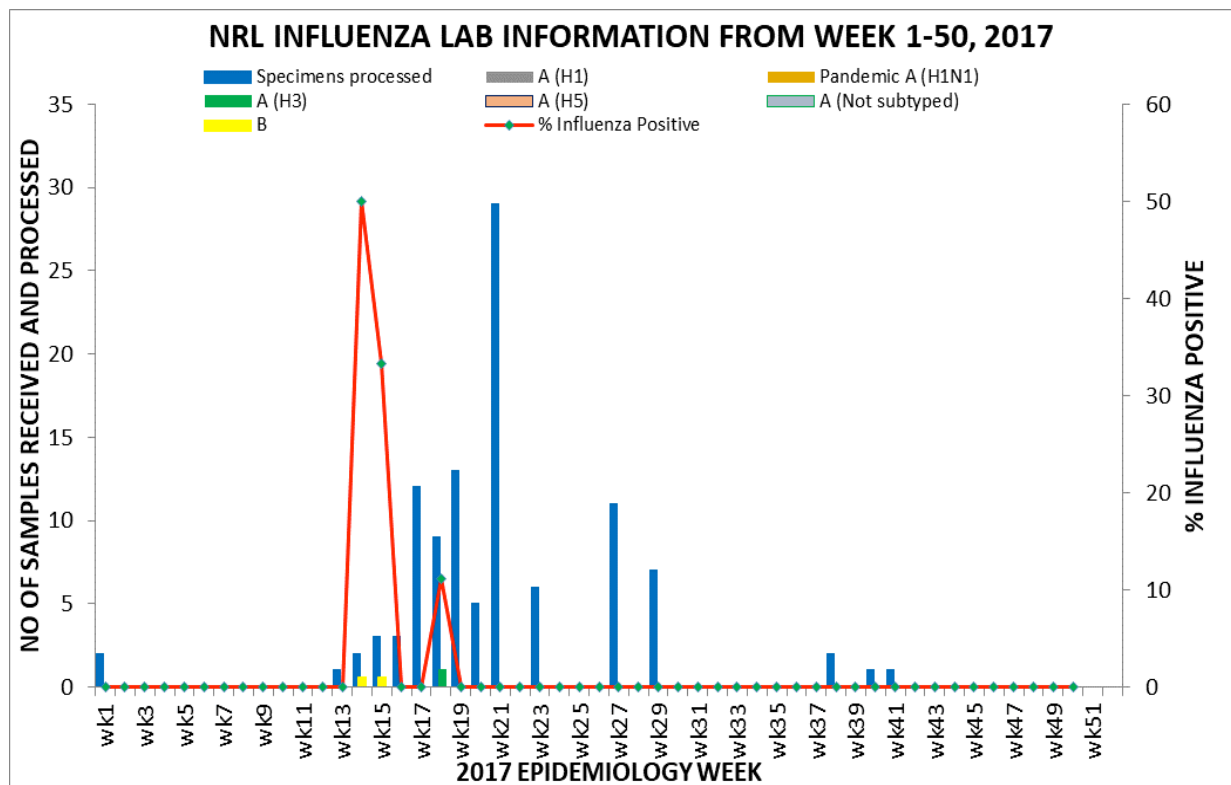


Figure 19: Number of Influenza Positive Specimens and Percent Positive by Epidemiological Week (Week 1- 50, 2017)

FOR MORE INFORMATION CONTACT

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Table 4: Updates on Epidemics, Week 1- 50 (11th – 17th December, 2017) as at 22nd December, 2017

