

NIGERIA CENTRE FOR DISEASE CONTROL

Weekly Epidemiological Report

Main Highlight of the week

IMPROVING LABORATORY RESPONSE TO FUTURE OUTBREAKS



The Lassa fever outbreak continued in Epi-week 12 with a total of 1,613 suspected cases reported across 12 states. Of this, 403 cases were classified as: 394 confirmed

case and 9 probable cases with 104 deaths (95 in Lab confirmed and 9 in probable) giving a case fatality rate of 24.1%.

In this reporting week, two states (Osun and Gombe) each reported a confirmed case, bringing them back to the active phase of the outbreak. This was made possible through the ongoing surveillance in the inactive states, despite having exited from the active phase of the outbreak. Evidently, surveillance activities have increased across all affected states with a major outcome being the number of suspected cases identified and tested, despite leaving the peak period of the Lassa fever outbreak season.

As the outbreak response is ongoing, the Laboratory pillar of the National Lassa fever emergency operations centre (LF-EOC) organized a 2day meeting to discuss issues arising in outbreak response with a view to improve laboratory processes with respect to sample management and diagnostics. Participants were Laboratory and case management experts drawn from the Nigeria Centre for Disease control (NCDC), World Health Organization (WHO), United States Centres for Disease Control and Prevention (US CDC), Public Health England (PHE), Bernard Nocht Institute for Tropical Medicine (BNITM) as well as the Laboratory scientists and key stakeholders from the Lassa fever testing Laboratories in Nigeria:-National Reference Laboratory (NRL) Gaduwa, Irrua Specialist Teaching Hospital (ISTH), Lagos University Teaching Hospital (LUTH) and Federal Teaching Hospital Abakaliki (FETHA). Outcome of this meeting includes:

1. Development of a national diagnostic testing algorithm
2. Development of principles for the implementation of operational research during emergency response
3. Identifying key areas of collaboration to strengthen laboratory capacity

In this outbreak, many lessons have been learnt in the course of diagnosing Lassa fever cases and the meeting, a first of its kind, was aimed at addressing challenges and preparing for the future in the area of Lassa fever diagnostics and research.

SUMMARY OF REPORTS

In the reporting week ending on March 18, 2018:

- There were 164 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.

- 175 suspected cases of Cholera were reported from six LGAs in four States (Bauchi – 112, Borno – 40, Ebonyi – 21 & Kaduna – 2). Of these, 15 were laboratory confirmed and five deaths were recorded.
- 18 suspected cases of Lassa fever were reported from ten LGAs in seven States (Bauchi – 2, Ebonyi – 3, Ekiti – 2, Gombe – 3, Ondo – 3, Plateau – 1 & Taraba – 4). Two were laboratory confirmed and one death were recorded.
- There were 166 suspected cases of Cerebrospinal Meningitis (CSM) reported from 59 LGAs in 16 States (Adamawa – 2, Borno – 6, Cross River – 2, Ebonyi – 2, Gombe – 4, Jigawa – 5, Kaduna – 2, Kano – 4, Katsina – 58, Kebbi – 13, Niger – 1, Oyo – 2, Sokoto – 11, Taraba – 1, Yobe – 5 & Zamfara – 48). Of these, seven were laboratory confirmed and 13 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 605 suspected cases of Measles reported from 36 States. None was laboratory confirmed and two death were recorded.

In the reporting week, all States sent in their report. Timeliness of reporting remains 86% in both previous & current weeks (week 10 & 11, 2018) while completeness increases from 99% to 100% at same period. It is very important for all States to ensure timely and complete reporting at all times, especially during an outbreak.

REPORT ANALYSIS AND INTERPRETATION

1. AFP

- 1.1. As at March 18th 2018, no new case of WPV was recorded
- 1.2. In the reporting week, 164 cases of AFP were reported from 143 LGAs in 34 States & FCT
 - 1.2.1. AFP Surveillance has been enhanced and outbreak response is on-going in Borno and other high risk States
 - 1.2.2. The 1st round of SIPDs in 2018 conducted from 20th – 23th January 2018 in the 14 high risk States using bOPV. The schedule for other SIAs is as described in Table 2
 - 1.2.3 The 2nd round of SIPDs conducted from 3rd to 6th of March, 2018 in Borno, Yobe, Adamawa and Zamfara (moved from January round) States using bOPV
- 1.3. Six confirmed WPVs were isolated in 2014.
- 1.4. The SIAs were strengthened with the following events:
 - 1.4.1. Immunisation for all vaccine-preventable diseases in some selected wards/LGAs.
 - 1.4.2. Use of health camp facilities.
 - 1.4.3. Field supportive supervision and monitoring.

- 1.4.4. Improved Enhanced Independent Monitoring (EIM) and Lots Quality Assessments (LQAs) in all Polio high risk States.
- 1.4.5. High level of accountability framework

Table 2: 2018 SIAs

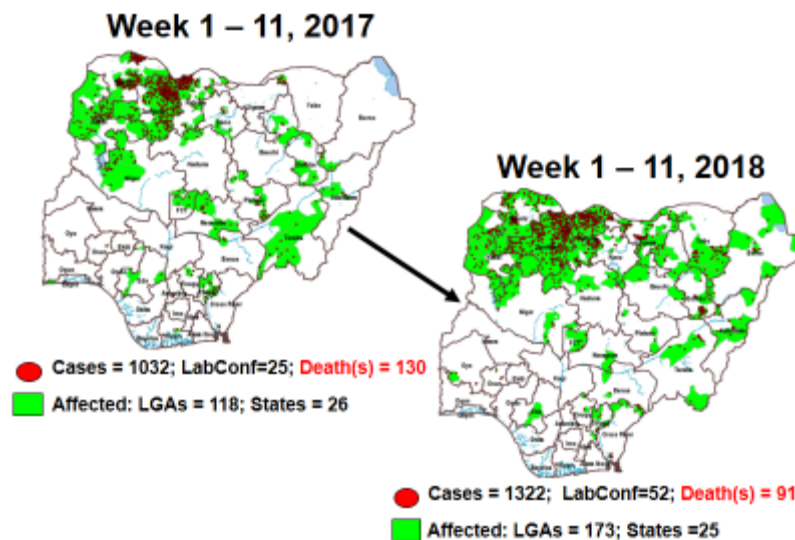
S/No	Month	Dates	Scope	Target Populations	% of the Total Target Population	Antigen
1	January	20 th – 23 rd	SIPDs (14 HR States)	24,494,012	49%	bOPV
2	February	1st-13th	Measles SIA (NCZ)			Measles
3	March	8th-20th	Measles SIA (South 17 States)			Measles
4	March	3rd-6th	SIPDs (Borno,Yobe & Adamawa)	3,741,704	7.6%	bOPV
5	April	5 th - 8 th	NIPDs (36+1)	49,882,036	100%	bOPV
6	May	7 th – 10 th	sNIPDs (33+1) Excluding Borno,Yobe & Adamawa	46,140,332	92.4%	bOPV
7	October	13th – 16th	SIPDs (18 HR States)	31,715,796	63.50%	bOPV
8	December	13 th – 16 th	SIPDs (Borno + 7 HR States)	7,482,305	15%	bOPV

2. CEREBROSPINAL MENINGITIS (CSM)

- 2.1 In the reporting week, 166 suspected Cerebrospinal Meningitis (CSM) cases with seven Lab. confirmed and 13 deaths (CFR, 7.83%) were reported from 59 LGAs (16 States; Adamawa – 2, Borno – 6, Cross River – 2, Ebonyi – 2, Gombe - 4, Jigawa – 5, Kaduna – 2, Kano – 4, Katsina - 58, Kebbi – 13, Niger – 1, Oyo – 2, Sokoto – 11, Taraba – 1, Yobe - 5 & Zamfara - 48) compared with 254 suspected cases with four Lab. Confirmed cases and 26 deaths (CFR, 10. 24%) from 38 LGAs (12 States) at the same period in 2017 (Figure 2)
- 2.2 Between weeks 1 and 11 (2018), 1322 suspected meningitis cases with 52 laboratory confirmed and 91 deaths (CFR, 6.88%) from 173 LGAs (25 States) were reported compared with 1032 suspected cases and 130 deaths (CFR, 12.6%) from 118 LGAs (26 States) during the same period in 2017.
- 2.3 Timeliness/completeness of CSM case-reporting from States to the National Level (2018 versus 2017): on average, 88.1% of the 26 endemic States sent CSM reports in a timely manner while 95.8% were complete in week 1 - 11, 2018 as against 76.4% timeliness and 92.3% completeness recorded within the same period in 2017
- 2.4 The National CSM Emergency Operations Centre has been activated and is currently on response mode

2.5 Enhanced surveillance/ case based surveillance began 1st of December 2017

Figure 2: Map of Nigeria showing areas affected by CSM, week 1 - 11, 2017 & 2018



2.6 Rapid Response Team has been deployed to Niger State

2.7 The National CSM Guidelines have been finalised and available via http://ncdc.gov.ng/themes/common/docs/protocols/51_1510449270.pdf

2.8 State CSM Emergency Operations Centre has been activated in Zamfara, Katsina and Sokoto States respectively

2.9 Preventive vaccination conducted in Yobe State with Men Afrivac in two phases -7th to 11th and 14th to 18th February, 2018

2.10 Reactive vaccination using A, C W135 polysaccharide vaccine carried out in Katsina Central Prison

2.11 A five (5) reactive vaccination was concluded in Zamfara State on the 3rd March, 2018 in two wards (Birni Magaji & Danfani Sabon Birni) in Birnin Magaji LGA

2.12 NCDC deployed multi-disease response team to Bauchi State on the 11th March, 2018 to support the State

2.13 Nigeria procured in-country vaccine to vaccinate Majia ward in Taura LGA, Jigawa State

2.14 NCDC, NPHCDA and partners sent ICG request for 18 wards in six States on the 17th March, 2018

2.15 NCDC sent feedback CSM funding need to Nigeria Governors forum

2.16 CSM preventive messages & action were disseminated through a live phone-in discussion programme on a National radio station on the 10th March, 2018

2.17 Monitoring of risk communication activities in all States especially high risk States

2.18 Surveillance Outbreak and Response Management Analysis System (SORMAS) tool deployed in Zamfara, Sokoto and Katsina states

3. **CHOLERA**

3.1 175 suspected cases of Cholera with 15 Lab. Confirmed cases and five deaths (CFR, 2.86%) were reported from six LGAs (four States; Bauchi – 112, Borno – 40, Ebonyi – 21 & Kaduna – 2) in week 11, 2018 compared with zero case reported (during the same period in 2017 (Figure 3).

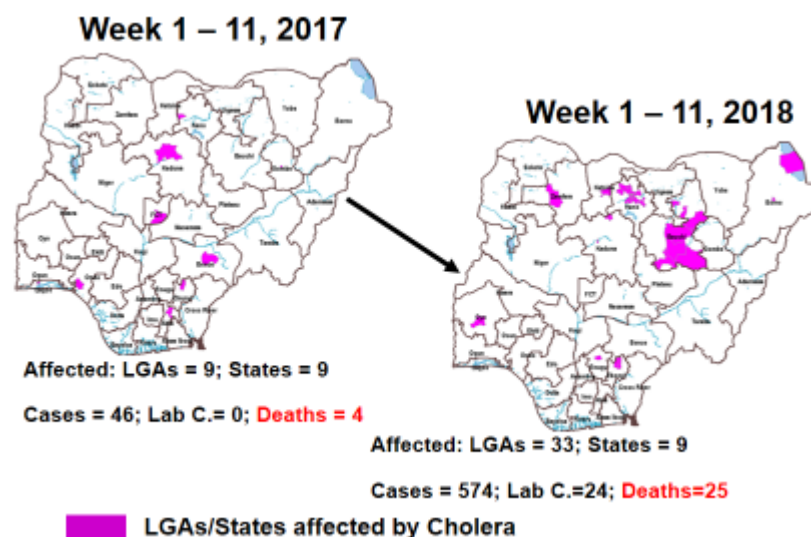
3.2 Between weeks 1 and 11 (2018), 574 suspected Cholera cases with 24 laboratory confirmed and 25 deaths (CFR, 4.36%) from 33 LGAs (nine States) were reported compared with 46 suspected cases and four deaths (CFR, 8.70%) from nine LGAs (nine States) during the same period in 2017.

3.3 National Preparedness and Response to Acute Watery Diarrhoea/ Cholera Guidelines have been finalised:
http://ncdc.gov.ng/themes/common/docs/protocols/45_1507196550.pdf

3.4 Ongoing plans for nationwide Cholera campaign with Federal Ministry of Water Resources and partner agencies

3.5 Rapid Response Team deployed to respond to recent cluster of cases in Bauchi State

Figure 3: Status of LGAs/States that reported Cholera cases in week 1 - 11, 2017 & 2018



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

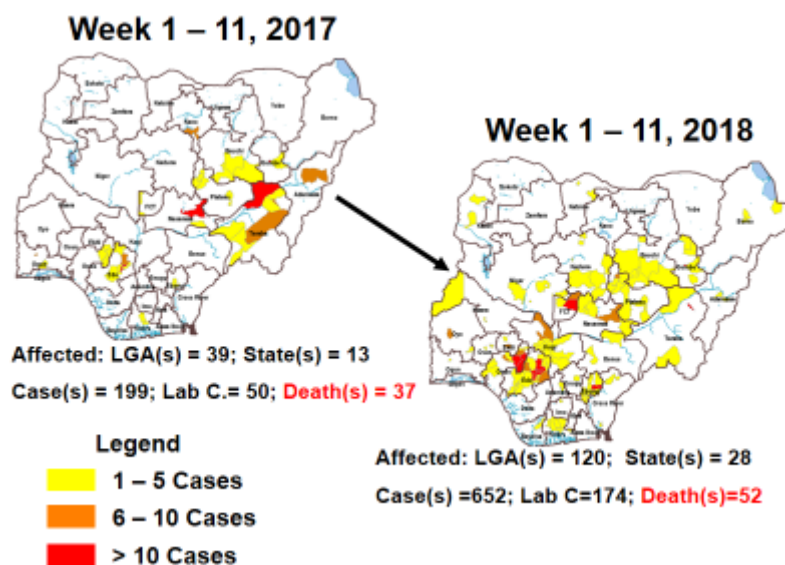
- 4.1 18 suspected cases of Lassa fever with two Laboratory confirmed and one death (CFR, 5.56%) were reported from ten LGAs (seven States: Bauchi – 2, Ebonyi – 3, Ekiti – 2, Gombe – 3, Ondo – 3, Plateau – 1 & Taraba - 4) in week 11, 2018 compared with 27 suspected cases with ten Lab. Confirmed and seven death (CFR, 25.9%) reported from ten LGAs (six States) at the same period in 2017
- 4.2 Laboratory results of the 18 suspected cases; two positive for Lassa fever (Ebonyi – 1 & Ondo – 1), seven were negative for Lassa fever & other VHFs (Bauchi – 2, Ekiti– 2 & Gombe – 3) while that of Plateau (1) and Taraba (4) States are pending
- 4.3 Between weeks 1 and 11 (2018), 652 suspected Lassa fever cases with 174 laboratory confirmed cases and 52 deaths (CFR, 7.98%) from 120 LGAs (28 States) were reported compared with 199 suspected cases with 50 laboratory confirmed cases and 37 deaths (CFR, 18.59%) from 39 LGAs (13 States) during the same period in 2017 (Figure 4)
- 4.4 Surveillance Outbreak and Response Management Analysis System (SORMAS) tool deployed in Edo, Ondo and Ebonyi States
- 4.5 Investigation and active case search ongoing in affected States with coordination of response activities by the NCDC with support from partners
- 4.6 National Lassa Fever Working Group has been escalated to National Emergency Operations Centre on the 22nd January, 2018
- 4.7 Response materials for VHF provided to support States and health facilities
- 4.8 National VHF guidelines (National Viral Haemorrhagic Fevers Preparedness guidelines, Infection Prevention and Control of VHF and Standard Operating Procedures for Lassa fever management) are available on the NCDC website- <http://ncdc.gov.ng/diseases/guidelines>
- 4.9 NCDC provided Ribavirin and other necessary supportive management to States and their treatment centres
- 4.10 NCDC Rapid Response Teams currently in Ebonyi, Edo and Ondo States. Risk communications Team deployed to support response
- 4.11 High level advocacy and assessment visit by joint NCDC/WHO Team to Edo and Ondo States
- 4.12 Offsite support provided by NCDC/partners in all affected States
- 4.13 NCDC in collaboration with ALIMA is providing support to treatment centres in Ebonyi, Ondo and Edo States where most of the patients are managed

4.13 NCDC deployed data management tools (SORMAS) on the field to encourage real time reporting and data analysis/interpretation to inform prompt decision making

4.14 NCDC deployed case management teams to Kogi, Bauchi, Taraba and Plateau States

4.15 States are enjoined to intensify surveillance and promote Infection, Prevention and Control (IPC) measures in health facilities

Figure 4: Map of Nigeria showing areas affected by Lassa fever, week 1 - 11, 2017 & 2018



5 MEASLES

5.1 In the reporting week, 605 suspected cases of Measles and two deaths (CFR, 0.33%) were reported from 36 States compared with 594 suspected cases reported from 33 States during the same period in 2017

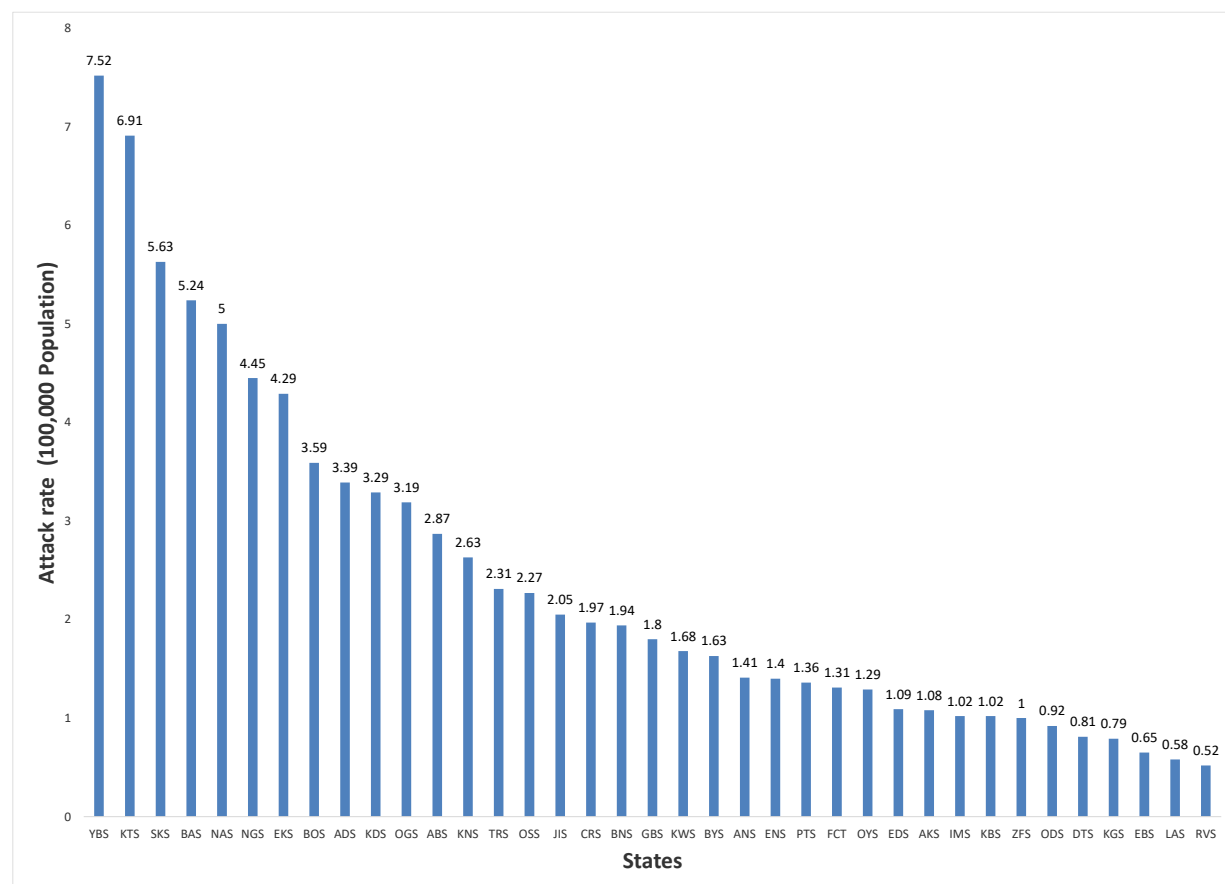
5.2 So far, 4764 suspected Measles cases and 34 deaths (CFR, 0.71%) were reported from 36 States and FCT compared with 5710 suspected cases with 42 laboratory confirmed and 38 deaths (CFR, 0.67%) from 37 States during the same period in 2017

5.3 Response measures include immunization for all vaccine-preventable diseases in some selected/affected wards/LGAs during SIAs, as well as case management

5.4 Measles mass campaign completed in the 17 Southern States from March 8 – 20, 2018

5.5 Measles mass campaign completed in the North central States in February, 2018 while North East and North Western States were conducted in 2017

Figure 3: Suspected Measles attack rate by States, week 1 - 11, 2018 as at 18th March, 2018



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 - 11, 2018

- 7.1. From week 1- 11, 112-suspected cases were reported, of which 104 were Influenza like-illness (ILI), eight Severe Acute Respiratory Infection (SARI).

- 7.2 112 samples were received and all the samples were processed. Of the processed samples, 104(92.9%) were ILI cases, eight (7.1%) were Severe Acute Respiratory Infection (SARI).
- 7.4. Of the 104 processed ILI samples, 16 (15.4%) was positive for Influenza A; 26(25.0%) positive for Influenza B and 62(59.6%) were negative.
- 7.5 For the processed eight SARI samples, five (62.5%) were positive for Influenza A while the remaining three (37.5%).were negative.
- 7.6 42 (37.5%) of the processed 104 samples were positive for Influenza, with 16 (38.1%) of these positive for Influenza A and 26 (62.9%) positive for Influenza B.
- 7.5. The subtypes A seasonal H3, 2009A/H1N1 and A/not subtyped account for (0.0%), 11 (68.8%) and 5 (31.2%) of the total influenza A positive samples respectively.
- 7.6 The subtypes B VICTORIA, B Not subtyped and B Yamagata account for 10(38.5%), 16(61.5%) and 0(0.0%) of the total influenza B positive samples respectively
- 7.7 The percentage influenza positive was highest (75.0%) in week 6, 2018
- 7.8 In the reporting week 1 -11, no samples was left unprocessed

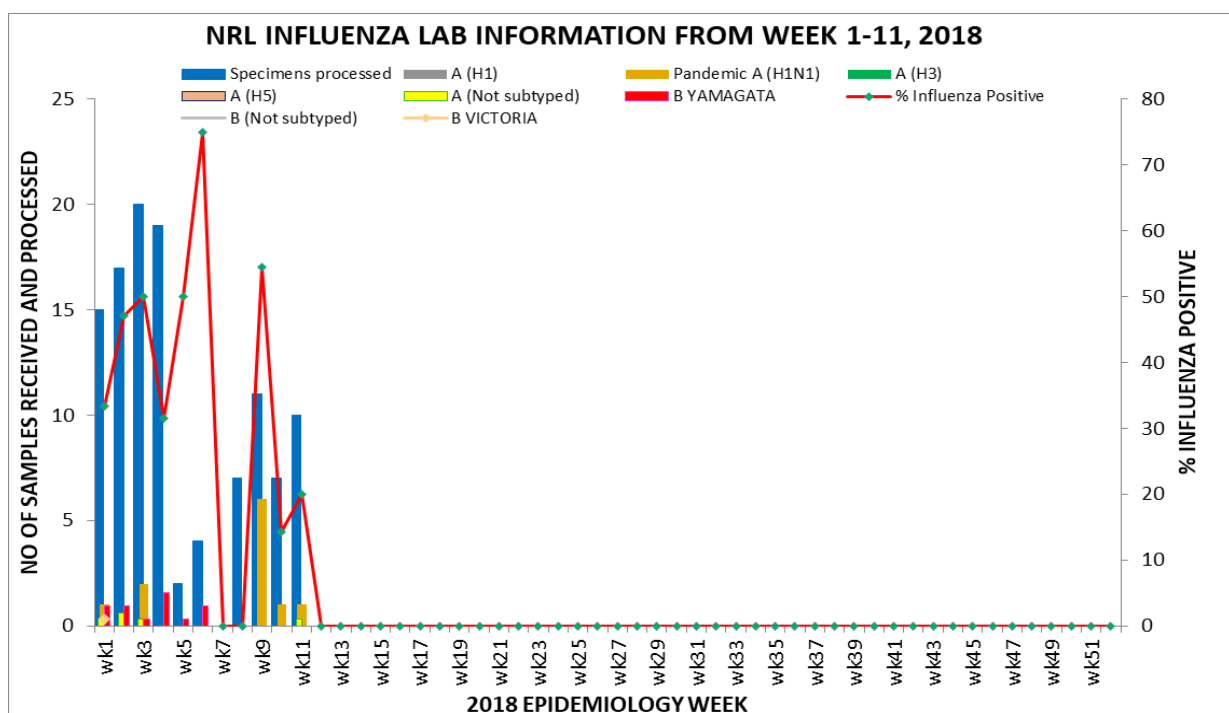


Figure 19: Number of Influenza Positive Specimens and Percent Positive by Epidemiological Week (Week 1- 11, 2018)

FOR MORE INFORMATION CONTACT

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epidreport@ncdc.gov.ng
www.ncdc.gov.ng/reports
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Table 3: Status of Reporting by the State Epidemiologists, Nigeria, Weeks 1 -11, 2018, as at 18th March, 2018

Keys:															Timely Reports	<50%	Poor	1 States		
T= Arrived on Time																50-79%	Good	9 States		
L= Arrived late																N	Report not received	80-100%	Excellent	27 States
N = No Report (Report not received)																				
	State	GeoZones	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	Expected (Es)	Timely Rpts (Ts)	Late Rpts (Ls)	Rpts Not Recvd (Ns)	% Timely	% Complete	
1	Abia	SEZ	T	T	T	T	T	L	L	L	T	L	T	11	7	4	0	64%	100%	
2	Adamawa	NEZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
3	Akwa Ibom	SSZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
4	Anambra	SEZ	T	T	T	T	T	T	L	T	T	T	T	11	10	1	0	91%	100%	
5	Bauchi	NEZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
6	Bayelsa	SSZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
7	Benue	NCZ	L	T	L	T	T	T	L	L	L	L	T	11	5	6	0	45%	100%	
8	Borno	NEZ	T	T	T	T	T	L	T	T	T	T	T	11	10	1	0	91%	100%	
9	Cross River	SSZ	T	T	T	T	T	L	L	L	L	L	T	11	6	5	0	55%	100%	
10	Delta	SSZ	T	T	T	T	L	T	L	L	T	T	T	11	8	3	0	73%	100%	
11	Ebonyi	SEZ	T	L	L	T	T	L	T	L	T	T	T	11	7	4	0	64%	100%	
12	Edo	SSZ	T	T	T	T	L	L	L	L	T	T	T	11	7	4	0	64%	100%	
13	Ekiti	SWZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
14	Enugu	SEZ	T	T	T	T	T	T	L	T	T	T	T	11	10	1	0	91%	100%	
15	FCT	NCZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
16	Gombe	NEZ	T	T	T	L	T	T	T	L	T	T	L	11	8	3	0	73%	100%	
17	Imo	SEZ	L	T	T	T	T	T	T	T	T	T	T	11	10	1	0	91%	100%	
18	Jigawa	NWZ	T	T	T	L	T	L	L	T	L	L	T	11	6	5	0	55%	100%	
19	Kaduna	NWZ	T	T	T	T	T	T	T	T	T	T	L	11	10	1	0	91%	100%	
20	Kano	NWZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
21	Katsina	NWZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
22	Kebbi	NWZ	L	L	L	T	L	T	L	T	T	T	T	11	6	5	0	55%	100%	
23	Kogi	NCZ	T	T	T	T	T	L	T	T	T	T	T	11	10	1	0	91%	100%	
24	Kwara	NCZ	T	T	T	T	T	L	T	T	T	T	T	11	10	1	0	91%	100%	
25	Lagos	SWZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
26	Nasarawa	NCZ	T	T	T	T	T	T	L	L	T	T	T	11	9	2	0	82%	100%	
27	Niger	NCZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
28	Ogun	SWZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
29	Ondo	SWZ	T	T	T	T	T	T	L	L	L	T	T	11	8	3	0	73%	100%	
30	Osun	SWZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
31	Oyo	SWZ	L	T	T	T	T	T	T	T	T	T	T	11	10	1	0	91%	100%	
32	Plateau	NCZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
33	Rivers	SSZ	T	T	T	T	T	T	T	L	T	T	T	11	10	1	0	91%	100%	
34	Sokoto	NWZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
35	Taraba	NEZ	L	T	T	T	T	T	T	T	T	T	T	11	10	1	0	91%	100%	
36	Yobe	NEZ	T	T	T	T	T	T	T	T	T	T	T	11	11	0	0	100%	100%	
37	Zamfara	NWZ	T	T	T	T	T	T	L	T	T	T	T	11	10	1	0	91%	100%	
Total number of reports expected (E)			37	37	37	37	37	37	37	37	37	37	37	407						
Total reports sent on time (T)			32	35	34	35	34	29	25	27	33	33	35		352					
Total reports sent late (L)			5	2	3	2	3	8	12	10	4	4	2			55				
Total number of reports not received (N)			0	0	0	0	0	0	0	0	0	0	0				0			
Timeliness of reports =100*(T/E)			86.5	94.6	91.9	94.6	91.9	78.4	67.6	73.0	89.2	89.2	94.6					86%		
Completeness of reporting=100*(E-N)/E			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0						100%	
Latest Week			11																Last updated 23rd March, 2018	