



NIGERIA CENTRE FOR DISEASE CONTROL

Weekly Epidemiological Report

Main Highlight of the week

Nigeria's Pilot in the Journey to Establish a Public Health Reference Laboratory



Since the establishment of the Nigeria Centre for Disease Control (NCDC) in 2011, the agency has grown in its mandate, with major responsibilities. One of this is in leading public health reference laboratory functions for infectious diseases in Nigeria.

Our Laboratory Department is by far our largest, with two campuses in Gaduwa Abuja and the heart of Yaba Lagos. The laboratory's history in Abuja can be traced to five years ago in a container within the Asokoro Hospital where influenza diagnosis was the only test carried out.

Five years after, we have a large Reference Laboratory that provides leadership in the diagnosis of all epidemic prone diseases in Nigeria, holds a large biorepository and served as the central laboratory for the National AIDS Indicator and Impact Survey led by the National Agency for the Control of AIDS.

One man has been at the forefront in leading the NCDC laboratory Team through this progress journey. Dr Adebayo Abel Adedeji was until April 5, 2019, Director of Public Health Laboratory Services at NCDC, the first person in this role. With a background in chemistry and virology, Dr Adedeji has been part of yellow fever vaccine production in Nigeria, leading the country's influenza surveillance project, leading NCDC's first grant from the US CDC and leading NCDC's expanding public health laboratory services.

Under Dr Adedeji's leadership, Nigeria developed an influenza sentinel surveillance network with four sentinel sites across the country. This network and the National Reference Laboratory as testing site, provides the data the country needs to understand influenza pattern, and contribute to pandemic preparedness.

As Dr Adedeji retires from public service, we are grateful for the legacy he has built. Our ten-year old influenza surveillance system is working towards establishing the National Reference Laboratory as a National Influenza Centre that can also support other countries. His leadership has laid a firm foundation for more progress in building Nigeria's public health laboratory infrastructure.

SUMMARY OF REPORTS

In the reporting week ending March 31, 2019:

- There were 138 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 with the goal to eliminate polio in Nigeria
- There were 12 suspected cases of cholera reported from five LGAs in four States (Abia – 1, Bayelsa – 6, Ebonyi – 2 & Kano – 3). Two were laboratory confirmed and none was death recorded.
- There were 116 suspected cases of Lassa fever reported from 20 LGAs in 12 States (Edo – 55, Ebonyi – 9, Ondo – 18, Bauchi - 17, Enugu – 1, Gombe – 1, Taraba – 2, Plateau – 7, FCT – 3, Osun – 1, Ogun - 1 & Nasarawa - 1). Sixteen were laboratory confirmed and two deaths were recorded.

- There were 73 suspected cases of Cerebrospinal Meningitis (CSM) reported from 40 LGAs in 13 States (Borno – 1, Ebonyi – 1, Gombe – 2, Jigawa – 1, Kaduna – 1, Katsina – 22, Nasarawa – 3, Niger – 1, Oyo – 1, Plateau – 4, Sokoto – 17, Yobe – 4 & Zamfara - 15). Of these, four were laboratory confirmed and three deaths were recorded.
- There were 2567 suspected cases of measles reported from 36 States. None was laboratory confirmed and two deaths were recorded.

In the reporting week, all States sent in their reports except Cross River State. Timeliness of reporting remained 93.0% in both weeks 12 and 13 while completeness remains 99.0% at the 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 31, 2019, no new case of WPV was recorded

1.2 In the reporting week, 138 suspected cases of AFP were reported from 120 LGAs in 33 States and FCT

1.3 Between week 1 and 13 (2019), 1644 suspected cases of AFP were reported from 605 LGAs in 36 states and FCT

2. CEREBROSPINAL MENINGITIS (CSM)

2.1 In the reporting week, 73 suspected Cerebrospinal Meningitis (CSM) cases with four laboratory confirmed and three deaths (CFR, 4.1%) were reported from 40 LGAs in 13 States (Borno – 1, Ebonyi – 1, Gombe – 2, Jigawa – 1, Kaduna – 1, Katsina – 22, Nasarawa – 3, Niger – 1, Oyo – 1, Plateau – 4, Sokoto – 17, Yobe – 4 & Zamfara - 15) compared with 255 suspected cases with three laboratory confirmed and 21 deaths (CFR, 8.24%) reported across 73 LGAs (15 States) at the same period in 2018 (Figure 1)

2.2 Between weeks 1 and 13 (2019), 771 suspected meningitis cases with 54 laboratory confirmed and 50 deaths (CFR, 6.49%) from 168 LGAs (26 States) were reported compared with 2550 suspected cases with 270 Laboratory confirmed and 252 deaths (CFR, 9.88%) from 222 LGAs in 25 states during the same period in 2018

2.3 Timeliness/completeness of CSM case-reporting from states to the national level (2019 versus 2018): on average, 92.5% of the 26 endemic States sent CSM reports in a timely manner while 99.6% were complete in week 1 - 13, 2019 as

against 89.6% timeliness and 99.8% completeness recorded within the same period in 2018

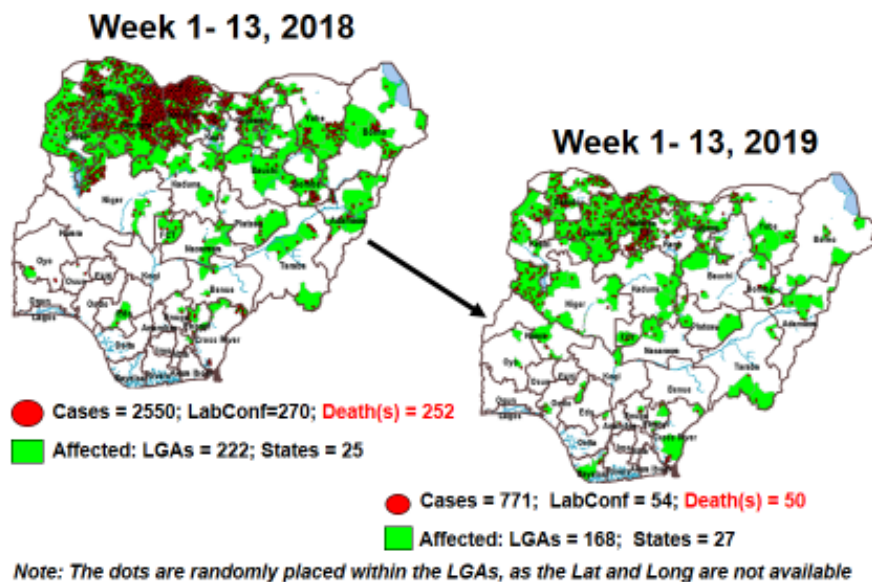
2.4 NCDC deployed Rapid Response Team (RRT) to Katsina and Niger States

2.5 NCDC and WHO conducted training on CSF collection and enhanced surveillance for clinicians and surveillance officers in Katsina State

2.6 The CSM National Emergency Operations Centre (EOC) is on response mode and meets weekly to review the situation

2.7 CSM preparedness and response assessment checklist form sent to all States

Figure 1: Map of Nigeria showing areas affected by CSM, week 1 - 13, 2018 & 2019



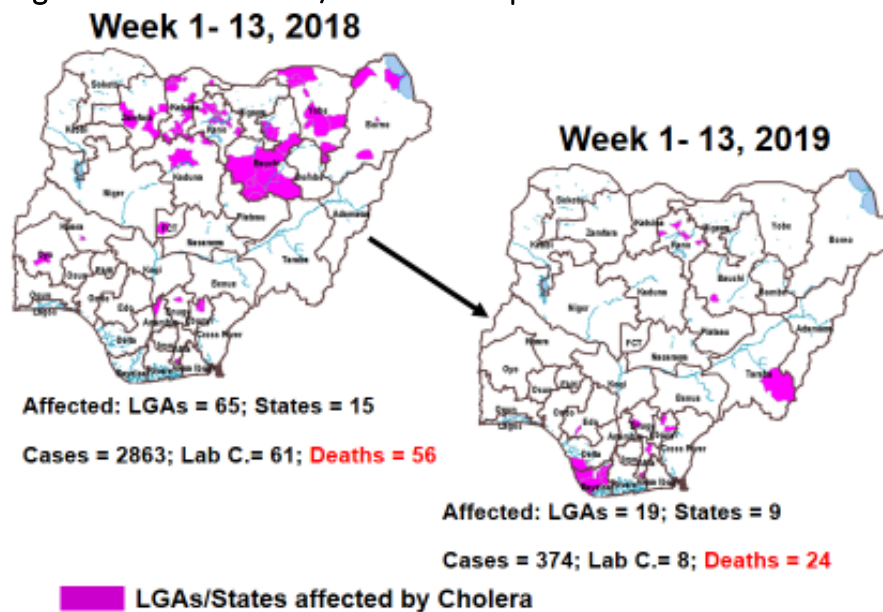
3. CHOLERA

3.1 12 suspected cases of cholera with laboratory confirmed were reported from five LGAs in four States (Abia – 1, Bayelsa – 6, Ebonyi – 2 & Kano – 3) compared with 337 suspected cases with 19 laboratory confirmed and eight deaths (CFR, 2.4%) reported from eight LGAs in seven States during the same period in 2018 (Figure 2).

3.2 Between weeks 1 and 13 (2019), 374 suspected cholera cases with eight laboratory confirmed and 24 deaths (CFR, 6.42%) from 19 LGAs (nine states) were reported compared with 2863 suspected cases and 56 deaths (CFR, 1.96%) from 65 LGAs in 15 States during the same period in 2018.

- 3.3 NCDC deployed a Rapid Response Team (RRT) to Bayelsa State to assess the current situation
- 3.4 NCDC has disseminated cholera alert mails and line list template to all states in preparedness for dry season transmission
- 3.6 National Preparedness and Response to Acute Watery Diarrhoea/Cholera Guidelines. Available from http://ncdc.gov.ng/themes/common/docs/protocols/45_1507196550.pdf

Figure 2: Status of LGAs/States that reported Cholera cases in week 1 - 13, 2018 & 2019

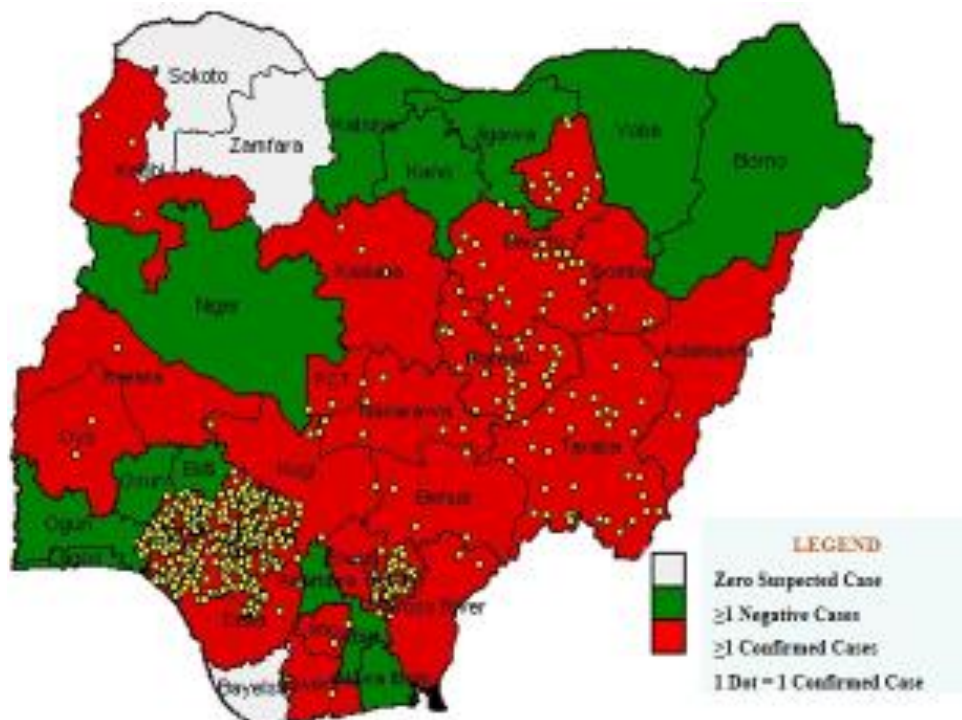


4 LASSA FEVER

- 4.1 In the reporting Week 13 (25th March – 31st March, 2019), sixteen new confirmedⁱⁱ cases were reported from five States - Edo (6), Ondo (4), Bauchi (2), Taraba (2) and Plateau (2) States with two new deaths in Bauchi (1) and Taraba (1) States. Decline in number of new cases.
- 4.2 From 1st January – 31st March 2019, a total of 2034 suspectedⁱ cases have been reported from 21 States including FCT. Of these, 526 were confirmed positive, 15 probable and 1693 negatives (not a case).
- 4.3 Since the onset of the 2019 outbreak, there have been 121* deaths among confirmed cases. Case Fatality Rate in confirmed cases is 23.0%

- 4.4 Twenty-one states have recorded at least one confirmed case across 81 LGAs (Edo, Ondo, Bauchi, Nasarawa, Ebonyi, Plateau, Taraba, FCT, Adamawa, Gombe, Kaduna, Kwara, Benue, Rivers, Kogi, Enugu, Imo, Delta, Oyo, Kebbi & Cross River)
- 4.5 Multi sectoral one health national rapid response teams (NCDC, NFIETP, Federal Ministry of Agricultural and Federal Ministry of Environment) deployed to Taraba and Bauchi states
- 4.6 NCDC prepositioned PPEs, Ribavirin (injection and tablets), beds, Tents, body-bags, thermometers, hypochlorite hand sanitizers, IEC materials, guidelines and SOPS distributed across 36 states, FCT and treatment centres
- 4.7 A National Lassa fever multi-partner, multi-sectoral Emergency Operational Centre (EOC) continues to coordinate the response activities at all levels.

Figure 3: Distribution of confirmed Lassa fever cases in Nigeria as at 31st March, 2019



5 MEASLES

- 5.1 In the reporting week, 2113 suspected cases of measles and two deaths (CFR, 0.1%) were reported from 34 states compared with 542 suspected cases with three laboratory confirmed and three deaths (CFR, 0.55%) reported from 36 states during the same period in 2018

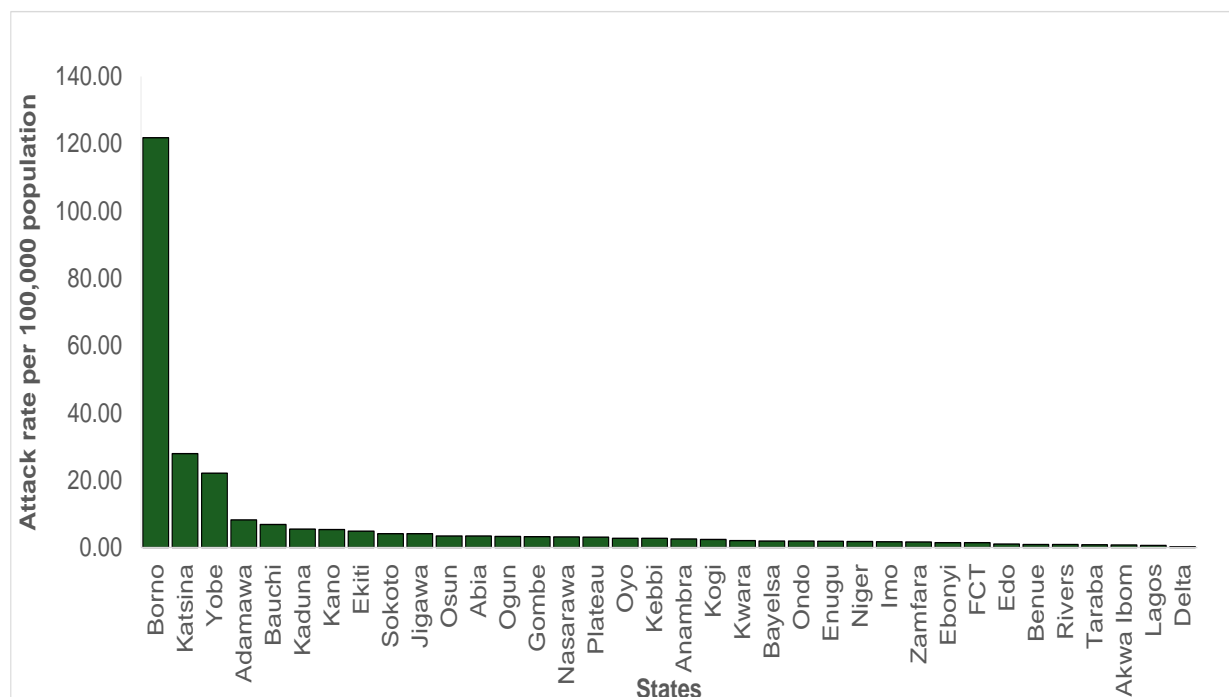
5.2 Since the beginning of the year, 16284 suspected measles cases with 535 laboratory confirmed and 31 deaths (CFR, 0.19%) were reported from 36 states and FCT compared with 6091 suspected cases and 53 deaths (CFR, 0.87 %) from 36 States and FCT, during the same period in 2018

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

5.4 NCDC deployed Rapid Response Team (RRT) to Yobe State to access the current situation

5.5 A National Measles multi-partner, multi-sectoral Emergency Operational Centre (EOC) activated on the 10th March, 2019 to coordinate response activities

Figure 5: Suspected Measles attack rate by States, week 1 - 13, 2019 as at 31st March, 2019



6 Yellow fever

6.1 In the reporting week 9 (24th February – 3rd March, 2019), eight suspected yellow fever cases were recorded in Nigeria

6.2 No new confirmed case from Institute Pasteur (IP) Dakar and the last IP Dakar confirmed cases was on the 20th of February 2019

6.3 From 1st January – 3rd March 2019, 364 suspected cases have been recorded from 177 LGAs across the country with blood samples collected from all cases. Of these, **five were confirmed positive with no death recorded so far.**

6.4 From the onset of this outbreak on September 12, 2017 to date, 4,100 suspected cases were reported from 604 (78.0%) LGAs in all the 36 States and FCT

6.5 A total of 139 cases have been confirmed by IP Dakar from 17 states (Kwara (8), Kogi (10), Kano (1), Zamfara (19), Kebbi (7), Nasarawa (3), Niger (1), Katsina (2), Edo (69), Ekiti (2), Rivers (1), Anambra (1), FCT (10), Benue (1), Delta (1), Ondo (2) and Abia (1) States) in 46 Local Government areas (LGAs).

6.6 Since the onset of the outbreak, 80 deaths were recorded among all cases with 29 deaths among IP Dakar confirmed cases. Case Fatality Rates (CFR) in all cases (suspected, probable & confirmed) and among IP Dakar confirmed cases is 2.0% and 21. 0% respectively

6.7 Yellow fever reactive vaccination campaigns were conducted in the following States: Edo (13 LGAs), Kebbi (7 LGAs), Niger (5 LGAs), Sokoto (1 LGA) &

6.8 Yellow fever vaccination campaigns have been successfully completed in 12 States (Nasarawa, Cross River, Akwa-Ibom, Kogi, Kwara, Zamfara, Sokoto, Kebbi, Niger, FCT, Plateau & Borno) and 57 political wards in 25 LGAs in Borno State. Another campaign to commence in Vandekeiya LGA in Benue State

6.9 A multi-agency national Emergency Operations Centre is coordinating the national response

6.9.1 Yellow fever After Action Review (AAR) being planned and is slated for April 2019

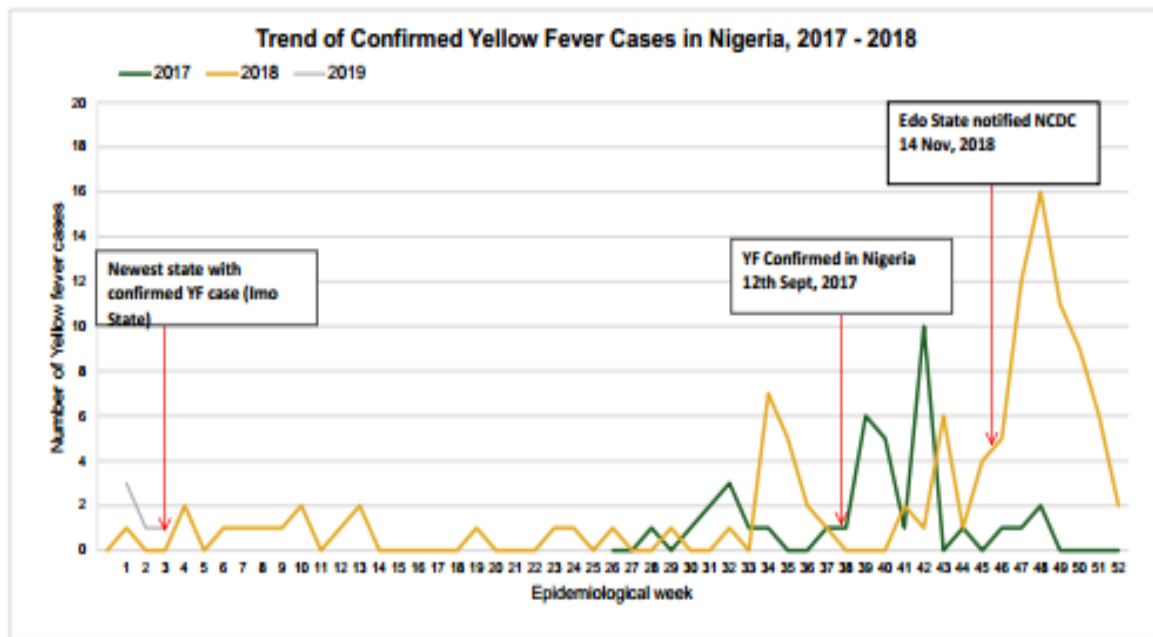


Figure 6: Trend of confirmed Yellow fever cases in Nigeria, 2017 - 2019 (as at 3rd March, 2019)

7. Update on national Influenza sentinel surveillance, Nigeria week 1 – 14, 2019

7.1 From week 1- 14 2019, a total of 119 samples were recruited, of which 112 were Influenza like-illness (ILI) and seven was Severe Acute Respiratory Infection (SARI) .

7.2 A total of 119 samples were received and 118 samples were processed. Of the processed samples, 111(94.1%) were ILI cases and 7 (5.9%) was Severe Acute Respiratory Infection (SARI).

7.3 Of the 111 processed ILI samples, 16(13.6%) were positive for Influenza A; 2(1.7%) was positive for Influenza B and 93 (84.7%) were negative.

7.4 For the processed seven SARI samples, 3(42.9%) were positive for Influenza A, 0(0.0%) for Influenza B and 4(57.1%) were negative.

7.5 Of the 118 processed samples, 21 (17.8%) were positive for Influenza, with 19 (90.5%) of these positive for Influenza A and 2 (9.5%) positive for Influenza B.

7.6 The subtypes A seasonal H3, 2009A/H1N1 and A/not subtyped account for 15 (78.9%), 0 (0.0%) and 4 (21.1%) of the total influenza A positive samples respectively.

7.7 The subtypes B VICTORIA, B Not subtyped and B Yamagata account for 0(0.0%), 2(100.0%) and 0(0.0%) of the total influenza B positive samples respectively

7.8 The percentage of influenza positive was highest (100.0%) in week 8, 2019

7.9 In the reporting week 1- 14, a sample is undergoing laboratory processes

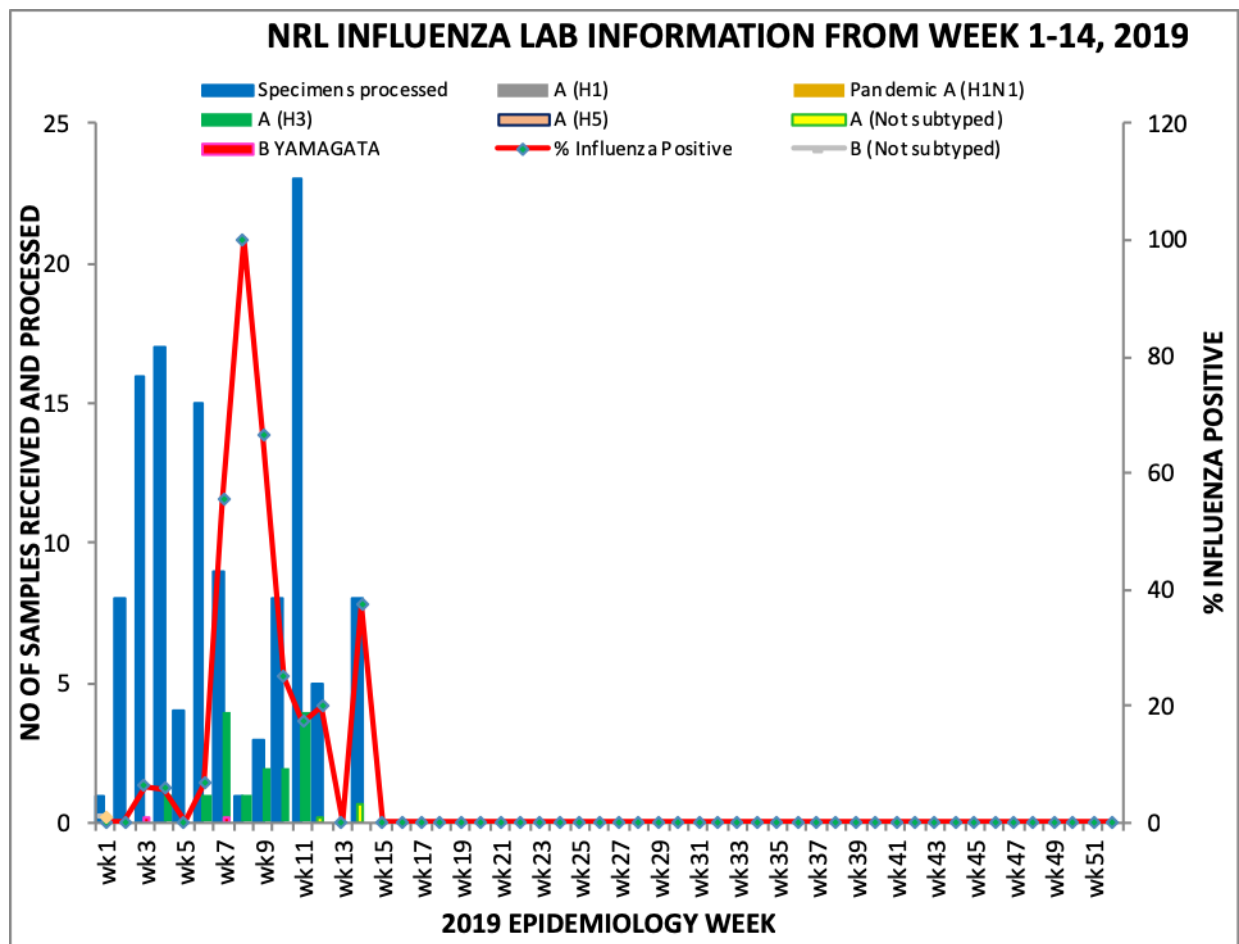


Figure 7: Number of Influenza Positive Specimens and Percent Positive by Epidemiological Week (Week 1- 14, 2019)

FOR MORE INFORMATION CONTACT

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0800-970000-10

Table 2: Status of Reporting by the State Epidemiologists, Nigeria, Weeks 1- 13, 2019, as at 3rd April, 2019

Keys:															Timely Reports												
T= Arrived on Time															<50%	Poor	1 States										
L= Arrived late															50-79%	Good	3 States										
N = No Report (Report not received)															80-100%	Excellent	33 States										
State	GeoZones	W01	W02	W03	W04	W05	W06	W07	W08	W09	W10	W11	W12	W13	Expected (Es)	Timely Rpts (Ts)	Late Rpts (Ls)	Rpts Not Recvd (Ns)	% Timely	% Complete							
1 Abia	SEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
2 Adamawa	NEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
3 Akwa Ibom	SSZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
4 Anambra	SEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
5 Bauchi	NEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
6 Bayelsa	SSZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
7 Benue	NCZ	L	T	L	T	L	L	L	T	T	T	T	T	L	13	7	6	0	54%	100%							
8 Borno	NEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
9 Cross River	SSZ	L	L	L	T	T	L	L	L	L	L	T	L	N	13	3	9	1	23%	92%							
10 Delta	SSZ	T	T	T	T	T	T	N	T	N	T	N	T	T	13	10	0	3	77%	77%							
11 Ebonyi	SEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
12 Edo	SSZ	T	T	T	L	T	T	T	T	T	L	T	T	T	13	11	2	0	85%	100%							
13 Ekiti	SWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
14 Enugu	SEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
15 FCT	NCZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
16 Gombe	NEZ	T	T	T	T	T	T	T	L	T	T	T	T	T	13	12	1	0	92%	100%							
17 Imo	SEZ	T	T	T	T	T	T	L	T	T	T	T	T	T	13	12	1	0	92%	100%							
18 Jigawa	NWZ	T	L	L	T	T	T	T	T	T	L	T	T	T	13	10	3	0	77%	100%							
19 Kaduna	NWZ	T	L	T	T	T	T	T	T	T	T	T	T	T	13	12	1	0	92%	100%							
20 Kano	NWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
21 Katsina	NWZ	T	T	T	T	T	T	T	T	T	L	T	T	T	13	12	1	0	92%	100%							
22 Kebbi	NWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
23 Kogi	NCZ	L	T	T	T	T	T	T	T	T	T	T	T	T	13	12	1	0	92%	100%							
24 Kwara	NCZ	T	T	T	T	T	T	T	L	T	T	T	T	T	13	12	1	0	92%	100%							
25 Lagos	SWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
26 Nasarawa	NCZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
27 Niger	NCZ	L	T	T	T	T	L	T	T	T	T	T	T	T	13	11	2	0	85%	100%							
28 Ogun	SWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
29 Ondo	SWZ	T	T	T	T	T	T	T	T	T	L	T	L	T	13	11	2	0	85%	100%							
30 Osun	SWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
31 Oyo	SWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
32 Plateau	NCZ	T	T	T	T	T	L	T	T	T	T	T	T	T	13	12	1	0	92%	100%							
33 Rivers	SSZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
34 Sokoto	NWZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
35 Taraba	NEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
36 Yobe	NEZ	T	T	T	T	T	T	T	T	T	T	T	T	T	13	13	0	0	100%	100%							
37 Zamfara	NWZ	T	T	T	T	T	T	T	T	L	T	T	T	T	13	12	1	0	92%	100%							
Total number of reports expected (E)		37	37	37	37	37	37	37	37	37	37	37	37	37	481												
Total reports sent on time (T)		33	34	34	36	36	33	35	34	34	34	33	35	34		445											
Total reports sent late (L)		4	3	3	1	1	4	2	2	3	2	4	1	2			32										
Total number of reports not received (N)		0	0	0	0	0	0	0	1	0	1	0	1	1				4									
Timeliness of reports =100*(T/E)		89.2	91.9	91.9	97.3	97.3	89.2	94.6	91.9	91.9	91.9	89.2	94.6	91.9					93%								
Completeness of reporting=100*(E-N)/E		100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.3	100.0	97.3	100.0	97.3	97.3						99%							
Latest Week															13											Last updated 3rd April, 2019	