Main Highlight of the week

Responding to recent outbreaks of yellow fever in Nigeria

Nigeria has recorded suspected cases of yellow fever in all states since the re-emergence of cases in September, 2017 after 21 years. As at the 30th of December, 237 cases have been laboratory confirmed. A multi-agency yellow fever Emergency Operations Centre has been established at the Nigeria centre for Disease Control (NCDC) to coordinate the response.

The Nigeria Centre for Disease Control (NCDC), National Primary Healthcare Development Agency (NPHCDA) and partners have developed a yellow fever action plan, with guidance from the global Elimination of Yellow fever Epidemic (EYE) strategy.

This plan has helped to improve Nigeria’s level of preparedness, surveillance, detection and response to yellow fever. In Edo state where an outbreak of yellow fever was confirmed recently, a strong synergy among the state government, NCDC, NPHCDA and partners helped to ensure the initiation of a reactive vaccination campaign within two weeks of laboratory confirmation.

In addition, the recently established state public health emergency operations centre helped to ensure strong coordination of response activities. The state’s
leadership was evident as the state Director of Public Health served as the Incident Manager. It is important to ensure ownership and accountability for resilience in public health systems.

The NCDC reassures all Nigerians that we will continue to work with States and partners nationwide to ensure that the outbreak is curtailed thereby preventing further spread.

SUMMARY OF REPORTS

In the reporting week ending December 30, 2018:

- There were 60 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 eight suspected cases of Cholera reported from Gubio LGA in Borno State. Of these, none was laboratory confirmed and one death was recorded.

- There were 34 suspected cases of Lassa fever reported from 13 LGAs in six States (Bauchi – 5, Edo – 12, Nasarawa – 1, Ondo – 8, Plateau - 3 & Taraba - 3). 22 were laboratory confirmed and 5 deaths were recorded.

- There were 12 suspected cases of Cerebrospinal Meningitis (CSM) reported from 7 LGAs in 6 States (Cross River - 4, Benue – 3, Ebonyi – 1, Katsina – 2, Kwara - 1 & Zamfara – 1). Of these, none was laboratory confirmed and one death was recorded.

- There were 250 suspected cases of measles reported from 26 States. None was laboratory confirmed and no death was recorded.

In the reporting week, all States sent in their reports except Imo State. Timeliness of reporting remains 87% in both previous and current weeks (51 & 52) while completeness also remains 99% 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 December 30 2018, no new case of WPV was recorded
1.2. In the reporting week, 60 suspected cases of AFP were reported from 54 LGAs in 28 States

1.3. Between week 1 and 52 (2018), 8571 suspected cases of AFP were reported from 754 LGAs in 37 States

Table 1: 2018 SIAs

<table>
<thead>
<tr>
<th>S/No</th>
<th>Month</th>
<th>Dates</th>
<th>Scope</th>
<th>Target Population</th>
<th>Antigen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>January</td>
<td>20th – 23rd January</td>
<td>SIPOs (13 HR States) (Excluding Zamfara)</td>
<td>22,958,038</td>
<td>SOPV</td>
</tr>
<tr>
<td>2</td>
<td>Feb &amp; March</td>
<td>1st February - 21st March</td>
<td>HH based Micro plan with Enumeration of &lt;1yr, &lt;5yr &amp; &lt;15yrs</td>
<td>Keffi, Gombe, Bauchi &amp; Taraba</td>
<td>SOPV</td>
</tr>
<tr>
<td>3</td>
<td>March</td>
<td>3rd-6th March</td>
<td>SIPOs (Borno, Yobe, Adamawa) &amp; Zamfara (Moved Jan round)</td>
<td>1,971,049</td>
<td>SOPV</td>
</tr>
<tr>
<td>4</td>
<td>April</td>
<td>7th-10th April</td>
<td>NIPDs (17+1) (Northern)</td>
<td>49,882,036</td>
<td>S0PV</td>
</tr>
<tr>
<td>5</td>
<td>April</td>
<td>21st-24th April</td>
<td>NIPDs (19) (Southern)</td>
<td></td>
<td>S0PV</td>
</tr>
<tr>
<td>6</td>
<td>April – June</td>
<td>23rd April - 23rd June</td>
<td>HH based Micro plan with Enumeration of &lt;1yr, &lt;5yr &amp; &lt;15yrs</td>
<td>Yobe &amp; Adamawa (May be suspected in Adamawa)</td>
<td>SOPV</td>
</tr>
<tr>
<td>7</td>
<td>April – 27th-30th April</td>
<td>deferred NIPDs (Lagos &amp; Kogi)</td>
<td>8,797,705</td>
<td>SOPV</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>May</td>
<td>10th – 13th May</td>
<td>1st DBR to rCVPV2 in Jigawa &amp; Gombe, Polio event in Sokoto (5LGAs) &amp;</td>
<td>5,646,209</td>
<td>S0PV</td>
</tr>
<tr>
<td>9</td>
<td>May</td>
<td>26th-29th May</td>
<td>Review Meeting with 17 Southern States &amp; Kogi &amp; Kwara States on target population and vaccine accountability</td>
<td></td>
<td>S0PV</td>
</tr>
<tr>
<td>10</td>
<td>July</td>
<td>10th-13th July</td>
<td>2nd DBR to cCVPV2 in Jigawa &amp; Gombe, Polio event in Sokoto (5LGAs) &amp;</td>
<td></td>
<td>S0PV</td>
</tr>
<tr>
<td>11</td>
<td>June</td>
<td>18th-22nd June</td>
<td>AREC</td>
<td></td>
<td>S0PV</td>
</tr>
<tr>
<td>12</td>
<td>August-Sept</td>
<td>1st Aug - 30th Sept</td>
<td>SIPOs (18 HR States)</td>
<td>31,715,796</td>
<td>SOPV</td>
</tr>
<tr>
<td>13</td>
<td>October</td>
<td>10th-11th October</td>
<td>SIPOs (Borno + 7 HR States)</td>
<td>7,482,305</td>
<td>SOPV</td>
</tr>
</tbody>
</table>

2. CEREBROSPINAL MENINGITIS (CSM)

2.1 In the reporting week, 12 suspected Cerebrospinal Meningitis (CSM) cases and one death (CFR, 8.3%) were reported from 7 LGAs in 6 states (Cross River - 4, Benue – 3, Ebonyi – 1, Katsina – 2, Kwara - 1 & Zamfara – 1) compared with 33 suspected cases with nine laboratory confirmed and five deaths (CFR, 15.2%) reported across 18 LGAs in four states at the same period in 2017 (Figure 1)

2.2 Between weeks 1 and 51 (2018), 4516 suspected meningitis cases with 318 laboratory confirmed and 364 deaths (CFR, 8.1%) from 302 LGAs (35 States) were reported compared with 10043 suspected cases and 617 deaths (CFR, 6.1%) from 328 LGAs in 34 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, 88.2% of the 26 endemic States sent CSM reports in a timely manner while 98.2% were complete in week 1 - 52, 2018 as against 76.4% timeliness and 92.3% completeness recorded within the same period in 2017.

Figure 1: Map of Nigeria showing areas affected by CSM, week 1 - 52, 2017 & 2018

3. **CHOLERA**

3.1 Eight suspected cases of cholera were reported from Gubio LGA in Borno state in week 52, 2018 compared with 121 suspected cases and nine deaths (CFR, 7.4%) reported from 18 LGAs in Kano state during the same period in 2017 (Figure 2).

3.2 Between weeks 1 and 52 (2018), 50,719 suspected cholera cases with 956 laboratory confirmed and 1136 deaths (CFR, 2.2%) from 247 LGAs in 30 States were reported compared with 4221 suspected cases and 107 deaths (CFR, 2.5%) from 87 LGAs in 20 States during the same period in 2017.

3.3 The cholera National Emergency Operations Centre (EOC) has been de-escalated to a Technical Working Group following decline in number of new cases reported from States in the last six weeks.

Figure 2: Status of LGAs/States that reported Cholera cases in week 1 - 52, 2017 & 2018

4  LASSA FEVER

4.1 In the reporting Week 52 (24 – 30 December, 2018), twenty-two new confirmed cases were reported from Edo (9), Ondo (6), Bauchi (5) and Taraba (2) States with five new deaths in Ondo (2), Bauchi (2) and Taraba (1) States and one probable case from Ondo State

4.2 From 1st January to 31st December 2018, a total of 3498 suspected cases have been reported from 23 states. Of these, 633 were confirmed positive, 20 probable and 2853 negative (not a case)

4.3 Since the onset of the 2018 outbreak, there have been 171 deaths among confirmed cases and 20 among probable cases. Case Fatality Rate in confirmed cases is 27.0%
4.4 Twenty three states have recorded at least one confirmed case across 93 LGAs (Edo, Ondo, Bauchi, Nasarawa, Ebonyi, Anambra, Benue, Kogi, Imo, Plateau, Lagos, Taraba, Delta, Osun, Rivers, FCT, Gombe, Ekiti, Kaduna, Abia, Adamawa, Enugu and Kano). **Fourteen** states have exited the active phase of the outbreak while **nine** – Edo, Ondo, Plateau, Delta, Bauchi, Nasarawa, Adamawa, FCT and Taraba States remain active.\textsuperscript{iv}

4.5 Lassa fever international Conference is scheduled for 16\textsuperscript{th} to 17\textsuperscript{th} January 2019

4.6 The Lassa fever national multi-partner, multi-agency Technical Working Group (TWG) continues to coordinate response activities at all levels.

**Figure 3: Distribution of confirmed Lassa fever cases in Nigeria as at 31\textsuperscript{st} December, 2018**
5 MEASLES

5.1 In the reporting week, 250 suspected cases of measles were reported from 26 states compared with 90 suspected cases reported from 21 states during the same period in 2017.

5.2 Since the beginning of the year, 17412 suspected measles cases with 1345 laboratory confirmed and 128 deaths (CFR, 0.74%) were reported from 36 states and FCT compared with 21974 suspected cases with 109 laboratory confirmed and 117 deaths (CFR, 0.53 %) from 36 States and FCT, during the same period in 2017.

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

Figure 5: Suspected Measles attack rate by States, week 1 - 52, 2018 as at 30th December, 2018.
6 Yellow fever

6.1 In the reporting week 52 (24th – 30th December), no new confirmed case at WHO reference laboratory, Institute Pasteur Dakar (IP Dakar).

6.2 From the onset of this outbreak on September 12, 2017 to date, a total of 4,004 suspected yellow fever cases have been reported from 36 States & FCT. Of the 3,451 samples taken, 237 were presumptive positive in-country.

6.3 A total of 82 cases have been confirmed by IP Dakar from 14 states (Kwara, Kogi, Kano, Zamfara, Kebbi, Nasarawa, Niger, Katsina, Edo, Ekiti, Rivers, Anambra, FCT, and Benue States).

6.4 Since the onset of the outbreak, 13 deaths among IP Dakar confirmed cases and 27 deaths among presumptive positive cases have been recorded. Case Fatality Rate among IP Dakar confirmed cases and presumptive positives is 15.9% and 11.4% respectively.

6.5 Yellow fever reactive vaccination campaigns were conducted in the following States: Edo (13 LGAs), Kebbi (7 LGAs), Niger (5 LGAs), Sokoto (1 LGA) & Katsina (1 LGA).
6.6 A multi-agency national Emergency Operations Centre is coordinating the national response

6.7 Yellow fever vaccination campaigns have been successfully completed in 6 States (Nasarawa, Cross River, Akwa-Ibom, Kogi, Kwara & Zamfara) and 57 political wards in 25 LGAs in Borno State

6.8 The 2018 phase 2b November Preventive Mass Vaccination Campaign (PMVC) was conducted (22nd November – 1st December, 2018) in Sokoto, Kebbi, Niger, FCT, Plateau and some LGAs in Borno States. Target population is 9 months to 44 years (85% of the total population)

Figure 6: Map of Nigeria showing States with suspected/presumptive/confirmed cases as at week 52, 2018 (as at 30th December, 2018)

7. Update on national Influenza sentinel surveillance, Nigeria week 1 – 52, 2018

7.1 From week 1- 52, 396 suspected cases were reported, of which 356 were Influenza like-illness (ILI), 40 were Severe Acute Respiratory Infection (SARI).

7.2 A total of 396 samples were received and all the samples were processed. Of the processed samples, 356(89.8%) were ILI cases, 40 (10.1%) were Severe Acute Respiratory Infection (SARI).

7.3 Of the 356 processed ILI samples, 39 (11.0%) were positive for Influenza A; 33(9.3%) were positive for Influenza B and 284 (79.9%) were negative.
7.4 Out of the processed 40 SARI samples, 7 (17.5%) were positive for Influenza A, 2 (5.0%) were positive for Influenza B, while the remaining 31 (77.5%) were negative.

7.5 Of the 396 processed samples, 81 (21.8%) were positive for Influenza, with 46 (56.8%) of these positive for Influenza A and 35 (43.2%) positive for Influenza B.

7.6 The subtypes A seasonal H3, 2009A/H1N1 and A/not subtyped account for 8 (17.4%), 28 (60.9%) and 10 (21.7%) of the total influenza A positive samples respectively.

7.7 The subtypes B VICTORIA, B Not subtyped and B Yamagata account for 24 (70.6%), 8 (20.6%) and 3 (8.8%) of the total influenza B positive samples respectively.

7.8 The percentage of influenza positive was highest (100.0%) in week 43, 2018.

7.5 In the reporting week 1-52, all samples were processed.

**Figure 7: Number of Influenza Positive Specimens and Percent Positive by Epidemiological Week (Week 1-52, 2018)**

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0800-970000-10
Table 2: Status of Reporting by the State Epidemiologists, Nigeria, Weeks 1 – 52, 2018, as at 30th December, 2018