**B TITLE:** YELLOW FEVER OUTBREAK IN NIGERIA  
**SERIAL NUMBER:** 039  
**EPI-WEEK:** 45  
**DATE:** 5th October – 11th November, 2018

**HIGHLIGHTS**

- In this reporting week 5th October – 11th November, 2018:
  - 85 suspected cases were recorded
  - One inconclusive case from Bakassi Local Government Area of Cross River state – recorded from the NCDC Central Public health laboratory Lagos
  - No new confirmed case from Institut Pasteur (IP) Dakar
  - Last confirmed case from IP Dakar was on 18th October, 2018
  - A national yellow fever Incident Management System (IMS) Level 2 Emergency Operation Centre (EOC) is active
  - Phase 2b Yellow fever preventive mass vaccination campaign to commence from 22nd November, 2018
  - A three year (2019-2021) Yellow fever (YF) Preventive Mass Vaccination Campaign (PMVC) proposal plan approved by global alliance for vaccine initiatives) (GAVI)

**SUMMARY OF OUTBREAK**

- A yellow fever outbreak is currently active in Nigeria
- Confirmed cases have been recorded in 14 States (Kwara, Kogi, Kano, Zamfara, Kebbi, Nasarawa, Niger, Katsina, Edo, Ekiti, Rivers, Anambra, FCT, and Benue States): in 27 Local Government areas (LGAs) [Table 1]
- Since the beginning of the outbreak, 167 samples (presumptive positive -140 and inconclusive -27) in 82 LGAs have been sent to IP Dakar for re-confirmation [Figure 1]
- All Nigerian states have reported suspected cases in 570 (73.6%) LGAs [Figure 4] From the onset of this outbreak in September 12, 2017, a total of 3,456 suspected yellow fever cases have been reported as at week 45 [5th November – 11th November, 2018: (Table 1)]
- Of the 3,456 suspected cases, 3,201 (92.6%), had blood samples collected and sent to the Nigerian testing laboratories.
- Of the 3,201 samples collected, **140 (4.4%)** tested positive for yellow fever (presumptive positive cases) and **27 (0.8%)** inconclusive results in six Nigerian laboratories [Table 1]
- Of the 167 (presumptive positive and inconclusive) samples in Nigeria, 56 (33.7%) samples have been confirmed positive by IP, Dakar. 88 (53%) samples were negative. Awaiting results of 23 (13.7%) samples from IP Dakar [Table 1]
- Of all suspected, probable and confirmed cases, 55 deaths have been recorded with 13 deaths among confirmed cases only
• The case fatality ratio (CFR) for all cases (suspected, probable and confirmed) is 1.6%, and 23.2% for confirmed cases.[Table 1]

• Predominant age groups affected among the suspected cases is 20 years and below (children and younger adults) accounting for 2,164 (62.7%) [Male 1,326 (38.4%): Female 839 (24.3%)]. However, age groups 1 - 5 years have the highest peak
  o Median age is 15 years (range 1 – 92 years)
  o Male to female ratio is 1.4 to 1 [Male 2,003 (58.0%), Female 1,453 (42.0%)]
  o Among the confirmed cases, male to female ratio is 1.9:1 (Male 66.1%, Female 33.9%)

• Yellow fever preventive mass vaccination campaigns (PMVC) have been successfully completed in six states:
  o Nasarawa, Cross River, Akwa Ibom; Kogi, Kwara and Zamfara and in fifty-eight political wards in 25 LGAs in Borno State
  o 2018 phase 2b November PMVC to be implemented from 22nd November – 1st December, 2018 in Sokoto, Kebbi, Niger, FCT, Plateau and Borno [3 LGAs (Askira/Uba, Chibok, Konduga)] States. Target population 9 months to 44 years, (85% of the total population).

EPI- SUMMARY

Table 1: Showing all affected states and cases with Yellow fever as at week 45 (5th November – 11th November), 2018

<table>
<thead>
<tr>
<th>Number of LGAs with suspected cases</th>
<th>Number of LGAs with presumptive positives</th>
<th>Number of LGAs with confirmed cases from IP Dakar</th>
<th>Number of LGAs with confirmed cases from Blood sample collected in Nigeria</th>
<th>Number of presumptive positives in Nigeria</th>
<th>Number of inconclusive cases in Nigeria</th>
<th>Number of samples sent to Dakar</th>
<th>Number of samples received from Dakar</th>
<th>Total number observed in Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>20</td>
<td>10</td>
<td>30</td>
<td>66</td>
<td>56</td>
<td>122</td>
<td>122</td>
<td>494</td>
</tr>
<tr>
<td>Total number of cases in the list</td>
<td>126</td>
<td>172</td>
<td>76</td>
<td>153</td>
<td>596</td>
<td>144</td>
<td>144</td>
<td>110</td>
</tr>
<tr>
<td>Attack Rate Per 100,000 population</td>
<td>0.4</td>
<td>2.5</td>
<td>1.1</td>
<td>1.7</td>
<td>3.1</td>
<td>0.9</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Number of LGAs with suspected cases</td>
<td>173</td>
<td>203</td>
<td>115</td>
<td>144</td>
<td>596</td>
<td>144</td>
<td>144</td>
<td>110</td>
</tr>
<tr>
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<td>596</td>
<td>144</td>
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<tr>
<td>Number of LGAs with confirmed cases from IP Dakar</td>
<td>10</td>
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<tr>
<td>Number of LGAs with confirmed cases from Blood sample collected in Nigeria</td>
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<td>Number of presumptive positives in Nigeria</td>
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<td>Number of inconclusive cases in Nigeria</td>
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<td>122</td>
</tr>
<tr>
<td>Total number observed in Nigeria</td>
<td>494</td>
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<td>494</td>
<td>494</td>
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</tbody>
</table>

CFR for all cases = 1.6%, among the Presumptive/inconclusive cases 11.0% and among IP Dakar confirmed cases 23.2%
Figure 1: Attack rate of YF in Nigeria by State as at week 45 (5th November – 11th November), 2018

Figure 2: Epidemic curve of suspected / confirmed cases of yellow fever in Nigeria as at week 45 (5th November – 11th November), 2018
Figure 3: Epidemic curve of presumptive / confirmed cases of yellow fever in Nigeria as at week 45 (5th November – 11th November), 2018

Figure 4: Map of Nigeria showing states with suspected/presumptive/confirmed as at week 45 (5th November – 11th November), 2018