Immunisation coverage in Nigeria is far below national goals, putting a substantial number of children at risk of death and disability from vaccine preventable diseases.

Immunisation coverage varies across Nigeria but improvements are needed in every state.

WHY MEASURE PENTA3?
The 3rd dose of pentavalent vaccine (penta3) is an indicator of the immunisation system's ability to reach and retain children with multiple vaccinations.

**MICS/NICS 2016/2017**

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**IMMUNISATION COVERAGE INDICATORS**

<table>
<thead>
<tr>
<th>Among children aged 12-23 months of age:</th>
<th>North Central % [95% CI]</th>
<th>Nigeria % [95% CI]</th>
<th>Africa %</th>
</tr>
</thead>
<tbody>
<tr>
<td>First dose of pentavalent vaccine (penta1)</td>
<td>59 [54, 63]</td>
<td>49 [46, 51]</td>
<td>83</td>
</tr>
<tr>
<td>Third dose of pentavalent vaccine (penta3)</td>
<td>39 [34, 44]</td>
<td>33 [31, 35]</td>
<td>74</td>
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<tr>
<td>Dropout between penta1 and penta3 dose</td>
<td>33</td>
<td>31</td>
<td>11</td>
</tr>
<tr>
<td>First dose of measles vaccine (MCV1)</td>
<td>52 [48, 57]</td>
<td>42 [40, 44]</td>
<td>72</td>
</tr>
<tr>
<td>Availability of child health card</td>
<td>31 [27, 35]</td>
<td>29 [27, 31]</td>
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</tbody>
</table>

1. Crude coverage based on child health cards or parental recall. Values reported as weighted percentages (%) with two-sided 95% confidence intervals. Dropout defined as percentage of children who received penta1 but did not complete 3-dose penta series. Dropout calculation is slightly different for Africa region. 1WHO/UNICEF estimates, 2016.
The benefits of vaccines are optimized when children receive all recommended vaccine doses.

Only 1 in 4 children received all recommended vaccines in North Central.

Despite reaching most kids with one vaccination, FCT-Abuja & Plateau can improve the number of children who receive all recommended vaccine doses.

Lack of awareness is the main reported reason children are not fully vaccinated.
DISPARITIES IN IMMUNISATION COVERAGE IN NORTH CENTRAL

Some groups are at higher risk of incomplete vaccination...

Only 1 in 4 of poorest children... Only 7% of children with caregivers who have no formal education...

...receive all 3 pentavalent doses.

AVAILABILITY OF CHILD HEALTH CARDS BY STATE

Every vaccination should be recorded on a child health card that is safely kept by the caregiver.

Child health cards help...

...caregivers know which vaccines their child has received and the date to return for the next vaccination.

...health workers make good decisions about which vaccines are overdue or not yet received.

Only 1 in 3 children in North Central have a child health card, meaning health workers do not have the information they need to make good decisions on vaccination for many children.
PUTTING NICS IN CONTEXT: OTHER PENTA3 COVERAGE ESTIMATES IN NORTH CENTRAL

Immunisation coverage for penta3 in North Central has been consistently below 50% over the past decade.

Every state in North Central needs to improve routine vaccination to achieve the national goal of 90% coverage for all three doses of pentavalent vaccine.

<table>
<thead>
<tr>
<th></th>
<th>Penta3 crude coverage %</th>
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</thead>
</table>
| Crude penta3 coverage in North Central from the Multiple Indicator Cluster Surveys (MICS) in 2007 and 2011, the Demographic and Health Surveys (DHS) in 2008 and 2013, and NICS 2016-17. 95% confidence intervals are presented for DHS and NICS surveys but may not be visible due to interval size. 95% confidence intervals are not available for MICS.

About the Survey

What is NICS?

An immunisation coverage survey conducted in Nigeria to assess coverage of vaccine antigens provided through the health system among children aged 12-23 months. Planning for NICS began in early 2015. Field work was conducted August 2016 - January 2017.

Which cohort of children was evaluated in NICS?

NICS was conducted among children who were aged 12-23 months by August 2016 - January 2017. These children should have received their vaccines between August 2014 and December 2016.

How were the field workers trained?

Field staff were trained for one month.

Who conducted the survey?

The survey was commissioned by the National Primary Healthcare Development Agency (NPHCDA) and conducted by the National Bureau of Statistics (NBS) in cooperation with state Bureau of Statistics in Kano and Lagos. Experienced field workers, primarily females, were selected from each state to facilitate communication with mothers of children.

Where was NICS conducted?

NICS was conducted in all 36 states and FCT, Abuja. Approximately 40,000 households were selected and 6,268 children were enrolled. The results provide valid national and state level immunisation coverage for children aged 12-23 months, while in Kano and Lagos, estimates are provided at the state and senatorial district level. In Yobe and Borno, <80% of selected clusters could be accessed and results are representative of areas where the survey could be conducted.

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