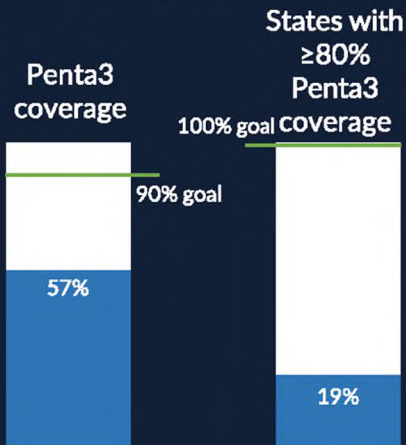


## NATIONAL PROGRESS TOWARD GVAP GOALS



Nigeria is committed to the goals of the Global Vaccine Action Plan (GVAP).

Immunisation coverage in Nigeria is below GVAP goals, putting a substantial number of children at risk of vaccine preventable diseases.

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

## BACKGROUND

Nigeria conducted a national survey of routine immunisation coverage among children in 2021. This brief summarizes survey findings to identify gaps in coverage and guide immunisation programs.

## NATIONAL IMMUNISATION COVERAGE SURVEY (NICS): National Brief

### ROUTINE IMMUNISATION IN NIGERIA



**57% of children** received all three doses of pentavalent vaccine

**21% of children** who received Penta1 did not receive Penta3



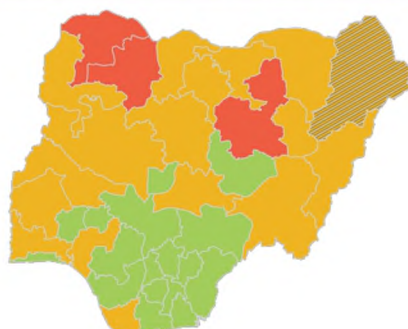
**Only 56% of children** had a child health card available at the time of the survey

### NATIONAL IMMUNISATION COVERAGE INDICATORS

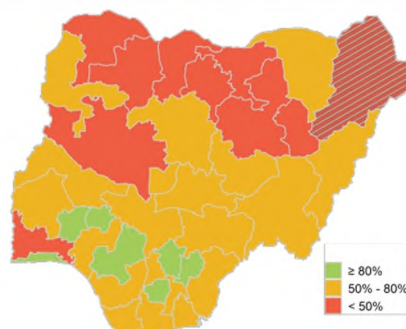
	Nigeria % [95% CI]	Africa <sup>3</sup> %
<i>Among children 12-23 months of age</i>		
First dose of pentavalent vaccine (Penta1) <sup>1</sup>	70 [68,72]	79
Third dose of pentavalent vaccine (Penta3) <sup>1</sup>	57 [54,59]	72
Dropout between Penta1 and Penta3 dose <sup>2</sup>	21	9
First dose of measles vaccine (MCV1)	60 [58,63]	68
Availability of child health card	56 [54,58]	-

<sup>1</sup> Crude coverage based on child health cards and caregiver recall. Values are weighted percentages (%) with two-sided 95% survey-adjusted Wilson confidence intervals. <sup>2</sup> Dropout is the unweighted percentage of children who received Penta1 but did not complete the three-dose penta series. <sup>3</sup> 2020 WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC) for the WHO African region, updated 4 October 2021.

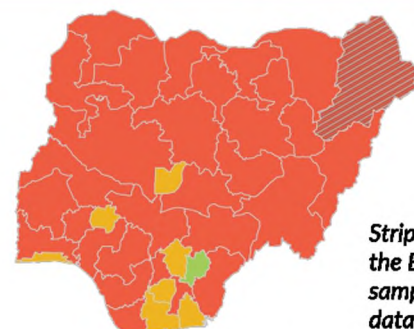
### IMMUNISATION COVERAGE ACROSS NIGERIA



Penta1 Coverage



Penta3 Coverage



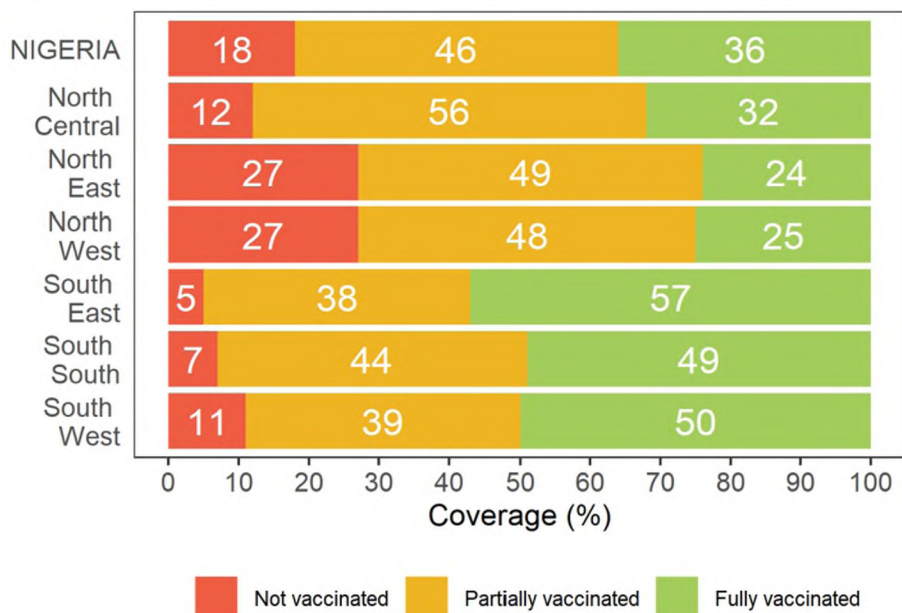
Fully Vaccinated



Stripes indicate the Borno sample includes data from 7 of 27 LGAs.



## COMPLETENESS OF ROUTINE IMMUNISATION



NOTE: Fully vaccinated means the child received all 1YL antigens: BCG, OPV0, HepB0, OPV1-3, IPV, Penta1-3, PCV1-3, YF, Meningitis A & MCV1

## KEY FINDINGS

The benefits of vaccines are fully realized when children receive all recommended vaccine doses in a timely manner.

Only 36% of children age 12-23 months received all recommended vaccines in Nigeria.

Substantially more children are fully vaccinated in the southern zones compared to northern zones.

## REASONS CHILDREN ARE NOT FULLY VACCINATED



30% thought the child was fully immunised

**51%**  
Lack of knowledge or information



7% reported the immunisation site was too far

**19%**  
Service delivery issues



11% reported mother or caretaker too busy

**24%**  
Lack of time or other family issues

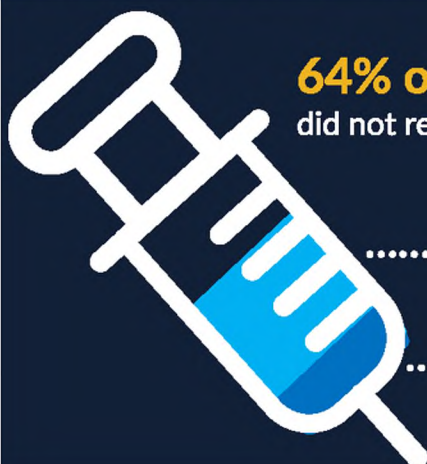


11% had fear of side reactions

**26%**  
Mistrust or fears

NOTE: Respondents could identify more than one reason for incomplete immunisation. Data are summarized here for children age 24-35 months.

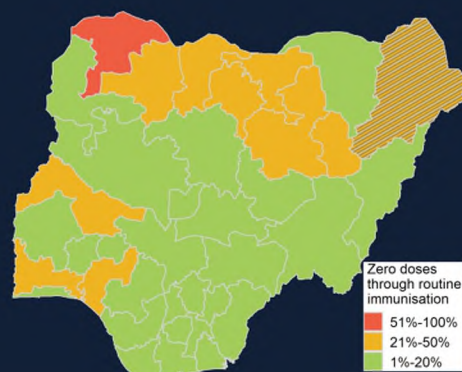
## GAPS IN ROUTINE IMMUNISATION



**64% of children** age 12-23 months did not receive all routine immunisations<sup>1</sup>

..... **46%** received some but not all doses

..... **18%** did not receive any

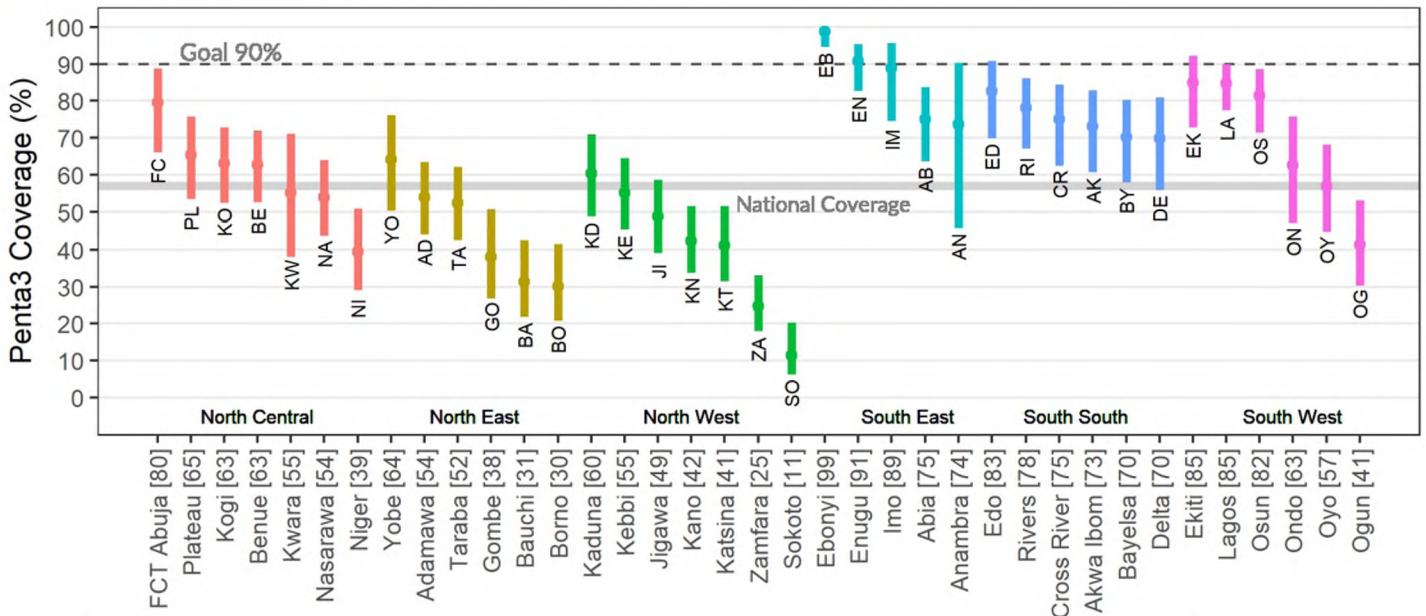


<sup>1</sup>Includes BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1



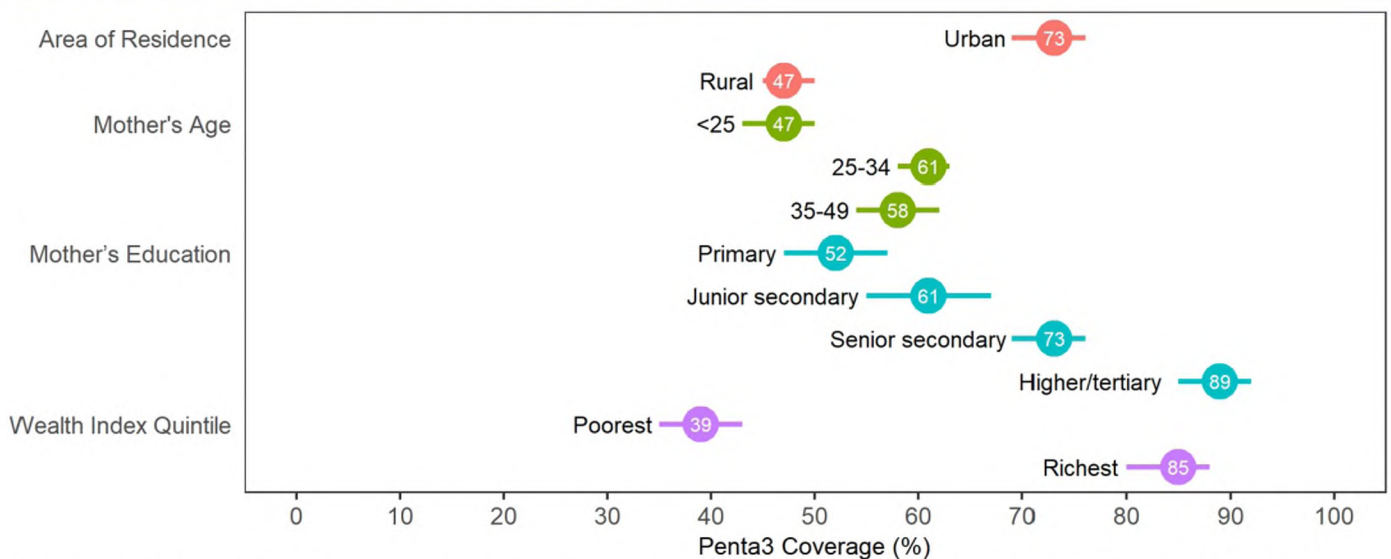
# NATIONAL IMMUNISATION COVERAGE BRIEF

## COVERAGE OF 3<sup>RD</sup> DOSE OF PENTAVALENT VACCINE BY STATE



NOTE: Crude coverage of the third dose of pentavalent vaccine by state. Points show the coverage estimate and vertical bars show the 95% confidence interval. Coverage estimates are shown in brackets next to each state name on the horizontal axis. The national average is 57% [95% CI: 54, 59].

## DISPARITIES IN IMMUNISATION COVERAGE



NOTE: Pentavalent crude coverage (%) for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

### KEY FINDINGS

Immunisation coverage varies dramatically across Nigeria and improvements are needed in nearly every state. Two states (Ebonyi and Enugu) have estimated Pentavalent coverage above the 90% goal.

Pentavalent coverage is notably higher in the southern zones than in the north.

Children are significantly less likely to have received 3 doses of pentavalent vaccine if they are from poor families or rural families or if the child's mother is younger than 25 years of age or has a low level of education.



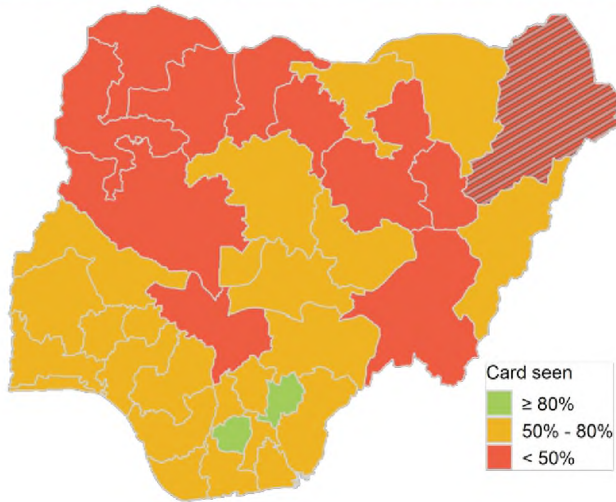
Nearly 2 of every 4 rural children received Pentavalent.

Children in the richest quintile were more than twice as likely to receive Pentavalent as those in the poorest quintile.

2X



## AVAILABILITY OF CHILD HEALTH CARDS



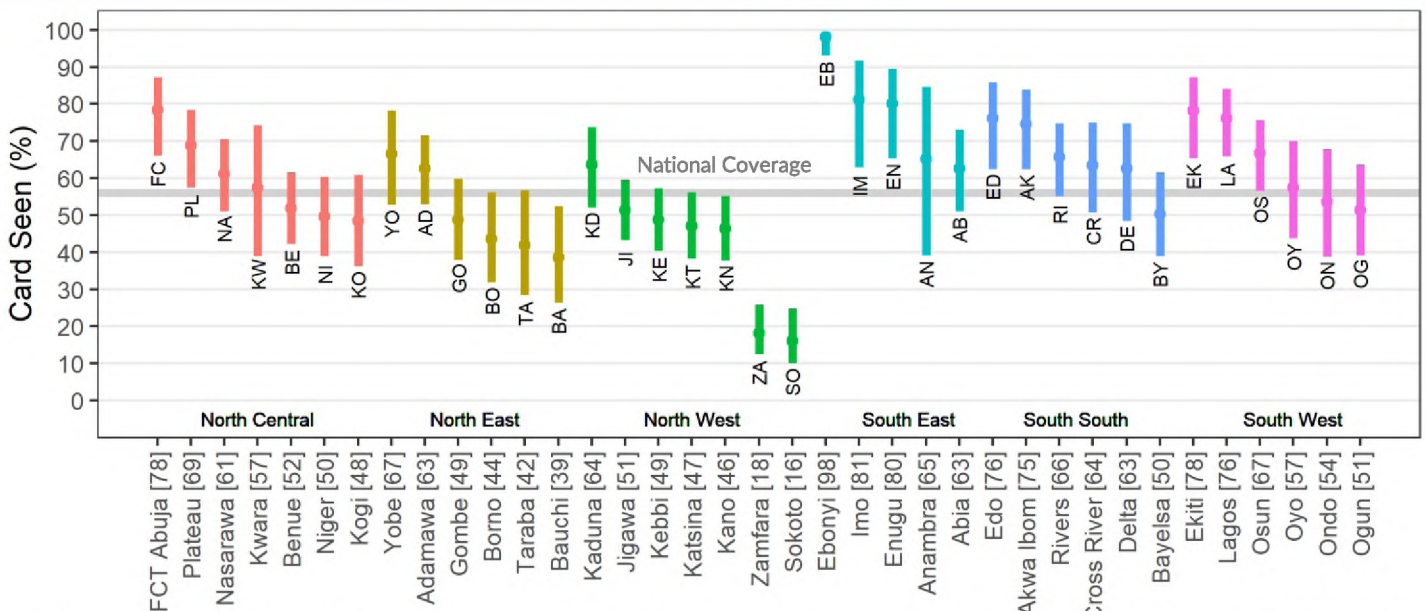
## KEY FINDINGS

Child health cards are important health records and are critical for evaluating whether children have been immunised.

In the NICS 2021 survey, only 56% of children showed a child health card.

Availability of child health cards varied across states, with a high of 98% in Ebonyi and a low of 16% in Sokoto. States with low immunisation coverage also tended to have low card availability.

## AVAILABILITY OF CHILD HEALTH CARDS BY STATE



NOTE: Weighted percentage of children who showed a child health card at the time of the survey. Vertical bars show the 95% confidence interval. The national average is 56% [95% CI: 54, 58].

## ABOUT THE SURVEY

### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

### 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) under guidance from UNICEF as part of the 2021 MICS survey. Experienced field workers, primarily women, were selected from each state to facilitate clear communication with mothers of young children.

NOTE: These briefing pages follow the design used for the 2016-17 MICS-NICS survey, which was created by a group chaired at the International Vaccine Access Center: [www.jhsph.edu/ivac/](http://www.jhsph.edu/ivac/)





# NATIONAL IMMUNISATION COVERAGE BRIEF

Percent of children age 12-23 months who received:

	BCG	HepB0	OPV0	Polio			Penta			PCV			IPV	YF	MENA	MCV1	Full <sup>1</sup>	None	Card seen	Children age 12-23 mo. <sup>2</sup>
				1	2	3	1	2	3	1	2	3								
<b>NIGERIA</b>	<b>74</b>	<b>67</b>	<b>70</b>	<b>78</b>	<b>68</b>	<b>56</b>	<b>70</b>	<b>65</b>	<b>57</b>	<b>69</b>	<b>63</b>	<b>55</b>	<b>62</b>	<b>59</b>	<b>55</b>	<b>60</b>	<b>36</b>	<b>18</b>	<b>56</b>	<b>5,652</b>
<b>North Central</b>	<b>80</b>	<b>72</b>	<b>75</b>	<b>82</b>	<b>70</b>	<b>56</b>	<b>75</b>	<b>68</b>	<b>57</b>	<b>73</b>	<b>65</b>	<b>54</b>	<b>67</b>	<b>64</b>	<b>57</b>	<b>66</b>	<b>32</b>	<b>12</b>	<b>57</b>	<b>861</b>
Benue	82	69	70	89	80	61	81	75	63	79	71	56	70	68	61	68	22	6	52	211
FCT Abuja	95	90	92	94	84	76	90	87	80	91	87	80	91	85	76	90	61	4	78	69
Kogi	92	89	87	88	67	57	86	74	63	85	72	62	78	73	68	72	34	5	48	91
Kwara	72	66	71	73	63	54	66	64	55	64	61	53	61	62	59	64	45	23	57	80
Nasarawa	79	71	76	75	65	48	72	65	54	71	63	51	61	57	50	57	28	14	61	70
Niger	67	58	64	76	61	47	62	50	39	58	50	40	53	49	42	55	24	19	50	218
Plateau	88	82	87	83	73	58	80	78	65	79	69	61	72	70	63	70	41	10	69	123
<b>North East</b>	<b>64</b>	<b>59</b>	<b>61</b>	<b>68</b>	<b>56</b>	<b>44</b>	<b>59</b>	<b>52</b>	<b>42</b>	<b>57</b>	<b>50</b>	<b>41</b>	<b>49</b>	<b>45</b>	<b>40</b>	<b>46</b>	<b>24</b>	<b>27</b>	<b>49</b>	<b>878</b>
Adamawa	84	82	82	78	63	50	75	67	54	75	67	54	62	59	54	61	32	13	63	113
Bauchi	49	44	45	61	52	40	42	38	31	42	38	31	34	32	26	31	17	35	39	253
Borno (7 LGAs)	65	58	59	59	40	31	58	45	30	54	38	31	43	30	27	39	14	32	44	180
Gombe	59	55	52	60	52	40	54	51	38	52	47	37	39	35	31	37	22	34	49	121
Taraba	71	65	72	81	69	51	71	65	52	71	62	50	66	64	61	65	27	14	42	82
Yobe	75	70	78	84	75	63	74	71	64	72	68	63	70	73	68	71	49	15	67	130
<b>North West</b>	<b>60</b>	<b>52</b>	<b>57</b>	<b>68</b>	<b>60</b>	<b>49</b>	<b>56</b>	<b>49</b>	<b>43</b>	<b>55</b>	<b>47</b>	<b>42</b>	<b>47</b>	<b>44</b>	<b>42</b>	<b>47</b>	<b>25</b>	<b>27</b>	<b>45</b>	<b>1,850</b>
Jigawa	63	60	66	72	64	52	61	56	49	61	55	48	52	55	53	56	37	25	51	239
Kaduna	78	70	72	82	71	61	73	67	60	72	65	59	62	54	52	57	34	15	64	267
Kano	60	52	55	61	54	45	55	47	42	54	47	40	45	37	38	40	23	30	46	473
Katsina	57	50	50	67	63	55	53	47	41	52	44	39	38	40	30	44	18	29	47	368
Kebbi	64	62	68	78	76	61	60	58	55	60	57	54	59	62	63	63	42	19	49	193
Sokoto	34	23	29	45	31	21	29	18	11	22	14	10	27	17	19	19	6	51	16	141
Zamfara	51	25	59	71	57	35	45	35	25	46	36	27	48	46	41	46	10	23	18	169
<b>South East</b>	<b>94</b>	<b>91</b>	<b>91</b>	<b>93</b>	<b>87</b>	<b>77</b>	<b>93</b>	<b>91</b>	<b>86</b>	<b>93</b>	<b>90</b>	<b>84</b>	<b>87</b>	<b>79</b>	<b>75</b>	<b>79</b>	<b>57</b>	<b>5</b>	<b>79</b>	<b>460</b>
Abia	90	87	86	87	76	59	88	86	75	89	85	67	82	76	72	75	40	7	63	86
Anambra	84	83	77	83	73	64	83	75	74	83	75	74	71	68	54	67	34	15	65	81
Ebonyi	99	98	98	99	99	98	99	99	99	99	99	99	98	92	92	92	89	0	98	109
Enugu	99	97	97	99	93	78	99	97	91	99	96	91	91	78	78	80	55	1	80	86
Imo	95	91	92	93	88	81	94	93	89	93	91	85	91	75	74	75	58	5	81	97
<b>South South</b>	<b>88</b>	<b>80</b>	<b>81</b>	<b>91</b>	<b>84</b>	<b>68</b>	<b>87</b>	<b>84</b>	<b>75</b>	<b>86</b>	<b>82</b>	<b>74</b>	<b>81</b>	<b>78</b>	<b>71</b>	<b>77</b>	<b>49</b>	<b>7</b>	<b>67</b>	<b>634</b>
Akwa Ibom	86	74	76	94	87	74	86	82	73	84	82	70	79	75	68	72	53	4	75	125
Bayelsa	79	72	72	79	71	53	77	76	70	77	75	66	69	65	60	66	31	16	50	51
Cross River	93	82	82	94	92	74	93	92	75	93	92	73	82	80	71	80	41	3	64	78
Delta	83	75	79	88	78	62	81	75	70	79	73	69	73	71	69	73	48	8	63	118
Edo	92	91	92	93	85	72	92	91	83	90	85	77	86	80	70	80	49	7	76	88
Rivers	90	83	83	92	86	67	90	87	78	89	85	79	89	85	80	85	56	6	66	173
<b>South West</b>	<b>86</b>	<b>81</b>	<b>82</b>	<b>86</b>	<b>75</b>	<b>63</b>	<b>83</b>	<b>78</b>	<b>69</b>	<b>82</b>	<b>75</b>	<b>66</b>	<b>75</b>	<b>74</b>	<b>71</b>	<b>74</b>	<b>50</b>	<b>11</b>	<b>65</b>	<b>969</b>
Ekiti	99	92	93	99	89	76	95	94	85	96	90	83	90	94	83	94	62	1	78	81
Lagos	94	91	94	93	85	78	92	90	85	92	89	80	88	86	86	86	66	5	76	335
Ogun	72	61	66	77	57	43	67	58	41	65	57	40	57	50	48	56	30	21	51	175
Ondo	75	72	70	75	67	58	73	68	63	72	66	61	67	69	69	66	49	24	54	121
Osun	93	87	91	92	86	65	91	88	82	91	83	69	80	82	75	80	47	5	67	100
Oyo	83	79	73	82	65	50	76	64	57	75	63	57	63	62	56	61	34	11	57	158

<sup>1</sup> BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1. <sup>2</sup> Weighted N.

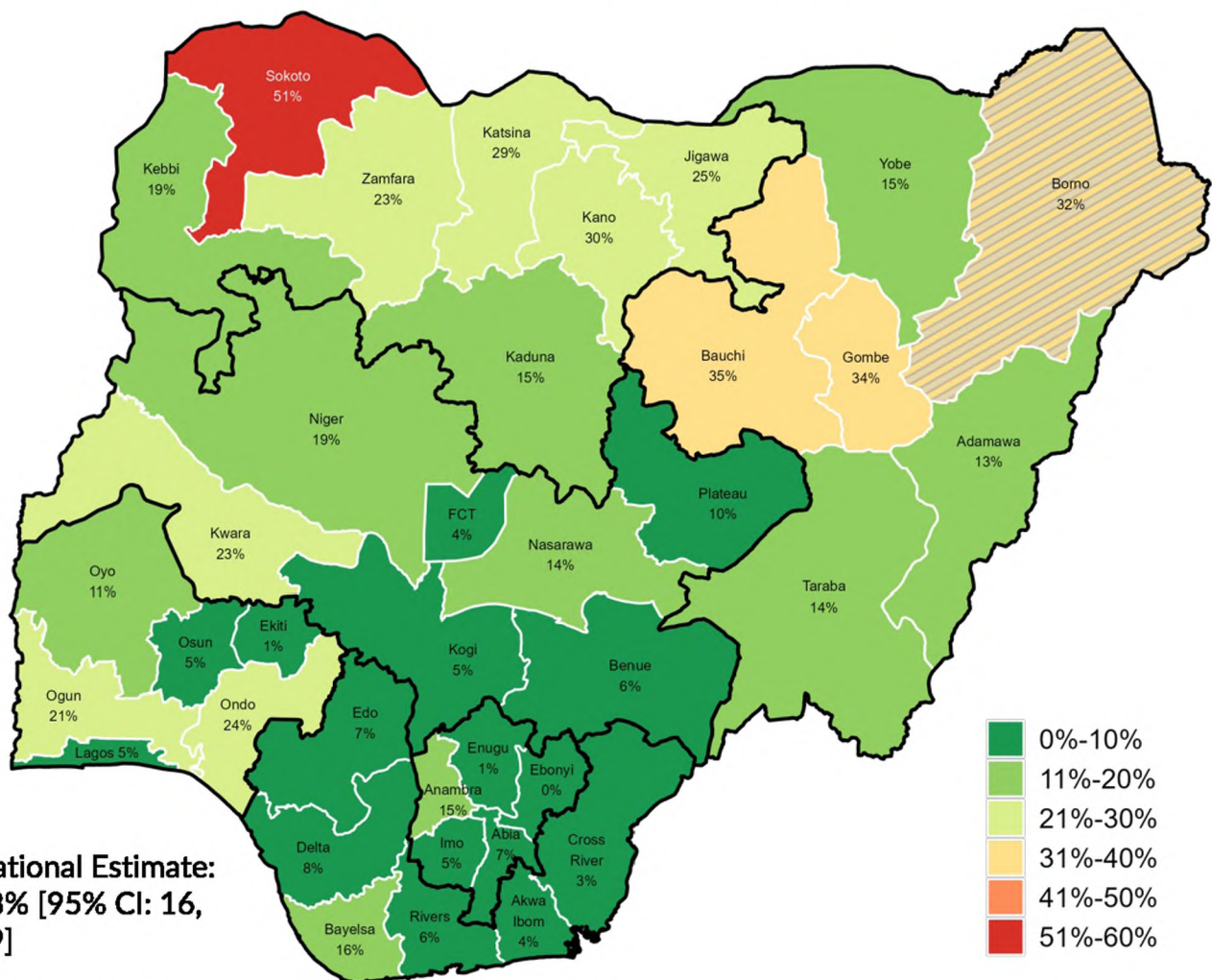






NATIONAL IMMUNISATION  
COVERAGE SURVEY (NICS):  
Zero Dose Brief

Prevalence of Zero Dose Children by State



National Estimate:  
18% [95% CI: 16,  
19]

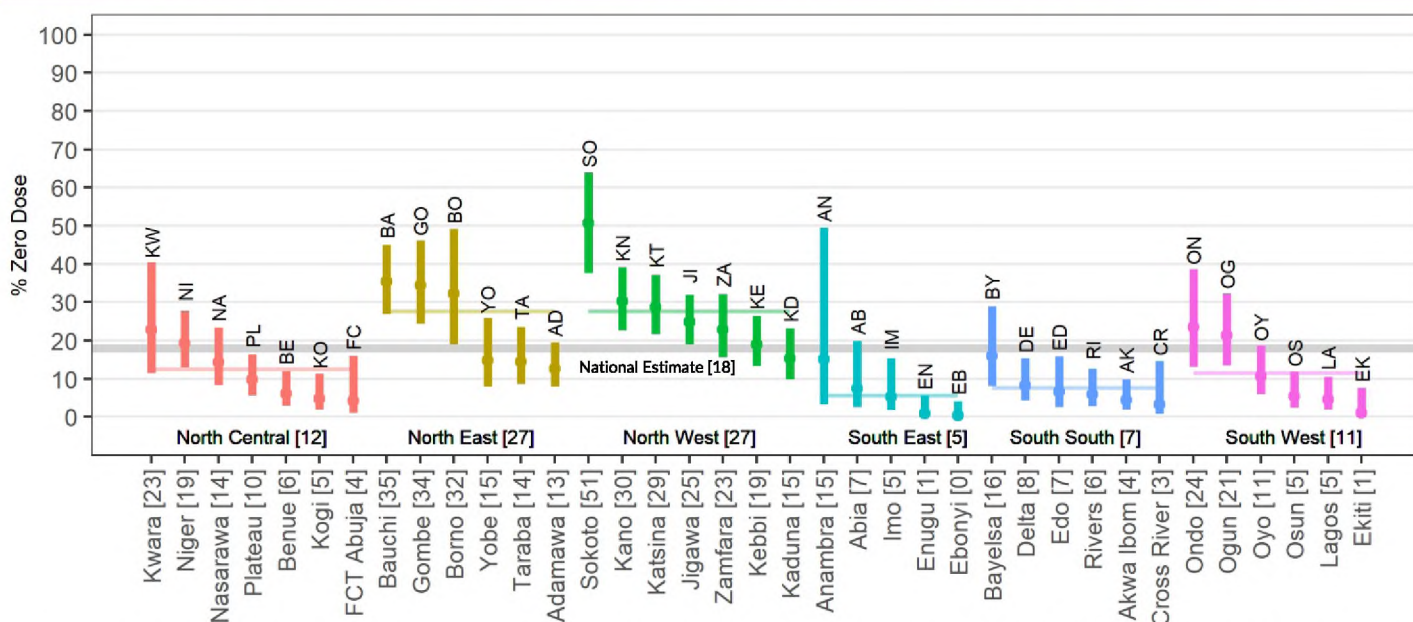
FCT: Federal Capital Territory Abuja  
Stripes indicate the Borno sample includes data from 7 of 27 local government areas (LGAs)

**Zero dose** means the child did not receive any of the following doses according to either their home-based vaccination record (card) or for those without cards, according to caregiver recall: BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, YF, MENA, MCV1

This handout explores the prevalence of zero dose children aged 12-23 months at the national, zone, and state levels. Prevalence across different demographic groups – urban vs. rural, maternal age, maternal education, and household wealth – is also explored at the national and zone levels.

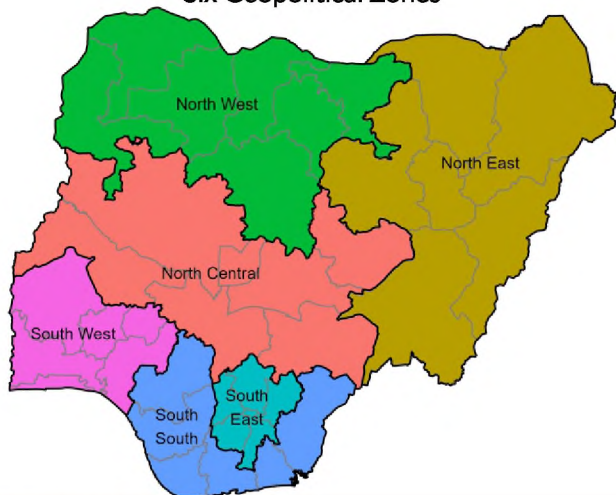


## PREVALENCE OF ZERO DOSE BY STATE WITH 95% CONFIDENCE INTERVAL



NOTE: Zero dose children by state. Points show the estimate and vertical bars show the 95% confidence interval. Estimates (in %) are shown in brackets next to each state name on the horizontal axis. Colored horizontal bars show the point estimate for each zone; these estimates are also shown in brackets next to each zone name. The national average is 18%.

### Six Geopolitical Zones



Zone	Zero Dose Estimate (%)	95% CI (%)
North Central	12	[9,15]
North East	27	[22,32]
North West	27	[24,30]
South East	5	[2,13]
South South	7	[5,9]
South West	11	[8,14]

### ABOUT THE SURVEY

#### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

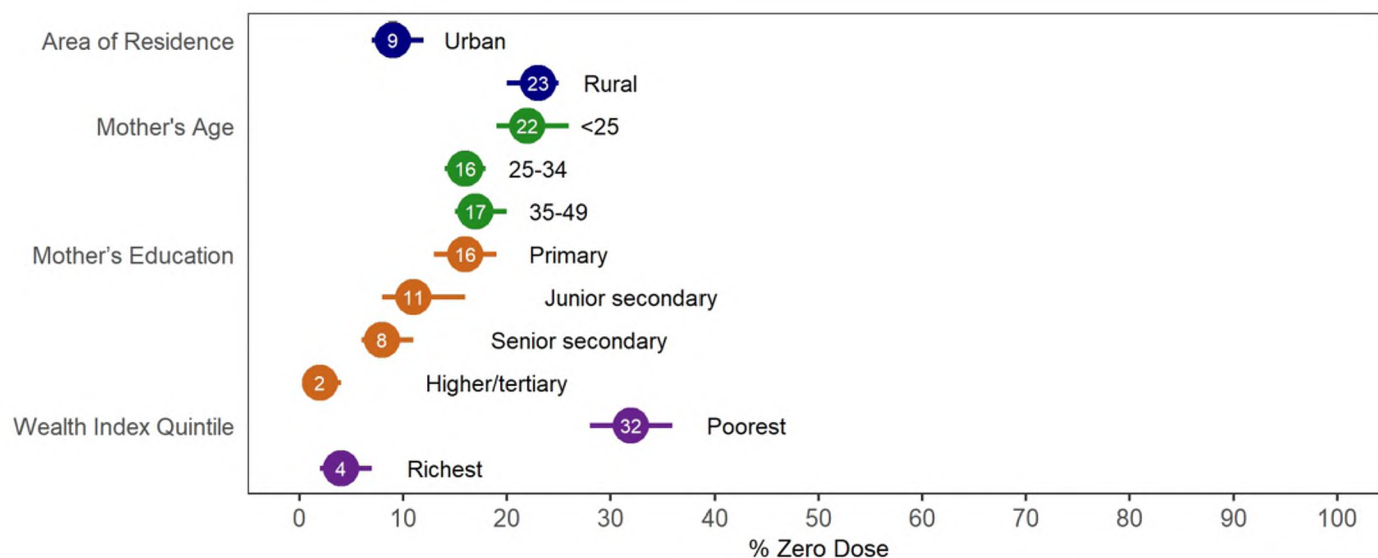
#### Who conducted the survey?

The survey was commissioned by the National Primary Healthcare Development Agency (NPHCDA) and conducted by the National Bureau of Statistics (NBS) under guidance from UNICEF as part of the 2021 Multiple Indicator Cluster Survey (MICS). Experienced field workers, primarily women, were selected from each state to facilitate clear communication with mothers of young children.





## DEMOGRAPHIC DISPARITIES IN NIGERIA



NOTE: % zero dose for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

In the graph above and on the following pages, when confidence intervals for two categories do not overlap, the difference between the zero dose proportions for the groups can be said to be statistically significant ( $\alpha = 5\%$ ). Differences may be statistically significant even when confidence intervals do overlap slightly, but a formal hypothesis test would be required to make that determination.

## KEY FINDINGS

## In Nigeria as a whole:

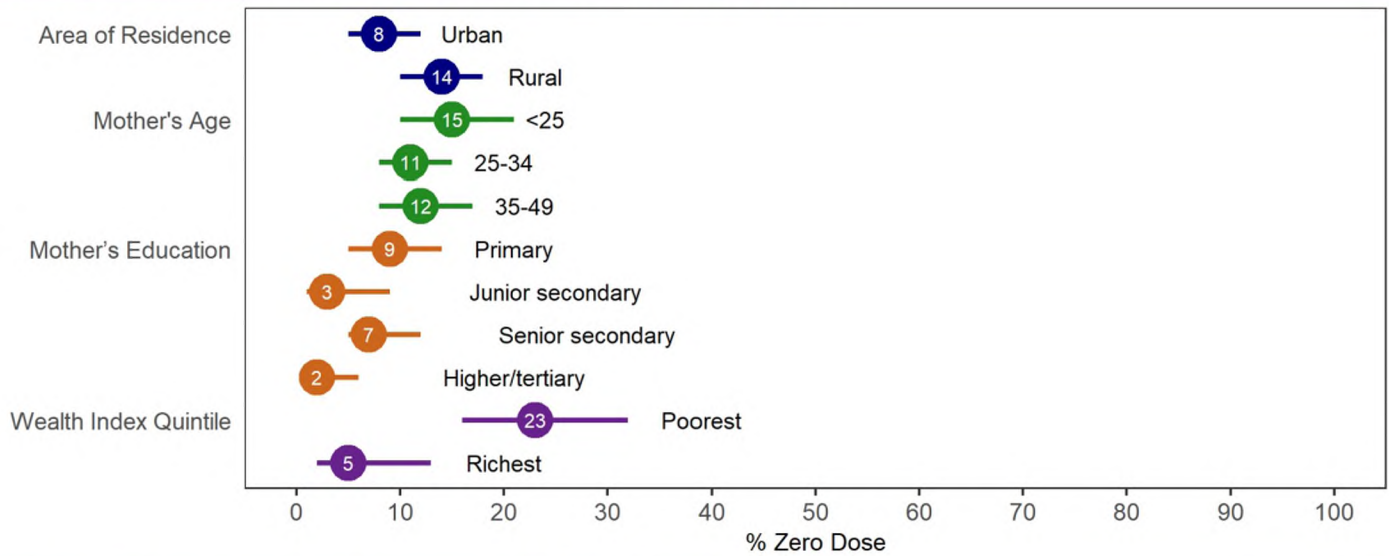
- Zero dose children are significantly more likely to be from rural households.
- Children with mothers under the age of 25 are significantly more likely to be zero dose than children with mothers who are 25-34 years old.
- Zero dose prevalence decreases as maternal education increases, with statistically significant differences between: (a) higher/tertiary education vs. lower education levels, and (b) senior secondary education vs. primary education.
- Children from households in the poorest wealth quintile are significantly more likely to be zero dose than those in households in the richest wealth quintile.

In 3 of 6 zones there are significant differences in zero dose prevalence between urban and rural households, with rural children more likely to be zero dose.

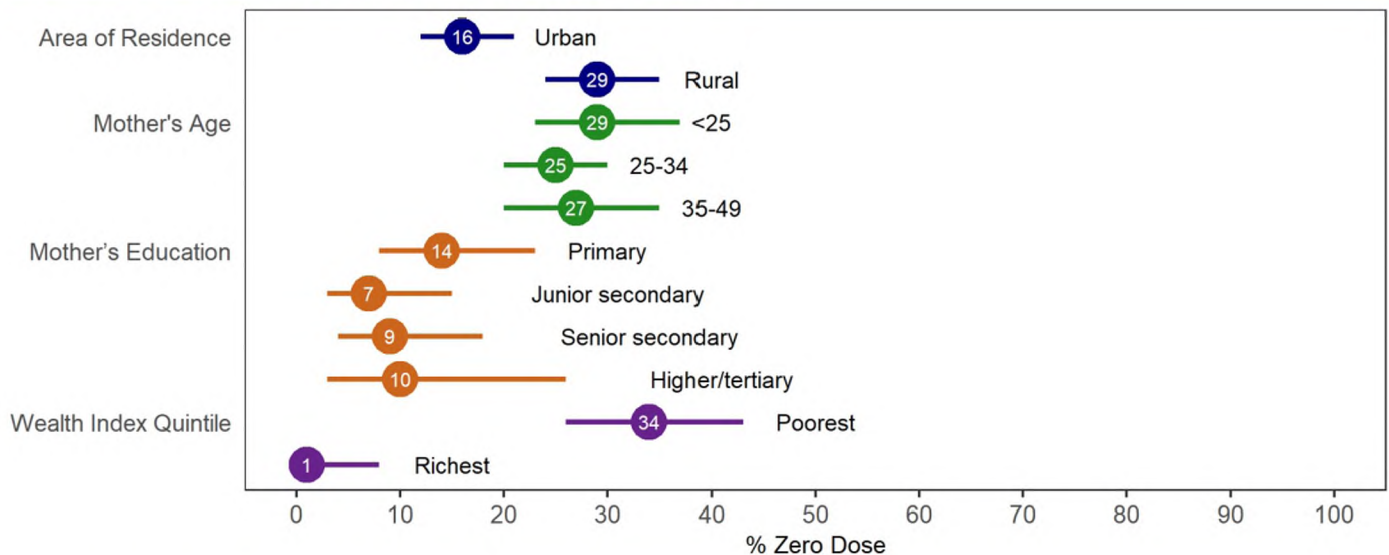
In 4 of 6 zones there are significant differences across one or more categories of maternal education, with less educated mothers likely to have zero dose children.

In 5 of 6 zones there are significant differences between the poorest and richest wealth quintiles, with poorer households more likely to have zero dose children.

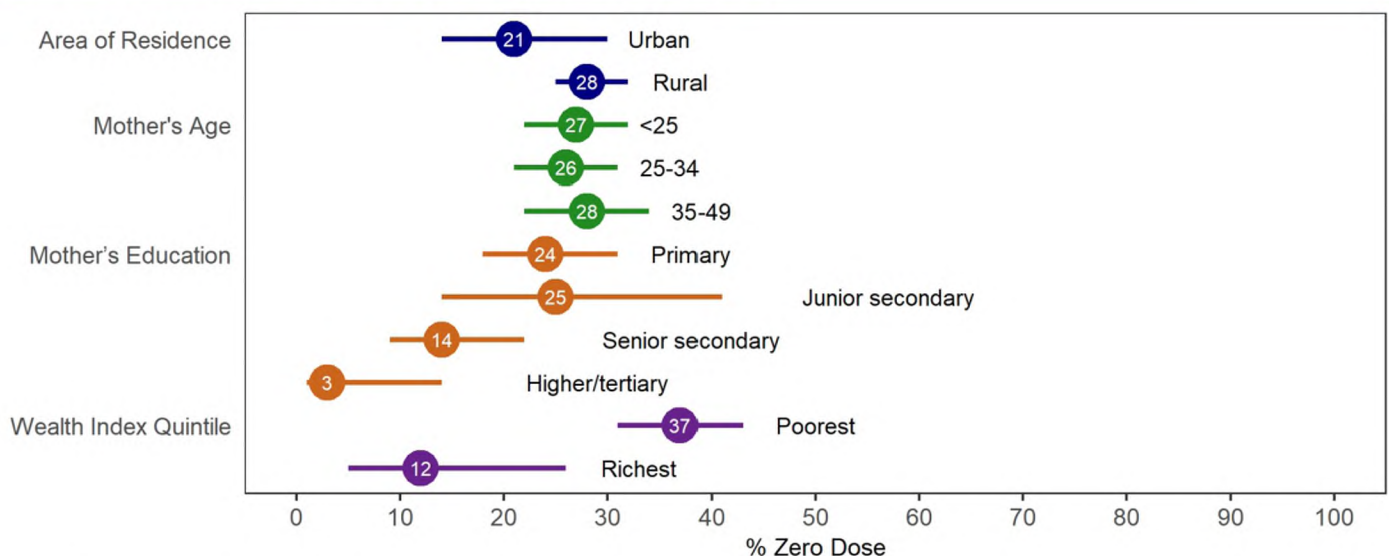
## DEMOGRAPHIC DISPARITIES IN NORTH CENTRAL



## DEMOGRAPHIC DISPARITIES IN NORTH EAST



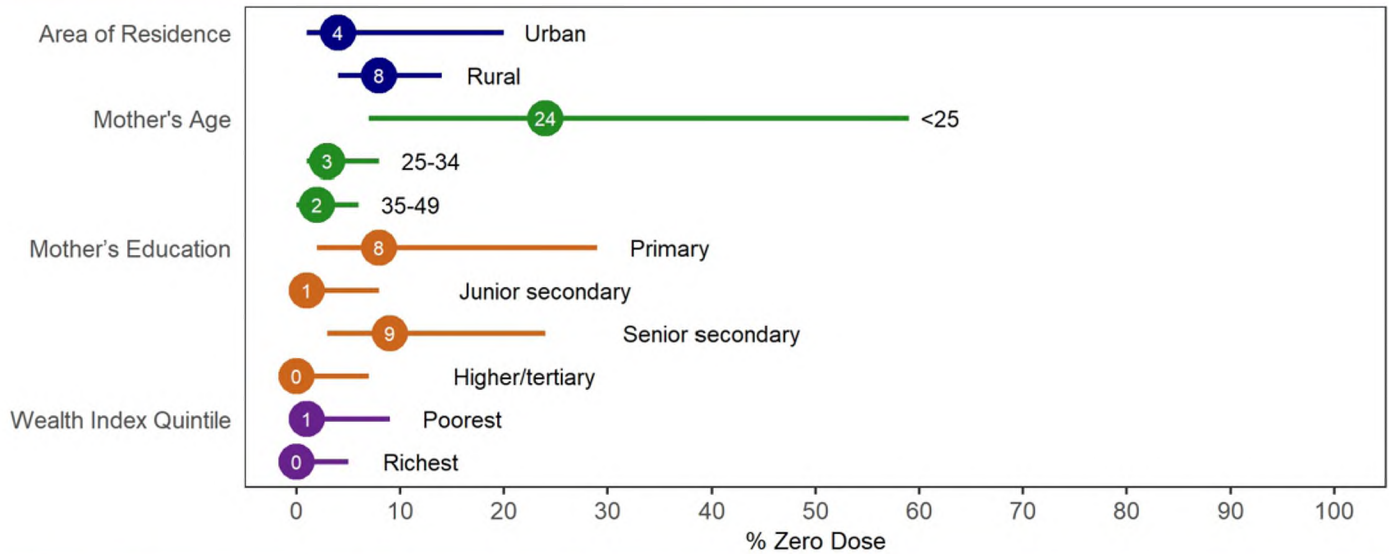
## DEMOGRAPHIC DISPARITIES IN NORTH WEST



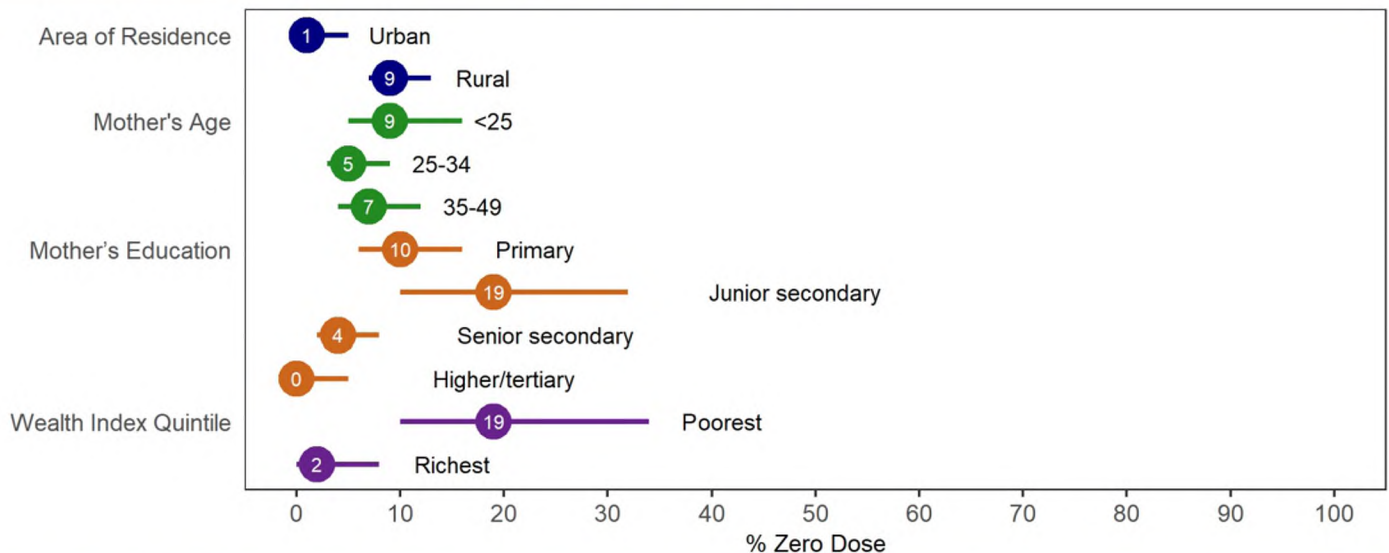
NOTE: % zero dose for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.



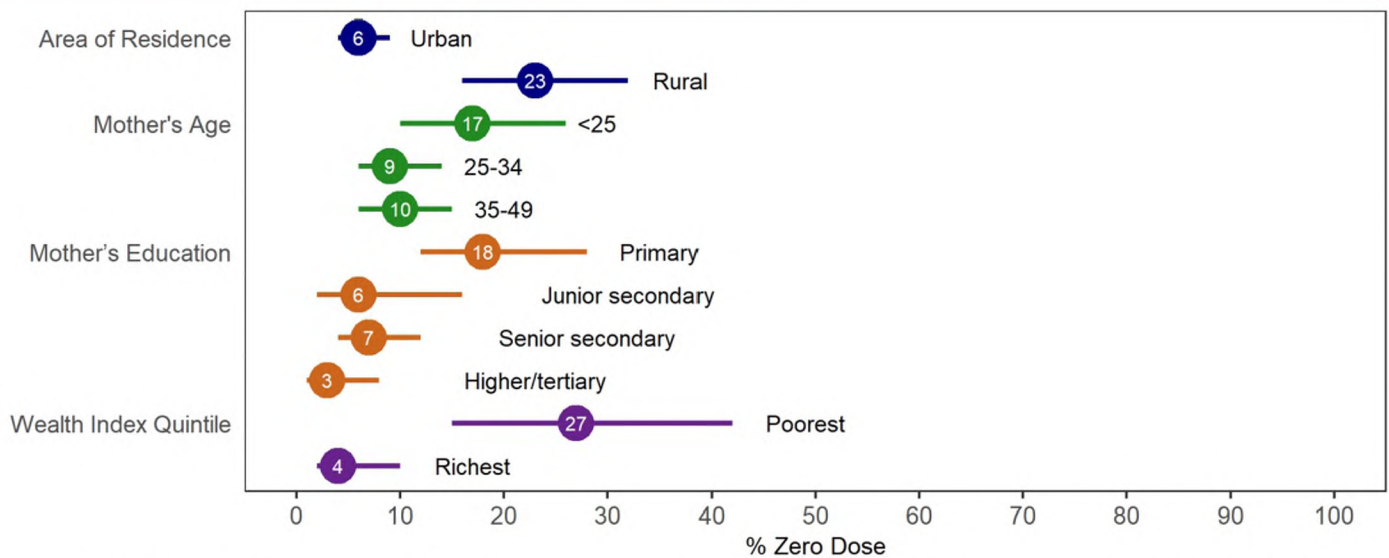
## DEMOGRAPHIC DISPARITIES IN SOUTH EAST



## DEMOGRAPHIC DISPARITIES IN SOUTH SOUTH



## DEMOGRAPHIC DISPARITIES IN SOUTH WEST



NOTE: % zero dose for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.





# NATIONAL IMMUNISATION COVERAGE SURVEY

# 2021

## North Central Zone

### ROUTINE IMMUNISATION IN NORTH CENTRAL

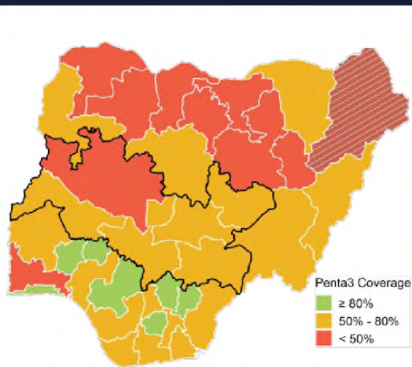


**57% of children** received all three doses of pentavalent vaccine

**24% of children** who received Penta1 did not receive Penta3

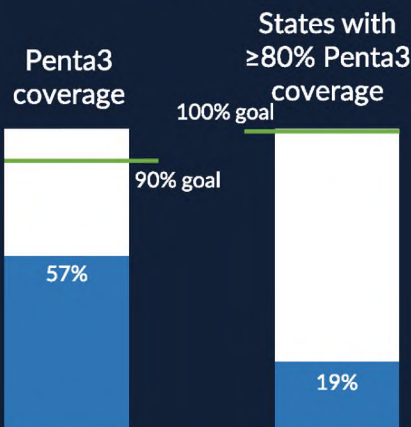


**Only 57% of children** had a child health card available at the time of the survey



Stripes indicate the Borno sample includes data from 7 of 27 LGAs.

### NATIONAL PROGRESS TOWARD GVAP GOALS



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.

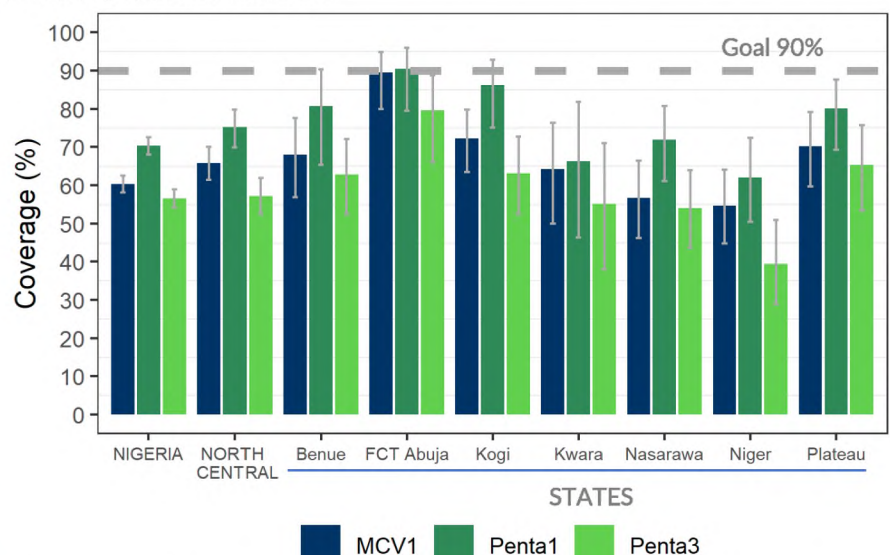
### WHY MEASURE PENTA3?

The third dose of pentavalent vaccine (Penta3) is an indicator of the immunisation system's ability to consistently reach children with crucial vaccines.

### IMMUNISATION COVERAGE INDICATORS

	North Central % [95% CI]	Nigeria % [95% CI]	Africa <sup>3</sup> %
<i>Among children 12-23 months of age</i>			
First dose of pentavalent vaccine (Penta1) <sup>1</sup>	75 [70,80]	70 [68,72]	79
Third dose of pentavalent vaccine (Penta3) <sup>1</sup>	57 [52,62]	57 [54,59]	72
Dropout between Penta1 and Penta3 dose <sup>2</sup>	24	21	9
First dose of measles vaccine (MCV1)	66 [61,70]	60 [58,63]	68
Availability of child health card	57 [52,61]	56 [54,58]	-

<sup>1</sup> Crude coverage based on child health cards and caregiver recall. Values are weighted percentages (%) with two-sided 95% survey-adjusted Wilson confidence intervals. <sup>2</sup> Dropout is the unweighted percentage of children who received Penta1 but did not complete the three-dose penta series. <sup>3</sup> 2020 WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC) for the WHO African region, updated 4 October 2021.



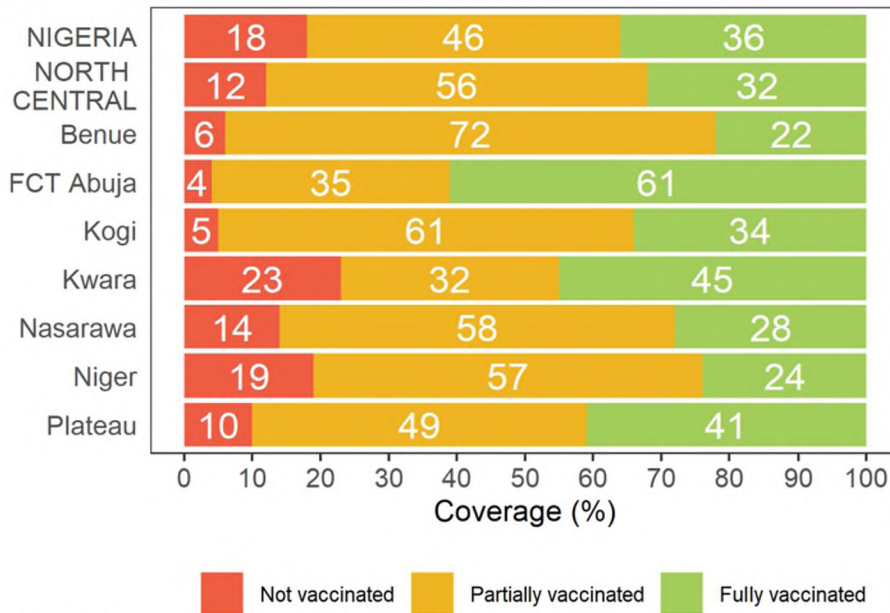
Weighted estimates of coverage according to health cards or caregiver recall (crude coverage). Capped lines show two-sided 95% confidence intervals. The dashed line represents the 90% coverage goal for Penta1, Penta3, and MCV1.

# MICS/NICS 2021



# NORTH CENTRAL: IMMUNISATION COVERAGE BRIEF

## COMPLETENESS OF ROUTINE IMMUNISATION



NOTE: Fully vaccinated means the child received all 1YL antigens: BCG, OPV0, HepB0, OPV1-3, IPV, Penta1-3, PCV1-3, YF, Meningitis A & MCV1

## KEY FINDINGS

The benefits of vaccines are optimized when children receive all recommended vaccine doses. Only 32% of children received all doses in North Central. Additional effort is needed to fully vaccinate all children.

Lack of knowledge or information is the main reported reason that children are not fully vaccinated.

## REASONS CHILDREN ARE NOT FULLY VACCINATED IN NORTH CENTRAL



36% thought the child was fully immunised

61%

Lack of knowledge or information



8% reported the immunisation site was too far

17%

Service delivery issues



14% reported mother or caretaker too busy

29%

Lack of time or other family issues



11% had fear of side reactions

19%

Mistrust or fears

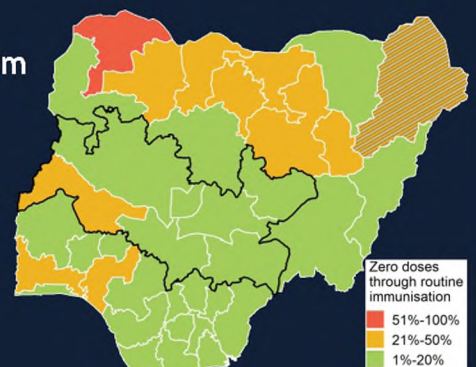
NOTE: Respondents could identify more than one reason for incomplete immunisation. Data are summarized for children age 24-35 months.

## NORTH CENTRAL: GAPS IN ROUTINE IMMUNISATION

**68% of children** age 12-23 months missed one or more routine immunisations from the health system in North Central<sup>1</sup>

..... **56%** received some but not all doses

..... **12%** did not receive any

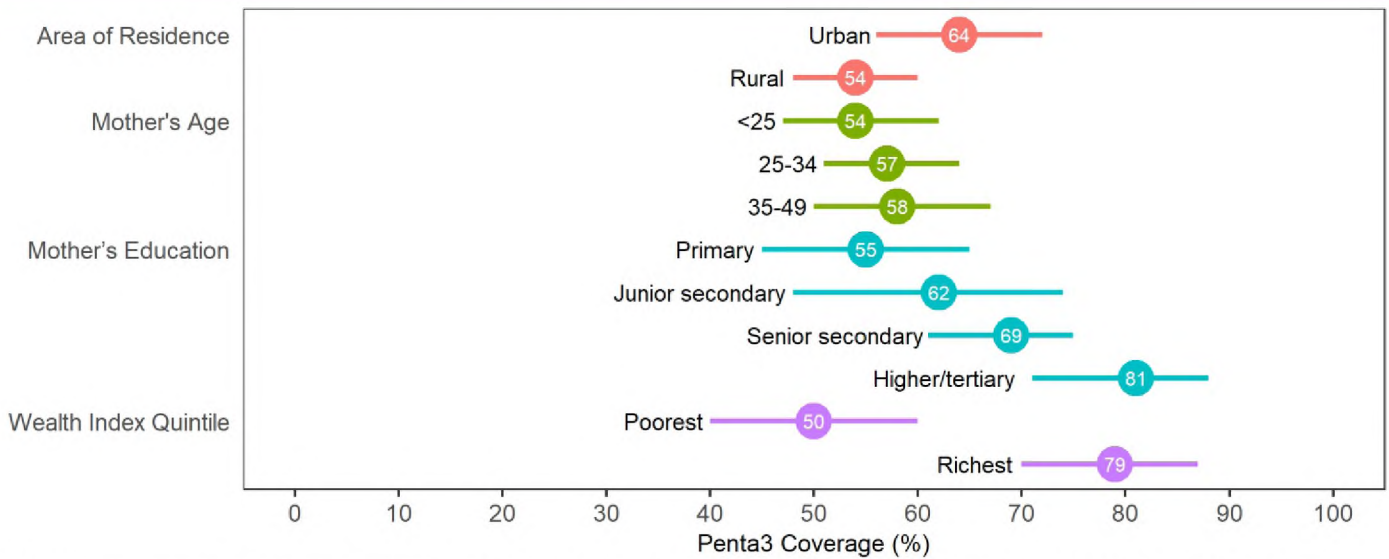


Zero doses through routine immunisation  
 51%-100%  
 21%-50%  
 1%-20%

<sup>1</sup>Includes BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1



## DISPARITIES IN IMMUNISATION COVERAGE IN NORTH CENTRAL



NOTE: Pentavalent crude coverage (%) for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

Some groups are at higher risk of incomplete vaccination:



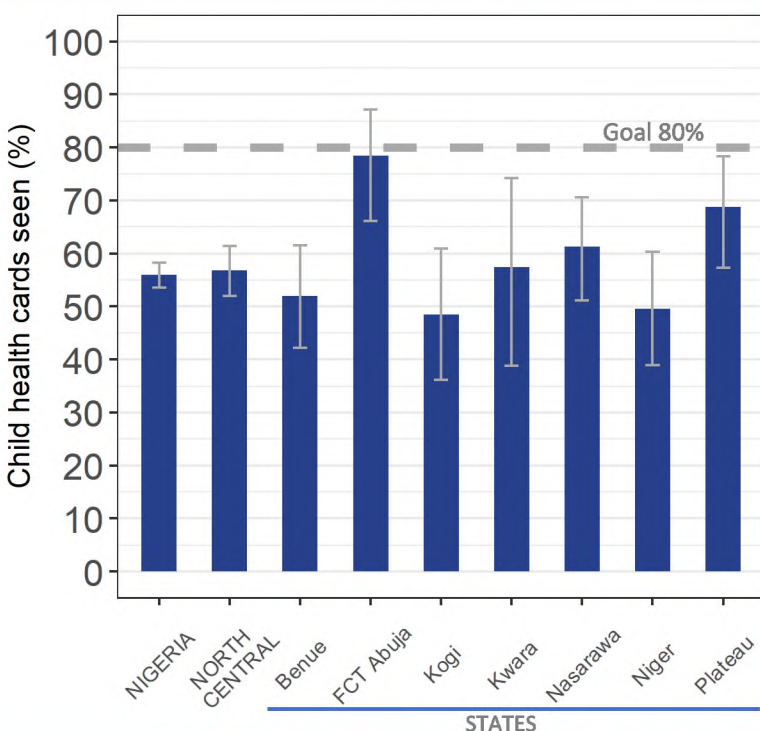
54% of rural children

Half of children from poorest families



...receive all three doses of pentavalent vaccine

## AVAILABILITY OF CHILD HEALTH CARDS BY STATE



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

Child health cards help:

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

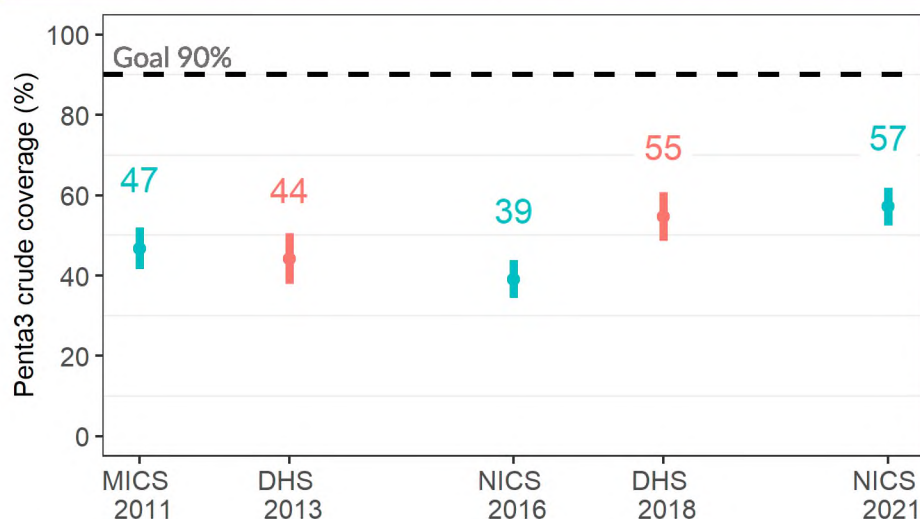
... health workers make good decisions about which doses are overdue or not yet received.

**Just over half of children** in North Central showed a child health card in the 2021 NICS.

Note: Weighted % of children who showed health cards, with 95% confidence intervals.



## PUTTING NICS IN CONTEXT: OTHER PENTA3 COVERAGE ESTIMATES IN NORTH CENTRAL



Crude estimates of Penta3 coverage in North Central from the Multiple Indicator Cluster Surveys (MICS) in 2011, the Demographic and Health Surveys (DHS) in 2013 and 2018, and MICS-NICS in 2016 and 2021. Vertical lines show the 95% confidence intervals.

### KEY FINDINGS

Penta3 coverage in North Central has improved since the 2016 NICS survey.

Every state in North Central needs to improve performance to achieve the national goal of 90% Penta3 coverage.

Percent of children age 12-23 months who received:

	Polio			Penta			PCV			IPV	YF	MENA	MCV1	Full <sup>1</sup>	None	Card seen	Children age 12-23 mo. <sup>2</sup>			
	BCG	HepB0	OPV0	1	2	3	1	2	3									1	2	3
<b>NIGERIA</b>	<b>74</b>	<b>67</b>	<b>70</b>	<b>78</b>	<b>68</b>	<b>56</b>	<b>70</b>	<b>65</b>	<b>57</b>	<b>69</b>	<b>63</b>	<b>55</b>	<b>62</b>	<b>59</b>	<b>55</b>	<b>60</b>	<b>36</b>	<b>18</b>	<b>56</b>	<b>5,652</b>
<b>North Central</b>	<b>80</b>	<b>72</b>	<b>75</b>	<b>82</b>	<b>70</b>	<b>56</b>	<b>75</b>	<b>68</b>	<b>57</b>	<b>73</b>	<b>65</b>	<b>54</b>	<b>67</b>	<b>64</b>	<b>57</b>	<b>66</b>	<b>32</b>	<b>12</b>	<b>57</b>	<b>861</b>
Benue	82	69	70	89	80	61	81	75	63	79	71	56	70	68	61	68	22	6	52	211
FCT Abuja	95	90	92	94	84	76	90	87	80	91	87	80	91	85	76	90	61	4	78	69
Kogi	92	89	87	88	67	57	86	74	63	85	72	62	78	73	68	72	34	5	48	91
Kwara	72	66	71	73	63	54	66	64	55	64	61	53	61	62	59	64	45	23	57	80
Nasarawa	79	71	76	75	65	48	72	65	54	71	63	51	61	57	50	57	28	14	61	70
Niger	67	58	64	76	61	47	62	50	39	58	50	40	53	49	42	55	24	19	50	218
Plateau	88	82	87	83	73	58	80	78	65	79	69	61	72	70	63	70	41	10	69	123

<sup>1</sup> BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1. <sup>2</sup> Weighted N.

## ABOUT THE SURVEY

### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

### 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) under guidance from UNICEF as part of the 2021 MICS survey. Experienced field workers, primarily women, were selected from each state to facilitate clear communication with mothers of young children.

NOTE: These briefing pages follow the design used for the 2016-17 MICS-NICS survey, which was created by a group chaired at the International Vaccine Access Center: [www.jhsph.edu/ivac/](http://www.jhsph.edu/ivac/)





# NATIONAL IMMUNISATION COVERAGE SURVEY

# 2021

## North East Zone

### ROUTINE IMMUNISATION IN NORTH EAST

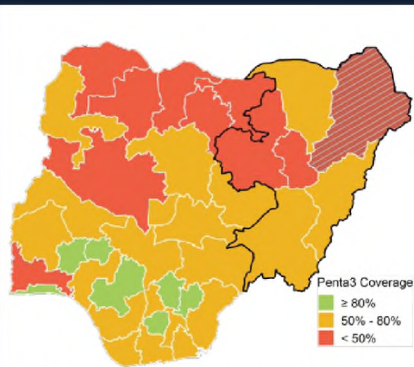


**42% of children** received all three doses of pentavalent vaccine

**25% of children** who received Penta1 did not receive Penta3

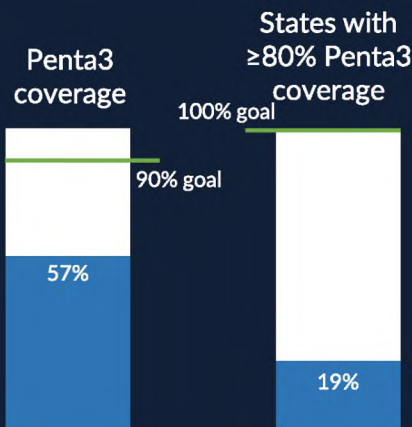


**Only 49% of children** had a child health card available at the time of the survey



Stripes indicate the Borno sample includes data from 7 of 27 LGAs.

### NATIONAL PROGRESS TOWARD GVAP GOALS



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.

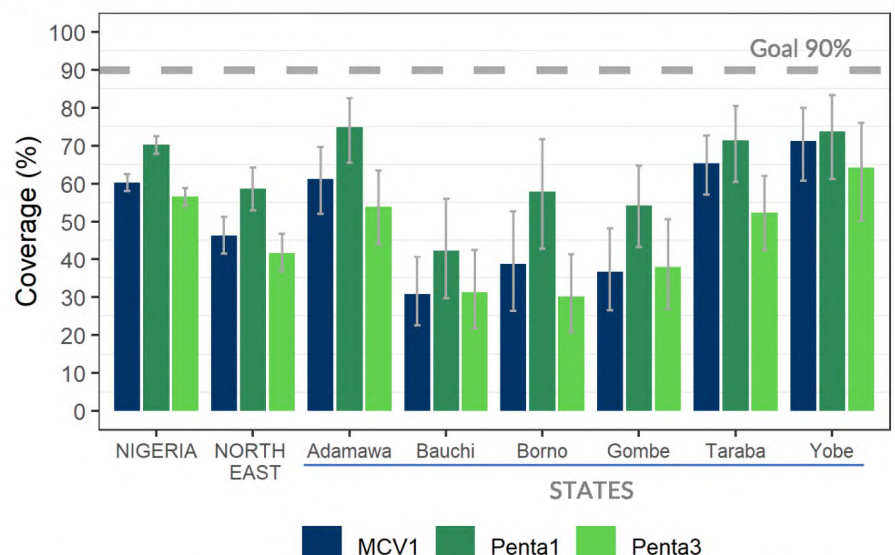
### WHY MEASURE PENTA3?

The third dose of pentavalent vaccine (Penta3) is an indicator of the immunisation system's ability to consistently reach children with crucial vaccines.

### IMMUNISATION COVERAGE INDICATORS

	North East % [95% CI]	Nigeria % [95% CI]	Africa <sup>3</sup> %
<i>Among children 12-23 months of age</i>			
First dose of pentavalent vaccine (Penta1) <sup>1</sup>	59 [53,64]	70 [68,72]	79
Third dose of pentavalent vaccine (Penta3) <sup>1</sup>	42 [37,47]	57 [54,59]	72
Dropout between Penta1 and Penta3 dose <sup>2</sup>	25	21	9
First dose of measles vaccine (MCV1)	46 [42,51]	60 [58,63]	68
Availability of child health card	49 [43,54]	56 [54,58]	-

<sup>1</sup> Crude coverage based on child health cards and caregiver recall. Values are weighted percentages (%) with two-sided 95% survey-adjusted Wilson confidence intervals. <sup>2</sup> Dropout is the unweighted percentage of children who received Penta1 but did not complete the three-dose penta series. <sup>3</sup> 2020 WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC) for the WHO African region, updated 4 October 2021.



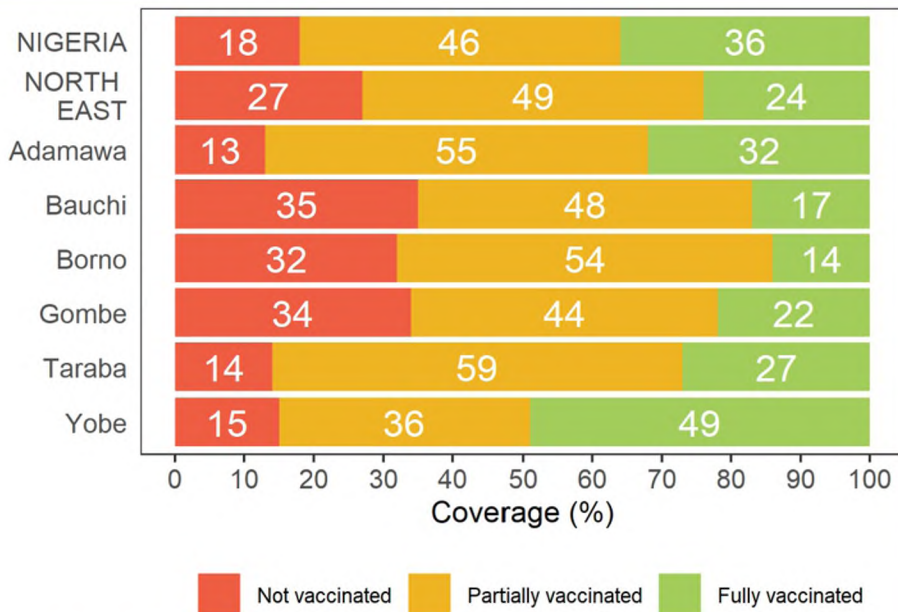
Weighted estimates of coverage according to health cards or caregiver recall (crude coverage). Capped lines show two-sided 95% confidence intervals. The dashed line represents the 90% coverage goal for Penta1, Penta3, and MCV1.

# MICS/NICS 2021



# NORTH EAST: IMMUNISATION COVERAGE BRIEF

## COMPLETENESS OF ROUTINE IMMUNISATION



NOTE: Fully vaccinated means the child received all 1YI antigens: BCG, OPV0, HepB0, OPV1-3, IPV, Penta1-3, PCV1-3, YF, Meningitis A & MCV1

## KEY FINDINGS

The benefits of vaccines are optimized when children receive all recommended vaccine doses. Only 24% of children received all doses in North East. Additional effort is needed to fully vaccinate all children.

Lack of knowledge or information is the main reported reason that children are not fully vaccinated.

## REASONS CHILDREN ARE NOT FULLY VACCINATED IN NORTH EAST



29% thought the child was fully immunised

**55%**  
Lack of knowledge or information



8% reported the immunisation site was too far

**16%**  
Service delivery issues



9% reported mother or caretaker too busy

**25%**  
Lack of time or other family issues

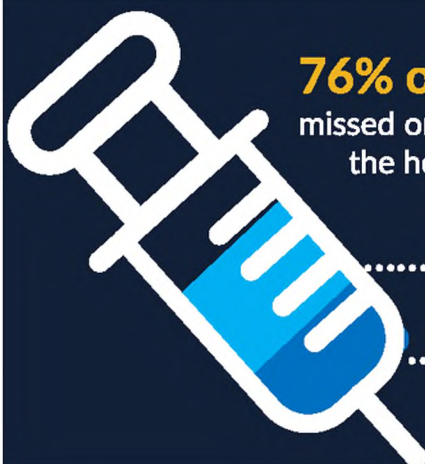


13% had no faith in immunisation

**30%**  
Mistrust or fears

NOTE: Respondents could identify more than one reason for incomplete immunisation. Data are summarized for children age 24-35 months.

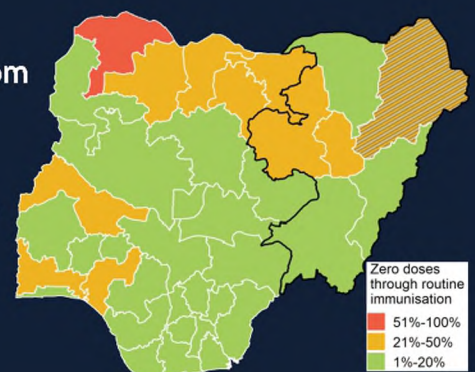
## NORTH EAST: GAPS IN ROUTINE IMMUNISATION



**76% of children** age 12-23 months missed one or more routine immunisations from the health system in North East<sup>1</sup>

..... **49%** received some but not all doses

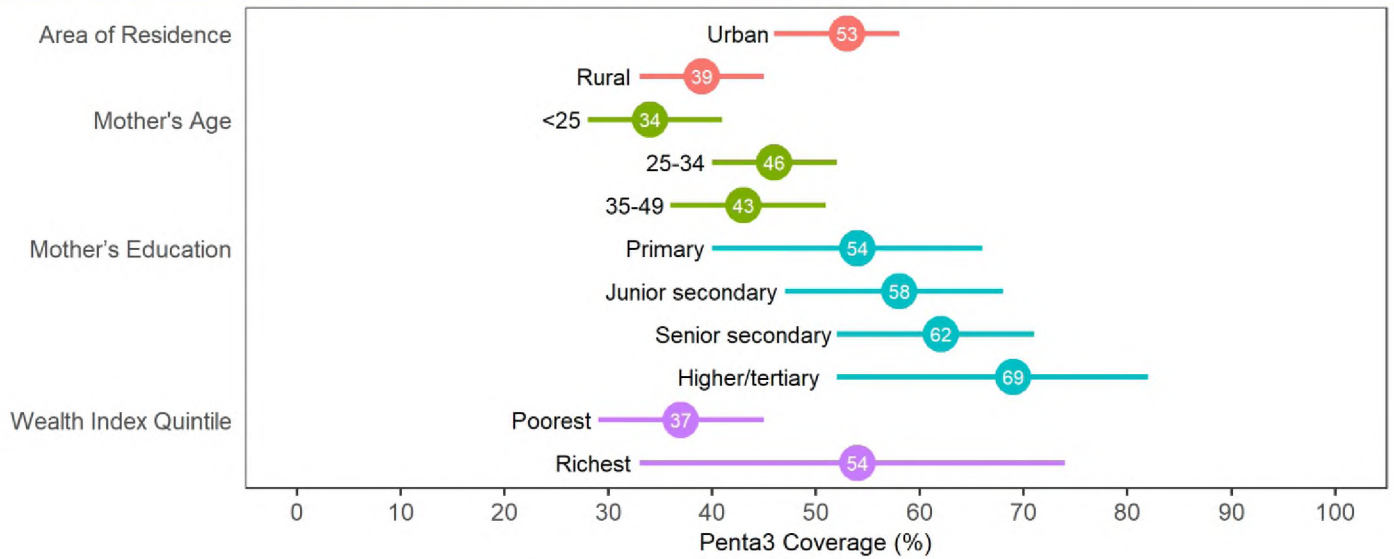
..... **27%** did not receive any



<sup>1</sup>Includes BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1



## DISPARITIES IN IMMUNISATION COVERAGE IN NORTH EAST



NOTE: Penta3 crude coverage (%) for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

Some groups are at higher risk of incomplete vaccination:



**One in three**

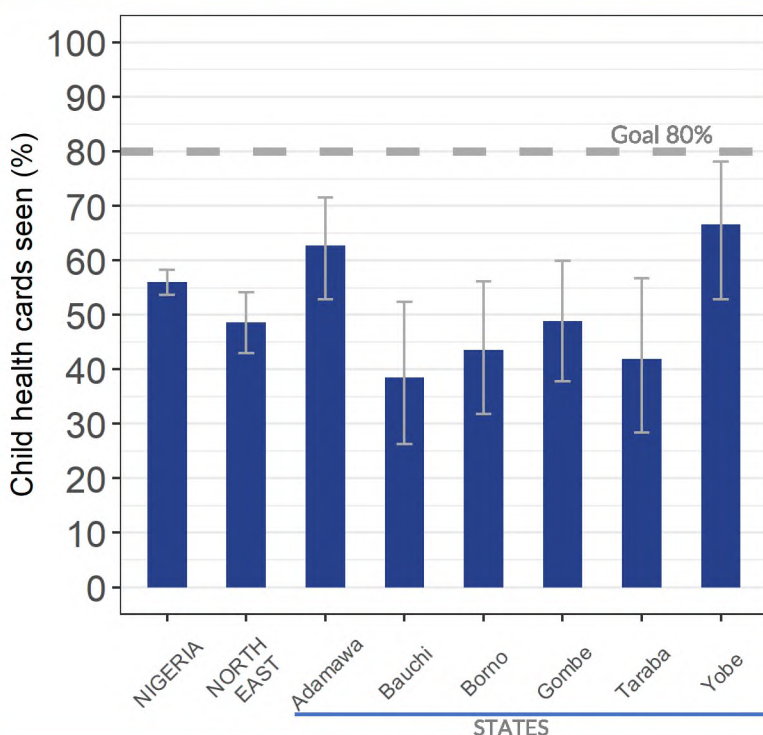
children whose mother is < 25 years old

**37%** of children from poorest families



...receive all three doses of pentavalent vaccine

## AVAILABILITY OF CHILD HEALTH CARDS BY STATE



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

Child health cards help:

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

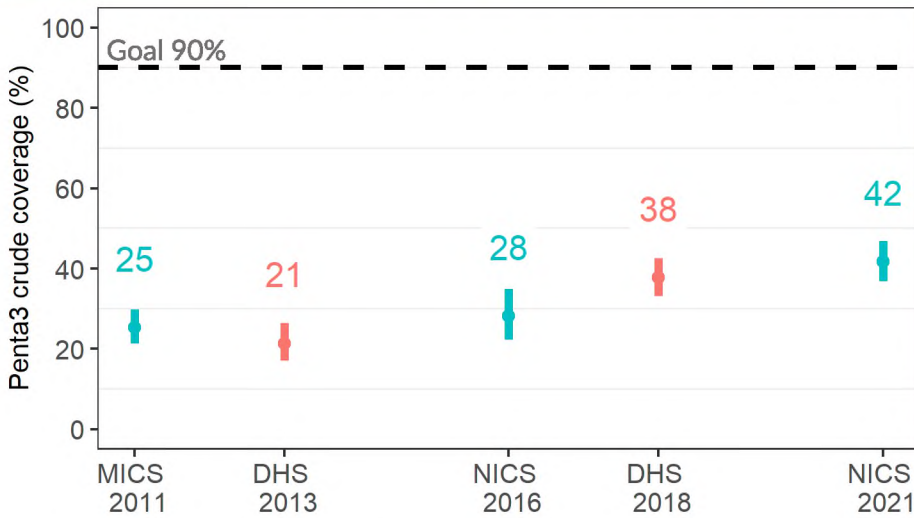
... health workers make good decisions about which doses are overdue or not yet received.

**About half of children** in North East showed a child health card in the 2021 NICS

Note: Weighted % of children who showed health cards, with 95% confidence intervals.



## PUTTING NICS IN CONTEXT: OTHER PENTA3 COVERAGE ESTIMATES IN NORTH EAST



Crude estimates of Penta3 coverage in North East from the Multiple Indicator Cluster Surveys (MICS) in 2011, the Demographic and Health Surveys (DHS) in 2013 and 2018, and MICS-NICS in 2016 and 2021. Vertical lines show the 95% confidence intervals.

### KEY FINDINGS

Penta3 coverage in North East is low but has been improving over the past decade.

Every state in North East needs to improve performance to achieve the national goal of 90% Penta3 coverage.

Percent of children age 12-23 months who received:

	BCG			HepB0			OPV0			Polio			Penta			PCV			IPV	YF	MENA	MCV1	Full <sup>1</sup>	None	Card seen	Children age 12-23 mo. <sup>2</sup>
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3											
<b>NIGERIA</b>	<b>74</b>	<b>67</b>	<b>70</b>	<b>78</b>	<b>68</b>	<b>56</b>	<b>70</b>	<b>65</b>	<b>57</b>	<b>69</b>	<b>63</b>	<b>55</b>	<b>62</b>	<b>59</b>	<b>55</b>	<b>60</b>	<b>36</b>	<b>18</b>	<b>56</b>	<b>5,652</b>						
<b>North East</b>	<b>64</b>	<b>59</b>	<b>61</b>	<b>68</b>	<b>56</b>	<b>44</b>	<b>59</b>	<b>52</b>	<b>42</b>	<b>57</b>	<b>50</b>	<b>41</b>	<b>49</b>	<b>45</b>	<b>40</b>	<b>46</b>	<b>24</b>	<b>27</b>	<b>49</b>	<b>878</b>						
Adamawa	84	82	82	78	63	50	75	67	54	75	67	54	62	59	54	61	32	13	63	113						
Bauchi	49	44	45	61	52	40	42	38	31	42	38	31	34	32	26	31	17	35	39	253						
Borno (7 LGAs)	65	58	59	59	40	31	58	45	30	54	38	31	43	30	27	39	14	32	44	180						
Gombe	59	55	52	60	52	40	54	51	38	52	47	37	39	35	31	37	22	34	49	121						
Taraba	71	65	72	81	69	51	71	65	52	71	62	50	66	64	61	65	27	14	42	82						
Yobe	75	70	78	84	75	63	74	71	64	72	68	63	70	73	68	71	49	15	67	130						

<sup>1</sup> BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1. <sup>2</sup> Weighted N.

## ABOUT THE SURVEY

### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

### 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) under guidance from UNICEF as part of the 2021 MICS survey. Experienced field workers, primarily women, were selected from each state to facilitate clear communication with mothers of young children.

NOTE: These briefing pages follow the design used for the 2016-17 MICS-NICS survey, which was created by a group chaired at the International Vaccine Access Center: [www.jhsph.edu/ivac/](http://www.jhsph.edu/ivac/)





# NATIONAL IMMUNISATION COVERAGE SURVEY

# 2021

## North West Zone

### ROUTINE IMMUNISATION IN NORTH WEST

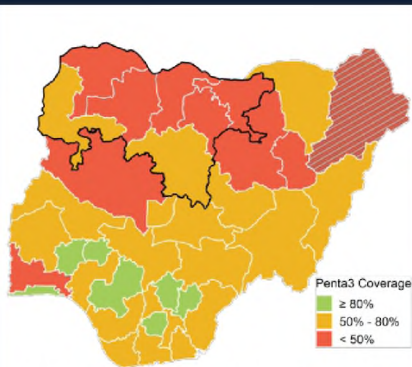


**43% of children** received all three doses of pentavalent vaccine

**23% of children** who received Penta1 did not receive Penta3

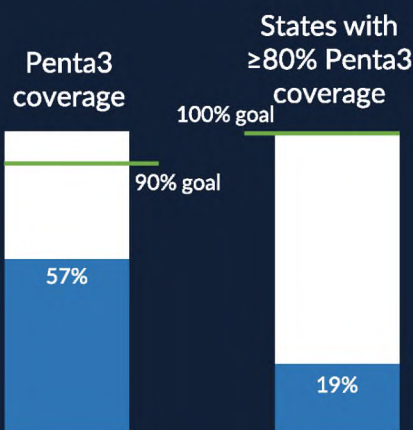


**Only 45% of children** had a child health card available at the time of the survey



Stripes indicate the Borno sample includes data from 7 of 27 LGAs.

### NATIONAL PROGRESS TOWARD GVAP GOALS



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.

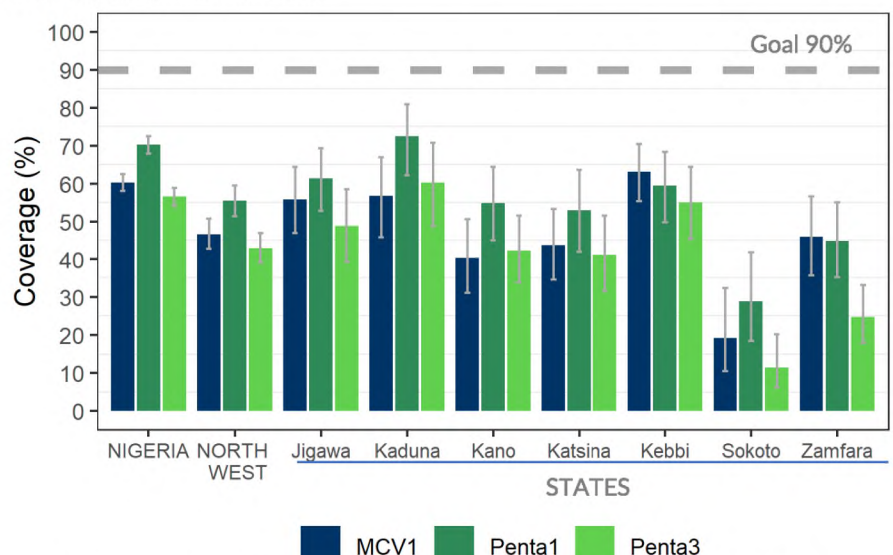
### WHY MEASURE PENTA3?

The third dose of pentavalent vaccine (Penta3) is an indicator of the immunisation system's ability to consistently reach children with crucial vaccines.

### IMMUNISATION COVERAGE INDICATORS

	North West % [95% CI]	Nigeria % [95% CI]	Africa <sup>3</sup> %
<i>Among children 12-23 months of age</i>			
First dose of pentavalent vaccine (Penta1) <sup>1</sup>	56 [51,60]	70 [68,72]	79
Third dose of pentavalent vaccine (Penta3) <sup>1</sup>	43 [39,47]	57 [54,59]	72
Dropout between Penta1 and Penta3 dose <sup>2</sup>	23	21	9
First dose of measles vaccine (MCV1)	47 [43,51]	60 [58,63]	68
Availability of child health card	45 [41,49]	56 [54,58]	-

<sup>1</sup> Crude coverage based on child health cards and caregiver recall. Values are weighted percentages (%) with two-sided 95% survey-adjusted Wilson confidence intervals. <sup>2</sup> Dropout is the unweighted percentage of children who received Penta1 but did not complete the three-dose penta series. <sup>3</sup> 2020 WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC) for the WHO African region, updated 4 October 2021.

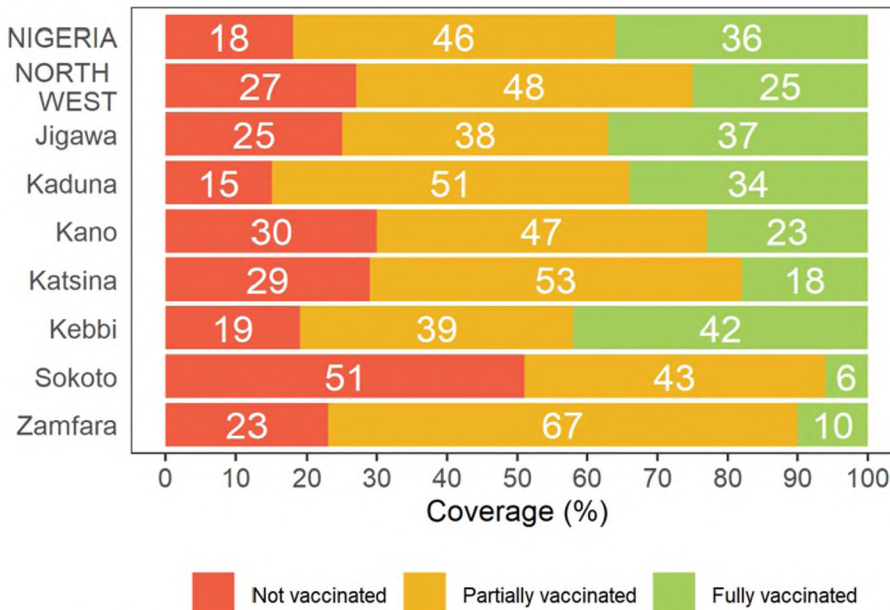


Weighted estimates of coverage according to health cards or caregiver recall (crude coverage). Capped lines show two-sided 95% confidence intervals. The dashed line represents the 90% coverage goal for Penta1, Penta3, and MCV1.

# MICS/NICS 2021



## COMPLETENESS OF ROUTINE IMMUNISATION



NOTE: Fully vaccinated means the child received all 1YL antigens: BCG, OPV0, HepB0, OPV1-3, IPV, Penta1-3, PCV1-3, YF, Meningitis A & MCV1

## KEY FINDINGS

The benefits of vaccines are optimized when children receive all recommended vaccine doses. Only 25% of children received all doses in North West. Additional effort is needed to fully vaccinate all children.

Lack of knowledge or information is the main reported reason that children are not fully vaccinated.

## REASONS CHILDREN ARE NOT FULLY VACCINATED IN NORTH WEST



23% thought the child was fully immunised

43%

Lack of knowledge or information



8% reported the immunisation site was too far

23%

Service delivery issues



10% reported mother or caretaker too busy

19%

Lack of time or other family issues



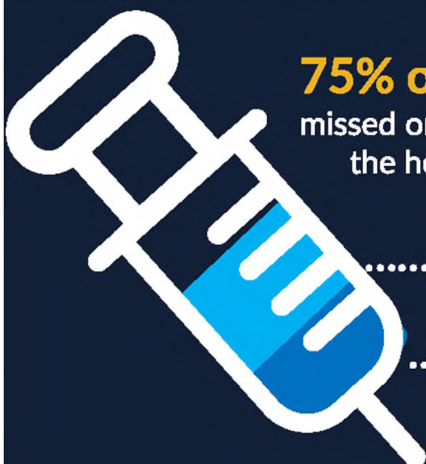
14% had no faith in immunisation

37%

Mistrust or fears

NOTE: Respondents could identify more than one reason for incomplete immunisation. Data are summarized for children age 24-35 months.

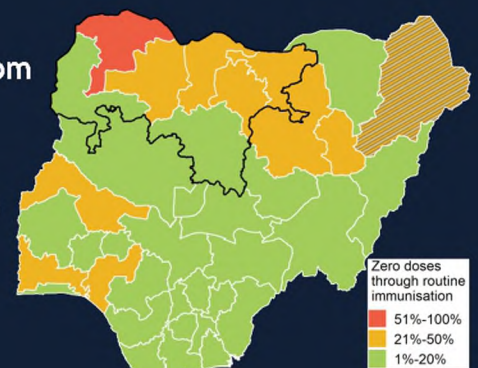
## NORTH WEST: GAPS IN ROUTINE IMMUNISATION



**75% of children** age 12-23 months missed one or more routine immunisations from the health system in North West<sup>1</sup>

..... **48%** received some but not all doses

..... **27%** did not receive any

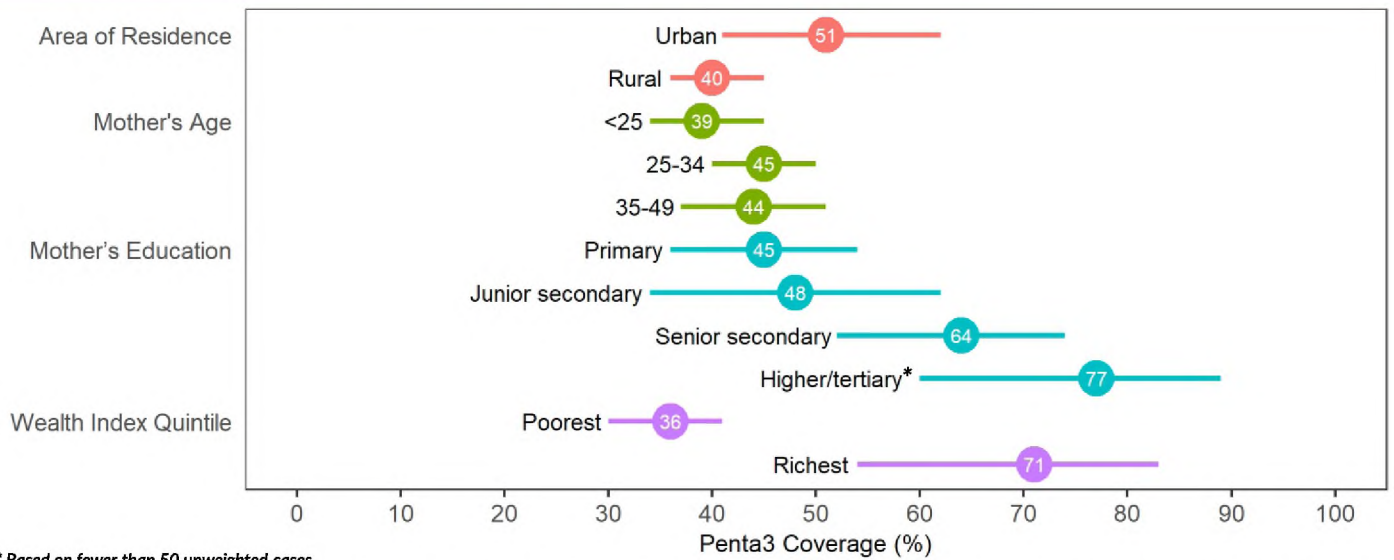


Zero doses through routine immunisation  
 51%-100%  
 21%-50%  
 1%-20%

<sup>1</sup>Includes BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1



## DISPARITIES IN IMMUNISATION COVERAGE IN NORTH WEST



\* Based on fewer than 50 unweighted cases.

NOTE: Penta3 crude coverage (%) for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

Some groups are at higher risk of incomplete vaccination:



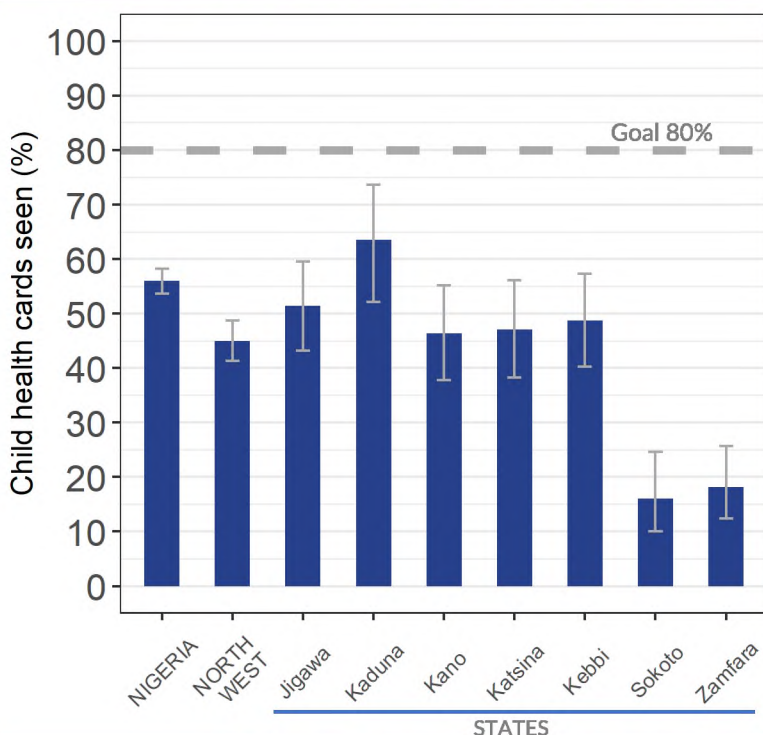
36% of children from poorest families



40% of rural children

...receive all three doses of pentavalent vaccine

## AVAILABILITY OF CHILD HEALTH CARDS BY STATE



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

Child health cards help:

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

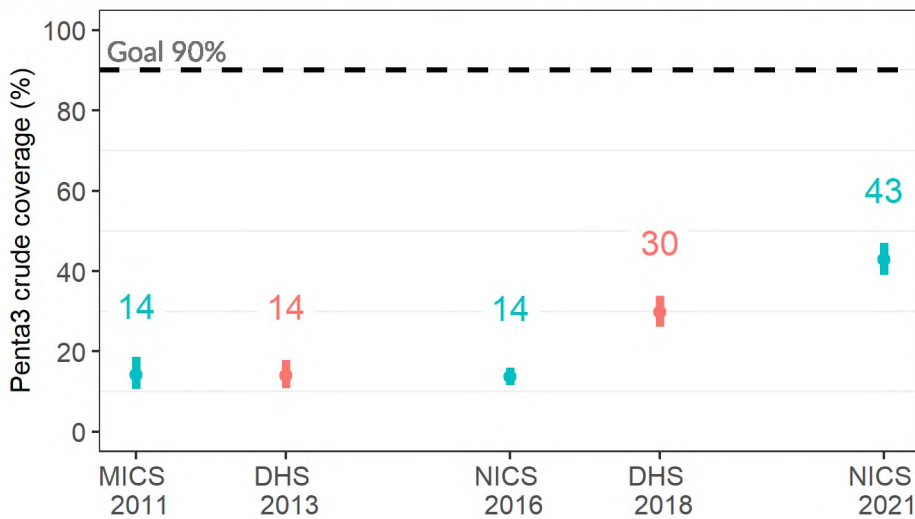
... health workers make good decisions about which doses are overdue or not yet received.

**Less than half of children** in North West showed a child health card in the 2021 NICS.

Note: Weighted % of children who showed health cards, with 95% confidence intervals.



## PUTTING NICS IN CONTEXT: OTHER PENTA3 COVERAGE ESTIMATES IN NORTH WEST



Crude estimates of Penta3 coverage in North West from the Multiple Indicator Cluster Surveys (MICS) in 2011, the Demographic and Health Surveys (DHS) in 2013 and 2018, and MICS-NICS in 2016 and 2021. Vertical lines show the 95% confidence intervals.

### KEY FINDINGS

Penta3 coverage in North West is low but has been improving in recent years.

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

#### Percent of children age 12-23 months who received:

	BCG	HepB0	OPV0	Polio			Penta			PCV			IPV	YF	MENA	MCV1	Full <sup>1</sup>	None	Card seen	Children age 12-23 mo. <sup>2</sup>
				1	2	3	1	2	3	1	2	3								
<b>NIGERIA</b>	<b>74</b>	<b>67</b>	<b>70</b>	<b>78</b>	<b>68</b>	<b>56</b>	<b>70</b>	<b>65</b>	<b>57</b>	<b>69</b>	<b>63</b>	<b>55</b>	<b>62</b>	<b>59</b>	<b>55</b>	<b>60</b>	<b>36</b>	<b>18</b>	<b>56</b>	<b>5,652</b>
<b>North West</b>	<b>60</b>	<b>52</b>	<b>57</b>	<b>68</b>	<b>60</b>	<b>49</b>	<b>56</b>	<b>49</b>	<b>43</b>	<b>55</b>	<b>47</b>	<b>42</b>	<b>47</b>	<b>44</b>	<b>42</b>	<b>47</b>	<b>25</b>	<b>27</b>	<b>45</b>	<b>1,850</b>
Jigawa	63	60	66	72	64	52	61	56	49	61	55	48	52	55	53	56	37	25	51	239
Kaduna	78	70	72	82	71	61	73	67	60	72	65	59	62	54	52	57	34	15	64	267
Kano	60	52	55	61	54	45	55	47	42	54	47	40	45	37	38	40	23	30	46	473
Katsina	57	50	50	67	63	55	53	47	41	52	44	39	38	40	30	44	18	29	47	368
Kebbi	64	62	68	78	76	61	60	58	55	60	57	54	59	62	63	63	42	19	49	193
Sokoto	34	23	29	45	31	21	29	18	11	22	14	10	27	17	19	19	6	51	16	141
Zamfara	51	25	59	71	57	35	45	35	25	46	36	27	48	46	41	46	10	23	18	169

<sup>1</sup> BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1. <sup>2</sup> Weighted N.

## ABOUT THE SURVEY

### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

### 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) under guidance from UNICEF as part of the 2021 MICS survey. Experienced field workers, primarily women, were selected from each state to facilitate clear communication with mothers of young children.

NOTE: These briefing pages follow the design used for the 2016-17 MICS-NICS survey, which was created by a group chaired at the International Vaccine Access Center: [www.jhsph.edu/ivac/](http://www.jhsph.edu/ivac/)





# NATIONAL IMMUNISATION COVERAGE SURVEY

# 2021

## South East Zone

### ROUTINE IMMUNISATION IN SOUTH EAST

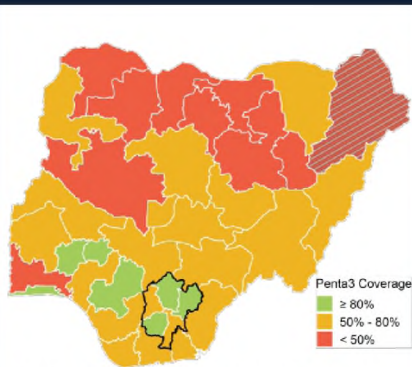


**86% of children** received all three doses of pentavalent vaccine

**11% of children** who received Penta1 did not receive Penta3

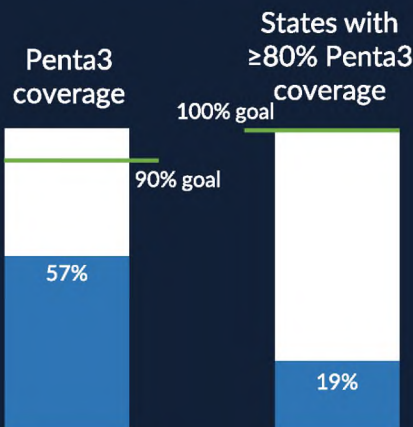


**79% of children** had a child health card available at the time of the survey



Stripes indicate the Borno sample includes data from 7 of 27 LGAs.

### NATIONAL PROGRESS TOWARD GVAP GOALS



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.

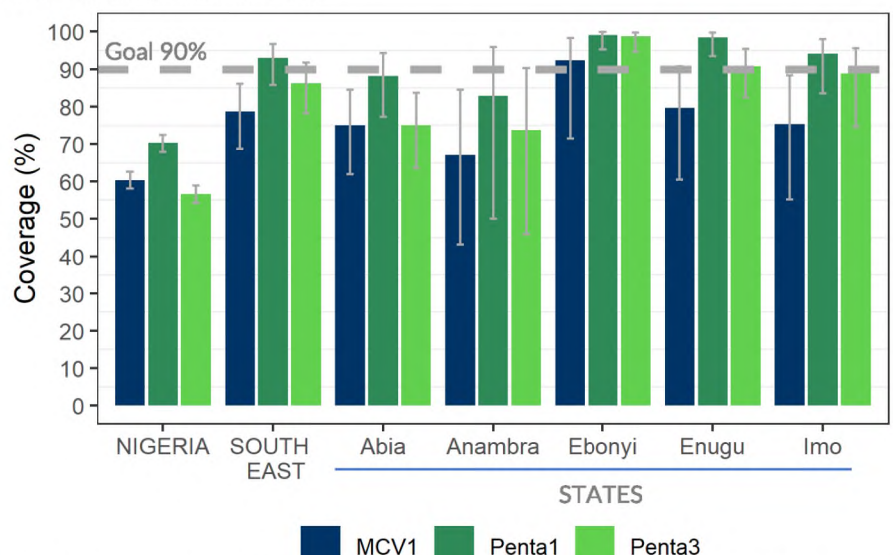
### WHY MEASURE PENTA3?

The third dose of pentavalent vaccine (Penta3) is an indicator of the immunisation system's ability to consistently reach children with crucial vaccines.

### IMMUNISATION COVERAGE INDICATORS

	South East % [95% CI]	Nigeria % [95% CI]	Africa <sup>3</sup> %
<i>Among children 12-23 months of age</i>			
First dose of pentavalent vaccine (Penta1) <sup>1</sup>	93 [86,97]	70 [68,72]	79
Third dose of pentavalent vaccine (Penta3) <sup>1</sup>	86 [78,92]	57 [54,59]	72
Dropout between Penta1 and Penta3 dose <sup>2</sup>	11	21	9
First dose of measles vaccine (MCV1)	79 [69,86]	60 [58,63]	68
Availability of child health card	79 [69,86]	56 [54,58]	-

<sup>1</sup> Crude coverage based on child health cards and caregiver recall. Values are weighted percentages (%) with two-sided 95% survey-adjusted Wilson confidence intervals. <sup>2</sup> Dropout is the unweighted percentage of children who received Penta1 but did not complete the three-dose penta series. <sup>3</sup> 2020 WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC) for the WHO African region, updated 4 October 2021.

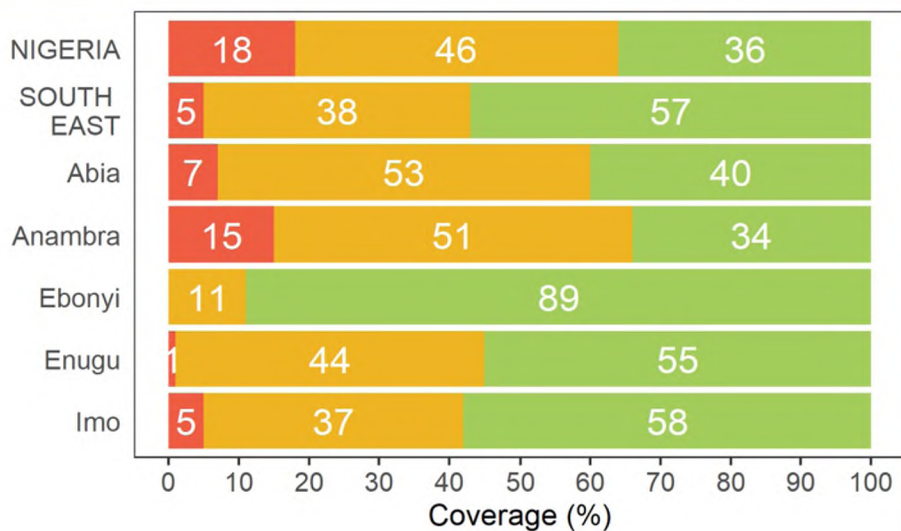


Weighted estimates of coverage according to health cards or caregiver recall (crude coverage). Capped lines show two-sided 95% confidence intervals. The dashed line represents the 90% coverage goal for Penta1, Penta3, and MCV1.

# MICS/NICS 2021



## COMPLETENESS OF ROUTINE IMMUNISATION



■ Not vaccinated   
 ■ Partially vaccinated   
 ■ Fully vaccinated

NOTE: Fully vaccinated means the child received all 1YI antigens: BCG, OPV0, HepB0, OPV1-3, IPV, Penta1-3, PCV1-3, YF, Meningitis A & MCV1

## KEY FINDINGS

The benefits of vaccines are optimized when children receive all recommended vaccine doses. Only 57% of children receive all doses in South East. Additional effort is needed to fully vaccinate all children.

Lack of knowledge or information is the main reported reason that children are not fully vaccinated.

## REASONS CHILDREN ARE NOT FULLY VACCINATED IN SOUTH EAST



32% thought the child was fully immunised

48%

Lack of knowledge or information



10% reported the time of immunisation was inconvenient

23%

Service delivery issues



13% reported mother or caretaker too busy

27%

Lack of time or other family issues



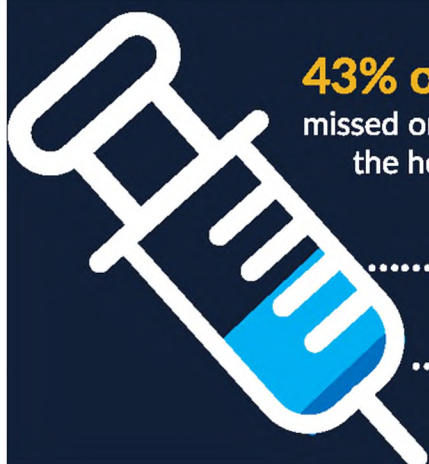
5% had fear of side reactions

13%

Mistrust or fears

NOTE: Respondents could identify more than one reason for incomplete immunisation. Data are summarized for children age 24-35 months.

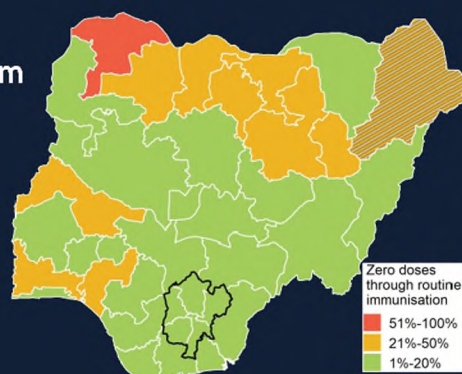
## SOUTH EAST: GAPS IN ROUTINE IMMUNISATION



**43% of children** age 12-23 months missed one or more routine immunisations from the health system in South East<sup>1</sup>

..... **38%** received some but not all doses

..... **5%** did not receive any



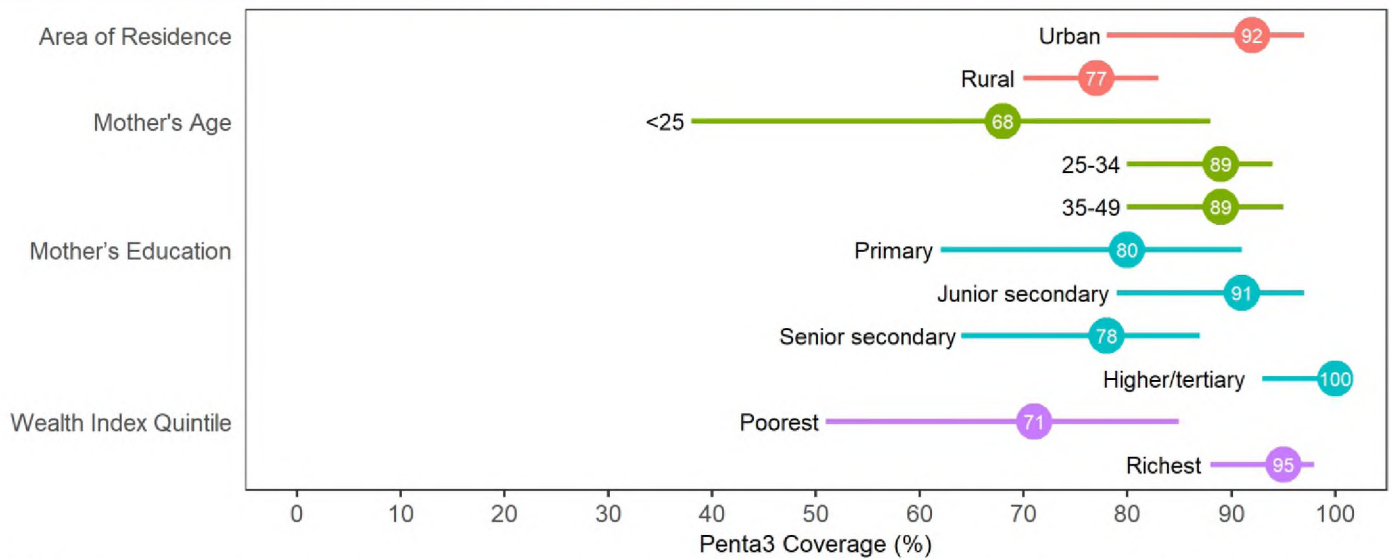
Zero doses through routine immunisation

- 51%-100%
- 21%-50%
- 1%-20%

<sup>1</sup>Includes BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1



## DISPARITIES IN IMMUNISATION COVERAGE IN SOUTH EAST



NOTE: Penta3 crude coverage (%) for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

Some groups are at higher risk of incomplete vaccination:



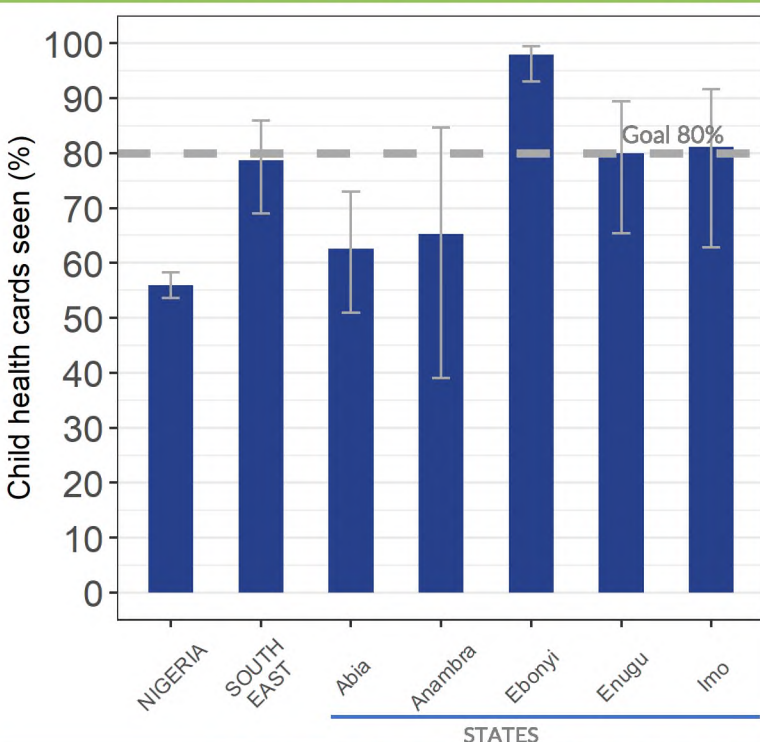
2 of 3 rural children

71% of children from poorest families



...receive all three doses of pentavalent vaccine

## AVAILABILITY OF CHILD HEALTH CARDS BY STATE



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

Child health cards help:

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

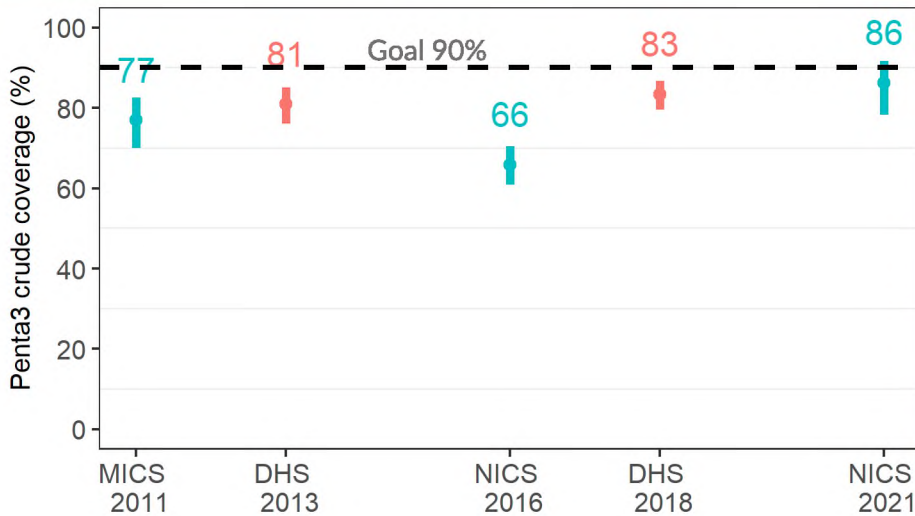
... health workers make good decisions about which doses are overdue or not yet received.

**About four-fifths of children** in South East showed a child health card in the 2021 NICS.

Note: Weighted % of children who showed health cards, with 95% confidence intervals.



## PUTTING NICS IN CONTEXT: OTHER PENTA3 COVERAGE ESTIMATES IN SOUTH EAST



Crude estimates of Penta3 coverage in South East from the Multiple Indicator Cluster Surveys (MICS) in 2011, the Demographic and Health Surveys (DHS) in 2013 and 2018, and MICS-NICS in 2016 and 2021. Vertical lines show the 95% confidence intervals.

### KEY FINDINGS

Penta3 coverage in South East has been relatively high over the past decade, but remains below the 90% national goal.

Two states in South East (Ebonyi and Enugu) have estimated coverage above 90%. Continued improvements in performance are needed for the entire zone to achieve the national goal of 90% Penta3 coverage.

Percent of children age 12-23 months who received:

	BCG			HepB0			OPV0			Polio			Penta			PCV			IPV	YF	MENA	MCV1	Full <sup>1</sup>	None	Card seen	Children age 12-23 mo. <sup>2</sup>
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3											
<b>NIGERIA</b>	74	67	70	78	68	56	70	65	57	69	63	55	62	59	55	60	36	18	56	5,652						
<b>South East</b>	94	91	91	93	87	77	93	91	86	93	90	84	87	79	75	79	57	5	79	460						
Abia	90	87	86	87	76	59	88	86	75	89	85	67	82	76	72	75	40	7	63	86						
Anambra	84	83	77	83	73	64	83	75	74	83	75	74	71	68	54	67	34	15	65	81						
Ebonyi	99	98	98	99	99	98	99	99	99	99	99	99	98	92	92	92	89	0	98	109						
Enugu	99	97	97	99	93	78	99	97	91	99	96	91	91	78	78	80	55	1	80	86						
Imo	95	91	92	93	88	81	94	93	89	93	91	85	91	75	74	75	58	5	81	97						

<sup>1</sup> BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1. <sup>2</sup> Weighted N.

## ABOUT THE SURVEY

### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

### 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) under guidance from UNICEF as part of the 2021 MICS survey. Experienced field workers, primarily women, were selected from each state to facilitate clear communication with mothers of young children.

NOTE: These briefing pages follow the design used for the 2016-17 MICS-NICS survey, which was created by a group chaired at the International Vaccine Access Center: [www.jhsph.edu/ivac/](http://www.jhsph.edu/ivac/)





# NATIONAL IMMUNISATION COVERAGE SURVEY

# 2021

## South South Zone

### ROUTINE IMMUNISATION IN SOUTH SOUTH

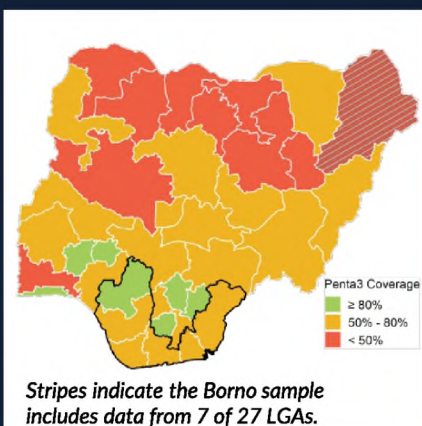


**75% of children** received all three doses of pentavalent vaccine

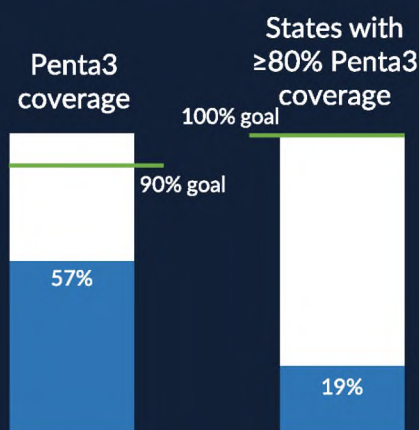
**15% of children** who received Penta1 did not receive Penta3



**Only 67% of children** had a child health card available at the time of the survey



### NATIONAL PROGRESS TOWARD GVAP GOALS



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.

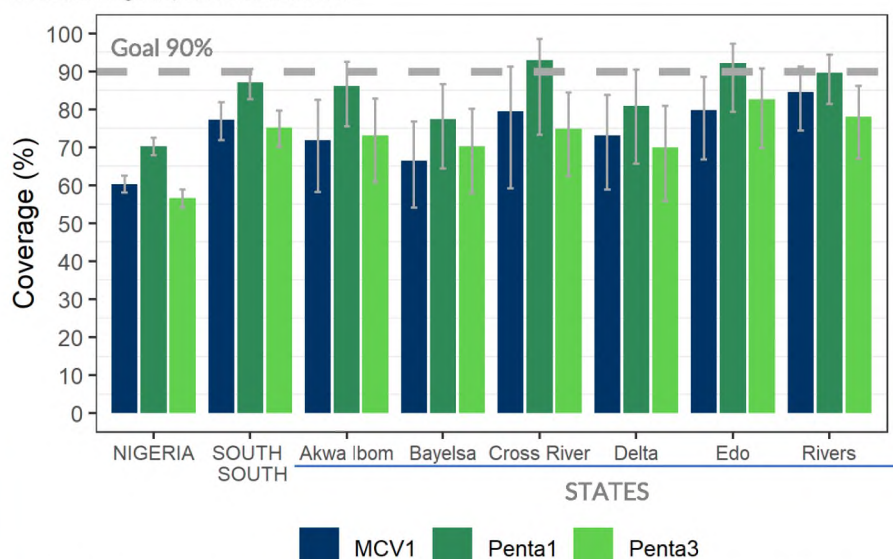
### WHY MEASURE PENTA3?

The third dose of pentavalent vaccine (Penta3) is an indicator of the immunisation system's ability to consistently reach children with crucial vaccines.

### IMMUNISATION COVERAGE INDICATORS

	South South % [95% CI]	Nigeria % [95% CI]	Africa <sup>3</sup> %
<i>Among children 12-23 months of age</i>			
First dose of pentavalent vaccine (Penta1) <sup>1</sup>	87 [83,91]	70 [68,72]	79
Third dose of pentavalent vaccine (Penta3) <sup>1</sup>	75 [70,80]	57 [54,59]	72
Dropout between Penta1 and Penta3 dose <sup>2</sup>	15	21	9
First dose of measles vaccine (MCV1)	77 [72,82]	60 [58,63]	68
Availability of child health card	67 [62,71]	56 [54,58]	-

<sup>1</sup> Crude coverage based on child health cards and caregiver recall. Values are weighted percentages (%) with two-sided 95% survey-adjusted Wilson confidence intervals. <sup>2</sup> Dropout is the unweighted percentage of children who received Penta1 but did not complete the three-dose penta series. <sup>3</sup> 2020 WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC) for the WHO African region, updated 4 October 2021.



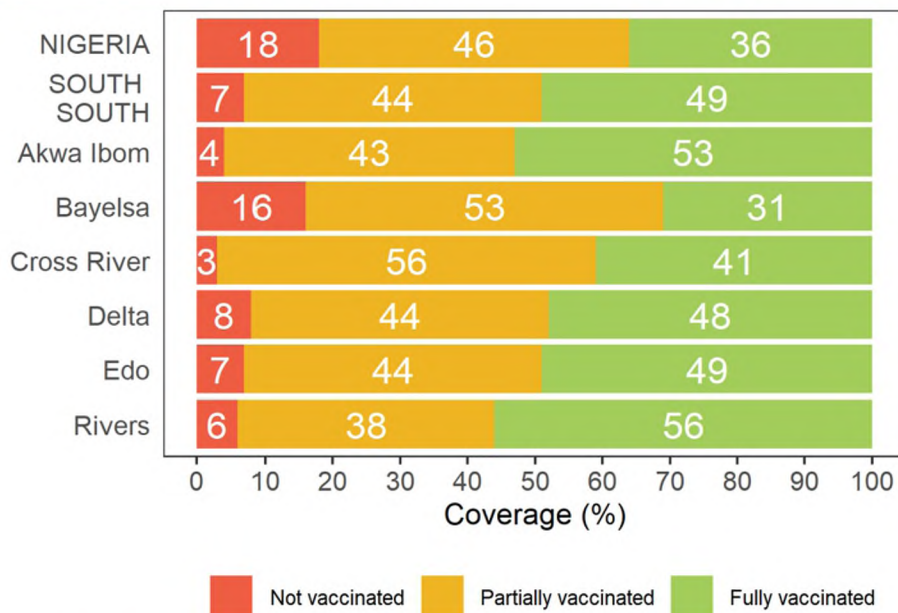
Weighted estimates of coverage according to health cards or caregiver recall (crude coverage). Capped lines show two-sided 95% confidence intervals. The dashed line represents the 90% coverage goal for Penta1, Penta3, and MCV1.

# MICS/NICS 2021



# SOUTH SOUTH: IMMUNISATION COVERAGE BRIEF

## COMPLETENESS OF ROUTINE IMMUNISATION



NOTE: Fully vaccinated means the child received all 1YL antigens: BCG, OPV0, HepB0, OPV1-3, IPV, Penta1-3, PCV1-3, YF, Meningitis A & MCV1

## KEY FINDINGS

The benefits of vaccines are optimized when children receive all recommended vaccine doses. Only 49% of children receive all doses in South South. Additional effort is needed to fully vaccinate all children.

Lack of knowledge or information is the main reported reason that children are not fully vaccinated.

## REASONS CHILDREN ARE NOT FULLY VACCINATED IN SOUTH SOUTH



32% thought the child was fully immunised

47%

Lack of knowledge or information



7% reported the time of immunisation was inconvenient

20%

Service delivery issues



10% reported mother or caretaker too busy

23%

Lack of time or other family issues



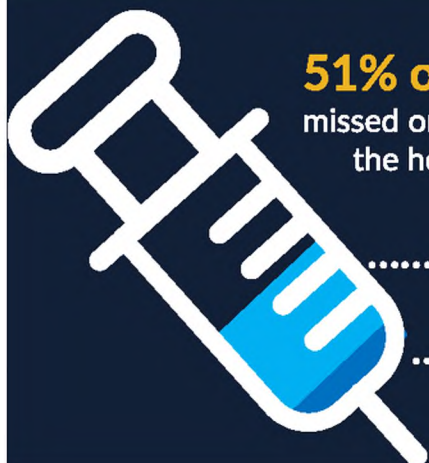
8% had fear of side reactions

16%

Mistrust or fears

NOTE: Respondents could identify more than one reason for incomplete immunisation. Data are summarized for children age 24-35 months.

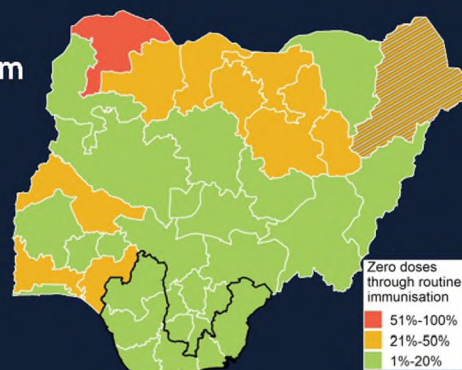
## SOUTH SOUTH: GAPS IN ROUTINE IMMUNISATION



**51% of children** age 12-23 months missed one or more routine immunisations from the health system in South South<sup>1</sup>

..... **44%** received some but not all doses

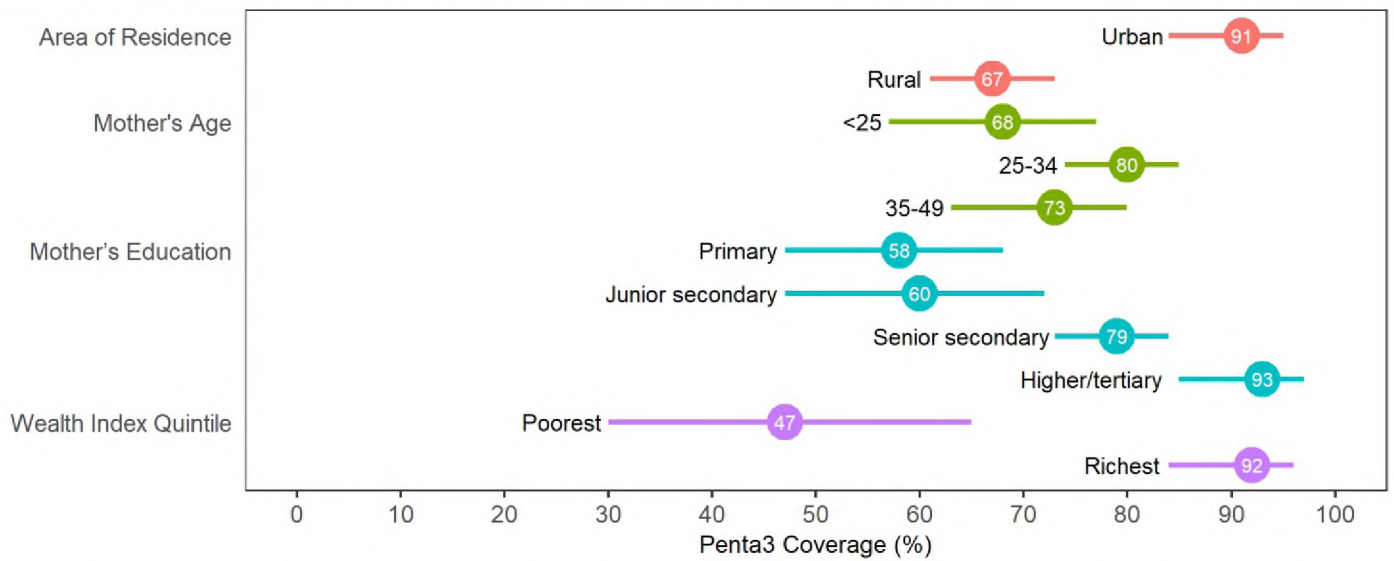
..... **7%** did not receive any



<sup>1</sup>Includes BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1



## DISPARITIES IN IMMUNISATION COVERAGE IN SOUTH SOUTH



NOTE: Penta3 crude coverage (%) for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

### Some groups are at higher risk of incomplete vaccination:



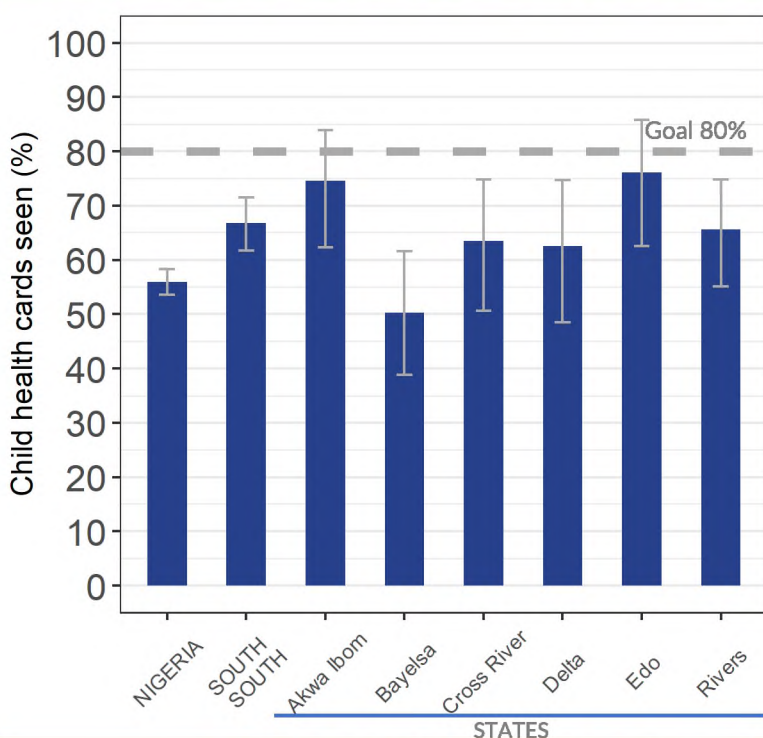
**2 of 3** rural children

**Less than half** children from poorest families



...receive all three doses of pentavalent vaccine

### AVAILABILITY OF CHILD HEALTH CARDS BY STATE



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

Child health cards help:

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

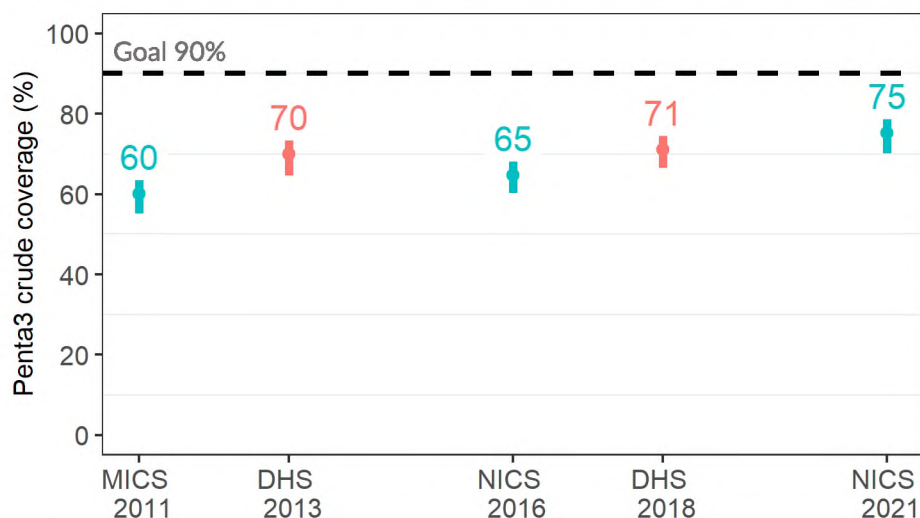
... health workers make good decisions about which doses are overdue or not yet received.

**About two-thirds of children** in South South showed a child health card in the 2021 NICS.

Note: Weighted % of children who showed health cards, with 95% confidence intervals.



## PUTTING NICS IN CONTEXT: OTHER PENTA3 COVERAGE ESTIMATES IN SOUTH SOUTH



Crude estimates of Penta3 coverage in South South from the Multiple Indicator Cluster Surveys (MICS) in 2011, the Demographic and Health Surveys (DHS) in 2013 and 2018, and MICS-NICS in 2016 and 2021. Vertical lines show the 95% confidence intervals.

### KEY FINDINGS

Penta3 coverage in South South has increased over the past decade but remains below the 90% national goal.

Every state in South South needs to improve performance to achieve the national goal of 90% Penta3 coverage.

### Percent of children age 12-23 months who received:

	Polio			Penta			PCV			IPV	YF	MENA	MCV1	Full <sup>1</sup>	None	Card seen	Children age 12-23 mo. <sup>2</sup>			
	BCG	HepB0	OPV0	1	2	3	1	2	3									1	2	3
<b>NIGERIA</b>	<b>74</b>	<b>67</b>	<b>70</b>	<b>78</b>	<b>68</b>	<b>56</b>	<b>70</b>	<b>65</b>	<b>57</b>	<b>69</b>	<b>63</b>	<b>55</b>	<b>62</b>	<b>59</b>	<b>55</b>	<b>60</b>	<b>36</b>	<b>18</b>	<b>56</b>	<b>5,652</b>
<b>South South</b>	<b>88</b>	<b>80</b>	<b>81</b>	<b>91</b>	<b>84</b>	<b>68</b>	<b>87</b>	<b>84</b>	<b>75</b>	<b>86</b>	<b>82</b>	<b>74</b>	<b>81</b>	<b>78</b>	<b>71</b>	<b>77</b>	<b>49</b>	<b>7</b>	<b>67</b>	<b>634</b>
Akwa Ibom	86	74	76	94	87	74	86	82	73	84	82	70	79	75	68	72	53	4	75	125
Bayelsa	79	72	72	79	71	53	77	76	70	77	75	66	69	65	60	66	31	16	50	51
Cross River	93	82	82	94	92	74	93	92	75	93	92	73	82	80	71	80	41	3	64	78
Delta	83	75	79	88	78	62	81	75	70	79	73	69	73	71	69	73	48	8	63	118
Edo	92	91	92	93	85	72	92	91	83	90	85	77	86	80	70	80	49	7	76	88
Rivers	90	83	83	92	86	67	90	87	78	89	85	79	89	85	80	85	56	6	66	173

<sup>1</sup> BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1. <sup>2</sup> Weighted N.

## ABOUT THE SURVEY

### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

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# NATIONAL IMMUNISATION COVERAGE SURVEY

# 2021

## South West Zone

### ROUTINE IMMUNISATION IN SOUTH WEST

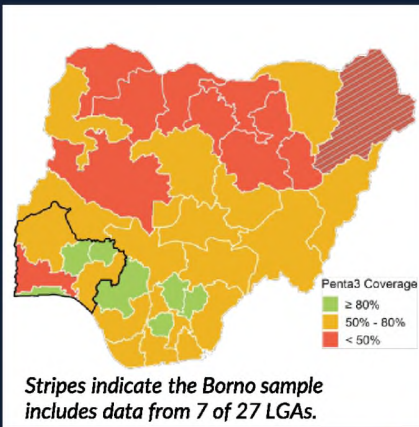


**69% of children** received all three doses of pentavalent vaccine

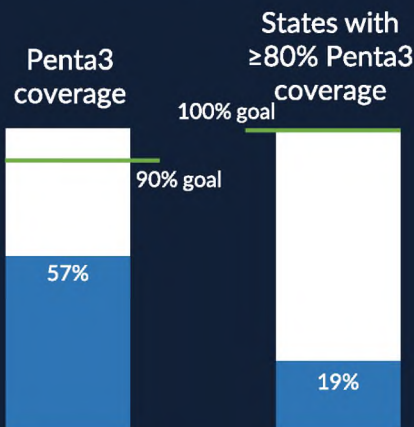
**18% of children** who received Penta1 did not receive Penta3



**Only 65% of children** had a child health card available at the time of the survey



### NATIONAL PROGRESS TOWARD GVAP GOALS



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.

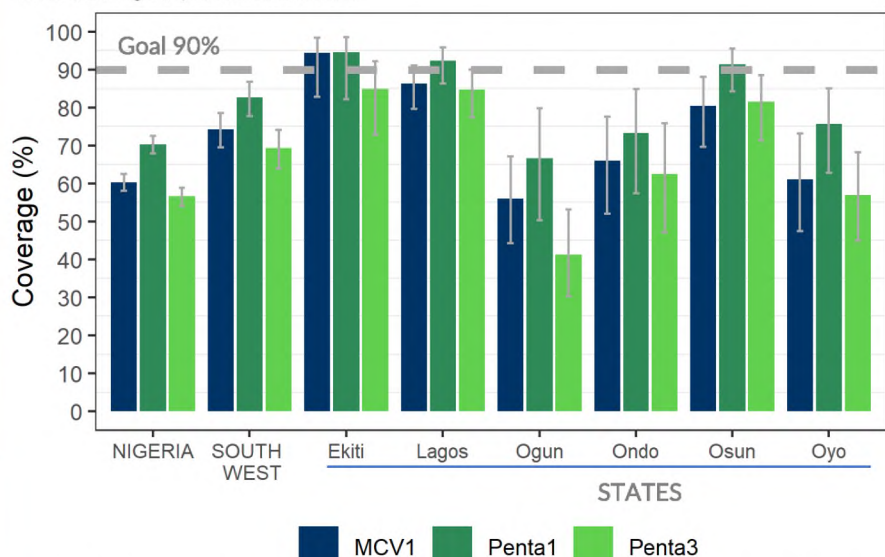
### WHY MEASURE PENTA3?

The third dose of pentavalent vaccine (Penta3) is an indicator of the immunisation system's ability to consistently reach children with crucial vaccines.

### IMMUNISATION COVERAGE INDICATORS

	South West % [95% CI]	Nigeria % [95% CI]	Africa <sup>3</sup> %
<i>Among children 12-23 months of age</i>			
First dose of pentavalent vaccine (Penta1) <sup>1</sup>	83 [78,87]	70 [68,72]	79
Third dose of pentavalent vaccine (Penta3) <sup>1</sup>	69 [64,74]	57 [54,59]	72
Dropout between Penta1 and Penta3 dose <sup>2</sup>	18	21	9
First dose of measles vaccine (MCV1)	74 [70,79]	60 [58,63]	68
Availability of child health card	65 [59,70]	56 [54,58]	-

<sup>1</sup> Crude coverage based on child health cards and caregiver recall. Values are weighted percentages (%) with two-sided 95% survey-adjusted Wilson confidence intervals. <sup>2</sup> Dropout is the unweighted percentage of children who received Penta1 but did not complete the three-dose penta series. <sup>3</sup> 2020 WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC) for the WHO African region, updated 4 October 2021.



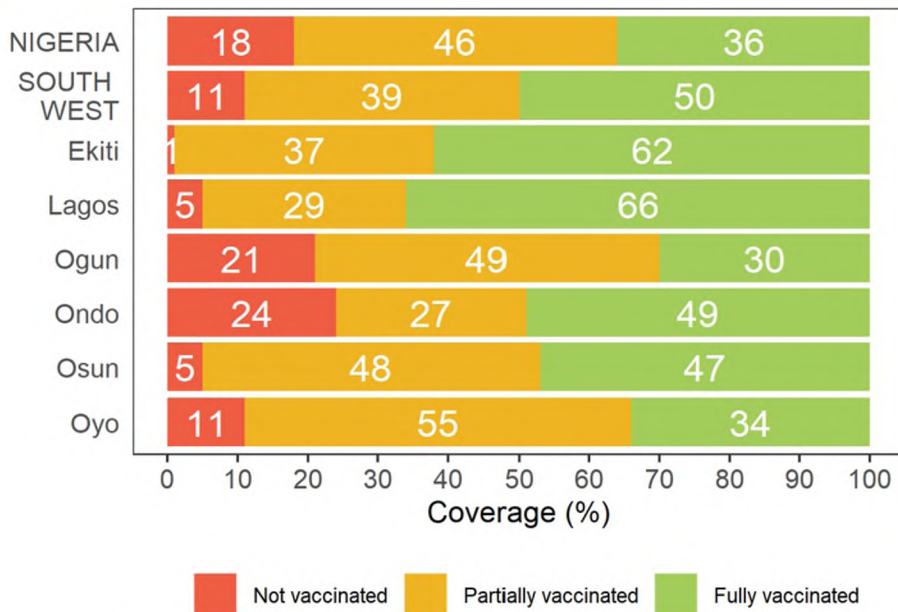
Weighted estimates of coverage according to health cards or caregiver recall (crude coverage). Capped lines show two-sided 95% confidence intervals. The dashed line represents the 90% coverage goal for Penta1, Penta3, and MCV1.

# MICS/NICS 2021



# SOUTH WEST: IMMUNISATION COVERAGE BRIEF

## COMPLETENESS OF ROUTINE IMMUNISATION



NOTE: Fully vaccinated means the child received all 1YL antigens: BCG, OPV0, HepB0, OPV1-3, IPV, Penta1-3, PCV1-3, YF, Meningitis A & MCV1

## KEY FINDINGS

The benefits of vaccines are optimized when children receive all recommended doses. Only 50% of children received all doses in South West. Additional effort is needed to fully vaccinate all children.

Lack of knowledge or information is the main reported reason that children are not fully vaccinated.

## REASONS CHILDREN ARE NOT FULLY VACCINATED IN SOUTH WEST



35% thought the child was fully immunised

**50%**  
Lack of knowledge or information



7% reported the immunisation site was too far

**19%**  
Service delivery issues



11% reported mother or caretaker too busy

**22%**  
Lack of time or other family issues

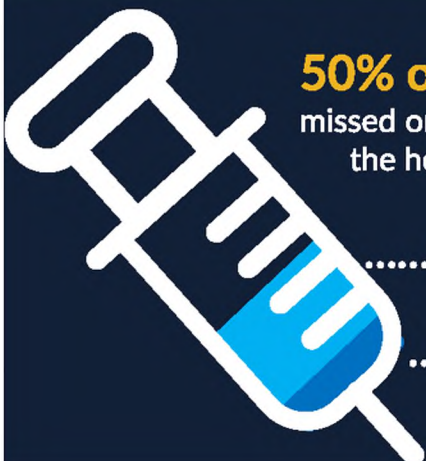


7% had fear of side reactions

**17%**  
Mistrust or fears

NOTE: Respondents could identify more than one reason for incomplete immunisation. Data are summarized for children age 24-35 months.

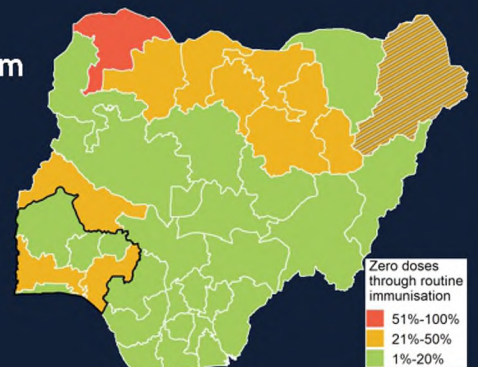
## SOUTH WEST: GAPS IN ROUTINE IMMUNISATION



**50% of children** age 12-23 months missed one or more routine immunisations from the health system in South West<sup>1</sup>

..... **39%** received some but not all doses

..... **11%** did not receive any

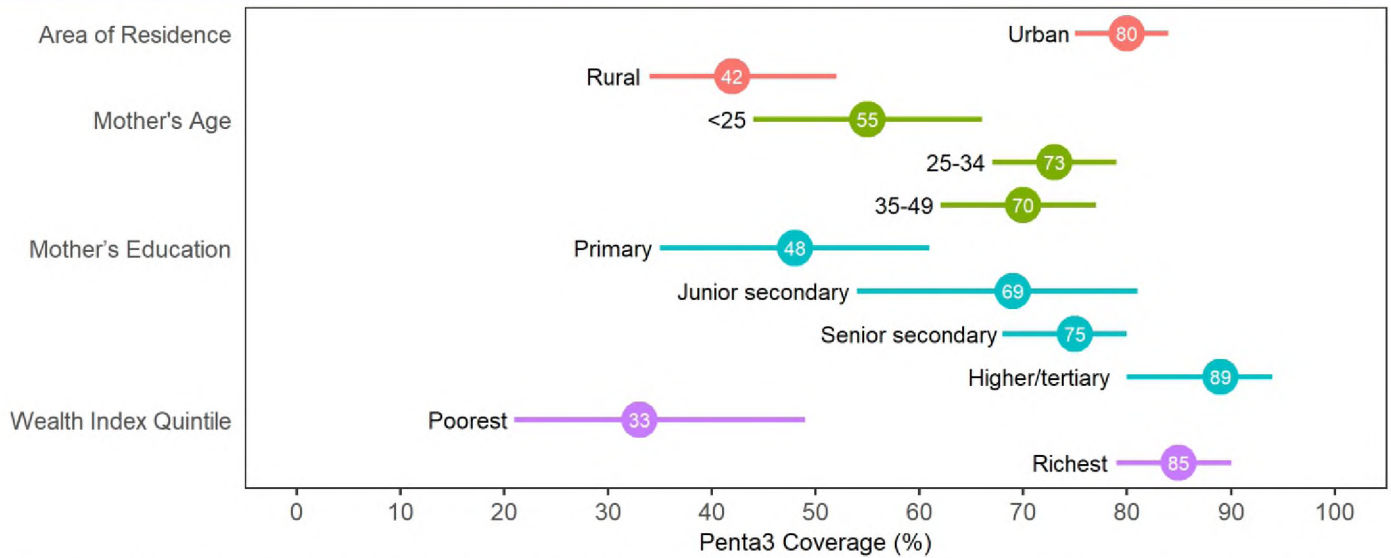


Zero doses through routine immunisation  
 51%-100%  
 21%-50%  
 1%-20%

<sup>1</sup>Includes BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1



## DISPARITIES IN IMMUNISATION COVERAGE IN SOUTH WEST



NOTE: Penta3 crude coverage (%) for each group is represented by a circle showing the point estimate and horizontal bars showing the 95% confidence interval. Estimates for the lowest and highest wealth index quintiles are shown. Estimates are not shown for children with caregivers 50+ years old or caregivers with no formal education due to small sample sizes.

### Some groups are at higher risk of incomplete vaccination:



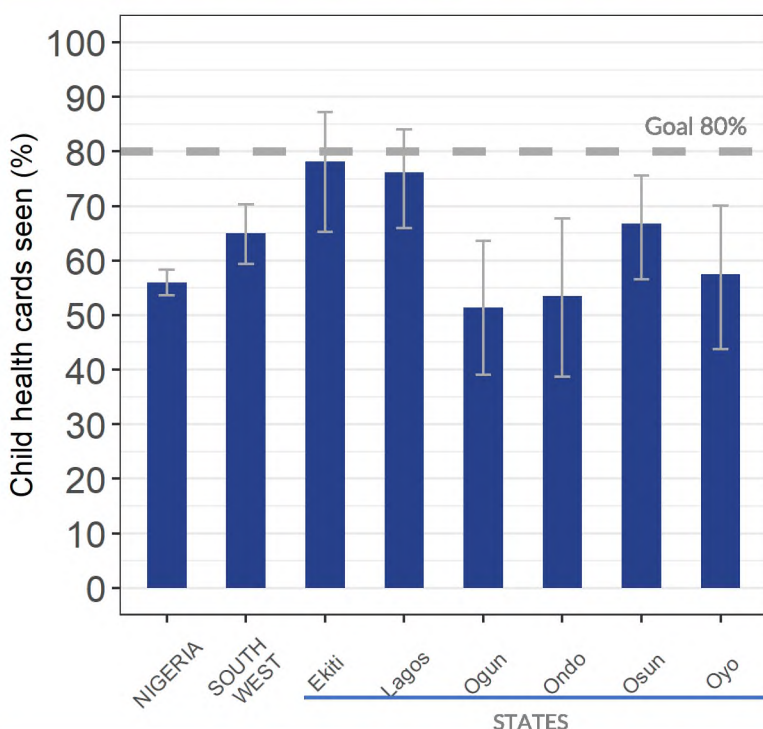
**42%** of rural children

**1 in 3** children from poorest families



...receive all three doses of pentavalent vaccine

### AVAILABILITY OF CHILD HEALTH CARDS BY STATE



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

Child health cards help:

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

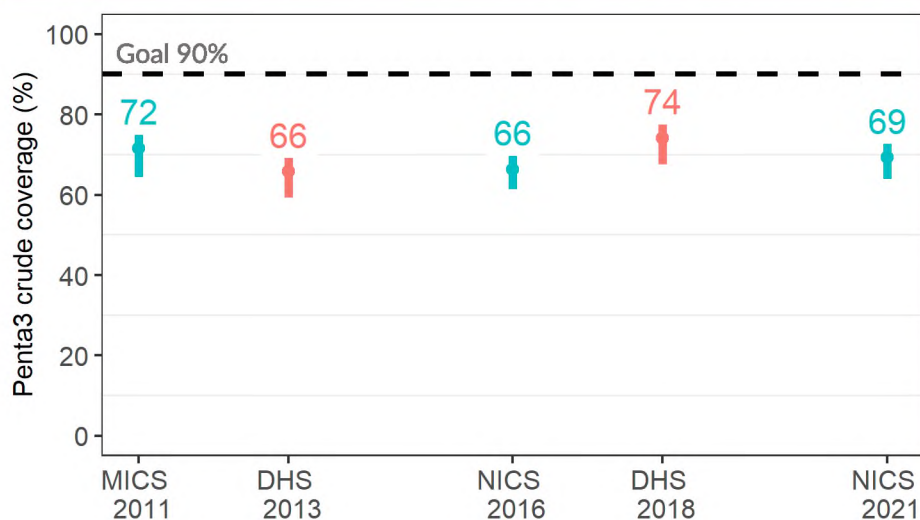
... health workers make good decisions about which doses are overdue or not yet received.

**About two-thirds** of children in South West showed a child health card in the 2021 NICS.

Note: Weighted % of children who showed health cards, with 95% confidence intervals.



## PUTTING NICS IN CONTEXT: OTHER PENTA3 COVERAGE ESTIMATES IN SOUTH WEST



Crude estimates of Penta3 coverage in South West from the Multiple Indicator Cluster Surveys (MICS) in 2011, the Demographic and Health Surveys (DHS) in 2013 and 2018, and MICS-NICS in 2016 and 2021. Vertical lines show the 95% confidence intervals.

### KEY FINDINGS

Penta3 coverage in South West has been consistently below 75% over the past decade.

Every state in South West needs to improve performance to achieve the national goal of 90% Penta3 coverage.

Percent of children age 12-23 months who received:

	BC G	HepB0	OPV0	Polio			Penta			PCV			IPV	YF	MENA	MCV1	Full <sup>1</sup>	None	Card seen	Children age 12- 23 mo. <sup>2</sup>
				1	2	3	1	2	3	1	2	3								
<b>NIGERIA</b>	<b>74</b>	<b>67</b>	<b>70</b>	<b>78</b>	<b>68</b>	<b>56</b>	<b>70</b>	<b>65</b>	<b>57</b>	<b>69</b>	<b>63</b>	<b>55</b>	<b>62</b>	<b>59</b>	<b>55</b>	<b>60</b>	<b>36</b>	<b>18</b>	<b>56</b>	<b>5,652</b>
<b>South West</b>	<b>86</b>	<b>81</b>	<b>82</b>	<b>86</b>	<b>75</b>	<b>63</b>	<b>83</b>	<b>78</b>	<b>69</b>	<b>82</b>	<b>75</b>	<b>66</b>	<b>75</b>	<b>74</b>	<b>71</b>	<b>74</b>	<b>50</b>	<b>11</b>	<b>65</b>	<b>969</b>
Ekiti	99	92	93	99	89	76	95	94	85	96	90	83	90	94	83	94	62	1	78	81
Lagos	94	91	94	93	85	78	92	90	85	92	89	80	88	86	86	86	66	5	76	335
Ogun	72	61	66	77	57	43	67	58	41	65	57	40	57	50	48	56	30	21	51	175
Ondo	75	72	70	75	67	58	73	68	63	72	66	61	67	69	69	66	49	24	54	121
Osun	93	87	91	92	86	65	91	88	82	91	83	69	80	82	75	80	47	5	67	100
Oyo	83	79	73	82	65	50	76	64	57	75	63	57	63	62	56	61	34	11	57	158

<sup>1</sup> BCG, OPV0, HepB0, OPV1-3, Penta1-3, PCV1-3, IPV, Yellow fever, Meningitis A, & MCV1. <sup>2</sup> Weighted N.

## ABOUT THE SURVEY

### What is NICS?

A household survey conducted in 2021 to assess the percentage of children age 12-23 months who received the vaccines that are scheduled to be given in the first year of life. Children in this survey should have received their vaccines between September 2019 and December 2021. Interviews were conducted September - December 2021. In total, 5,582 children were enrolled from 1,779 survey clusters across Nigeria's 36 states and FCT Abuja.

### 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) under guidance from UNICEF as part of the 2021 MICS survey. Experienced field workers, primarily women, were selected from each state to facilitate clear communication with mothers of young children.

NOTE: These briefing pages follow the design used for the 2016-17 MICS-NICS survey, which was created by a group chaired at the International Vaccine Access Center: [www.jhsph.edu/ivac/](http://www.jhsph.edu/ivac/)

