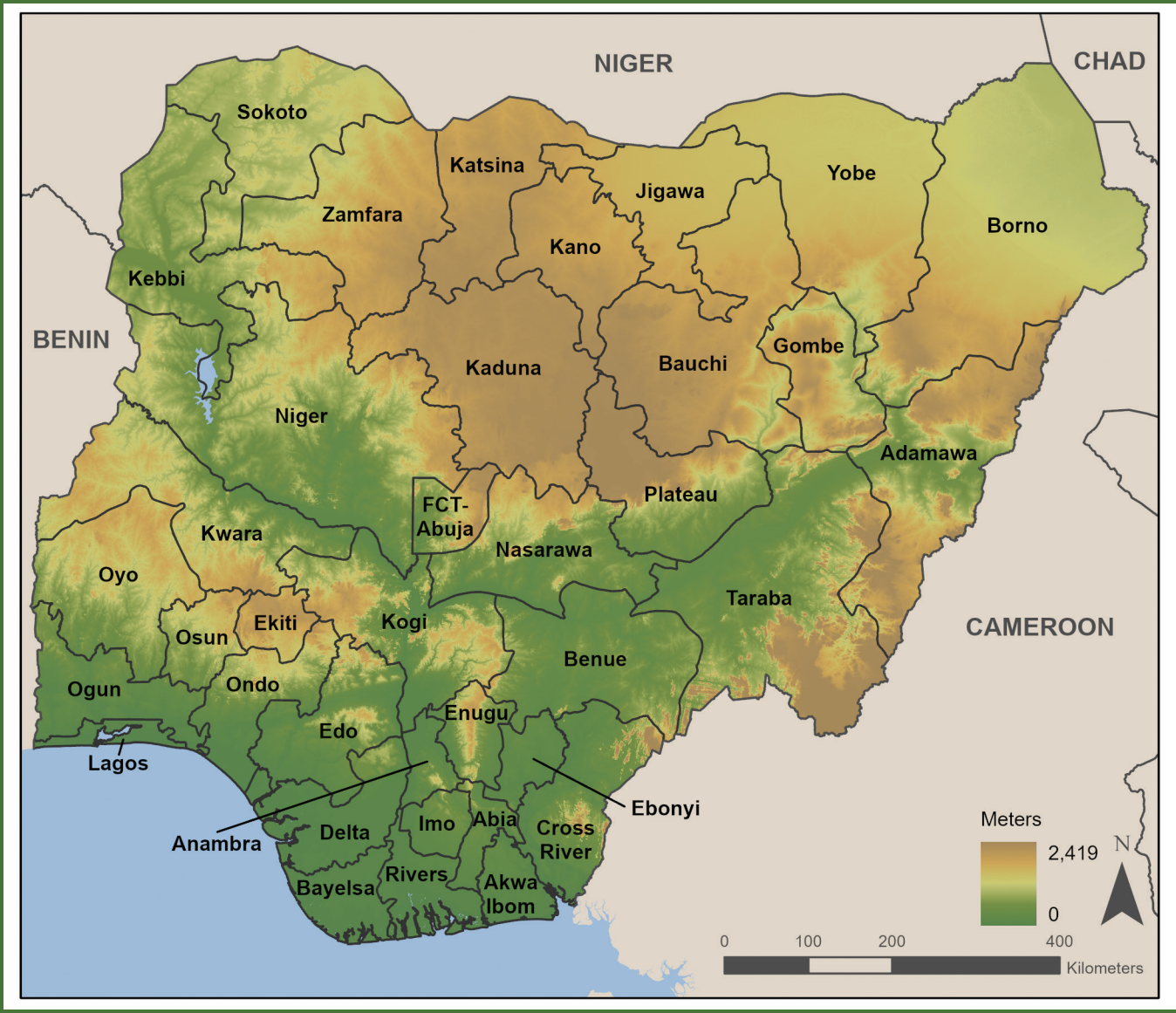



2021 Nigeria Malaria Indicator Survey (NMIS)

Atlas of Key Indicators



The 2021 Nigeria Malaria Indicator Survey (2021 NMIS) was implemented by the National Malaria Elimination Programme (NMEP) of the Federal Ministry of Health, Nigeria, in collaboration with the National Population Commission (NPC). The funding for the 2021 NMIS was provided by the United States Agency for International Development (USAID) and The Global Fund. ICF provided technical assistance through The DHS Program, a USAID-funded project that provides support and technical assistance in the implementation of population and health surveys in countries worldwide.

Additional information about the 2021 NMIS may be obtained from the headquarters of the National Malaria Elimination Programme (NMEP) of the Federal Ministry of Health, Nigeria, Federal Secretariat Complex, Phase III, Shehu Shagari Way, Central Business District. Abuja. FCT – Nigeria; telephone: +234-9-6712135; email: info@nmep.gov.ng; internet: www.nmcp.gov.ng.

Additional information about The DHS Program may be obtained from The DHS Program, ICF International, 530 Gaither Road, Rockville, MD, U.S.A. (Telephone: 1.301.407.6500; Fax: 1.301.407.6501; e-mail: info@DHSprogram.com).

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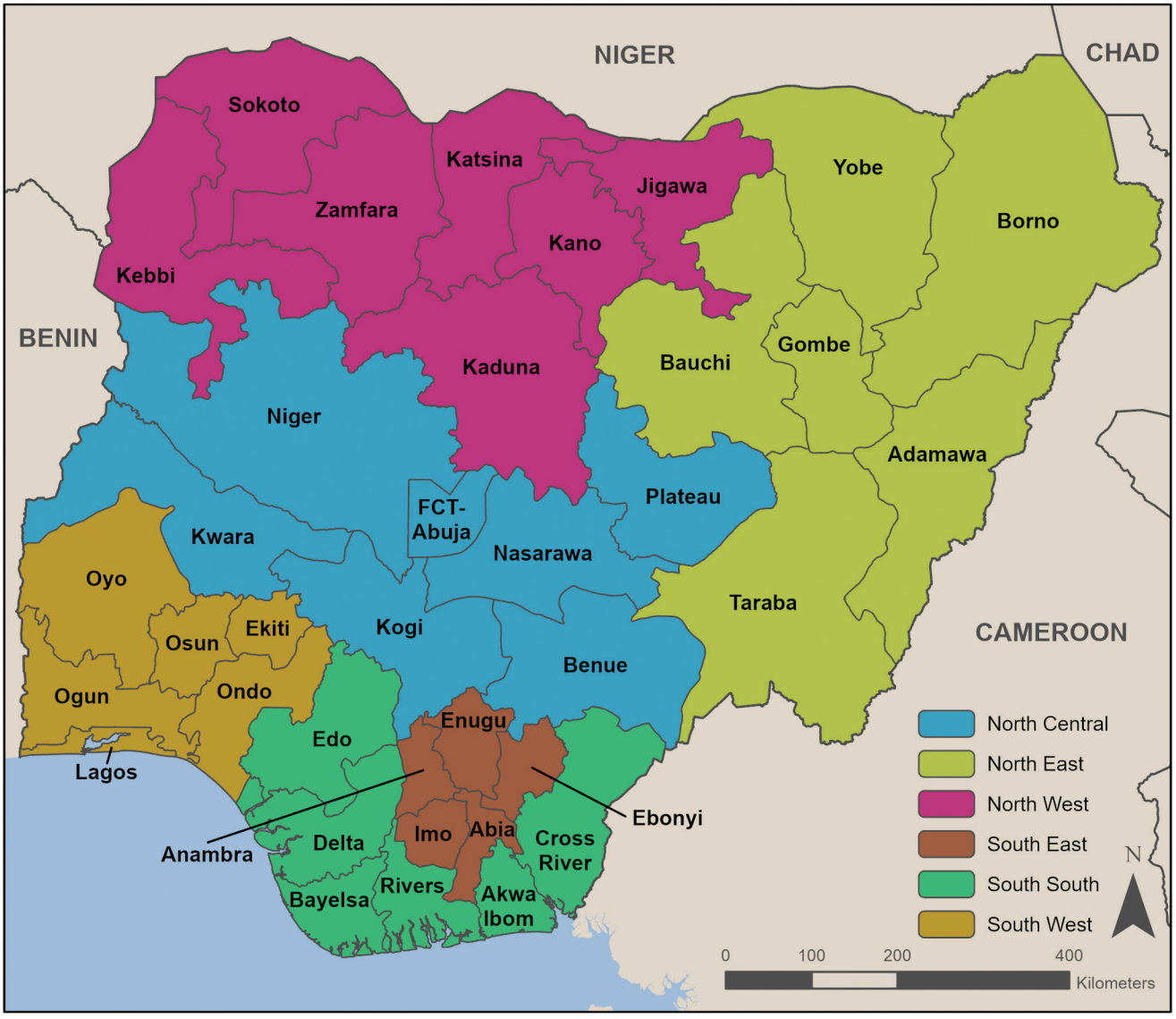
About the 2021 NMIS

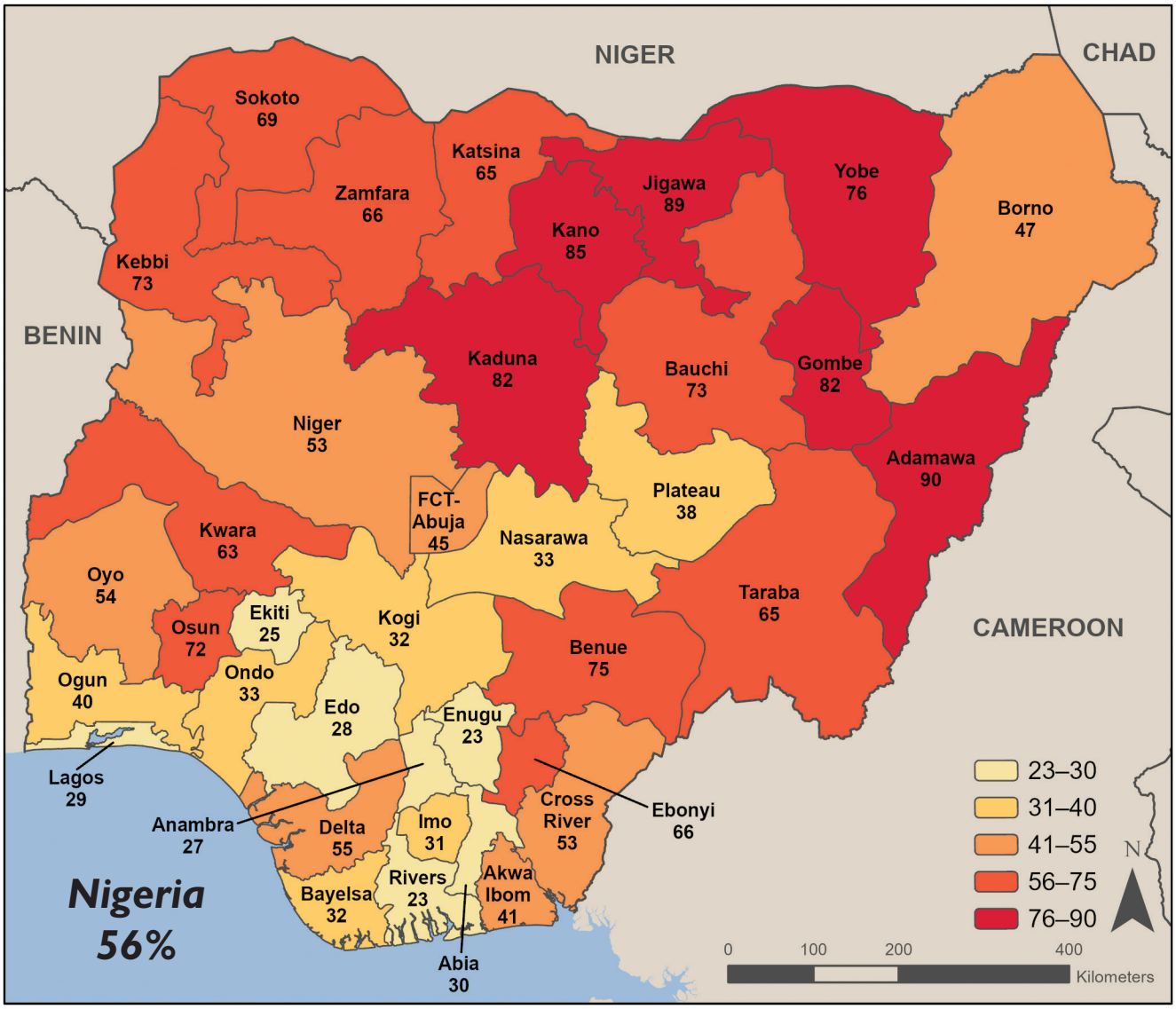
The 2021 Nigeria Malaria Indicator Survey (NMIS) is designed to provide data on malaria indicators and malaria and anaemia prevalence in Nigeria. The 2021 NMIS is the third Malaria Indicator Survey conducted in Nigeria; the first was conducted in 2010. In addition, malaria data have also been collected in the 2008, 2013, and 2018 Nigeria Demographic and Health Surveys. Repeated surveys allow for an analysis of trends over time.

Who participated in the survey?

A nationally representative sample of 14,476 women age 15–49 were interviewed in 13,727 selected households. This represents a response rate of 99% among both women and households. Over 11,000 children under 5 were tested for malaria as part of the 2021 NMIS. This sample provides most indicators for the country as a whole, for urban and rural areas separately, and for each of the country's six geo-political zones. Some of the survey indicators are also provided for each of the 36 states and the Federal Capital Territory (FCT).



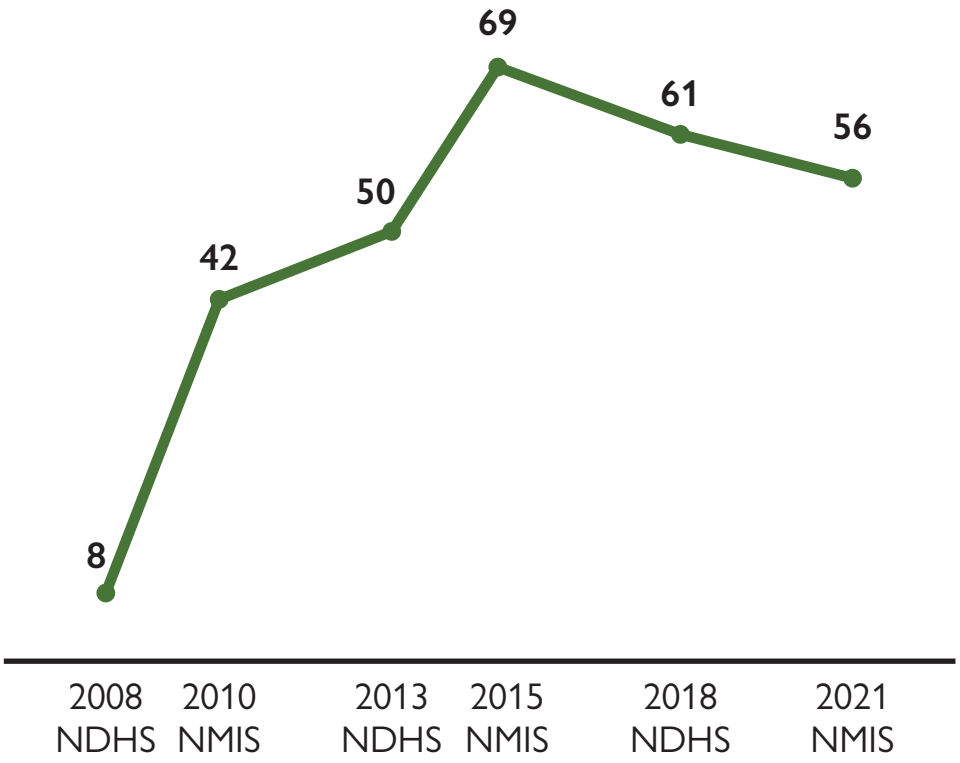
ITN Ownership by State



Household Ownership of Insecticide-Treated Nets (ITNs)

Over half of households in Nigeria own at least one insecticide-treated net (ITN). Fewer than 25% of households in Enugu and Rivers states own at least one ITN compared with 85% or more of households in Kano, Jigawa, and Adamawa states.

National Level Trend in ITN Ownership

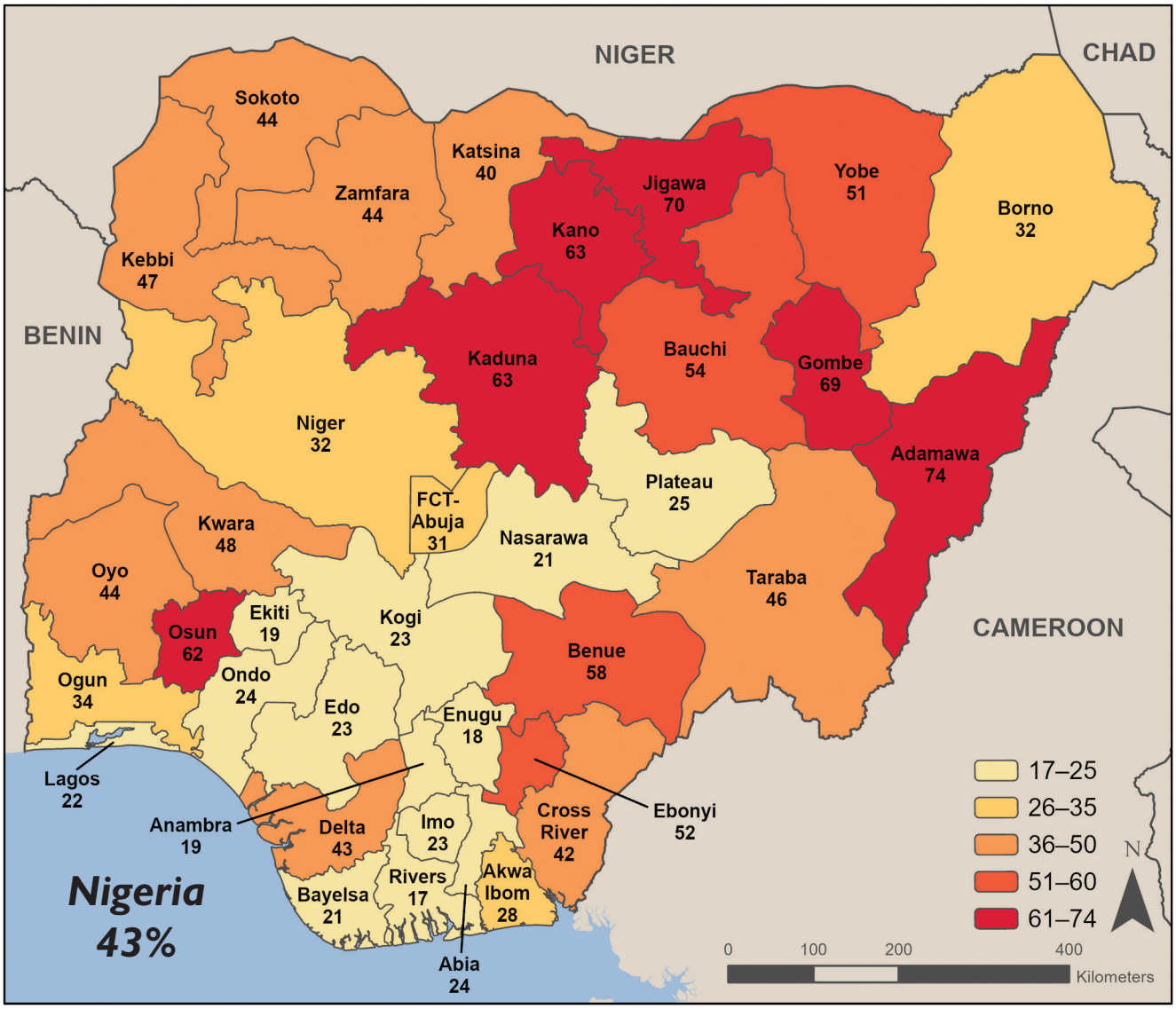


Note: The definition of an ITN in surveys conducted prior to the 2015 NMIS included nets that had been soaked with insecticides in the past 12 months.

Trends in Household Ownership of ITNs

The percent of households in Nigeria that own at least one ITN increased from 8% in 2008 to 69% in 2015 before decreasing to 56% in 2021.

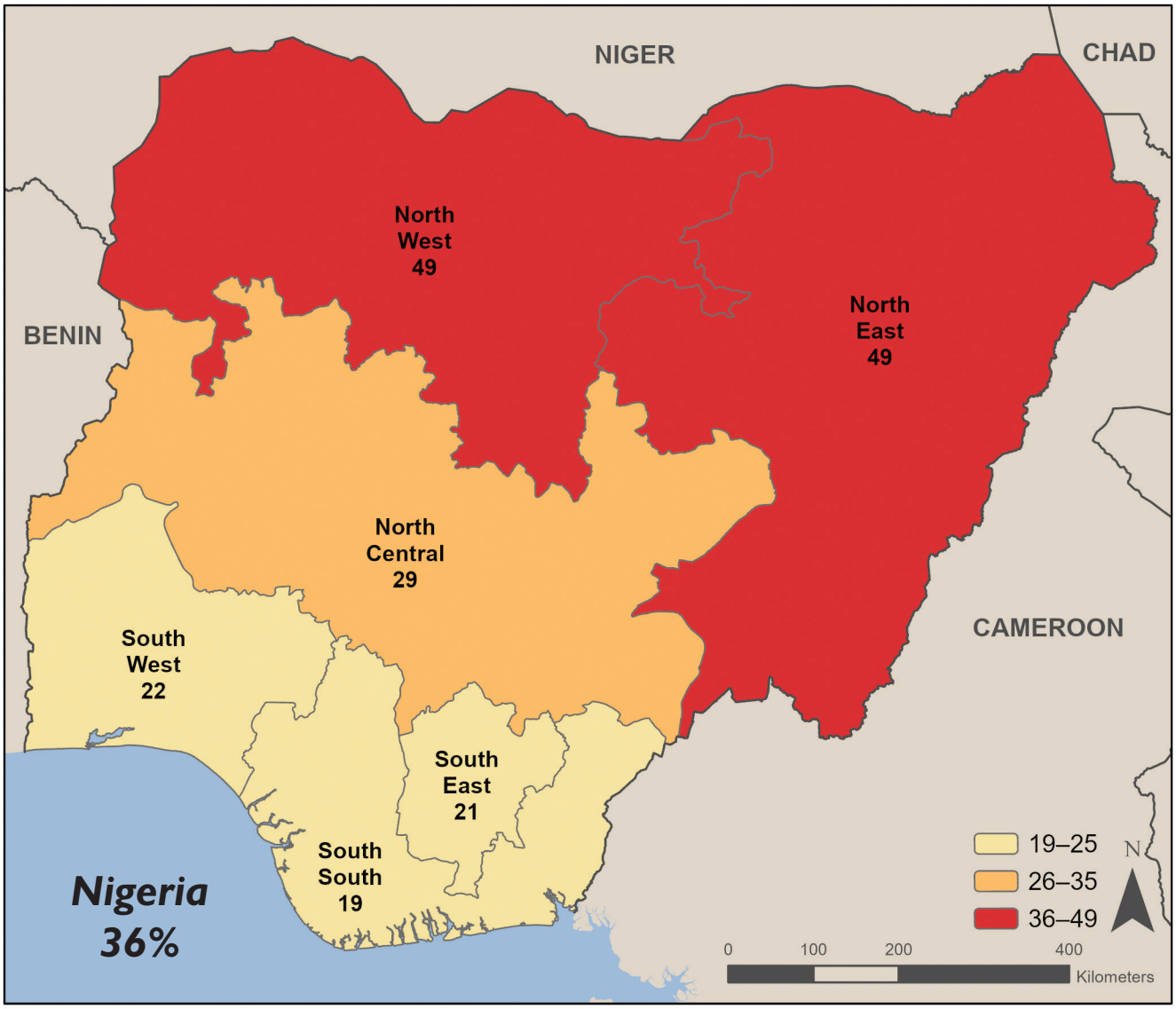
ITN Access by State



Access to Insecticide-Treated Nets

ITN access is defined as the proportion of the population that could sleep under an ITN if each ITN in the household were used by up to two people. Just over 40% of the population has access to an ITN. ITN access is below 20% in Ekiti, Enugu, Anambra, and Rivers states while more than 65% of the population in Gombe, Jigawa, and Adamawa states has access to an ITN.

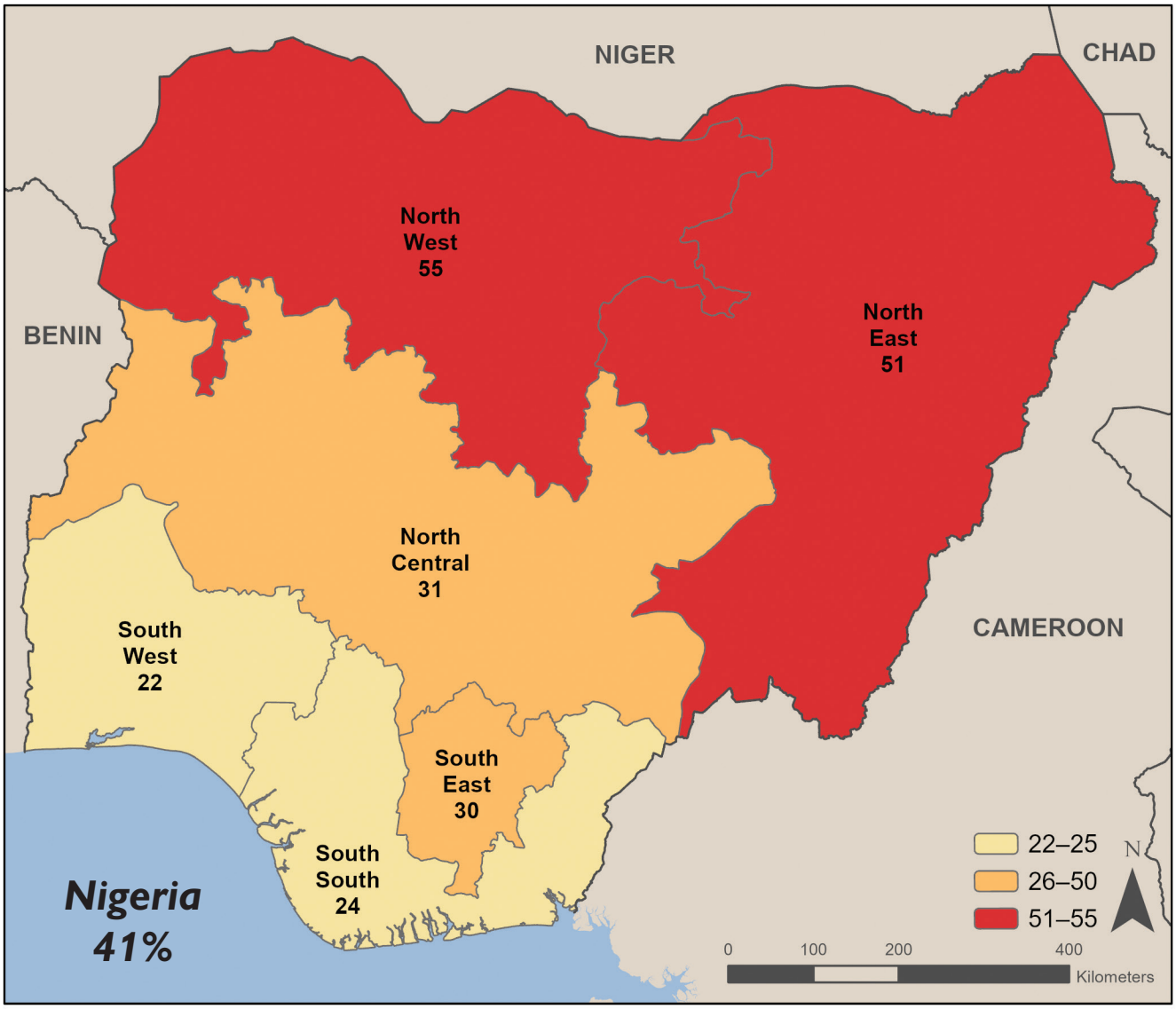
Use of ITNs by Household Members by Zone



Use of Insecticide-Treated Nets by Household Members

Overall, more than one-third (36%) of Nigerians slept under an ITN the night before the survey. Fewer than 25% of household members in South South (19%) and South West (22%) zones slept under an ITN the night before the survey, while nearly half of household members in North East and North West zones slept under an ITN the night before the survey (49% each).

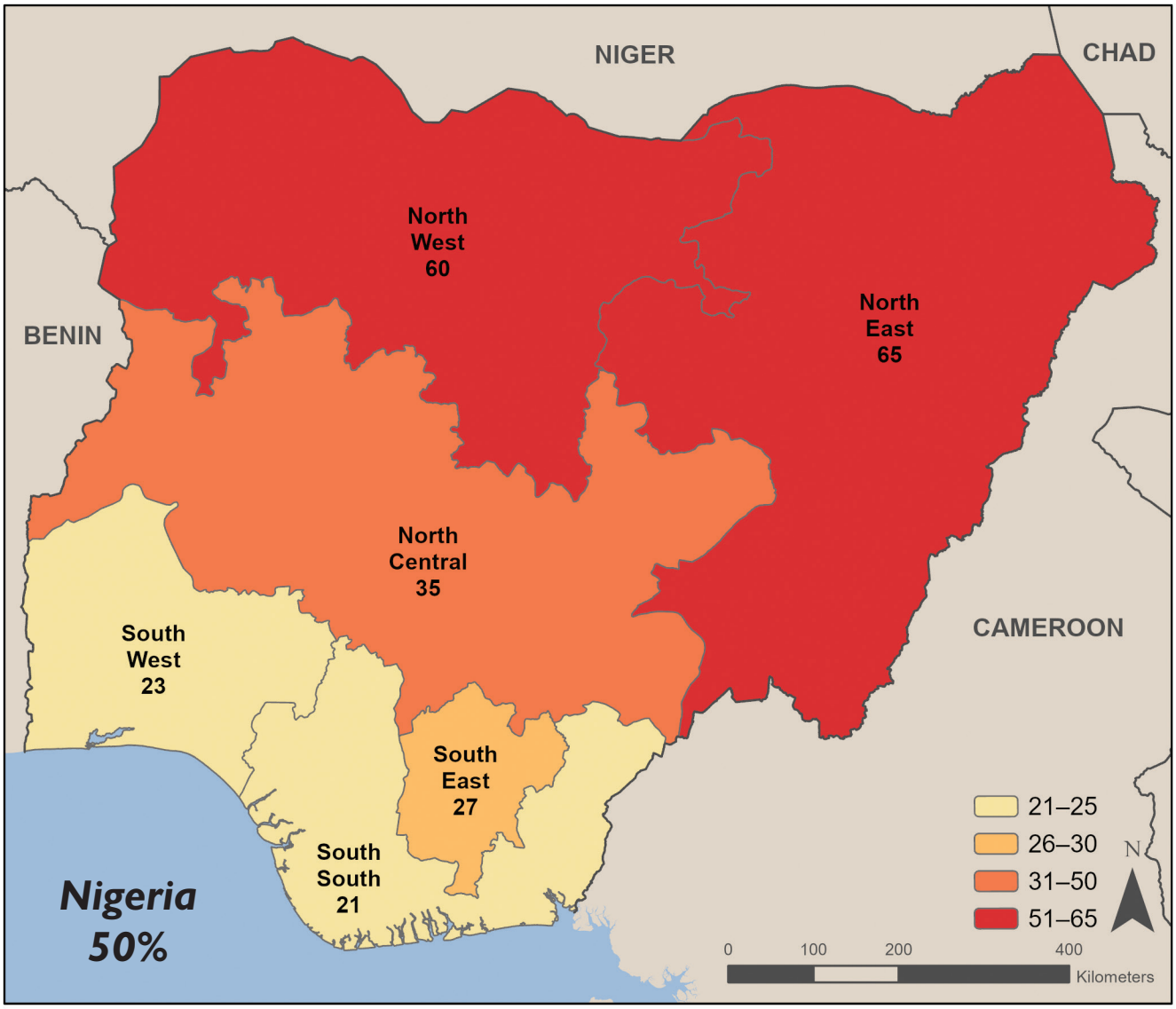
Use of ITNs by Children Under 5 by Zone



Use of Insecticide-Treated Nets by Children under 5

Young children are especially vulnerable to malaria. Nationally, more than 2 in 5 children under 5 slept under an ITN the night before the survey. Children's use of ITNs is below 25% in South West and South South zones, while more than half of children under 5 in North East and North West zones slept under an ITN the night before the survey.

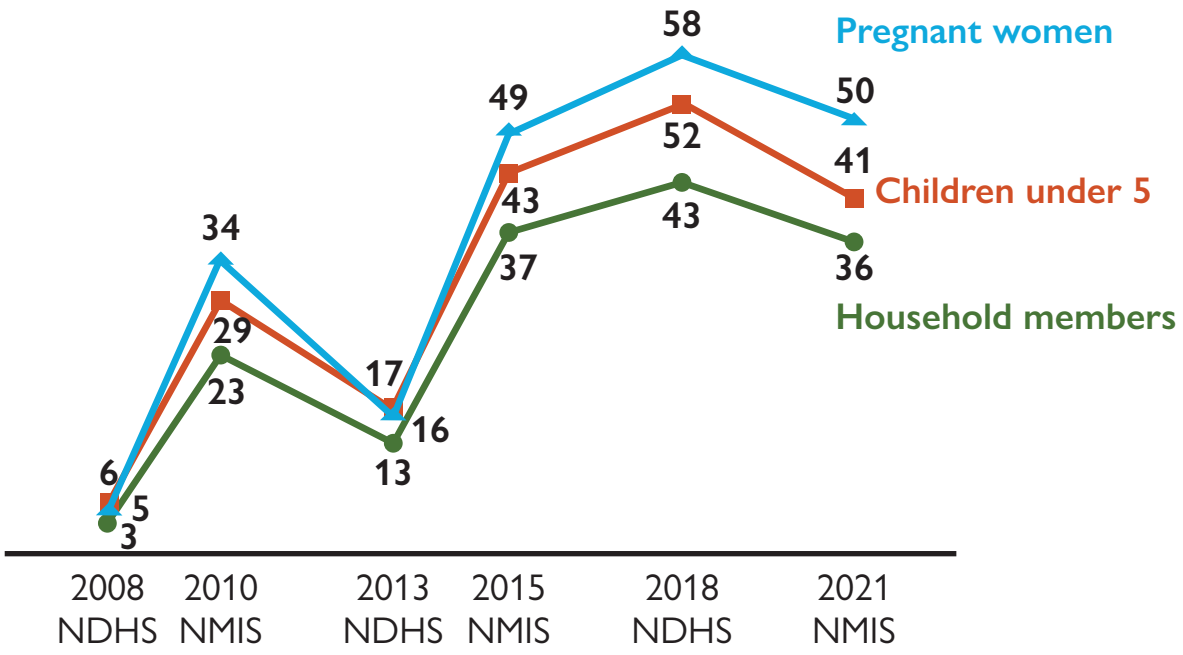
Use of ITNs by Pregnant Women by Zone



Use of Insecticide-Treated Nets by Pregnant Women

Pregnant women are also particularly vulnerable to malaria and are advised to sleep under ITNs. Half of pregnant women in Nigeria slept under an ITN the night before the survey. Pregnant women's use of ITNs is below 25% in South West and South South zones, while nearly two-thirds of pregnant women in North East zone slept under an ITN the night before the survey.

Trends in ITN Use

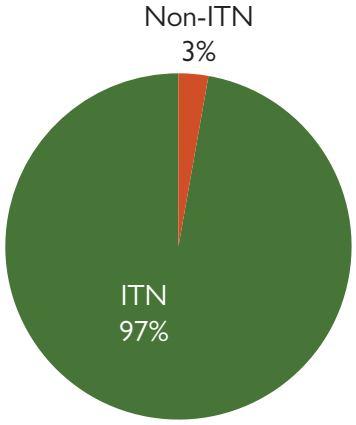


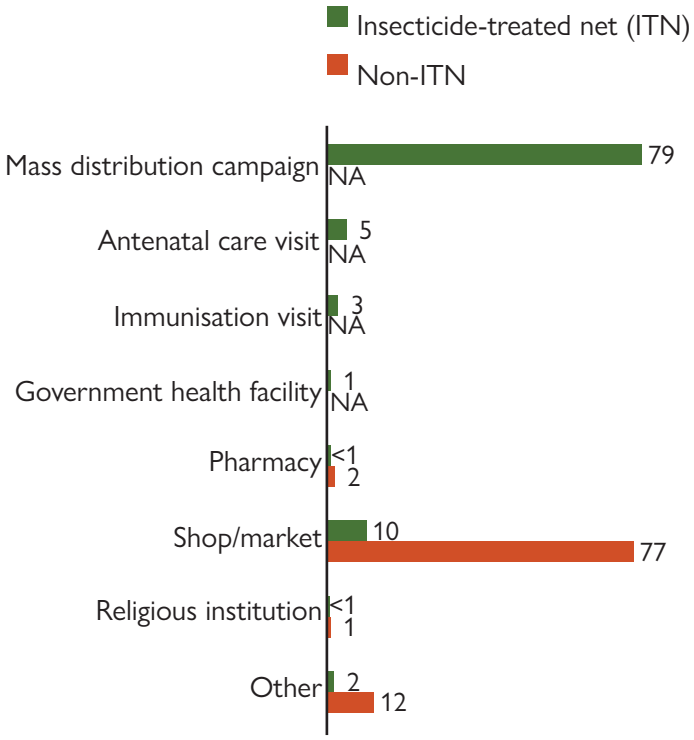
Note: The definition of an ITN in surveys conducted prior to the 2015 NMIS included nets that had been soaked with insecticides in the past 12 months.

Trends in the Use of Insecticide-Treated Nets

Use of ITNs by all household members, children under 5, and pregnant women increased between 2008 and 2010 and then decreased between 2010 and 2013. ITN use dramatically increased between 2013 and 2015 and then reached peak levels of use in 2018. Use of ITNs decreased between 2018 and 2021 among household members, children under 5, and pregnant women.

Source of Mosquito Nets - National Level

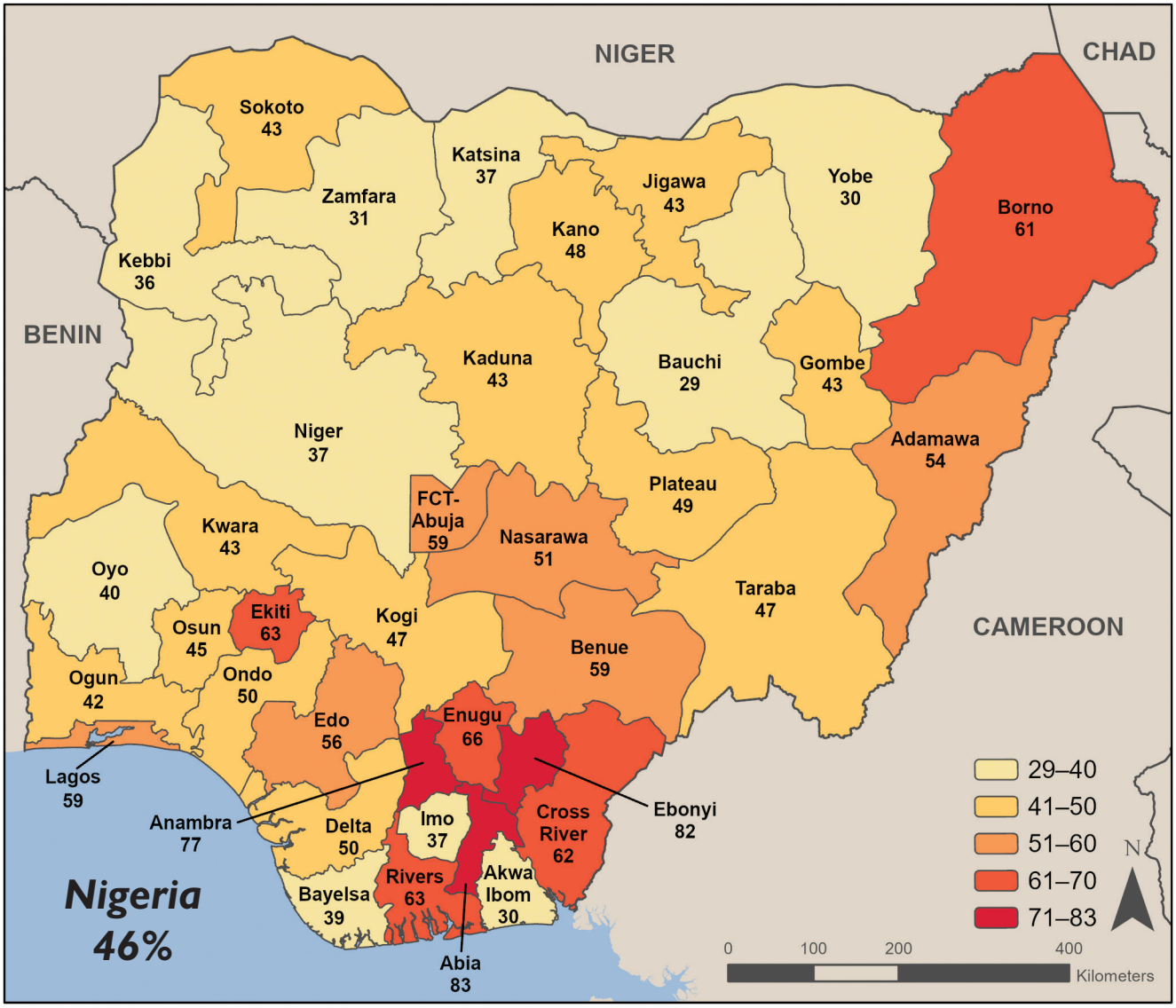




Source of Mosquito Nets

The vast majority of mosquito nets (97%) in Nigeria are insecticide-treated nets. The most common sources of ITNs are mass distribution campaigns (79%), followed by shops/markets (10%), antenatal care visits (5%), and immunisation visits (3%). In contrast, the most common source of non-ITNs is shops/markets (77%).

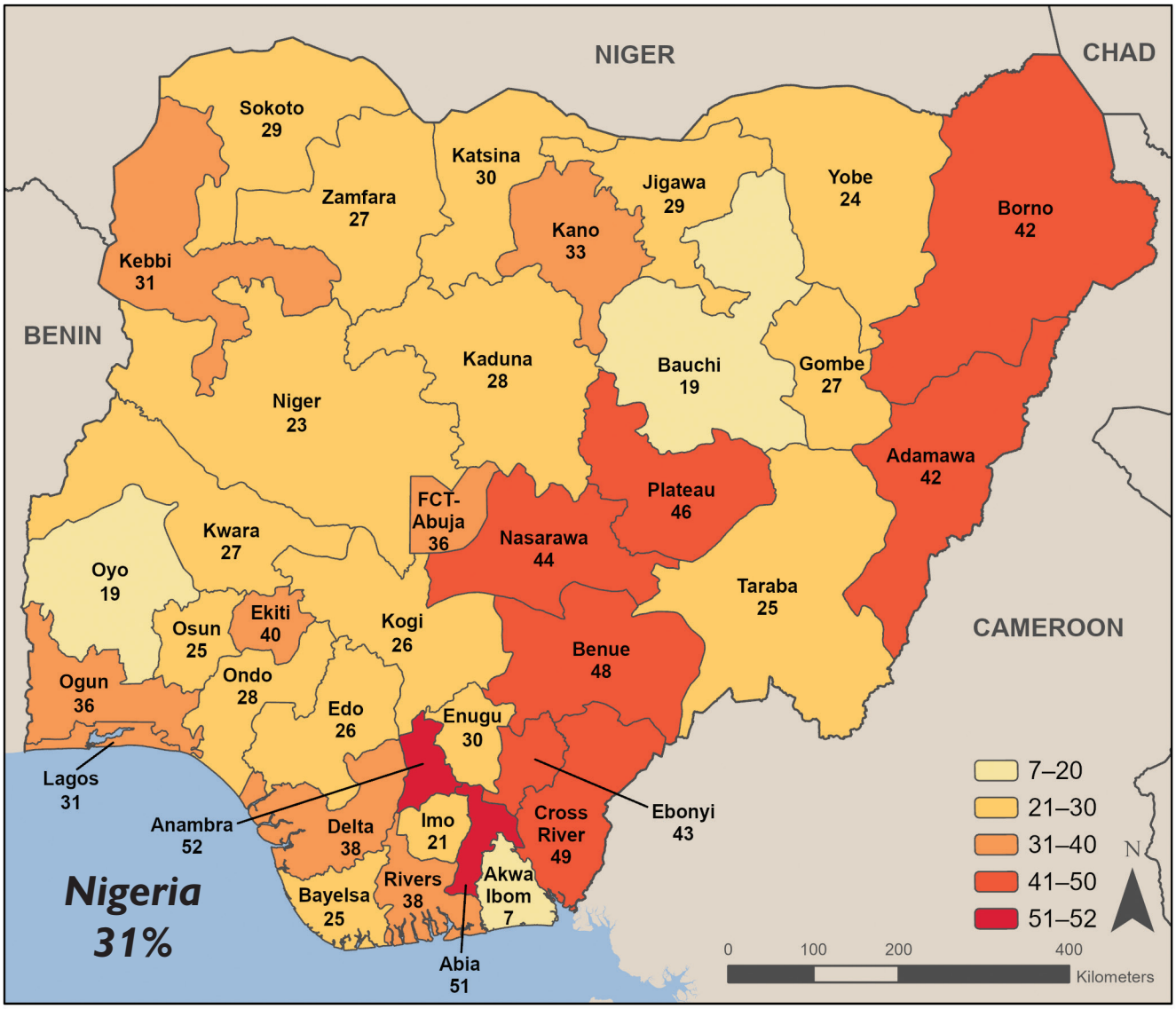
Intermittent Preventive Treatment during Pregnancy (IPTp): 2+ Doses of SP by State



Intermittent Preventive Treatment during Pregnancy: 2+ doses of SP

Just under half of pregnant women with a live birth in the two years before the survey received 2 or more doses of SP as intermittent preventive treatment during pregnancy. About 3 in 10 pregnant women in Bauchi, Yobe, Akwa Ibom, and Zamfara states received 2 or more doses of SP, compared with 8 in 10 pregnant women in Abia and Ebonyi states.

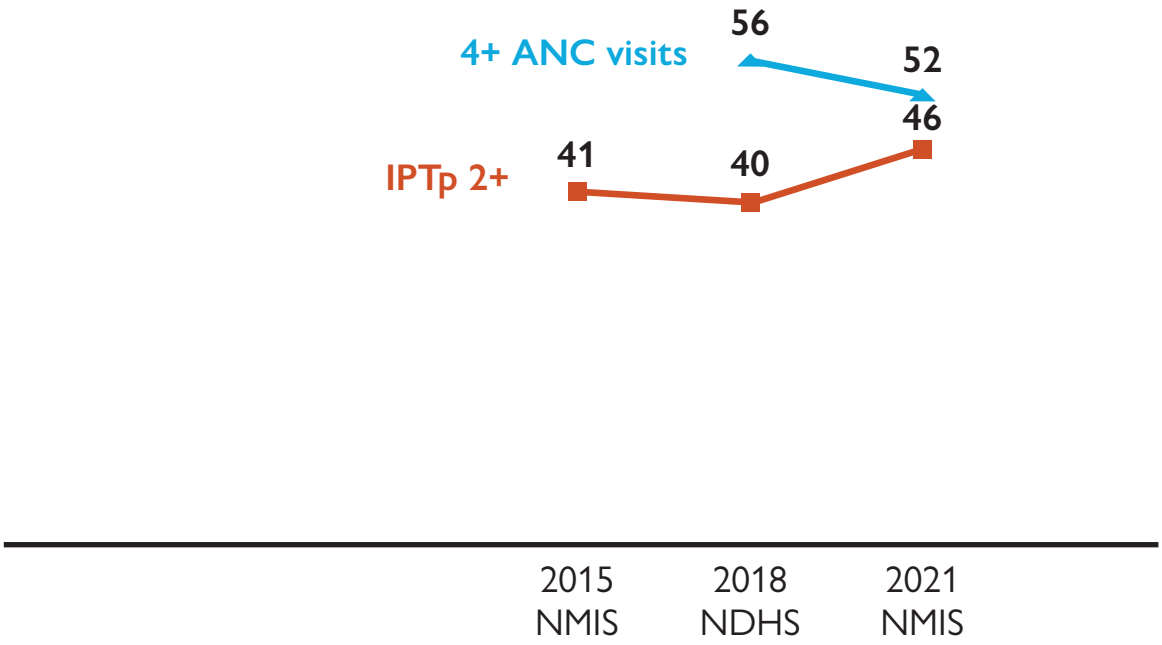
Intermittent Preventive Treatment during Pregnancy (IPTp): 3+ Doses of SP by State



Intermittent Preventive Treatment during Pregnancy: 3+ doses of SP

Fewer than one third of pregnant women in Nigeria received 3 or more doses of SP as intermittent preventive treatment during pregnancy. Only 7% of pregnant women in Akwa Ibom state received 3 or more doses of SP, compared with over half of pregnant women in Anambra and Abia states.

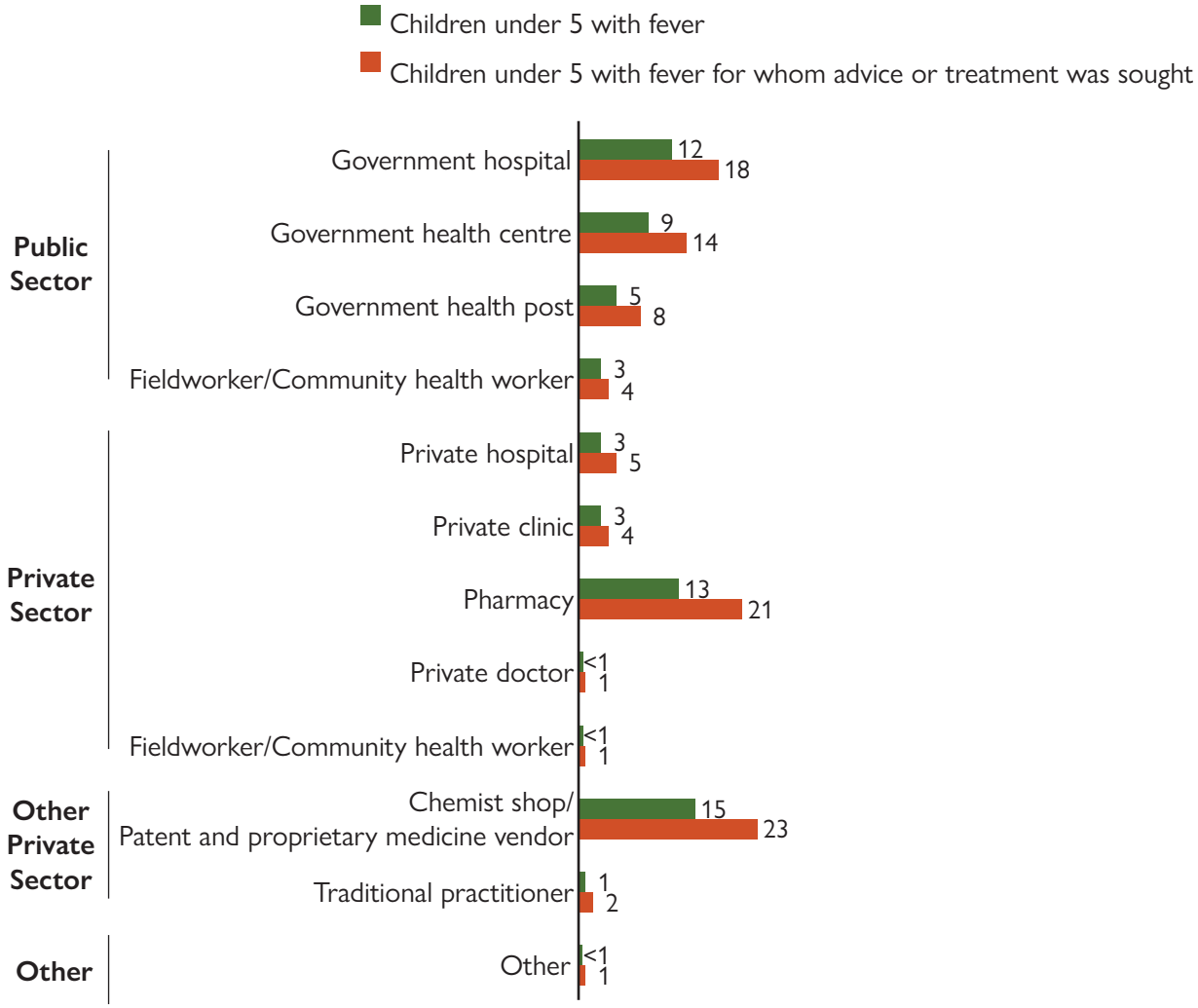
National Trends in 4+ Antenatal Care Visits and 2+ Doses of SP (IPTp 2+)



Trends in 4+ ANC visits and 2+ doses of Intermittent Preventive Treatment during Pregnancy

About half of pregnant women with a live birth in the two years before the survey made 4 or more antenatal care visits. This proportion decreased slightly from 56% in 2018 to 52% in 2021. Forty-six percent of pregnant women received 2+ doses of SP during pregnancy as intermittent preventive treatment. IPTp 2+ increased from 41% in 2015 to 46% in 2021.

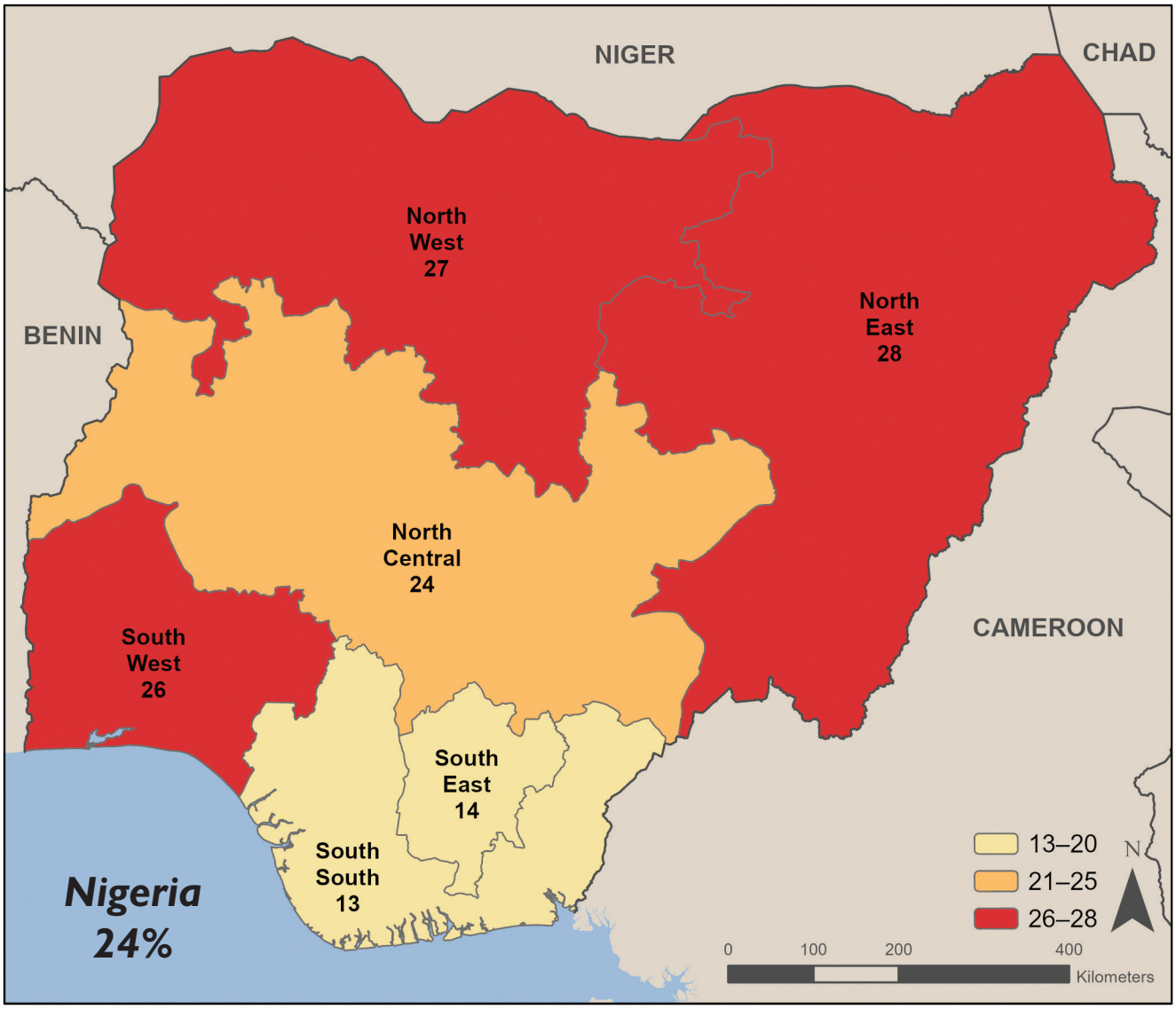
Source of Treatment or Advice for Children with Fever - National Level



Source of Treatment or Advice for Children with Fever

Overall, 37% of children under 5 in Nigeria had fever in the 2 weeks before the survey. Treatment or advice was sought for 63% of children with fever, excluding advice or treatment from a traditional practitioner. The most common sources of treatment or advice were a chemist shop/patent and proprietary medicine vendor, followed by pharmacies, government hospitals, and government health centres.

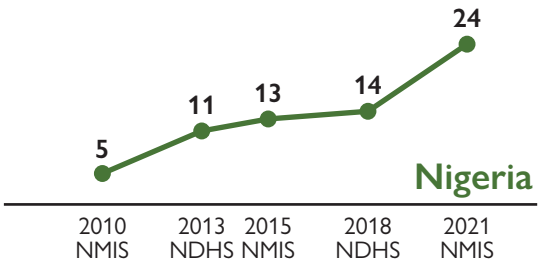
Diagnostic Testing of Children with Fever by Zone

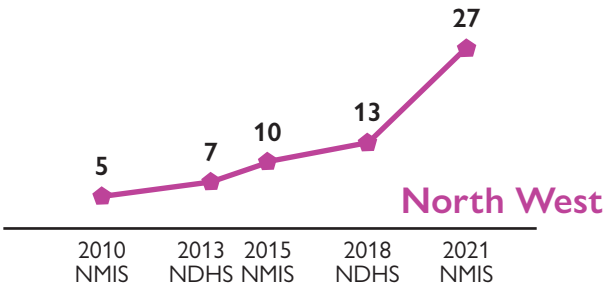


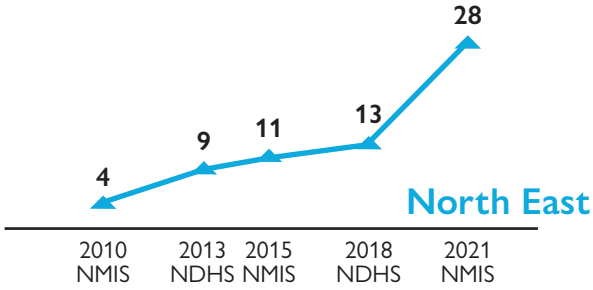
Diagnostic Testing of Children with Fever

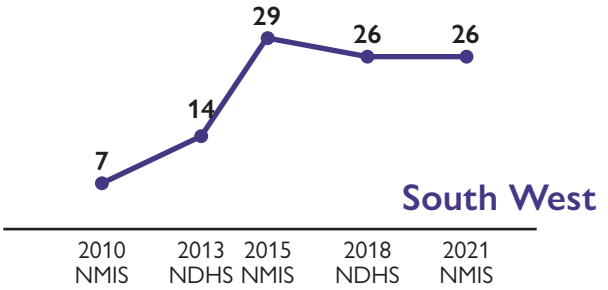
The national treatment policy for the management of malaria recommends confirmation of malaria by microscopy or rapid diagnostic testing for all persons with a fever prior to beginning treatment. Among children under 5 who had a fever in the two weeks before the survey, 24% had blood taken from a finger or heel for testing. Twice as many children with fever in North East zone had blood taken from a finger or heel for testing (28%) than in South East (14%) and South South (13%) zones.

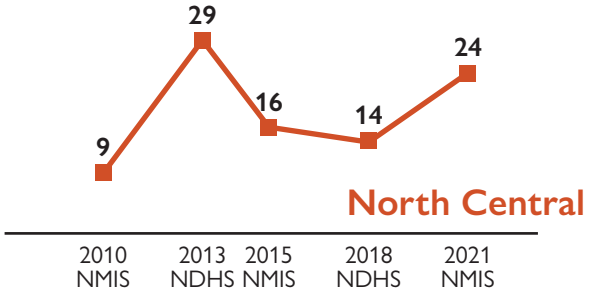
National and Zonal Trends in Diagnostic Testing for Children with Fever

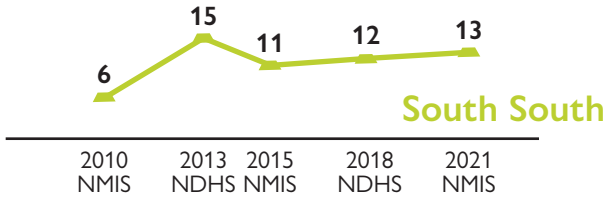


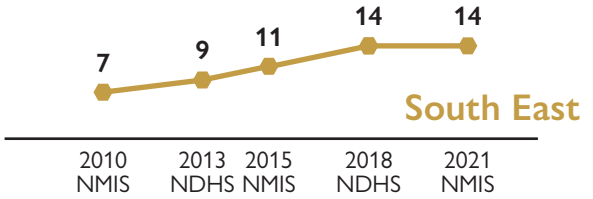








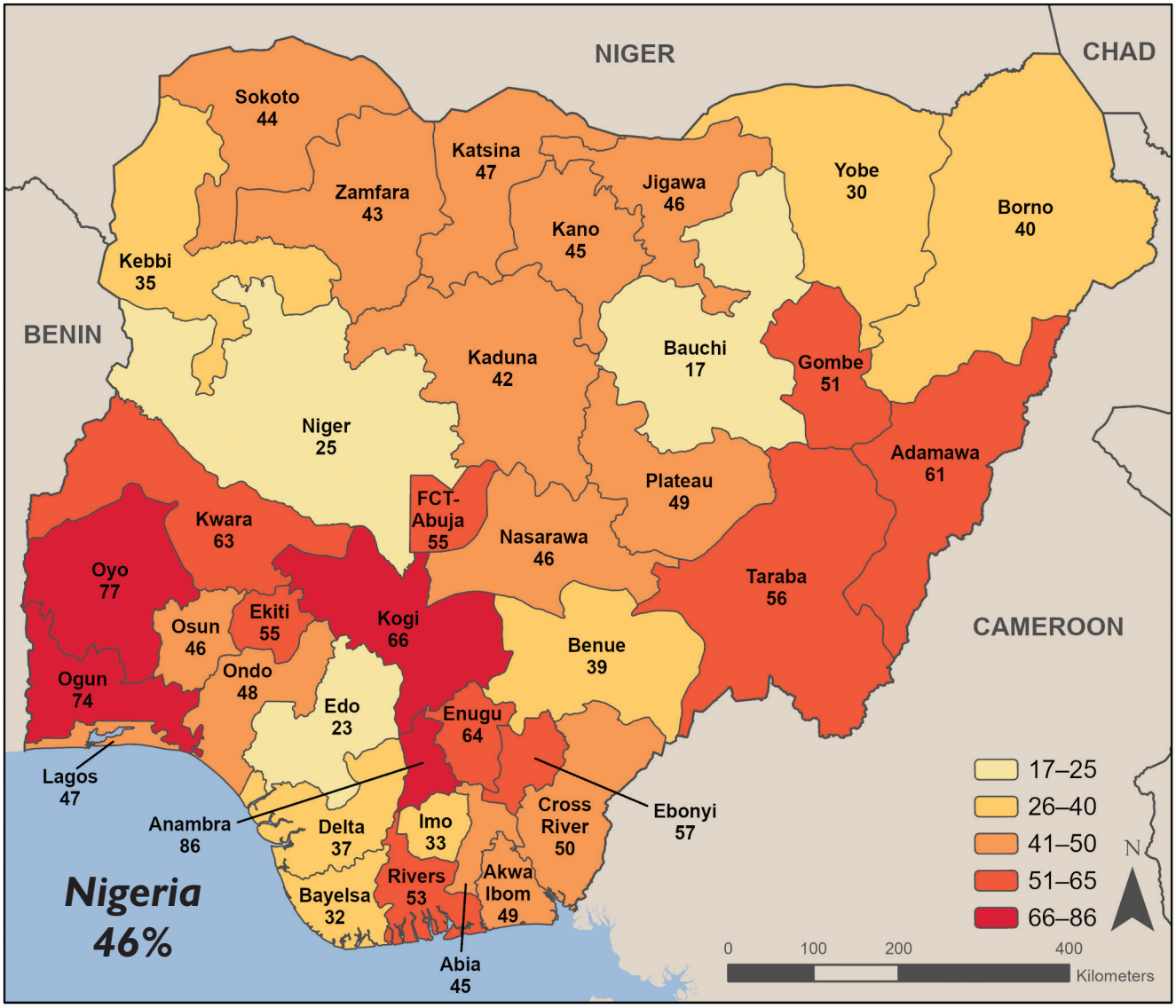




Trends in Diagnostic Testing for Children with Fever

At the national level, the proportion of children with fever who had blood taken from a finger or heel for testing increased steadily from 5% in 2010 to 14% in 2018, before a larger increase to 24% in 2021. A similar trend in diagnostic testing is seen in North West and North East zones. For South West Zone, diagnostic testing for children with fever peaked in 2015 at 29%, then declined to 26% in 2018 and remained unchanged in 2021. In North Central Zone, diagnostic testing peaked in 2013 before declining to 14% in 2018 and then increasing to 24% in 2021. Diagnostic testing in South South zone followed a similar trend, peaking at 15% in 2013, declining in 2015 and then steadily increasing to 13% in 2021. Diagnostic testing in South East zone steadily increased from 7% in 2010 to 14% in 2021.

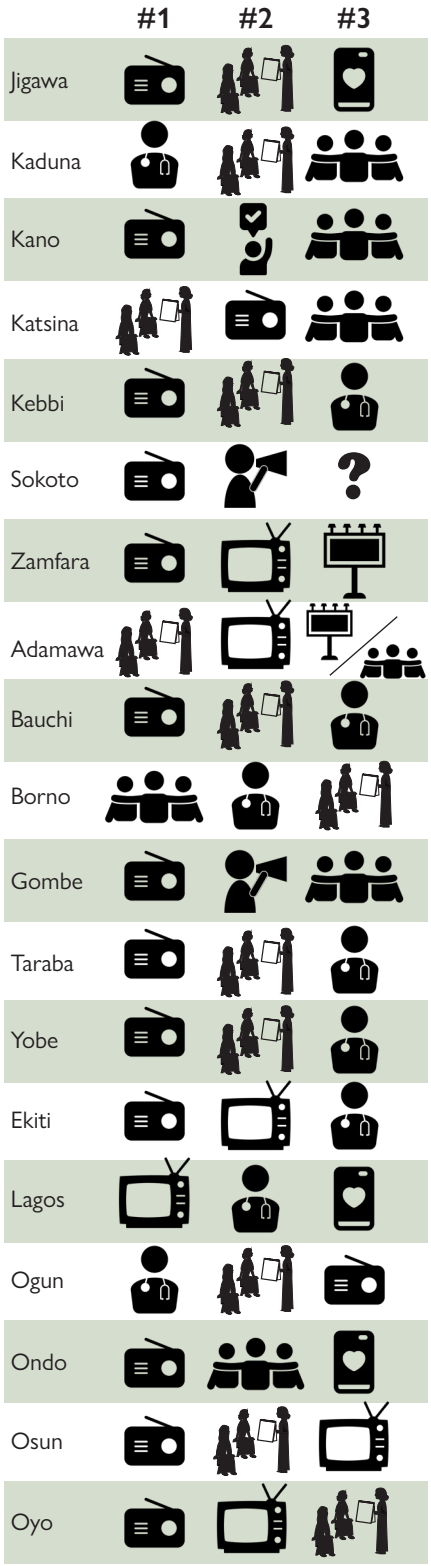
Women's Exposure to Malaria Prevention Messages by State

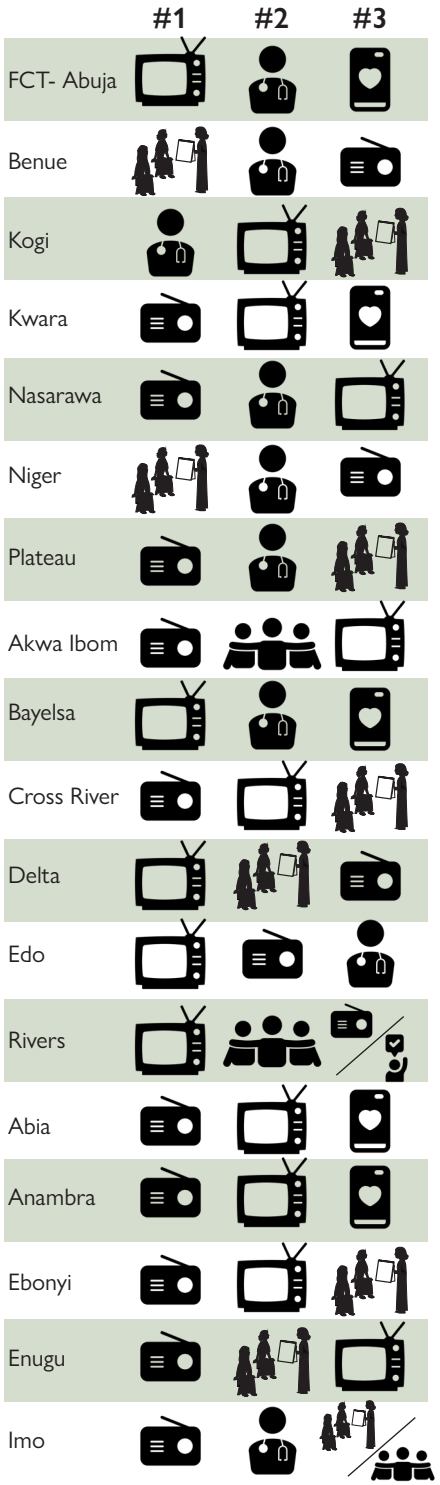


Women's Exposure to Malaria Prevention Messages

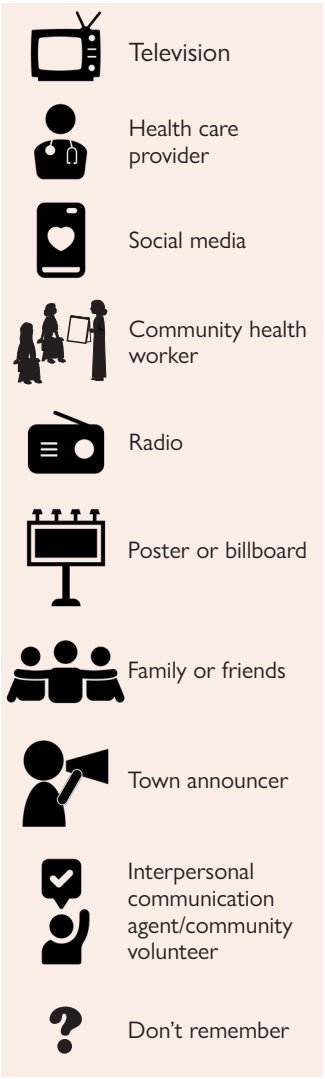
Nearly half of women age 15-49 saw or heard a malaria message in the 6 months before the survey. One in four women in Bauchi, Edo, and Niger states saw or heard a malaria message in the 6 months before the survey, compared with more than 3 in 4 women in Oyo and Anambra states.

Most Common Sources for Malaria Prevention Messages by State





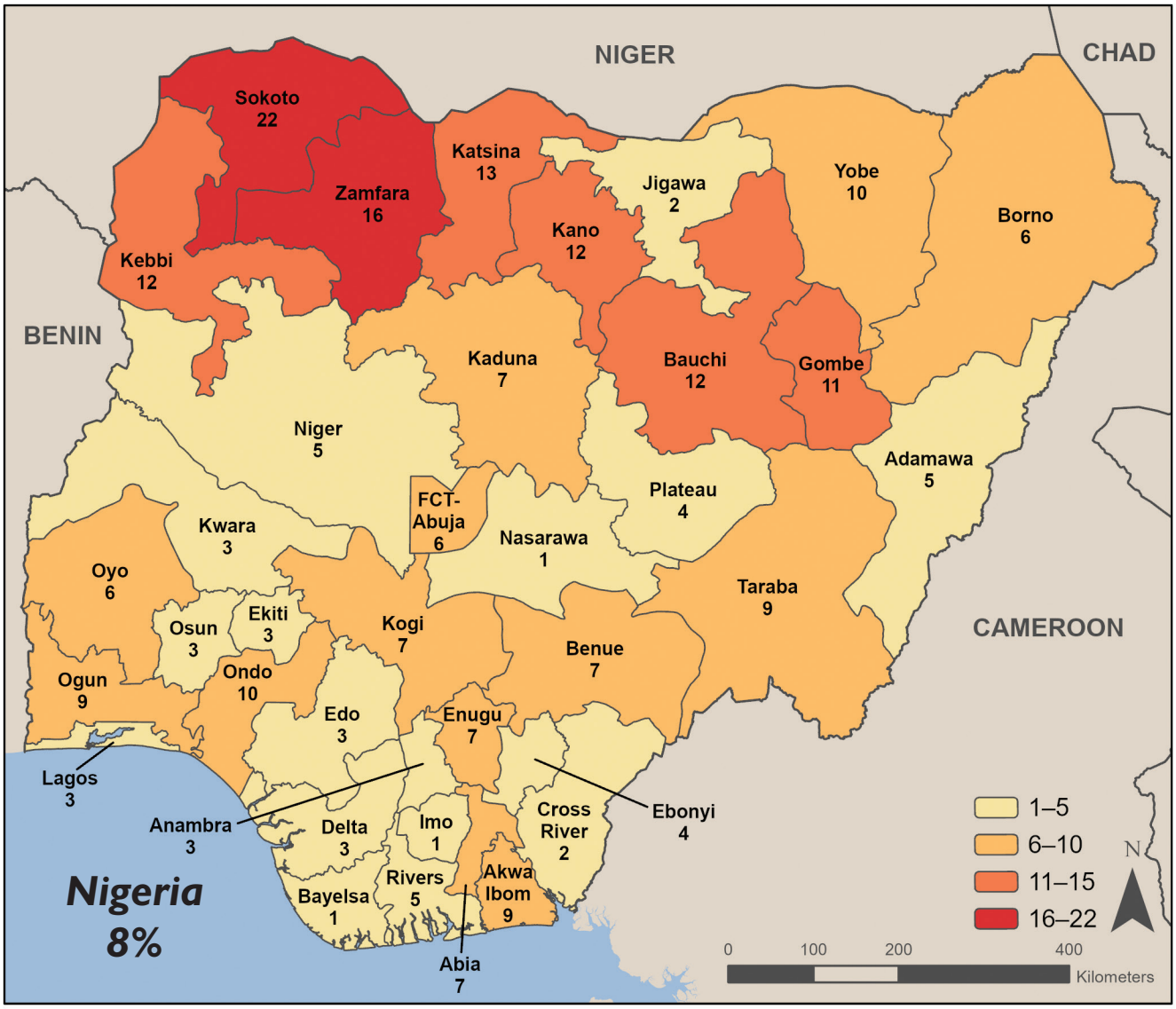
The most common sources of malaria messages in FCT - Abuja are television, health care providers, and social media.



Most Common Sources for Malaria Prevention Messages

In the 2021 Nigeria MIS, women who saw or heard a malaria message in the past 6 months were asked the source of the malaria message. The graphic above displays the three most common sources of malaria messages by state.

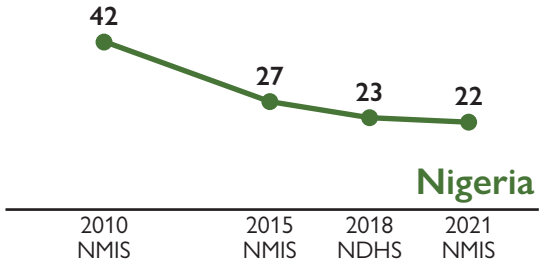
Anaemia Prevalence by State

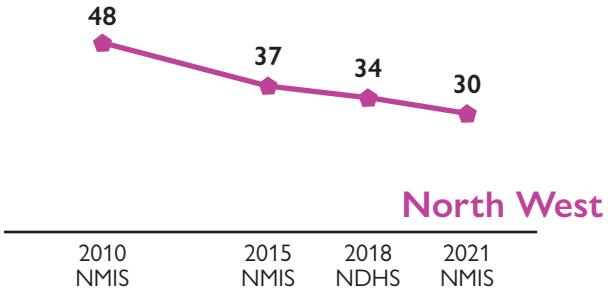


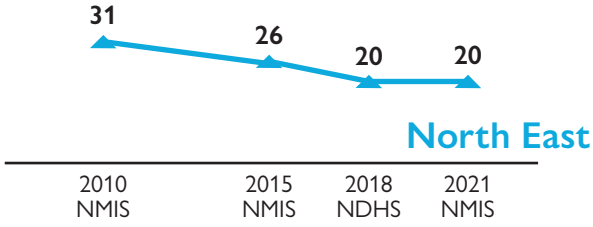
Anaemia Prevalence

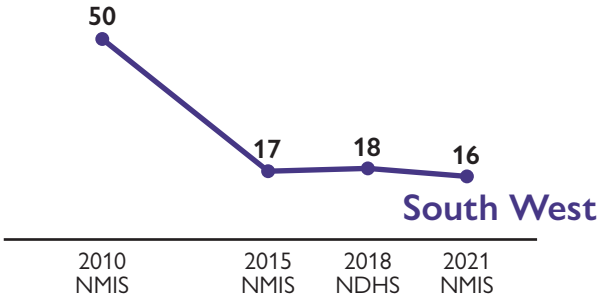
Ninety-six percent of eligible children age 6-59 months were tested for anaemia in the 2021 MIS. Overall, 8% of children age 6-59 months in Nigeria have moderate-to-severe anaemia (haemoglobin level of less than 8.0 g/dl). In Nasarawa, Imo, and Bayelsa states, 1% of children have moderate-to-severe anaemia, compared with 16% of children in Zamfara and 22% of children in Sokoto.

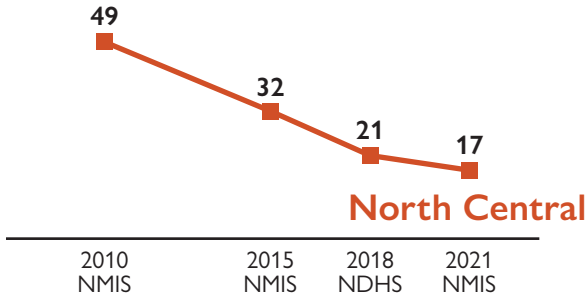
National and Zonal Trends in Malaria Prevalence by Microscopy

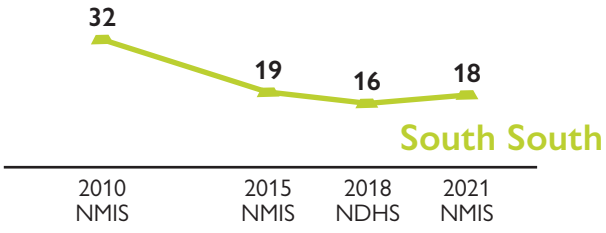


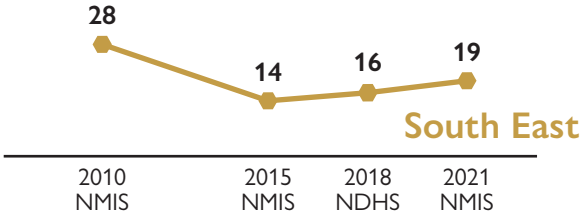








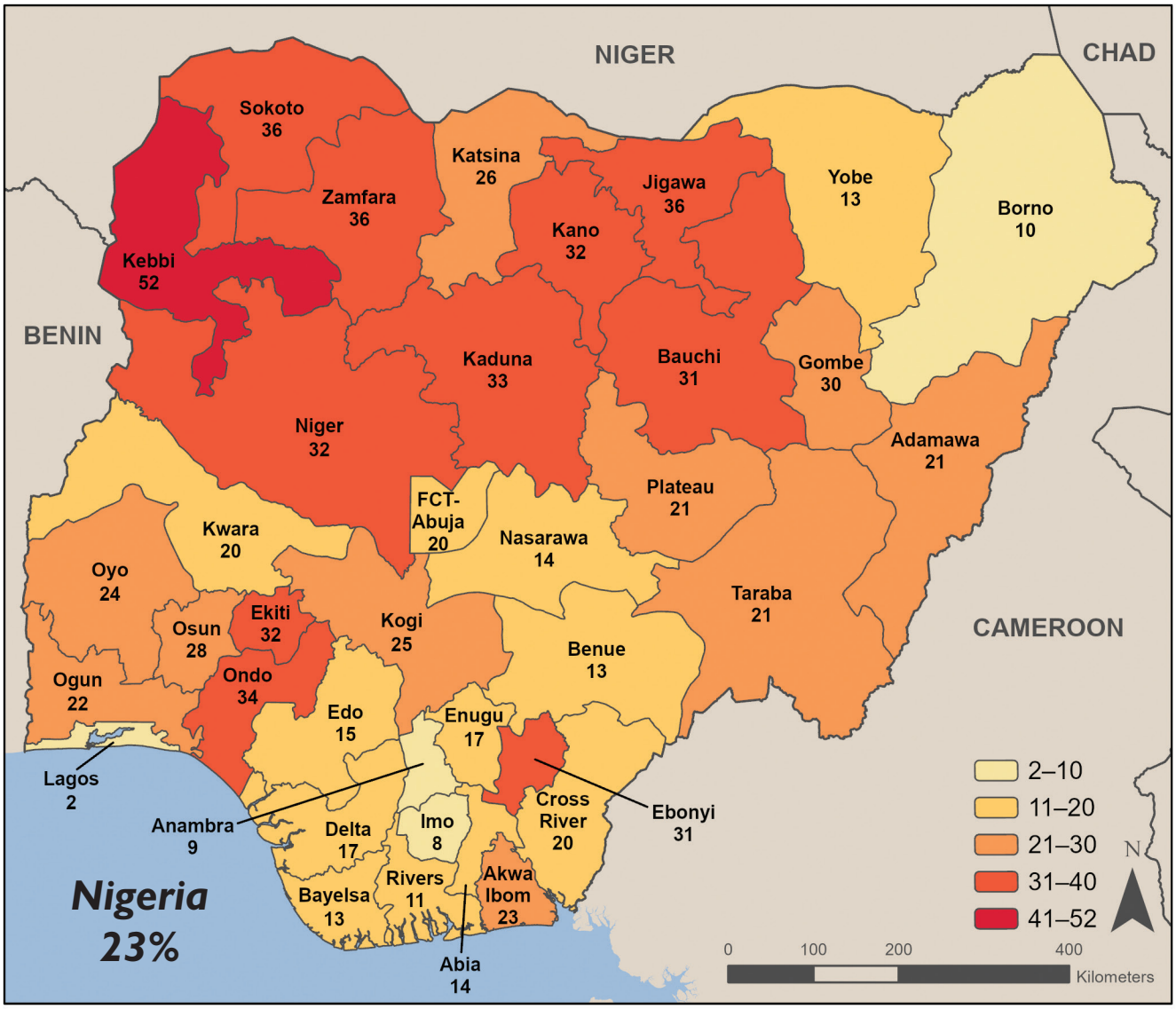




Trends in Malaria Prevalence according to microscopy

At the national level, malaria prevalence by microscopy among children age 6-59 months has decreased from 42% in 2010 to 22% in 2021. A similar trend in malaria prevalence is seen in North West, North East, and North Central zones. In South West zone, malaria prevalence decreased dramatically between 2010 and 2015 and has remained essentially unchanged since 2015. In South South zone, malaria prevalence decreased between 2010 and 2018 and then increased slightly in 2021. In South East zone, malaria prevalence decreased between 2010 and 2015 and then increased slightly in 2018 and 2021.

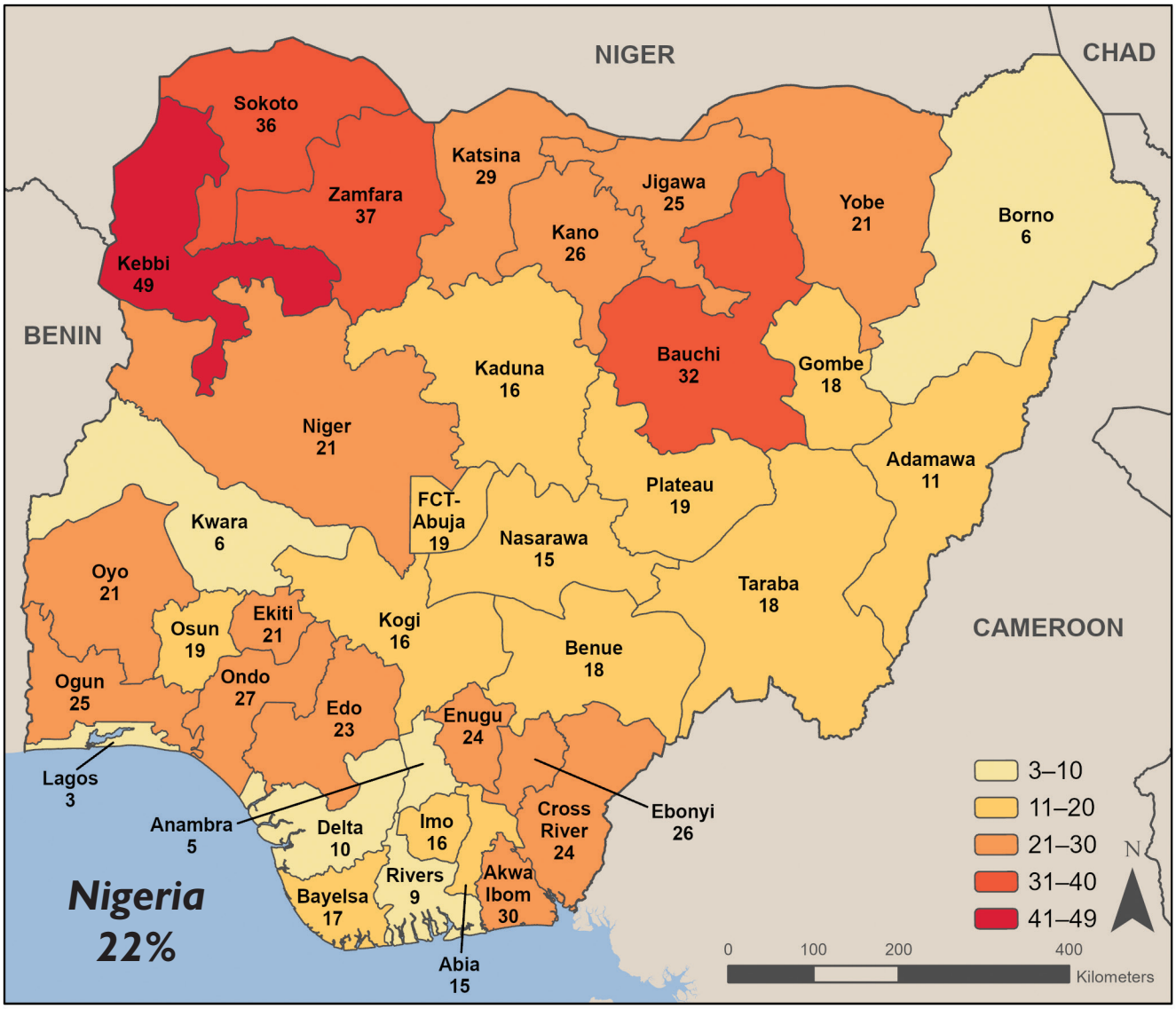
Malaria Prevalence: 2018 NDHS



Malaria Prevalence according to Microscopy in the 2018 Nigeria DHS

The 2018 NDHS included malaria testing for children age 6-59 months by microscopy. Overall, 23% of children age 6-59 months tested positive for malaria by microscopy in 2018. Malaria prevalence was lowest in Lagos (2%), Imo (8%), Anambra (9%), and Borno (10%) states and highest in Kebbi state where over half of children age 6-59 months tested positive for malaria by microscopy.

Malaria Prevalence: 2021 NMIS



Malaria Prevalence according to Microscopy in the 2021 Nigeria MIS

Twenty-two percent of children age 6-59 months tested positive for malaria by microscopy in the 2021 Nigeria MIS. Malaria prevalence is lowest in Lagos (3%), Anambra (5%), Borno (6%), and Kwara (6%) states. Malaria prevalence remains highest in Kebbi, where 49% of children age 6-59 months tested positive for malaria by microscopy.