2015 Nigeria Malaria Indicator Survey (NMIS) Atlas of Key Indicators
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Additional information about the survey can be obtained from the National Malaria Elimination Programme 1st Floor, Abia House, Central Business District, Abuja; Nigeria; Telephone: +234 803000296 or the National Population Commission (NPC), Plot 2031, Olusegun Obasanjo Way, Zone 7 Wuse, PMB 0281, Abuja, Nigeria; Telephone: (234) 09 523-9173; Fax: (234) 09 523-1024; Email: info@populationgov.ng; www.population.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: 1.301.572.0200; Fax: 1.301.572.0999; e-mail: info@DHSprogram.com).

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About the 2015 NMIS

The 2015 Nigeria Malaria Indicator Survey (NMIS) is designed to provide data on malaria indicators and malaria and anaemia prevalence in Nigeria. The 2015 NMIS is the second Malaria Indicator Survey conducted in Nigeria; the first was conducted in 2010. In addition, malaria data have also been collected in the 2003, 2008, and 2013 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 8,034 women age 15–49 were interviewed in 7,745 selected households. This represents a response rate of 99%. Over 6,000 children under 5 were tested for malaria as part of the 2015 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 provided for each of the 36 states and the Federal Capital Territory (FCT).

2015 NMIS Atlas
Maps allow for a visual interpretation of population and health indicators across regions. Malaria prevention, treatment, and prevalence are not consistent across all regions. Maps help to show where the patterns exist, which regions are making good progress towards better health and which regions require additional interventions. Most malaria indicators collected through the 2015 NMIS are available at the state level. Some, however, are only available at the zonal level. In addition, the 2010 NMIS only has data available at the zonal level. Therefore, this atlas includes some maps at the zonal level when there is no state-level data available, especially when comparing data from the 2010 and 2015 surveys.
Household Ownership of Insecticide-Treated Nets (ITNs)

Almost 70% of households in Nigeria own at least one insecticide-treated net (ITN). Less than 40% of households in Kwara, Edo, and Ogun own at least one ITN compared with 95% or more of households in Bauchi, Jigawa, and Katsina.
Universal Coverage of Insecticide-Treated Nets

Universal coverage is defined as the proportion of households with at least one ITN for every two people in the household. Just over one-third of Nigerian households have at least one ITN for every two people in the household. Universal coverage of ITNs is below 15% in Kwara, Borno-Urban, and Lagos while more than half of households in Bauchi, Jigawa, Kaduna, Katsina, Ebonyi, Akwa Ibom, Cross River, and Ekiti have at least one ITN for every two people in the household.
Use of Insecticide-Treated Nets by Household Members

Overall, more than one-third (37%) of Nigerians slept under an ITN the night before the survey. Use of ITNs by household members is especially low in Abia (7%) and Imo (6%), while more than 60% of household members in Jigawa and Kaduna slept under an ITN the night before the survey.
**USE OF ITNs BY CHILDREN AND PREGNANT WOMEN**

**Use of Insecticide-Treated Nets by Children Under 5**

Young children are especially vulnerable to malaria. Nationally, 44% of children under 5 slept under an ITN the night before the survey. Children living in North West Zone are most likely to have slept under an ITN the night before the survey (62%) compared with only 22% of children in South West Zone.

**Use of Insecticide-Treated Nets by Pregnant Women**

Pregnant women are also particularly vulnerable to malaria and are advised to sleep under ITNs. Nationally, almost half (49%) of pregnant women age 15-49 slept under an ITN the night before the survey. This varies by zone, from a low of 23% in South East Zone to a high of 68% in North West Zone.
**Intermittent Preventive Treatment during Pregnancy (IPTp)—2 or More Doses of SP**

Pregnant women should receive at two or more doses of SP during antenatal care visits to prevent malaria during pregnancy. Just over one-third of women age 15-49 with a live birth in the two years before the survey received at least two doses. Coverage of two or more doses of IPTp is lowest in Niger (10%) and above 70% in Lagos, Edo, and Borno-Urban.

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**IPTp—2 or More Doses of Sulphadoxine-Pyrimethamine (SP)**

Pregnant women should receive at two or more doses of SP during antenatal care visits to prevent malaria during pregnancy. Just over one-third of women age 15-49 with a live birth in the two years before the survey received at least two doses. Coverage of two or more doses of IPTp is lowest in Niger (10%) and above 70% in Lagos, Edo, and Borno-Urban.
Updated IPTp guidelines recommend that pregnant women receive at least three doses of SP during pregnancy received during antenatal care visits. Nationally, only 19% of women with a live birth in the two years before the survey received three or more doses of SP. Coverage of three or more doses of IPTp is lowest in Delta (4%) and Kano (6%) and highest in Ekiti and Borno-Urban (45% each).
**Case Management of Fever and Malaria in Children**

**Testing among Children with Fever**

Nationwide, 41% of children under 5 had a fever in the two weeks before the survey. Among these children, only 13% had blood taken from a finger or heel for malaria testing. This testing among children with fever is lowest in North West Zone (10%) and highest in South West Zone (29%).

**Treatment with Any ACT**

Among children under 5 with fever who took an antimalarial, 38% received any ACT, as recommended. Receipt of any ACT is most common in South East (47%) and North Central zones (45%) and least common among children in North East Zone (31%).
Exposure to Malaria Prevention Messages

Overall, 36% of women age 15-49 have seen or heard a message about malaria in the six months before the survey. The most commonly heard messages nationwide include the following: malaria is dangerous, malaria can kill, sleeping inside a mosquito net is important, and mosquitoes spread malaria. Women in Osun and Oyo are most likely to report having heard a malaria prevention message (65% each), while women in Adamawa (12%) and Kaduna (17%) are least likely to have heard a message.
Anaemia Prevalence

Nationally, more than two-thirds of children age 6-59 months are anaemic, and 43% are moderately or severely anaemic. Anaemia in children is relatively high across the states, dropping below 50% in only three states (Borno-Urban, Anambra, and Lagos). Anaemia is especially high (85% or higher) in Jigawa and Zamfara.
Malaria Prevalence

Overall, 27% of children age 6-59 months tested positive for malaria by microscopy in the 2015 NMIS. Malaria in children is most common in Kebbi (64%) and Zamfara (63%), while less than 10% of children tested positive for malaria in Kogi, Borno-Urban, Abia, Imo, Rivers, and Lagos.

Legend

- 0% - 11%
- 12% - 21%
- 22% - 29%
- 30% - 36%
- 37% - 64%

* Figures in parentheses are based on 25-49 unweighted cases
MALARIA PREVALENCE BY ZONE: TRENDS

2010: Malaria Prevalence by Zone

According to the 2010 NMIS, 42% of children age 6-59 months in Nigeria tested positive for malaria by microscopy. In 2010, malaria prevalence was lowest in South East Zone (28%) and highest in South West (50%) and North Central (49%).

2015: Malaria Prevalence by Zone

Malaria prevalence is markedly lower in the 2015 NMIS, with 27% of children age 6-59 months testing positive by microscopy. In 2015, malaria prevalence was lowest in South East (14%) and South West (17%) and highest in North West (37%).