NIGERIA

LAGOS STATE

Monitoring the Situation of Children and Women

MULTIPLE INDICATOR CLUSTER SURVEY

2016-2017

FINAL REPORT

unicef

BILL & MELINDA GATES foundation

World Health Organization

UNFPA

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

WHO UNICEF JMP

MICS

MICS

Nigeria: Lagos State

Multiple Indicator Cluster Survey 2016-17

Final Report

May, 2018

The fifth round Multiple Indicator Cluster Survey (MICS5) was carried out in 2016/2017 by the National Bureau of Statistics (NBS) in collaboration with Lagos Bureau of Statistics (LBS), National Primary Health Care Development Agency (NPHCDA) and National Agency for the Control of Aids (NACA), as part of the global MICS programme. Technical support was provided by the United Nations Children's Fund (UNICEF). World Health Organization (WHO), World Bank, Save One Million Live (SOML), Bill and Melinda Gates Foundation, United Nations Population Funds (UNFPA) and UNICEF provided financial support.

The global MICS programme was developed by UNICEF in the 1990s as an international household survey programme to support countries in the collection of internationally comparable data on a wide range of indicators on the situation of children and women. MICS surveys measure key indicators that allow countries to generate data for use in policies and programmes, and to monitor progress towards the Millennium Development Goals (MDGs) and other internationally agreed upon commitments. The Nigeria MICS5 provided opportunity for strengthening of national statistical capacity by providing technical guidance on data gathering, quality of survey information, statistical tracking and analysis. MICS5 will contributed to the improvement of data and monitoring systems in Nigeria and strengthened technical expertise in the design, implementation and analysis of such systems. In addition, MICS5 provided statistics to complement and assess the quality of data from recent national surveys such as Nigerian General Household Panel Survey (NGHPS) and National Demographic and Health Survey (NDHS) conducted by National Population Commission (NPopC).

As part of devolving the reporting domain to the lower level in Lagos State, sample was taken at the Senatorial district level in order to disaggregate the data at both state and senatorial district. In the history of MICS Nigeria, this is the first time the reporting domain is taking to senatorial level.

Suggested citation:
National Bureau of Statistics (NBS), Lagos State Bureau of Statistics and United Nations Children's Fund (UNICEF). 2018. *Multiple Indicator Cluster Survey 2016-17, Final Report*. Lagos, Nigeria: National Bureau of Statistics and United Nations Children's Fund.

Acknowledgements

We are thankful to the United Nations and international organizations in Nigeria for their contributions in various stages of this project. Special thanks go to UNICEF Nigeria for spearheading the technical and financial support for MICS 2016-17. We are also grateful to United Nations Population Fund (UNFPA), Bill and Melinda Gates Foundation, the World Bank, Kano State Government, and Save One Million Lives (SOML) for their financial contributions to the project. The immense contributions made by UNICEF West and Central Africa Regional Office (WCARO) and UNICEF Headquarters cannot be overemphasized.

Special thanks go to His Excellency the Executive Governor of Lagos State, Mr. Akinwunmi Ambode. Similarly, we recognize the commitment of the Commissioner and the Permanent Secretary Ministry of Economic Planning and Budget for overseeing the successful completion of the survey from inception to the point of publishing this survey findings report, and for their unflinching support and cooperation throughout the survey.

Special appreciation goes to the National Bureau of Statistics (NBS), National Steering and Technical committees, State Statistician General and the entire staff of Lagos Bureau of Statistics (LBS) for their hard work, dedication and contribution towards this endeavour. Those who actively participated in planning and preparation, training, monitoring, data collection, data processing, analysis, editing, interpretation and Survey Finding Report writing processes were acknowledged.

Finally, on behalf of the Lagos State Government, I wish to acknowledge, with gratitude, the cooperation and support of all members of the sampled households who were respondents during the survey. Their participation was very valuable to the success of the survey.

MICS 2016-17 Report for Lagos State is a follow-up to MICS 2016-17 Lagos State Survey Findings Report (SFR) published in October 2017. In this report, some of the important indicators were explained in simple prose format and charts to make it useful and friendly for policy makers. It also contains abridged tables from SFR. Hence, this report for Lagos State should be used as complementary to the Lagos State SFR.

B. 'Tayo Oseni-Ope
Director, Lagos Bureau of Statistics
Lagos State Ministry of Economic Planning and Budget

Table of Contents

List of Tables

List of Figures

Executive Summary

Introduction

This report is based on the Lagos State Multiple Indicator Cluster Survey (MICS), conducted between September 2016 and January 2017 by the National Bureau of Statistics and Lagos Bureau of Statistics, with technical and financial support from UNICEF, WHO, UNFPA, Bill and Melinda Gates Foundation, Save One Million Lives and NACA. The survey provides statistically sound and internationally comparable data essential for developing evidence-based policies and programmes, and for monitoring progress toward national goals and global commitments. Among these global commitments are those emanating from the World Fit for Children Declaration and Plan of Action, the goals of the United Nations General Assembly Special Session on HIV/AIDS, the Education for All Declaration and the Millennium/Sustainable Development Goals (MDGs/SDGs). The Nigeria Multiple Indicator Cluster Survey 2016-17 has been designed to measure achievements of MDGs and provide baseline for SDGs. More specifically, the report will assist Lagos State Government in monitoring and evaluating her programmes and policies to improve the quality of lives of her people.

Survey Objectives

The objectives of Nigeria Multiple Indicator Cluster Survey (MICS) Lagos-Nigeria 2016-17 are to: (1) provide up-to-date information for assessing the situation of children and women in Lagos state (2) generate data for the critical assessment of the progress made in various programme areas, and to identify areas that require more attention (3) contribute to the generation of baseline data for the SDG (4) provide data needed for monitoring progress toward goals established in the post Millennium Declaration and other internationally agreed goals, as a basis for future action (5) provide disaggregated data to identify disparities among various groups to enable evidence based actions aimed at social inclusion of the most vulnerable.

Sample and Survey Methodology

As part of Nigerian MICS 2016-17, the sample for the Lagos State was designed to provide estimates for a large number of indicators on the situation of children and women at the State level, for urban and rural areas, and for the three (3) Senatorial districts namely Lagos Central, Lagos East and Lagos West. The Senatorial Districts within the state were identified as the main sampling Strata while the Enumeration Areas (EAs) within each senatorial district were identified as the Primary Sampling Units (PSUs). The EAs for the survey were selected from the National Integrated Survey of Households round 2 (NISH2) master sample, based on a list of EAs prepared for the 2006 Population Census. Two stage sampling was conducted with the first stage being the selection of enumeration areas within each Senatorial district while the second stage was the selection of households within each enumeration area.

Out of 1,920 households sampled, 1,754 were occupied and 1,681 were successfully interviewed, representing a household response rate of 95.8 percent. Of these, 1,491 women and 707 men age 15-49 years were successfully interviewed.

Questionnaires

Four sets of questionnaires were used in the survey; the household questionnaire, the individual women questionnaire, the individual men questionnaire and the under-five children questionnaire. These were the MICS5 standard questionnaires adapted to Nigeria situation.

Fieldwork and Data Processing

Training for the fieldwork was conducted for thirty-one (31) days in August 2016. The data were collected by 78 teams; each team comprised four interviewers, one driver, one measurer and a supervisor. Fieldwork began in September, 2016 and concluded in January 2017. Using Computer Assisted Personal Interviewing (CAPI), the data were electronically captured from the field and transmitted to a central server, using CSPro CAPI application, Version 5.0. Data were analysed using the Statistical Package for Social Scientists (SPSS) software, Version 21. Model syntax and tabulation plans developed by UNICEF MICS team were customized and used for this purpose.

Characteristics of Women, Men and Under five Children

The age structure of Lagos shows a large proportion of its population are young and a dependency ratio of approximately 70 per 100 persons aged 15 to 64 years.

Women: Approximately ninety-seven percent of the women reside in urban areas while 3 percent live in rural areas of Lagos State. Six out of 10 women (63.6 percent) age 15-49 years are currently married. Very few, 2.5 percent, had no education; 10.9 percent with primary education, 55.8 percent had secondary education and 30.4 percent had higher education. The distribution of women across the wealth index quintiles shows slightly lower percentage among the poorest and second wealth quintile. About three out of five women (65.4 percent) in Lagos State had ever given birth.

Men: About 96.8 percent of the men reside in urban areas, 52.8 percent are currently married and one out of 2 men (50.9 percent) had at least one child. Among the eligible men, 8.6 percent had primary education, 59.2 had secondary education and 30.8 percent had higher education. The distribution of men across the wealth index quintiles shows slightly higher percentage among the second and fourth wealth quintiles.

Children: There are more (95.4 percent) children in urban areas than rural areas (4.6 percent).

Child Mortality

MICS 5 estimate of neonatal mortality rate is 29 per 1,000 live births, while Infant mortality rate is 45 per 1,000 live births. This implies that one out of 22 livebirths in Lagos State die before their first birthday according to the MICS5 2016-17 survey. Also, under-five mortality rate is estimated to be 50 per 1,000 live births - one out of 20 live births die before their fifth birthday.

All the early childhood mortality rates, except neonatal mortality, are consistently highest in Lagos East senatorial districts for the five years preceding MICS 2016-17. The chances of child surviving to fifth birthday are 17 percent and 35 percent higher in Lagos Central and Lagos West respectively than Lagos East.

Nutrition

One of out of 7 children under five years in Lagos State have acute, chronic or both malnutrition. One out of 10 children under five years are stunted while two out of 100 children under five years are severely stunted. One out of 10 children are wasted and three out of 100 are severely wasted.

One out of 4 mothers in Lagos State initiated early breastfeeding as recommended by WHO, however, 7 out of 10 mothers eventually initiated breastfeeding within 24 hour of birth delivery. Estimated 51.8 percent exclusive breastfeeding rate, has met the WHO Global nutrition target of 50 percent. Three of 4 infants are predominantly breastfed, 43.3 percent of children age 6-23 months were fed the minimum

number of times, and 46.2 percent of them received the minimum dietary diversity. Only 16.2 percent of children ages 6-23 months had a diet sufficient in both diversity and frequency

Salt Iodization

Iodized salt containing 15 ppm or more are consumed in 87% of sampled household with higher prevalence in Lagos West senatorial districts.

Low Birth Weight

Only one out of 13 live births were weighed at birth, and nineteen percent of these births are classified as low weight because they are less than 2,500 grams at birth. Proportion of low birth weights babies is highest in Lagos East (13.7 percent), followed by Lagos Central (10.5 percent) and lowest in Lagos West (8.3 percent). Also, higher proportions of babies born in rural areas, birth order 4-5, mothers age at birth is between 20-34, mothers with primary education, and poor wealth quintile households have low birth weight than other groups in Lagos State.

Child health

Vaccination coverage is an important indicator of Immunization, one of the cost-effective means of ending preventable deaths of newborn and under 5 children. Sixty-three percent of children age 12-23 months in Lagos State received all recommended vaccination by their first birthday in the survey. Specific vaccine coverage are 93 percent for Tuberculosis; 76 percent coverage for polio, 82 percent coverage for pentavalent vaccine, 89 percent coverage for Measles and 85 percent coverage for yellow fever. Vaccination coverage reduces with time for multi-dose vaccines such as Polio, PCV, and pentavalent vaccine containing DPT, Hepatitis B and Haemophilus influenza type B. The Lagos MICS 2016/17 survey also showed that 87 percent of women with a live birth in the last two years prior to the survey received antenatal tetanus toxoid, which protected them against neonatal tetanus.

Malaria prevention in pregnancy was adequate in 8.9 percent women age 15-49 years, who received three or more doses of SP/Fansidar during their last pregnancy that led to a live birth in the last 2 years.Reported illnesses in under-five children, two weeks preceding survey, are diarrhoea in 6.5 percent, ARI in 0.8 percent, and malaria fever in 9.9 percent of children under five.

Water and Sanitation

Access to safe and clean drinking water and sanitation is essential to human health. Ninety-four percent of household members use improved sources of drinking water in Lagos State. Only 5.7 percent of households using unimproved drinking water sources have appropriate water treatment method: 10.5% boil water, 4.8% add bleach or chlorine to water and 0.5% use water filter. About ninety-six percent of household population use improved sanitation facility that are not shared. Overall, 42.5% of households have both improved drinking water source and improved sanitation facility. One out of 4 households have a specific place for handwashing where water and soap or other cleansing agents are present.

E.Coli contaminated drinking water is high and of public health concern as 73 percent of household members in Lagos drink faecal contaminated water. Percentage of Household with improved drinking water sources accessible on the premises, available when needed, and free from faecal contamination is low at 8.9 percent.

Reproductive Health

Fertility is high in the Lagos population, as a woman according to the survey will have about 4 children over her childbearing years. Adolescent birth rate is 21 per 1,000 women in the 15-19 age group. Adolescent fertility differentials per 1,000 women age 15-19 are: 0 in the richest quantile; 25 in the

poorest quantile; 0 in women with higher education; 16 in women with no education. Also, *one out of 20 women age 20-24 have had a live birth before age 18.*

One out of 5 women currently married or in union are using contraception (22.6 percent). Unmet need for family planning in Lagos State is 29.6 percent. The most commonly used contraceptive method is injectable (4.6% percent). Contraceptive prevalence ranges from 27.4 percent in Lagos West to 13.5 percent in Lagos East. About 23 percent of married women in urban areas and 13 percent in rural areas use a method of contraception. Adolescents are far less likely to use contraception than older women in Lagos State.

About 92 percent received antenatal care from a skilled provider and 44.7 percent of women with a live birth in the last two years had adequate antenatal visit (four or more antenatal visits). Nine out of 10 births were delivered by skilled personnel - doctor, nurse, midwife or auxiliary midwife. 79.5 percent of women age 15-49 used health facility for their last delivery; 25.4 percent in public health facilities and 54.1 percent in private health facilities.

Early childhood development

Eight out of 10 children attend organized early childhood education programme in Lagos State, with more children in Lagos East than other senatorial districts. About 92.9 percent of the children have an adult household member engage them on four or more activities that promote learning and school readiness. Involvement of biological parents in activities that support early learning is low (28.6 percent) for fathers and high (69.1 percent) for mothers. Only 21.1 percent of the children live in households where there are at least 3 children's books accessible to the child. Nine out of ten children age 36-59 months are developmentally on track in at least three of the four early childhood development domains. One out of five children were left with inadequate care either by being left alone or in the care of another child.

Literacy and Education

The percentage of young people age 15-24 years who can read a short simple statement about everyday life or who attended secondary or higher education was used in the survey to estimate literacy rate. Literacy rate in Lagos state is 93.1 percent for women and 98.3 percent for men age 15-24. School readiness is also high at 89 percent of children in the first grade of primary school attended pre-school the previous year.

Net intake rate in primary education in Lagos State is 78.2 percent. About three-quarter of children of school-entry age were enrolled in first grade of primary school. Nine out of ten of primary school age children and eight out of ten secondary school age children are currently attending school. 98 percent of children reach final grade (primary 6) in government-owned primary school in Lagos State.

Primary school completion rate is 64. This implies that two out of 3 children of primary completion age of 11 years are in the last grade of primary education. Transition rate to secondary school is 83.4 percent. Gender parity for primary school is 1.03 and 1.04 for primary and secondary school respectively.

Child protection

Eighty-two percent of children under age 5 have their birth registered under civil authority. About 17 percent of children are involved in child labour, while 11 percent are working under hazardous condition. In Lagos State, about 87 percent of children age 1-14 years was subjected to at least one form of violent discipline.

The percentage of women who married before age 15 years in Nigeria is 3.5 percent. Eight percent of women age 20-49 years married before age 18 years. About 25 percent of women had some form of female genital mutilation. Only 4.7 percent women in Lagos State feel that a husband/partner is justified in hitting or beating his wife in at least one of the five situations.

HIV/AIDS and Sexual Behaviour

Majority of young people in Lagos State have heard of HIV/AIDS but few have correct and comprehensive knowledge of the disease. Twenty-nine percent of women and thirty-four percent of men have knowledge of the two main ways of HIV prevention. About half of the women can identify the 3 ways of HIV transmission from mother to child. Stigma and discrimination is still high in Lagos State because only about one out of ten persons have accepting attitude towards people living with HIV.

Six out of 10 men and women age 15-49 know where to do HIV test. Although both men and women know where to go for test, more women actually do the test before or in the last 12 months to the survey.

Early sexual debut is higher in Lagos Central, among young people age 18-19 who do not have education, married, live in poorest wealth quintile household and in urban areas. Other risk factors for HIV/AIDS are having multiple sexual partner and sex with a non-marital, non-cohabiting partner, as well as age-mixing among sexual partner; 5 percent of women age 15-49 had sex with more than one partner in the last 12 months. Percentage of men (12 percent) who were engaged in the same risky sexual behaviour is higher than female. Age mixing is a not very common in Lagos State as 17 percent women age 15-24 reported that they had sex with a man 10 or more years older. Thirty-two percent of young men and 27 percent of young women who had sex with non-marital and non-cohabiting partners reported use of condom during the last sex in the last 12 months preceding the survey.

Access to Mass Media and Use of Information/Communication Technology

Exposure to specific media (newspapers/magazines, radio and television) at least once a week among young people is high in Lagos State- 87 percent of young women and 96 percent of young men. Exposure to computer and the internet is also high- 63 percent and 64 percent of young women and men had ever used computer respectively. Also 72 percent and 67 percent of young women and men had ever used internet respectively.

Subjective well-being

At least eight out of 10 young women and men age 15-24 years are very or somewhat happy. Young people who are happy are more than those who are satisfied with life, and those who are satisfied with life are more than those who perceived a better life. Lagos Central has the highest percentage of young women who perceived a better life (77.7 percent). Lagos West has the highest percentage of young men who perceived a better life (95.3 percent).

Seven out of 10 young women and nine out of 10 young men perceived that their lives improved during the last one year and expect that it will get better after one year.

Tobacco and Alcohol Use

Ever use of tobacco products is higher among men than women in the last one month: 26.1 percent of men and 2.6 percent of women. Current use of tobacco product is higher among males in Lagos West (9.2 percent) than Lagos East (8.2 percent) and Lagos Central (7.4 percent).

Use of alcohol is also higher among men than women in the last one month as 44.4 percent of men use alcohol while 9.6 percent of women use alcohol. Percentage of people age 15-49 who had at least one alcoholic drink whole before age 15 years is 9.7 percent of men and 3 percent of women

I. Introduction

Background

This report is based on the Lagos State Multiple Indicator Cluster Survey (MICS), conducted between September 2016 and January 2017 by the National Bureau of Statistics and Lagos Bureau of Statistics, with technical and financial support from UNICEF, WHO, UNFPA, Bill and Melinda Gates Foundation, Save One Million Lives and NACA.The survey provides statistically sound and internationally comparable data essential for developing evidence-based policies and programmes and for monitoring progress toward national goals and global commitments. Among these global commitments are those emanating from the World Fit for Children Declaration and Plan of Action, the goals of the United Nations General Assembly Special Session on HIV/AIDS, the Education for All Declaration and the Sustainable Development Goals (SDGs).

The Federal Government of Nigeria has made several efforts to achieve the objectives and aspirations expressed in the SDGs. The Government has also expressed strong commitment to and declared as a matter of high priority, efforts to monitor and evaluate progress towards the attainment of the benchmarks established in the World Fit for Children goals, the UNICEF Country Programme, the Convention on the Rights of the Child (CRC) and the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), among others.

In recent times, a number of development initiatives were launched to improve the economic and social life of the people. The Change agenda of the present Government and Vision 20:2020 are developed to create employment, increase and stabilise electricity power supply, improve social and economic infrastructure and provide the enabling environment for local and foreign investments and to become one of the twenty leading economies in the world by year 2020.

The National Bureau of Statistics (NBS), an agency of the Federal Government of Nigeria, with strong financial and technical support from International Development partners and donors like UNICEF, UNFPA and DFID among others has also been involved in effort to achieve the goals through provision of relevant data to monitor, evaluate and advise necessary adjustment in development programmes. The Nigeria Multiple Indicator Cluster Survey 2016-17 conducted by NBS has been designed to measure achievements of MDGs and provide baseline for SDGs. More specifically, the report will assist Lagos State Government in monitoring and evaluating her programmes and policies to improve the quality of lives of her people.

Survey Objectives

The objectives of Nigeria Multiple Indicator Cluster Survey (MICS) Lagos-Nigeria 2016-17are to:

- ✓ provide up-to-date information for assessing the situation of children and women in Lagos;
- ✓ generate data for the critical assessment of the progress made in various programme areas and to identify areas that require more attention;
- ✓ contribute to the generation of baseline data for the SDG;

- ✓ provide data needed for monitoring progress toward goals established in the post Millennium Declaration and other internationally agreed goals, as a basis for future action;
- ✓ provide disaggregated data to identify disparities among various groups to enable evidence based actions aimed at social inclusion of the most vulnerable.
- ✓ contribute to the generation of baseline data for the post-2015 agenda;
- ✓ validate data from other sources and the results of focused interventions.

II. Sample and Survey Methodology

Sample Design

As part of Nigerian MICS 2016-17, the sample for Lagos State was designed to provide estimates for a large number of indicators on the situation of children and women at the State level, for urban and rural areas and for the three (3) Senatorial districts namely Lagos Central, Lagos East and Lagos West. The Senatorial Districts within the state were identified as the main sampling Strata while the Enumeration Areas (EAs) within each senatorial district were identified as the Primary Sampling Units (PSUs). The EAs for the survey were selected from the National Integrated Survey of Households round 2 (NISH2) master sample, based on a list of EAs prepared for the 2006 Population Census. Two stage sampling was conducted with the first stage being the selection of enumeration areas within each Senatorial district while the second stage was the selection of households within each enumeration area.

Considering the different number of EAs in the three senatorial districts in the state; 34, 40 and 46 were selected from Lagos Central, Lagos East and Lagos West (respectively) using random systematic sampling. Consequently, a total of 120 EAs were selected from the three senatorial districts. After a household listing was carried out within the selected EAs, a systematic sample of sixteen (16) households was drawn in each sample enumeration area. The sample is not self-weighting, however for reporting results, sample weights were applied. A more detailed description of the sample design can be found in Appendix A.

Questionnaires

Four sets of questionnaires were used in the Lagos- Nigeria, 2016-17 survey:

1. **Household questionnaire** - used to collect basic demographic information on all the household members (usual residents) and household characteristics;

Household questionnaire modules	• Household Information Panel • List of Household Members • Education • Child Labour • Child Discipline • Household Characteristics • Insecticide Treated Nets • Water and Sanitation • Handwashing • Salt Iodization • Water Quality Test

2. Individual women questionnaire - administered in each household to all women age 15-49 years;

Individual women questionnaire modules	• Woman Information Panel • Woman's Background • Access to Mass Media and Use of Information/Communication Technology • Fertility/Birth History • Desire for Last Birth • Maternal and New-born Health • Post-natal Health Checks • Illness Symptoms • Use of Contraception • Unmet Need for Contraception • Female Genital Mutilation/Cutting • Attitudes Toward Domestic Violence • Marriage/Union • Sexual Behaviour • HIV/AIDS • Tobacco and Alcohol Use • Life Satisfaction

3. Individual men questionnaire - administered to all men age 15-49 years in every other (one in every two) households;

Individual men questionnaire modules	• Man Information Panel • Man's Background • Access to Mass Media and Use of Information/Communication Technology • Fertility • Attitudes Toward Domestic Violence • Marriage/Union • Sexual Behaviour • HIV/AIDS • Circumcision • Tobacco and Alcohol Use • Life Satisfaction

4. Under-5 children questionnaire - administered to mothers or caretakers of all children less than 5 years of age[1] living in sampled households.

[1]*The terms "children under 5", "children age 0-4 years" and "children age 0-59 months" are used interchangeably in this report.*

Under-5 children questionnaire modules	• Under Five Information Panel • Age • Birth Registration • Early Childhood Development • Breastfeeding and Dietary Intake • Immunization • Care of Illness • Anthropometry

The questionnaires are based on the MICS5 questionnaire[2]model {English version}, which were customised and pre-tested in the state in April, 2016.Based on the results of the pre-test, modifications were made to the wording of the questionnaires. A copy of the Lagos-Nigeria MICS 2016-2017 questionnaires is provided in Appendix F.

In addition to the administration of questionnaires, fieldwork teams; tested the salt used for cooking in the households for iodine content, conducted household water quality tests, observed hand washingplaces and measured the weights and heights of children age under 5 years. Details and findings of these observations and measurements are provided in the respective sections of the report.

Training and Fieldwork

Training for the fieldwork was conducted for thirty-one (31) days in August 2016. Training included lectures on interviewing techniques and contents of the questionnaires. Mock interviews among trainees were also conducted to gain practice in asking questions. Towards the end of the training period, trainees spent 2 days in field practice in purposively selected residential areas in 2 communities in the state.

The data were collected by 4 teams; each team comprised of four interviewers, a supervisor one editor, one measurer and one driver. Fieldwork began in September 2016 and was concluded in January, 2017.

Data Processing

Using Computer Assisted Personal Interviewing (CAPI), the data were electronically captured from the field and transmitted to a central server, using CSPro CAPI application, version 5.0. Being the first time of using CAPI, the programme was pre-tested to know the effectiveness and efficiency of the device. Using CAPI to capture data helps in reducing error associated with paper questionnaire such as omission and skipping errors.

Data were analyzed using the Statistical Package for Social Scientist (SPSS) software, version 21. Model syntax and tabulation plans developed by UNICEF MICS team were customized and used for this purpose.

[2]*The model MICS52016-17 questionnaires can be found at* ***http://mics.unicef.org/tools#survey-design****.*

III. Sample Coverage and the Characteristics of Households and Respondents

Sample Coverage

Out of 1,920 households sampled, 1,754 were occupied and 1,681 were successfully interviewed, representing a household response rate of 95.8 percent. In the interviewed households, 1,584 women (age 15-49 years) were identified. Of these, 1,491 were successfully interviewed, yielding a response rate of 94.1 percent within the interviewed households.

The survey also sampled men (age 15-49), but only a subsample was required. A total of 784 men (age 15-49) were identified in 928 selected households for the men's questionnaire. The questionnaires were completed for 707 eligible men, which corresponds to a response rate of 90.2 percent within eligible interviewed households.

Questionnaires were completed for 930 of the 943 children under age five listed for the household questionnaires, which corresponds to a response rate of 98.6 percent of the interviewed households. Overall response rates of 90.2, 86.4 and 94.5 are calculated for the individual interviews of women, men andunder-5s, respectively (Table 3.1).

Table 3.1 (HH1): Results of household, women's, men's and under-5 interviews

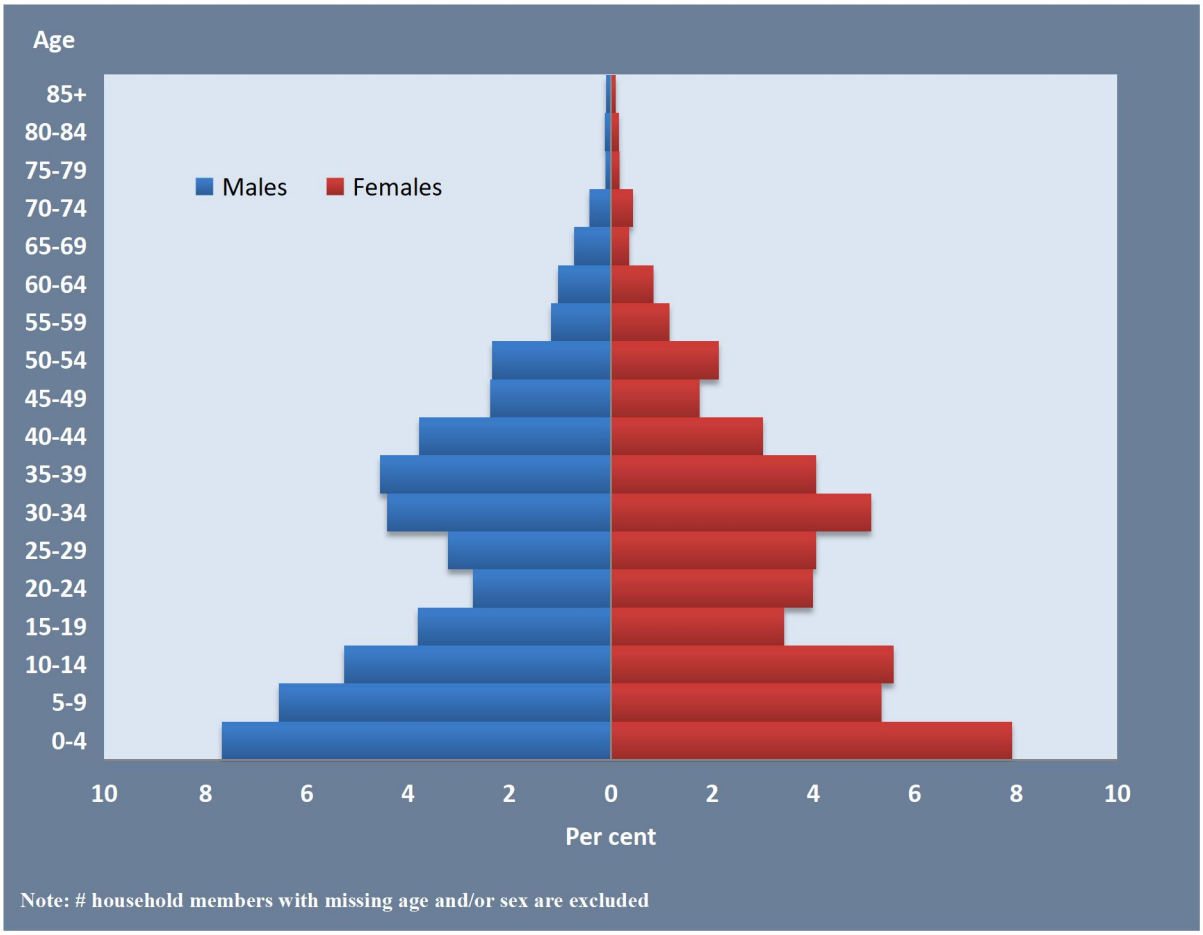
Number of households, women, men and children under 5 by interview results and household, women's, men's and under-5's response rates, Nigeria, 2016-17, Lagos State

		Residence		Senatorial District		
	Total	Urban	Rural	Lagos Central	Lagos East	Lagos West
Households						
Sampled	**1,920**	1,808	112	544	640	736
Actual coverage	**1,856**	1,744	112	496	624	736
Occupied	**1,754**	1,645	109	481	589	684
Interviewed	**1,681**	1,574	107	463	551	667
Household response rate	***95.8***	*95.7*	*98.2*	*96.3*	*93.5*	*97.5*
Women						
Eligible	**1,584**	1,492	92	421	528	635
Interviewed	**1,491**	1,401	90	404	472	615
Women's response rate	***94.1***	*93.9*	*97.8*	*96.0*	*89.4*	*96.9*
Women's overall response rate	***90.2***	*89.8*	*96.0*	*92.4*	*83.6*	*94.4*
Men						
Eligible	**784**	739	45	222	247	315
Interviewed	**707**	664	43	202	207	298
Men's response rate	***90.2***	*89.9*	*95.6*	*91.0*	*83.8*	*94.6*
Men's overall response rate	***86.4***	*86.0*	*93.8*	*87.6*	*78.4*	*92.3*
Children under 5						
Eligible	**943**	850	93	222	309	412
Mothers/caretakers interviewed	**930**	838	92	222	303	405
Under-5's response rate	***98.6***	*98.6*	*98.9*	*100.0*	*98.1*	*98.3*
Under-5's overall response rate	***94.5***	*94.3*	*97.1*	*96.3*	*91.7*	*95.9*

Characteristics of Households

The weighted age and sex distribution of the survey population is presented in a pyramid in figure3.1. A weighted total of6,452 household members were listed: 3,261 were males and 3,191 were females. The population pyramid shown in figure 3.1 indicates that there is even distribution at the base up to the age group 15-19. The age structure of Lagos shows a large proportion of its population are young and a dependency ratio of approximately70 per 100 persons aged 15 to 64 years.

Figure 3.1: Age and sex distribution of household population, Nigeria, 2016-17Lagos State



Characteristics of female and male respondents 15-49 years of age and children under-5

Tables 3.1 provide information on the background characteristics of female and male respondents 15-49 years of age and of children under age 5. In all the three tables, the total numbers of weighted and unweighted observations are equal, since sample weights have been normalized (standardized). In addition to providing useful information on the background characteristics of women, men and children under age five, the tables are also intended to show the numbers of observations in each background category. These categories are used in the subsequent tabulations of this report.

Table 3.2 provides background characteristics of female respondents, age 15-49 years and includes information on senatorial district area of residence, age, marital/union status, motherhood status, births in last two years, education[3], wealth index quintiles[4, 5] and ethnicity[6] of the household head.

Approximately ninety-seven percent of the women reside in urban areas while 3percent live in rural areas of Lagos State. Six out of 10 women (63.6 percent) age 15-49 years are currently married, while 30.9 percent of them are never married. Very few, 2.5 percent, had no education; 10.9 percent with primary education, 55.8 percent had secondary education and 30.4 percent had higher education. The distribution of women across the wealth index quintiles shows slightly lower percentage among the poorest and second wealth quintile. About three out of five women (65.4 percent) in Lagos State had ever given birth.

Table 3.3 also shows background characteristics of male respondents who are between 15 and 49 years. The distribution is based on district, residence, age, marital status, fatherhood status, education, wealth index quintiles and ethnicity of the household head. About 96.8 percent of the men reside in urban areas, 52.8 percent are currently married and one out of 2 men (50.9 percent) had at least one child.

---

[3] Throughout this report, unless otherwise stated, "education" refers to highest educational level ever attended by the respondent when it is used as a background variable.

[4] The wealth index is a composite indicator of wealth. To construct the wealth index, principal components analysis is performed by using information on the ownership of consumer goods, dwelling characteristics, water and sanitation and other characteristics that are related to the household's wealth, to generate weights (factor scores) for each of the items used. First, initial factor scores are calculated for the total sample. Then, separate factor scores are calculated for households in urban and rural areas. Finally, the urban and rural factor scores are regressed on the initial factor scores to obtain the combined, final factor scores for the total sample. This is carried out to minimize the urban bias in the wealth index values.

Each household in the total sample is then assigned a wealth score based on the assets owned by that household and on the final factor scores obtained as described above. The survey household population is then ranked according to the wealth score of the household they are living in and is finally divided into 5 equal parts (quintiles) from lowest (poorest) to highest (richest).

In Nigeria MICS 2016-17,the following assets were used in these calculations: Type of floor, roof, wall, fuel used by household for cooking, household assets, source and location of drinking water and sanitation facility.

The wealth index is assumed to capture the underlying long-term wealth through information on the household assets and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels. The wealth scores calculated are applicable for only the particular data set they are based on.

Further information on the construction of the wealth index can be found in Filmer, D and Pritchett, L. 2001. *Estimating wealth effects without expenditure data – or tears: An application to educational enrolments in states of India*. Demography 38(1): 115-132; Rutstein, SO and Johnson, K. 2004. *The DHS Wealth Index*. DHS Comparative Reports No. 6; and Rutstein, SO. 2008. *The DHS Wealth Index: Approaches for Rural and Urban Areas*. DHS Working Papers No. 60.

[5]When describing survey results by wealth quintiles, appropriate terminology is used when referring to individual household members, such as for instance "women in the richest population quintile", which is used interchangeably with "women in the wealthiest survey population", "women living in households in the richest population wealth quintile" and similar.

[6]This was determined by asking describe the questions asked and used for the construction of this background variable; typical questions asked in MICS surveys are mother tongue, ethnic background and/or religion.

Among the eligible men, 8.6percent had primary education,59.2 had secondary education and 30.8 percent had higher education. The distribution of men across the wealth index quintiles shows slightly higher percentage among the second and fourth wealth quintiles.

Table 3.2 (HH.4): Women's background characteristics

Percent and frequency distribution of women age 15-49 years by selected background characteristics, Nigeria, 2016-2017Lagos State

	Weighted percent	Number of women	
		Weighted	Unweighted
Total	**100.0**	**1,491**	**1,491**
Senatorial District			
Lagos Central	14.9	223	404
Lagos East	21.6	323	472
Lagos West	63.4	946	615
Residence			
Urban	96.8	1,443	1,401
Rural	3.2	48	90
Age(Years)			
15-19	12.9	192	196
20-24	15.4	230	219
25-29	16.1	241	251
30-34	20.5	305	297
35-39	16.4	245	245
40-44	11.7	174	170
45-49	7.0	104	113
Marital/Union status			
Currently married/in union	63.6	948	945
Widowed	(*)	21	22
Divorced	(*)	7	8
Separated	3.6	53	58
Never married/in union	30.9	460	456
Motherhood and recent births			
Never gave birth	34.6	515	505
Ever gave birth	65.4	975	985
Gave birth in last two years	24.9	371	364
No birth in last two years	40.5	604	621
Missing			
Education	(2.5)	38	44
None	(*)	6	5
Non-formal	10.9	163	160
Primary	55.8	831	871
Secondary	30.4	453	411
Higher			
Wealth index quintile	17.7	265	300
Poorest	18.6	278	283
Second	20.2	301	293
Middle	22.6	337	342
Fourth	20.8	311	273
Richest			
Ethnicity of household head	(2.3)	34	32
Hausa	24.6	366	354
Igbo	62.5	931	950
Yoruba	10.7	159	155
Other ethnic group	2.2	55	54

Table 3.3 (HH.4M): Men's background characteristics

Percent and frequency distribution of men age 15-49 years by selected background characteristics, Nigeria, 2016-2017Lagos State

	Weighted percent	Number of men	
		Weighted	Unweighted
Total	**100.0**	**707**	**707**
Senatorial District			
Lagos Central	16.4	116	202
Lagos East	20.4	145	207
Lagos West	63.2	447	298
Residence			
Urban	96.8	685	664
Rural	(3.2)	22	43
Age			
15-19	15.4	109	116
20-24	12.5	88	93
25-29	11.2	79	81
30-34	17.8	126	130
35-39	18.0	127	116
40-44	15.1	106	101
45-49	10.0	70	70
Marital/Union status			
Currently married/in union	52.8	373	364
Widowed	(*)	5	3
Separated	(*)	16	23
Never married/in union	44.3	313	317
Fatherhood status			
Has at least one living child	50.9	360	356
Has no living children	49.1	347	351
Education			
None	(*)	8	10
Non-formal	(*)	2	3
Primary	8.6	61	54
Secondary	59.2	418	426
Higher	30.8	218	214
Wealth index quintile			
Poorest	18.2	128	141
Second	22.3	157	152
Middle	18.1	128	123
Fourth	22.9	162	166
Richest	18.5	131	125
Ethnicity of household head			
Hausa	97.5	1,072	1,071
Igbo	0.2	2	2
Yoruba	0.2	3	3
Other ethnic group	2.0	22	23

Total weighted and unweighted numbers of men should be equal when normalized sample weights are used.

Table 3.4 presents background characteristics of children under-5 in the interviewed household based on sex of the child, district and area, age in months, respondent type, mother's (or caretaker's) education, wealth and ethnicity of the household head. There are more (95.4 percent) children in urban areas than rural areas (4.6 percent).

Table 3.4 (HH.5): Under-5's background characteristics

Percent and frequency distribution of children under five years of age by selected characteristics, Nigeria, 2016-2017Lagos State

	Weighted percent	Number of under-5 children	
		Weighted	Unweighted
Total	**100.0**	**930**	**930**
Senatorial District			
Lagos Central	13.7	128	222
Lagos East	20.2	188	303
Lagos West	66.1	615	405
Sex			
Male	49.6	462	456
Female	50.4	468	474
Residence			
Urban	95.4	887	838
Rural	4.6	43	92
Age (Months)			
0-5	8.3	77	83
6-11	9.4	88	87
12-23	20.9	195	187
24-35	22.3	207	202
36-47	20.3	189	191
48-59	18.8	175	180
Respondent to the under-5 questionnaire			
Mother	96.6	898	899
Other primary caretaker	(3.4)	32	31
Mother's education[a]			
None	4.8	44	50
Non-formal	(*)	4	4
Primary	13.1	122	126
Secondary	51.5	479	499
Higher	30.2	281	251
Wealth index quintile			
Poorest	21.2	197	237
Second	20.9	194	189
Middle	20.6	192	185
Fourth	16.9	158	166
Richest	20.3	189	153
Ethnicity of household head			
Hausa	(4.0)	37	36
Igbo	25.2	234	219
Yoruba	59.2	550	569
Other ethnic group	11.7	108	106

[a] In this table and throughout the report, mother's education refers to educational attainment of mothers as well as caretakers of children under 5, who are the respondents to the under-5 questionnaire if the mother is deceased or is living elsewhere.

( ) Sample data are based on 25-49 unweighted cases

(*) Sample data are fewer than 25 unweighted cases

Housing characteristics, asset ownership and wealth quintiles

Tables 3.5 provide further details on household characteristics. It presents characteristics of housing in Lagos which reflect a household's socioeconomic situation. It also includes information on availability of electricity, the main materials of the flooring, roof and exterior walls, as well as the number of rooms used for sleeping. This is disaggregated by senatorial districts and residence.

Table 3.5 (HH 6): Housing characteristics

Percent distribution of households by selected housing characteristics, according to area of residence and regions, Nigeria, 2016-2017Lagos State

		Residence		Senatorial District		
	Total	Urban	Rural	Lagos Central	Lagos East	Lagos West
Electricity						
Yes	99.1	99.3	92.7	98.7	98.5	99.5
No	0.9	0.7	7.3	1.3	1.5	0.5
Flooring						
Natural floor	0.4	0.4	0.0	0.5	0.7	0.3
Rudimentary floor	0.0	0.0	0.0	0.0	0.1	0.0
Finished floor	98.6	98.6	100.0	99.3	99.2	98.3
Other	0.9	1.0	0.0	0.3	0.0	1.4
Roof						
Natural roofing	0.0	0.0	0.0	0.0	0.1	0.0
Rudimentary roofing	1.3	1.3	1.7	1.5	3.9	0.4
Finished roofing	98.6	98.7	96.6	98.5	95.7	99.6
Other	0.1	0.0	1.7	0.0	0.3	0.0
Exterior walls						
Natural walls	0.0	0.0	0.0	0.0	0.0	0.0
Rudimentary walls	0.2	0.1	0.6	0.2	0.4	0.1
Finished walls	99.8	99.9	99.4	99.8	99.6	99.9
Other	0.0	0.0	0.0	0.0	0.0	0.0
Rooms used for sleeping						
1	66.2	66.0	69.8	75.1	69.8	62.7
2	24.6	24.6	22.6	17.4	21.9	27.3
3 or more	9.3	9.3	7.6	7.6	8.3	10.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	1,681	1,627	54	269	358	1,054
Mean number of persons per room used for sleeping	2.9	2.9	3.2	2.9	3.0	2.8

Access to Electricity: Ninety-nine percent of households in Lagos have access to electricity, (99.3 percent in urban and 92.7 percent in rural). Lagos West has more access to electricity than other senatorial districts.

Flooring material: Finished floor is the most common flooring material used in Lagos households (98.6 percent). All the households interviewed in rural areas of Lagos State used finished flooring while98.6 percent of households in urban areas used the same type of flooring.

Roofing material: About 98.6 percent households in Lagos used finished roofing. There is no remarkable difference across senatorial districts and area of residence as at least 9 out of 10 households used finished roofing. Only 1.3 percent of households in Lagos use rudimentary roofing.

Wall material: In Lagos, 99.8 percent of households used finished walls while only 0.2 used rudimentary wall. At least 9 out of 10 households used finished walls across all senatorial districts and area of residence.

Sleeping room: The number of rooms used for sleeping in relation to the number of household members is an indication of the extent of crowding, which in turn increases the risk of contracting communicable diseases. Sixty-six percent of households use one room for sleeping, 24.6 percent use two rooms and 9.3 percent use 3 or more rooms for sleeping in Lagos State. This implies that at least 2 out 3 households are likely to be overcrowded in Lagos. This is more common in Lagos Central senatorial district where 75.1 percent of households used just one room for sleeping.

Asset ownership

Table 3.6 shows percentage distribution of ownership of assets by households and by individual household members, as well as ownership of dwellings. The possession and use of household durable goods have multiple effects and implications. For instance, a radio or a television can bring household members information and new ideas, a refrigerator prolongs the wholesomeness of foods and a means of transport can increase access to many services that are beyond walking distance.

About 65 percent of households in Lagos have radios, 95.4 percent have mobile telephones, 88.2 percent have televisions and about 53.9 percent have refrigerators. In both urban and rural areas, only a small percentage of households possess a means of transport. More households in rural areas own a motorcycle or scooter (9.2 percent) than urban areas. Only 18.6 percent of households in Lagos own a car or truck. Few households in Lagos own agricultural land (9.1 percent) and farm animals/Livestock (2.8 percent). Overall, about 86 percent of households have a bank account, with 87.2 percent and 52.6 percent in urban and rural households respectively. One in 7 households in Lagos own a dwelling (15.3 percent); 40 percent in ruraland15 percent in urban areas.

The percentages of households that own a television, mobile telephone, car and bank account are lower in Lagos West than other districts. However, Lagos West have highest percentages of household that own agricultural land, as well as, animal and livestock. Agricultural land and farm animal ownership is prominently attached to the rural areas. Therefore, senatorial districts with predominantly rural areas have higher percentages.

Table 3.6 (HH.7): Household and personal assets

Percentage of households by ownership of selected household and personal assets and percent distribution by ownership of dwelling, according to area of residence and regions, Nigeria, 2016-17, Lagos state

		Residence		Senatorial District		
	Total	Urban	Rural	Lagos Central	Lagos East	Lagos West
Percentage of households that own a						
Radio	**64.6**	64.7	60.9	54.9	61.1	68.3
Television	**88.2**	88.5	78.2	87.7	86.7	88.9
Non-mobile telephone	**1.0**	1.1	0.0	1.2	0.8	1.1
Refrigerator	**53.9**	54.8	26.0	53.8	50.0	55.2
Percentage of households that own						
Agricultural land	**9.1**	8.2	37.4	5.9	15.8	7.7
Farm animals/Livestock	**2.8**	2.4	15.0	1.4	5.1	2.4
Percentage of households where at least one member owns or has a						
Watch	**84.8**	85.2	71.0	83.3	80.5	86.6
Mobile telephone	**95.4**	95.7	88.1	94.0	95.2	95.9
Bicycle	**6.4**	6.5	3.5	2.6	4.8	7.8
Motorcycle or scooter	**3.2**	3.0	9.2	4.2	6.6	1.8
Animal-drawn cart	**0.2**	0.2	0.0	0.0	0.4	0.1
Car or truck	**18.6**	19.0	6.1	16.5	16.8	19.8
Boat with a motor	**0.6**	0.4	6.2	0.3	1.3	0.4
Bank account	**86.1**	87.2	52.6	87.4	80.7	87.6
Ownership of dwelling						
Owned by a household member	**15.3**	14.5	40.0	12.1	25.0	12.8
Not owned	**84.7**	85.5	60.0	87.9	75.0	87.2
Rented	**77.5**	78.5	49.2	81.3	72.0	78.5
Other	**7.2**	7.1	10.8	6.6	3.0	8.8
Total	**100.0**	100	100	100.0	100.0	100.0
Number of households	**1,681**	1,627	54	269	358	1,054

Wealth quintiles

Table 3.7 presents wealth quintiles by residence and senatorial district of Lagos State. About 64.9 percent of the population in the rural areas are in the poorest wealth quintile, in contrast to 18.4 percent of the population in urban areas. Among senatorial districts, the wealth quintile distribution varies; 24.3 percent of the population in the Lagos West are in the richest quintile, while 12.2percent in Lagos East and 13.3 percent in Lagos Central are in the richest quintile.

Table 3.7 (HH.8): Wealth quintiles

Percent distribution of the household population by wealth index quintile, according to area of residence and regions, Nigeria, 2016-2017 Lagos State

	Wealth index quintile						
	Poorest	Second	Middle	Fourth	Richest	Total	Number of household members
Total	**20.0**	**20.0**	**20.0**	**20.0**	**20.0**	**100.0**	**6,452**
Residence							
Urban	18.4	19.8	20.6	20.5	20.8	100.0	6,225
Rural	64.9	26.1	2.3	6.7	0.0	100.0	227
Senatorial District							
Lagos Central	21.2	22.1	22.6	20.8	13.3	100.0	968
Lagos East	27.8	20.1	18.7	21.2	12.2	100.0	1,385
Lagos West	17.1	19.5	19.8	19.4	24.3	100.0	4,099

IV. Child Mortality

One of the overarching goals of the Sustainable Development Goals (SDGs) is to ensure healthy lives and promote well-being for all at all ages. A key target of this goal is to end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births by 2030. It is important to monitor the progress of this target in Nigeria where under-five mortality, though reducing, is still relatively high.

Mortality rates presented in this chapter are calculated from information collected in the birth histories of the Women's Questionnaires. All interviewed women who had ever given birth were asked to report the number of sons and daughters who live with them, the number who live elsewhere, the number who have died and a detailed retrospective birth history in chronological order starting with the firstborn. In Lagos-Nigeria MICS, an indirect method, known as the Brass method[7], was used. Robust estimates of the early childhood mortality rates are produced by this indirect method and are comparable with those obtained by applying direct methods. The data used by the indirect methods are: the mean number of children ever born of women age 15 to 49 years and the proportion of these children who are dead. The technique converts the proportions dead among children of women in each 10-14 group into probabilities of dying by taking into account the approximate length of exposure of children to the risk of dying, assuming a particular model age pattern of mortality. Based on previous information on mortality in Lagos, the model life table was selected as most appropriate.

Childhood mortality rates are expressed by conventional age categories and are defined as follows:

- Neonatal mortality (NN): probability of dying within the first month of life
- Post-neonatal mortality (PNN): difference between infant and neonatal mortality rates
- Infant mortality ($_1q_0$): probability of dying between birth and the first birthday

KEY FINDINGS

In Lagos State:

Neonatal mortality rate is 29 per 1,000 live births.

Infant mortality rate is 45 per 1,000 live births.

Under-five mortality rate is 50 per 1,000 live births.

One out of 22 live births in Lagos die before their first birthday.

One out of 20 live births die before their fifth birthday.

All the mortality rates, except neonatal mortality, are consistently highest in Lagos East for the five years preceding MICS 2016-17.

The chances of child surviving to fifth birthday are 17 percent and 35 percent higher in Lagos Central and Lagos West respectively than Lagos East.

To achieve SDG 3.2, there must be at least 50% reduction in early childhood mortality rates before 2030 across all groups.

[7]United Nations. 1983. *Manual X: Indirect Techniques for Demographic Estimation*. United Nations publication, Sales No. E.83.XIII.2; United Nations. 1990. *QFIVE, United Nations Program for Child Mortality Estimation*. United Nations Population Division; United Nations. 1990. *Step-by-step Guide to the Estimation of Child Mortality*; and International Union for the Scientific Study of Population. 2013. *Tools for Demographic Estimation*. United Nations Population Fund.

- Child mortality ($_4q_1$): probability of dying between the first and the fifth birthdays
- Under-five mortality ($_5q_0$): the probability of dying between birth and the fifth birthday

Rates are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one and post-neonatal mortality, which is the difference between infant and neonatal mortality rates.

Childhood mortality in Lagos State

Table 4.1 presents neonatal, post-neonatal, infant, child and under-five mortality rates for five-year period before the survey in Lagos state. Neonatal mortality is estimated at 29 per 1,000 live births, while post-neonatal mortality rate is 16 per 1,000 live births. Infant mortality rate, often used as indicator of health status of a country, is 45 per 1,000 live births, while under-five mortality rate is 50 per 1,000 live births. This implies that in five years preceding the survey, about 1 out of 22live births in Lagos die before their first birthday, while 1 out of 20 live births die before their fifth birthday. Child mortality in Lagos State is 6 per 1,000 children surviving to age 12 months.

Table 4.1 (CM.1): Early childhood mortality rates in Lagos State

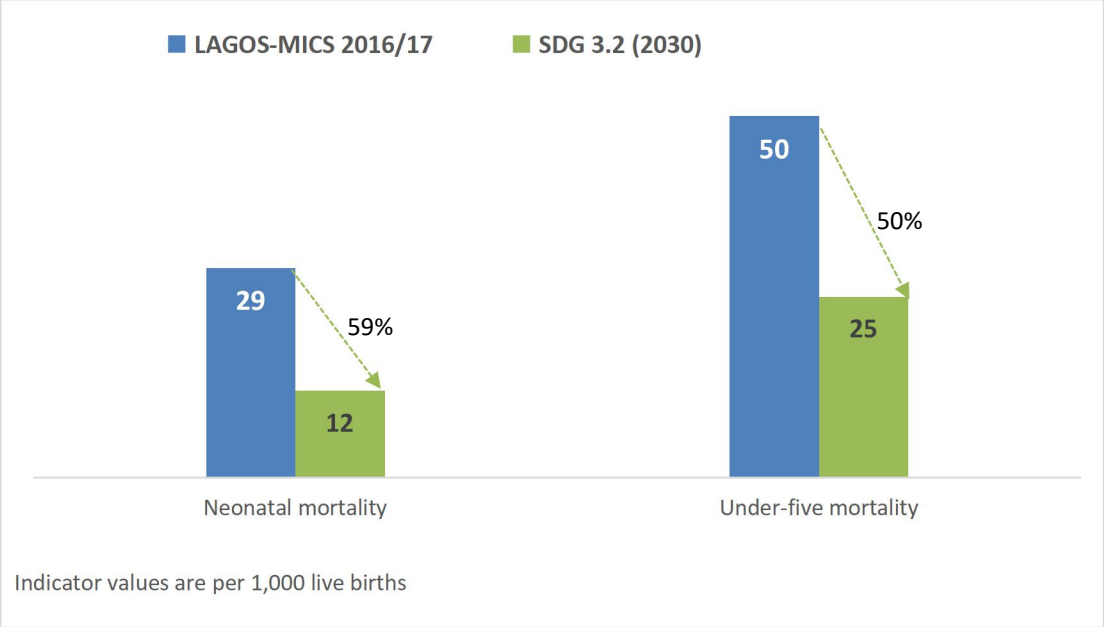
Neonatal, post-neonatal, Infant, child and under-five mortality rates for five-year period preceding the survey, Nigeria, 2016-17Lagos State

Years preceding the survey	Period	Neonatal mortality rate[1]	Post-neonatal mortality rate[2, a]	Infant mortality rate[3]	Child mortality rate[4]	Under-five mortality rate[5]
0-4	2016-17	29	16	45	6	50

[1] MICS indicator 1.1 - Neonatal mortality rate[2] MICS indicator 1.3 - Post-neonatal mortality rate
[3] MICS indicator 1.2; SDG indicator 3.2 - Infant mortality rate[4] MICS indicator 1.4 - Child mortality rate
[5] MICS indicator 1.5; MDG indicator 4.1 - Under-five mortality rate
[a]Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates

Figure 4.1 presents the required percentage reduction projected from Lagos-MICS 2016-17, in neonatal and under-5 mortality rates to achieve SDG 3.2 target by 2030. Lagos State requires59 percent reduction from her current neonatal mortality rate to achieve the SDG 3.2 target of 12 per 1,000 live births within a period of 13 years. Likewise, she requires 50 percent reduction in current under-five mortality rate to meet the SDG target of 25 per 1,000 live births.

Figure 4.1: Projected reduction in early childhood mortality rates in Lagos State to meet SDG 3.2 by 2030



Early childhood mortality rates by socioeconomic characteristics in Lagos State

Estimates of early childhood mortality by socioeconomic characteristics in Lagos State are presented in Tables 4.2 and 4.3. The socio-economic variations on early childhood mortality were computed for senatorial districts, residence, maternal education and wealth quintile. The mortality rates except post-neonatal mortality were lower in Lagos West than other senatorial districts. All the mortality rates except neonatal mortality were consistently highest in Lagos East for the five years preceding MICS 2016-17. The chances of child surviving to fifth birthday are 17 percent and 35 percent lower in Lagos Central and Lagos West respectively than in Lagos East. Urban-rural mortality differential was not estimated because total number of live births in selected rural area is less than 250 for all early childhood mortality indicators. This is because Lagos is predominantly an urban state. Also, maternal education and wealth index quintiles have fewer samples not valid for comparisons within group as some estimates could not be computed.

Table 4.2 (CM.2): Early childhood mortality rates by socioeconomic characteristics

Neonatal, post-neonatal, Infant, child and under-five mortality rates for the five-year period preceding the survey, by socioeconomic characteristics, Nigeria, 2016-17 Lagos State

	Neonatal mortality rate[1]	Post-neonatal mortality rate[2, a]	Infant mortality rate[3]	Child mortality rate[4]	Under-five mortality rate[5]
Total	**29**	**16**	**45**	**6**	**50**
Senatorial District					
Lagos Central	(**35)	(**12)	(**48)	(**5)	(**53)
Lagos East	(30)	(23)	(53)	(9)	(62)
Lagos West	(27)	(14)	(42)	(4)	(46)
Residence					
Urban	30	16	46	4	50
Rural	(*)	(*)	(*)	(*)	(*)
Mother's education					
None	(**0)	(**6)	(**6)	(**0)	(**6)
Non-formal	(**0)	(**0)	(**0)	(**0)	(**0)
Primary	(**44)	(**28)	(**71)	(**0)	(**71)
Secondary	31	18	(49)	(9)	(57)
Higher	(24)	(*)	(*)	(*)	(*)

[1] MICS indicator 1.1 - Neonatal mortality rate
[2] MICS indicator 1.3 - Post-neonatal mortality rate
[3] MICS indicator 1.2; SDG indicator 3.2 - Infant mortality rate
[4] MICS indicator 1.4 - Child mortality rate
[5] MICS indicator 1.5; MDG indicator 4.1 - Under-five mortality rate
[a] Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates

( ) Total number of live births (exposure) are based on 250-499 unweighted cases(*) Total number of live births (exposure) are based less than 250 (**) Populated though the total number of live births (exposure) are based less than 250 unweighted cases

Table 4.4 shows a projected percentage increase or reduction in under-5 mortality rate that Lagos State will need to achieve the specific SDG 3.2 target across senatorial districts.

Table 4.3: Projected analysis of under-five mortality rates by senatorial districts for Lagos State

Under-five mortality rate[5]by socio-economic characteristics, Nigeria, MICS 2007, 2011, 2016-17 and SDG3.2Lagos State

		Senatorial Districts		
	Total	Lagos Central	Lagos East	Lagos West
MICS 2016-17	**50**	53	62	46
Projected decline	50%	53%	60%	46%
SDG3.2 (2030)	25	25	25	25

To achieve SDG 3.2, percentage reduction in the current under-five mortality rate must be more than 40 percent across all groups. Specifically, among the senatorial districts, there must be at least 60 percent reduction in Lagos East, 46 percent in Lagos West and 53 percent in Lagos Central.

Early childhood mortality rates by demographic characteristics

Estimates of early childhood mortality in Lagos by demographic characteristics of mother and child are presented in Tables 4.4. The demographic differentials were computed for sex of child, mother's age at first birth, birth order and previous birth interval. Neonatal, post-neonatal, infant, child and under-five mortality rates were lower for female than male newborn within five years preceding Lagos-Nigeria MICS 2016-17. Some estimates were not computed because total number of live births (exposure) are less than 250 unweighted cases. Children whose mothers are between ages 20-34 have infant mortality rate of 42 per 1,000 livebirths and under-five mortality rate of 48 per 1,000 livebirths. Infants of the second birth order had the lower mortality rates in all the indices, except child mortality, than infants of first birth order.

Table 4.4 (CM.3): Early childhood mortality rates by demographic characteristics in Lagos State

Neonatal, post-neonatal, Infant, child and under-five mortality rates for the five-year period preceding the survey, by demographic characteristics, Nigeria, 2016-17 Lagos State

	Neonatal mortality rate[1]	Post-neonatal mortality rate[2,a]	Infant mortality rate[3]	Child mortality rate[4]	Under-five mortality rate[5]
Total	**29**	**16**	**45**	**6**	**50**
Sex of child					
Male	(46)	(21)	(67)	(7)	(74)
Female	(11)	(11)	(22)	(4)	(26)
Mother's age at birth					
Less than 20	(*)	(*)	(*)	(*)	(*)
20-34	24	19	42	6	48
35-49	(*)	(*)	(*)	(*)	(*)
Birth order					
1	(48)	(29)	(76)	(3)	(80)
2-3	(12)	(6)	(19)	(4)	(22)
4-6	(*)	(*)	(*)	(*)	(*)
7+	(*)	(*)	(*)	(*)	(*)

[1] MICS indicator 1.1 - Neonatal mortality rate[2] MICS indicator 1.3 - Post-neonatal mortality rate

[3] MICS indicator 1.2; MDG indicator 4.2 - Infant mortality rate[4] MICS indicator 1.4 - Child mortality rate

[5] MICS indicator 1.5; MDG indicator 4.1 - Under-five mortality rate

[a] Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates[b] Excludes first order births

V. Nutrition

Nutritional Status

The nutritional status of children under the age of 5 years is a reflection of their overall health. Children are considered well-nourished when they have access to adequate food supply, are not exposed to repeated illness and are well cared for, to allow them reach their growth potential. Under-nutritionis associated with more than half of all child deaths worldwide. Undernourished children are more likely to die from common childhood ailments and for those who survive, have recurring sicknesses and faltering growth. Three-quarters of children who die from causes related to malnutrition were only mildly or moderately malnourished, showing no outward sign of their vulnerability.

In a well-nourished population, there is a reference distribution of height and weight for children under age five. Under-nourishment in a population can be gauged by comparing children to a reference population. The reference population used in this report is based on the WHO growth standards.[8] Each of the three nutritional status indicators – weight-for-age, height-for-age and weight-for-height - can be expressed in standard deviation units (z-scores) from the median of the reference population.

Weight-for-age is a measure of both acute and chronic malnutrition. Children whose weight-for-age is more than two standard deviations below the median of the reference population are considered *moderately and severely underweight,* while those whose weight-for-age is more than three standard deviations below the median are classified as *severely underweight.*

Height-for-age is a measure of linear growth. Children whose height-for-age is more than two standard deviations below the median of the reference population are considered short for their age and are classified as

[8] **http://www.who.int/childgrowth/standards/technical_report**

KEY FINDINGS

Lagos Prevalence- Public health significance:
14.5 percent Underweight - Medium
11.4 percent Stunting - Low
11.4 percent Wasting - Serious
0.7 percent Overweight

One out of 7 children under five years in Lagos have acute, chronic or both malnutrition

One out of 10 children under five years in Lagos are stunted; 2 out of 100 are severely stunted.

One out of 10 children under five years in Lagos are wasted; 3 out of 100 are severely wasted.

One out of 4 mothers in Lagos initiated breastfeeding early as recommended by WHO; 7 out of 10 initiated breastfeeding within 24 hour of birth delivery

51.8 percent exclusive breastfeeding rate in Lagos is high and has met the WHO Global nutrition target of 50 percent

Three of 4 infants are predominantly breastfed.

43.3 percent of children age 6-23 months were fed the minimum number of times and 46.2 percent of them received the minimum dietary diversity

Only 16.2 percent of children ages 6-23 months had a diet sufficient in both diversity and frequency

Iodized salt containing 15 ppm or more are consumed in 87.2% of sampled household.

One out of 13 babies were weighed at birth. 19 percent of these babies were classified as low weight because they were less than 2,500 grams at birth.

moderately and severely stunted. Those whose height-for-age is more than three standard deviations below the median are classified as *severely stunted.* Stunting is a reflection of chronic malnutrition as a result of failure to receive adequate nutrition over a long period and recurrent or chronic illness.

Weight-for-height can be used to assess wasting and overweight status. Children whose *weight-for-height* is more than two standard deviations below the median of the reference population are classified as *moderately and severely wasted,* while those who fall more than three standard deviations below the median are classified as *severely wasted*. Wasting is usually the result of a recent nutritional deficiency. The indicator of wasting may exhibit significant seasonal shifts associated with changes in the availability of food or disease prevalence. Children whose weight-for-height is more than two standard deviations above the median reference population are classified as overweight or obese.

In MICS, weights and heights of all children under 5 years of age were measured using the anthropometric equipment recommended by UNICEF.[9] Findings in this section are based on the results of these measurements. Table 5.1 present the prevalence of malnutrition in terms of under-nutrition (underweight, stunting and wasting) and overweight in Lagos State. The result also shows the pattern of malnutrition among different social groups based on the anthropometric measurements that were taken during fieldwork. Additionally, Figure 5.1 presents nutritional status of children under five children by age. The result will also be interpreted based on World Health Organisation standard prevalence cut-off values for public health significance[10] as follows:

Underweight	*Stunting*	*Wasting*
< 10%: Low prevalence	<20%: Low prevalence	<5%: Acceptable
10-19%: Medium prevalence	20-29%: Medium prevalence	5-9%: Poor
20-29%: High prevalence	30-39%: High prevalence	10-14%: Serious
≥ 30%: Very high prevalence	≥ 40%: Very high prevalence	≥ 15%: Critical

Weight for age (underweight)

In Lagos State, 14.5 percent of under-5 children are moderately and severely underweight, while 3.2 percent are severely underweight. This implies that about one out of 7 children under five years in Lagos have acute, chronic or both malnutrition and this is medium prevalence for public health significance.

The prevalence of this malnutrition is low among children age 0-5 months and 48-59 months, whose mothers have higher education and higher wealth index quintiles in Lagos State. Some social groups have prevalence above the state value of14.5%: Lagos Central and Lagos East, male children, rural residence, age 6-23 months, mothers with none or primary education and middle or poor wealth quintile household. This pattern is the same among social and demographic groups in Lagos State for cases of severe underweight, which is chronic malnutrition with its consequence mortality risk.

Height for age (Stunting)

Prevalence of 11.4 percent for stunting is high in Lagos State, with 2.4 percent severely stunted. This implies that one out of 10 children suffered growth retardation from long term nutritional deprivation.

[9] See MICS Supply Procurement Instructions: **http://www.childinfo.org/mics5_planning.html**

[10] http://www.who.int/childgrowth/publications/physical_status/en/

Lagos West has the lowest prevalence rate of 9.5 percent, Lagos Central has 12.3 percent while Lagos East has the highest 17.1 percent. The medium prevalence (above 20 percent) estimate is among children in rural areas, whose mothers have primary education and poorest wealth index quintile household. This variation in prevalence of severe stunting among different social and demographic groups has the same pattern as that of stunting in Lagos State. Severe stunting prevalence rate is however highest in rural areas of Lagos State.

Table 5.1 (NU.2): Nutritional status of children

Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age and weight for height, Nigeria, 2016-17Lagos State

	Weight for age		Height for age		Weight for height		Overweight
	Underweight		Stunted		Wasted		
	Percent below		Percent below		Percent below		Percent above
	- 2 SD[1]	- 3 SD[2]	- 2 SD[3]	- 3 SD[4]	+ 2 SD[7]	- 3 SD[6]	+ 2 SD[7]
Total	**14.5**	**3.2**	**11.4**	**2.4**	**11.4**	**2.7**	**0.7**
Senatorial districts							
Lagos Central	15.8	2.6	12.3	3.1	12.2	2.1	0.0
Lagos East	16.4	3.6	17.1	3.9	9.4	2.1	0.9
Lagos West	13.6	3.2	9.5	1.8	11.8	3.0	0.8
Sex							
Male	15.8	3.3	14.2	3.5	11.2	2.8	1.1
Female	13.2	3.2	8.6	1.3	11.5	2.6	0.4
Residence							
Urban	14.2	3.2	10.6	2.2	11.6	2.9	0.8
Rural	19.3	3.2	28.4	7.2	6.2	0.0	0.0
Age (months)							
0-5	6.8	3.8	7.2	2.4	18.2	1.6	0.7
6-11	24.6	3.8	4.3	2.3	24.5	8.4	0.0
12-17	23.5	3.2	11.3	0.0	19.1	6.9	0.0
18-23	19.2	3.5	19.9	2.1	12.3	3.9	0.7
24-35	12.6	4.9	15.4	3.9	7.6	1.4	0.0
36-47	13.3	2.0	13.8	2.9	6.5	0.0	0.7
48-59	8.1	1.8	5.4	1.7	6.1	1.6	2.5
Mother's education							
None	(28.1)	(10.3)	(17.3)	(7.6)	(22.0)	(6.0)	(0.0)
Non-formal	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Primary	30.2	5.1	23.7	6.8	8.7	1.6	0.0
Secondary	14.3	3.1	11.4	1.9	12.3	3.0	0.9
Higher	5.7	1.5	5.4	0.5	9.1	2.2	0.9
Wealth index quintile							
Poorest	23.1	5.8	22.7	6.0	14.0	0.6	0.3
Second	17.3	2.9	10.6	2.0	14.0	4.2	0.0
Middle	16.4	4.1	12.2	2.5	10.9	3.2	0.0
Fourth	8.4	1.0	7.5	1.2	7.4	2.1	1.7
Richest	5.8	1.9	3.3	0.0	9.9	3.4	1.9

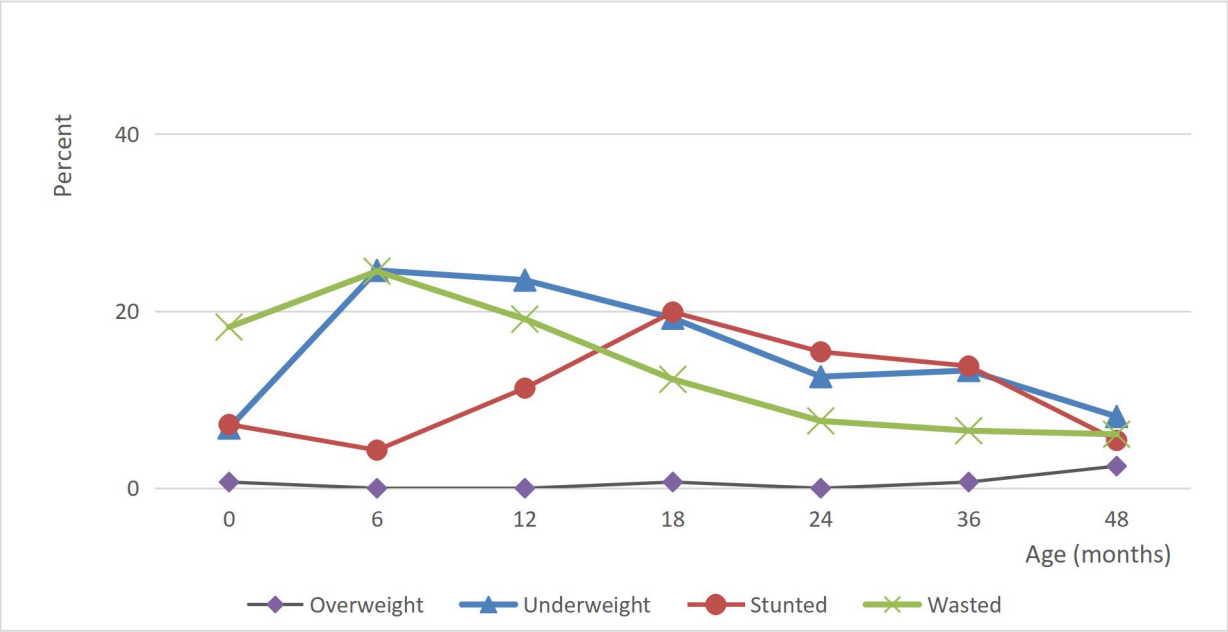
[1] MICS indicator 2.1a - Underweight prevalence (moderate and severe)[2] MICS indicator 2.1b - Underweight prevalence (severe)
[3] MICS indicator 2.2a - Stunting prevalence (moderate and severe)[4] MICS indicator 2.2b - Stunting prevalence (severe)
[5] MICS indicator 2.3a - Wasting prevalence (moderate and severe)[6] MICS indicator 2.3b - Wasting prevalence (severe)
[7] MICS indicator 2.4 - Overweight prevalence
( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

Weight for height (wasting)

A weight for height prevalence rate of 11.4 percent in Lagos State is of serious public health concern, as it increases children's susceptibility to infectious diseases and risk of mortality. Likewise, a 2.7 percent prevalence of severe wasting or being too thin for height among under-five children in Lagos is high. The prevalence of wasting is particularly critical for children age 0-17 months with a range of values from 18

percent to 25percent. Wasting is also higher among children of urban residence, Lagos Central and among children of mothers with no education.

Figure 5.1: Underweight, stunted, wasted and overweight children under age 5 (moderate and severe), MICS 2016-17 Lagos State



Overweight

The prevalence of overweight among under-five children is 0.7 percent. While Lagos East and Lagos West have some children, who are overweight, Lagos Central has no record of overweight children. Children age 48 to 59 months have higher percentage of overweight than other age categories. Overweight percentage increases with higher wealth index quintile and higher education in Lagos State. There are more overweight children in urban than rural areas of Lagos State.

Breastfeeding and Infant and Young Child Feeding

Proper feeding of infants and young children can increase their chances of survival and promote optimal growth and development, especially in the critical window of birth to 2 years of age. Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients and is economical and safe. However, many mothers do not initiate breastfeeding early enough, do not breastfeed exclusively for the recommended 6 months or stop breastfeeding too soon. There are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient malnutrition and unsafe if hygienic conditions, including safe drinking water, are not readily available.

Studies have shown that, in addition to continued breastfeeding, consumption of appropriate, adequate and safe solid, semi-solid and soft foods from the age of 6 months onwards leads to better health and growth outcomes, with potential to reduce stunting during the first two years of life.[11]

UNICEF and WHO recommend that infants be breastfed within one hour of birth, breastfed exclusively for the first six months of life and continue to be breastfed up to 2 years of age and beyond.[12] Starting at 6 months, breastfeeding should be combined with safe, age-appropriate feeding of solid, semi-solid and soft foods.[13]A summary of key guiding principles[14, 15] for feeding 6-23 months old is provided in the table below along with proximate measures for these guidelines collected in this survey.

The guiding principles for which proximate measures and indicators exist are:

(i) continued breastfeeding;
(ii) appropriate frequency of meals (but not energy density); and
(iii) appropriate nutrient content of food.

Feeding frequency is used as proxy for energy intake, requiring children to receive a minimum number of meals/snacks (and milk feeds for non-breastfed children) for their age, while dietary diversity is used to ascertain the adequacy of the nutrient content of the food (not including iron) consumed. For dietary diversity, seven food groups were created for which a child consuming at least four of these is considered to have a better-quality diet. In most populations, consumption of at least four food groups means that the child has a high likelihood of consuming at least one animal-source food and at least one fruit or vegetable, in addition to a staple food (grain, root or tuber).[16]

These three dimensions of child feeding are combined into an assessment of the children who received appropriate feeding, using the indicator of "minimum acceptable diet". To have a minimum acceptable diet in the previous day, a child must have received:

(i) the appropriate number of meals/snacks/milk feeds;
(ii) food items from at least 4 food groups; and
(iii) breast milk or at least 2 milk feeds (for non-breastfed children).

Initiation of breastfeeding

Table 5.2 show mothers' reports of whether their last-born child, born in the last two years preceding the survey, were ever breastfed, breastfed within one hour and one day of birth or received a prelacteal feed in Lagos State.

The practice of breastfeeding is high in Lagos with 97 percent of children being ever breastfed. However, only 25 percent of babies were breastfed within one hour of birth, despite the fact that this is a very

[11]Bhuta, Z. et al. 2013. *Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?* The Lancet June 6, 2013.
[12]WHO. 2003. *Implementing the Global Strategy for Infant and Young Child Feeding*. Meeting Report Geneva, 3-5 February, 2003.
[13]WHO. 2003. *Global Strategy for Infant and Young Child Feeding*.
[14] PAHO. 2003.*Guiding principles for complementary feeding of the breastfed child*.
[15]WHO. 2005.*Guiding principles for feeding non-breastfed children 6-24 months of age*.
[16]WHO. 2008. ***Indicators for assessing infant and young child feeding practices.*** *Part 1: Definitions*.

important step in the management of lactation and establishment of a physical and emotional relationship between the baby and the mother. This implies that one out of 4 mothers initiated breastfeeding early as recommended by WHO, while seven out of 10(72.8 percent) initiated breastfeeding within one day of birth.

Table 5.2 (NU.3): Initiation of breastfeeding

Percentage of last live-born children in the last two years who were ever breastfed, breastfed within one hour of birth and within one day of birth and percentage who received a prelacteal feed, Nigeria, 2016-17 Lagos State

		Percentage who were first breastfed:			
	Percentage who were ever breastfed[1]	Within one hour of birth[2]	Within one day of birth	Percentage who received a prelacteal feed	Number of last live-born children in the last two years
Total	**97.3**	**25.0**	**72.8**	**27.4**	**371**
Senatorial District					
Lagos Central	99.1	21.6	73.9	34.0	52
Lagos East	96.0	19.2	62.6	29.0	76
Lagos West	97.3	27.6	75.7	25.5	243
Residence					
Urban	97.2	26.1	73.6	26.6	352
Rural	(100.0)	(5.2)	(57.6)	(43.5)	19
Months since last birth					
0-11 months	97.8	24.0	71.6	26.6	170
12-23 months	96.9	25.9	73.8	28.1	201
Assistance at delivery					
Skilled attendant	98.1	25.6	74.7	29.4	322
Traditional birth attendant	(100.0)	(20.2)	(64.6)	(26.5)	26
Other	(*)	(*)	(*)	(*)	17
Place of delivery					
Home	(94.8)	(32.8)	(66.0)	(28.1)	27
Health facility	98.0	24.9	75.0	28.2	295
Public	99.3	28.2	80.9	22.8	94
Private	97.3	23.3	72.2	30.8	200
Mother's education					
None	(*)	(*)	(*)	(*)	15
Non-formal	(*)	(*)	(*)	(*)	2
Primary	(98.1)	(16.3)	(79.9)	(26.4)	36
Secondary	97.0	22.5	74.3	27.1	202
Higher	97.3	29.2	67.6	29.2	116
Wealth index quintile					
Poorest	97.6	23.7	75.2	27.2	76
Second	98.2	24.2	69.0	22.9	73
Middle	98.6	14.6	75.5	23.0	77
Fourth	97.2	30.9	69.9	32.2	68
Richest	94.9	32.4	73.8	32.2	76

[1] MICS indicator 2.5 - Children ever breastfed
[2] MICS indicator 2.6 - Early initiation of breastfeeding
( ) Sample data are based on 25-49 unweighted cases
(*) Sample data are fewer than 25 unweighted cases

The onset of breastfeeding varied with place of delivery and the person who assisted the delivery. A higher proportion of children delivered in public health facilities were breastfed within the hour or one day of birth (28.2 percent and 80.9 percent)than those delivered in a private sector health facility (23.3

percent and 72.2 percent). Similarly, a higher proportion of babies delivered by a skilled birth attendant were breastfed within one day (74.7 percent) compared to those delivered by a traditional birth attendant (64.6 percent).

Lagos West has the highest proportion of newborn who were breastfed within one hour of birth (27.6 percent), as well as, within a day of birth (75.7 percent), while the Lagos East senatorial district ranked lowest on percentage of newborn who were breastfed within one hour of delivery (19.2 percent) and within one day of birth (62.6 percent).

Twenty-seven percent of live last-born within two years preceding the survey had received prelacteal feed, which is any food given to newborn before initiating breastmilk. The Practice of prelacteal feeding is more common in Lagos Central, rural areas, private health facility delivery, mothers with higher education and richest wealth quintile than other social groups. Although urban areas perform better in the initiation of breastfeeding than rural areas, it has less cases of prelacteal feeding

Exclusive Breastfeeding

Table 5.3 present percentage of children exclusively and predominantly breastfed and continued breastfeeding at 1 and 2 years of age. Lagos-Nigeria MICS 2016-17 estimate of 51.8 percent exclusive breastfeeding has already met the WHO Global nutrition target of 50 percent by 2025. Exclusive breastfeeding is when infants less than 6 months of age are fed on breast milk only, allowing for vitamins, mineral supplements and medicine to be administered as prescribed.

The rate of exclusive breastfeeding is highest for Lagos West (55.7percent), followed by Lagos Central (47.6 percent) and lowest in Lagos East (42.6 percent). Exclusive breastfeeding is also higher among male children than female. Estimate was not computed for some social and demographics groups because sample data are fewer than 25 unweighted cases.

Predominant Breastfeeding

Predominant breastfeeding is when infants less than 6 months of age are given plain water and non-milk liquids in addition to breast milk. About three of 4 infants (78.8 percent) are predominantly breastfed while just two out of 4 (51.8 percent) are exclusively breastfed. In comparison with other groups, the practice of predominant breastfeeding is higher in Lagos West and among female children.

Table 5.3 (NU.4): Breastfeeding

Percentage of living children according to breastfeeding status at selected age groups, Nigeria, 2016-17 Lagos State

	Children age 0-5 months			Children age 12-15 months		Children age 20-23 months	
	Percent exclusively breastfed[1]	Percent predominantly breastfed[2]	Number of children	Percent breastfed (Continued breastfeeding at 1 year)[3]	Number of children	Percent breastfed (Continued breastfeeding at 2 years)[4]	Number of children
Total	**51.8**	**78.8**	**77**	**71.2**	**77**	(9.2)	**49**
Senatorial District							
Lagos Central	(**47.6)	(**74.2	12	(**73.6)	11	(**0.0)	4
Lagos East	(42.6)	(63.1	16	(**64.9)	9	(**19.7)	11
Lagos West	(55.7)	(85.0	49	(71.7)	57	(**7.0)	33
Sex							
Male	(53.5)	(77.4)	41	(64.3)	35	(10.4)	28
Female	(49.9)	(80.4)	36	(77.1)	41	(*)	21
Residence							
Urban	(*)	(*)	74	71.6	74	(7.9)	45
Rural	(*)	(*)	3	(*)	3	(*)	3
Mother's education							
None	(*)	(*)	0	(*)	7	(*)	2
Non-formal	(*)	(*)	1	(*)	0	(*)	0
Primary	(*)	(*)	10	(*)	5	(*)	6
Secondary	(42.0)	(70.6)	43	(70.8)	40	(*)	21
Higher	(*)	(*)	22	(*)	25	(*)	20
Wealth index quintile							
Poorest	(*)	(*)	19	(*)	22	(*)	11
Second	(*)	(*)	12	(*)	12	(*)	9
Middle	(*)	(*)	14	(*)	12	(*)	4
Fourth	(*)	(*)	16	(*)	16	(*)	9
Richest	(*)	(*)	16	(*)	15	(*)	15

[1] MICS indicator 2.7 - Exclusive breastfeeding under 6 months[2] MICS indicator 2.8 - Predominant breastfeeding under 6 month
[3] MICS indicator 2.9 - Continued breastfeeding at 1 year[4] MICS indicator 2.10 - Continued breastfeeding at 2 years
( ) Sample data are based on 25-49 unweighted cases *(*) Sample data are fewer than 25 unweighted cases*

Age-appropriate Breastfeeding

Table 5.4 presents information on age appropriate breastfeeding in Lagos State. For infants age 0-5 months, exclusive breastfeeding was considered as age-appropriate feeding while children age 6-23 months were considered to be appropriately fed if they were receiving breast milk and solid, semi-solid or soft food. About half of children (50.7 percent) age 0-23 months were appropriately breastfed for age in Lagos State. Children who are from Lagos West, poor household, urban areas and have mothers with no formal education were more appropriately breastfed than other groups in Lagos State.

Table 5.4 (NU.6): Age-appropriate breastfeeding

Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Nigeria, 2016-17Lagos State

	Children age 0-5 months	Children age 6-23 months	Children age 0-23 months
	Percent exclusively breastfed[1]	Percent currently breastfeeding and receiving solid, semi-solid or soft foods	Percent appropriately breastfed[2]
Total	**51.8**	**50.4**	**50.7**
Senatorial districts			
Lagos Central	(**47.6)	48.1	48.0
Lagos East	(42.6)	49.4	47.8
Lagos West	(55.7)	51.0	52.0
Sex			
Male	(53.5)	41.2	44.1
Female	(49.9)	58.3	56.7
Residence			
Urban	52.1	50.8	51.1
Rural	(*)	(42.8)	(43.2)
Mother's education			
None	(*)	(**59.8)	(**59.8)
Non-formal	(**100)	(**0.0)	(**33.3)
Primary	(**37.5)	(43.9)	(42.2)
Secondary	(42.0)	54.5	51.7
Higher	(*)	44.9	51.0
Wealth index quintile			
Poorest	(*)	46.2	45.9
Second	(*)	55.4	50.9
Middle	(*)	56.0	56.9
Fourth	(*)	(58.8)	56.4
Richest	(*)	37.4	44.8

[1] MICS indicator 2.7 - Exclusive breastfeeding under 6 months
[2] MICS indicator 2.12 - Age-appropriate breastfeeding
( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

Infant and Young Child Feeding

Estimates of Infant and Young Child Feeding (IYCF) indicators in Tables 5.5 are based on the mother's report of consumption of food and fluids prior to being interviewed in Lagos State. Data are subject to a number of limitations: respondent's inability to provide a full report on the child's liquid and food intake due to recall errors, as well as, lack of knowledge in cases where the child was fed by other individuals.

The critical "window of opportunity" that exists between conception and the child's second year of life paves way for a strong, healthy and productive future. Optimal nutrition (exclusive breastfeeding and minimum acceptable diet) from 0-23 months has a lasting impact on a child's growth, development and future productivity. Absence of proper nutrition during this critical period exposes the child to frequent and severe childhood illnesses, stunted growth, developmental delays and death.

Overall, less than half of the children ages 6-23 months (43.2 percent) were fed the minimum number of times and46.2 percent received minimum dietary diversity, that is, foods from at least 4 food groups. Although Lagos Central has the highest proportion of children that achieved minimum meal frequency (47.3 percent), Lagos East has the highest estimate of those with minimum dietary diversity (55.3 percent). Assessment using the indicator of minimum acceptable diet shows that only 16.2 percent of children ages 6-23 months were benefitting from a diet sufficient in both diversity and frequency.

By senatorial districts, diet sufficiency in both diversity and frequency was highest in Lagos Central (20.8 percent) and lowest in Lagos East (13.1 percent). Children with the following characteristics have higher proportions of those who achieved minimum acceptable diet than others: age 12-17 months, urban areas, male children, mother has no education and fourth wealth index quintile households.

Table 5.5 (NU.8): Infant and young child feeding (IYCF) practices

Percentage of children age 6-23 months who received appropriate liquids and solid, semi-solid, or soft foods the minimum number of times or more during the previous day, by breastfeeding status, Nigeria, 2016-17 Lagos State

	Currently breastfeeding				Currently not breastfeeding					All			
	Percent of children who received:				Percent of children who received:					Percent of children who received:			
	Minimum dietary diversity[a]	Minimum meal frequency[b]	Minimum acceptable diet[1, c]	Number of children age 6-23 months	Minimum dietary diversity[a]	Minimum meal frequency[b]	Minimum acceptable diet[2, c]	At least 2 milk feeds[3]	Number of children age 6-23 months	Minimum dietary diversity[4, a]	Minimum meal frequency[5, b]	Minimum acceptable diet[c]	Number of children age 6-23 months
Total	**43.3**	**38.9**	**18.0**	**168**	**50.8**	**49.8**	**13.5**	**51.9**	**110**	**46.2**	**43.2**	**16.2**	**282**
Senatorial District													
Lagos Central	(41.2)	(37.4)	(13.0)	21	(70.1)	(60.1)	(30.8)	(58.1)	16	53.8	47.3	20.8	37
Lagos East	(47.1)	(24.5)	(12.0)	27	(65.1)	(28.1)	(14.4)	(32.3)	23	55.3	26.1	13.1	50
Lagos West	42.8	42.4	20.3	120	(41.8)	(54.5)	(9.3)	(56.7)	71	42.4	46.9	16.2	195
Sex													
Male	48.7	37.3	23.0	68	51.8	57.2	13.8	59.2	61	49.4	46.6	18.6	131
Female	39.5	40.0	14.7	100	49.5	40.9	13.1	42.9	50	43.5	40.3	14.2	151
Age (Months)													
6-8	15.5	44.8	11.1	56	(*)	(*)	(*)	(*)	-	15.5	44.8	11.1	56
9-11	(50.6)	(34.1)	(16.7)	29	(*)	(*)	(*)	(*)	3	(54.7)	(39.6)	(15.3)	32
12-17	55.5	39.7	24.7	69	(55.9)	(46.9)	(17.6)	(54.3)	41	54.6	42.4	22.1	112
18-23	(*)	(*)	(*)	14	45.7	49.7	11.5	48.5	67	52.3	44.8	12.3	83
Residence													
Urban	43.2	39.4	18.2	161	49.0	52.3	13.8	54.5	103	45.4	44.4	16.5	268
Rural	(*)	(*)	(*)	7	(*)	(*)	(*)	(*)	7	(60.3)	(21.4)	(11.7)	14
Mother's education													
None	(**32.7)	(**36.9)	(*27.8)	12	(**47.2)	(**0.0)	(**0.0)	(**0.0)	3	(**35.6)	(**29.3)	(**22.1)	15
Non-formal	(**0.0)	(**0.0)	(**0.0)	1	(**0.0)	(**0.0)	(**0.0)	(**0.0)	1	(**0.0)	(**0.0)	(**0.0)	2
Primary	(**33.1)	(**19.3)	(**10.4)	17	(**55.5)	(**54.1)	(**0.0)	(**35.4)	11	(42.2)	(33.4)	(6.2)	28
Secondary	49.1	35.5	19.4	95	44.4	28.1	8.8	39.3	51	46.8	32.9	15.7	148
Higher	(38.4)	(55.3)	(15.6)	43	(58.2)	(78.4)	(23.6)	(75.4)	44	49.3	66.9	19.7	89
Wealth index quintile													
Poorest	(42.1)	(26.6)	(11.3)	33	(*)	(*)	(*)	(*)	27	41.6	28.4	6.8	62
Second	(52.7)	(38.8)	(20.5)	41	(*)	(*)	(*)	(*)	16	53.7	37.3	18.0	57
Middle	(49.2)	(24.1)	(24.1)	41	(*)	(*)	(*)	(*)	16	50.6	29.3	21.0	57
Fourth	(36.7)	(58.9)	(24.2)	32	(*)	(*)	(*)	(*)	14	(42.6)	(51.3)	(24.1)	48
Richest	(*)	(*)	(*)	22	(52.4)	(80.7)	(19.4)	(76.2)	37	42.4	71.4	13.3	59

[1] MICS indicator 2.17a - Minimum acceptable diet (breastfed)
[2] MICS indicator 2.17b - Minimum acceptable diet (non-breastfed)
[3] MICS indicator 2.14 - Milk feeding frequency for non-breastfed children
[4] MICS indicator 2.16 - Minimum dietary diversity
[5] MICS indicator 2.15 - Minimum meal frequency

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

[a] Minimum dietary diversity is defined as receiving foods from at least 4 of 7 food groups: 1) Grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables and 7) other fruits and vegetables.
[b] Minimum meal frequency among currently breastfeeding children is defined as children who also received solid, semi-solid, or soft foods 2 times or more daily for children age 6-8 months and 3 times or more daily for children age 9-23 months. For non-breastfeeding children age 6-23 months it is defined as receiving solid, semi-

solid or soft foods, or milk feeds, at least 4 times.

[c] The minimum acceptable diet for breastfed children age 6-23 months is defined as receiving the minimum dietary diversity and the minimum meal frequency, while it for non-breastfed children further requires at least 2 milk feedings and that the minimum dietary diversity is achieved without counting milk feeds.

Salt Iodization

Iodine Deficiency Disorders (IDD) is the world's leading cause of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency causes cretinism. It also increases the risks of stillbirth and miscarriage in pregnant women. IDD takes its greatest toll in impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability and impaired work performance. The indicator is the percentage of households consuming iodized salt (> 0 parts per million). Salt is adequately iodized when it contains at least 15 ppm for household use. MBI rapid salt test kit was used to test for iodine in salt used by households for cooking.

Table 5.6 shows percent distribution of households by consumption of iodized salt in Lagos State. Salt containing 15 ppm or more of iodine was found in about nine out of 10 households (87.2 percent). Percentage of households using adequately iodized salt in Lagos Central is 88.4 percent, Lagos East is 86.6 percent and Lagos West is 88.2 percent.

Table 5.6 (NU.10): Iodized salt consumption

Percent distribution of households by consumption of iodized salt, Nigeria, 2016-2017Lagos State

		Percent of households with: Salt test result		
	Percentage of households in which salt was tested	Not iodized 0 PPM	>0 and <15 PPM	15+ PPM[1]
Total	**92.7**	**1**	**4.9**	**87.2**
Senatorial District				
Lagos Central	92.0	1	6.9	84.4
Lagos East	91.9	1	5.4	86.6
Lagos West	93.2	1	4.2	88.2

[1] MICS indicator 2.19 - Iodized salt consumption

Low Birth Weight

Weight at birth is a good indicator of the newborn's chances for survival, growth, long-term health and psychosocial development. It also reflects the mother's health and nutritional status. Low birth weight (defined as less than 2,500 grams) can lead to severe health risks for children. Babies who were undernourished in the womb have increased risk of dying during their early days, months and years. Those who survive may have impaired immune function and increased risk of disease. They are likely to remain undernourished with reduced muscle strength throughout their lives and suffer a higher incidence of diabetes and heart disease in later life. Children born with low birth weight also risk a lower IQ and cognitive disabilities, affecting their performance in school and their job opportunities as adults.

In low and middle-income countries, low birth weight is primarily from the mother's poor health and nutrition. Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation. The mother's poor nutritional status before conception, poor nutrition during pregnancy and short stature (due mostly to under nutrition and infections during her childhood) has the most impact. In addition, diseases such as diarrhoea and malaria can significantly impair foetal growth if the mother becomes infected while pregnant. Also, teenagers who give birth when their own bodies have yet to finish growing run a higher risk of bearing low birth weight babies.

One of the major challenges in measuring the incidence of low birth weight is that more than half of infants in the low and middle-income countries are not weighed at birth. In the past, most estimates of low birth weight for these countries were based on data compiled from health facilities. However, these estimates are biased because majority of births are not delivered in health facilities and therefore not weighed at birth. Those who are weighed, represent only a selected sample of all births. For this reason, the percentage of births weighing below 2500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's size at birth (i.e., very small, smaller than average, average, larger than average, very large) and the mother's recall of the child's weight or the weight as recorded on a health card if the child was weighed at birth.[17]

Table 5.7 presents percentage of most recent live birth in the last 2 years preceding the study who were weighed and those weighing below 2,500 grams across different social and demographic groups in Lagos State. About four out of 5 live births (82.6 percent) were weighed at birth in Lagos State and 9.7 percent of these births are classified as low weight because they are less than 2,500 grams at birth.

Proportion of infants weighed at birth is highest in Lagos Central (88.9 percent) and lowest in Lagos East (69.7 percent). Proportion of low birth weights babies is highest in Lagos East (13.7 percent), followed by Lagos Central (10.5 percent) and lowest in Lagos West (8.3 percent). Also, higher proportions of babies born in rural areas, birth order 4-5, mothers age at birth is between 20-34, mothers with primary education and poor wealth quintile households have low birth weight than other groups in Lagos State.

[17]For a detailed description of the methodology, see Boerma, JT et al.1996. *Data on Birth Weight in Developing Countries: Can Surveys Help?* Bulletin of the World Health Organization 74(2): 209-16.

Table 5.7 (NU.1): Low birth weight infants

Percentage of last live-born children in the last two years that are estimated to have weighed below 2,500 grams at birth and percentage of live births weighed at birth, Nigeria, 2016-17Lagos State

	Percentage of live births:	
	Below 2,500 grams[1]	Weighed at birth[2]
Total	**9.7**	**82.6**
Senatorial District		
Lagos Central	10.5	88.9
Lagos East	13.7	69.7
Lagos West	8.3	85.3
Mother's age at birth (years)		
Less than 20	(*)	(*)
20-34	10.4	82.0
35-49	7.8	85.7
Birth order		
1	9.2	88.1
2-3	9.4	81.4
4-5	10.7	84.4
6+	(*)	(*)
Residence		
Urban	9.6	83.8
Rural	(12.5)	(59.8)
Mother's education		
None	(*)	(*)
Non-formal	(*)	(*)
Primary	(12.6)	(71.4)
Secondary	9.6	79.4
Higher	7.4	96.7
Wealth index quintile		
Poorest	12.0	64.7
Second	10.8	78.0
Middle	11.3	83.2
Fourth	6.7	89.9
Richest	7.4	97.7

[1] MICS indicator 2.20 - Low-birthweight infants[2] MICS indicator 2.21 - Infants weighed at birth
( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

VI. Child Health

The Sustainable Development Goal 3 seeks, among other targets, to end preventable deaths of newborns and children under 5 years of age and reduce by one third premature mortality from non-communicable diseases through prevention and treatment. Immunization and care of illness have been shown to be the most cost-effective in achieving these targets especially among children under five who are most vulnerable. This chapter presents result from MICS 2016-17 and NICS on vaccination coverage and care of illness among children in Lagos-Nigeria.

Vaccination Coverage

Nigeria is one of the 194 Member States of the World Health Assembly that endorsed the Global Vaccine Action Plan (GVAP) in May 2012. This is to achieve the Decade of Vaccine vision to prevent millions of deaths by 2020 through universal and equitable access to immunization. The World Health Organization Recommended Routine Immunizations is that children[18] should be vaccinated against tuberculosis, diphtheria, pertussis, tetanus, polio, measles, hepatitis B, haemophilus influenza type b, pneumonia/meningitis, rotavirus and rubella. The vaccination schedule followed by the National Immunization Programme (NIP) provides birth doses of BCG, Polio and Hepatitis B vaccines (within 24 hours of birth), three doses of the Pentavalent vaccine containing DPT, Hepatitis B and Haemophilus influenza type b (Hib) antigens, three doses of Polio vaccine, two/three doses of Pneumococcal (conjugate) vaccine, two or three doses of rotavirus vaccine, two doses of the MMR vaccine containing measles, mumps and rubella antigens and, in addition, one dose of vaccine against yellow fever. All vaccinations should be received during the first year of life except the doses of MMR at 12 and 18 months and yellow fever at 12 months.

The main objectives were to provide reliable estimates for coverage in vaccination antigens for children between the ages of 12 – 23 months at state level. The estimates for full

KEY FINDINGS

Approximately 63% of children age 12-23 months received all recommended vaccination by their first birthday

Specific vaccine coverage:
Tuberculosis- 93 percent
Polio – 76 percent
Pentavalent- 82percent
Measles- 89 percent
Yellow fever- 85 percent

Vaccination coverage reduces with time for multi-dose vaccines: Polio, PENTA/DPT and PCV.

Reported illnesses two weeks preceding survey for under-five children:
Diarrhoea- 6.5percent
ARI symptom- 0.8percent
Malaria fever- 9.9percent

87percent of women in Lagos State with a live birth in the last two years prior to MICS 2016-17 survey were protected against neonatal tetanus

8.9percentof women age 15-49 years received three or more doses of SP/Fansidar during their last pregnancy that led to a live birth in

[18] **http://www.who.int/immunization/policy/Immunization_routine_table2.pdf** .Table 2 includes recommendations for all children and additional antigens recommended only for children residing in certain regions of the world or living in certain high-risk population groups.

immunization coverage from the Lagos-Nigeria MICS 2016-17 are based on children age 12-23 months because of the NIP vaccination schedule. Table 6.1 presents percentage of children age 12-23 months who received vaccination at any time before the survey by source of information and those vaccinated by 12 months of age in Lagos State.

Table 6.1 (CH.1): Vaccinations by source of information and vaccination by 12 months of age

Percentage of children age 12-23 months vaccinated against vaccine preventable childhood diseases at any time before the survey and by their first birthday, Nigeria, 2016-17, Lagos state

Antigens		Vaccinated at any time before the survey according to:			Vaccinated by 12 months of age[a]
		Vaccination card	Mother's report	Either	
BCG[1]		65.2	27.6	92.8	92.8
Polio	At birth	58.8	31.1	90.0	90.0
	1	64.6	26.9	91.6	91.6
	2	64.5	22.2	86.7	86.7
	3[2]	62.6	13.4	76.0	76.0
PENTA/ DPT	1	67.8	26.8	94.7	94.7
	2	68.4	19.2	87.6	87.6
	3[3,4,5]	65.9	16.1	82.0	82.0
PCV	1	46.6	26.0	72.6	72.6
	2	43.5	22.9	66.4	66.4
	3	42.3	19.8	62.0	62.0
HepB at birth		57.1	16.1	73.2	73.2
Inactivated Polio Vaccine		59.5	27.7	87.2	87.2
Yellow fever[6]		61.2	25.3	86.4	85.2
Measles[7]		62.6	27.0	89.6	88.7
Fully vaccinated[8, b]		58.0	7.1	65.1	63.2
No vaccinations		0.0	0.0	0.0	0.0
Number of children		195	195	195	195

[1] MICS indicator 3.1 - Tuberculosis immunization coverage

[2] MICS indicator 3.2 - Polio immunization coverage

[3] MICS indicator 3.3 - Diphtheria, pertussis and tetanus (DPT) immunization coverage

[4] MICS indicator 3.5 - Hepatitis B immunization coverage

[5] MICS indicator 3.6 - Haemophilus influenzae type B (Hib) immunization coverage

[6] MICS indicator 3.7 - Yellow fever immunization coverage

[7] MICS indicator 3.4; MDG indicator 4.3 - Measles immunization coverage

[8] MICS indicator 3.8 - Full immunization coverage

[a] All MICS indicators refer to results in this column

[b] Includes: BCG, Polio3, PENTA3/DPT3, Measles and Yellow fever as per the vaccination schedule in Nigeria

Information on vaccination coverage was collected in two ways: from vaccination cards or verbal recall. All mothers or caretakers were asked to provide vaccination cards. If the vaccination card for a child was available, interviewers copied vaccination information from the cards onto the MICS questionnaire. If no vaccination card was available for the child, the interviewer proceeded to ask the mother to recall whether or not the child had received each of the vaccinations and for Polio, DPT and Hepatitis B at birth, how many doses were received. The final vaccination coverage estimates are based on information

obtained from the vaccination card and the mother's report. In the first three columns of the table, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the last column, only those children who were vaccinated before their first birthday, as recommended, are included. For children without vaccination cards, the proportion of vaccinations given before the first birthday is assumed to be the same as for children with vaccination cards.

Although it is expected that all vaccination should have been received during the first year of life, only three out of 5 children (63.2 percent) age 12-23 months in Lagos State received all recommended vaccination in the national immunization schedule by their first birthday. In Lagos, PENTA/DPT 1 had the highest coverage of 94.7 percent, while PCV 3 had the lowest coverage of 62.0 percent. BCG coverage is 92.8 percent, measles coverage is 88.7 percent, Yellow fever is 85.2 percent and Hepatitis B at birth is 73.2 percent among children ages 12-23 months before their first birthday. Vaccination coverage reduces with time for vaccines that are multi-dose: Polio, PENTA/DPT and PCV.

Vaccination Coverage by background characteristics

Tables 6.2 presents percentage of children age 12-23 months in Lagos State with any evidence of vaccination by background characteristics: senatorial district, residence, sex, mother's education and wealth index. Percentage of children with full vaccination and specific vaccine coverage was highest in Lagos Central with 75.4 percent children fully vaccinated. This estimate is higher than Lagos West (66.5 percent) and Lagos East (50.9 percent) of children fully vaccinated at any time before the survey.

Vaccination coverage for male children (74.5 percent) is higher than female children (55.9 percent). Full vaccination and specific vaccine coverage increases as maternal education increases. Seventy-eight percent of children of mothers with higher education received full vaccination coverage. This pattern is similar across all specific vaccines. Despite subsidized vaccination fee in Nigeria, the poor households in Lagos State have lower vaccination coverage for specific and all basic vaccines. Full vaccination coverage for richest and poorest wealth index quintile is 83.0 percent and 49.8 percent respectively. The poorest household has the lowest coverage for BCG vaccine in Lagos State

Table 6.2 (CH.2): Vaccinations by background characteristics

Percentage of children age 12-23 months currently vaccinated against vaccine preventable childhood diseases, Nigeria, 2016-17, Lagos State

	Percentage of children who received:													Percentage with vaccination card seen	Number of children age 12-23 months
		Polio				PENTA/DPT			HepB	Yellow					
	BCG	At birth	1	2	3	1	2	3	At birth	fever	Measles	Full[a]	None		
Total	**92.8**	**90.0**	**91.6**	**86.7**	**76.0**	**94.7**	**87.6**	**82.0**	**73.2**	**85.2**	**88.7**	**63.2**	**0.0**	**67.6**	**195**
Senatorial District															
Lagos Central	(100.0)	(100.0)	(98.9)	(88.0)	(81.0)	(100.0)	(90.2)	(88.7)	(85.7)	(92.5)	(97.3)	(75.4)	(0.0)	(74.8)	26
Lagos East	92.2	90.2	81.3	77.6	58.1	89.9	76.9	67.5	55.7	70.1	69.1	50.9	0.0	58.0	32
Lagos West	91.6	88.0	92.6	88.5	79.2	94.8	89.6	84.2	74.9	89.2	93.0	66.5	0.0	68.5	137
Residence															
Urban	93.4	90.4	93.1	88.5	78.0	95.4	89.2	83.8	73.7	88.1	91.6	67.1	0.0	68.8	184
Rural	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	11
Sex															
Male	94.4	95.0	96.8	91.7	84.4	96.8	95.0	91.1	80.2	91.8	94.1	74.5	0.0	73.6	97
Female	91.3	85.1	86.6	81.8	67.9	92.7	80.6	73.5	66.6	81.3	85.3	55.9	0.0	61.7	98
Mother's education															
None	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
Non-formal	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
Secondary	92.6	85.8	87.7	84.4	76.9	91.2	83.0	76.7	69.5	84.1	88.4	64.8	0.0	70.5	98
Higher	97.0	95.1	96.6	92.1	83.6	100.0	95.9	95.9	80.2	97.3	100.0	77.9	0.0	70.0	65
Wealth index quintile															
Poorest	(88.5)	(91.2)	(85.5)	(79.6)	(61.6)	(93.0)	(77.0)	(68.6)	(69.3)	(75.8)	(75.8)	(49.8)	(0.0)	(56.6)	50
Second	(89.2)	(84.1)	(82.4)	(73.7)	(61.2)	(80.6)	(75.5)	(66.9)	(63.4)	(75.3)	(75.9)	(57.0)	(0.0)	(64.6)	36
Middle	(92.5)	(92.5)	(93.4)	(84.2)	(79.9)	(100.0)	(90.9)	(87.2)	(83.4)	(91.5)	(100.0)	(58.2)	(0.0)	(70.5)	33
Fourth	(94.2)	(82.9)	(97.2)	(97.2)	(93.6)	(100.0)	(97.2)	(89.8)	(74.1)	(96.3)	(100.0)	(80.4)	(0.0)	(81.9)	33
Richest	(100.0)	(97.1)	(100.0)	(98.8)	(87.1)	(100.0)	(98.8)	(98.8)	(76.8)	(95.9)	(100.0)	(83.0)	(0.0)	(69.6)	43

[a]Includes: BCG, Polio3, PENTA3/DPT3, Measles and Yellow fever as per the vaccination schedule in Nigeria

( ) Sample data are based on 25-49unweighted cases

(*) Sample data are fewer than 25 unweighted cases

(**)Populated though the Sample data are fewer than 25 unweighted cases

Neonatal Tetanus Protection

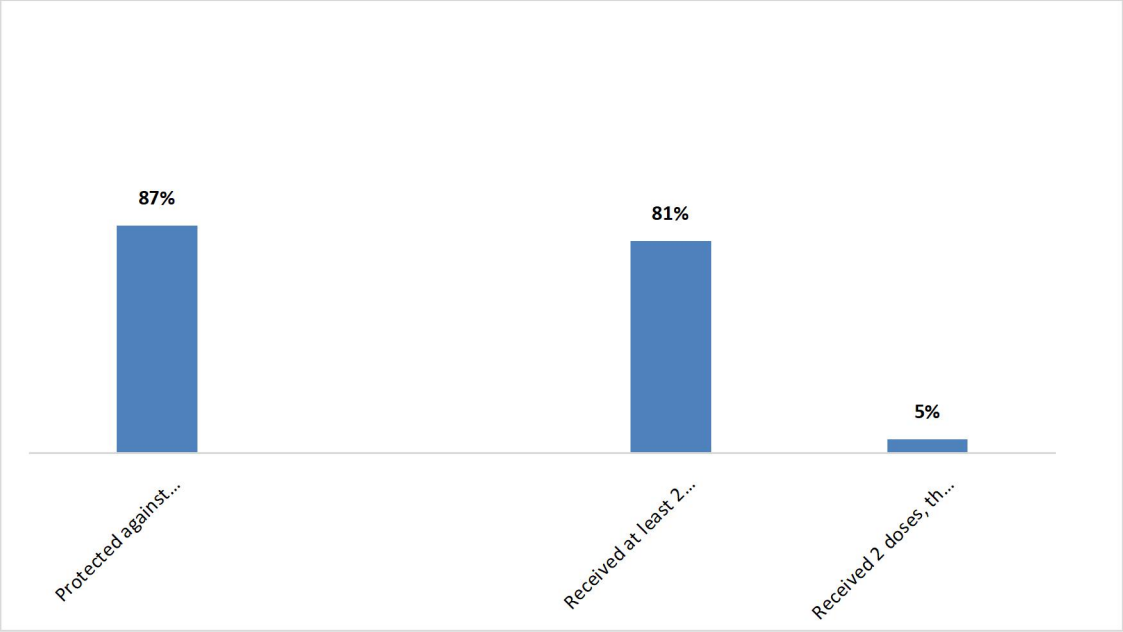
The strategy for preventing maternal and neonatal tetanus is to ensure that all pregnant women receive at least two doses of tetanus toxoid vaccine. A woman (and her newborn) was also considered protected if she has not received at least two doses of tetanus toxoid during a particular pregnancy but she had:

- Received at least two doses of tetanus toxoid vaccine, the last within the previous 3 years;
- Received at least 3 doses, the last within the previous 5 years;
- Received at least 4 doses, the last within the previous 10 years;
- Received 5 or more doses anytime during her life.

To assess the status of tetanus vaccination coverage, women who had a live birth during the two years before the survey were asked if they had received tetanus toxoid injections during the pregnancy for their most recent birth and if so, how many. Women who did not receive two or more tetanus toxoid vaccinations during this recent pregnancy were then asked about tetanus toxoid vaccinations they may have previously received. Interviewers also asked women to present their vaccination card to note the date recorded for tetanus toxoid vaccination and referred to information from the cards when available.

Figure 6.1 shows percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus in Lagos State. About 87 percent of women with a live birth in the last two years prior to MICS 2016-17 survey are protected against tetanus and 81 percent of women received at least 2 doses of tetanus toxoid during their last pregnancy.

Figure 6.1 percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus, Nigeria 2016-17 Lagos State



Tables 6.3 shows the percentage of women of reproductive age group protected against neonatal tetanus by background characteristics in Lagos State. The characteristics are senatorial districts, residence, sex, mother's education, mother's age and wealth index. Lagos West has the highest percentage (89.5 percent) of women protected against neonatal tetanus while Lagos East had the lowest percentage (80.7 percent). Lagos rural-urban difference on neonatal tetanus protection among this group of women is high, with urban areas having 87.9 percent and rural areas 63.2 percent coverage. Neonatal tetanus protection estimate varies with maternal education and wealth index in Lagos State.

Table 6.3 (CH.3): Neonatal tetanus protection by background characteristics

Percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus, Nigeria,2016-17Lagos State

	Percentage of women who received at least 2 doses during last pregnancy	Percentage of women who did not receive two or more doses during last pregnancy but received:					
		2 doses, the last within prior 3 years	3 doses, the last within prior 5 years	4 doses, the last within prior 10 years	5 or more doses during lifetime	Protected against tetanus[1]	Number of women with a live birth in the last 2 years
Total	**80.8**	**5.2**	**0.6**	**0.0**	**0.0**	**86.7**	**371**
Senatorial districts							
Lagos Central	77.5	3.1	1.6	0.0	0.0	82.2	52
Lagos East	73.6	6.2	1.0	0.0	0.0	80.7	76
Lagos West	83.8	5.4	0.2	0.0	0.0	89.5	243
Residence							
Urban	82.3	5.0	.6	.0	.0	87.9	352
Rural	(52.9)	(10.4)	(0.0)	(0.0)	(0.0)	(63.2)	19
Mother's Education							
None	(**69.0)	(**13.0)	(**0.0)	(**0.0)	(**0.0)	(**82.0)	15
Non-formal	(**100.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**100.0)	2
Primary	(67.6)	(8.6)	(3.8)	(0.0)	(0.0)	(80.0)	36
Secondary	81.1	4.5	0.4	0.0	0.0	86.0	202
Higher	85.8	4.6	0.0	0.0	0.0	90.4	116
Wealth index quintile							
Poorest	75.4	5.4	0.8	0.0	0.0	81.6	76
Second	69.4	8.5	0.0	0.0	0.0	77.9	73
Middle	85.2	3.0	2.1	0.0	0.0	90.3	77
Fourth	88.0	2.1	0.0	0.0	0.0	90.1	68
Richest	86.6	6.9	0.0	0.0	0.0	93.6	76

[1] *MICS indicator 3.9 - Neonatal tetanus protection* *( ) Sample data are based on 25-49 unweighted cases*

(*) Sample data are fewer than 25 unweighted cases *(**)Populated though the Sample data are fewer than 25 unweighted cases*

Care of Illness

A key strategy for accelerating progress toward SDG 3 is prevention and prompt management of diseases that leads to childhood mortality. Diarrhoea, pneumonia and malaria are three of such preventable childhood morbidity that causes under-five deaths. According to a UNICEF report[19] in 2016,

[19]https://www.unicef.org/lac/20161111_UNICEF-one-is-too-many-report.pdf

pneumonia and diarrhoea are easily preventable illnesses but in many parts of the world, a child dies every 35 seconds of pneumonia and every 60 seconds of diarrhoea. Estimates of mortality from severe malaria among children is also high, especially in infants who are yet to fully develop immunity in high endemic area and are prone to severe anaemia, hypoglycaemia and cerebral malaria.[20]

Several interventions and recommendations have been put in place to reduce the prevalence of these morbidities. One of such is the Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD). This aims to end preventable pneumonia and diarrhoea death by reducing mortality from pneumonia to 3 deaths per 1000 live births and mortality from diarrhoea to 1 death per 1000 live births by 2025. Also, WHO recommends Seasonal Malaria Chemoprevention (SMC)[21] which is intermittent administration of full treatment courses of antimalarial medicine to children in areas of highly seasonal transmission during the malaria season.

The definition of a case of diarrhoea or fever, in this survey, was the mother's (or caretaker's) report that the child had such symptoms over the specified period; no other evidence was sought beside the opinion of the mother. Pneumonia is the most serious outcome of acute respiratory infection (ARI). A child was considered to have had an episode of ARI if the mother or caretaker reported that the child had, over the specified period, an illness with a cough, with rapid or difficult breathing and whose symptoms were perceived to be due to a problem in the chest, or both a problem in the chest and a blocked nose. While this approach is reasonable in the context of a MICS, these simple case definitions must be kept in mind when interpreting the results, as well as the potential for reporting and recall biases.

Furthermore, diarrhoea, fever and ARI are not only seasonal but are also characterized by the often-rapid spread of localized outbreaks from one area to another at different points in time. The timing of the survey and the location of the teams might therefore considerably affect the results, which must consequently be interpreted with caution. For these reasons, although the period-prevalence over a two-week time window is reported, these data should not be used to assess the epidemiological characteristics of these diseases but rather to obtain denominators for the indicators related to use of health services and treatment.

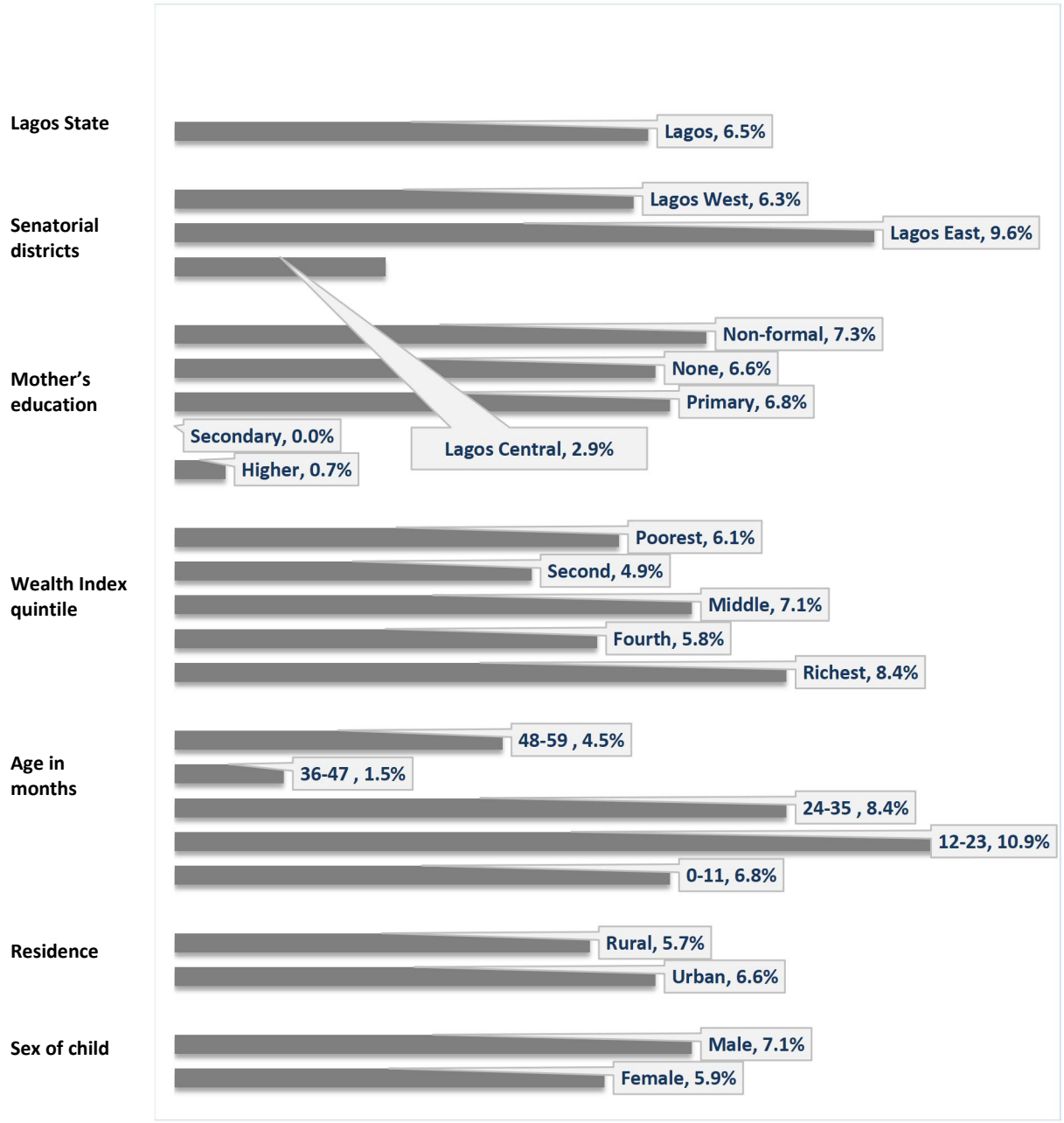
Diarrhoea

In the MICS, mothers or caretakers were asked whether their child under age five years had any episode of diarrhoea in the two weeks prior to the survey. In cases where mothers reported that the child had diarrhoea, a series of questions were asked about the treatment of the illness, including what the child had been given to drink and eat during the episode and whether this was more or less than what was usually given to the child. Figure 6.2 presents percentage of children who had diarrhoea within two weeks preceding the survey in Lagos State. About 6.5 percent of children age 0-59 months had at least one episode of diarrhoea in the two-week period before MIC survey. The pattern of diarrhoea episode across different social and demographic groups shows that diarrhoea was most common amongst

[20]http://www.who.int/malaria/areas/high_risk_groups/children/en/
[21]http://www.who.int/malaria/areas/preventive_therapies/children/en/

children in: Lagos East; male children; urban areas; children age 12-23; children of mothers with non-formal education and richest wealth index quintile households.

Figure 6.2: Percentage of children age 0-59 months for whom the mother/caretaker reported an episode of diarrhoea, Nigeria, 2016-17 Lagos State



Treatment of diarrhoea

Diarrhoea is a leading cause of death among children under five worldwide. Most diarrhoea-related deaths in children are due to dehydration from loss of large quantities of water and electrolytes from

the body in liquid stools. Management of diarrhoea – either through oral rehydration salts (ORS) or a recommended home fluid (RHF) – can prevent many of these deaths. In addition, provision of zinc supplements has been shown to reduce the duration and severity of the illness as well as the risk of future episodes within the next two or three months. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea. Table 6.4 shows the pattern of care seeking and treatment of diarrhoea for children age 0-59 who had at least an episode in the two-week period preceding the survey in Lagos State.

Table 6.4 (CH.4, 5,7and 8): Care seeking for Diarrhoea in the last two weeks preceding the survey

Percentage of children age 0-59 months with diarrhoea in the last two weeks and care seeking for diarrhoea Nigeria, 2016-17Lagos State

	Percent of episode of diarrhoea	Number of children age 0-59 months	Care seeking and treatment of Diarrhoea				Number of children age 0-59 months with diarrhoea in the last two weeks
			Advice or treatment sought from health facility or provider[1, a]	ORS or any recommended homemade fluid	ORS and zinc[2]	ORT with continued feeding[3]	
Total	**6.5**	**930**	**32.3**	**54.4**	**29.2**	**43.8**	**61**
Senatorial Districts							
Lagos Central	2.9	128	(**37.6)	(**53.2)	(**37.8)	(**15.7)	4
Lagos East	9.6	188	(39.9)	(47.3)	(24.3)	(33.5)	18
Lagos West	6.3	615	(**28.3)	(**57.5)	(**30.6)	(**51.2)	39
Sex							
Male	7.1	462	28.2	(40.7)	(22.8)	(26.3)	33
Female	5.9	468	(**37.1)	(**70.5)	(**36.8)	(**64.5)	28
Residence							
Urban	6.6	887	31.6	56.2	30.0	45.2	58
Rural	5.7	43	(*)	(*)	(*)	(*)	2
Age (months)							
0-11	6.8	164	(*)	(*)	(*)	(*)	11
12-23	10.9	195	(*)	(*)	(*)	(*)	21
24-35	8.4	207	(*)	(*)	(*)	(*)	17
36-47	1.5	189	(*)	(*)	(*)	(*)	3
48-59	4.5	175	(*)	(*)	(*)	(*)	8
Mother's education							
None	0.7	44	(**0.0)	(**0.0)	(**0.0)	(**0.0)	0
Non-formal	(**0.0)	4	(**6.8)	(**25.1)	(**10.9)	(**18.3)	8
Primary	6.8	122	(19.7)	(53.4)	(12.2)	(49.0)	32
Secondary	6.6	479	(**62.4)	(**68.4)	(**63.1)	(**46.7)	20
Higher	7.3	281	(*)	(*)	(*)	(*)	16
Wealth index quintile							
Poorest	8.4	197	(*)	(*)	(*)	(*)	11
Second	5.8	194	(*)	(*)	(*)	(*)	14
Middle	7.1	192	(*)	(*)	(*)	(*)	8
Fourth	4.9	158	(*)	(*)	(*)	(*)	11
Richest	6.1	189	41.2	58.4	34.8	33.0	71

[1] MICS indicator 3.10 - Care-seeking for diarrhea

[2] *MICS indicator 3.11 - Diarrhoea treatment with oral rehydration salts (ORS) and zinc*

[3] *MICS indicator 3.12 - Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding*

[a] Includes all public and private health facilities and providers, but excludes private pharmacy

(*) Sample data are fewer than 25 unweighted cases

Only one out of 3 cases (32.3 percent) of diarrhoea sought advice or treatment from health facilities or providers. There are differences across social and demographic groups in seeking help from health facilities or providers for diarrhoeal episode in Lagos State. More reported cases of diarrhoea in Lagos East sought advice or treatment in health facility or provider than other senatorial districts. While there are other social and demographic groups that sought advice or treatment from health facility during diarrhoea episodes, more cases involving female children (37.1 percent) and mothers with secondary education (62.4 percent) were reported.

Management of diarrhoea either through oral rehydration salts (ORS: packets or pre-packaged ORS fluids) or a recommended home fluid (RHF: salt-sugar solution, coconut water and rice water) can prevent mortality among children under-five years. Among reported cases of diarrhoea, 54.4 percent used ORS or RHF for treatment. This type of diarrhoea management is higher in Lagos West senatorial districts, among mothers with secondary education (68.4 percent) and female children (70.5 percent). Combining ORS with Zinc has proven to be more effective in treatment of diarrhea. Only 29.2 percent managed diarrhea illness with ORS and Zinc while 43.8 percent managed it with ORS and continued feeding. Also, combining ORT with continued feeding is more prevalent in Lagos West than other senatorial districts.

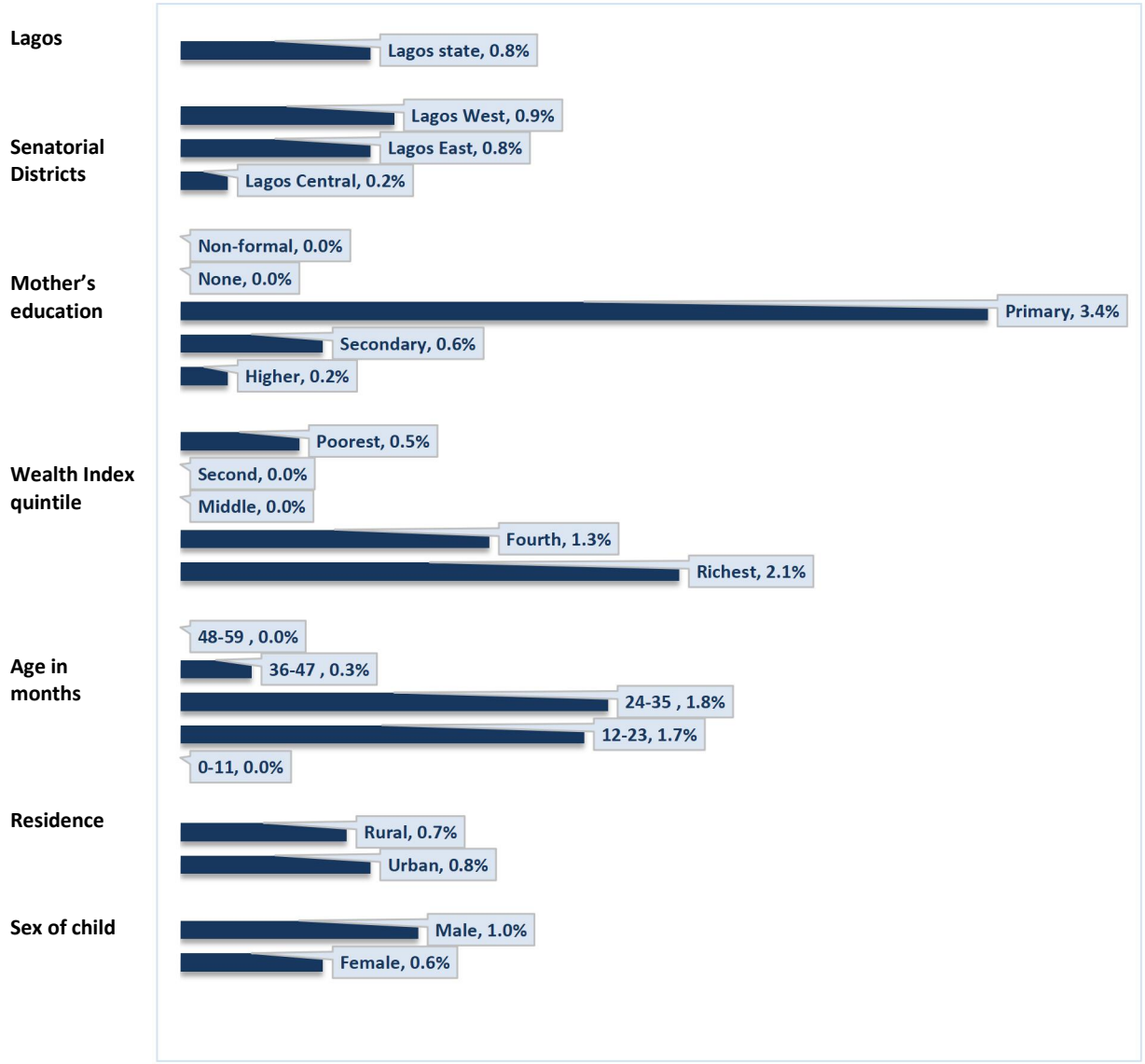
Acute Respiratory Infection (ARI)

Information on symptoms of ARI were collected during the Nigeria, 2016-17 MICS to estimate the incidence of pneumonia disease which is the leading cause of death in children under five in Lagos State. Once diagnosed, pneumonia is treated effectively with antibiotics. Studies have shown a limitation in the survey approach of measuring pneumonia because many of the suspected cases identified through surveys are in fact, not true pneumonia.[22] While this limitation does not affect the level and patterns of care-seeking for suspected pneumonia, it limits the validity of the level of treatment of pneumonia with antibiotics, as reported through household surveys. The treatment indicator described in this report must therefore be taken with caution, keeping in mind that the accurate level is likely higher. Figure 6.3 presents percentage of children who had symptoms of acute respiratory infection within two weeks preceding the survey in Lagos State.

About 0.8 percent of children age 0-59 months had symptoms of ARI in the two-week period before MIC survey. The pattern of period-prevalence of ARI symptoms across different social and demographic groups shows that: the symptoms of ARI have higher period-prevalence among male children in Lagos West, urban areas, children age 24-35, children of mothers who have primary education and live in the rich wealth index quintile household.

[22]Campbell, H. et al. 2013.*Measuring Coverage in MNCH: Challenges in Monitoring the Proportion of Young Children with Pneumonia Who Receive Antibiotic Treatment*. PLoS Med 10(5): e1001421. doi:10.1371/journal.pmed.1001421

Figure 6.3: Percentage of children age 0-59 months for whom the mother/caretaker reported symptoms of acute respiratory infection (ARI), Nigeria, 2016-17 Lagos State



Solid Fuel Use

More than 3 billion people around the world rely on solid fuels for their basic energy needs, including cooking and heating. Solid fuels include biomass fuels, such as wood, charcoal, crops or other agricultural waste, dung, shrubs and straw and coal. Cooking and heating with solid fuels leads to high levels of indoor smoke which contains a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is their incomplete combustion, which produces toxic elements such as carbon monoxide, polyaromatic hydrocarbons and sulphur dioxide (SO_2), among others.

Use of solid fuels increases the risks of acute respiratory infections such as pneumonia, chronic obstructive lung disease, cancer, or asthma. It may also contribute to low birth weight of babies born to pregnant women exposed to smoke. The primary indicator for monitoring use of solid fuels is the proportion of the population using solid fuels as the primary source of domestic energy for cooking, shown in Table 6.5.

Table 6.5 (CH.12 and 13): Solid fuel use by place of cooking

Percent distribution of household members in households using solid fuels by place of cooking, Nigeria, 2016-17
Lagos State

	Solid fuels for cooking[1]	Number of household members	Place of cooking:					Number of household members in households using solid fuels for cooking
			In the house					
			In a separate room used as kitchen	Elsewhere in the house	In a separate building	Outdoors	Other place	
Total	**3.3**	**6,452**	**15.0**	**0.6**	**7.9**	**76.5**	**0.0**	**212**
Senatorial Districts								
Lagos Central	3.9	968	40.1	0.0	0.0	59.9	0.0	37
Lagos East	5.9	1,385	2.7	1.6	20.4	75.3	0.0	82
Lagos West	2.3	4,099	15.7	0.0	0.0	84.3	0.1	93
Residence								
Urban	2.6	6,225	20.0	0.0	5.0	75.0	0.0	159
Rural	23.6	227	0.0	2.5	16.5	81.0	0.0	54
Education of HH head								
None	1.3	262	(0.0)	(0.0)	(1.3)	(98.7)	0.3	31
Primary	1.1	1,060	16.1	0.0	14.7	69.2	0.0	71
Secondary	3.8	3,037	18.5	1.2	5.3	75.0	0.0	110
Higher	1.8	2,028						
Wealth index quintile								
Poorest	2.9	1,292	1.9	1.1	12.2	84.7	0.1	120
Second	1.7	1,291	(18.9)	(0.0)	(0.8)	(80.3)	0.0	49
Middle	3.3	1,288	(46.7)	(0.0)	(4.7)	(48.6)	0.0	34
Fourth	2.8	1,289	(*)	(*)	(*)	(*)	0.0	9
Richest	2.1	1,293						

[1] MICS indicator 3.15 - Use of solid fuels for cooking

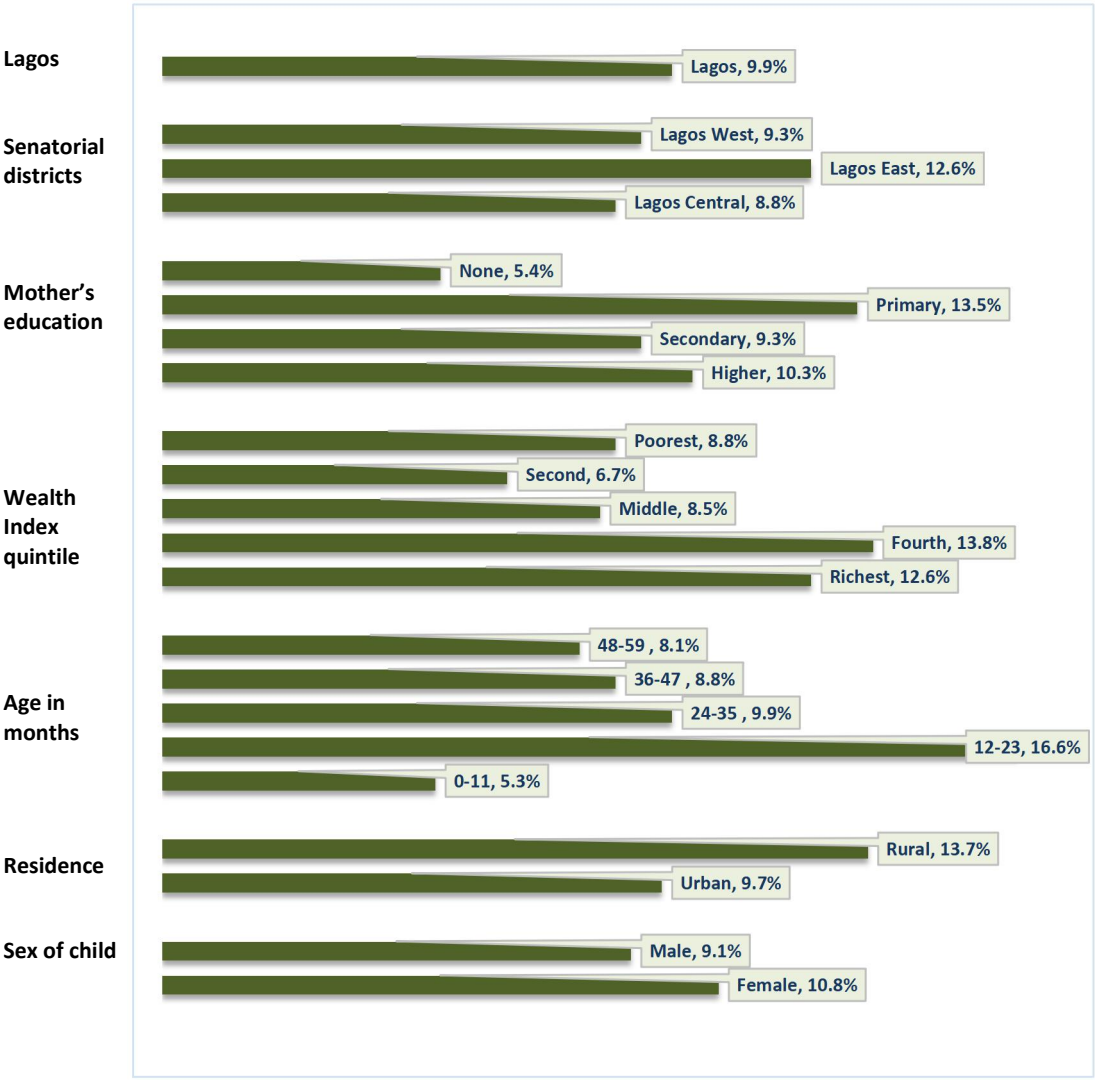
( ) Sample data are based on 25-49 unweighted cases
(*) Sample data are fewer than 25 unweighted cases

Overall, 3.3 percent of household members in Lagos use solid fuels for cooking. Use of solid fuels is higher in the rural areas (23.6 percent) than the urban areas (2.6 percent). The use of solid fuels ranges from 2.3 percent in Lagos West to 3.9 percent in Lagos Central and 5.9 percent in Lagos East senatorial districts. The extent of indoor pollution is dependent on the cooking practice, places used for cooking and the type of fuel used. In Lagos State, one out of 7 members (15 percent) of household that cooks with solid fuels use a separate room as kitchen. The proportion that uses solid fuel to cook food in separate rooms within the dwelling unit is higher in urban areas than rural areas, while cooking elsewhere within the dwelling unit is higher in rural areas. The few educated and richer members of households in Lagos State that cook with solid fuel used a separate building or outdoor.

Malaria/Fever

In Nigeria, malaria is the commonest cause of hospital attendance for all age group and a major cause of death of children under age five[23]. A case of fever, as presented in Figure 6.4, in this survey was the mother's or caretaker's report that the child had fever symptom two weeks preceding the survey. About one out of 10 children (9.9 percent) under-five in Lagos State was reported to have had fever two weeks before MICS 2016-17. Reported cases of fever was highest in the Lagos East, children whose mothers had primary education, richer wealth quintile households, children age 12-23 months and those residing in rural areas.

Figure 6.4: Percentage of children age 0-59 months for whom the mother/caretaker reported fever, Nigeria, 2016-17 Lagos State



Care Seeking: Malaria preventive measures and treatment for under-five children

[23]http://apps.who.int/medicinedocs/documents/s18401en/s18401en.pdf

Preventive measures and treatment with an effective antimalarial can reduce malaria mortality rates among children and pregnant women. In areas where malaria is common, WHO recommends indoor residual spraying (IRS), use of insecticide treated bednets (ITNs) and prompt treatment of cases with recommended anti-malarial drugs. Insecticide-treated mosquito nets(ITN), if used properly, are very effective in offering protection against mosquitos and other insects.

The use of ITNs is one of the main health interventions implemented to reduce malaria transmission in Nigeria. WHO also recommends seasonal malaria chemoprevention (SMC)[24] which is intermittent administration of full treatment courses of an antimalarial medicine to children in areas of highly seasonal transmission during the malaria season. The questionnaire incorporates questions on the availability and use of bed nets, both at household level and among children under five years of age and pregnant women. Table 6.6 shows household availability and use of ITN in Lagos State.

Table 6.6 (CH.14 and 19): Household availability and use of insecticide treated nets

Percentage of households with at least one insecticide treated net (ITN), at least ITN per two people andhousehold members who slept under an ITN the previous night, Nigeria, 2016-17Lagos State

	Percentage of households with			Percentage of household members who slept under an ITN the previous night[3]	Number of household members who spent the previous night in the interviewed households
	At least one ITN[1]	At least one ITN for every two people[2]	Number of households		
Total	**38.8**	**15.8**	**1681**	**39.1**	**1,069**
Senatorial Districts					
Lagos Central	39.8	15.5	269	49.2	160
Lagos East	36.0	14.4	358	47.0	221
Lagos West	39.6	16.3	1,054	34.2	688
Residence					
Urban	38.9	15.9	1,627	38.2	1,035
Rural	35.8	11.1	54	67.9	34
Education of household head					
None	27.3	14.1	85		
Non-formal	(*)	(*)	11		
Primary	36.6	13.4	253		
Secondary	37.6	14.2	787		
Higher	43.7	19.6	541		
Wealth index quintile					
Poorest	28.7	11.5	373	56.6	151
Second	36.0	15.0	354	51.8	199
Middle	38.2	11.6	321	30.5	184
Fourth	48.0	20.8	322	29.3	278
Richest	45.4	21.0	311	35.7	257

[1] MICS indicator 3.16a - Household availability of insecticide-treated nets (ITNs) - One+
[2] MICS indicator 3.16b - Household availability of insecticide-treated nets (ITNs) - One+ per 2 people
[3] *MICS indicator 3.19 - Population that slept under an ITN*
( ) Sample data are based on 25-49 unweighted cases *(*) Sample data are fewer than 25 unweighted cases*

Approximately one out of 3 households (38.8 percent) in Lagos have at least one insecticide treated net. About 1 out of 7 households (15.8 percent), however have at least one ITN for every two household

[24]http://www.who.int/malaria/areas/preventive_therapies/children/en/

members. Variations exist in the ownership of ITN across other social groups: higher percentage of urban households owned ITNs than rural households; higher proportion of households in the richer wealth quintile reported ownership of ITNs than household in the poor wealth quintiles; and higher proportions of households with higher education owned ITNs than others.

Household members in Lagos were interviewed on the use of ITNs the previous night. About 39.1 percent reported having slept under an ITN in the previous night. The use of ITNs in previous night across senatorial district is highest in Lagos Central (49.2 percent) and lowest in Lagos West (34.2 percent). Also, higher proportion of household members in the rural areas and poor households used ITNs in the previous night before survey in Lagos State.

Malaria preventive measures and treatment for children

Children under-five years are most vulnerable and have on the average of 2-4 attacks of malaria every year in Nigeria[25]. Table CH.8 presents preventive measures in terms of use of ITN the previous night before the survey visit, care seeking for fever, malaria diagnostic usage and anti-malarial treatment of under-five in Lagos State. Percent distribution of preventive measures and treatment based on background characteristics were also presented in Table 6.7.

Only 24.3percent of children under the age of five years, who spent the previous night in the interviewed household, slept under insecticide treated net. Slight variation exists among senatorial district on use of ITNs for children under five, highest is32.2percent in Lagos Central and low is22.3percent in Lagos East. The usage of ITNs for under-five children is more, in comparison, among the following categories: rural areas, female children, age 12-23 months, poor wealth quintile households and mothers who had no education.

In 2010 the World Health Organization issued a recommendation for universal use of diagnostic testing to confirm malaria infection and apply appropriate treatment based on the results. According to the guidelines, treatment solely on the basis of clinical suspicion should only be considered when a parasitological diagnosis is not accessible. This recommendation was based on studies that showed substantial reduction in the proportion of fever that are associated with malaria to a low level.[26] This recommendation implies that the indicator on proportion of children with fever that received antimalarial treatment is no longer an acceptable indicator of the level of treatment of malaria in the population of children under age five. However, for purposes of comparisons, as well as assessment of patterns across socio-demographic characteristics, the indicator remains a standard MICS indicator.
For MICS indicators of care seeking and treatment for malaria among under-five children in Lagos State, 69.4percent sought for advice or care in a health facility or provider, 30.2 percent had blood taken from a finger or heel for testing, 67 percent had taken antimalarial medication. Although, more sought for advice or care in health facility in Lagos Central (85.1 percent), Lagos West has the highest percentage of those who had blood taken from a finger or heel for testing (40.9 percent) and used any antimalarial drugs (75.1 percent).

---

[25] **http://apps.who.int/medicinedocs/documents/s18401en/s18401en.pdf**: National Antimalarial Treatment Policy
[26] D'Acremont, V et al. 2010. *Reduction in the proportion of fevers associated with Plasmodium falciparum parasitaemia in Africa: a systematic review*. Malaria Journal 9(240).

Mothers were asked to report all the medicines given to a child to treat the fever, including those given at home and those given or prescribed at a health facility. Artemisinin-based Combination therapy (ACT) is the first line antimalarial recommended by the World Health Organization and three out of 5 of children (62.4 percent) who received antimalarial treatment use Artemisinin-based Combination Therapy (ACT). All under-five children in Lagos Central received ACT as treatment for malaria.

Table 6.7 (CH.18, 20, 22 and 23): Prevention and care seeking for malaria among under-five children

Percentage of children age 0-59 months who slept under a mosquito net last night, by type of net, Nigeria, 2016-17 Lagos State

	Preventive measure using ITN		Care seeking for malaria fever				
	Percentage of children under age five who slept under ITN in the previous night[1]	Number of children age 0-59 months who spent last night in the interviewed households	Sought for advice or care in a health facility or provider[2, a]	Had blood taken from a finger or heel for testing[3]	Any antimalarial drugs[4]	Treatment with Artemisinin-based Combination Therapy (ACT) among children who received anti-malarial treatment[5]	Number of children with fever in last two weeks
Total	**24.3**	**919**	**69.4**	**30.2**	**67.0**	**62.4**	**92**
Senatorial Districts							
Lagos Central	32.2	128	(**85.1)	(**24.8)	(**49.3)	(**100.0)	11
Lagos East	22.3	185	51.4	(6.7)	(55.6)	(*)	24
Lagos West	23.3	607	73.7	(40.9)	(75.1)	(65.9)	57
Sex							
Male	22.0	455	(68.7)	(38.4)	(61.3)	(62.8)	50
Female	26.6	464	(70.2)	(20.5)	(73.6)	(62.0)	43
Residence							
Urban	24.1	877	68.1	31.5	66.5	63.2	86
Rural	28.1	42	(*)	(*)	(*)	(*)	6
Age (months)							
0-11	22.8	164	(*)	(*)	(*)	(*)	9
12-23	26.5	193	(53.2)	(21.4)	(62.5)	(*)	32
24-35	22.9	204	(*)	(*)	(*)	(*)	21
36-47	25.0	183	(*)	(*)	(*)	(*)	17
48-59	24.3	175	(*)	(*)	(*)	(*)	14
Mother's education							
None	(49.4)	43	(**100.0)	(**0.0)	(**74.7)	(**71.9)	2
Primary	16.1	122	(**48.0)	(**6.7)	(**62.6)	(**52.3)	16
Secondary	20.1	475	(68.9)	(29.5)	(64.3)	(72.7)	45
Higher	31.3	275	(79.6)	(47.0)	(72.9)	(*)	29
Wealth index quintile							
Poorest	28.5	196	(*)	(*)	(*)	(*)	17
Second	25.8	193	(*)	(*)	(*)	(*)	13
Middle	16.7	187	(*)	(*)	(*)	(*)	16
Fourth	22.7	158	(*)	(*)	(*)	(*)	22
Richest	27.4	186	(*)	(*)	(*)	(*)	24

[1] MICS indicator 3.18; MDG indicator 6.7 - Children under age 5 sleeping under insecticide-treated nets (ITNs)[2] MICS indicator 3.20 - Care-seeking for fever

[3] MICS indicator 3.21 - Malaria diagnostics usage[4] MICS indicator 3.22; MDG indicator 6.8 - Anti-malarial treatment of children under age 5

[5]MICS indicator 3.23 - Treatment with Artemisinin-based Combination Therapy (ACT) among children who received anti-malarial treatment

[a]Includes all public and private health facilities and providers as well as shops

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases
(**)Populated though the Sample data are fewer than 25 unweighted cases

Care Seeking: Malaria preventive measures and treatment for pregnant women

Pregnant women living in malaria endemic environment are highly vulnerable to malaria. Once infected, pregnant women risk anemia, premature delivery and stillbirth. Their babies have increased risk of low birth weight and infant death.[27] For this reason, intermittent preventive treatment (IPT) was introduced to protect pregnant women from malaria by giving drugs that prevent malaria infection during antenatal check-ups. In addition to IPT, there is distribution of insecticide-treated mosquito nets during antenatal check-ups. WHO recommends that in areas of moderate-to-high malaria transmission, all pregnant women be provided an intermittent preventive treatment with sulfadoxine-Pyrimethamine (SP) at every scheduled antenatal care visit. Table 6.8 presents the proportion of pregnant women in Lagos State who slept under a mosquito net during the previous night and received IPT for malaria.

Table 6.8 (CH.24 and 25): Intermittent preventive treatment for malaria

Percentage of women age 15-49 years who had a live birth during the two years preceding the survey and who received intermittent preventive treatment (IPT) for malaria during pregnancy at any antenatal care visit, Nigeria, 2016-17Lagos State

	Percentage of pregnant women age 15-49 years who slept under ITN in the previous night[1]	Number of pregnant women who spent last night in the interviewed households	Percentage of pregnant women		Number of women with a live birth in the last two years and who received antenatal care
			Who took any medicine to prevent malaria at any ANC visit during pregnancy	Who took SP/FansidarThree or more times[2]	
Total	**4.1**	**94**	**78.2**	**8.9**	**338**
Senatorial Districts					
Lagos Central	(**24.4)	12	73.4	7.0	45
Lagos East	(3.5)	26	80.7	5.6	64
Lagos West	(0.0)	56	78.5	10.1	229
Residence					
Urban	4.3	89	78.0	8.2	324
Rural	(*)	5	(83.4)	(24.1)	14

[1] MICS indicator 3.24 - Pregnant women who slept under an insecticide treated net (ITN)

[2] *MICS indicator 3.25 - Intermittent preventive treatment for malaria*

( ) Sample data are based on 25-49 unweighted cases *(*) Sample data are fewer than 25 unweighted cases*
(**)Populated though the Sample data are fewer than 25 unweighted cases

Percentage of pregnant women age 15-49 years who slept under ITN in the previous night is very low (4.1) percent. This implies that about 4 out of 100 pregnant women within two years preceding the survey slept under an ITN as recommended in Lagos State. Lower proportion of pregnant women in Lagos East and Lagos West practice this malaria preventive measure.

In the 2016-17 MICS, women were asked of the medicines they had received to prevent malaria in their last pregnancy during the 2 years preceding the survey. Women are considered to have intermittent preventive therapy if they have received at least 3 doses of SP/Fansidar during the pregnancy, at least one of which was taken during antenatal care. Although, 78.2 percent of women took medicine to prevent malaria at ANC visit during pregnancy, only 8.9 percent took 3 or more doses of SP/Fansidaras

[27]Shulman, CE and Dorman, EK. 2003. *Importance and prevention of malaria in pregnancy*. Trans R Soc Trop Med Hyg 97(1): 30–55.

recommended by WHO. While adherence to IPT is low for Lagos State, it is specifically very low for Lagos East and urban areas.

VII. Water and Sanitation

The Sustainable Development Goal 6 is to ensure availability and sustainable management of water and sanitation for all by 2030: Access to safe clean water and sanitation for all and sound management of freshwater ecosystems are essential to human health and environmental sustainability and economic prosperity.[28] Drinking water can be polluted with physical, chemical, trace elements (heavy metals) and organic contaminants with aesthetic and harmful effects on public health. Unsafe drinking water can be a significant determinant of diseases such as cholera, typhoid and schistosomiasis. In addition to preventing disease, improved access to drinking water may be particularly important for women and children, especially in rural areas, who bear the primary responsibility for carrying water, often for long distances.[29] Also, inadequate disposal of human excreta and personal hygiene are associated with a range of diseases including diarrhoeal diseases and polio and are important determinants of stunting. Improved sanitation can reduce diarrhoeal disease by more than a third[30] and can substantially lessen the adverse health impacts of other disorders among millions of children in many countries.

KEY FINDINGS

93.6 percent of household members use improved sources of drinking water in Lagos State

5.7 percent of households using unimproved drinking water sources have appropriate water treatment method:

- **10.5% boil water**
- **4.8% add bleach or chlorine**
- **0.6% use water filter**

96.1 percent of household members use improved sanitation facilities that are not shared

42.5 percentof households have improved drinking water source and improved sanitation facility in Lagos State

One out of 4 households in Lagos State has a specific place for handwashing where water and soap or other cleansing agents are present.

***E.Coli* contaminated drinking water is high and of public health concern as 73 percent of household members in Lagos State drink faecal contaminated water**

Percentage of household in Lagos State with improved drinking water sources accessible on the premises, available when needed and free from faecal contamination is low 8.9 percent.

Use of Improved Water Sources

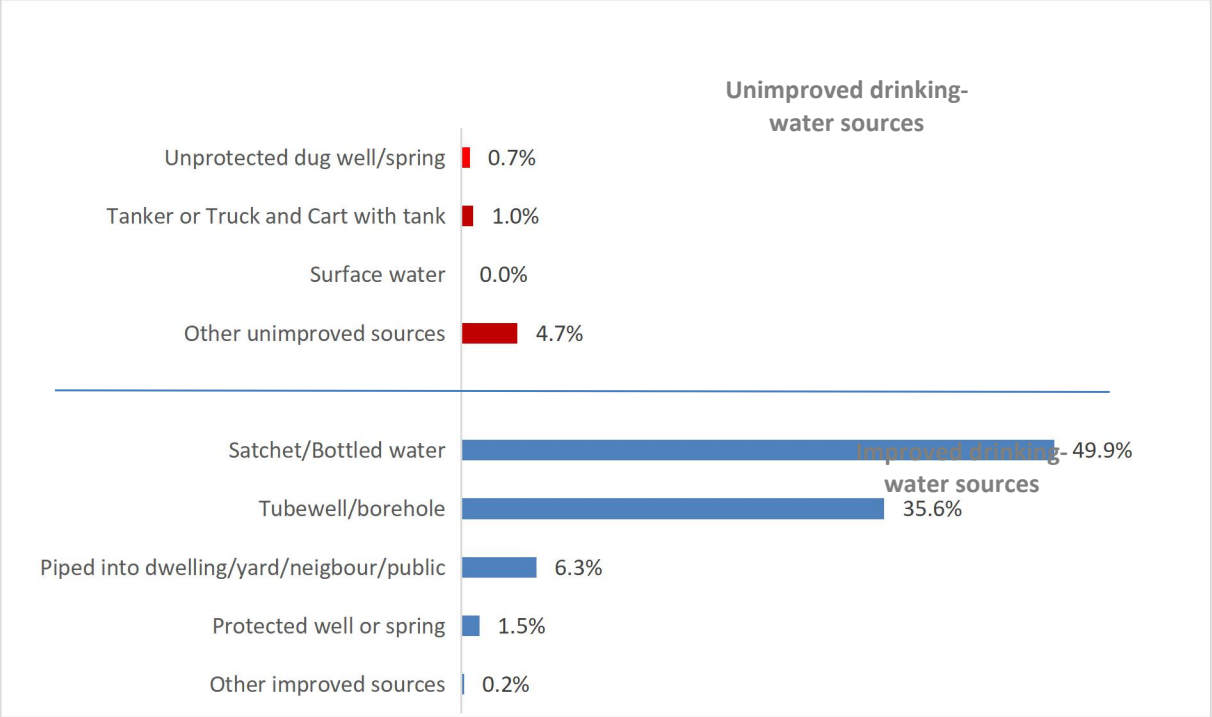
Safe drinking water is a basic necessity for good health. Sustainable Development goal 6, target 1 is to achieve universal and equitable access to safe and affordable drinking water for all by 2030 and increased proportion of population using safely managed drinking water services[31]. In Lagos State,

[28]For more details on water and sanitation and to access some reference documents, please visit **https://www.washdata.org**or the website of the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation
[29]WHO/UNICEF. 2012. *Progress on Drinking water and Sanitation: 2012 update*.
[30]Cairncross, S et al. 2010. *Water, sanitation and hygiene for the prevention of diarrhoea*. International Journal of Epidemiology 39: i193-i205.
[31] https://sustainabledevelopment.un.org/sdg6

household main source of drinking water which is classified into improved and unimproved is presented in Figure 7.1.

An “improved drinking-water source" is one that by the nature of its construction adequately protects the source from external contamination, in particular from faecal matter[32]. Improved drinking-water sources are: piped water (into dwelling, compound, yard or plot, to neighbour, public tap/standpipe), tube well/borehole, protected well, protected spring and rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for hand washing and cooking. In Lagos State, 93.6 percent of household use improved sources of drinking water. About half of household’s source drinking water from sachet/bottled water, while one out of 3of households (35.6 percent) used tube-well or borehole as source of improved drinking water. Only 6.4 percent of households in Lagos State still drink water from unimproved sources as at the time of Multiple Indicator Cluster survey 2016-17.

Figure 7.1: Percentage of household members by main source of drinking water. Nigeria 2016-17 Lagos State



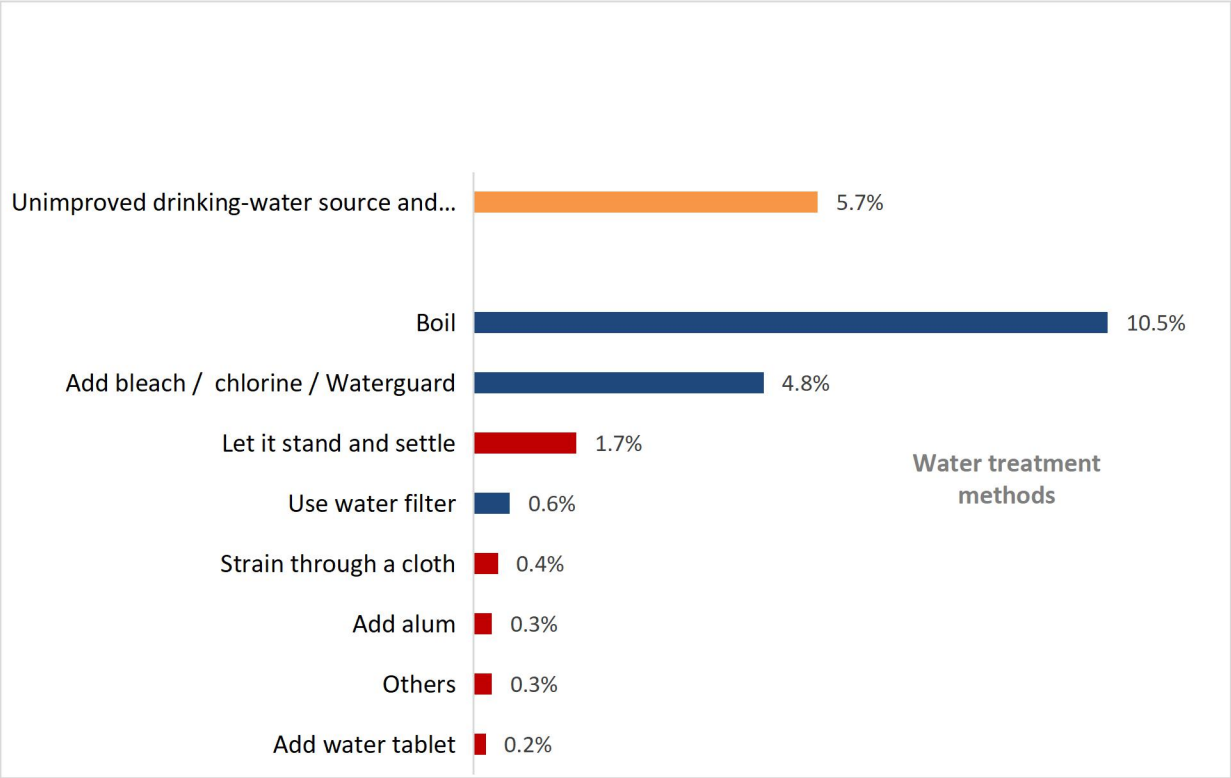
Use of household water treatment

Respondents in Lagos were asked about ways of treating water at home to make it safer to drink. Boiling water, adding bleach or chlorine, using a water filter and using solar disinfection are considered as effective treatment of drinking water. Use of household water treatment in Lagos State is presented in Figure 7.2. It shows water treatment by all households and the percentage of those living in households with unimproved water sources but using appropriate water treatment methods as well. In Lagos, 5.7

[32] http://www.who.int/water_sanitation_health/monitoring/coverage/jmp_fast_facts/en/

percent of households are using unimproved drinking water sources and appropriate water treatment method. This implies that only about 6 out of 100 households with unimproved drinking water source use appropriate water treatment method. The commonest water treatment method used in Lagos households is boiling (10.5 percent). Other effective water treatment methods used in Lagos State are: adding bleach or chlorine (4.8 percent) and use of water filter (0.6 percent).

Figure 7.2: Percentage of household member using water treatment and those using unimproved water sources but appropriate water treatment methods. Nigeria, 2016-17 Lagos State



Use and sharing of improved sanitation facilities

The 2017 thematic report on safely managed sanitation and hygiene considers the implications of target 6.2 "by 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations" and outlines Joint Monitoring Programme (JMP) plans for enhanced global monitoring of sanitation and hygiene in the 2030 Agenda for Sustainable Development. An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine, pit latrine with slab and use of a composting toilet. Percent distribution of household population according to type of toilet facility used by the household in Lagos State is presented in Figure 7.3.

About 96.1 percent of household population used improved sanitation facility in Lagos State and the most common is flush/ pour flush to septic tank. The most commonly used unimproved sanitation method is open defecation (2.5 percent).

The SDG 6.2 and the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation, classify otherwise acceptable sanitation facilities which are public or shared between two or more households as unimproved. Therefore, “improved sanitation” is used both in the context of this report and as an SDG indicator to refer to improved sanitation facilities, which are not public or shared. As shown in Figure 7.4, forty-four percent of the household population use improved sanitation facilities that are not shared,51.5 percent of households use improved sanitation facilities that are shared with other households and 0.5 percent use shared public facility.

Figure 7.3: Distribution of household population according to types of toilet facility used by the household, Nigeria, 2016-17 Lagos State

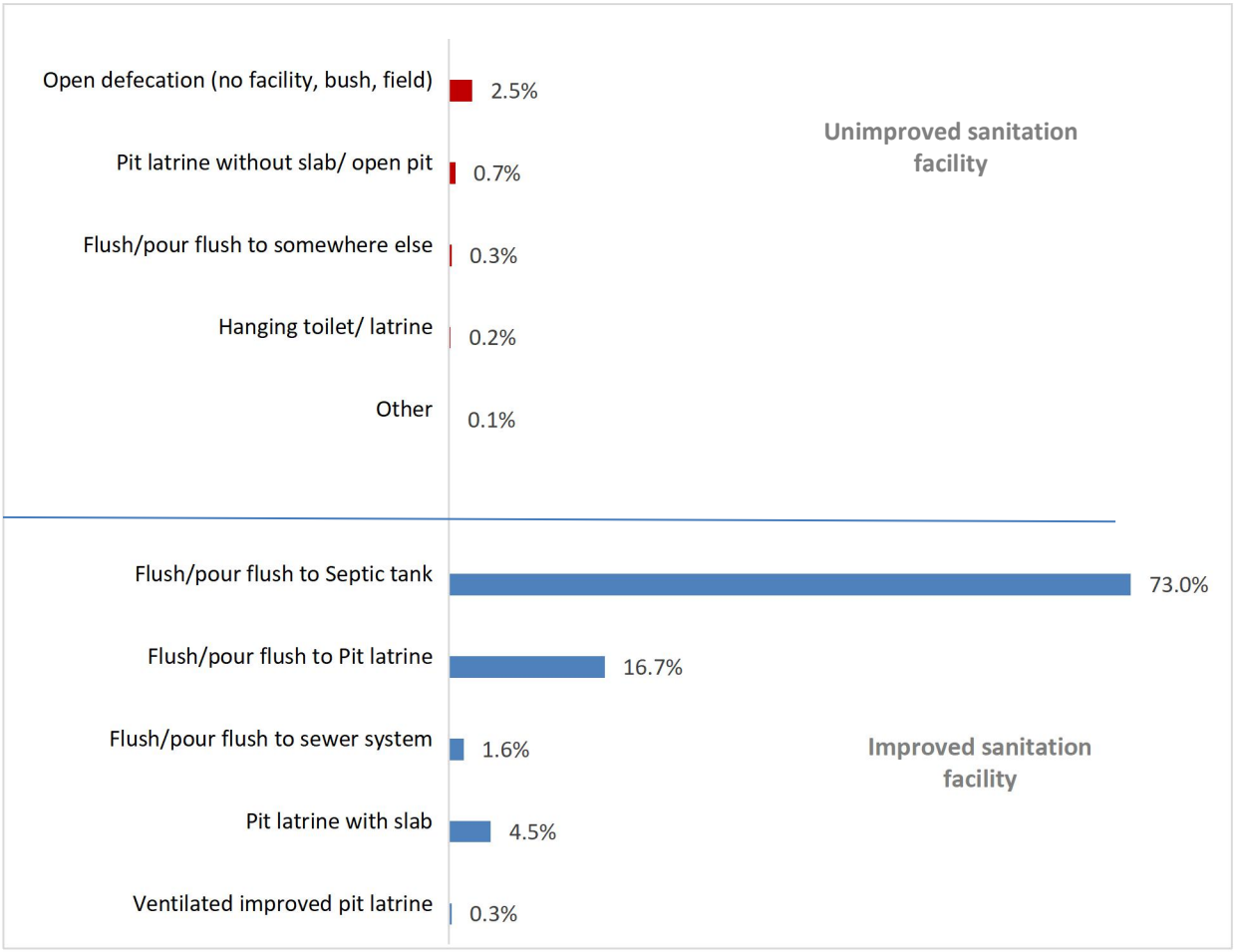
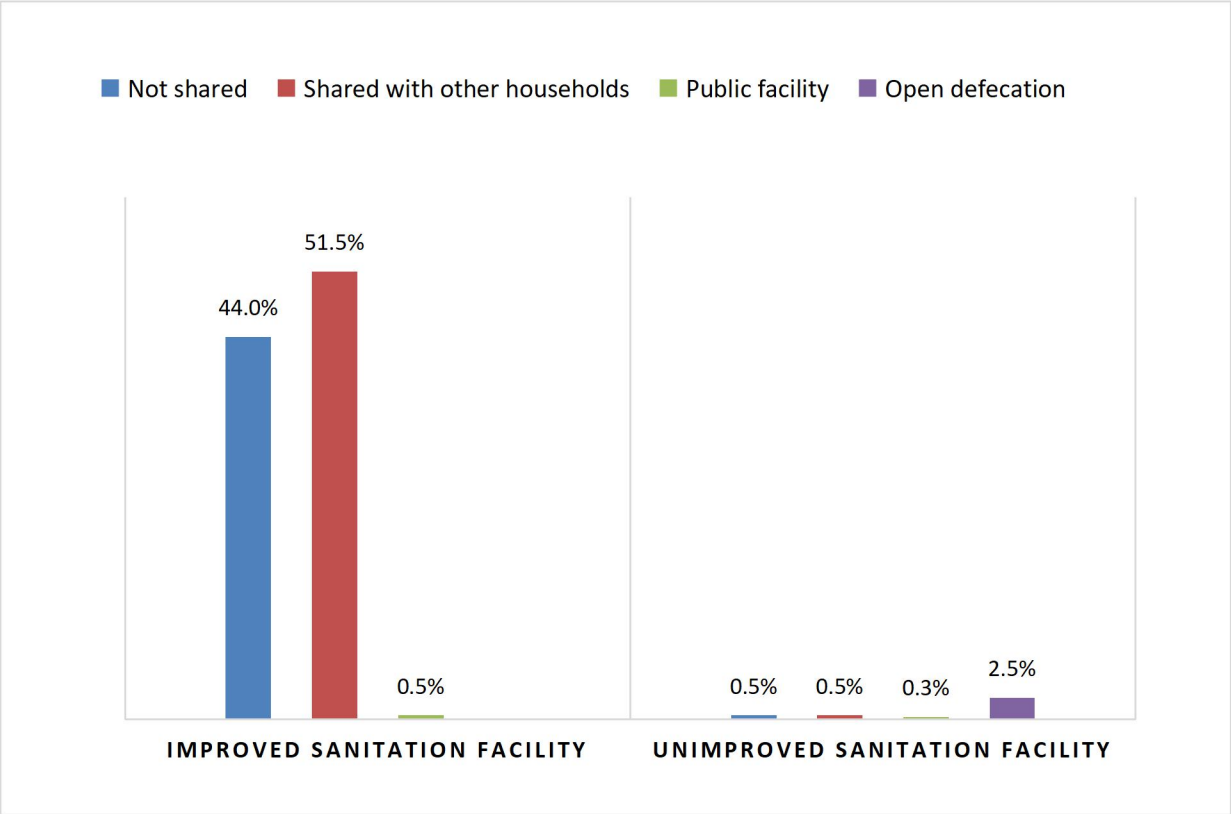


Figure 7.4: Distribution of household members by use and sharing of sanitation facilities, Nigeria, 2016-17 Lagos State



Drinking water and Sanitation ladder

Having access to both improved drinking water source and improved sanitation facility brings the largest public health benefits to a household.[33]In its 2008 report[34], the JMP developed a new way of presenting the access figures, by disaggregating and refining the data on drinking-water and sanitation and reflecting them in "ladder" format. This ladder allows a disaggregated analysis of trends in a three-rung ladder for drinking-water and a four-rung ladder for sanitation as presented in Table 7.1. The percentage of households with access to both improved sources of drinking water[35] and improved sanitation facilities is 42.5 percent. This implies that two out of 5 households have improved drinking water source and improved sanitation facility. There are differentials across social groups in Nigeria.

[33]Wolf, J et al. 2014. *Systematic review: Assessing the impact of drinking water and sanitation on diarrhoeal disease in low- and middle-income settings: systematic review and meta-regression*. Tropical Medicine and International Health 2014.
DfID. 2013. *Water, Sanitation and Hygiene: Evidence Paper*. DfID:
http://r4d.dfid.gov.uk/pdf/outputs/sanitation/WASH-evidence-paper-april2013.pdf
[34]WHO/UNICEF JMP. 2008. *MDG assessment report*.*http://www.wssinfo.org/fileadmin/user_upload/resources/1251794333-JMP_08_en.pdf*
[35]Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.

Table7.1(WS.7): Drinking water and sanitation ladders

Percentage of household population by drinking water and sanitation ladders, Nigeria, 2016-17 Lagos State

	Percentage of household population using:								
	Improved drinking water[1, a]					Unimproved sanitation		Improved drinking water sources and improved sanitation	Number of household members
	Piped into dwelling, plot or yard	Other improved	Unimproved drinking water	Improved sanitation[2]	Shared improved facilities	Unimproved facilities	Open defecation		
Total	8.4	85.2	6.4	44.0	52.1	1.4	2.5	42.5	6,452
Senatorial districts									
Lagos Central	12.6	75.0	12.4	38.3	58.1	1.6	2.1	33.8	968
Lagos East	13.6	77.6	8.8	31.4	58.3	3.5	6.8	30.2	1,385
Lagos West	5.6	90.2	4.2	49.7	48.6	0.6	1.1	48.6	4,099
Residence									
Urban	8.7	85.8	5.6	45.3	52.3	1.2	1.2	43.7	6,225
Rural	0.0	69.8	30.2	10.3	46.8	6.5	36.4	9.3	227
Education of household head									
None	2.2	85.2	12.6	27.6	59.6	6.6	6.2	27.6	262
Non-formal	11.0	89.0	0.0	15.7	84.3	0.0	0.0	15.7	48
Primary	8.6	80.2	11.3	30.3	63.7	1.7	4.3	27.0	1,060
Secondary	5.8	87.6	6.5	32.3	63.2	1.6	2.9	31.5	3,037
Higher	12.8	84.1	3.1	71.8	27.4	0.3	0.5	69.8	2,028
Wealth index quintile									
Poorest	2.1	85.7	12.2	14.5	72.4	4.6	8.5	13.8	1,292
Second	2.4	90.4	7.2	21.2	73.8	1.6	3.4	20.5	1,291
Middle	4.1	89.5	6.4	34.5	64.9	0.6	0.0	31.7	1,288
Fourth	12.2	82.8	5.0	53.3	46.1	0.0	0.5	51.0	1,289
Richest	20.9	77.7	1.4	96.5	3.5	0.0	0.0	95.1	1,293

[1] MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources

[2] MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation

[a] Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.

Across the senatorial districts, Lagos West has the highest percentage (48.6) of households that have access to both improved drinking water source and improved sanitation; Lagos Central has 33.8 percent and Lagos East has the lowest estimate of 30.2 percent. Access to improved drinking water sources is higher in urban areas (94.5 percent), than rural areas (69.8 percent). Also, the use of improved sanitation is higher in the urban (45.3 percent) than rural areas (10.3 percent). Proportion of households that have access to improved drinking water and improved sanitation is 43.7 percent for urban areas and 9.3 percent for rural areas. The higher the education of household head and wealth index, the higher the proportion of household with drinking water and sanitation.

Disposal of child's faeces

Safe disposal of a child's faeces is disposing of the stool, by the child using a toilet or by rinsing the stool into a toilet or latrine. Putting disposable diapers with solid waste, a very common practice throughout the world has thus far been classified as an inadequate means of disposal of child faeces for concerns

about poor disposal of solid waste itself. Disposal of faeces of children 0-2 years of age is presented in Table 7.2. In Lagos State, 63.8 percent of children had their last stools disposed of safely by using toilet /latrine or rinsing it into toilet/latrine. Safe disposal of child's faeces occurred more in households where members used improved sanitation facility (66.4 percent), Lagos Central (67.3 percent), urban areas (65.3 percent), mothers with primary education (70.9) and middle wealth index quintile household (72.5 percent).

Table 7.2 (WS.8): Disposal of child's faeces

Percent distribution of children age 0-2 years according to place of disposal of child's faeces and the percentage of children age 0-2 years whose stools were disposed of safely the last time the child passed stools, Nigeria, 2016-17Lagos State

	Place of disposal of child's faeces						Percentage of children whose last stools were disposed of safely[1]	Number of children age 0-2 years
	Child used toilet/latrine	Put/rinsed into toilet or latrine	Put/rinsed into drain or ditch	Thrown into garbage	Buried	Other		
Total	2.7	61.1	4.8	31.0	0.2	**0.2**	63.8	568
Sanitation facility used by household members								
Improved	2.8	63.6	2.0	31.4	0.0	0.1	66.4	539
Unimproved	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
Open defecation	(0.0)	(9.7)	(53.7)	(30.8)	(5.8)	(0.0)	(9.7)	21
Senatorial district								
Lagos Central	7.9	59.4	1.3	31.4	0.0	0.0	67.3	78
Lagos East	5.3	52.0	12.7	28.0	1.1	0.9	57.4	112
Lagos West	0.8	64.1	3.2	31.8	0.0	0.0	64.9	378
Residence								
Urban	2.7	62.6	3.2	31.3	0.0	0.2	65.3	543
Rural	2.3	28.1	40.3	24.5	4.8	0.0	30.4	25
Mother's education								
None	(0.0)	(62.0)	(13.5)	(22.5)	(2.0)	(0.0)	(62.0)	28
Non-formal	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Primary	1.6	69.2	3.6	24.6	0.9	0.0	70.86	67
Secondary	1.8	65.7	5.7	26.5	0.0	0.2	67.51	303
Higher	5.0	50.5	2.3	42.0	0.0	0.2	55.53	168
Wealth index quintile								
Poorest	2.3	66.4	13.3	16.6	0.9	0.5	68.7	127
Second	1.4	66.1	2.9	29.3	0.0	0.3	67.5	111
Middle	3.1	69.5	3.5	23.9	0.0	0.0	72.5	119
Fourth	5.5	49.6	2.5	42.5	0.0	0.0	55.0	96
Richest	1.5	51.3	0.5	46.6	0.0	0.0	52.8	115

[1] MICS indicator 4.4 - Safe disposal of child's faeces *( ) Sample data are based on 25-49 unweighted cases*

Handwashing

Handwashing with water and soap is the most cost effective health intervention to reduce both the incidence of diarrhoea and pneumonia in children under five[36]. It is most effective when done using water and soap after visiting a toilet or cleaning a child, before eating or handling food and before feeding a child. Monitoring correct handwashing behaviour at these critical times is challenging. A

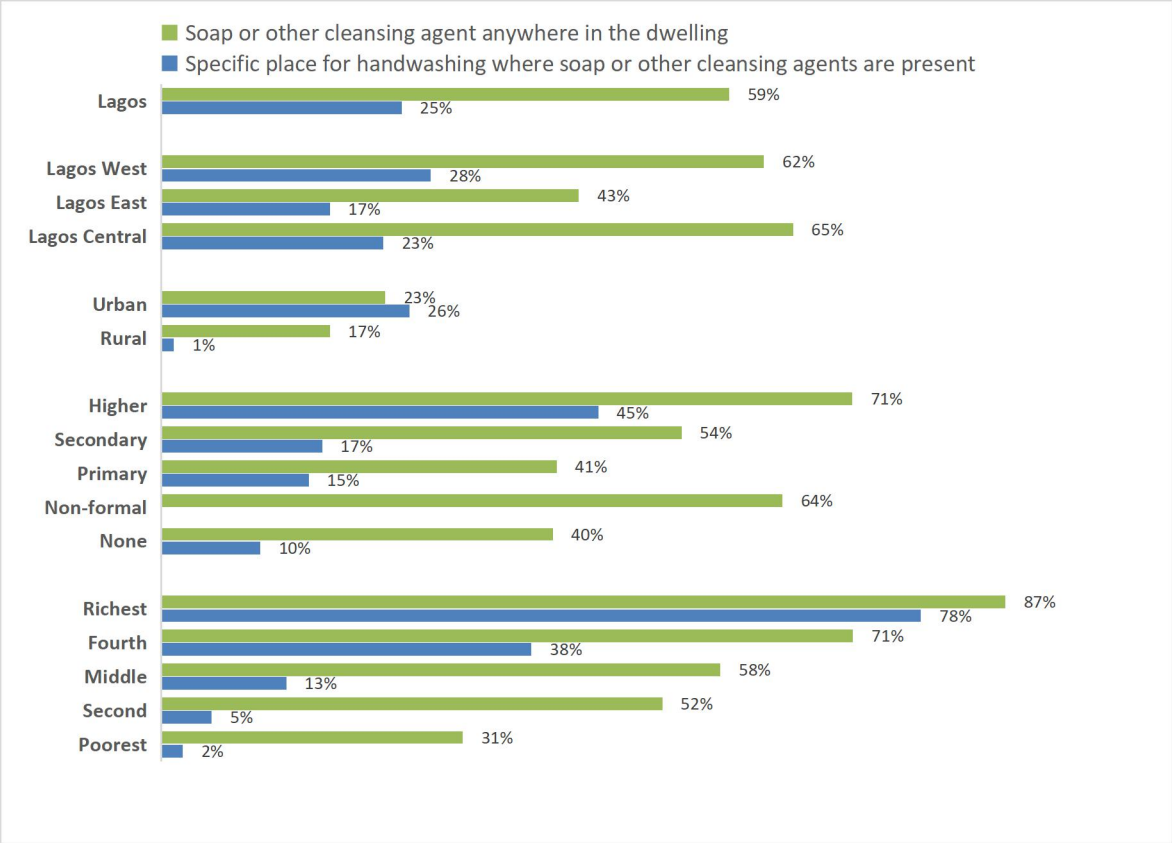
[36]Cairncross, S and Valdmanis, V. 2006. *Water supply, sanitation and hygiene promotion* Chapter 41 in *Disease Control Priorities in Developing Countries*. 2nd Edition, Edt. Jameson et al. The World Bank.

reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct handwashing behaviour takes place by asking if a household has a specific place where people wash their hands and, if yes, observing whether water and soap (or other local cleansing materials) are available at a specific place for handwashing. Figure WS. 5 shows the percentage of households with a specific place for handwashing, where water and soap or other cleansing agent are present in Lagos State.

Only 25 percent of households have a specific place for handwashing where water and soap or other cleansing agents are present. However, the proportion of households with soap or other cleansing agents anywhere in the dwelling is 59 percent. This implies that while about three out of 5households have soap or other cleansing agents anywhere in the dwelling, one out of 4 have a specific place for handwashing where there is water and soap.

Although having an appropriate handwashing place is low in Lagos, Lagos West (28 percent) and urban areas (26 percent) have highest proportion of households with specific place for handwashing with water and soap. Also, the higher the education of the household head and wealth index, the higher the proportion of households with appropriate place for handwashing.

Figure 7.5: Percentage of households with a specific place for handwashing where water and soap or other cleansing agent are present. Nigeria, 2016-17 Lagos State



Water Quality

The global indicator for tracking progress towards the SDG drinking water target (SDG 6.1) is use of 'safely managed drinking water services', defined as an improved drinking water source that is accessible on premises, available when needed and free from contamination[37]. The Nigeria MICS 2016-17 recorded whether households used sources located on premises, whether water sources provided water every day in the last two weeks and also included direct measurement of microbiological quality of drinking water at both the source and the household level.

Microbiological characteristics of drinking water are used to describe the presence or absence of microbiological organisms and water borne pathogens. E.coli is a member of the faecal coliform group and is a more specific indicator of faecal pollution than other faecal coliform and often used to measure the degree of pollution and sanitary integrity of drinking water. The presence of E.coli in water has adverse health effects on infants, the elderly and those with compromised immune systems. In extreme cases, some pathogens may infect the lungs, skins, eyes, nervous system, kidney or liver and the effects may be more severe, chronic, or even fatal including stunting among children. Aside disease-causing pathogens there are also physical, chemical, trace elements (heavy metals) and organic contaminants, that its presence in drinking water may have profound aesthetic and harmful effects on public health.

Achieving water quality standard that meets Nigerian Standard for Drinking Water Quality: NIS-544-2007, revised 2015, is a mandatory prerequisite for water destined for human consumption. Also, Sustainable Development Goal 6 is access to safe clean water and sanitation for all and sound management of freshwater ecosystems are essential to human health and environmental sustainability and economic prosperity.

The bacteria species *Escherichia coli (E. coli)* is the most commonly recommended faecal indicator and many countries including Nigeria have set a standard that no *E. coli* should be found in a 100 ml sample of drinking water. *E. coli* was measured in the field by MICS teams by filtering 100 mL of sample through a 0.45 micron filter (Millipore Microfil®) which was then placed onto Compact Dry EC growth media plates (Nissui, Japan). A 1 mL sample was also tested from the same source directly onto a second media plate. Incubation was done using ambient temperature and incubation belts were worn at night to keep the samples near body temperature. After 24-48 hours, the number of blue colonies, signifying the presence of *E. coli* colony forming units (CFU), was recorded and classified into the following risk categories: low risk (<1 per 100 mL), medium risk (1-10 per 100 mL), high risk (11-100 per 100 mL) and very high risk (>100 per 100 mL)[38]. Laboratory staff identified by the Federal Ministry of Water Resources trained field teams and conducted field visits as part of the quality assurance for the water quality module.

[37] WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (2017), Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline.

[38] Adapted from WHO drinking water quality guidelines, 4th Ed. (2011), E. coli coliform counts are divided into risk categories based on probability of infection of diarrheal disease. Note, this classification does not take account of the sanitary inspection.

Tables 7.3 report the levels of contamination of drinking water from a glass within the home and from water sample obtained from the water source. It also combines information on the quality, availability and location of drinking water sources to provide estimates of safely managed drinking water services for Nigeria.

Quality of household drinking water and source of drinking water

In Lagos, 73 percent of household members drink water contaminated by *E.Coli*. This is of public health concern as 7 out of 10 household members in Lagos drinks faecal contaminated water which has adverse health effect. The source of water can also determine the level of contamination in household drinking water. E. coli contamination is lowest in household where they drink sachet and bottled water (54.8 percent) and highest among those whose drinking water from protected well and springs (100 percent). Although there is marginal difference in all social groups in Lagos State, faecal contamination of household drinking water is higher in Lagos Central, urban areas, where household head is not educated and poor to middle wealth index quintiles. In about one out of 2 households (56.5 percent), drinking water is contaminated by *E. coli* at the source in Lagos State. This occurred more if they drink water from sources such as piped water and tube-well/borehole. E. coli contamination at the source of drinking water is also high in the urban areas and poor wealth index quintile households.

Table 7.3 (WQ.1,2 and 3): Quality of household drinking water and source of drinking water and use of safely managed drinking water sources, Nigeria 2016-17Lagos State

Percent distribution of household population according to faecal contamination risk as assessed by levels of E. coli in household drinking water and percent of household population with E. coli in drinking water Nigeria, 2016-17Lagos State

	Percentage drinking water contaminated by E.Coli in the household drinking water[1]	Percentage drinking water contaminated by E.Coli at the source of drinking water[2]	Percentage with an improved drinking water source located on premises, free of E. coli and available when needed[2]	Number of household members with information on water quality
Total	**73.2**	**56.5**	**8.9**	**296**
Senatorial district				
Lagos Central	77.1	88.1	0.0	40
Lagos East	59.5	36.7	25.8	63
Lagos West	76.8	46.6	6.8	194
Main source of drinking water				
Piped water	73.1	65.0	0.0	21
Tubewell/borehole	86.2	59.5	3.7	143
Protected wells and springs	100.0	0.0	100.0	4
Sachet and bottled water	54.8	9.2	78.7	120
Residence				
Urban	74.3	57.7	9.1	292
Rural	0.0	0.0	0.0	4
Education of household head				
None	100.1	40.7	0.0	3
Primary	86.1	42.7	9.8	62
Secondary	68.6	54.9	0.0	161
Higher	71.6	68.2	20.8	68
Wealth index quintile				
Poorest	65.4	56.3	0.0	44
Second	84.2	79.8	0.0	96
Middle	85.7	52.0	0.0	79
Fourth	47.9	0.0	63.8	41
Richest	54.7	5.9	74.4	37

[1] MIC Indicator 4.51: Quality of drinking water at the household

[2] MIC Indicator 4.52: Quality at the source of household drinking water

[3] MIC indicator 4.53, SDG 6.1.1: Use of safely managed drinking water sources

Safely Managed Drinking Water Sources

Percentage of households in Lagos State with improved drinking water sources accessible on the premises, available when needed and free from faecal contamination is low (8.9 percent). Safely managed drinking water source is highest in households where source of main drinking water is sachet and bottled water as well as protected well and spring. Also, improved drinking water source located on premises, free of *E-coli* and available when needed is scarce in rural area, households where the head is not educated and poor households.

VIII. Reproductive Health

Fertility

Fertility is a component of population dynamics that determine the size, structure and composition of the population. Measures of current fertility are presented in Table RH.1 for the three-year period preceding the survey. A three-year period was chosen for calculating these rates to provide the most current information while also allowing the rates to be calculated for a sufficient number of cases, so as not to compromise the statistical precision of the estimates.

Age-specific fertility rates (ASFRs), expressed as the number of births per 1,000 women in a specified age group, shows the age pattern of fertility. Numerators for ASFRs are calculated by identifying live births that occurred in the three-year period preceding the survey, classified according to the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of the rates represent the number of woman-years lived by the survey respondents in each of the five-year age groups during the specified period.

The total fertility rate (TFR) is a synthetic measure that denotes the number of live births a woman would have if she were subject to the current age-specific fertility rates throughout her reproductive years (15-49 years). The general fertility rate (GFR) is the number of live births occurring during the specified period per 1,000 women age 15-49. The crude birth rate (CBR) is the number of live births per 1,000 population during the specified period.

Table 8.1 and Figure 8.1 show current fertility rates in Lagos State and by urban-rural area. Crude Birth Rate for Lagos is 33 per 1,000 population. General fertility rate, more refined measures of fertility, based on the number of live births divided by the number of women in their childbearing years for a given period is 138 per 1,000 women age 15-49 years.

KEY FINDINGS

A woman in Lagos State will have about 4 children over her childbearing years.

Adolescent birth rate is 21 per 1,000 women in Lagos State

Adolescent fertility differentials per 1,000 women age 15-19 year:

Richest, 0: Poorest, 25
Higher Education, 0:
Noeducation, 16,

One out of 20 women age 20-24 in Lagos State have had a live birth before age 18

One out of 5 women currently married or in union are using contraception (22.6 percent)

Unmet need for family planning in Lagos is 29.6 percent

92.2 percent received antenatal care from a skilled provider.

44.7 percent of women with a live birth in the last two years had four or more antenatal visits.

94.2 percent of births were delivered by skilled personnel- doctor, nurse, midwife or auxiliary midwife

79.5 percent of women age 15-49 used health facility for their last delivery.

25.4 percent in public health facilities 54.1 percent in private health facilities

The Total Fertility Rate for the three years preceding MICS 2016-17 in Lagos State is 4 births per woman. This implies that a woman in Lagos population will have about 4 births over her childbearing years. The overall age pattern of fertility, as reflected in the ASFRs (Figure 8.1) indicates that childbearing begins early at adolescents, increases to a peak in women age 25-29 at244 births per 1,000 and declines thereafter.

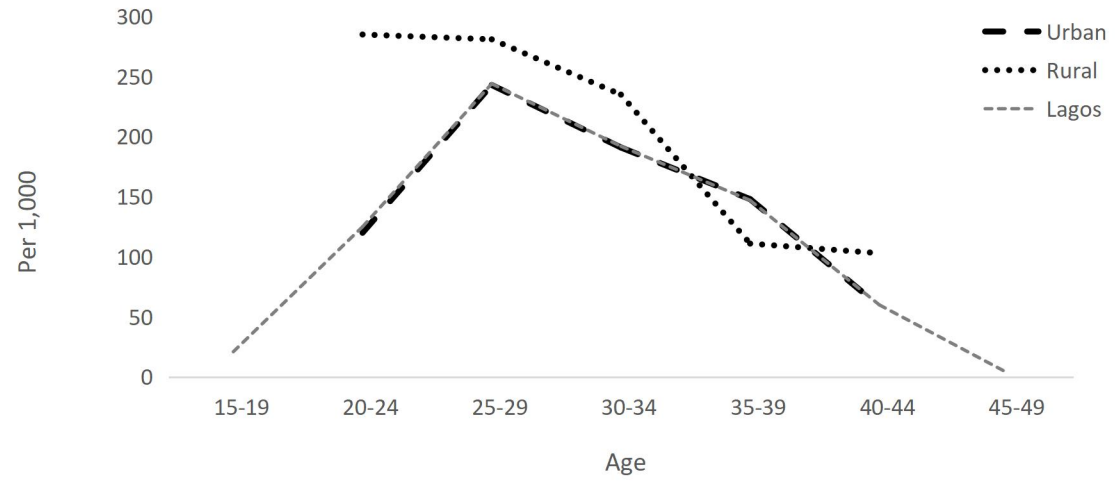
Table 8.1 (RH.1): Fertility rates

Total fertility rate, age-specific fertility rate, general fertility rate and crude birth rate for the three-year period preceding the survey, by area, Nigeria, 2016-17Lagos State

	Urban	Rural	Total
Age (Years)			
15-19[1]	(*)	(*)	21
20-24	120	285	125
25-29	243	281	244
30-34	191	235	192
35-39	148	111	147
40-44	59	103	60
45-49	(*)	(*)	3
TFR[a]	(*)	(*)	(4)
GFR[b]	136.3	196.3	138
CBR[c]	32.7	41.0	33

[1] MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate
[a] TFR: Total fertility rate expressed per woman age 15-49 years
[b] GFR: General fertility rate expressed per 1,000 women age 15-49 years
[c] CBR: Crude birth rate expressed per 1,000 population
( ) Sample data are based on 250-499 unweighted person-years of exposure *(*) Sample data are fewer than 250unweighted cases*

Figure RH.1: Age-specific fertility rates by area, Nigeria, 2016-17 Lagos State



Rates refer to the three-years period preceding the survey

Table 8.2 further presents the pattern of adolescent birth rates and total fertility rates among different social and demographic groups in Lagos. The adolescent birth rate (age-specific fertility rate for women age 15-19) is defined as the number of births to women age 15-19 years during the three-year period preceding the survey, divided by the average number of women age 15-19 (number of women-years lived between ages 15 through 19, inclusive) during the same period, expressed per 1,000 women. Adolescent birth rate is 21 per 1000 women age 15-19 years.

Table8.2(RH.2): Adolescent birth rate and total fertility rate

Adolescent birth rates and total fertility rates for the three-year period preceding the survey, Nigeria, 2016-17Lagos State

	Adolescent birth rate[1] (Age-specific fertility rate for women age 15-19 years)	Total fertility rate
Total	**21**	**4.0**
Senatorial District		
Lagos Central	5	3.7
Lagos East	39	3.9
Lagos West	20	4.0
Education		
None	16	6.3
Non-formal	0	3.9
Primary	0	3.8
Secondary	28	4.1
Higher	0	3.6
Wealth index quintile		
Poorest	25	5.0
Second	39	3.9
Middle	49	4.2
Fourth	2	3.2
Richest	0	3.8

[1] MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate

Education fertility differentials: Maternal education is expected to have inverse relationship with fertility rates. This fertility pattern is observed in Lagos State as adolescent birth rate and total fertility rate decreases with higher level of maternal education. This is more evident on adolescent birth rate (ASFR 15-19), with birth rates of 16 per 1,000 women with no education compared to birth rates of 0 per 1,000 women with higher education. Total fertility rate for women with higher education and women with no education is in the ratio 1:2 in Lagos.

Wealth Index fertility differentials: The adolescent birth rate increased from the poorest household (25 per 1,000 women) to the middle household (49 per 1,000) and then declined to 0 per 1000 women in the richest household. Also, a woman age 15-49 year who is in the poorest wealth index quintile will have 5children in her lifetime compared to 4 for women in the richest wealth index quintile in Lagos State.

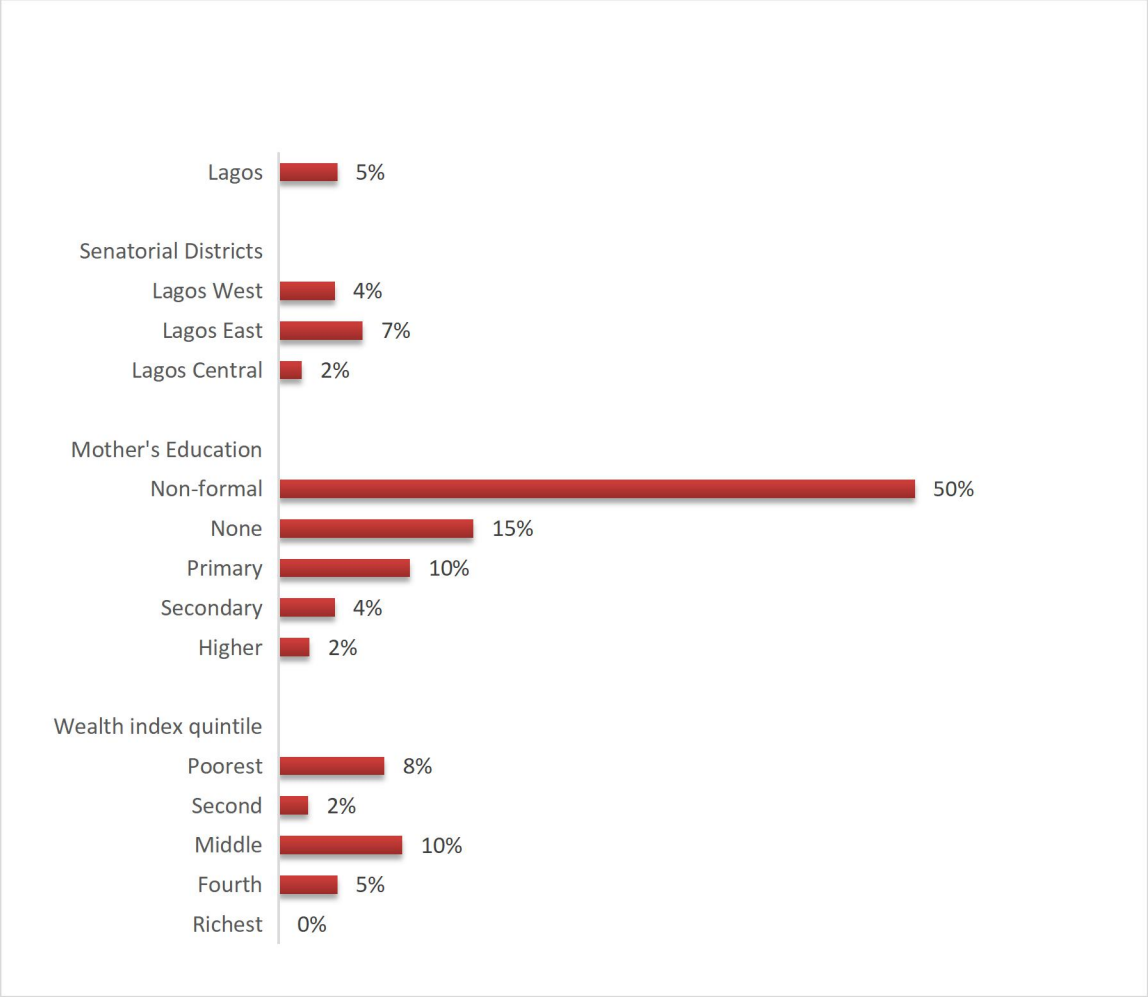
Senatorial districts differential: Lagos East and Lagos West senatorial districts have higher value of 3.9 and 4.0 respectively while Lagos Central TFR is lowest at 3.7 births. Adolescent fertility rate is remarkably lower in Lagos Central (5 per 1,000) than Lagos East (39 per 1,000) and Lagos West (20 per 1,000).

Early Childbearing

Early child bearing is unsafe for mother and child. Although very early childbearing before age 15 has reduced, births among older adolescent -before age 18 is still high in all regions with Nigeria having the highest rate in Sub-Saharan Africa.[39] MICS 2016-17 indicator of early childbearing is the percentage of women age 20-24 years who had at least one live birth before age 18. Early childbearing in Lagos State is presented in Figure RH.3.

In Lagos State, only one out of 20 women (5 percent) age 20-24 have had a live birth before age 18. Across different socio-economic groups, early childbearing is 7 percent in Lagos East, 4 percent in Lagos West and 2 percent in Lagos Central. There is wide disparity on early childbearing between women with higher education (2 percent) and those with non-formal education (50 percent). Early childbearing is highest in the middle wealth index quintiles (10 percent).

Figure 8.3: Percentage of women age 20-24 years who had at least one live birth before age 18, Lagos Nigeria, 2016-17



[39]https://data.unicef.org/topic/maternal-health/adolescent-health/#

Contraception

Family planning is a conscious effort to limit or space the number of children by a couple through the use of contraceptive methods. Appropriate family planning is important to the health of women and children by: 1) preventing pregnancies that are too early or too late; 2) extending the period between births; and 3) limiting the total number of children. Access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many is critical.

Figure 8.4 and Table 8.3 show the pattern of contraceptive use in women age 15-49 who are currently married or in union in Lagos State. One out of 5 women who are currently married or in union[40] are using contraception (22.6 percent). This is a decline to MICS 2011 (28.5 percent) and MICS 3 2007(40.6 percent) for Lagos State.

[40] All references to "married women" in this chapter include women in marital union as well.

Table 8.3 (RH.5): Use of contraception

Percentage of women age 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Nigeria, 2016-17 Lagos State

	Percentage of women currently married or in union who are using (or whose partner is using):																	Number of women age 15-49 years currently married or in union
	No method	Female sterilization	Male sterilization	IUD	Injectables	Implants	Pill	Male condom	Female condom	Diaphragm /Foam/Jelly	LAM	Periodic abstinence	Withdrawal	Other	Any modern method	Any traditional method	Any method[1]	
Total	**77.4**	**0.7**	**0.0**	**2.1**	**4.6**	**1.9**	**4.0**	**3.6**	**0.4**	**0.0**	**0.0**	**2.4**	**2.1**	**0.8**	**17.4**	**5.3**	**22.6**	**948**
Senatorial District																		
Lagos Central	84.2	0.8	0.0	0.5	5.3	4.0	1.4	2.8	0.0	0.0	0.0	0.5	0.0	0.4	14.9	0.9	15.8	131
Lagos East	86.5	0.6	0.0	0.3	4.1	1.4	4.4	0.0	0.0	0.0	0.0	0.2	1.8	0.7	10.8	2.7	13.5	216
Lagos West	72.6	0.7	0.0	3.1	4.6	1.6	4.5	5.1	0.7	0.0	0.0	3.5	2.7	0.9	20.3	7.1	27.4	602
Residence																		
Urban	77.0	0.7	0.0	2.2	4.5	1.9	4.2	3.8	0.4	0.0	0.0	2.5	2.2	0.7	17.7	5.3	23.0	912
Rural	87.5	0.0	0.0	0.0	6.4	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	4.1	8.4	4.1	12.5	36
Age (Years)																		
15-19	100.0	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	4
20-24	93.2	0.0	0.0	0.0	1.0	0.7	0.0	3.7	1.4	0.0	0.0	0.0	0.0	0.0	6.8	0.0	6.8	66
25-29	86.4	0.0	0.0	1.0	3.4	1.6	4.0	2.7	0.0	0.0	0.0	0.0	0.7	0.0	12.9	0.7	13.6	170
30-34	78.3	0.0	0.0	0.5	3.2	2.9	6.3	2.3	1.2	0.0	0.0	2.0	3.3	0.2	16.3	5.5	21.7	257
35-39	75.5	1.3	0.0	3.8	3.2	1.6	3.5	3.0	0.0	0.0	0.0	3.7	3.1	1.5	16.3	8.3	24.5	210
40-44	61.7	1.9	0.0	5.2	10.8	2.4	4.4	7.1	0.0	0.0	0.0	3.7	2.5	0.3	31.8	6.6	38.3	154
45-49	76.3	1.1	0.0	1.4	6.3	0.4	1.6	4.4	0.0	0.0	0.0	4.3	0.0	4.1	15.3	8.4	23.7	87
Number of living children																		
0	97.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	2.4	0.0	2.4	68
1	89.4	0.0	0.0	0.9	0.7	1.0	1.2	2.6	0.5	0.0	0.0	2.6	1.0	0.0	6.9	3.6	10.6	188
2	79.5	0.0	0.0	0.7	2.0	2.1	4.8	3.9	0.0	0.0	0.0	1.7	5.2	0.0	13.6	6.9	20.5	206
3	74.1	1.3	0.0	2.1	6.7	2.1	5.0	2.9	0.0	0.0	0.0	3.1	2.6	0.0	20.2	5.7	25.9	235
4+	64.1	1.4	0.0	4.8	8.9	2.7	5.7	5.7	0.6	0.0	0.0	2.7	0.5	3.0	29.7	6.2	35.9	250
Education																		
None	(88.4)	(0.0)	(0.0)	(0.0)	(0.0)	(2.1)	(9.5)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(11.6)	(0.0)	(11.6)	31
Primary	78.6	0.0	0.0	1.5	4.7	0.8	3.1	7.3	0.0	0.0	0.0	1.4	1.0	1.5	17.4	4.0	21.4	133
Secondary	80.3	0.6	0.0	1.9	5.7	1.7	4.3	2.3	0.5	0.0	0.0	0.8	0.9	1.1	16.9	2.7	19.7	509
Higher	69.7	1.3	0.0	3.2	3.0	2.8	3.4	4.7	0.5	0.0	0.0	6.1	5.2	0.0	19.0	11.3	30.3	272
Wealth index quintile																		
Poorest	87.9	0.0	0.0	0.0	3.7	0.9	3.0	2.2	1.5	0.0	0.0	0.0	0.8	0.0	11.3	0.8	12.1	172
Second	76.6	0.0	0.0	1.9	5.8	0.4	6.7	5.2	0.8	0.0	0.0	0.8	0.0	1.9	20.8	2.7	23.4	183
Middle	84.0	0.4	0.0	1.8	3.8	2.5	3.3	2.1	0.0	0.0	0.0	1.1	0.0	1.1	13.8	2.2	16.0	203
Fourth	75.5	1.3	0.0	2.2	5.8	3.3	3.8	2.9	0.0	0.0	0.0	1.3	3.9	0.0	19.3	5.2	24.5	199
Richest	63.7	1.6	0.0	4.6	3.7	2.1	3.6	5.6	0.0	0.0	0.0	8.5	5.7	0.9	21.2	15.1	36.3	192

[1] MICS indicator 5.3; MDG indicator 5.3 - Contraceptive prevalence rate

The most commonly used contraceptive methods are injectables (4.6 percent) and pills (4.0 percent). Other methods used in Lagos are: Male condom (3.6 percent), periodic abstinence (2.4 percent), IUD (2.1 percent), withdrawal (2.1 percent), implants (1.9 percent) and female condom (0.4 percent).

Contraceptive use prevalence is 27.4percent in Lagos West, 15.8 percent in Lagos Central and 13.5 percent in Lagos East. About 23 percent of married women in urban area and 12.5 percent in rural area use at least a method of contraception. Women age 20-29are far less likely to use contraception than other age groups. Also, the higher the number of living children, the higher the prevalence of contraceptives in Lagos State.

Women's level of education is associated with contraceptive use. The percentage of married women using any method of contraception increases from 11.6 percent among those with no education to 30.3 percent among those with higher education. In addition to differences in overall prevalence, the pattern of use by specific methods also varies with the level of education. The most common contraceptive method for married women who had primary education is male condom.

Unmet Need

Unmet need for contraception refers to fecund women who are married or in union and are not using any method of contraception, but wish to postpone the next birth (spacing) or wish to stop childbearing altogether (limiting). Unmet need is identified in MICS 2016-17 by using a set of questions eliciting current behaviours and preferences pertaining to contraceptive use, fecundity and fertility preferences. This indicator is also known as unmet need for family planning and is one of the indicators used to track progress toward the Sustainable Development Goal 5 of improving maternal health.

Unmet need for spacing is defined as the percentage of women who are married or in union and are not using a method of contraception AND

- are not pregnant and not postpartum amenorrhoeic[41] and are fecund[42] and say they want to wait two or more years for their next birth OR
- are not pregnant and not postpartum amenorrhoeic and are fecund and unsure whether they want another child OR
- are pregnant and say that pregnancy was mistimed: would have wanted to wait OR
- are postpartum amenorrhoeic and say that the birth was mistimed: would have wanted to wait.

[41]A woman is postpartum amenorrhoeic if she had a birth in last two years and is not currently pregnant and her menstrual period has not returned since the birth of the last child

[42]A woman is considered infecund if she is neither pregnant nor postpartum amenorrhoeic and
(1a) has not had menstruation for at least six months, or (1b) never menstruated, or (1c) her last menstruation occurred before her last birth, or (1d) in menopause/has had hysterectomy OR
(2) She declares that she has had hysterectomy, or that she has never menstruated, or that she is menopausal, or that she has been trying to get pregnant for 2 or more years without result in response to questions on why she thinks she is not physically able to get pregnant at the time of survey OR
(3) She declares she cannot get pregnant when asked about desire for future birth OR
(4) She has not had a birth in the preceding 5 years, is currently not using contraception and is currently married and was continuously married during the last 5 years preceding the survey.

Unmet need for limiting is defined as percentage of women who are married or in union and are not using a method of contraception AND

- are not pregnant and not postpartum amenorrhoeic and are fecund and say they do not want any more children OR
- are pregnant and say they did not want to have a child OR
- are postpartum amenorrhoeic and say that they did not want the birth.

Total unmet need for contraception is the sum of unmet need for spacing and unmet need for limiting. Met need for limiting includes women married or in union who are using (or whose partner is using) a contraceptive method[43] and who want no more children, who are using male or female sterilization, or declare themselves as infecund. Met need for spacing includes women who are using (or whose partner is using) a contraceptive method and who want to have another child, or are undecided whether to have another child. The total of met need for spacing and limiting equals to the total met need for contraception. Table RH.4 shows the levels of met need and unmet need for contraception and the demand for contraception satisfied in Lagos State.

The percentage of women age 15-49 years currently married or in union with an unmet need for family planning in Lagos State is 29.6 percent in MICS 2016-17. This estimate is higher than20.2 percent in MICS 2011 and 8.1 percent in MICS 2007. The unmet need for contraception for spacing is 17.4 percent and for limiting is 12.2 percent. There is notable difference in the unmet need for contraception in urban (29.1 percent) and rural areas (41.9 percent). The unmet need for contraception is highest in Lagos East (36.3 percent) followed by Lagos Central (34.6 percent) and lowest in Lagos West (26.1 percent).

The met need for contraception among women age 15-49 years currently married or in union in Lagos State is 22.6 percent, which is lower when compared with estimate from MICS 2011 (28.5 percent). Met need for contraception is highest in Lagos West (27.4 percent) and lowest in Lagos East (13.5 percent). The met need for contraception is higher in urban (23 percent) than in rural areas (12.5 percent). Women's education level and wealth index quintile is strongly associated with met need for contraception. The percentage of women with met need for contraception increased from 11.6 percent among those with no education to 30.3 percent among women with higher education. Women in the poorest wealth index quintile have a met need of 12.1 percent while the richest have 36.3 percent.

The percentage of demand satisfied is defined as the proportion of women currently married or in union who are currently using contraception over the total demand for contraception. The total demand for contraception includes women who currently have an unmet need (for spacing or limiting), plus those who are currently using contraception. In Lagos State, the demand for contraception satisfied is 43.3percent, which is a reduction from the previous MICS 2011of 58.6 percent. Forty-four percent of women in the urban areas have their demand for contraception satisfied while twenty-three percent were satisfied in the rural areas. Percentage of demand for contraception satisfied is higher in Lagos West (51.2 percent) than other senatorial districts.

[43] In this chapter, whenever reference is made to the use of a contraceptive by a woman, this may refer to her partner using a contraceptive method (such as male condom).

Table 8.4 (RH.6): Unmet need for contraception

Percentage of women age 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Nigeria, 2016-17Lagos State

	Met need for contraception			Unmet need for contraception			Number of women currently married or in union	Percentage of demand for contraception satisfied	Number of women currently married or in union with need for contraception
	For spacing	For limiting	Total	For spacing	For limiting	Total[1]			
Total	**9.3**	**13.3**	**22.6**	**17.4**	**12.2**	**29.6**	**948**	**43.3**	**495**
Senatorial District									
Lagos Central	8.1	7.6	15.8	21.3	13.3	34.6	131	31.4	66
Lagos East	8.1	5.4	13.5	21.4	14.9	36.3	216	27.1	107
Lagos West	10.0	17.4	27.4	15.1	11.0	26.1	602	51.2	322
Residence									
Urban	9.4	13.6	23.0	17.0	12.1	29.1	912	44.2	476
Rural	5.7	6.8	12.5	26.2	15.7	41.9	36	(23.0)	20
Age (Years)									
15-19	(**0.0)	(**0.0)	(**0.0)	(**87.7)	(**0.0)	(**87.7)	4	(**0.0)	3
20-24	6.8	0.0	6.8	31.3	1.4	32.7	66	(17.2)	26
25-29	10.4	3.2	13.6	29.4	8.6	38.0	170	26.3	88
30-34	13.6	8.1	21.7	22.1	10.5	32.6	257	40.0	140
35-39	8.9	15.7	24.5	12.3	17.1	29.5	210	45.4	113
40-44	6.6	31.7	38.3	5.1	17.1	22.1	154	63.4	93
45-49	2.5	21.2	23.7	0.0	12.7	12.7	87	(65.2)	32
Education									
None	(5.4)	(6.3)	(11.6)	(9.5)	(27.2)	(36.7)	31	(*)	15
Non-formal	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**37.1)	(**37.1)	3	(**0.0)	1
Primary	7.6	13.8	21.4	17.1	18.6	35.7	133	37.5	76
Secondary	8.0	11.6	19.7	20.3	11.9	32.2	509	37.9	264
Higher	13.1	17.3	30.3	13.1	7.6	20.7	272	59.4	139
Wealth index quintile									
Poorest	7.1	5.0	12.1	20.0	21.3	41.3	172	22.7	92
Second	13.0	10.4	23.4	21.7	13.0	34.7	183	40.3	106
Middle	3.9	12.1	16.0	17.4	12.3	29.7	203	35.1	93
Fourth	8.3	16.3	24.5	19.3	6.5	25.8	199	48.7	100
Richest	14.5	21.8	36.3	8.8	9.2	18.0	192	66.8	104

[1] MICS indicator 5.4; MDG indicator 5.6 - Unmet need

( ) Sample data are based on 25-49 unweighted cases

Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women, with a number of interventions that may be vital to their health and well-being and that of their infants. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of antenatal care as an intervention to improve both maternal and new-born health. For example, antenatal care can be used to inform women and families about risks and symptoms in pregnancy and about the risks of labour and delivery and therefore it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider.

Antenatal visits also provide an opportunity to supply information on birth spacing, which is recognized as an important factor in improving infant survival. Tetanus immunization during pregnancy can be life-saving for both the mother and the infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of sexually transmitted infections (STIs) can significantly improve foetal outcomes and improve maternal health. Adverse outcomes such as low birth weight can be reduced through a combination of interventions to improve women's nutritional status and prevent infections (e.g., malaria and STIs) during pregnancy. More recently, the potential of the antenatal care as an entry point for HIV prevention and care, in particular, for the prevention of HIV transmission from mother to child, has led to renewed interest in access to and use of antenatal services.

WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content on antenatal care visits, which include:

- Blood pressure measurement
- Urine testing for bacteriuria and proteinuria
- Blood testing to detect syphilis and severe anaemia
- Weight/height measurement (optional).

It is crucial for pregnant women to start attending antenatal care visits as early in pregnancy as possible. This is to prevent and detect pregnancy complications that could affect both the woman and her baby. Antenatal care should continue throughout the entire pregnancy. To improve maternal health, antenatal care coverage indicators should be at least one visit with a skilled provider and 4 or more visits with any providers.

Table 8.5 present percentage distribution of women age 15-49 years who gave birth in the two years preceding the survey on their antenatal care coverage in Lagos State. Ninety-two percent received antenatal care from a skilled provider, 93.2 percent in urban and 74.8 in rural areas. In Lagos State, most of the antenatal care is provided by medical doctors (68.3 percent) while very few (3.6 percent) received care from traditional birth attendant.

The proportion of women who received antenatal care from any skilled provider is associated with residence, education, age and wealth status. Lagos West has the highest proportion (95.6 percent) of women who received antenatal care by a skilled provider while Lagos East has the lowest (84.8 percent). The percentage is lowest among women with no education (70.9 percent) and highest among richest wealth index quintile households (99.3 percent).

In Lagos, 94.2 percent of women with a live birth in the last two years had four or more antenatal visits. Across the senatorial districts, Lagos West has the highest proportion (96.1 percent) of women who had four or more antenatal visits in the last two years and Lagos East has the lowest (89.8 percent). More women had four or more antenatal visits in urban (95.2 percent) than rural areas (74.9 percent).

Mothers from the poorest households have lower proportion of those who received antenatal care four or more times, than wealthier and more educational advantaged mothers.

Table 8.5 (RH.7): Antenatal care coverage

Percent distribution of women age 15-49 years with a live birth in the last two years by antenatal care provider during the pregnancy for the last birth, Nigeria, 2016-17Lagos State

	Provider of antenatal care[a]									
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Other	No antenatal care	Any skilled provider[1, b]	4 or more visits[2]	Number of women with a live birth in the last two years
Total	**68.3**	**22.9**	**1.1**	**3.6**	**0.4**	**0.7**	**3.1**	**92.2**	**94.2**	**371**
Senatorial District										
Lagos Central	63.1	23.1	1.4	4.7	2.2	0.0	5.6	87.5	91.8	52
Lagos East	53.8	30.6	0.4	5.8	0.6	0.8	8.0	84.8	89.8	76
Lagos West	73.9	20.4	1.3	2.6	0.0	0.8	1.0	95.6	96.1	243
Residence										
Urban	70.9	21.2	1.1	3.4	0.5	0.6	2.4	93.2	95.2	352
Rural	(19.9)	(53.5)	(1.4)	(7.3)	(0.0)	(1.4)	(16.4)	(74.8)	(74.9)	19
Mother's age at birth										
Less than 20	(**60.2)	(**10.6)	(**0.0)	(**6.9)	(**7.2)	(**0.0)	(**15.0)	(**70.9)	(*)	7
20-34	67.6	23.9	0.5	4.7	0.4	0.8	2.1	92.0	95.3	274
Missing	71.1	20.5	3.0	0.0	0.0	0.3	5.1	94.6	92.0	90
Education										
None	(**34.6)	(*55.2)	(**6.6)	(**0.0)	(**0.0)	(**1.8)	(**1.8)	(**96.4)	(**98.2)	15
Non-formal	(**100.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	(**100.0)	(**100.0)	2
Primary	(47.4)	(28.5)	(2.4)	(12.3)	(3.1)	(0.0)	(6.3)	(78.3)	(89.9)	36
Secondary	62.4	27.0	1.1	4.2	0.2	1.1	4.0	90.4	92.7	202
Higher	88.9	10.1	0.0	0.2	0.0	0.0	0.7	99.1	97.5	116
Wealth index quintile										
Poorest	46.8	34.7	2.4	6.7	2.1	0.8	6.5	83.9	91.4	76
Second	51.3	37.2	0.0	7.5	0.0	0.0	4.0	88.5	93.4	73
Middle	64.1	26.0	1.4	2.4	0.0	2.4	3.7	91.5	93.9	77
Fourth	83.1	13.7	1.6	1.1	0.0	0.0	0.4	98.5	95.2	68
Richest	96.9	2.3	0.0	0.0	0.0	0.0	0.7	99.3	97.1	76

[1] MICS indicator 5.5a; MDG indicator 5.5 - Antenatal care coverage

[2] MICS indicator 5.5b; MDG indicator 5.5 - Antenatal care coverage

[a] Only the most qualified provider is considered in cases where more than one provider was reported.

[b] Skilled providers include Medical doctor and Nurse/Midwife.

Content of antenatal care

The coverage of key services that pregnant women are expected to receive during antenatal care are shown in Table RH.6. Among those women who had a live birth during the two years preceding the survey in Lagos State, 94.9 percent reported that their blood pressure was measured during antenatal care visits, 91.3 percent reported that urine specimen was taken and 90.3 percent reported that blood sample was taken.

The proportion of women who had blood pressure measured, urine and blood sample taken during the pregnancy of their last birth is 88.8 percent in Lagos State. The relative disparity in the proportion of

pregnant women that had blood pressure measured, urine sample taken and blood sample taken respectively remains substantial across background characteristics: higher in Lagos West, urban areas with increasing wealth. These components of antenatal care were reported in 90.2 percent of pregnant women in urban areas, while 61.7 percent received same in the rural areas of Lagos State.

Table 8.6 (RH.9): Content of antenatal care

Percentage of women age 15-49 years with a live birth in the last two years who, at least once, had their blood pressure measured, urine sample taken and blood sample taken as part of antenatal care, during the pregnancy for the last birth, Nigeria, 2016-17Lagos State

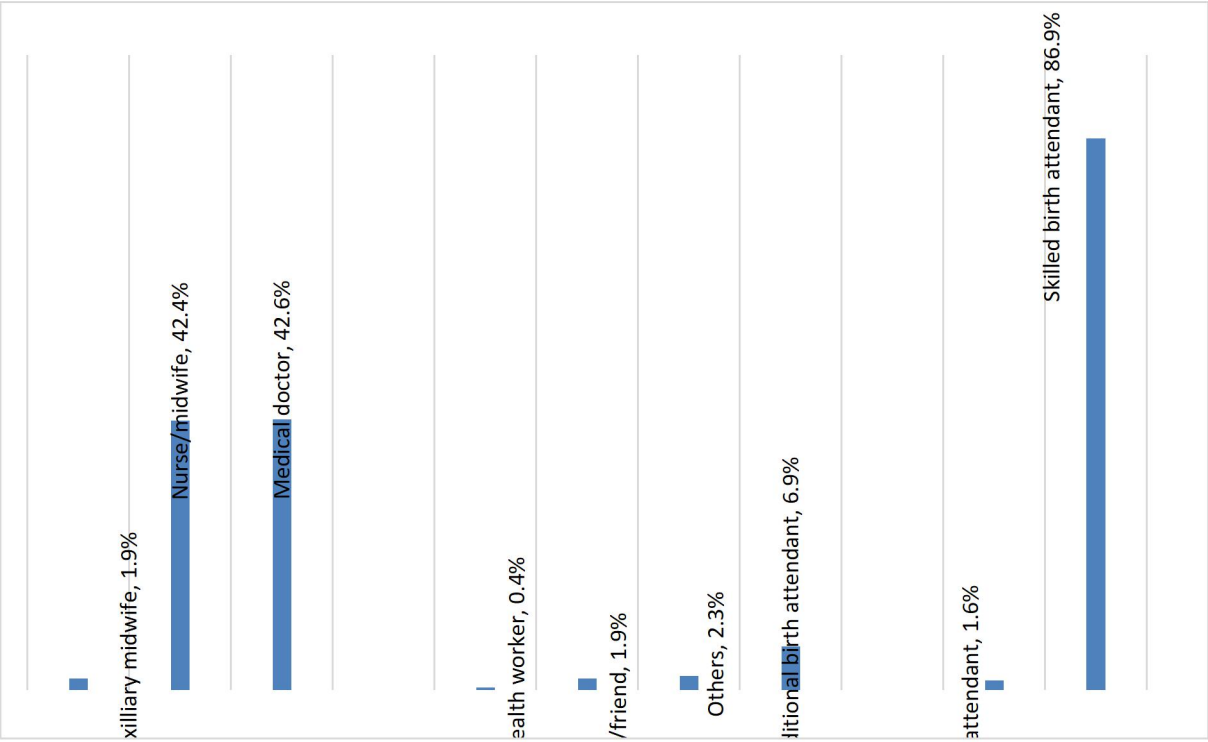
	Percentage of women who, during the pregnancy of their last birth, had:				Number of women with a live birth in the last two years
	Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken[1]	
Total	**94.9**	**91.3**	**90.3**	**88.8**	**371**
Senatorial District					
Lagos Central	89.7	87.3	87.3	84.9	52
Lagos East	87.8	85.6	82.4	81.8	76
Lagos West	98.3	94.0	93.4	91.8	243
Residence					
Urban	96.1	92.5	91.9	90.2	352
Rural	(72.4)	(69.5)	(61.7)	(61.7)	19
Mother's age at birth					
Less than 20	(*)	(*)	(*)	(*)	7
20-34	95.8	91.7	90.4	89.3	274
Missing	93.6	93.6	90.9	90.9	90
Education					
None	(**96.4)	(**96.4)	(**96.4)	(**96.4)	15
Non-formal	(**100.0)	(**100.0)	(**100.0)	(**100.0)	2
Primary	(82.1)	(69.4)	(70.2)	(65.9)	36
Secondary	94.6	90.3	89.2	87.1	202
Higher	99.3	99.3	97.7	97.7	116
Wealth index quintile					
Poorest	84.5	82.3	77.2	75.2	76
Second	96.0	87.9	88.7	87.0	73
Middle	96.3	91.0	91.4	88.2	77
Fourth	98.9	96.6	95.5	94.8	68
Richest	99.3	99.3	99.3	99.3	76

[1] MICS indicator 5.6 - Content of antenatal care *( ) Sample data are based on 25-49 unweighted cases*
(*) Sample data are fewer than 25 unweighted cases *(**)Populated though the Sample data are fewer than 25 unweighted cases*

Assistance at Delivery

About three quarters of all maternal deaths occur due to direct obstetric causes.[44] The single most critical intervention for safe motherhood is to ensure that a competent health worker with midwifery skills is present at every birth and in case of emergency, that transport is available to a referral facility for obstetric care. The two indicators on assistance at delivery are the proportion of births with a skilled attendant and proportion of institutional deliveries. The MICS 2016-17 included a number of questions to assess the proportion of births attended by a skilled attendant. *A skilled attendant* includes a doctor, nurse, midwife or auxiliary midwife. Figure 8.5 and Table 8.7 present pattern of assistance at delivery.

Figure8.5: Person assisting at delivery, Nigeria, 2016-17, Lagos State



About four in five births (86.9 percent) that occurred in the two years preceding the survey in Lagos State were assisted at delivery by skilled personnel: doctor, nurse, midwife or auxiliary midwife. Most women were assisted by nurses/midwives and medical doctors at delivery, while 1.6 percent of women had no attendant assisting them during delivery. About two in five births (42.4) in the two years preceding the survey were delivered with the assistance of a nurse/midwife. Doctors assisted with the delivery of 42.6percent of births and auxiliary midwives assisted with 1.9 percent of births. Very few (6.9 percent) deliveries were assisted by traditional birth attendants in Lagos State.

[44] Say, L et al. 2014. ***Global causes of maternal death: a WHO systematic analysis.*** *The Lancet Global Health*2(6): e323-33. DOI: 10.1016/S2214-109X(14)70227-X

The proportion of those assisted by skilled birth attendant is 78.9 percent in Lagos East, 83.1 percent in Lagos Central and 90.3 percent in Lagos West. As expected, more educated mothers were assisted by skilled attendant than non-educated mothers. Also, the percentage of deliveries assisted by skilled personnel is higher in urban areas (88.1 percent) than rural areas (64.9 percent). As expected for place of delivery, almost all who delivered in public or private health facilities were assisted by doctor, nurse, midwife or auxiliary midwife.

Table8.7 (RH.10): Assistance during delivery and caesarian section

Percent distribution of women age 15-49 years with a live birth in the last two years by person providing assistance at delivery and percentage of births delivered by C-section, Nigeria, 2016-17Lagos State

	Person assisting at delivery				Percent delivery assisted by any skilled attendant[1, a]	Percent delivered by C-section		Percent delivered by caesarean section Total[2]	Number of women who had a live birth in the last two years
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	No attendant		Decided before onset of labour pains	Decided after onset of labour pains		
Total	**42.6**	**42.4**	**1.9**	**1.6**	**86.9**	**4.6**	**5.2**	**9.9**	**371**
Senatorial District									
Lagos Central	36.4	46.1	0.6	1.6	83.1	5.2	1.4	6.6	52
Lagos East	31.5	46.2	1.3	0.0	78.9	1.5	8.2	9.7	76
Lagos West	47.4	40.4	2.4	2.1	90.3	5.4	5.1	10.6	243
Residence									
Urban	43.8	42.4	2.0	1.7	88.1	4.9	5.0	9.9	352
Rural	(21.7)	(41.8)	(1.4)	(0.0)	(64.9)	(0.0)	(9.5)	(9.5)	19
Mother's age at birth (Years)									
Less than 20	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	7
20-34	41.5	43.5	2.2	1.1	87.2	2.9	4.0	6.9	274
35-49	46.1	39.9	1.2	3.2	87.2	10.1	9.4	19.5	90
Place of delivery									
Home	(6.1)	(35.1)	(4.6)	(10.7)	(45.9)	(0.0)	(0.0)	(0.0)	27
Health facility	50.6	45.7	0.8	0.0	97.0	5.8	6.6	12.4	295
Public	43.4	54.6	0.0	0.0	98.0	10.3	2.8	13.1	94
Private	53.9	41.5	1.2	0.0	96.6	3.7	8.4	12.1	200
Education									
None	(**14.1)	(**30.9)	(**1.8)	(**24.3)	(**46.8)	(**0.0)	(**4.1)	(**4.1)	15
Non-formal	(**100.0)	(**0.0)	(**0.0)	(**0.0)	(**100.0)	(**0.0)	(**0.0)	(**0.0)	2
Primary	(22.6)	(51.4)	(0.0)	(0.0)	(73.9)	(3.9)	(0.0)	(3.9)	36
Secondary	37.9	44.8	2.9	1.1	85.7	2.0	4.9	6.9	202
Higher	59.9	37.4	0.9	0.0	98.1	10.1	7.7	17.8	116
Wealth index quintile									
Poorest	25.6	47.2	0.4	3.8	73.1	1.1	4.8	5.9	76
Second	34.3	42.5	3.4	2.9	80.3	1.1	2.9	4.0	73
Middle	30.1	55.4	3.9	1.1	89.4	3.4	4.2	7.6	77
Fourth	53.0	42.1	1.6	0.0	96.8	9.5	4.5	14.0	68
Richest	70.9	24.4	0.4	0.0	95.8	8.4	9.6	18.0	76

[1] MICS indicator 5.7; MDG indicator 5.2 - Skilled attendant at delivery

[2] MICS indicator 5.9 - Caesarean section

[a] Skilled attendants include Medical doctor and Nurse/Midwife.

( ) Sample data are based on 25-49 unweighted cases

(*) Sample data are fewer than 25 unweighted cases

Table 8.7 also presents information on women who delivered by caesarean section (C-section) and provides additional information on the timing of the decision to conduct a C-section (before labour pains began or after) to determine the basis for the C-section: medical or non–medical reasons.

Overall, 9.9 percent of women in Lagos State who delivered in the last two years had a C-section. This implies that about one out of 10 women who delivered within that period had a C-section; 5.2 percent of these women made the decision for C-section before the onset of labour pains, while 4.6 percent made the decision for C-section after the onset of labour. Lagos West senatorial district had most of the C-section deliveries (2.2 percent) and the percentage of deliveries by C-section is almost equal for urban and rural areas. Women with higher level of education have more deliveries by C-section (17.8 percent) than those with no education (4.1 percent). There is a slight reduction in Lagos State in the use of C-section for birth delivery as the MICS 2016-17 estimate of 9.9 percent is lower than MICS 2011 estimate of 15.7 percent.

Place of Delivery

Increasing the proportion of births that are delivered in health facilities is an important factor in reducing the health risks and improving good health and well-being of both the mother and the baby. Proper medical attention and hygienic conditions during delivery can reduce the risks of complications and infection that can cause morbidity and mortality to either the mother or the baby. Table 8.8 presents the percentage distribution of women age 15-49 who had a live birth in the two years preceding the survey by place of delivery and the percentage of institutional deliveries, according to background characteristics.

In Lagos State, 79.5 percent of women age 15-49 who had a live birth in the two years preceding the survey used health facility for their last delivery. Out of this estimate, 25.4 percent of deliveries took place in public health facilities and 54.1 percent in private health facilities. Few births (7.2 percent) were delivered at home. More women in urban areas used health facilities for birth delivery than rural areas.

The proportion of deliveries in a health facility varies from 86.3 percent in Lagos Centralto77.4 percent in Lagos West. Women with higher level of educational attainment deliver in health facilities more than those with no formal education. The proportion of births occurring in a health facility increases steadily with wealth, from 68.1 percent in the lowest wealth quintile to 93.1 percent in the richest wealth index quintile in Lagos State.

Table8.7(RH.11): Place of delivery

Percent distribution of women age 15-49 years with a live birth in the last two years by place of delivery of their last birth, Nigeria, 2016-17Lagos State

	Place of delivery					
	Health facility					
	Public sector	Private sector	Home	Others	Delivered in health facility[1]	Number of women with a live birth in the last two years
Total	**25.4**	**54.1**	**7.2**	**13.3**	**79.5**	**371**
Senatorial District						
Lagos Central	34.8	51.4	5.0	8.8	86.3	52
Lagos East	29.5	51.9	9.4	9.3	81.4	76
Lagos West	22.2	55.3	7.1	15.5	77.4	243
Residence						
Urban	25.0	54.2	6.9	13.9	79.2	352
Rural	(34.0)	(51.0)	(13.2)	(1.8)	(85.1)	19
Mother's age at birth (years)						
Less than 20	(*)	(*)	(*)	(*)	(*)	7
20-34	27.0	54.1	5.6	13.3	81.0	274
35-39	20.5	54.0	11.4	14.1	74.5	90
Number of antenatal care visits						
None	(*)	(*)	(*)	(*)	(*)	11
1-3 visits	(*)	(*)	(*)	(*)	(*)	10
4+ visits	26.6	54.9	6.0	12.6	81.5	349
Missing/Don't know	(*)	(*)	(*)	(*)	(*)	0
Education						
None	(**18.0)	(**24.2)	(**14.7)	(**43.1)	(**42.2)	15
Non-formal	(**50.0)	(**0.0)	(**50.0)	(**0.0)	(**50.0)	2
Primary	(39.4)	(39.2)	(14.1)	(7.3)	(78.6)	36
Secondary	22.2	51.6	8.3	17.9	73.8	202
Higher	27.3	67.7	1.6	3.4	95.0	116
Wealth index quintile						
Poorest	27.3	40.8	16.1	15.8	68.1	76
Second	25.6	44.2	10.7	19.5	69.7	73
Middle	26.1	54.1	2.9	16.9	80.2	77
Fourth	31.0	55.7	4.4	8.9	86.7	68
Richest	17.8	75.3	2.0	5.0	93.1	76

[1] MICS indicator 5.8 - Institutional deliveries

( ) Sample data are based on 25-49 unweighted cases

(*) Sample data are fewer than 25 unweighted cases (**)Populated though the Sample data are fewer than 25 unweighted cases

Post-natal Health Checks

The time of birth and immediately after is a critical window of opportunity for lifesaving interventions for both the mother and newborn. Across the world, approximately 3 million newborns die annually in the first month of life[45] and majority of these deaths occur within a day or two of birth[46], which is also the time when the majority of maternal deaths occur[47].

Despite the importance of the first few days following birth, large-scale, nationally representative household survey programmes have not systematically included questions on the post-natal period and care for the mother and newborn. In 2008, the Countdown to 2015 initiative, which monitors progress

[45]UN Interagency Group for Child Mortality Estimation. 2013. *Levels and Trends in Child Mortality: Report 2013*

[46] Lawn, JE et al. 2005.*4 million neonatal deaths: When? Where? Why?* Lancet 2005; 365:891–900.

[47] WHO, UNICEF, UNFPA, The World Bank. 2012.*Trends in Maternal Mortality: 1990-2010*. World Health Organization.

on maternal, newborn and child health interventions, highlighted this data gap and called not only for post-natal care (PNC) programmes to be strengthened, but also for better data availability and quality[48].

Following the establishment and discussions of an Inter-Agency Group on PNC and drawing on lessons learned from earlier attempts of collecting PNC data, a new questionnaire module for MICS was developed and validated. Named the Post-natal Health Checks (PNHC) module, the objective is to collect information on newborns' and mothers' contact with a provider, not content of care. The rationale for this is that as PNC programmes scale up, it is important to measure the coverage of that scale up and ensure that the platform for providing essential services is in place. Content is considered more difficult to measure, particularly because the respondent is asked to recall services delivered up to two years preceding the interview. Table RH.9 presents the percentage distribution of women aged 15-49 who gave birth in a health facility in the two years preceding the survey by duration of stay in the facility following the delivery and post-natal check for newborn and mother, according to background characteristics in Lagos State.

Post-partum Stay in health facility

Three out of four women (76.3 percent) who gave birth in a health facility stayed 12 hours or more after delivery in Lagos State. Across the senatorial districts, 75.9 percent stayed 12 hours or more in Lagos East, 76 percent in Lagos Central and 76.5 in Lagos West. More women who live in urban areas stay for more than 12 hours after delivery than those in rural areas in Lagos State. A similar pattern exists with regards to woman's age at delivery and her level of education; the older a woman is or the higher her level of education, the more she stays back for more hours in the hospital. Women whose birth delivery is by C-section stayed back longer than those who had vaginal birth delivery.

Postnatal care for newborn and mother

Safe motherhood programmes have recently increased emphasis on the importance of post-natal care, recommending that all women and newborns receive a health check within two days of delivery. To assess the extent of post-natal care utilization, women were asked whether they and their newborn received a health check after the delivery, the timing of the first check and the type of health provider for the woman's last birth in the two years preceding the survey. Table RH.9also shows the percentage of newborns in the last two years preceding the survey in Lagos State who received health checks after birth. The indicator *Post-natal health checks* include any health check after birth received while in the health facility and at home, regardless of timing, as well as post-natal care visits within two days of delivery.

About four out of 5 newborns (85.9 percent) receive a health check following birth while in a facility or at home in Lagos State. Percentage of post-natal health check for newborns is 86 percent in Lagos Central, 80 percent in Lagos East and 87.7 percent in Lagos West. Higher percentage of newborns in urban areas and in richest wealth quintile household, receive post-natal health check than those in

[48]HMN, UNICEF, WHO. 2008. *Countdown to 2015: Tracking Progress in Maternal, Newborn & Child Survival, The 2008 Report*. UNICEF.

other groups. Post-natal health checks for newborns occurred slightly more in public health facility (93.5 percent) than private health facility (92.1 percent)

Table 8.8: (RH.12, 13 and 15): Post-partum stay in health facility and Postnatal health check for newborn and mother

Percent distribution of women age 15-49 years with a live birth in the last two years who had their last birth delivered in a health facility by duration of stay in health facility, Nigeria, 2016-17Lagos State

	Duration of stay in health facility: 12 hours or more[1]	Number of women who had their last birth delivered in a health facility in the last 2 years	Post-natal health check for the newborn[2, b]	Number of last live births in the last two years	Post-natal health check for the mother[3, b]	Number of women with a live birth in the last two years
Total	**76.3**	**295**	**85.9**	**371**	**83.0**	**371**
Senatorial District						
Lagos Central	76.0	45	86.0	52	77.4	52
Lagos East	75.9	62	80.0	76	79.1	76
Lagos West	76.5	188	87.7	243	85.1	243
Residence						
Urban	77.0	279	86.3	352	82.8	352
Rural	(64.6)	16	(79.7)	19	(82.6)	19
Mother's age at birth (years)						
Less than 20	(**46.7)	6	(**85.9)	7	(**85.9)	7
20-34	74.2	222	87.6	274	84.1	274
35-49	85.6	67	80.9	90	78.6	90
Type of health facility						
Public	75.5	94	93.5	94	90.0	94
Private	76.7	200	92.1	200	92.7	200
Education						
None	(**72.5)	6	(**75.1)	15	(**60.4)	15
Non-formal	(**100.0)	1	(**100.0)	2	(**50.0)	2
Primary	(64.3)	28	(69.7)	36	(64.7)	36
Secondary	74.3	149	85.4	202	82.7	202
Higher	82.2	110	93.0	116	92.1	116
Wealth index quintile						
Poorest	62.6	52	75.7	76	72.4	76
Second	83.5	51	81.8	73	73.6	73
Middle	74.3	62	87.2	77	89.0	77
Fourth	67.7	59	91.7	68	88.8	68
Richest	90.1	71	93.7	76	90.5	76

[1] MICS indicator 5.10 - Post-partum stay in health facility

[2] MICS indicator 5.11 - Post-natal check for the newborn

[3] MICS indicator 5.12 - Post-natal check for the mothers

[a] Health checks by any health provider following facility births (before discharge from facility) or following home births (before departure of provider from home).

[b] Post-natal health checks include any health check performed while in the health facility or at home following birth (see note [a] above), as well as PNC visits (see note [b] above) within two days of delivery.

( ) Sample data are based on 25-49 unweighted cases

(*) Sample data are fewer than 25 unweighted cases

(**)Populated though the Sample data are fewer than 25 unweighted cases

Post-natal check for mothers has a pattern comparable to post-natal check for newborns. Overall, 83 percent of mothers received health check following birth in a facility or at home; 77.4 percent in Lagos Central, 79.1 percent in Lagos East and 85.1 in Lagos West. Higher percentage of mothers with higher education and in richest wealth quintile household receive post-natal health check than other groups.

IX. Early Childhood Development

KEY FINDINGS

85 percent of children age 36-59 months attend organized early childhood education programme in Lagos
- **84 percent in Lagos Central**
- **91 percent in Lagos East**
- **84 percent in Lagos West**

92.9 percent of children age 36-59 months have an adult household member engaged with them on four or more activities that promote learning and school readiness

Involvement of biological parents in activities that support early learning is low (28.6 percent) for fathers and high (69.1 percent) for mothers

Only 21.1 percent of children live in households where there are at least 3 children's books accessible to the child in Lagos State

Nine outten of children age 36-59 months are developmentally on track in at least three of the four domains

One out of five of children were left with inadequate care either by being left alone or in the care of another child

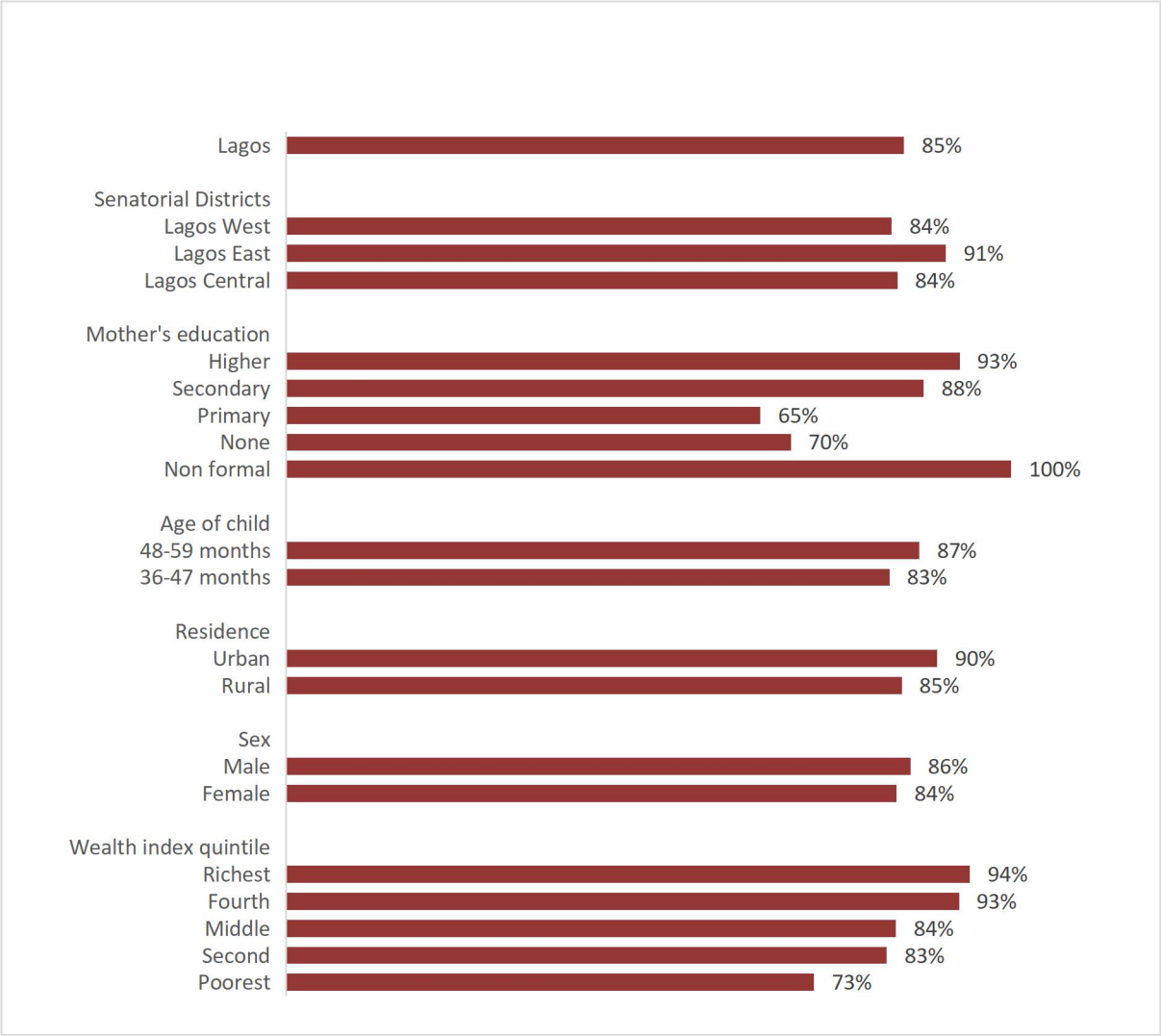
Early Childhood Care and Education

Readiness of children for primary school can be improved through attendance of early childhood education programmes or through pre-school attendance. Early childhood education includes programmes for children that have organised learning components as opposed to baby-sitting and day-care for ages 36-59 months. Figure 9.1 presents percentage of children age 36-59 months who are attending an organized early childhood education program in Lagos State. The social and demographic differentials are also presented.

Four out of 5 children (85 percent) attend organized early childhood education programme in Lagos State Lagos East senatorial district had more (91.0 percent) children that attended early childhood education programme than Lagos Central (84.3 percent) and Lagos West (83.5 percent).

There exist variations among social and demographic groups: urban areas, non-formal and higher education, fourth and richest wealth index quintiles have more children attending early childhood education programme than other groups.

Figure 9.1: Percentage of children age 36-59 months attending early childhood education program, Nigeria 2016-17, Lagos State



Support for learning

The quality of home care is a major determinant of child's development in the first 3-4 years of life when rapid brain development occurs[49]. As set out by *A World Fit for Children*, "children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn."[50]This will require

[49] Grantham-McGregor, S et al. 2007.*Developmental Potential in the First 5 Years for Children in Developing Countries*. The Lancet 369: 60–70
Belsky, J et al. 2006.*Socioeconomic Risk, Parenting During the Preschool Years and Child Health Age 6 Years*. European Journal of Public Health 17(5): 511–2.
[50]UNICEF. 2002.*A World Fit For Children* adopted by the UN General Assembly at the 27th Special Session, 10 May 2002: 2.

engagement of adults in early learning support activities with children, presence of books in the home for the child and the conditions of care as part of overall quality of home care.

Table 9.1 presents percentage of children age 36-59 months with whom adult household members engaged in activities that promote learning and school readiness during the last three days and engagement in such activities by biological fathers and mothers.

Table 9.1 (CD.2): Support for learning

Percentage of children age 36-59 months with whom adult household members engaged in activities that promote learning and school readiness during the last three days and engagement in such activities by biological fathers and mothers, Nigeria, 2016-17Lagos State

	Percentage of children with whom adult household members have engaged in four or more activities[1]	Percentage of children living with their:		Number of children age 36-59 months	Percentage of children with whom biological fathers have engaged in four or more activities[2]	Percentage of children with whom biological mothers have engaged in four or more activities[3]
		Biological father	Biological mother			
Total	**92.9**	**90.1**	**95.7**	**364**	**28.6**	**69.1**
Senatorial District						
Lagos Central	95.3	84.7	92.9	85	32.9	72.9
Lagos East	89.6	81.6	92.0	125	24.0	53.6
Lagos West	93.8	91.9	98.1	161	25.5	72.7
Sex						
Male	93.7	89.5	97.4	190	30.0	63.2
Female	91.7	84.0	92.3	181	23.2	69.6
Residence						
Urban	94.0	88.0	95.2	333	28.2	69.4
Rural	(81.6)	(76.3)	(92.1)	38	(13.2)	(39.5)
Age (months)						
36-47	92.1	87.4	95.8	191	27.7	67.0
48-59	93.3	86.1	93.9	180	25.6	65.6
Mother's education						
None	*	*	*	21	*	*
Non-formal	*	*	*	1	*	*
Primary	80.3	86.9	93.4	61	16.4	37.7
Secondary	94.1	89.9	96.3	188	26.6	69.7
Higher	98.0	87.0	98.0	100	36.0	83.0
Father's education						
None	*	*	*	6	*	*
Non-formal	*	*	*	2	*	*
Primary	(91.3)	(100.0)	(100.0)	46	(21.7)	(67.4)
Secondary	92.0	100.0	98.1	162	23.5	63.6
Higher	96.2	100.0	100.0	106	45.3	77.4
	(89.8)	(0.0)	(67.3)	49	*	(51.0)
Wealth index quintile						
Poorest	81.3	77.5	87.5	80	8.8	46.3
Second	95.2	92.8	97.6	83	28.9	68.7
Middle	96.2	85.9	94.9	78	28.2	67.9
Fourth	96.8	88.7	98.4	62	30.6	75.8
Richest	95.6	89.7	97.1	68	39.7	76.5

[1] MICS indicator 6.2 - Support for learning

[2] MICS Indicator 6.3 - Father's support for learning

[3] MICS Indicator 6.4 - Mother's support for learning

[a] The background characteristic "Mother's education" refers to the education level of the respondent to the Questionnaire for Children Under Five and covers both mothers and primary caretakers, who are interviewed when the mother is not listed in the same household. Since indicator 6.4 reports on the biological mother's support for learning, this background characteristic refers to only the educational levels of biological mothers when calculated for the indicator in question.

Information on a number of activities that support early learning was collected among children age 36-59 months. These included the involvement of adults with children in the following activities: reading books or looking at picture books, telling stories, singing songs, taking children outside the home, compound or yard, playing with children and spending time with children naming, counting, or drawing things.

In Lagos, 92.9 percent of children have an adult household member engage them on four or more activities that promote learning and school readiness during the 3 days preceding the survey. Although at least 90 percent of the children age 36-59 month lives with their biological parents, involvement of biological father and mother in activities that support early learning is as low as 28.6 percent and 69.1 percent respectively.

Involvement of adult household member and biological mother in supportive learning in Lagos Central is higher than in other senatorial district. Estimate from MICS 2016-17 for Lagos State shows that there are notable differences in the proportion of male and female for all the indicators. In Lagos State, at least 4 out of 5 biological parents and adult household members are supportive towards learning activities irrespective of social and demographic background.

Learning Materials

Exposure to books in early years not only provides the child with greater understanding of the nature of print, but may also give the child opportunities to see others reading, such as older siblings doing school work. Presence of books is important for later school performance. The mothers/caretakers of all children under-5 (0-59 months) were asked about number of children's books or picture books they have for the child and the types of playthings that are available at home. The percentage distribution of children on availability of books and playthings at home is presented in Table 9.2.

In Lagos State, one out of five children (21.1 percent) live in households where there are at least 3 children's books accessible to the child. More children in Lagos Central have learning material in their homes than other senatorial districts. There was gender difference, were more male children (23.3 percent) have learning materials at home than female (19 percent). The proportion of under-5 children who have 3 or more children's books is 21.4 percent in urban areas and 16.4 percent in rural areas. Higher percent of children age 48-59 months (30.1 percent) have access to 3 or more children's books compare with children age 36-47 months (6.9 percent).

One out of two children (57.8 percent) age 0-59 months in Lagos State has two or more types of playthings at home. The types of playthings included in the questionnaires are homemade toys (such as dolls and cars, or other toys made at home), toys that came from a store and household objects (such as pots and bowls) or objects and materials found outside the home (such as sticks, rocks, animal shells, or leaves). Higher proportion of children in Lagos East have at least 2 types of playthings in their homes than Lagos Central and Lagos West.

The proportion of children who have 2 or more types of play things at home is 57.4 percent among male children and 65.5 percent among female children. Urban-rural differential is observed with58.1 percent in urban and 64.1 percent in rural areas. There are variations in availability of learning materials based on mother's education; higher percentage of mothers with higher education have 2 or more types of play things at home than other groups.

Table 9.2 (CD.3 and 5): Learning materials and Early child development index

Percentage of children on availability of learning materials and playthings at home Nigeria, 2016-17Lagos State

	3 or more children's books[1]	Two or more types of playthings[2]	Early child development index score[3]
	0-59 months	0-59 months	36-59 months
Total	**21.1**	**57.8**	**89.9**
Senatorial District			
Lagos Central	24.1	49.7	94.6
Lagos East	20.0	73.6	86.9
Lagos West	20.8	54.7	89.9
Sex			
Male	23.3	57.4	90.0
Female	19.0	65.5	89.8
Residence			
Urban	21.4	58.1	90.4
Rural	16.4	64.1	(81.3)
Age (months)			
36-47	6.9	42.4	86.7
48-59	30.1	67.5	93.3
Mother's education			
None	6.1	55.7	(*)
Non-formal	(*)	(*)	(*)
Primary	13.7	53.8	81.0
Secondary	16.4	58.4	91.1
Higher	34.8	58.7	92.9
Wealth index quintile			
Poorest	11.3	48.0	78.8
Second	12.9	65.7	84.9
Middle	16.9	61.2	96.5
Fourth	24.0	57.0	92.7
Richest	41.8	57.2	97.4

[1] MICS indicator 6.5 - Availability of children's books [2] MICS indicator 6.6 - Availability of playthings

[3] MICS indicator 6.8 - Early child development index

Developmental Status of Children

Early childhood development is defined as an orderly, predictable process along a continuous path, in which a child learns to handle more complicated levels of moving, thinking, speaking, feeling and relating to others. Physical growth, literacy and numeracy skills, socio-emotional development and readiness to learn are vital domains of a child's overall development and basis for human development.[51]A 10-item module was used to calculate the Early Child Development Index (ECDI). The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Nigeria. The index is based on selected milestones that children are expected to achieve by ages 3 and 4. The 10 items are used to determine if children are developmentally on track in four domains:

- Literacy-numeracy: Children are identified as being developmentally on track based on whether they can identify/name at least ten letters of the alphabet, whether they can read at least four simple, popular words and whether they know the name and recognize the symbols of all numbers from 1 to 10. If at least two of these are true, then the child is considered developmentally on track.
- Physical: If the child can pick up a small object with two fingers, like a stick or a rock from the ground and/or the mother/caretaker does not indicate that the child is sometimes too sick to play, then the child is regarded as being developmentally on track in the physical domain.
- Social-emotional: Children are considered to be developmentally on track if two of the following are true: If the child gets along well with other children, if the child does not kick, bite, or hit other children and if the child does not get distracted easily.
- Learning: If the child follows simple directions on how to do something correctly and/or when given something to do, is able to do it independently, then the child is considered to be developmentally on track in this domain.

Early Child Development Index (ECDI) is then calculated as the percentage of children who are developmentally on track in at least three of these four domains as also presented in Table 9.2. In Lagos State, about four out of five (89.9 percent) children age 36-59 months are developmentally on track in at least three of the four domains. Although more than eighty five percent of children are on track, it is higher in Lagos Central (94.6 percent) than Lagos West (89.9 percent) and Lagos East (86.9 percent).

Percentage of boys (90 percent) who are on track is slightly higher than girls (89.8 percent). There are more children in the age group48-59 months (93.3 percent) who are on track compared to those of age 36-47 months (86.7 percent), since children acquire more skills with increasing age. Children living in the richest wealth index quintile households are more on track than other quintiles. This is the same pattern with mother's education: the higher the level of education, the more the proportion of children on track in Lagos State.

[51]Shonkoff, J and Phillips, D (eds). 2000.*From neurons to neighborhoods: the science of early childhood development*.Committee on Integratingthe Science of Early Childhood Development, National Research Council, 2000.

Inadequate Care

Leaving children alone or in the presence of other young children is known to increase the risk of injuries.[52] In MICS, two questions were asked to find out whether children age 0-59 months were left alone during the week preceding the interview and whether children were left in the care of other children under 10 years of age.

Table 9.3 shows that 21.0 percent of the children were left alone during the week preceding the interview, while 8.6 percent of them were left in the care of other children younger than 10 years old in Lagos State. Combining the two care indicators, it is calculated that a total of 23.3 percent of children were left with inadequate care during the past week, either by being left alone or in the care of another child. Slight differences were observed by estimate based on sex of the child and residence. On the other hand, inadequate care was more prevalent among children whose mothers had primary education. Children age 24-59 months was left with inadequate care more (29.4 percent) often than those who were age 0-23 months (13.7 percent).

Table 9.3 (CD.4): Inadequate care

Percentage of children under age 5 left alone or left in the care of another child younger than 10 years of age for more than one hour at least once during the past week, Nigeria, 2016-17 Lagos State

	Percentage of children under age 5:			
	Left alone in the past week	Left in the care of another child younger than 10 years of age in the past week	Left with inadequate care in the past week[1]	Number of children under age 5
Total	**21.0**	**8.6**	**23.3**	**930**
Senatorial District				
Lagos Central	15.7	8.8	17.8	128
Lagos East	17.3	10.9	21.1	188
Lagos West	23.2	7.9	25.2	615
Sex				
Male	22.9	9.8	26.4	462
Female	19.1	7.5	20.3	468
Residence				
Urban	21.5	8.5	23.7	887
Rural	9.7	10.7	16.4	43
Age (Months)				
0-23	11.0	6.6	13.7	359
24-59	27.3	9.9	29.4	571
Mother's education				
None	33.7	8.9	33.7	44
Non-formal	(**0.0)	(**0.0)	(**0.0)	4
Primary	25.1	10.1	29.6	122
Secondary	20.4	9.6	22.9	479
Higher	18.4	6.4	20.1	281
Wealth index quintile				
Poorest	24.2	18.0	29.4	197
Second	19.8	8.7	24.0	194
Middle	20.4	5.1	21.1	192
Fourth	19.5	6.0	19.5	158
Richest	20.7	4.5	21.8	189

[1] MICS indicator 6.7 - Inadequate care

[52] Grossman, DC. 2000. *The History of Injury Control and the Epidemiology of Child and Adolescent Injuries.* The Future of Children, 10(1): 23-52.

X. Literacy and Education

Literacy among young women and men

The Youth Literacy Rate reflects the outcomes of primary education over the previous 10 years or so. While the rate is a measure of the effectiveness of the primary education system, it is also often used as a proxy measure of social progress and economic achievement. In Nigeria, sex-specific questionnaires were administered to females and males age 15-24 years respectively. Literacy is assessed by the ability of the respondent to read a short simple statement or based on school attendance.

The percentage of young people age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education is presented in Table 10.1. Among young people in Lagos, 93.1 percent of women and 98.3 percent of men are literate. This implies that almost all the young men and women in Lagos State are literate and able to read the simple statement shown to them.

The pattern of literacy rate among different social and demographic group is identical for both sexes. Literacy rate for young women is lowest in Lagos West and highest in Lagos East senatorial district. For young men, literacy rate is lowest in Lagos East and highest in Lagos Central. Across the different social and demographic background in Lagos State, poorest wealth index quintile has the lowest literacy rates for both young men and women.

KEY FINDINGS

Literacy rate among young people age 15-24 in Lagos State:

93.1 percent of women
98.3 percent of men

Literacy rate is lowest among;

Young women in Lagos West (91.9 percent) and young men in Lagos East (96.4 percent)

89 percent of children in the first grade of primary school attended pre-school the previous year

Net intake rate in primary education is 78.2 percent. About three-quarter of children of school-entry age were enrolled in first grade of primary school

About nine out of 10 of primary school age children and eight out of 10 secondary school age children are currently attending school

98 percent of children reach final grade (primary 6) in government-owned primary school in Lagos State.

Primary school completion rate is 63.7 percent. This implies that two out of 3 children of primary completion age 11 years are in the last grade of primary education

Transition rate to secondary school is 83.4 percent

Gender parity index is 1.03 and 1.04for primary and secondary school respectively.

Table 10.1 (ED.1 and 1M): Literacy (young women and men) by background characteristics

Percentage of young women and men age 15-24 years who are literate, Nigeria, 2016-17, Lagos State

	Women		Men	
	Percentage literate[1]	Number of women age 15-24 years	Percentage literate[1]	Number of men age 15-24 years
Lagos	**93.1**	**422**	**98.3**	**198**
Senatorial District				
Lagos Central	94.1	65	99.4	39
Lagos East	96.2	88	96.4	48
Lagos West	91.9	269	98.7	111
Residence				
Urban	93.3	408	98.6	191
Rural	(**87.4)	14	(*)	7
Education of household head				
None	(**0.0)	9	(**0.0)	1
Primary	(**12.8)	18	(**0.0)	3
Secondary	100.0	289	100.0	160
Higher	100.0	102	(100.0)	34
Age (years)				
15-19	94.6	192	98.7	109
20-24	91.9	230	97.7	88
Wealth index quintile				
Poorest	84.7	78	(89.7)	34
Second	92.3	78	100.0	53
Middle	93.8	80	(100.0)	32
Fourth	99.0	97	(100.0)	50
Richest	94.3	89	(100.0)	29

[1] MICS indicator 7.1; MDG indicator 2.3 - Literacy rate among young women and men

( ) Sample data are based on 25-49 unweighted cases
(*) Sample data are fewer than 25 unweighted cases
(**)Populated though the Sample data are fewer than 25 unweighted cases

School Readiness

Pre-school education in an organised learning is important for the readiness of children to school. Table 10.2 shows the proportion of children in the first grade of primary school (regardless of age) who attended pre-school the previous year.[53] Overall, 89.1 percent of children who are currently in the first grade of primary school attended pre-school the previous year in Lagos State. More boys in the first grade (95.4 percent) had attended pre-school the previous year than girls (79.1 percent).

[53] The computation of the indicator does not exclude repeaters and therefore is inclusive of both children who are attending primary school for the first time, as well as those who were in the first grade of primary school the previous school year and are repeating. Children repeating may have attended pre-school prior to the school year during which they attended the first grade of primary school for the first time; these children are not captured in the numerator of the indicator

There is differential across senatorial districts as pre-school attendance in the Lagos West is higher (92.9 percent) than Lagos East (85.1 percent) and Lagos Central (78.2 percent). Socioeconomic status is also an important consideration in school readiness, as school readiness increases with wealth quintile 71 percent among children in the poorest wealth quintile households and 90.2 percent in the fourth wealth quintile households. This is the same pattern observed for mother's education; higher proportion of children whose mother are educated attended pre-school than those whose mothers had no education.

Table 10.2 (ED.2): School readiness

Percentage of children attending first grade of primary school who attended pre-school the previous year, Nigeria, 2016-17Lagos State

	Percentage of children attending first grade who attended preschool in previous year[1]	Number of children attending first grade of primary school
Total	**89.1**	**142**
Senatorial District		
Lagos Central	(78.2)	23
Lagos East	(85.1)	26
Lagos West	92.9	94
Sex		
Male	95.4	88
Female	79.1	55
Residence		
Urban	89.0	133
Rural	(*)	9
Mother's education		
None	(**75.5)	8
Primary	(88.1)	25
Secondary	89.6	75
Higher	(91.7)	33
Wealth index quintile		
Poorest	(71.0)	24
Second	(90.3)	33
Middle	(94.1)	36
Fourth	(90.2)	27
Richest	(*)	23

[1] MICS indicator 7.2 - School readiness

( ) Sample data are based on 25-49 unweighted cases

(*) Sample data are fewer than 25 unweighted cases

(**)Populated though the Sample data are fewer than 25 unweighted cases

Primary School Entry

Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment and influencing population growth. In Nigeria, there are 6 grades in primary school and 6 grades in secondary school. In primary school, grades are referred to as primary 1 to primary 6, while for secondary school; grades are referred to as JSS 1 to JSS 3 and SSS 1 to SSS 3. The school year typically runs from September of one year to July of the following year and children are enrolled in primary school at age 6 and secondary school at age 12.

Seventy-eight percent of children age 6 years are currently in the first grade of primary school. There are differences in the estimate of this indicator by gender, senatorial districts and residence. Percentage of

children of primary school entry age enrolled in grade 1 is highest in Lagos West (83.4 percent) and lowest in Lagos East (62 percent). There are slightly more primary school entry age boys who are enrolled in grade 1 than girls. Enrolment in first grade at age 6, as expected, increases with mother's education and wealth status. Lagos State net intake rate in primary education has increased slightly between MISC 2016-17 (78.2 percent) and the previous MISC 2011 (70 percent).

Table 10.3 (ED.3): Primary school entry

Percentage of children of primary school entry age entering grade 1 (net intake rate), Nigeria, 2016-17Lagos State

	Percentage of children of primary school entry age entering grade 1[1]	Number of children of primary school entry age
Total	**78.2**	**196**
Senatorial District		
Lagos Central	(80.1)	26
Lagos East	62.0	44
Lagos West	83.4	126
Sex		
Male	79.5	115
Female	76.2	80
Residence		
Urban	79.3	188
Rural	(*)	7
Mother's education		
None	(**43.9)	12
Primary	(81.5)	24
Secondary	78.0	100
Higher	84.7	58
Wealth index quintile		
Poorest	(67.4)	39
Second	(78.8)	40
Middle	(83.7)	42
Fourth	(73.1)	37
Richest	(87.3)	38

[1] MICS indicator 7.3 - Net intake rate in primary education

( ) Sample data are based on 25-49 unweighted cases
(*) Sample data are fewer than 25 unweighted cases
(**)Populated though the Sample data are fewer than 25 unweighted cases

Primary and Secondary School net attendance ratio

Net attendance ratio (NAR) is expressed as percentage of children of primary school age currently attending primary or secondary school. Table ED.4 shows the percentage of children of primary school age 6 to 11 years who currently are attending primary or secondary school[54] in Lagos State. Nine out of 10 children (95.7 percent) of primary school age and eight out of 10 children (81.6 percent) of secondary school age are currently attending school in Lagos State. Primary school attendance is highest in Lagos Central and lowest in Lagos East. Secondary NAR has the same pattern as primary NAR in the senatorial districts but with lower estimates.

[54] Ratios presented in this table are "adjusted" since they include not only primary school attendance, but also secondary school attendance in the numerator.

A higher proportion of urban children are currently attending primary school compared to rural children. In both primary and secondary school, adjusted NAR for children who are older at the beginning of the school year is higher than others. Also, school attendance varies with the mother's educational level and wealth index, with higher attendance with increasing mother's education and wealth index. The net attendance ratio for primary and secondary school attendance is 97.2 percent and 89.9 percent respectively among children whose mothers had higher education. Lower value of 88.8 percent and 65.7 percent were calculated for NAR primary and secondary respectively among children whose mothers had no education. Eighty-seven percent of children in the richest wealth index quintile households are currently attending secondary school compared to 69.2 percent children in the poorest households in Lagos State.

Table 10.4 (ED.4 and 5): Primary and secondary school attendance and out of school children

Percentage of children of primary and secondary school age currently attending primary or secondary school (adjusted net attendance ratio), Nigeria, 2016-17Lagos State

	Primary School		Secondary School	
	Net attendance ratio (adjusted)[1]	Number of children	Net attendance ratio (adjusted)[1]	Number of children
Total	**95.7**	**897**	**81.6**	**694**
Senatorial District				
Lagos Central	96.6	133	85.6	108
Lagos East	92.7	204	80.1	154
Lagos West	96.5	560	81.1	431
Residence				
Urban	95.9	859	81.5	670
Rural	90.1	38	(83.5)	24
Age at beginning of school year				
6 or 12	83.4	196	74.0	151
7 or 13	98.3	145	92.2	133
8 or 14	98.5	136	88.5	129
9 or 15	99.4	138	86.3	95
10 or 6	100.0	151	63.4	105
11 or 17	99.4	132	85.2	81
Mother's education				
None	88.8	49	(65.7)	42
Primary	96.9	174	73.5	146
Secondary	95.3	448	85.8	324
Higher	97.2	219	89.9	109
Wealth index quintile				
Poorest	92.4	187	69.2	150
Second	96.1	181	78.5	128
Middle	96.9	195	88.1	135
Fourth	95.5	176	85.9	170
Richest	97.8	158	87.4	110

[1] MICS indicator 7.5 - Secondary school net attendance ratio (adjusted)

( ) Sample data are based on 25-49 unweighted cases

Children reaching last grade of primary

The percentage of children reaching last grade of primary school, primary school completion and transition to secondary schoolin Lagos State is presented in Table 10.5. The Nigeria 2016-17 included only questions on school attendance in the current and previous year. Therefore, the indicator is calculated synthetically by computing the cumulative probability of survival from the first to the last grade of primary school, as opposed to calculating the indicator for a real cohort which would need to be followed from the time a cohort of children entered primary school, up to the time they reached the last grade of primary school.

Repeaters are excluded from the calculation of the indicator, because it is not known whether they will eventually graduate. As an example, the probability that a child will move from the first grade to the second grade is computed by dividing the number of children who moved from the first grade to the second grade (during the two consecutive school years covered by the survey) by the number of children who have moved from the first to the second grade plus the number of children who were in the first grade the previous school year, but dropped out. Both the numerator and denominator exclude children who repeated during the two school years under consideration.

The final grade in government-owned primary school in Nigeria, which most children attend, is primary 6 and majority of children in Lagos State (98 percent) reach this last grade. This number includes children that repeated grades and that eventually moved up to reach last grade. Male-female, rural-urban and wealth quintile differentials are not pronounced as at least nine out of 10 pupils reached grade 6.

The primary school completion rate is the ratio of the total number of students, regardless of age, entering the last grade of primary school for the first time, to the number of children of the primary graduation age at the beginning of the current (or most recent) school year. The primary school completion rate, which indicates the proportion of children of primary completion age 11 years, attending the last grade of primary education is 63.7 percent and the transition rate to secondary school is 83.4 percent in Lagos State. “Effective” transition rate of 86.5 percent takes account of the presence of repeaters in the final grade of primary school. This indicator better reflects situations in which pupils repeat the last grade of primary education but eventually make the transition to the secondary level. The simple transition rate tends to underestimate pupils’ progression to secondary school as it assumes that the repeaters never reach secondary school.

Some gender differential exists in the primary school completion rate, lower estimate for boys (59 percent) compared to female children (67.7 percent). Across the senatorial districts, primary school completion rates range between 61.3 percent in Lagos West to 72.5 percent in Lagos Central.

Table 10.5 (ED.6 and 7): Children reaching last grade of primary school, primary school completion and transition to secondary school

Percentage of children entering first grade of primary school who eventually reach the last grade of primary school (Survival rate to last grade of primary school), Nigeria, 2016-17, Lagos State

	Percent who reach grade 6 of those who enter grade 1[1]	Primary school completion rate[2]	Transition rate to secondary school[3]	Effective transition rate to secondary school
Total	**98.0**	**63.7**	**83.4**	**86.5**
Senatorial District				
Lagos Central	100.0	(72.5)	(61.0)	80.9
Lagos East	97.9	65.0	90.3	90.3
Lagos West	97.6	(61.3)	85.1	86.0
Sex				
Male	96.2	59.0	77.0	80.2
Female	100.0	67.7	89.3	92.3
Residence				
Urban	97.9	62.6	82.7	85.9
Rural	100.0	(*)	(*)	(*)
Mother's education				
None	100.0	(**182.0)	(**57.4)	(**57.4)
Primary	100.0	(79.6)	(80.3)	(**86.1)
Secondary	95.4	45.5	89.0	91.7
Higher	100.0	(**63.7)	(**92.5)	(**95.9)
Wealth index quintile				
Poorest	98.5	(100.5)	(68.6)	(69.8)
Second	100.0	(40.0)	(*)	(*)
Middle	100.0	(53.0)	(91.2)	(94.1)
Fourth	100.0	(50.4)	(*)	(*)
Richest	94.0	(*)	(96.8)	(100.0)

[1] MICS indicator 7.6; MDG indicator 2.2 - Children reaching last grade of primary
[2] MICS indicator 7.7 - Primary completion rate
[3] MICS indicator 7.8 - Transition rate to secondary school

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases
(**)Populated though the Sample data are fewer than 25 unweighted cases

Education Gender Parity Index

Table 10.6 shows the ratio of girls to boys attending primary and secondary education in Lagos State. These ratios are better known as the Gender Parity Index (GPI). The ratios included here are obtained from net attendance ratios rather than gross attendance ratios. The latter provide an erroneous description of the GPI mainly because, in most cases, majority of over-age children attending primary education tend to be boys. An estimate of 1.0 indicates parity between girls and boys. If the value is less than 1, the disparity is in favour of boys and vice versa if the value is greater than 1.

In Lagos State, gender parity index for primary school is 1.03, indicating higher school attendance rate for girls than boys in primary school. GPI estimate is almost the same for secondary education as primary education, showing that more girls than boys attending secondary school in Lagos. A striking feature of gender parity index in respect of primary school attendance ratio is that the figure is consistently 1 over the major divisions of the population of the children except for wealth index.

For secondary, the parity index is 1 in urban areas and indicates parity between girls and boys, while in rural areas, an estimate of 0.9 indicate more boys are attending school than girls. The gender parity

index in Lagos West (1.1) indicates that more girls are attending school than boys, which is different from other senatorial districts. Mothers' educational attainment is also an important factor in gender parity for both secondary schools. Among children of mothers with no education, the index is 0.8, while it is 1.1 among children of mothers with higher education.

Table 10.6 (ED.8): Education gender parity

Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Nigeria, 2016-17Lagos State

	Primary school			Secondary school		
	Primary school adjusted net attendance ratio (NAR), girls	Primary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school adjusted NAR[1]	Secondary school adjusted net attendance ratio (NAR), girls	Secondary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school adjusted NAR[2]
Total	**97.0**	**94.5**	**1.03**	**83.4**	**79.9**	**1.04**
Senatorial District						
Lagos Central	96.2	97.1	1.0	85.1	86.3	1.0
Lagos East	93.4	92.0	1.0	80.8	79.6	1.0
Lagos West	98.5	94.7	1.0	83.7	78.8	1.1
Residence						
Urban	97.2	94.7	1.0	83.6	79.6	1.0
Rural	92.0	87.9	1.0	78.2	88.2	0.9
Mother's education						
None	89.1	88.5	1.0	56.1	71.4	0.8
Non-formal	100.0	100.0	1.0	100.0	53.7	1.9
Primary	97.5	96.3	1.0	76.9	71.1	1.1
Secondary	96.6	94.0	1.0	85.4	86.2	1.0
Higher	98.9	95.6	1.0	96.0	84.7	1.1
Wealth index quintile						
Poorest	94.2	90.7	1.0	64.2	73.1	0.9
Second	96.1	96.2	1.0	86.6	72.7	1.2
Middle	98.0	95.7	1.0	87.7	88.4	1.0
Fourth	98.0	92.6	1.1	91.9	79.3	1.2
Richest	98.6	97.2	1.0	84.9	90.9	0.9

[1] MICS indicator 7.9; MDG indicator 3.1 - Gender parity index (primary school)
[2] MICS indicator 7.10; MDG indicator 3.1 - Gender parity index (secondary school)

XI. Child Protection

Birth Registration

A name and nationality is every child's right, enshrined in the Convention on the Rights of the Child (CRC) and other international treaties. Yet the births of one in four children under the age of five worldwide have never been recorded.[55] This lack of formal recognition by the State usually means that a child is unable to obtain a birth certificate. As a result, he or she may be denied health care or education. Later in life, the lack of official identification documents can mean that a child may enter marriage or the labour market, or be conscripted into the armed forces, before the legal age. In adulthood, birth certificates may be required to obtain social assistance or a job in the formal sector, to buy or prove the right to inherit property, to vote and to obtain a passport. Registering children at birth is the first step in securing their recognition before the law, safeguarding their rights and ensuring that any violation of these rights does not go unnoticed.[56]

National Population Commission (NPopC) is the organisation in charge of birth registration in Nigeria and every child is registered at or shortly after birth in any of the health care offices and as well as the NPopC offices across the 774 LGAs in Nigeria. Provide information on the procedure/system of birth registration in the country.

KEY FINDINGS

82 percent of children under age 5 have their birth registered under civil authority

16.9 percent of children are involved in child labour

11.2 percent of children are working under hazardous condition

87 percent of children age 1-14 years was subjected to at least one form of violent discipline

- **77.4 percent in Lagos Central**
- **91.6 percent in Lagos East**
- **87.7 percent in Lagos West**

3.5 percent of women married before 15 years

8.3 percent of women married before 18 years

25 percent of women had some form of female genital mutilation.

4.7 percent of women in Lagos State feel that a husband/partner is justified in hitting or beating his wife in at least one of the five situations.

Table 11.1 shows the percentage of children under age 5 with registered birth and unregistered birth from parents of caretakers who know how to register birth in Lagos State. About 82 percent of children under age 5 have their birth registered under civil authority. There is a slight difference in birth registration based on sex of children; 81.7 and 82.8 percent respectively for female and male children. Urban-rural differential exists, with higher birth registration in the urban areas (83 percent) than rural (65.8 percent).

[55]UNICEF. 2014.*The State of the World's Children 2015*. UNICEF.
[56]UNICEF. 2013.*Every Child's Birth Right: Inequities and trends in birth registration*. UNICEF.

Table 11.1 (CP.1): Birth registration

Percentage of children under age 5 by whether birth is registered and percentage of children not registered whose mothers/caregivers know how to register birth, Nigeria, 2016-17 Lagos State

	Children under age 5 whose birth is registered with civil authorities					Children under age 5 whose birth is not registered	
	Has birth certificate				Number of children under age 5	Percent of children whose mother /caretaker knows how to register birth	Number of children under age 5 without birth registration
	Seen	Not seen	No birth certificate	Total registered [1]			
Total	**47.9**	**32.0**	**2.3**	**82.3**	**930**	**89.9**	**165**
Senatorial District							
Lagos Central	54.5	29.2	4.2	87.9	128	(52.3)	15
Lagos East	38.1	36.5	3.8	78.4	188	84.6	40
Lagos West	49.6	31.3	1.4	82.3	615	97.3	109
Sex							
Male	46.9	33.5	1.3	81.7	462	90.4	85
Female	48.9	30.6	3.3	82.8	468	89.4	81
Residence							
Urban	48.4	32.7	2.0	83.0	887	91.0	150
Rural	38.5	18.8	8.4	65.8	43	(*)	15
Age (Months)							
0-11	43.8	19.9	3.9	67.7	164	91.2	53
12-23	45.4	31.6	4.4	81.4	195	(86.2)	36
24-35	51.7	30.0	1.3	83.1	207	(92.2)	35
36-47	46.9	38.2	1.2	86.2	189	(89.4)	26
48-59	51.2	39.7	0.7	91.7	175	(*)	15
Mother's education							
None	24.8	57.7	2.9	85.4	44	(**92.3)	6
Non-formal	(**25.0)	(**75.0)	(**0.0)	(**100.0)	4	na	0
Primary	37.9	31.6	1.0	70.6	122	(76.9)	36
Secondary	44.0	32.2	3.0	79.2	479	94.0	100
Higher	62.8	27.4	1.6	91.8	281	(91.7)	23
Wealth index quintile							
Poorest	26.9	42.0	2.4	71.2	197	84.4	57
Second	43.3	31.8	2.3	77.4	194	(99.3)	44
Middle	46.8	35.0	3.0	84.8	192	(82.0)	29
Fourth	54.5	30.3	3.3	88.0	158	(95.5)	19
Richest	70.3	20.3	0.7	91.3	189	(*)	16

[1] MICS indicator 8.1 - Birth registration

( ) Sample data are based on 25-49 unweighted cases(*) Sample data are fewer than 25 unweighted cases
(**)Populated though the Sample data are fewer than 25 unweighted cases

In Lagos State, there is a difference in birth registration across senatorial districts; higher proportions of birth registration occurred in Lagos Central (87.9 percent) compared with Lagos West (82.3 percent) and Lagos East (78.4 percent). There is increase in the proportion of birth registration with increasing mother's education and wealth quintile. A comparison of Lagos State estimate in MICS 2016-17 (82.3 percent) with MICS 2011 (73 percent) shows slight increase in the percentage of under-5 children with a birth certificate. Inadequate knowledge of how to register a child could be an obstacle to the fulfilment

of a child ' s right to identity. Ninety percent of mothers of unregistered children are aware of the registration process, but did not register their children.

Child Labour

Children who are involved in one form of paid and unpaid work are classified as child labourers when they are either too young to work or are involved in hazardous activities that may compromise their physical, mental, social or educational development. Article 32 (1) of the Convention on the Rights of the Child states: "States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development".

The child labour module was administered for children age 5-17 and includes questions on the type of work a child does and the number of hours he or she is engaged in it. Data are collected on both economic activities (paid or unpaid work for someone who is not a member of the household, work for a family farm or business) and domestic work (household chores such as cooking, cleaning or caring for children, as well as collecting firewood or fetching water). The module also collects information on hazardous working conditions.[57, 58]

The methodology of the MICS Indicator on Child Labour uses three age-specific thresholds for the number of hours a child can perform economic activity without it being classified as in child labour. A child that performed economic activities during the last week for more than the age-specific number of hours is classified as in child labour:

i. age 5-11: 1 hour or more
ii. age 12-14: 14 hours or more
iii. age 15-17: 43 hours or more

Similarly, children's involvement in household chores was surveyed. As for economic activity above, the methodology also uses age-specific thresholds for the number of hours a child can perform household chores without it being classified as child labour. A child that performed household chores during the last week for more than the age-specific number of hours is classified as in child labour:

i. age 5-11 and age 12-14: 28 hours or more
ii. age 15-17: 43 hours or more

Table CP.2 shows the combined percentage of children age 5-17 years involved in child labour (from economic activities and household chores) and children working under hazardous conditions in Lagos State. The percentage of children in child labour and children working under hazardous condition is 16.9 percent and 11.2 percent respectively. This implies that few of the children – one out of 10- are involved in economic or household activities classified as child labour in Lagos State.

[57]UNICEF. 2012. *How Sensitive Are Estimates of Child Labour to Definitions?*MICS Methodological Paper No. 1. UNICEF.

[58] The Child Labour module and the Child Discipline module were administered using random selection of a single child in all households with one or more children age 1-17 (See Appendix F: Questionnaires). The Child Labour module was administered if the selected child was age 5-17 and the Child Discipline module if the child was age 1-14 years old. To account for the random selection, the household sample weight is multiplied by the total number of children age 1-17 in each household.

The proportion of children engaged in child labour by type of activities labour varies with age. For economic activities, 12.3 percent of children age 5-11 years, 2.2 percent of children age 12-14 years and4.9 percent of children age 15-17 years. However, the proportion of children involved in household chores classified as child labour varies by age group is2.5 percent of children age 5-11 years, 3.7 percent of children age 12-14 years and2.0 percent of children age 15-17 years.

Table 11.2 (CP.4): Child labour

Percentage of children age 5-17 years by involvement in economic activities or household chores during the last week, percentage working under hazardous conditions during the last week and percentage engaged in child labour during the last week, Nigeria, 2016-17Lagos State

	Children involved in economic activities for a total number of hours during last week:		Children involved in household chores for a total number of hours during last week:				
	Below the age specific threshold	At or above the age specific threshold	Below the age specific threshold	At or above the age specific threshold	Children working under hazardous conditions	Total child labour[1]	Number of children age 5-17 years
Total	**13.6**	**8.6**	**86.6**	**2.7**	**11.2**	**16.9**	**1,726**
Senatorial District							
Lagos Central	11.6	7.1	73.3	8.8	10.3	21.7	268
Lagos East	18.0	10.8	83.1	4.7	13.9	23.7	382
Lagos West	12.5	8.1	91.2	0.5	10.5	13.3	1,076
Sex							
Male	10.2	6.1	85.3	2.5	9.6	14.2	930
Female	17.5	11.5	88.1	3.0	13.1	20.1	796
Residence							
Urban	13.4	8.2	87.0	2.6	11.0	16.5	1,647
Rural	15.7	17.1	78.9	6.0	16.1	26.7	79
Age (years)							
5-11	3.9	12.3	80.9	2.5	7.3	14.8	1,009
12-14	20.9	2.2	94.2	3.7	11.7	15.5	411
15-17	35.6	4.9	95.4	2.0	23.5	26.1	306
School attendance							
Yes	12.5	8.4	86.2	2.6	9.8	15.6	1,594
No	26.4	10.2	91.6	3.8	28.6	32.9	132
Mother's education							
None	22.9	4.7	84.5	8.2	13.7	19.8	91
Non-formal	(**0.0)	(**0.0)	68.1	(**0.0)	(**0.0)	(**0.0)	7
Primary	14.0	14.0	90.9	3.1	16.6	24.2	328
Secondary	13.1	10.2	85.7	3.3	12.5	19.3	882
Higher	9.6	2.3	83.9	0.0	2.9	5.1	346
Wealth index quintile							
Poorest	14.5	13.7	86.3	4.8	20.2	27.9	362
Second	16.8	5.8	89.9	2.7	11.3	14.9	356
Middle	14.1	8.0	85.2	4.1	8.0	15.4	370
Fourth	10.3	12.0	84.0	1.1	10.2	17.7	346
Richest	11.6	2.3	87.9	0.3	5.3	6.9	293

[1] MICS indicator 8.2 - Child labour

[a] Children age 15 or higher at the time of the interview whose mothers were not living in the household

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

(**)Populated though the Sample data are fewer than 25 unweighted cases

At least one out of five of children with the following characteristic were involved in child labouractivities in Lagos State: Lagos East and Lagos Central senatorial districts, female children, rural

areas, age 15-17 years, not attending school, mothers had primary education and poorest wealth index quintile. There is also reduction in participation of children in economic and household activities classified as child labours with increasing mother's education and wealth quintile. The highest proportion of children working under hazardous condition is in Lagos East (23.7 percent).

Child Discipline

Teaching children self-control and acceptable behavior is an integral part of child discipline in all cultures. Positive parenting practices involve providing guidance on how to handle emotions or conflicts in manners that encourage judgment and responsibility and preserve children's self-esteem, physical and psychological integrity and dignity. However, children are raised through the use of punitive methods that rely on the use of physical force or verbal intimidation to obtain desired behaviors. Studies[59] have found that exposing children to violent discipline have harmful consequences, which range from immediate impacts to long-term harm that children carry forward into adult life. Violence hampers children's development, learning abilities and school performance; it inhibits positive relationships, provokes low self-esteem, emotional distress and depression; and, at times, it leads to risk taking.

Table 11.3 presents discipline methods of children age 1-14 years during the last one month. In Lagos, 87 percent of children age 1-14 years were subjected to at least one form of violent discipline method (psychological aggression or physical punishment) by household members during the past month. For the most part, households employ a combination of violent disciplinary practices, reflecting caregivers' motivation to control children's behaviour by any means possible.

While 80.5 percent of children experienced psychological aggression, 73.1 percent experienced physical punishment. The most severe forms of physical punishment (hitting the child on the head, ears or face or hitting the child hard and repeatedly) are reported in about 25.8 percent of children. Male children were subjected to physical discipline (75.4 percent) more than female children (70.6 percent). There is slight difference in the violent method of child discipline across senatorial district; 91.6 percent in Lagos East, 87.7 percent in Lagos West and 77.4 percent in Lagos Central. Method of violent discipline is higher in rural areas than urban areas, especially severe physical punishment. Also, there are variations by age, education of household head and household wealth index.

[59]Straus, MA and Paschall MJ.2009. *Corporal Punishment by Mothers and Development of Children's Cognitive Ability: A longitudinal study of two nationally representative age cohorts*. Journal of Aggression, Maltreatment & Trauma18(5): 459-83.
Erickson, MF and Egeland, B. 1987.*A Developmental View of the Psychological Consequences of Maltreatment*. School Psychology Review16: 156-68.
Schneider, MW et al. 2005. *Do Allegations of Emotional Maltreatment Predict Developmental Outcomes Beyond that of Other Forms of Maltreatment?*. Child Abuse & Neglect29(5): 513–32.

Table 11.3 (CP.3): Child discipline

Percentage of children age 1-14 years by child disciplining methods experienced during the last one month, Nigeria, 2016-17, Lagos State

	Percentage of children age 1-14 years who experienced:					
	Only non-violent discipline	Psychological aggression	Physical punishment		Any violent discipline method1	Number of children age 1-14 years
			Any	Severe		
Total	**7.4**	**80.5**	**73.1**	**25.8**	**87.0**	**2,207**
Senatorial District						
Lagos Central	10.6	65.3	69.8	33.3	77.4	321
Lagos East	4.5	85.1	78.8	34.5	91.6	456
Lagos West	7.6	82.5	72.0	21.4	87.7	1,430
Sex						
Male	6.8	81.4	75.4	28.8	88.5	1,134
Female	8.0	79.6	70.6	22.7	85.3	1,073
Residence						
Urban	7.7	80.2	72.7	25.0	86.8	2,110
Rural	0.8	87.7	81.9	43.4	90.3	97
Age (years)						
1-2	13.3	62.4	58.9	12.6	72.7	395
3-4	5.7	82.2	70.3	21.6	88.6	392
5-9	3.8	86.9	78.3	26.2	92.9	774
10-14	9.1	83.0	77.2	36.0	87.6	646
Education of household head						
None	14.0	70.3	78.7	62.0	81.1	93
Non-formal	(**13.7)	(**86.3)	(**86.3)	(**47.0)	(**86.3)	16
Primary	6.1	83.8	79.4	23.5	89.6	359
Secondary	3.8	86.2	80.0	29.4	91.0	1,030
Higher	12.4	71.7	58.5	16.7	80.5	705
Wealth index quintile						
Poorest	10.6	77.3	79.4	34.6	84.9	481
Second	3.5	82.8	79.4	32.9	88.8	427
Middle	3.8	85.0	79.8	24.9	93.3	456
Fourth	8.6	77.4	68.4	24.4	82.4	423
Richest	10.5	80.1	56.7	11.1	85.3	420

[1] MICS indicator 8.3 - Violent discipline

Early Marriage and Polygyny

Marriage[60] before the age of 18 is a reality for many young girls. In many parts of the world parents encourage the marriage of their daughters while they are still children in hopes that the marriage will benefit them both financially and socially, while also relieving financial burdens on the family. In actual fact, child marriage is a violation of human rights, compromising the development of girls and often resulting in early pregnancy and social isolation, with little education and poor vocational training reinforcing the gendered nature of poverty.[61] The right to 'free and full' consent to a marriage is recognized in the Universal Declaration of Human Rights - with the recognition that consent cannot be 'free and full' when one of the parties involved is not sufficiently mature to make an informed decision about a life partner. Closely related to the issue of child marriage is the age at which girls become sexually active.

Women who are married before the age of 18 tend to have more children than those who marry later in life. Pregnancy related deaths are known to be a leading cause of mortality for both married and unmarried girls between the ages of 15 and 19, particularly among the youngest of this cohort. There is evidence to suggest that girls who marry at young ages are more likely to marry older men which puts them at increased risk of HIV infection. The demand for these young wives to have children and the power imbalance resulting from the age differential, lead to very low condom use among such couples.[62]

Table 11.4. Shows the percentage of men and women at different age groups years who were married before ages 15 and 18, currently married and in polygynous marriage in Lagos State. The percentage of women who married before age 15 years is 3.5 percent. About 8.3 percent of women age 20-49 years married before age 18 years. Lagos East has the highest proportion of women who married before age 15 years (5.1 percent), who married before age 18 years (13.2 percent), who are currently married (3.5 percent) and who are in polygynous union (22.6 percent). These indicators are higher for rural areas than urban areas. Also, estimates for early marriage and polygyny indicators steadily reduce with increasing education and wealth quintile. The percentage of men age 15-49 who married before age 15 years in Lagos State is 1.3 percent, while 2.7 percent of men married before age 18 years. For men, the proportion of marriages before ages 15 and 18 years are also higher in Lagos East and rural areas than others. Likewise, these indicators reduce with increasing education and wealth quintile. None of the young men age 15-19 years is currently married. The proportion of those in polygynous marriage or union is higher among women (13.2 percent) than men (8.4 percent) in Lagos State.

[60] All references to marriage in this chapter include marital union as well.

[61] Bajracharya, A ND Amin, S. 2010.*Poverty, marriage timing and transitions to adulthood in Nepal: A longitudinal analysis using the Nepal living standards survey.* Poverty, Gender and Youth Working Paper No. 19. Population Council.
Godha, D et al. 2011. *The influence of child marriage on fertility, fertility-control and maternal health care utilization.* MEASURE/Evaluation PRH Project Working paper 11-124.

[62]Clark, S et al. 2006. *Protecting young women from HIV/AIDS: the case againstchild and adolescentmarriage. International Family Planning Perspectives* 32(2): 79-88.
Raj, A et al. 2009. *Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study*. The Lancet373(9678): 1883–9.

Table 11.4 (CP.7 and 7M): Early marriage and polygyny

Percentage of women and men age 15-49 years who first married or entered a marital union before their 15th birthday, percentages age 20-49 years who first married or entered a marital union before their 15th and 18th birthdays, percentage age 15-19 years currently married or in union and the percentage of women who are in a polygynous marriage or union, Nigeria, 2016-17 Lagos State

	Percentage of women				Percentage of men			
	age 15-49 married before age 15[1]	age 20-49 married before age 18[2]	age 15-19 currently married/in union[3]	age 15-49 in polygynous marriage/ union[4]	age 15-49 married before age 15[1]	age 20-49 married before age 18[2]	age 15-19 currently married/in union[3]	age 15-49 in polygynous marriage/ union[4]
Total	**3.5**	**8.3**	**2.1**	**13.2**	**1.3**	**2.7**	**0.0**	**8.4**
Senatorial District								
Lagos Central	0.9	4.8	0.7	8.1	1.3	2.1	(0.0)	5.9
Lagos East	5.1	13.2	3.5	22.6	2.5	6.8	(0.0)	15.8
Lagos West	3.6	7.3	2.1	10.9	1.0	1.6	(0.0)	6.5
Residence								
Urban	3.3	7.8	2.1	12.3	1.4	2.7	0.0	7.9
Rural	9.1	22.3	(*)	33.7	(0.0)	(2.6)	(*)	(22.5)
Age (Years)								
15-19	0.4	na	2.1	(*)	0.0	na	0.0	na
20-24	2.6	4.8	na	12.9	2.5	3.6	na	(**16.4)
25-29	1.6	5.3	na	10.2	3.7	4.7	na	(**1.6)
30-34	3.5	8.5	na	8.4	1.4	3.9	na	6.4
35-39	2.7	6.4	na	10.3	1.0	2.4	na	6.0
40-44	8.7	15.0	na	23.3	1.3	1.3	na	7.8
45-49	8.6	15.0	na	22.8	0.0	0.0	na	17.7
Education								
None	(12.4)	(22.5)	(**0.0)	(38.3)	(**0.0)	(**19.2)	(**0.0)	(**7.3)
Non-formal	(**0.0)	(**26.9)	(**0.0)	(**0.0)	(**0.0)	(**0.0)	na	(**0.0)
Primary	7.7	18.3	(*)	20.6	4.5	7.5	(**0.0)	(16.5)
Secondary	3.8	9.7	2.4	14.9	0.9	1.8	0.0	8.0
Higher	0.8	1.1	(*)	3.5	1.4	2.1	(**0.0)	6.1
Wealth index quintile								
Poorest	7.4	13.5	(3.5)	19.2	2.5	7.6	(0.0)	9.2
Second	3.8	10.0	(1.2)	16.5	0.4	1.1	(0.0)	10.7
Middle	4.4	11.0	(6.0)	14.8	1.6	2.3	(*)	13.6
Fourth	2.5	6.6	0.0	12.4	0.8	1.5	(0.0)	8.6
Richest	0.2	1.3	(0.0)	3.7	1.8	1.9	(*)	0.7

[1] MICS indicator 8.4 - Marriage before age 15 [2] MICS indicator 8.5 - Marriage before age 18
[3] MICS indicator 8.6 - Young men age 15-19 years currently married or in union [4] MICS indicator 8.7 - Polygyny
( ) Sample data are based on 25-49 unweighted cases
(*) Sample data are fewer than 25 unweighted cases
(**)Populated though the Sample data are fewer than 25 unweighted cases

Spousal age difference

Spousal age difference measures the percentage of young women who are married or in union and whose spouse is 10 or more years older. Table 11.5 presents the results of the age difference between women age 15-24 years who are currently married and their husbands in Lagos State. About 38.1 and 31.6 percent of currently married/in union women age 15-19and 20-24 years respectively have husbands older by ten years or more. Lagos East has the highest estimate of women age 20-24 who are at least ten years younger than their husband, followed by Lagos West (32.3 percent) and Lagos East (19.4 percent).

Table 11.5 (CP.9): Spousal age difference

Percent distribution of women currently married/in union age 15-19 and 20-24 years according to the age difference with their husband or partner, Nigeria, 2016-17Lagos State

	Percentage of currently married/in union women age 15-19 years whose husband or partner is:	Percentage of currently married/in union women age 20-24 years whose husband or partner is:
	10+ years older[1]	10+ years older[2]
Total	**(**38.1)**	**31.6**
Senatorial District		
Lagos Central	(**100.0)	(**68.0)
Lagos East	(**100.0)	(19.4)
Lagos West	(**0.0)	(32.3)

[1] MICS indicator 8.8a - Spousal age difference (among women age 15-19)
[2] MICS indicator 8.8b - Spousal age difference (among women age 20-24)
na: not applicable *( ) Sample data are based on 25-49 unweighted cases* *(*) Sample data are fewer than 25 unweighted cases* *(**)Populated though the Sample data are fewer than 25 unweighted cases*

Female Genital Mutilation/Cutting

Female genital mutilation/cutting (FGM/C) is the partial or total removal of the female external genitalia or other injury to the female genital organs. FGM/C is always traumatic with immediate complications including excruciating pain, shock, urine retention, ulceration of the genitals and injury to adjacent tissue. Other complications include septicaemia, infertility, obstructed labour and even death. FGM/C is also known as female circumcision, is practiced in many societies in Nigeria. In many cultures, FGM/Cis a recognised and accepted practice that is considered important for the socialisation of women, curbing their sexual appetites and preparing them for marriage. This practice is considered part of a ritual initiation into womanhood that includes a period of seclusion and education about the rights and duties of a wife. The procedure is generally carried out on girls between the ages of 4 and 14; it is also done to infants, women who are about to be married and sometimes, to women who are pregnant with their first child or who have just given birth. It is often performed by traditional practitioners, including midwives and barbers, without anaesthesia, using scissors, razor blades, or broken glass.

FGM/C is a fundamental violation of human rights. It subjects girls and women to health risks and has life-threatening consequences. Although no international human rights instruments specifically addressed the practice, Article 25 of the Universal Declaration of Human Rights states that “everyone has the right to a standard of living adequate for health and well-being” and has been used to argue that FGM/C violates the right to health and bodily integrity. Furthermore, it could be argued that the girl child, cannot be said to give informed consent to such a potentially damaging practice as FGM/C. Table 11.6 presents percentage of women who approves FGM/C, prevalence of FGM/C among women age 15-

49 years and prevalence of FGM/C among girls. About 25 percent of women had some form of female genital mutilation. It is more prevalent in the urban areas than rural areas. FGM/C is least prevalent among women in Lagos West where 26.9 percent of the women experienced the practice. The prevalence of FGM/C is associated with age, education and wealth status. It is presented as a problem of the old, the non-educated and the poor.

Table 11.6 (CP.10, 11 and 13): Female genital mutilation/cutting (FGM/C) among women

Percentage of women age 15-49 years by FGM/C status and percent distribution of women who had FGM/C by type of FGM/C, Nigeria, 2016-17Lagos State

	Percentage of women who state that FGM/C should continue[1]	Percentage of women who had any form of FGM/C[2]	Percentage of daughters who had any form of FGM/C[3]
Total	**12.9**	**25.0**	**10.5**
Senatorial District			
Lagos Central	9.0	19.7	9.4
Lagos East	14.3	23.1	6.4
Lagos West	13.3	26.9	12.1
Residence			
Urban	12.9	25.1	10.9
Rural	13.0	22.4	3.9
Age of daughter (Years)			
0-4	na	na	7.6
5-9	na	na	12.9
10-14	na	na	12.4
Mother's Age (years)			
15-19	10.4	12.6	na
20-24	14.4	21.3	na
25-29	16.2	22.5	na
30-34	10.8	26.0	na
35-39	10.6	25.9	na
40-44	10.8	30.5	na
45-49	21.5	47.5	na
Education			
None	30.7	(36.8)	(45.1)
Non-formal	(**0.0)	(**0.0)	(*)
Primary	16.3	35.8	11.0
Secondary	15.0	27.1	11.3
Higher	7.5	16.7	3.8
Mother's FGM/C experience			
No FGM/C	3.5	21.8	2.6
Had FGM/C	36.1	80.0	26.5
Wealth index quintile			
Poorest	17.5	30.1	16.3
Second	15.4	29.4	8.5
Middle	16.8	31.7	9.9
Fourth	10.5	22.0	9.4
Richest	6.6	13.5	7.6

[1] MICS indicator 8.9 - Approval for FGM/C [2] MICS indicator 8.10 - Prevalence of FGM/C among women
[3] MICS indicator 8.11 - Prevalence of FGM/C among girls
(*) Sample data are fewer than 25 unweighted cases(**)Populated though the Sample data are fewer than 25 unweighted cases

It is important to note that prevalence data for girls age 0-14 years reflect their current – not final – FGM/C status, since many of them may not have reached the customary age for cutting at the time of the survey. They are reported as being uncut but are still at risk of undergoing the procedure. Overall, 10.5 percent of girls have undergone FGM/C. Daughters whose mothers have no education (45.1 percent) are more likely to be exposed to the practice of FGM/C compared to daughters whose mother had higher education (3.8 percent). FGM/C is common among daughters age 5-9 (12.9 percent) compared to 7.6 percent among daughters age 0-4.

As to whether the practice should be continued or discontinued, about 12.9 percent of women thought it should be continued. More women in Lagos East support the continuation of the practice of FGM/C than women in other senatorial districts. Also, support for FGM/C practices is almost the same in rural and urban areas. Three out of 10 women (30.7 percent) with no education support FGM/C, while only 7.5 percent with higher education support the practice. The higher the wealth index, the lower the percentage of women who support FGM/C in Lagos State.

Attitudes toward Domestic Violence

The Nigeria, MICS 2016-17 assessed the attitudes of women and men age 15-49 years towards wife/partner beating by asking the respondents whether they think that husbands/partners are justified to hit or beat their wives/partners in a variety of situations. The purpose of these questions is to capture the social justification of violence (in contexts where women have a lower status in society) as a disciplinary action when a woman does not comply with certain expected gender roles. The responses to these questions can be found in Table 11.7 for women and men in Lagos State.

Only 4.7 percent of women in Lagos State feel that a husband/partner is justified in hitting or beating his wife in at least one of the five situations. About 8.5 percent in the poorest wealth index quintile feel that their husband/partner is justified to hit or beat them for at least one of a variety of reasons compared to 2.3 percent of women in the richest wealth index quintile. More women in Lagos East, rural areas, age 40-44 and no education feel that their husband/partner is justified to hit or beat them for at least one of a variety of reasons than other groups. In Lagos State, men are less likely to justify violence than women. Overall, 4.4 percent of men justifies wife-beating for any of the five reasons, as compared to 4.7percent of women. Higher proportions of men in Lagos East and Lagos Central, rural areas and age group 25-29 agreed that a husband/partner is justified to hit or beat wife with one of the reasons than other social groups.

Table 11.7 (CP.13 and 13M): Attitudes toward domestic violence

Percentage of people age 15-49 years who believe a husband is justified in beating his wife in various circumstances, Nigeria, 2016-17Lagos State

	For any of five reasons[1]	Number of women age 15-49 years		For any of five reasons[1]	Number of men age 15-49 years
Total	**4.7**	**1,491**		**4.4**	**707**
Senatorial District					
Lagos Central	2.2	223		9.2	116
Lagos East	9.4	323		9.2	145
Lagos West	3.7	946		1.7	447
Residence					
Urban	4.4	1,443		3.7	685
Rural	14.9	48		(28.1)	22
Age (years)					
15-19	3.1	192		2.9	109
20-24	7.1	230		3.9	88
25-29	3.1	241		9.4	79
30-34	3.9	305		3.9	126
35-39	3.7	245		4.3	127
40-44	7.2	174		4.7	106
45-49	6.8	104		2.8	70
Marital/Union status					
Currently married/in union	5.8	948		4.5	373
Formerly married/in union	4.3	82		(1.7)	21
Never married/in union	2.5	460		4.5	313
Education					
None	(16.1)	38		(**29.0)	8
Non-formal	(**6.0)	6		(**0.0)	2
Primary	8.1	163		10.0	61
Secondary	5.4	831		4.1	418
Higher	1.3	453		2.6	218
Wealth index quintile					
Poorest	8.5	265		7.0	128
Second	4.3	278		3.5	157
Middle	7.5	301		6.0	128
Fourth	1.9	337		4.3	162
Richest	2.3	311		1.6	131

[1] MICS indicator 8.12 - Attitudes towards domestic violence

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases
(**)Populated though the Sample data are fewer than 25 unweighted cases

Children's Living Arrangements

The CRC recognizes that "the child, for the full and harmonious development of his or her personality, should grow up in a family environment, in an atmosphere of happiness, love and understanding". Millions of children around the world grow up with without the care of their parents for several reasons, including due to the premature death of the parents or their migration for work. In most cases, these children are cared for by members of their extended families, while in others, children may be living in households other than their own, as live-in domestic workers for instance. Understanding the children's living arrangements, including the composition of the households where they live and the relationships with their primary caregivers, is key to design targeted interventions aimed at promoting child's care and wellbeing.

Table 11.8 presents information on the living arrangements and orphan-hood status of children under 18 years in Lagos State. About 7.5 percent of children live with neither of their biological parents while both are alive. Also, about6.8 percent of children have lost one or both parents. Higher percentages of older children lived with neither biological parents or have lost one or both parents. Percentage of children who are not living with biological parent is highest in Lagos Central, urban areas and among the poorest wealth index quintile. In Lagos State, there is difference between urban (8.9 percent) and rural (5.4 percent) areas in terms of orphan-hood. It is higher in Lagos Central (10.1 percent) than Lagos East (7.7 percent) and Lagos West (6.6 percent). Orphan-hood is also highest among older children age 15-17 years.

Table 11.8 (CP.14 and 15): Children's living arrangements and orphan-hood

Percent distribution of children age 0-17 years according to living arrangements and orphan-hood Nigeria, 2016-17Lagos State

	Percentage of children age 0-17 years			
	Living with neither biological parent[1]	Living with one or both biological parents dead [2]	With at least one parent living abroad[3]	Number of children age 0-17 years
Total	**7.5**	**6.8**	**0.9**	**2,739**
Senatorial District				
Lagos Central	10.1	7.3	0.5	401
Lagos East	7.7	7.1	0.9	590
Lagos West	6.8	6.6	1.0	1,749
Residence				
Urban	7.5	6.7	1.0	2,621
Rural	7.1	8.6	0.0	117
Age (years)				
0-4	2.8	1.8	0.6	999
5-9	6.9	6.6	1.2	762
10-14	12.1	10.6	1.4	694
15-17	14.0	15.9	0.3	284
Wealth index quintile				
Poorest	9.9	12.1	0.3	573
Second	8.9	7.6	0.8	555
Middle	5.3	5.6	0.5	564
Fourth	7.6	4.5	1.5	545
Richest	5.5	3.9	1.8	503

[1] MICS indicator 8.13 - Children's living arrangements

[2] MICS indicator 8.14 - Prevalence of children with one or both parents dead

[1] MICS indicator 8.15 - Children with at least one parent living abroad

The Nigeria MICS 2016-17 included a simple measure of one particular aspect of migration related to what is termed children left behind, i.e. for whom one or both parents have moved abroad. While the amount of literature is growing, the long-term effects of the benefits of remittances versus the potential adverse psycho-social effects are not yet conclusive, as there is somewhat conflicting evidence available as to the effects on children. Besides presenting simple prevalence rates, the result presented in Table 8 will also fill the data gap on the topic of migration. As expected, only 0.9 percent of children age 0-17 has one or both parents living abroad. In Lagos State, children in rural areas do not have any of their parents living abroad.

XII. HIV/AIDS and Sexual Behaviour

Knowledge about HIV Transmission and Misconceptions about HIV

The third Sustainable Development Goal (SDG) is to ensure healthy lives and promote wellbeing for all at all ages. To achieve this SDG goal, a global target to end AIDS by 2030 was adopted. At the 2016 United Nations General Assembly, countries were called to report on several political commitments that accelerate the end of AIDS, such as ensuring that 90% of young people have the skills, knowledge, capacity to protect themselves from HIV and have access to sexual and reproductive health services by 2020.

The Global AIDS monitoring indicators tracks progress in knowledge of HIV prevention and behaviour change to prevent further spread of the disease. One indicator in the Global AIDS Monitoring (formerly Global AIDS Response Progress Reporting GARPR or UNGASS) is the percentage of young people who have comprehensive knowledge of HIV prevention and transmission. This is defined as 1) knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, 2) knowing that a healthy-looking person can have HIV and 3) rejecting the two most common misconceptions about transmission of HIV.

In Nigeria, the number of new HIV infections among young people (15-24years) has been on the increase. According to the 2016 UNAIDS Prevention Gap report[63], two-thirds of young people do not have correct and comprehensive knowledge of HIV, which is partly responsible for the increase in new HIV infections. Knowledge of behavioral risk reduction, consistent condom use, sexually transmitted infections and HIV status will provide adolescents and young people with the tools to protect themselves against HIV transmission and acquisition.

KEY FINDINGS

In Lagos State, majority of young people have heard of HIV/AIDS but few have correct and comprehensive knowledge of the disease

Comprehensive knowledge of HIV transmission
- **55 percent of women**
- **44 percent of men**

Three out of five women can identify the 3 ways of HIV transmission from mother to child

Two out of five men can identify the 3 ways of HIV transmission from mother to child

Stigmatization and discrimination of PLWHA is still high in Lagos
6 percent of women have accepting attitude
11 percent of men have accepting attitude

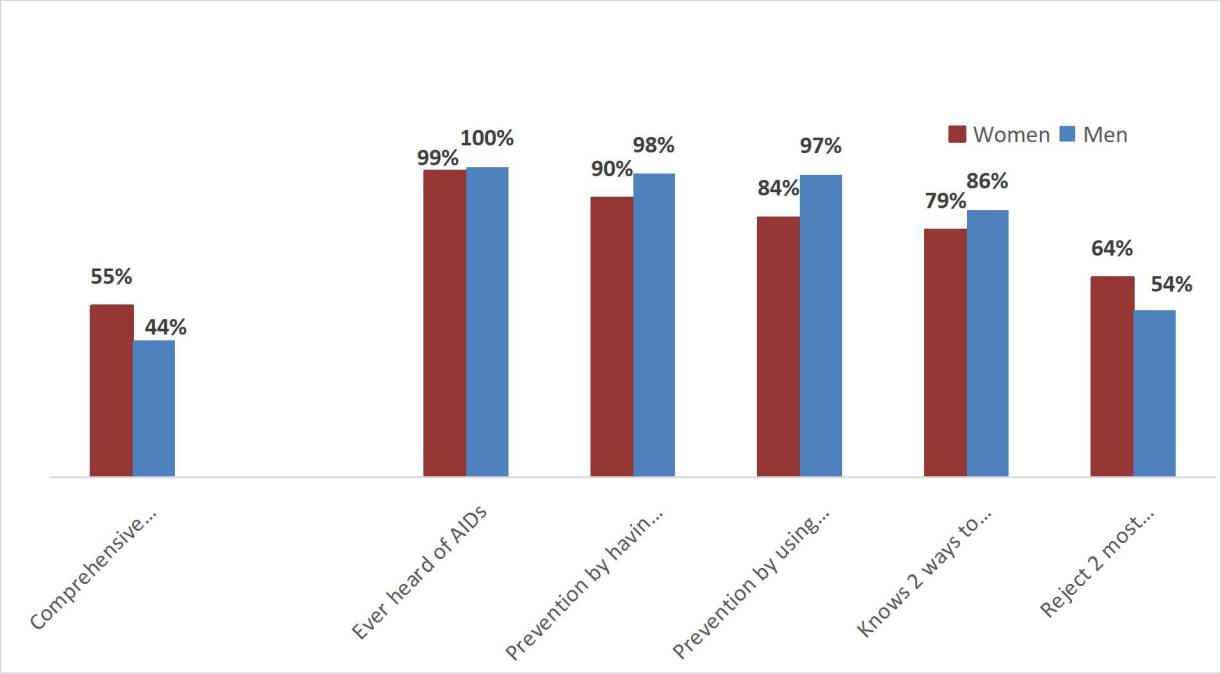
Nineout of 10 men and women age 15-49 know where to do an HIV test.

[63]http://www.unaids.org/sites/default/files/media_asset/2016PreventionGapReportsummary_en.pdf

Knowledge about HIV Prevention among young people age 15-24

Figure 12.1 present the percentage of young men and women aged 15-24 years who have comprehensive knowledge of HIV transmission in Lagos State. People who have comprehensive knowledge about HIV prevention include those who know of the two main ways of HIV prevention (having only one faithful uninfected partner and using a condom every time), who know that a healthy-looking person can be HIV-positive and who reject the two most common misconceptions. Comprehensive knowledge of HIV prevention methods and transmission is fairly low although there are differences by area. It also shows the percentage of young people who correctly identify ways of preventing sexual transmission of HIV and rejects major HIV misconceptions which is based on two most common misconceptions in Nigeria: that HIV can be transmitted by sharing food with someone with HIV and the misconception that a healthy-looking person cannot be HIV positive.

Figure 12 1: Percentage of young men and women aged 15-24 years who have comprehensive knowledge of HIV transmission, Nigeria 2016/17 Lagos State



Lack of knowledge on HIV transmission and prevention methods pose a threat to current prevention measures such as testing for HIV and promoting care seeking behaviour. As expected majority of young people have heard of HIV/AIDS but few have correct and comprehensive knowledge of the disease. For young men, about 100 percent have heard of AIDS, 98 percent agreed that HIV transmission can be prevented by having only one uninfected partner and 97 percent said that using condom every time prevents HIV transmission. Also, 86 percent of the young men knows at least 2 ways to prevent HIV and only 54 percent reject the two most common misconception on HIV/AIDS. However, forty-four percent of young men in Lagos State have comprehensive knowledge of HIV/AIDS

A slightly lower proportion of young women than men have heard of AIDS (99 percent), know 2 ways to prevent transmission of HIV (90 percent), rejected misconceptions of AIDS (64 percent). Fifty-five percent of women age 15-24 in Lagos State have correct and comprehensive knowledge of HIV/AIDS.

Knowledge about HIV Prevention among people age 15-49

Table 12.1 presents percentage of men and women age 15-49 years who have comprehensive knowledge about HIV transmission in Lagos State. About fifty-five percent of women and forty-four percent of men have comprehensive knowledge of the two main ways of HIV prevention (having only one faithful uninfected partner and using condom every time), know that a healthy-looking person can be HIV-positive and reject the two most common misconceptions. Women age 15-49 in Lagos Central (60.4 percent) are more knowledgeable about prevention of HIV than those in other senatorial districts. However, men of the same age group from Lagos West (45.6 percent) are more knowledgeable than others.

Table 12.1 (HA.1, 1M, 2 and 2M): Knowledge about HIV transmission and comprehensive knowledge about HIV transmission

Percentage of men and women age 15-49 years who have comprehensive knowledge about HIV transmission, have heard of AIDS and know HIV can be transmitted from mother to child by all three means Nigeria, 2016-17Lagos State

	Have comprehensive knowledge[1]		Have heard of AIDS and know HIV can be transmitted from mother to child by all three means[2]		Number of women age 15-49	Number of men age 15-49
	Women	Men	Women	Men		
Total	**55.1**	**44.4**	**63.1**	**41.1**	**1491**	**707**
Senatorial District						
Lagos Central	60.4	41.5	58.3	59.7	223	116
Lagos East	49.5	42.8	60.5	54.5	323	145
Lagos West	55.8	45.6	65.1	31.9	946	447
Residence						
Urban	55.3	45.0	63.1	40.1	1,443	685
Rural	49.6	(23.4)	62.8	(72.3)	48	22
Age (years)						
15-24[1]	55.2	40.3	61.3	42.9	422	198
15-19	55.0	43.4	60.0	42.4	192	109
20-24	55.4	36.6	62.4	43.5	230	88
25-29	54.3	37.3	60.1	37.6	241	79
30-39	58.9	47.9	67.2	39.6	550	253
40-49	48.1	46.9	60.3	42.7	278	177
Marital status						
Ever married/in union	53.2	46.4	62.1	42.4	1,031	394
Never married/in union	59.4	41.8	65.3	39.4	460	313
Education						
None	(26.0)	(**14.3)	(54.7)	(**68.0)	38	8
Non-formal	(**15.7)	(**0.0)	(**58.3)	(**25.6)	6	2
Primary	47.7	25.8	56.5	42.2	163	61
Secondary	53.1	41.5	61.1	43.0	831	418
Higher	64.3	56.7	69.9	36.2	453	218
Wealth index quintile						
Poorest	46.9	28.2	60.4	42.5	265	128
Second	46.2	37.9	56.9	36.2	278	157
Middle	53.1	46.1	56.9	54.7	301	128
Fourth	59.4	45.5	67.5	37.8	337	162
Richest	67.3	65.0	72.0	36.3	311	131

[1]MICS indicator 9.1; MDG indicator 6.3 - Knowledge about HIV prevention

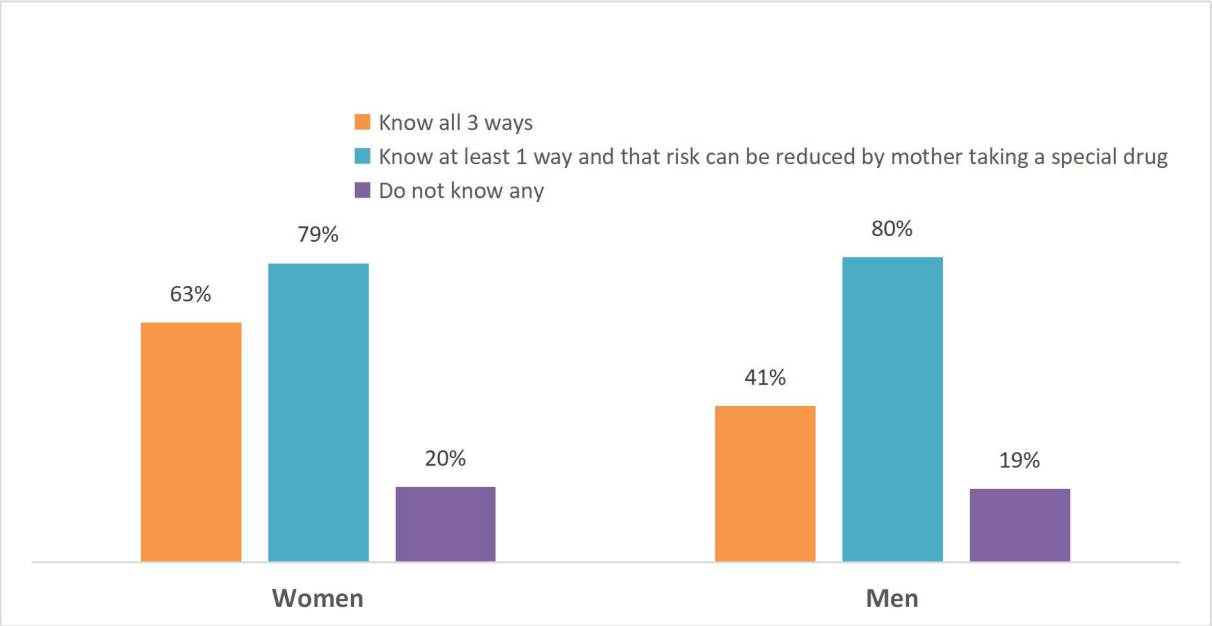
[2] MICS indicator 9.2 - Knowledge of mother-to-child transmission of HIV
( ) Sample data are based on 25-49 unweighted cases (**)Populated though the Sample data are fewer than 25 unweighted cases

Men and women who live in urban areas have more comprehensive knowledge on HIV prevention than those in rural areas of Lagos State. Percentage of those with comprehensive and correct knowledge is higher among women: who are between ages 30-39, who were never married, who have higher education and from the richest wealth index households. A similar pattern is observed among men on correct and comprehensive knowledge of HIV/AIDS.

Knowledge of mother to child transmission of HIV

Knowledge of mother-to-child transmission of HIV is an important first step for women to seek HIV testing when they are pregnant to avoid infection in the baby. Women and men should know that HIV can be transmitted during pregnancy, during delivery and through breastfeeding. The percentage distribution of men and women age 15-49 years on knowledge of mother-to-child transmission (PMTCT)in Lagos State is presented in Figure 12.2 and Table 12.1. About two-third of the women (63.1 percent) can identify 3 ways of HIV transmission from mother to child. This is higher than the proportion of men (41.1 percent) who can correctly identify the three ways. According to the National HIV Strategic framework for Nigeria 2017 -2021, to eliminate Mother to Child Transmission of HIV by 2021, 95 percent of all HIV positive pregnant and breastfeeding mothers should receive antiretroviral therapy by 2021.Among people age 15-49 years in Lagos State, 79 percent of women and 80 percent of men know at least one of the three means through which HIV can be transmitted from mother to child and that risk can be reduced by mother taking special drugs.

Figure 12.2: Percentage of men and women age 15-49 years who correctly identify means of HIV transmission from mother to child, Nigeria, 2016-17 Lagos State



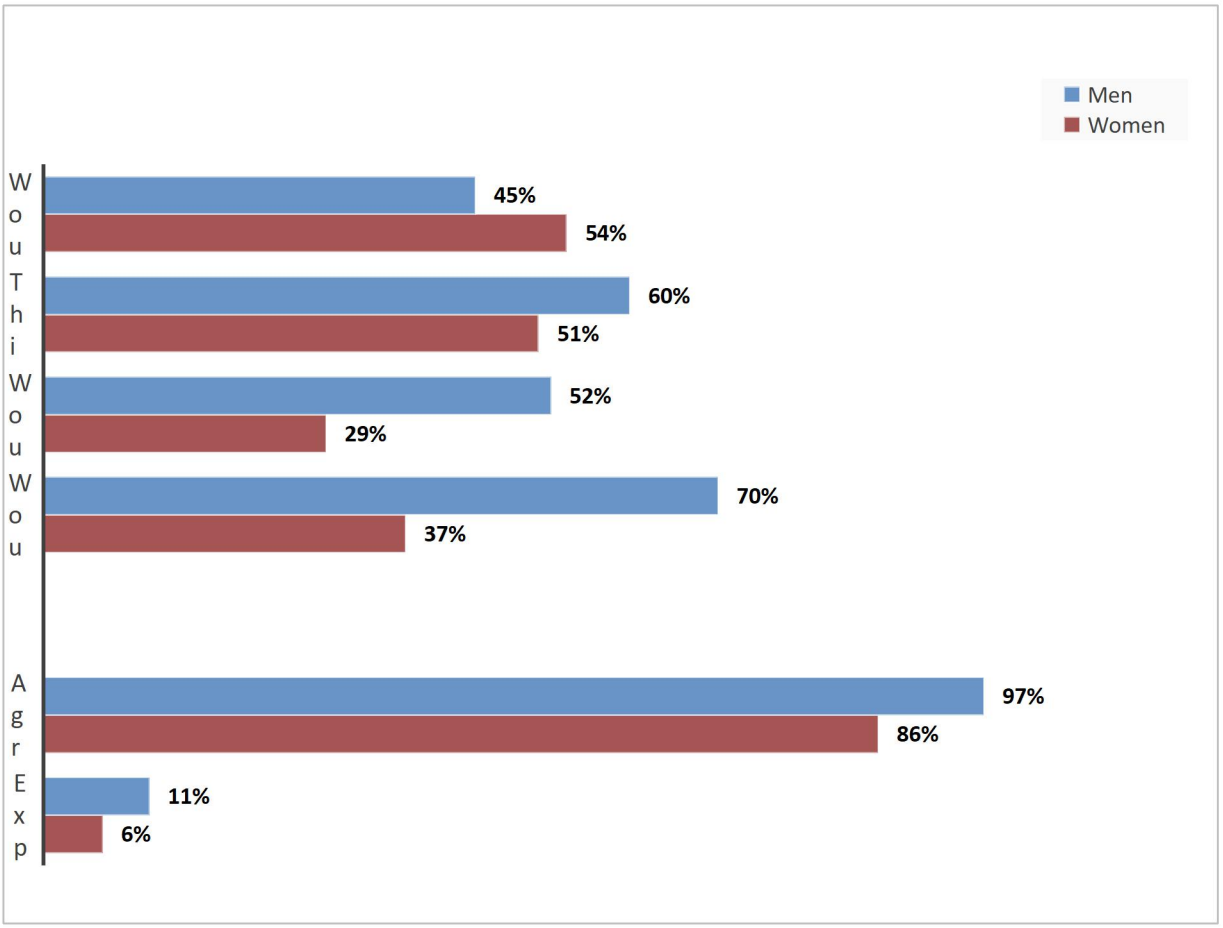
Two out of five men age 15-49 correctlyidentified 3 ways of mother to child HIV transmission, except in Lagos West, age 25-39 years and men with non-formal and higher education. For women in Lagos State,

more than half of all social groups have heard of AIDS and know that HIV can be transmitted from mother to child by all three means.

Accepting Attitudes toward People Living with HIV

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are considered low if respondents report an accepting attitude on the following four questions: 1) would care for a family member with AIDS in own home; 2) would buy fresh vegetables from a vendor who is HIV-positive; 3) thinks that a female teacher who is HIV-positive should be allowed to teach in school; and 4) would not want to keep it a secret if a family member is HIV-positive. Figure 12.3 and Table 12.2 presents the percentage of men and women who reported accepting attitude on the indicators in Lagos State.

Figure 12. 3: Percentage of men and women aged 15-49 years who reports accepting attitude, Nigeria 2016/17 Lagos State



Although majority of men and women age 15-49 agreed with at least one accepting attitude, only 11 percent of men and 6 percent of women in Lagos State expressed accepting attitude on all four indicators. This implies that stigma and discrimination is still high in Lagos. The most accepted attitude

for men is not keeping the HIV-positive status of a family member a secret while for women is to care for a family member with AIDS in their home.

Using the percentage of those who reported all four-accepting attitude as a measure of stigmatization and discrimination towards people living with HIV in Lagos State, there are variations by social and demographic characteristics (Table 12.2). For women, HIV discrimination is higher in Lagos Central than other senatorial districts. Reported accepting attitude is lower in urban areas, among those who were ever married, women aged 30-39, those with primary education and poorest wealth index quintile households than other groups.

For men, HIV stigmatization and discrimination is also higher in Lagos Central. Men's reported accepting attitude is lower in urban areas, among those have never married or in union, young men aged 25-29, those with no formal and higher education and poorest wealth index quintile than other groups.

Table 12.2 (HA.3 and 3M): Accepting attitudes toward people living with HIV (men and women)

Percentage of women and men age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV, Nigeria, 2016-17Lagos State

	Percentage of women who:			Percentage of men who:		
	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators[1]	Number of women age 15-49 who have heard of AIDS	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators[1]	Number of men age 15-49 who have heard of AIDS
Total	**86.6**	**6.1**	**1469**	**96.9**	**10.9**	**1010**
Senatorial District						
Lagos Central	95.1	4.2	216	97.1	5.7	114
Lagos East	90.1	4.7	319	94.0	12.1	143
Lagos West	83.5	7.0	933	97.8	11.8	447
Residence						
Urban	86.5	6.1	1,421	97.4	10.8	683
Rural	90.3	6.4	48	(82.3)	(12.8)	21
Age group (Years)						
15-24	88.4	6.3	411	97.4	8.5	196
15-19	87.5	4.8	188	96.2	7.3	109
20-24	89.1	7.6	223	98.9	10.0	87
25-29	90.2	8.6	238	99.4	3.6	79
30-39	86.9	4.6	546	95.7	13.3	253
40-49	80.2	6.5	273	97.0	13.3	176
Marital status						
Ever married/in union	85.7	5.4	1,014	95.8	13.0	393
Never married/in union	88.7	7.5	455	98.4	8.2	311
Education						
None	(95.6)	(5.1)	32	(**91.9)	(**15.2)	7
Non-formal	(**58.3)	(**0.0)	6	(**100.0)	(**0.0)	2
Primary	78.9	3.1	158	93.2	3.2	59
Secondary	84.6	5.3	819	96.6	7.0	418
Higher	92.6	8.6	453	98.7	20.4	218
Wealth index quintile						
Poorest	87.8	4.3	259	92.1	3.5	127
Second	86.8	4.6	271	97.9	9.9	157
Middle	84.7	6.7	294	100.0	10.4	127
Fourth	86.2	6.6	336	97.7	9.1	162
Richest	87.7	7.7	308	96.4	22.0	131

[1] MICS indicator 9.3 - Accepting attitudes towards people living with HIV

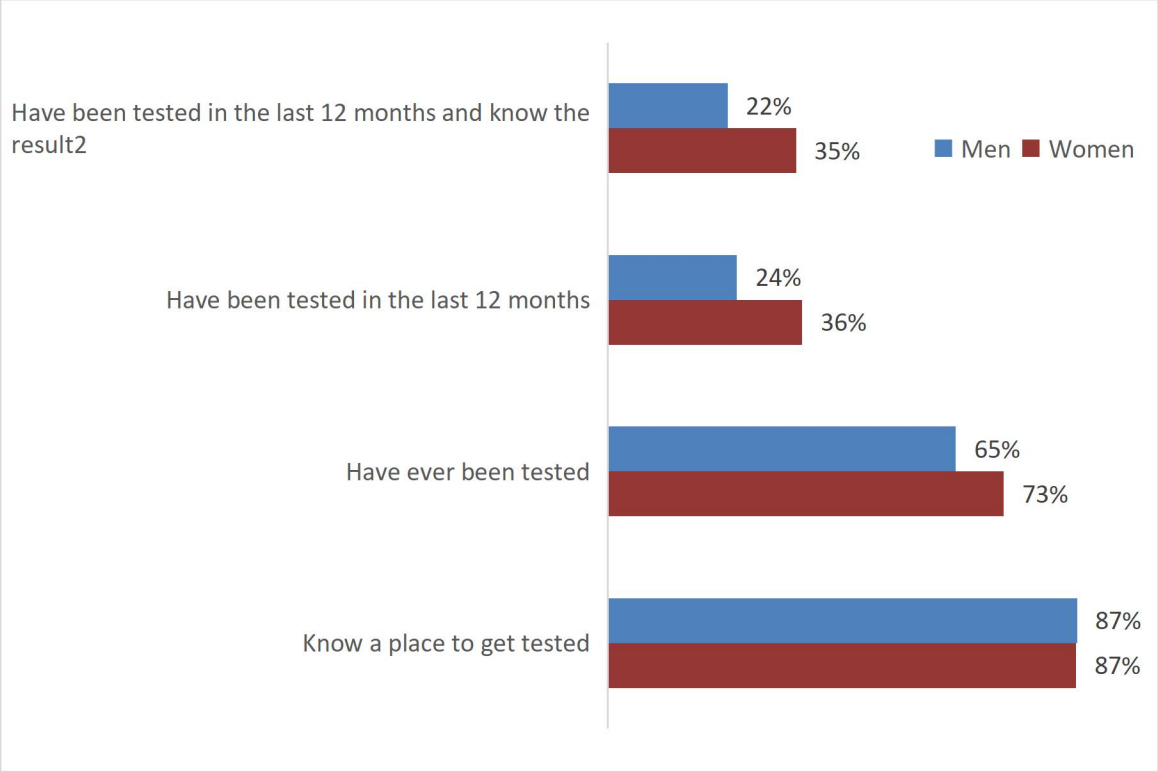
( ) Sample data are based on 25-49 unweighted cases (**)Populated though the Sample data are fewer than 25 unweighted cases

HIV Testing

Knowledge of a Place for HIV Testing and HIV Testing

Nigeria adopted the UNAIDS 90-90-90 strategy which aims to have 90% of all people living with HIV know their HIV status, 90% of all people diagnosed with HIV infection receive antiretroviral treatment and 90% of all people receiving antiretroviral treatment attain viral suppression by 2020. To achieve the strategy, knowledge of where to get an HIV test is important. Individuals need to know their HIV status in order to protect themselves and to prevent infecting others. Knowledge of own status is also a critical factor in the decision to seek treatment. Figure HA.4 presents the percentage of men and women age 15-49 in Lagos State who know where to get an HIV test, ever been tested, have been tested in the last 12 months and have been tested in the last 12 months and know the result.

Figure 12.4: Percentage of men and women age 15-49 who know where to get an HIV test, ever been tested, have been tested in the last 12 months and have been tested in the last 12 months and know the result. Nigeria 2016-17, Lagos State



About nine out of 10 men and women (87 percent) age 15-49 know where to do an HIV test in Lagos State. Although, both men and women know where to go for test, but more women actually do the test before or in the last 12 months to the survey. Seventy-three percent of women have ever been tested for HIV, 36 percent tested in the last 12 months and 35 percent tested and know the result in the last 12 months. While it is evident that ratio of women to men who have been tested in the last 12 months is about 3:2, almost the same ratio knows the result of the HIV test done in the previous 12 months.

Table 12.3further shows variations in social and demographic characteristics by two MICS indicators among men and women in Lagos State. Knowledge of where to get HIV test is specifically lowest among women who are in: Lagos East, rural areas, age 15-19 years, sexually active teenagers, never married, with non-formal education and in poorest wealth quintile households. For men, the knowledge of where to get HIV test is lowest among: Lagos East, rural areas, sexually active teenagers, never married or never in union, with non-formal education and in poorest wealth quintile household.

Table 12.3 (HA.4 and 4M): Knowledge of a place for HIV testing and HIV testing (women and men age 15-49)

Percentage of women and men age 15-49 years who know where to get an HIV test and who have been tested in the last 12 months and know the result, Nigeria, 2016-17Lagos State

	Percentage of women who:			Percentage of men who:		
	Know a place to get tested[1]	Have been tested in the last 12 months and know the result[2, 3]	Number of women age 15-49	Know a place to get tested[1]	Have been tested in the last 12 months and know the result[2, 3]	Number of men age 15-49
Total	**86.8**	**34.9**	**1491**	**87.0**	**22.2**	**707**
Senatorial District						
Lagos Central	90.4	36.8	223	84.1	24.3	116
Lagos East	80.1	22.8	323	75.1	17.7	145
Lagos West	88.3	38.6	946	91.6	23.1	447
Residence						
Urban	87.1	35.4	1,443	88.6	22.7	685
Rural	80.0	19.9	48	(38.3)	(6.9)	22
Age (years)						
15-24	76.9	26.4	422	78.0	14.8	198
15-19	69.7	18.0	192	71.1	7.0	109
20-24	82.9	33.3	230	86.4	24.3	88
25-29	91.8	45.7	241	80.3	19.1	79
30-39	92.5	38.3	550	93.0	26.0	253
40-49	86.2	31.9	278	91.5	26.5	177
Age and sexual activity in the last 12 months						
Sexually active	90.4	38.9	1,129	89.0	25.2	529
15-24[3]	84.0	36.7	188	82.1	18.7	68
15-19	(74.2)	(15.4)	38	(*55.3)	(**0.0)	7
20-24	86.5	42.0	151	85.3	21.0	61
25-49	91.7	39.3	941	90.0	26.2	461
Sexually inactive	75.5	22.7	362	81.1	13.2	178
Marital status						
Ever married/in union	90.5	39.1	1,031	90.4	26.3	394
Never married/in union	78.6	25.7	460	82.8	17.0	313
Education						
None	(77.3)	(19.5)	38	(**67.8)	(**15.6)	8
Non-formal	(**58.3)	(**58.3)	6	(**100.0)	(**0.0)	2
Primary	75.9	34.8	163	63.6	14.3	61
Secondary	84.2	33.3	831	85.4	16.9	418
Higher	96.8	39.0	453	97.3	35.1	218
Wealth index quintile						
Poorest	80.2	33.5	265	75.0	14.3	128
Second	85.0	32.2	278	84.5	21.3	157
Middle	87.2	34.9	301	88.8	28.2	128
Fourth	87.3	36.7	337	89.4	18.2	162
Richest	93.3	36.8	311	97.2	30.1	131

[1] MICS indicator 9.4 - Men who know where to be tested for HIV[M]

[2] MICS indicator 9.5 - Men who have been tested for HIV and know the results[M]

[3] MICS indicator 9.6 - Sexually active young men who have been tested for HIV and know the results[M]

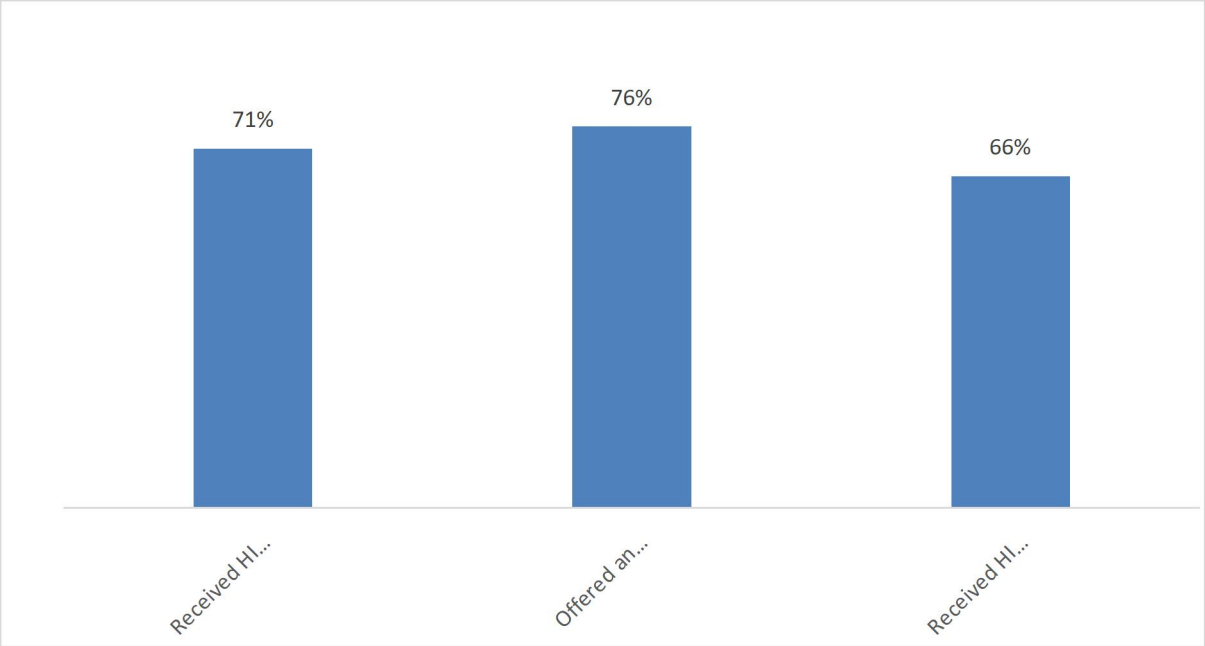
The second MICS indicator on HIV testing is the percentage of people who have been tested for HIV and knows the results. Although the percentage of men and women who reported this indicator is low, it is lower in Lagos East, among rural dwellers, teenagers, never married and from poorest wealth quintile households.

It is important to also consider these two indicators specifically for sexually active young people age 15 to 24 since the number of new HIV infections among young people in Nigeria has been on the increase. Knowledge of behavioral risk reduction, consistent condom use, sexually transmitted infections and HIV status will provide adolescents and young people with the tools to protect themselves against HIV acquisition and transmission.

HIV Counselling and Testing during antenatal care

One of the WHO recommendations[64] on antenatal care for a positive pregnancy experience is that provider-initiated testing and counselling (PITC) should be considered for pregnant women in antenatal care settings as a key component of the effort to eliminate mother-to-child transmission of HIV and to integrate HIV testing with syphilis, viral or other key tests, as relevant to the setting and to strengthen the underlying maternal and child health systems. In MICS 2016-17, women were asked if they received HIV counselling, offered an HIV test, tested for HIV and received the results during antenatal care. Figure 12.5 and Table 12.4 show percentage of women age 15-49 in Lagos State with a live birth in the last 2 years who received HIV counseling and testing during antenatal care.

Figure 12.5: Percentage of women age 15-49 with a live birth in the last 2 years preceding the survey who received HIV counselling and testing during antenatal care, Nigeria, 2016-17 Lagos State



[64] WHO recommendations on antenatal care for a positive pregnancy experience: http://apps.who.int/iris/bitstream/10665/250796/1/9789241549912-eng.pdf

Seventy-one percent received counselling during antenatal care while 76 percent were offered an HIV test, tested for HIV and received the results during antenatal care. However, the percent of those who; received HIV counselling, offered an HIV test and received the results, reduced to 66 percent. These two indicators on HIV counselling and testing during antenatal care vary across social and demographic groups in Lagos State. Lagos Central of Nigeria performs better on the two indicators than other senatorial districts. Specifically, proportion of women who received counselling during antenatal is 78 percent for Lagos Central, 70.6 percent for Lagos East and 70.2 percent for Lagos West. Overall, women who attended antenatal care in Lagos West (67.7 percent), from urban area (66.7 percent), age 40-49 (72.6 percent), with no education (85.4 percent) and from the richer wealth index quintile households (73.5 percent), received HIV counselling, were offered an HIV test and received the results than other groups.

Table 12.4 (HA.5): HIV counselling and testing during antenatal care

Percentage of women age 15-49 with a live birth in the last 2 years who received antenatal care from a health professional during the last pregnancy, percentage who received HIV counselling, percentage who were offered, tested and received the results of the HIV test and percentage who received counselling and were offered, tested and received the results of the HIV test, Nigeria, 2016-17, Lagos State

	Percentage of women who:			
	Received HIV counselling during antenatal care[1]	Were offered an HIV test and were tested for HIV during antenatal care and received the results[2]	Received HIV counselling, were offered an HIV test and received the results	Number of women age 15-49 with a live birth in the last 2 years
Total	**71.4**	**75.8**	**65.9**	**371**
Senatorial District				
Lagos Central	78.0	68.1	64.2	52
Lagos East	70.6	70.2	61.3	76
Lagos West	70.2	79.1	67.7	243
Residence				
Urban	72.1	76.8	66.7	352
Rural	(57.6)	(56.1)	(50.8)	19
Age (years)				
15-24	67.0	66.6	64.5	47
15-19	(**39.5)	(**34.0)	(*34.0)	5
20-24	(70.4)	(70.7)	(68.3)	42
25-29	75.3	84.1	69.0	107
30-39	69.0	73.5	63.2	183
40-49	(77.7)	(74.5)	(72.6)	34
Marital status				
Ever married/in union	71.3	76.4	66.2	360
Never married/in union	(**71.9)	(**56.0)	(**56.0)	11
Education				
None	(**85.4)	(**85.4)	(**85.4)	15
Non-formal	(**50.0)	(**50.0)	(**50.0)	2
Primary	(66.3)	(57.1)	(53.2)	36
Secondary	69.1	75.4	63.6	202
Higher	75.3	81.4	71.4	116
Wealth index quintile				
Poorest	69.0	68.7	60.6	76
Second	69.5	71.1	63.0	73
Middle	64.3	78.0	58.1	77
Fourth	80.2	82.9	75.0	68
Richest	74.6	78.8	73.5	76

[1] MICS indicator 9.7 - HIV counselling during antenatal care

[2] MICS indicator 9.8 - HIV testing during antenatal care

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

(**)Populated though the Sample data are fewer than 25 unweighted cases

Sexual Behaviour Related to HIV Transmission

Promoting safer sexual behaviour is an important strategy to reducing HIV transmission. A set of questions was administered to all women and men 15-49 years of age to assess their risk of HIV infection. Risk factors for HIV include sex at an early age, sex with older men, having multiple sexual partners, sex with a non-marital non-cohabiting partner and failure to use a condom. The use of condoms during sex, especially with non-regular or multiple partners is particularly important for reducing the spread of HIV. Table 12. 5 presents the percentage of young people age 15-24 in Lagos State who have never married and never had sex and had sex at early age - before 15 years. The percentage of never married young women who have never had sex is lower (57.3 percent) than young men (63.8 percent). There is also slight marginal difference in the percentage of young women who have had sex before age 15 (2.9 percent) and young men (3.7 percent).

Table 12.5 (HA 8 and 8M): Sexual behaviour of young people age 15-24

Percentage of women and men age 15-24 who never had sex and who had sex before age 15, Nigeria, 2016-17Lagos State

	Percentage of women age 15-24 who		Number of women age 15-24 years	Percentage of men age 15-24 who		Number of women age 15-24 years
	Never married Never had sex[1]	Had sex before age 15[2]		Never married Never had sex[1]	Had sex before age 15[2]	
Total	**57.3**	**2.9**	**345**	**63.8**	**3.7**	**198**
Senatorial District						
Lagos Central	69.2	5.9	65	56.7	9.3	39
Lagos East	55.4	4.5	88	55.9	2.0	48
Lagos West	54.8	1.7	269	69.4	2.4	111
Residence						
Urban	56.9	2.9	408	64.9	3.5	191
Rural	(*)	(2.0)	14	(*)	(*)	7
Age (years)						
15-19	79.1	2.9	192	89.6	3.8	109
15-17	87.4	1.8	111	91.0	3.3	72
18-19	67.4	4.4	81	(87.0)	(4.9)	37
20-24	31.4	2.9	230	28.8	3.5	88
20-22	39.2	4.5	127	33.9	2.8	62
23-24	20.4	1.0	103	(14.3)	(4.9)	26
Marital status						
Ever married/in union	na	8.4	76	(*)	(*)	8
Never married/in union	57.3	1.7	345	63.8	3.6	190
Education						
None	(**51.3)	(**45.9)	9	(*)	(*)	1
Primary	(**83.8)	(**10.5)	18	(*)	(*)	3
Secondary	64.6	1.7	289	69.8	2.9	160
Higher	32.8	1.4	102	(34.4)	(7.6)	34
Wealth index quintile						
Poorest	(48.1)	9.4	78	(73.3)	(1.4)	32
Second	58.7	0.0	78	62.1	6.5	52
Middle	46.5	3.1	80	(75.7)	(0.0)	30
Fourth	64.2	1.1	97	(67.7)	(0.7)	49
Richest	63.2	1.6	89	(36.3)	(10.2)	28

[1]MICS indicator 9.9 - Young people who have never had sex

[2] MICS indicator 9.10 - Sex before age 15 among young people

na: not applicable

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

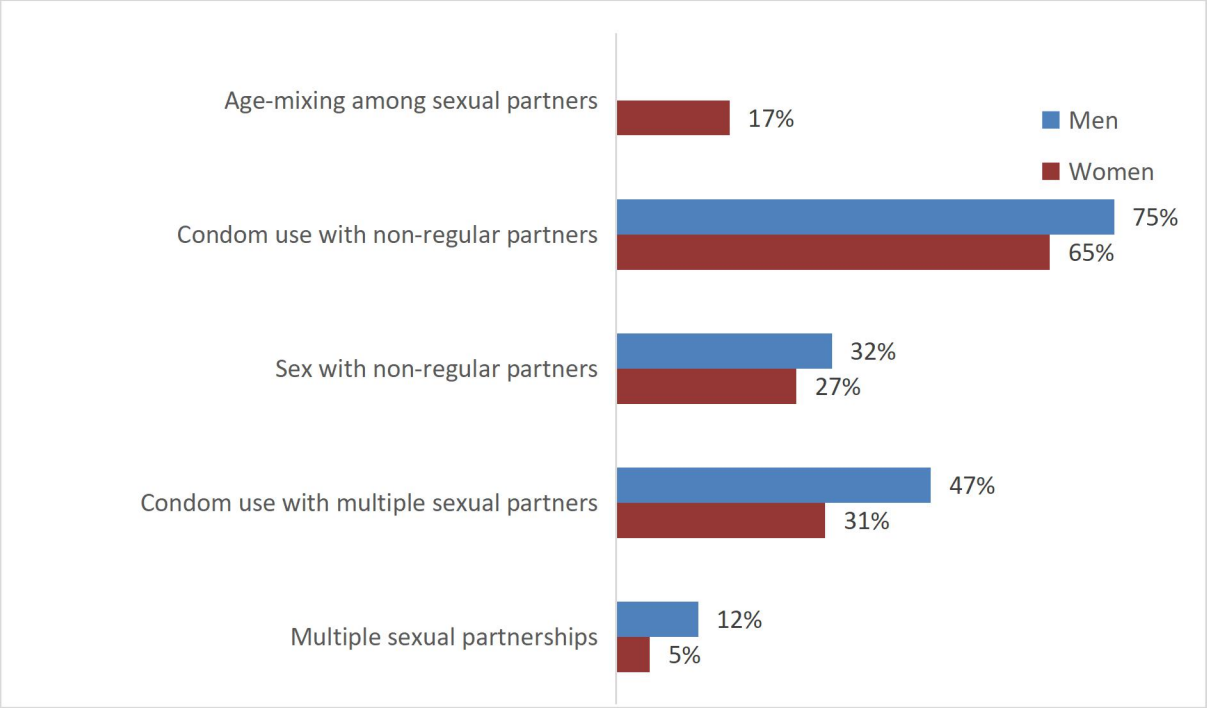
Early sexual debut is lower among young women in Lagos West than other senatorial districts. It is high among women in urban areas, age 20-22 years, who do not have education, are ever married and in poorest wealth quintile household. The proportion of young men who had sex before age 15 is higher than young women.

Multiple sexual partnership

Other risk factors for HIV/AIDS are having multiple sexual partner and sex with a non-marital, non-cohabiting partner, as well as, age-mixing among sexual partner. Figure HA. 6 and Table 12.7 present the percentage of men and women withmultiple sexual partners, age mixing among sexual partners and sexual relation with non-regular partners in Lagos State. The ratio of young women to men who had sex with more than one partner in the last 12 months is 1:2.

Higher percentage of young men who had sex with more than one partner in the last 12 months are in Lagos Central, age 20-24 years, never married, have higher education and from richer households than other social groups.

Figure 12.6. Percentage of young men and women on multiple sexual partners, age mixing among sexual partners and sexual relation with non-regular partners Nigeria 2016/17 Lagos State



Multiple sexual partnership and sexual relation with non-regular partners have comparable gender differentials. Young men (32 percent) age 15-24 are more involved in sexual relation with non-regular partners than young women (27 percent). However, risky HIV/AIDS sexual behavior for both young men and women is common in Lagos Central, age 23-24 and never married. Condom use with multiple sexual partners and non-regular partners is high among young men than women.

Age mixing among sexual partner is when a young woman had sex with a man 10 or more years older than her. One out of 6 young women (17 percent) age 15-24 reported this sexual practice in Lagos State. Age mixing is notably high in Lagos Central, rural areas, among ever married women, women with non-formal education and in the fourth wealth quintile households.

Table 12.6 (HA.8 and 8M): Multiple sexual partnership

Percentage of women and men on-multiple sexual partners, age mixing among sexual partners and sexual relation with non-regular partners, Nigeria, 2016-17Lagos State

	Percentage of women age 15-24 who had sex with more than one partner in last 12 months[1]	Number of women age 15-2 years	Percentage of women age 15-24		Number of women age 15-24 years who had sex in the last 12 months	Percentage of men age 15-24 who had sex with more than one partner in last 12 months[1]	Number of men age 15-24 years	Percentage of men age 15-24 who had sex with a non-marital, non-cohabiting partner[3]	Number of men age 15-24 who had sex in the last 12 months
			Had sex with a man 10 or more years older[2]	Had sex with a non-marital, non-cohabiting partner[3]					
Total	**5.1**	**422**	**17.0**	**27.0**	**188**	**12.3**	**198**	**32.3**	**68**
Senatorial District									
Lagos Central	2.1	65	(25.1)	(22.6)	19	20.5	39	(38.8)	15
Lagos East	9.7	88	19.2	25.1	45	16.8	48	(37.7)	20
Lagos West	4.3	269	15.0	28.8	124	7.5	111	(*)	33
Residence									
Urban	5.1	408	16.2	27.7	182	12.3	191	32.0	66
Rural	(5.2)	14	41.1	(*)	7	(*)	7	(*)	3
Age (years)									
15-19	3.2	192	(5.1)	(17.3)	38	2.1	109	(*)	7
15-17	3.1	111	(**8.8)	(**11.1)	14	0.5	72	(*)	3
18-19	3.2	81	(**3.0)	(**25.8)	24	(5.2)	37	(*)	4
20-24	6.7	230	20.0	35.2	151	24.9	88	63.9	61
20-22	6.2	127	13.5	35.2	76	21.0	62	(60.8)	39
23-24	7.2	103	26.7	35.1	75	(33.9)	26	(71.2)	22
Marital status									
Ever married/in union	4.6	76	32.0	9.0	75	10.3	8	(*)	8
Never married/in union	5.2	345	7.1	31.0	113	12.4	190	31.5	61
Education									
None	(**0.0)	9	(**0.0)	(**10.2)	5	(*)	1	(*)	0
Non-formal	(**0.0)	4	(**100.0)	(**0.0)	2				
Primary	(**7.6)	18	(**20.2)	(**14.5)	7	(*)	3	(*)	1
Secondary	4.6	289	18.7	21.8	113	8.6	160	25.3	44
Higher	6.7	102	(12.5)	(46.8)	61	(30.4)	34	(66.6)	23
Wealth index quintile									
Poorest	4.6	78	(18.7)	(27.8)	46	(10.7)	34	(*)	8
Second	3.9	78	(17.3)	(20.2)	36	14.1	53	(*)	20
Middle	3.8	80	(8.2)	(32.4)	40	(6.9)	32	(*)	8
Fourth	6.6	97	(24.1)	(27.7)	38	(11.6)	50	(*)	16
Richest	5.9	89	(17.2)	(26.8)	28	(18.2)	29	(*)	17

[1]MICS indicator 9.12 - Multiple sexual partnerships

[2] MICS indicator 9.11 - Age-mixing among sexual partners

[3] MICS indicator 9.14 - Sex with non-regular partners

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

(**)Populated though the Sample data are fewer than 25 unweighted cases

Orphan-hood

HIV/AIDS affects the lives of children and their families. Although the number of children orphaned due to AIDS has stabilized globally since 2009, efforts to mitigate the impact of AIDS on households, communities and children continue to be intensified by national programmes and global partners. The situation of orphans and vulnerable children in Nigeria is significant, as many are poor without access to food, acceptable living conditions and psychosocial support. Children who are orphaned may be at increased risk of neglect or exploitation when the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and comparing them to their peers gives us a measure of how well communities and governments are responding to their needs. Table HA.8 presents school attendance of orphans and non-orphans age 10-14 years.

In Lagos State, 0.9 percent of children age 10-14 years are orphans and the ratio of school attendance of orphan to non-orphan is 0.9. Ninety-seven percent of non-orphan children of age group 10-14 who are living with at least one parent are attending school.

Table 12.7 (HA.9): School attendance of orphans and non-orphans

School attendance of children age 10-14 years by orphan-hood, Nigeria, 2016-17, Lagos State

	Percentage of children whose mother and father have died (orphans)	Percentage of children whose parents are still alive and who are living with at least one parent (non-orphans)	Number of children age 10-14 years	Percentage of children whose mother and father have died (orphans) and are attending school	Total number of orphan children age 10-14 years	Percentage of children whose parents are still alive, who are living with at least one parent (non-orphans) and who are attending school	Total number of non-orphan children age 10-14 years	Orphans to non-orphans school attendance ratio[1]
Total	**0.9**	**79.4**	**694**	**(*)**	**7**	**97.4**	**551**	**0.9**
Sex								
Male	1.2	78.0	337	(*)	4	96.1	263	1.0
Female	0.7	80.7	357	(*)	2	98.6	288	0.6
Residence								
Urban	1.0	79.6	667	(*)	7	97.3	531	0.9
Rural	0.0	75.1	27			(100.0)	20	

[1] MICS indicator 9.16; MDG indicator 6.4 - Ratio of school attendance of orphans to school attendance of non-orphans

See Table CP.14 for further overall results related to children's living arrangements and orphan-hood

XIII. Access to Mass Media and Use of Information/Communication Technology

Access to information from electronic and mass media is important. It increases knowledge and awareness, as well as, influence perception and cause behavioural change in the society. The Nigeria MICS 2016-17 collected information on exposure to mass media and the use of computers and the internet. Information was collected on exposure to newspapers/magazines, radio and television among women and men age 15-49 years, while the questions on the use of computers and the use of the internet were asked from young people age 15-24 years old.

Access to Mass Media

Figure 13.1 presents percentage of people age 15-49 years who read newspaper or magazine, listen to radio and watch television at least once in a week in Lagos State. Twenty-one percent of women read a newspaper or magazine, 56 percent listen to the radio and 82 percent watch television at least once a week. Eighty-seven percent of women use at least one of the media sources in a week, while only 14 percent use all the three media sources.

KEY FINDINGS

Exposure to any media: newspapers/magazines, radio and television at least once a week among young people is high in Lagos State

- **87 percent of young women**
- **96 percent of young men**

Exposure to computer and the internet is high

Ever used computer

- **63 percent of young women**
- **64 percent of young men**

Ever used Internet:

- **72 percent of young women**
- **67 percent of young men**

Media usage is higher among men in all the indices as,63 percent of men read a newspaper or magazine, about 70 percent listen to the radio and86 percent watch television at least once in a week. Overall, 96 percent of men use at least one of the media source and 45 percent use all the three sources.

For both men and women, differentials by residence, education and socio-economic status are observed for exposure to all types of media. There were higher proportions of exposure to media in Lagos Central and urban areas irrespective of the sex. Equally, media exposure increased with increasing education and wealth among men and women. However, there was gender differential in age and media exposure in men, with exposure increasing with age.

Figure 13.1 Percentage of people age 15-49 years who read newspaper or magazine, listen to radio and watch television at least once in a week. Nigeria, 2016-17 Lagos State

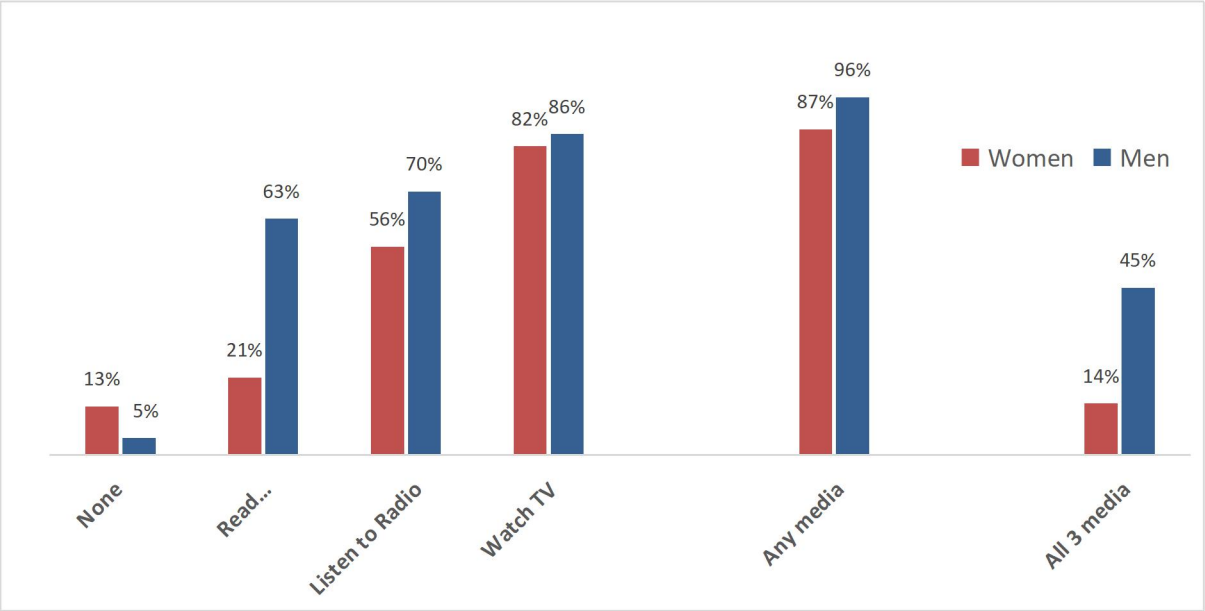


Table 13.1 (MT.1 and 1M): Exposure to mass media

Percentage of women and men age 15-49 years who are exposed to specific mass media on a weekly basis, Nigeria, 2016-17 Lagos State

	All three media at least once a week[1] **Women**	All three media at least once a week[1] **Men**
Total	**13.8**	**44.7**
Senatorial District		
Lagos Central	17.9	53.4
Lagos East	13.0	33.1
Lagos West	13.1	46.3
Age (years)		
15-19	13.3	33.9
20-24	14.2	39.3
25-29	19.8	33.8
30-34	13.4	46.8
35-39	10.0	46.1
40-44	11.7	52.7
45-49	13.1	62.6
Residence		
Urban	14.1	45.5
Rural	3.7	(21.7)
Education		
None	(0.6)	(*)
Non-formal	(*)	(*)
Primary	0.8	17.6
Secondary	9.6	40.1
Higher	27.4	63.0
Wealth index quintile		
Poorest	4.9	27.7
Second	8.2	33.6
Middle	9.8	47.6
Fourth	14.3	51.7
Richest	29.6	63.4

[1] MICS indicator 10.1 - Exposure to mass media

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

Use of Information/Communication Technology

Computer-mediated communication via the internet is an important means of mass communication for social and behavioural change. The MICS 2016-17 assessed usage of computer and internet among young people age 15-24 in Lagos State as presented in Figure 13.2. There is gender differential in the use of computer and internet among young people; men have higher proportion of computer users than women. About three out of 5 young men and women had ever used computer in Lagos State. Seventy-two percent of young women and 67 percent of young men had ever used the internet. Higher proportion of men than women used computer and internet at least once a week during the last one month preceding the survey more.

Figure 13 2: Percentage of young men and women age 15-24 years who use computer and the internet. Nigeria MICS 2016-17 Lagos State

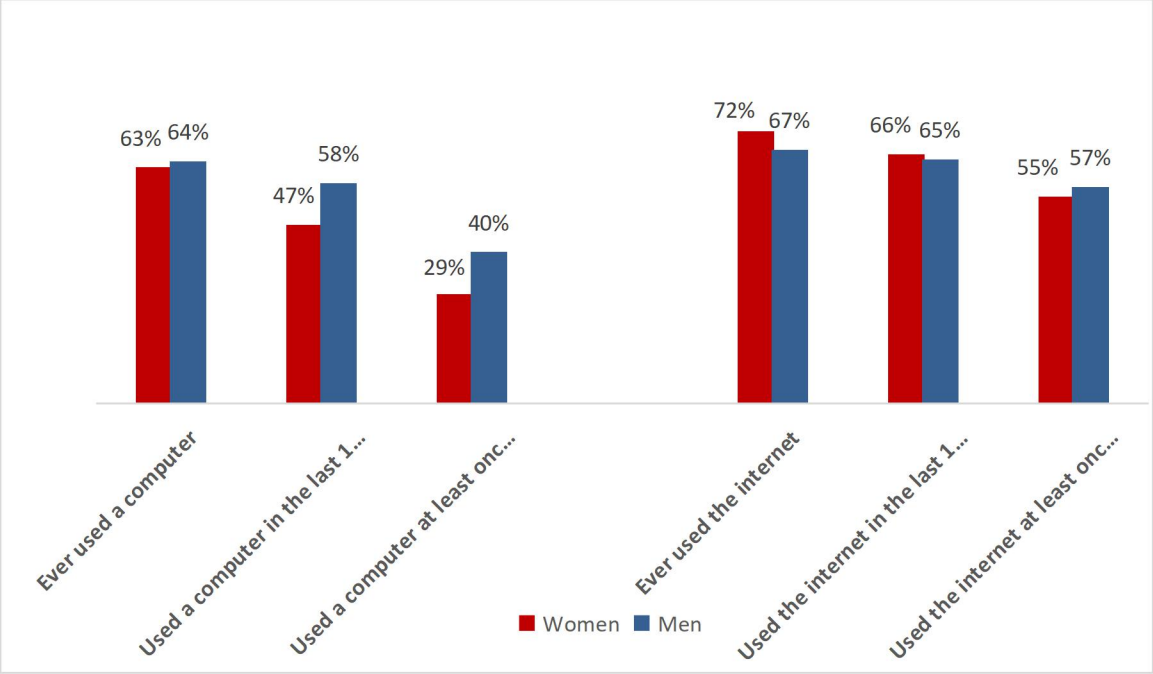


Table 13.2 further shows the percentage of women and men age 15-24 years who used computers and internet during the last 12 months by background characteristics in Lagos State. Percentage of women who used computers and internet during the last 12 months is higher in Lagos West, urban areas and women age 15-19. Also, as expected, computer and internet usage increased with higher education and wealth index. The pattern of computer and internet usage among men is similar to women except that more men within age 20-24 years use computer and internet than younger age group.

Table 13.2 (MT.2 and 2M): Use of computers and internet

Percentage of women and men age 15-24 years who are exposed to specific mass media on a weekly basis, Nigeria, 2016-17
Lagos State

	Women who ever used during the last 12 months		Number of women age 15-24 years	Men who ever used during the last 12 months		Number of men age 15-24 years
	Computer[1]	**Internet[2]**		**Computer[1]**	**Internet[2]**	
Total	**47.4**	**66.1**	**1017**	**58.4**	**64.7**	**483**
Senatorial District						
Lagos Central	45.2	53.7	465	63.5	71.2	267
Lagos East	40.5	58.2	229	79.1	88.5	88
Lagos West	50.2	71.6	323	47.6	52.1	128
Age (year)						
15-19	49.4	70.2	586	58.3	64.1	290
20-24	45.8	62.6	431	58.5	65.4	193
Residence						
Urban	48.7	67.4	328	58.0	64.4	205
Rural	(9.6)	(25.7)	689	(*)	(*)	278
Education						
None	(*)	(*)	116	(*)	(*)	3
Non-formal	(*)	(*)	336	(*)	(*)	85
Primary	(*)	(*)	114	53.8	58.9	57
Secondary	40.6	66.0	421	(84.0)	(96.3)	302
Higher	81.3	83.4	31			37
Wealth index quintile				(35.5)	(5.8)	
Poorest	19.4	43.3	143	49.5	58.1	70
Second	40.6	52.9	158	(57.9)	(59.3)	64
Middle	45.6	70.8	212	(69.5)	(81.1)	87
Fourth	51.9	75.5	257	(82.8)	(87.9)	118
Richest	74.9	83.1	245	27.9	44.9	143

[1] MICS indicator 10.2 - Use of computers

[2] MICS indicator 10.3 - Use of internet

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

XIV. Subjective well-being

Subjective perceptions of individuals about their income, health, living environments and other related issues, play a significant role in their lives and can impact their perception of well-being. This is irrespective of objective conditions such as actual income and physical health status[65]. In the MICS, a set of questions were asked to women and men age 15-24 years to understand how satisfied this group of young people is in different areas of their lives, such as their family life, friendships, school, current job, health, where they live, how they are treated by others, how they look and their current income.

KEY FINDINGS

In Lagos State, at least eight out of 10 young women and men age 15-24 years are very or somewhat happy

Young people who are happy and satisfied with life are more than those who perceived a better life

Lagos Central has the highest percentage of young women who perceived a better life (77.7 percent).
Lagos West has the highest percentage of young men who perceived a better life (95.3 percent).

Seven out of 10 young women and nine out of 10 young men perceived that their lives improved during the last one year and expect that it will get better after one year

Life satisfaction and happiness

Life satisfaction is a measure of an individual's perceived level of well-being. Understanding young people's satisfaction in different areas of lives can give a comprehensive picture of their life situations. A distinction can also be made between life satisfaction and happiness. Happiness is a fleeting emotion that can be affected by numerous factors, including day-to-day factors such as the weather, or a recent death in the family. It is possible for a person to be satisfied with job, income, family life, friends and other aspects of life, but still be unhappy, or vice versa. In addition to the set of questions on life satisfaction, the survey also asked questions about happiness and the respondents' perceptions of a better life.

Tables 14.1 presents percentage of women and men age 15-24 years in Lagos State on their overall life satisfaction, happiness and perception of a better life. "Life satisfaction" is defined as those who are very or somewhat satisfied with their life overall and is based on a single cumulative question from previous responses. There is no notable difference between proportion of young people who are very or somewhat happy and overall life satisfaction in Lagos State. The proportion of women who are satisfied with life is 85.2 percent and 85.1 percent of them are very happy. For men, 89.6 percent are satisfied with life while 89.7 percent are very or somewhat happy. Lagos West senatorial district has more young women and men who are satisfied, as well as young men who are very happy, while the highest percentage of young women who are very happy are in Lagos Central.

At least eight out of 10 percent of young women and men age 15-24 years are very or somewhat happy. There are no substantial differences on life satisfaction and happiness among the wealth quintiles and education levels. Higher percentage of younger women age 15-19 reported overall life satisfaction than older women. This also applies to men in different age categories.

[65] OECD. 2013. *OECD Guidelines on Measuring Subjective Well Being*. OECD.**http://dx.doi.org/10.1787/9789264191655-en**

Table 14.1 (SW.2, 2M, 3 and 3M) : Overall life satisfaction, happiness and perception of better

Percentage of women and men age 15-24 years who are very or somewhat satisfied with their life overall, the average overall life satisfaction score and percentage of women age 15-24 years who are very or somewhat happy, Nigeria, 2016-17Lagos State

	Percentage of women aged 15-24 years			Percentage of men aged 15-24 years		
	Overall life	Very or		Overall life	Very or	
Total	**85.2**	**85.1**	**71.7**	**89.6**	**89.7**	**92.1**
Senatorial District						
Lagos Central	85.3	87.5	77.7	92.2	91.6	92.8
Lagos East	84.0	82.6	76.4	73.1	77.9	84.4
Lagos West	85.5	85.3	68.6	95.9	94.1	95.3
Age (years)						
15-19	88.5	85.7	81.0	92.9	89.6	93.0
20-24	82.4	84.6	63.8	85.5	89.8	91.0
Residence						
Urban	85.8	84.9	71.4	90.0	90.2	91.9
Rural	(67.9)	(88.9)	(79.5)	(*)	(*)	(*)
Marital Status						
Ever married/in union	76.5	84.1	59.3	(*)	(*)	(*)
Never married/in union	87.1	85.3	74.4	90.3	90.3	92.2
Education						
None	(*)	(*)	(*)	(*)	(*)	(*)
Non-formal	(*)	(*)	(*)			
Primary	(*)	(*)	(*)	(*)	(*)	(*)
Secondary	84.8	84.4	70.9	90.5	89.6	92.7
Higher	88.9	89.9	76.9	(87.1)	(93.2)	(90.3)
Wealth index quintile						
Poorest	84.1	83.6	62.0	(76.6)	(79.9)	(88.0)
Second	87.8	86.8	66.3	90.3	88.1	84.8
Middle	83.4	83.3	72.0	(98.7)	(100.0)	(97.4)
Fourth	80.0	82.9	76.4	(92.7)	(89.3)	(94.9)
Richest	91.1	88.8	79.4	(87.8)	(93.3)	(100.0)

[1] MICS Indicator 11.1 - Life satisfaction[2] MICS indicator 11.2 - Happiness

[3] MICS indicator 11.3 - Perception of a better life

( ) Sample data are based on 25-49 unweighted cases (*) Sample data are fewer than 25 unweighted cases

Perception of a better life

In addition to the series of questions on life satisfaction and happiness, respondents were asked two questions on whether they think their life improved during the last one year and whether they think their life will be better in one year's time. Such information may contribute to understanding of desperation that may exist among young people, as well as hopelessness and hopes for the future. Specific combinations of the perceptions during the last one year and expectations for the next one year may be valuable information to understand the general sense of well-being among young people. Percentage distribution of young people's perception of a better life is also presented in Tables 14.1. The proportion of women age 15-24 years who think that their lives improved during the last one year and who expect that their lives will get better after one year, is 71.7 percent. This indicator for men age 15-24 years is 92.1 percent. Differences in the perception of a better life is observed by wealth quintiles: lower proportion of young people in poorest wealth quintile think that their lives improved during the last one year and expect that it will get better after one year.

XV. Tobacco and Alcohol Use

Tobacco products which are made entirely or partly from tobacco leaf are intended to be smoked, sucked, chewed or snuffed. It contains the highly addictive psychoactive ingredient, nicotine. Tobacco use is one of the main risk factors for a number of chronic diseases, including cancer, lung diseases and cardiovascular diseases.[66]

The consumption of alcohol has a risk of adverse health and social consequences related to its intoxicating, toxic and dependence-producing properties. In addition to the chronic diseases that may develop in those who consume large amounts of alcohol over a number of years, alcohol use is also associated with an increased risk of acute health conditions, such as injuries, including from traffic accidents.[67] Alcohol use also causes harm far beyond the physical and psychological health of the drinker. It harms the well-being and health of people around the drinker. An intoxicated person can harm others, behave violently, or negatively affect co-workers, relatives, friends or strangers. Therefore, the impact of the harmful use of alcohol reaches deep into society.[68]MICS 2016-17 collected information on ever and current use of tobacco and alcohol and intensity of use among women and men age 15-49 years.

KEY FINDINGS

Ever use of tobacco products is higher among men than women
- **2.6 percent of women**
- **26.1 percent of men**

Current use of tobacco product is higher among males in Lagos West (9.2 percent) than Lagos East (8.2 percent) and Lagos Central (7.4 percent).

3 percent of women and 9.7 percent of men age 15-49 years respectively, had at least one alcoholic drink before age 15 years

Had at least one drink of alcohol during the last one month before the survey
- **9.6 percent of women**
- **44.0 percent of men**

Tobacco Use

Table 15.1 presents ever, current and early use of tobacco products by women and men age 15-49 years. Use of tobacco products is substantially higher among men than women in Lagos. About 26.1 percent of men and 2.6 percent of women reported to have ever used any tobacco product. About nine percent of men used tobacco products at any time during the last one month in Lagos. There was no record of current tobacco use among women age 15-49 years at any time during the last one month in Lagos State.

About 31.1 percent of men and 1.6 percent of women who ever used tobacco product had at least one under-five child living in the same household. There is urban-rural difference in tobacco use. Whereas

[66]WHO.**http://www.who.int/topics/tobacco/en/**
[67]WHO.**http://www.who.int/topics/alcohol_drinking/en/**
[68]WHO.**http://www.who.int/mediacentre/factsheets/fs349/en/**

higher percentage of men and women in rural areas had ever use any tobacco product than urban areas. Current use of tobacco product is higher among males in Lagos West (9.2 percent) than Lagos East (8.2 percent) and Lagos Central (7.4 percent).

Table 15.1 (TA 1 and 1M): Current and ever use of tobacco

Percentage of women and men age 15-49 years by pattern of use of tobacco, Nigeria, 2016-17Lagos State

	Percent of women age 15-49 years		Percent of men age 15-49 years	
	Ever use any tobacco product	Current use of tobacco product[1]	Ever use any tobacco product	Current use of tobacco product[1]
Total	**2.6**	**0.0**	**26.1**	**8.7**
Senatorial District				
Lagos Central	1.6	0.0	30.4	7.4
Lagos East	4.1	0.0	28.9	8.2
Lagos West	2.3	0.0	24.1	9.2
Age (years)				
15-19	0.5	0.0	6.1	0.6
20-24	4.3	0.0	19.5	8.2
25-29	3.8	0.0	28.4	9.6
30-34	0.9	0.0	33.0	3.8
35-39	1.7	0.0	34.4	16.3
40-44	3.3	0.0	24.8	11.2
45-49	5.7	0.0	37.5	11.8
Residence				
Urban	2.5	0.0	25.6	8.3
Rural	(4.0)	0.0	(41.4)	(19.7)
Education				
None	(11.1)	0.0	(*)	(*)
Non-formal	(*)	0.0	(*)	(*)
Primary	0.2	0.0	40.2	16.7
Secondary	2.7	0.0	22.4	7.9
Higher	2.4	0.0	29.4	7.3
Under-5s in the samehousehold				
At least one	1.6	0.0	31.7	10.0
None	3.6	0.0	22.0	7.7
Wealth index quintile				
Poorest	4.3	0.0	28.9	15.1
Second	1.5	0.0	21.5	6.2
Middle	2.9	0.0	15.5	3.9
Fourth	1.1	0.0	25.0	7.7
Richest	3.3	0.0	40.7	11.2

[1] MICS indicator 12.1 - Tobacco use
[2] MICS indicator 12.2 - Smoking before age 15

Alcohol Use

Table 15.2 shows the pattern of use of alcohol among women and men in Lagos State. About 69.6 percent and 38.3 percent of women and men respectively never had an alcoholic drink. Three percent of women and 9.7 percent of men age 15-49 years had at least one drink of alcohol before the age of 15 years in Lagos State. There is remarkable difference between the percentage of men and women who had at least one alcoholic drink at any time during the last one month before MICS 2016-17; 9.6 percent of women and 44.4 percent of men. This implies that the ratio of women to men on current use of alcohol is 1:5 in Lagos State.

Table 15.2 (TA.3 and 3M): Use of alcohol

Percentage of women and men age 15-49 years who have never had an alcoholic drink, percentage who first had an alcoholic drink before age 15 and percentage of women who have had at least one alcoholic drink at any time during the last one month, Nigeria, 2016-17Lagos State

	Percentage of women who:			Percentage of men who:		
	Never had an alcoholic drink	Had at least one alcoholic drink before age 15[1]	Had at least one alcoholic drink at any time during the last one month[2]	Never had an alcoholic drink	Had at least one alcoholic drink before age 15[1]	Had at least one alcoholic drink at any time during the last one month[2]
Total	**69.6**	**3.0**	**9.6**	**38.3**	**9.7**	**44.0**
Senatorial District						
Lagos Central	76.9	3.5	10.3	31.0	14.5	51.7
Lagos East	68.6	4.5	9.9	41.2	18.3	37.0
Lagos West	68.2	2.3	9.3	39.3	5.6	44.2
Residence						
Urban	69.5	3.0	9.4	39.0	8.4	43.4
Rural	73.4	4.0	15.2	(18.6)	(49.8)	(60.6)
Age (years)						
15-19	86.9	6.6	3.3	76.7	12.1	12.5
20-24	69.9	4.2	12.0	52.4	8.2	36.7
25-29	65.9	2.0	9.3	29.5	9.8	62.9
30-34	70.4	2.0	10.9	35.7	8.0	43.5
35-39	68.4	2.9	10.7	30.4	7.4	47.0
40-44	60.5	1.1	6.6	17.3	14.5	59.3
45-49	61.9	2.1	15.0	21.9	7.2	52.6
Education						
None	(78.9)	(1.6)	(3.9)	(*)	(*)	(*)
Non-formal	(*)	(*)	(*)	(*)	(*)	(*)
Primary	75.3	1.3	7.8	20.3	22.0	63.7
Secondary	69.4	4.1	10.4	44.4	8.8	40.8
Higher	66.8	1.8	9.4	30.9	7.1	45.0
Wealth index quintile						
Poorest	74.8	2.6	11.9	47.2	17.3	40.1
Second	71.5	3.6	6.4	42.8	6.7	47.4
Middle	66.6	4.2	9.8	39.5	5.4	43.8
Fourth	67.4	2.8	10.0	36.4	9.7	42.7
Richest	68.9	1.8	9.9	25.3	9.9	45.5

[1] MICS indicator 12.4 - Use of alcohol before age 15
[2] MICS indicator 12.3 - Use of alcohol
( ) Sample data are based on 25-49 unweighted cases *(*) Sample data are fewer than 25 unweighted cases*

Lagos East has the highest proportion of both men and women who started drinking alcohol at early age. About half of men in Lagos Central (51.7 percent) had at least one alcoholic drink at any time during the last one monthbefore the survey.

Appendix

List of Report Writers

Isiaka A. Olarewaju	Project Director
Adeyemi Adeniran	Project Coordinator
Olowu Peter K.	LBS
Lawal Rasheed	LBS
Ogundiya Kola. J	NBS
Ekwejunor Etchie U.	NBS
Kareem Bolakale Akeem	NBS
Elutade Akinloye A.	NBS
Akinola Michael	NBS
Ebhodaghe Bridget	NBS
Udoabah Imeh I.	NBS

List of Report Reviewers

Isiaka A. Olarewaju	Project Director
Adeyemi Adeniran	Project Coordinator
Dr. Fayehun Funke	**University of Ibadan**
Ogundiya Kola. J	NBS
Kareem Bolakale Akeem	NBS
Elutade Akinloye A.	NBS
Akinola Michael	NBS
Ebhodaghe Bridget	NBS
Nkemakolam Chioma	NBS

List of Reviewers (UNICEF)

Adeniyi Olaleye	UNICEF Nigeria
Denis Jobin	UNICEF Nigeria
Claes Johasson	UNICEF HQ
Issa Kone	UNICEF WCARO Region Office
Acraf Mohamed Mrabet	UNICEF WCARO Region Office