NIGERIA

Monitoring the situation of children and women

Multiple Indicator Cluster Survey 2011

MAIN REPORT

Federal Republic of Nigeria

National Bureau of Statistics

Department For International Development

United Nations Population Fund

United Nations Children's Fund

MICS

Nigeria
Multiple Indicator Cluster Survey
2011

NBS
National Bureau of Statistics

UNICEF
United Nations Children's Fund

UNFPA
United Nations Population Fund

April, 2013

In Memory

This report is dedicated to the 25 people killed, and those who were injured, by the bomb attack on UN House in Abuja on the 26th August 2011. Amongst the people who lost their lives was Johnson Awotunde who devoted his time, energy and personal resources to the success of the survey until his untimely departure.

The Nigeria Multiple Indicator Cluster Survey (MICS) was carried out in 2011 by the National Bureau of Statistics. Financial and technical support was provided by the United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA) and the Government of Nigeria through the National Bureau of Statistics.

MICS is an international household survey programme developed by UNICEF. The Nigeria MICS was conducted as part of the fourth global round of MICS surveys (MICS4). MICS provides up-to-date information on the situation of children and women and measures key indicators that allow countries to monitor progress towards the Millennium Development Goals (MDGs) and other internationally agreed upon commitments. Additional information on the global MICS project may be obtained from www.childinfo.org.

National Bureau of Statistics (NBS) 2011,
Nigeria Multiple Indicator Cluster Survey 2011
Main Report, ABUJA NIGERIA.

Summary Table of Findings

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Nigeria, 2011.

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value	
CHILD MORTALITY					
Child mortality	1.1	4.1	Under-five mortality rate	158	per 1,000
	1.2	4.2	Infant mortality rate	97	per 1,000
NUTRITION					
Nutritional status	2.1a	1.8	Underweight prevalence: Moderate and Severe (- 2 SD)	24.2	percent
	2.2a		Stunting prevalence: Moderate and Severe (- 2 SD)	34.8	percent
	2.3a		Wasting prevalence: Moderate and Severe (- 2 SD)	10.2	percent
	2.6		Exclusive breastfeeding under 6 months	15.1	percent
	2.7		Continued breastfeeding at 1 year	79.3	percent
	2.8		Continued breastfeeding at 2 years	34.5	percent
	2.12		Introduction of solid, semi-solid or soft foods	32,9	percent
Breastfeeding and infant feeding	2.4		Children ever breastfed	95.5	percent
	2.5		Early initiation of breastfeeding	22.9	percent
	2.6		Exclusive breastfeeding under 6 months	15.1	percent
	2.7		Continued breastfeeding at 1 year	79.3	percent
	2.8		Continued breastfeeding at 2 years	34.5	percent
	2.9		Predominant breastfeeding under 6 months	69.9	percent
	2.10		Duration of breastfeeding	18.3	months
	2.11		Bottle feeding	18.7	percent
	2.12		Introduction of solid, semi-solid or soft foods	32.2	percent
	2.13		Minimum meal frequency	24.1	percent
	2.14		Age-appropriate breastfeeding	34.6	percent
	2.15		Milk feeding frequency for non-breastfed children	30.1	percent
Salt iodization	2.16		Iodized salt consumption	79.8	percent
Vitamin A	2.17		Vitamin A supplementation (children under age 5)	65.2	percent
Low birth weight	2.18		Low-birth weight infants	15.2	percent
	2.19		Infants weighed at birth	25.7	percent
CHILD HEALTH					
Vaccinations	3.1		Tuberculosis immunization coverage	61.7	percent
	3.2		Polio immunization coverage	46.1	percent
	3.3		Immunization coverage for diphtheria, pertussis and tetanus (DPT)	42.6	percent
	3.4	4.3	Measles immunization coverage	49.2	percent
	3.5		Hepatitis B immunization coverage	34.0	percent
	3.6		Yellow fever immunization coverage	40.4	percent
Tetanus toxoid	3.7		Neonatal tetanus protection	55.2	percent
Care of illness	3.8		Oral rehydration therapy with continued feeding	27.9	percent
	3.9		Care seeking for suspected pneumonia	39.7	percent
	3.10		Antibiotic treatment of suspected pneumonia	45.4	percent
Solid fuel use	3.11		Solid fuels	74.5	percent

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value	
Malaria	3.12		Households with at least one ITN	40.1	percent
	3.14		Children under age 5 sleeping under any mosquito net	18.6	percent
	3.15	6.7	Children under 5 sleeping under insecticide-treated nets (ITNs)	16.4	percent
	3.16		Malaria diagnostics usage	7.9	Percent
	3.17		Anti-malarial treatment of children under 5 the same or next day	29.4	percent
	3.18	6.8	Anti-Malarial treatment	44.6	percent
	3.19		Pregnant women sleeping under insecticide-treated nets (ITNs)	16.9	percent
	3.20		Intermittent preventive treatment for malaria	19.5	percent
WATER AND SANITATION					
Water and sanitation	4.1	7.8	Use of improved drinking water sources	58.5	percent
	4.2		Water treatment	4.1	percent
	4.3	7.9	Use of improved sanitation	31.0	percent
	4.4		Safe disposal of child's faeces	52.3	percent
	4.5		Place for hand washing	48.0	percent
	4.6		Availability of soap	61.5	percent
REPRODUCTIVE HEALTH					
Contraception and unmet need	5.1	5.4	Adolescent birth rate	89	per 1,000
	5.2		Early childbearing	28.6	per cent
	5.3	5.3	Contraceptive prevalence rate	17.5	percent
	5.4	5.6	Unmet need	19.4	percent
Maternal health	5.5a	5.5	Antenatal care coverage with at least once by skilled personnel	66.2	percent
	5.5b		Antenatal care coverage at least four times by any provider	56.6	percent
	5.6		Content of antenatal care	51.5	percent
	5.7	5.2	Skilled attendance at delivery	48.7	percent
	5.8		Institutional deliveries	45.1	percent
	5.9		Caesarean section	4.7	percent
CHILD DEVELOPMENT					
Child development	6.1		Support for learning	65.4	percent
	6.2		Father's support for learning	37.2	percent
	6.3		Learning materials: children's books	6.0	percent
	6.4		Learning materials: playthings	38.1	percent
	6.5		Inadequate care	39.9	percent
	6.6		Early child development index	60.9	percent
	6.7		Attendance to early childhood education	42.6	percent
EDUCATION					
Education	7.1	2.3	Literacy Among young women	65.6	percent
	7.2		School readiness	44.8	percent
	7.3		Net intake rate in primary education	43.8	percent
	7.4	2.1	Primary school net attendance ratio (adjusted)	70.1	percent
	7.5		Secondary school net attendance ratio (adjusted)	54.2	percent
	7.6	2.2	Children reaching last grade of primary	96.5	percent
	7.7		Primary completion rate	85.4	percent
	7.8		Transition rate to secondary school	74.0	percent
	7.9		Gender parity index (primary school)	0.94	ratio
	7.10		Gender parity index (secondary school)	1.00	ratio

Topic	MICS4 Indicator Number	MDG Indicator Number	Indicator	Value	
CHILD PROTECTION					
Birth registration	8.1		Birth registration	41.5	percent
Child labour	8.2		Child labour	47.1	percent
	8.3		School attendance among child labourers	76.1	percent
	8.4		Child labour among students	47.1	percent
Child discipline	8.5		Violent discipline	90.8	percent
Early marriage	8.6		Marriage before age 15	17.6	percent
	8.7		Marriage before age 18	39.9	percent
	8.8		Young women age 15-19 currently married or in union	20.2	percent
	8.9		Polygyny	33.6	percent
	8.10a 8.10b		Spousal age difference Women age 15-19 Women age 20-24	52.2 43.9	percent percent
Female genital mutilation/ cutting	8.11		Approval for female genital mutilation/cutting (FGM/C)	21.8	percent
	8.12		Prevalence of female genital mutilation/cutting (FGM/C) among women	27.0	percent
	8.13		Prevalence of female genital mutilation/cutting (FGM/C) among girls	19.2	percent
Domestic violence	8.14		Attitudes toward domestic violence	45.6	Percent
HIV/AIDS, SEXUAL BEHAVIOUR					
HIV/AIDS knowledge and attitudes	9.1		Comprehensive knowledge about HIV prevention	23.1	percent
	9.2	6.3	Comprehensive knowledge about HIV prevention among young people (women age 15-24 years)	22.5	percent
	9.3		Knowledge of mother- to-child transmission of HIV	49.7	percent
	9.4		Accepting attitudes towards people living with HIV	9.0	percent
	9.5		Women who know a place where to be tested	61.0	percent
	9.6		Women who have been tested for HIV and know the results	11.4	percent
	9.7		Sexually active young women who have been tested for HIV and know the results	9.1	percent
	9.8		HIV counselling during antenatal care	48.4	percent
	9.9		HIV testing during antenatal care	28.5	percent
Sexual behaviour	9.10		Young women who have never had sex	62.6	percent
	9.11		Sex before age 15 among young women	15.8	percent
	9.12		Age-mixing among sexual partners	39.3	percent
	9.13		Sex with multiple partners	2.8	percent
	9.14		Condom use during sex with multiple partners	34.3	percent
	9.15		Sex with non regular partner (women age 15-24 years)	32.4	percent
	9.16	6.2	Condom use with non-regular partners (women age 15-24) years)	47.4	percent
Orphaned children	9.17		Children's living arrangements	8.8	percent
	9.18		Prevalence of children with at least one parent dead	6.6	percent
	9.19	*6.4*	School attendance of orphans	79.9	percent
	9.20	*6.4*	School attendance of non-orphans	79.5	percent

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List of Abbreviations

ACT	Artemisinin Combination Therapy
AIDS	Acquired Immune Deficiency Syndrome
AMFm	Affordable Medicines Facility for Malaria
ANC	Antenatal Care
BCG	Bacillis-Cereus-Geuerin (Tuberculosis)
CDC	Centers for Disease Control and Prevention
CSPro	Census and Survey Processing System
DHS	Demographic and Health Survey
DPT	Diphteria Pertussis Tetanus
ECCD	Early Childhood Care and Development
ECDI	Early Child Development Index
eMTCT	elimination of mother-to-child transmission of HIV
EPI	Expanded Programme on Immunization
FGM/C	Female genital mutilation/cutting
GAR	Gross Attendance Ratio
GPI	Gender Parity Index
HIV	Human Immunodeficiency Virus
ICT	Information and Communications Technology
IDD	Iodine Deficiency Disorders
IRS	Indoor Residual Spraying
IPTp	Intermittent Preventative Treatment by women during Pregnancy
ITN	Insecticide Treated Net
IUD	Intrauterine Device
JMP	Joint Monitoring Programme
LAM	Lactational Amenorrhea Method
LLIN	Long-Lasting Insecticidal Net
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
NAPEP	National Programme on Eradication of Poverty
NAR	Net Attendance Rate
NBS	National Bureau of Statistics
ORT	Oral rehydration treatment
PNC	Post-natal Care
PNMR	Post-neonatal Mortality Rate
ppm	Parts Per Million
RDT	Rapid Diagnostic Test
SPSS	Statistical Package for Social Sciences
TFR	Total Fertility Rate
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VIP	Ventilated Improved Pit
WFFC	World Fit For Children
WHO	World Health Organization

Preface

We are pleased to present the final findings of the 2011 Multiple Indicator Cluster Survey (MICS4) on key indicators to evaluate and monitor the status of children and woman regarding health, nutrition, education, and protection. This survey also contributes in measuring the progress attained in Nigeria through efforts aimed at achieving the Millennium Development Goals (MDG) and the objectives of a World Fit for Children (WFFC). It is also a means of measuring the progress of poverty reduction strategy efforts targeted specifically at women and children.

In order to better understand the situation of children and women, UNICEF developed the Multiple Indicator Cluster Survey (MICS) in 1995. MICS produces a wide range of scientifically built and tested indicators to provide a realistic and detailed picture of the fulfilment of critical children and woman rights across the world. Acknowledging the relevance of this tool, the National Bureau of Statistics (NBS) conducted the first round of the survey (MICS1) in 1995 covering 16,012 households; the second round was conducted in 1999 (MICS2) with 15,580 households. In 2007, a national total sample of 27,750 households was covered in the conduct of the third round (MICS3).

In 2011, the fourth round (MICS4) was conducted by the National Bureau of Statistics (NBS) with financial and technical support from UNICEF and UNFPA. 29,600 households were sampled in MICS4, an increase of 1,850 households over MICS3 conducted in 2007.

Children (0-17 years) constitute 50 percent of the population of Nigeria. Among this, children under the age of 5 years constitute 17 percent; hence investing efforts in their full development guarantees an excellent future for the country. We are cognizant that MICS guided the prioritization of the efforts to promote children and women's wellbeing in Nigeria. MICS4 provides valuable and reliable information which further support national efforts in reducing inequities of survival and development opportunities of children and women.

Dr. Yemi Kale
Statistician-General of the Federation

Acknowledgements

The Multiple Indicator Cluster Survey (MICS) is a primary source of information on women and children as it provides statistical indicators that are critical for the measurement of human development. MICS is an indispensable, reputable and high quality scientific mean for assessing the situation of women and children, and for monitoring and evaluating efforts and progress towards the fulfillment of the Millennium Development Goals and the World Fit for Children framework.

The first in the series of the Multiple Indicator Cluster Survey (MICS1) was conducted in 1995 by the Federal Office of Statistics (FOS), now National Bureau of Statistics (NBS), with technical and funding assistance from UNICEF. Since then, MICS has been institutionalized within the National Integrated Survey of Households (NISH) in the National Bureau of Statistics, as a process of collecting regular, reliable and timely social statistics. The second and third rounds of MICS were conducted in 1999 and 2007 respectively. Expectedly, the current round of the Multiple Indicator Cluster Survey (MICS4) was better planned and executed than the previous rounds, and has achieved the aim of providing reliable data for monitoring progress of the Nigerian children and women, and the Millennium Development Goals.

The implementation of MICS4 has been a success in all its phase. The excellence achieved is confirmed by the high quality data, which was confirmed in an international analysis and data dissemination workshop held in Dakar, Senegal in July 2011 under the guidance and expertise of the UNICEF MICS Global Team from New York.

In presenting the Final Report of MICS4, 2011, we wish to express our gratitude and appreciation to all those who contributed directly or indirectly in designing, conducting the survey, preparing this report and releasing its results; from the staff of the National Bureau of Statistics (NBS) to the members of the National Steering Committee on MICS4 which cut across various MDAs, which include the National Planning Commission, the MDG Office, the National Population Commission, the Federal Ministries of Health, Education, Women Affairs, Information and Communication, and various Non-Government Organizations.

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 MICS4. We are grateful to also UNFPA for their financial contribution to the project. The contributions made by UNICEF; West and Central Africa Regional Office (WCARO) and UNICEF Headquarters cannot be overstated.

Special thanks go to Tunde Adebisi (Sampling Expert) and Folorunso Busari (Programer/Analyst), who joined me to lead other staff in the implementation of the project.

Finally, on behalf of the National Bureau of Statistics, I wish to acknowledge with gratitude the cooperation of all the heads and members of sample households who were respondents during the survey. Their participation was very valuable to the conduct of the survey.

Isiaka Olarewaju
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MICS4 Nigeria Coordinator

EXECUTIVE SUMMARY

1. Introduction

This report is based on the Nigeria Multiple Indicator Cluster Survey, conducted in 2011 by the National Bureau of Statistics. The survey provides valuable information on the situation of children and women in Nigeria, and was based, to a large extent, on the needs to monitor progress towards goals and targets emanating from international agreements such as the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. Both of these commitments build upon promises made by the international community at the 1990 World Summit for Children. In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress towards that end. UNICEF was assigned to support governments in achieving this task.

The Federal Government of Nigeria has made several efforts directed towards the achievement of the objectives and aspirations expressed in the Millennium Development Goals (MDGs), 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) and Abuja Targets for Malaria among others. The Government has in recent times launched a number of development initiatives to improve the economic and social life of its people. The National Transformation Agenda and Vision 20:2020 are developed to create employment, increase and stabilize electricity power supply, improve social and economic infrastructure and provide enabling environment for local and foreign investments and to become one of the twenty leading economies in the world by year 2020. The National Programme for the Eradication of Poverty (NAPEP) has been concerned with strategies for poverty reduction in the country while National Agency for the Control of HIV/AIDS (NACA) has mandate for planning, implementing and monitoring programmes for control of HIV/AIDS.

The Government has 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 these national and other global goals. The National Bureau of Statistics (NBS) with strong financial and technical support from international development partners and donors like UNICEF, UNFPA, and DFID among others has been involved in the national efforts to achieve the goals through provision of relevant data to monitor, evaluate and advise necessary adjustments in development programmes. The Nigeria 2011 Multiple Indicator Cluster Survey has been designed to measure progress towards achievements of MDGs and more specifically to assist UNICEF in monitoring and evaluation of country programmes including those on child survival, child development, child and women rights and protection among others. Globally, MICS4 has collected information on at least 100 internationally agreed upon indicators covering most situations of the household, the child, the mother and their environment.

2. Survey Objectives

The 2011 Nigeria Multiple Indicator Cluster Survey (MICS4) has the following as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Nigeria;
- To furnish data needed for monitoring progress toward goals established in the Millennium Declaration and other internationally agreed upon goals, as a basis for future action;
- To contribute to the improvement of data and monitoring systems in Nigeria and to strengthen technical expertise in the design, implementation, and analysis of such systems.
- To generate data on the situation of children and women, including the identification of vulnerable groups and of disparities, to inform policies and interventions.

3. Sample and Survey Methodology

The sample for the 2011 Nigeria Multiple Indicator Cluster Survey (MICS4) was designed to provide estimates for a large number of indicators on the situation of children and women at the national level, for urban and rural areas, and for the 36 states of the Federation and the Federal Capital Territory as well as the 6 geo-political zones of Nigeria namely South-West, South-East, South-South, North-West, North-East and North-Central. The states within each zone were identified as the main reporting domain while the Enumeration Areas (EAs) within each state were identified as the main sampling units. Sample size was 29,600 households and 29,077 were successfully interviewed.

4. Questionnaires

Three sets of questionnaires were used in the survey; the household questionnaire, the individual women questionnaire and the under-five children questionnaire. These were the MICS4 standard questionnaires adapted to Nigeria situation.

5. Training, Fieldwork and Data Processing

Training for the fieldwork was conducted simultaneously in the six geo-political zones for 15 days in February 2011. In each state, the data were collected by two roving teams; each comprised of 5 interviewers, one driver, one editor, one measurer and a supervisor. Fieldwork lasted for about six weeks; it began in February 2011 and was concluded in March 2011. A 2-day training of trainers was organized for data processing team in Abuja in February 2011; there was also a subsequent five-day training of data processing personnel in February 2011 simultaneously at each of the six zonal data processing centres. Data entry was done using the CSPro software at each of the six data processing centers. In order to ensure data quality, all questionnaires were double entered and internal consistency checks were performed. Procedures and standard programs developed under the global MICS4 project and adapted to the Nigeria questionnaire were used throughout. Data processing began two weeks into data collection in February and was completed in April 2011. Regular checks were carried out for data quality and to ensure compliance with global data processing guidelines by UNICEF Nigeria and UNICEF New York. Data were analyzed using the Statistical Package for Social Sciences (SPSS) software program, Version 18, and the model syntax and tabulation plans developed by UNICEF for this purpose.

6. Characteristics of Households

In the 29,077 households that were successfully interviewed, 155,553 household members were listed, 77,025 males, and 78,528 females translating to sex ratio (male: female) figure of 98.1 and an average household size of 5 members at the national level. Sex ratio across age group ranges from 92 percent for the 15-64 age-groups to 165 for persons aged 65 years and above. Corresponding figures for age groups <5, <15 and 50-54 are 104, 101 and 95 respectively. The population is 71 percent rural and 29 percent urban; eighty-seven percent of the households are headed by the male and 13 percent by the female. The overall dependency ratio is 0.99. This figure indicates an economically active person caters for one other person. From the results of MICS4, children aged 0-14 years constitute 47 percent of the population and those aged 0 -17 years account for 53 percent of the males, 51 percent of the females and 52 percent of the combined population.

7. Characteristics of Women and Under five Children

The age distribution of population of women of reproductive age indicates that 35 percent are adolescents (15-24 years). Those in age group 25-34 years constitute another 35 percent, while others (35-349) constitute 30 percent. A little above one quarter (28 percent) of the women of reproductive age report never to have given birth; 70 percent are currently married or in union and one quarter of the eligible women have never married. Thirty two percent of the women have no education, 18 percent have primary while 50 percent have secondary or higher education. About 23 percent of women of reproductive age live in richest households while 18 percent live in poorest households. Nigeria's MICS4 shows that children under five are 51 percent male and 49 percent female; the figures translate into a sex ratio of 104. Seventy six percent of the under five children live in rural areas while 30 percent live in the urban. Fifty four percent of children under five have mothers with no education, 20 percent have mothers with primary education while 37 percent have mothers with at least secondary education. Twenty three percent of the under five children live in the poorest household while 18 percent live in richest households.

8. Child Mortality

The infant mortality rate is estimated at 97 per thousand, while the under-five mortality rate is 158 per thousand (Rates refer to mid-2005, North Model). The infant mortality rate for male child is 106 per thousand against 86 per thousand for the female child. Similarly, the under-five mortality rate was 170 per thousand and 144 per thousand for the male and female child respectively. Infant and under-5 mortality rates are lowest in South-West zone with 55 and 83 per thousand respectively while the corresponding figures for North-WestNorth-West are 123 and 208 per thousand respectively. Infant mortality rate is lower in urban areas (68 per thousand) than rural areas (110 per thousand) while under-5 mortality rate is 106 per thousand in urban against 182 per thousand in rural. Infant mortality rate for children of mothers with no education is 121 per thousand while that of children of mothers with secondary education or higher is 66 per thousand. Again, under-five mortality rate for children of mothers with no education is 203 per thousand while that of children of mothers with secondary education or higher was 102 per thousand. Considering the wealth index quintiles, infant mortality rate is 132 for the poorest quintile while the richest is 51 per thousand. Similarly, under-five mortality rates are 223 and 76 for the poorest and the richest quintiles respectively.

9. Nutrition

In Nigeria, 24 percent of children under 5 are underweight (9 percent severely), 36 percent are stunted (19 percent severely) and 10 percent are wasted (3 percent severely). Malnutrition rates in the North-WestNorth-West and North-EastNorth-East regions are higher than in the South. Children in rural areas are more likely to have nutritional deficiencies than those in urban areas with respectively 19 percent underweighted against 31 percent. Prevalence of malnutrition decreases with education of mother and as wealth status improves from poorest to richest quintiles.

10. Breastfeeding and Infant and Young Children Feeding

Overall, about 95 percent of the children covered were ever breastfed. Twenty three percent of babies are breastfed for the first time within one hour of birth, at least two-thirds start breastfeeding within one day of birth, while 57 percent received a prelatic feed. Ninety-seven percent of children were ever breastfed in urban area while it was 95 percent in the rural area. About 15 percent of children 0–5 months are exclusively breastfed while 70 percent are predominantly breastfed. More male children 0-5 months are exclusively breastfed than their female counterpart with 16 and 14 percents respectively. Higher percentage of children in the urban areas (21 percent) is exclusively breastfed than children in rural areas (13 percent). Percentage of children whose mothers have at least secondary education and who received exclusive breastfeeding is about 21 percent, while those of mothers with no education is about 8 percent. In Nigeria, 19 percent of children below 2 years are fed using a bottle with a nipple.

11. Salt Iodization

Most of the households (80 percent) consume adequately iodized salt (15 parts per million) or more). North-WestNorth-West region has the lower iodized salt consumption level, at 63 percent

12. Children's Vitamin A Supplementation

About two-thirds of children aged 6-59 months received high dose of Vitamin A supplement in the last 6 months preceding the survey. Higher percentage of children whose mother has secondary or higher education (79 percent) received vitamin A supplement than those whose mothers have no education (52 percent). Similarly Children from rich households receive vitamin A supplement (83 percent) than children from poor households (47 percent).

13. Low Birth Weight

About 15 percent of newborn babies were weighed at birth and approximately 15 percent of infants are estimated to weigh less than 2500 grams at birth. Zonal variation of 20 percent low birth weight in the North-WestNorth-West and 12 percent in South-South was recorded. Urban-rural differentials for low birth weight are 13 and 16 respectively. Many children born into poorest quintile households have low birth weight (about 19 percent) compared to 12 percent for those in richest quintile. Children of mothers with secondary education or higher with low birth weight is about 13 percent and about 19 percent among the mothers with no education.

14. Immunization

In Nigeria, almost two third (62 percent) of the children aged 12-23 months have received BCG by the age of 12 months, but only 43 percent have received three doses of DPT and 46 percent have received the third dose of polio vaccine. The coverage for measles vaccine is about 49 percent and yellow fever is 40 percent. Twenty eight percent of children have received all their vaccines by the age of 12 months and one fifth (20 percent) have not received any vaccinations. Vaccinations of children vary according to the characteristics of the mother. Only 10 percent of children of mothers with no education have received all their vaccines while it is 45 percent when she has secondary level and more. In all, only a quarter of children had vaccination cards.

15. Neonatal Tetanus Protection

Fifty percent of women received two doses of tetanus toxoid protection during the last pregnancy while 55 percent of the women with live birth in the last two years preceding the survey received neonatal tetanus protection. Seventy five percent of women in urban area received tetanus toxoid vaccine against 46 percent in the rural area. The percentage is 78 and 31 in South-West and North-WestNorth-West respectively.

16. Oral Rehydration Treatment

Forty-four percent of fewer than five children, who had diarrhoea in the two weeks preceding the survey, received one or more of the recommended home treatments (ORS or homemade fluid). Twenty eight percent of the children received oral rehydration therapy with continued feeding.

17. Care Seeking and Antibiotic Treatment of Pneumonia

In Nigeria, 45 percent of under-five children with suspected pneumonia received antibiotics. The percentage was considerably higher in the urban areas (53 percent) than rural (43 percent). About 11 percent of women know the two danger signs of pneumonia. About 40 percent of children age 0-59 months with suspected pneumonia were taken to appropriate health provider.

18. Use of Solid Fuel

In Nigeria, about three-quarters of households are using solid fuels for cooking out of which 68 percent of them are using wood. Eighty-nine percent of households in the poorest quintile are using wood while it is only 15 percent for those in the richest quintile. About 90 percent of households in rural area are using solid fuels against 45 percent in urban areas. Differentials use of solid fuel with respect to household wealth and educational level of the household heads are also significant.

19. Children Sleeping Under Mosquito Nets

In Nigeria, 40 percent of households have at least one insecticide treated net. Only 19 percent of children under the age of five slept under any mosquito net the night prior to the survey. During this period, 16 percent of the under five children slept under an insecticide treated net. The same proportion of children (16%) slept under ITN in both rural and urban. However, a higher proportion of female under-five children (17%) than male children (16%) slept under insecticide treated net.

20. Malaria Treatment

In Nigeria, 20 percent of children under age five had fever in the two weeks preceding the survey. Among these children, 45 percent received anti-malarial medicine. In rural areas, malaria treatment of children with fever was 40 percent compared to 58 percent in urban areas. A quarter of children with fever were given Chloroquine, 6 percent were given SP/Fansidar, and only 4 percent received Artemisinin Combination Therapy (ACT). In Nigeria, 19 percent of women age 15-49 years who had a live birth during the two years preceding the survey took SP/Fansidar two or more times.

21. Hand washing

About 27 percent of households in Nigeria have specific place for hand washing. Water and soap are available in 48 percent of the households where place for washing hand was observed. Rural-urban differences in availability of water and soap is noticeable from the result.

22. Water and Sanitation

About six in every ten households in Nigeria are using an improved source of drinking water with higher percentage of 73 percent in urban areas against 51 percent in rural areas. Wealth quintile and level of education have influence on the household source of drinking water. Generally, the most important source of improved drinking water is the borehole, which contributes 32 out of the 59 percent using improved water source. Overall, 31 percent of household members use an improved sanitation facility (not shared). The sanitation indicator shows similar disparities as the improved source of water: only 26 percent of household members in rural areas use improved sanitation facility against 41 percent in urban area. Still, 29 percent of the population practices open defecation.

23. Reproductive Health

In Nigeria, adolescent birth rate is 89 births per 1,000 women, while total fertility rate is 5.7 per woman. The adolescent fertility rate is higher in rural (120) than urban (35). About 27 percent of women had a live birth before age 18, and about 7 percent have had a live birth before age 15.

24. Contraception

About 18 percent of women currently married or in union reported current use of contraception. The most popular method is the injectable which is used by 4 percent of married women followed by male condom with 2 percent. About 4 percent of adolescents (15-19 years) currently use contraception compared to 11 percent of 20-24 years and 19 percent for older women. The percentage of women using any method of contraception rises from 6 percent among those with no education to 21 percent among women with primary education, and to 29 percent among women with secondary or higher education. About 17 percent of women in urban area use modern method of contraceptive against 7 percent in rural.

25. Unmet Need

In Nigeria, 19 percent of women currently married or in union reported unmet need for contraception, 13 percent in respect of child spacing and 6 percent in limiting number of children wanted. Eighteen percent of women who had demand for contraception are satisfied. Place of residence, education and wealth status respectively had an impact on the extent to which women demands for contraception is satisfied.

26. Antenatal Care

The proportion of women who received antenatal care at least once during pregnancy from a doctor, nurse or midwife is 66 percent. Coverage of antenatal care is more in urban areas (88 percent) than in rural areas (56 percent). The proportions that see skilled personnel for antenatal care is under 39 percent for women with no education, 73 percent for those with primary education and over 89 percent for women with secondary or higher education. About 62 percent of women attending antenatal care have their blood pressure checked, 56 percent have blood sample taken and urine sample taken. In Nigeria, about 57 percent of women that had live birth during the two years preceding the survey made 4 or more antenatal care visits; the figure for rural is 46 percent and urban is 79 percent. The more educated the woman is or the richer her household, the more likely she is to make 4 or more antenatal visits. Four in every ten of rural women did not go for antenatal care against one in ten for urban women.

27. Assistance during Delivery

About 49 percent of births occurring in the two years preceding the MICS4 survey were delivered by skilled personnel. Doctors assisted with the delivery of 15 percent of births, Nurses and midwives assisted in the delivery of 32 percent of births. Educated women are more likely to have their babies delivered by assistance of a skilled attendant. In Nigeria, 45 percent of births are delivered in a health facility out of which 24 percent occurred in public sector facilities and 21 percent occurred in private sector facilities. About half of the births occurred at home.

28. Family Support for Learning

About 43 percent of Nigeria children (aged 36-59 months) are attending pre-school. About two-thirds of under-five children have opportunity of an adult household member engaged in more than four activities that promote learning and school readiness during the 3 days preceding the survey. On the average, adults engaged in about 4 activities with children. About 13 percent of children were living in a household without their fathers. The result shows that 6 percent of children ages 0-59 months are living in households where at least 3 children's books are present; 38 percent of them had 2 or more playthings to play with in their homes while about 57 percent of children play with toys/objects found outside their homes. Two out of every five children aged 0-59 months were left with inadequate care during the week preceding the survey out of which 36 percent were left in the care of other children.

29. Pre-School Attendance and School Readiness

Overall, 45 percent of children who are currently attending first grade of primary school attended pre-school the previous year. Rural-urban disparity is strong as more than half of children in urban areas (54 percent) had attended pre-school the previous year compared to about 40 percent among children in rural areas. The school readiness rate for children living in poorest households is 16 percent against 62 percent among those in the richest households. The pattern is the same for children of mothers with no education and those whose mothers have secondary or higher education. Regional differentials are also very significant but gender differential is not.

30. Primary and Secondary School Participation

About 44 percent of children, who are of primary school entry age (age 6) in Nigeria, are attending the first grade of primary school. The net intake rate for male is 46 percent and for female is 42 percent. The rate is 57 percent in urban against 38 percent in rural areas. North-South disparity in primary school net intake rate is noticeable. About 70 percent of children of primary school age are attending school while 30 percent are out of school. The proportion for male children attending is 72 percent and for female children is 68 percent. The primary school net attendance ratio for children in richest households is about 94

percent compared to 34 percent on poorest households. Geo-political zone is very significant to school participation rate; it is as high as 92 percent in South-West and as low as 49 percent in North-EastNorth-East.

The secondary school net attendance ratio is 54 percent. About 20 percent of the children of secondary school age are attending primary school and about a quarter of them are not attending school at all. In urban areas, 72 percent of children of secondary school age are in school as against 45 percent in the rural areas. At the level of geo-political zone, the ratio is least in the North-East (32 percent) and most in South-South (76 percent).

The proportion of children entering first grade who eventually reach grade 6 is 96 percent. About 85 percent of the children of primary school completion age (11 years) were attending the last grade of primary education. Transition rate from primary to secondary school is 74 percent with no significance gender differential. There is no significance difference in the attendance of girls and boys in primary school as indicated by gender parity index of 0.94 which increased to 1.00 for secondary education.

Literacy rate among young women in Nigeria is about 66 percent.

31. Birth Registration

In Nigeria, about 41 percent of births for children under-five years in Nigeria are registered. There are no significant variations in birth registration across sex and age but religion and education of mother have correlation with birth registration of children.

32. Child Labour

Forty-seven percent of children aged 5-14 years are engaged in child labour. More females (48 percent) compared to male (46 percent) of the children age 5-14 are involved in child labour. Area and wealth index quintiles have similar pattern. Percentage of children age 12-14 that are involved in child labour is 17 as compared to 57 for children that are age 5-11. North-WestNorth-West has the highest percentage of children aged 12-14 that are involved in child labour (21 percent) while South-West has the lowest (10 percent). About 47 percent of children aged 5-14 years who are attending school are involved in child labour activities. About three-quarters of the children involved in child labour are also attending school.

33. Child Discipline

In Nigeria, 90 percent of children ages 2-14 years were subjected to at least one form of psychological or physical punishment by any household members during the month before the survey. About 34 percent of children were subjected to severe physical punishment. There are no significance differences in the percentage for gender, area and wealth quintiles.

34. Early Marriage and Polygamy

About 20 percent of young women age 15-19 years is currently married. The proportion in urban is 8 percent and rural is for 28 percent. The proportion for those with secondary education is 6 percent but for none educated is 72 percent. North-WestNorth-West has about 52 percent of young women age 15-19 years currently married, while it was only 3 percent in South-East. Percentage of women age 15-49 years in polygamous marriage/union in Nigeria is 34 percent.

In Nigeria, 18 percent of women married before age 15 while 40 percent married before age 18. Urban-rural, geopolitical zones and wealth index quintiles are important factors. About 44 percent of women aged 20-24 is currently married to a man who is ten years or more older and 52 percent of women age 15-19 are currently married to men who are older by ten years or more. Significance differences are observed between zones in the North and South and education of women.

35. Female Genital Mutilation/Cutting

In Nigeria, 27 percent of women aged 15-49 years had one form of FGM/C or another. Of this number, 13 percent had flesh removed, 2 percent were nicked, and 1 percent was sewn closed while about 11 percent could not determine the form of the mutilation. The percentage of women involved in FGM/C is least in North-EastNorth-East (3 percent) and highest in the South-West (48 percent). The prevalence of FGM/C is associated with age, education and wealth status. Twenty two percent of women thought it should be continued while 66 percent believed it should be discontinued.

36. Domestic Violence

Overall, 46 percent of women in Nigeria feel that their husband/partner has a right to hit or beat them for at least one reason. Twenty-nine percent of women believe that their husband/partner is justified in beating them if they neglect their children, about 26 percent said if they go out without telling their husbands. A larger proportion of women who are currently married believe their husbands are justified for beating them (48 percent) compared with those never married (37 percent).

37. Knowledge about HIV Transmission and Misconceptions about HIV/AIDS

The result of MICS4 shows that 90 percent of women aged 15–49 years have heard of HIV/AIDS. Seventy-two percent of the women agreed that transmission could be prevented if a person is having only one faithful uninfected sex partner, while 54 percent agreed that using a condom every time could prevent it. About 60 percent said HIV cannot be transmitted by mosquito bites and 61 percent knew that HIV cannot be transmitted by supernatural means and 64 percent knew it cannot be transmitted by sharing food.

In 2011, 77 percent of women knew that HIV could be transmitted from mother to child compared to 68 percent recorded in 2007.

Three out of every five of women age 15–49 years have knowledge of a place for HIV testing in the country; 74 percent in urban and 54 percent in the rural areas. About 30 percent of the women interviewed were tested for HIV out of which 11 percent of the women were told the outcome of the test or shown the result.

38. Sexual Behaviour Related to HIV Transmission

Sixty-three percent of the young women age 15–24 had ever had sex while 59 percent of women had sex in the last 12 months. About 38 percent of women who never married reported they never had sex, 16 percent of women age 15–24 years had sex before age 15. About 3 percent of the women had sex with more than one partner in the last 12 months and about 47 percent used a condom last time they had sex. Forty-eight percent of the women were provided information about HIV prevention during antenatal visit as against 37 percent in 2007. Also, 37 percent were tested for HIV testing at the visit, while 29 percent received the results of the HIV test. In addition, 29 percent of the women, who received HIV counseling with HIV test, accepted the results.

39. Orphans

Overall, 9 percent of children 0-17 years were not living with their biological parents. About 7 percent of orphans have one or both parents died. In Nigeria, about 1 percent of children aged 10-14 have lost both parents and 80 percent of them were attending school. Eighty-one percent of children aged 10-14 have both parents alive and are living with at least one of them. In Nigeria, percentage of children who are non-orphan and are attending school is also about 80 percent.

I. Introduction

Background

This report is based on the Nigeria Multiple Indicator Cluster Survey, conducted in 2011 by the National Bureau of Statistics. The survey provides valuable information on the situation of children and women in Nigeria, and was based, in large part, on the needs to monitor progress towards goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. Both of these commitments build upon promises made by the international community at the 1990 World Summit for Children.

In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress towards that end. UNICEF was assigned a supporting role in this task (see table below).

A Commitment to Action: National and International Reporting Responsibilities

The governments that signed the Millennium Declaration and the World Fit for Children Declaration and Plan of Action also committed themselves to monitoring progress towards the goals and objectives they contained:

"We will monitor regularly at the national level and, where appropriate, at the regional level and assess progress towards the goals and targets of the present Plan of Action at the national, regional and global levels. Accordingly, we will strengthen our national statistical capacity to collect, analyse and disaggregate data, including by sex, age and other relevant factors that may lead to disparities, and support a wide range of child-focused research. We will enhance international cooperation to support statistical capacity-building efforts and build community capacity for monitoring, assessment and planning." (**A World Fit for Children**, paragraph 60)

"…We will conduct periodic reviews at the national and subnational levels of progress in order to address obstacles more effectively and accelerate actions…." (**A World Fit for Children**, paragraph 61)

The Plan of Action (paragraph 61) also calls for the specific involvement of UNICEF in the preparation of periodic progress reports:

"… As the world's lead agency for children, the United Nations Children's Fund is requested to continue to prepare and disseminate, in close collaboration with Governments, relevant funds, programmes and the specialized agencies of the United Nations system, and all other relevant actors, as appropriate, information on the progress made in the implementation of the Declaration and the Plan of Action."

Similarly, the **Millennium Declaration** (paragraph 31) calls for periodic reporting on progress:

"…We request the General Assembly to review on a regular basis the progress made in implementing the provisions of this Declaration, and ask the Secretary-General to issue periodic reports for consideration by the General Assembly and as a basis for further action."

There have been several efforts by the Government of Nigeria directed towards objectives and aspirations that are similar in most material respects to the global commitments expressed in the Millennium Development Goals, the World Fit for Children goals, the UNICEF Country Programme, UN Development Assistance Framework (UNDAF), the Convention on the Rights of the Child (CRC) and the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Abuja Targets for Malaria, and

United Nations General Assembly (UNGA), among others. The National Programme for the Eradication of Poverty (NAPEP) has been concerned with strategies for poverty reduction in the country; National Agency for the Control of HIV/AIDS (NACA) has mandate for planning, implementing and monitoring programmes for control of HIV/AIDS; National Economic Empowerment Development Strategy (NEEDS) and its state and local government extensions, SEEDS and LEEDS respectively are supposed to focus on wealth creation, employment generation, corruption elimination and general value orientation. Recently, the National Planning Commission, under the National Transformation Agenda introduced a monitoring and evaluation a strategy for monitoring and evaluating government projects and programmes.

The Federal Government of Nigeria has 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 these national and other global goals. The National Bureau of Statistics (NBS) with strong financial and technical support from international development partners and donors like UNICEF, UNFPA, and DFID among others has been involved in the national efforts to achieve the goals through provision of relevant data to monitor, evaluate and advise necessary adjustments in development programmes. The NBS, in recent times had conducted a number of national sample surveys most of them within global generic context. Nigeria Living Standard Survey (NLSS), General Household Survey (GHS), Core Welfare Indicator Questionnaire (CWIQ) Survey and the Nigeria Demographic and Health Survey (NDHS) were examples. However, MICS4 Nigeria like the generic MICS4 has been designed with the main objective to measure progress towards achievements of Millennium Development Goals (MDGs).

More specifically, 2011 Multiple Indicator Cluster Survey should assist evaluation and monitoring of UN agencies and partners' country programmes including those on immunization, vitamin A supplementation, child development, child and women rights and protection among others. Globally, MICS4 would be able to collect information on at least 100 internationally agreed upon indicators covering most situations of the household, the child, the mother and their environment.

This final report presents the results of the indicators and topics covered in the survey.

Survey Objectives

The 2011 Nigeria Multiple Indicator Cluster Survey (MICS4) has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Nigeria;
- To furnish data needed for monitoring progress toward achievement of the Millennium Development Goals, other internationally agreed upon goals, and the National Transformation Agenda, as a basis for future action;
- To provide statistics to complement and assess the quality of data from recent national surveys like Harmonized Nigeria Living Standard Survey (HNLSS), Nigeria Core Welfare Indicator Questionnaires (CWIQ) Survey and the National Demographic and Health Survey (NDHS);
- To contribute to the improvement of data and monitoring systems in Nigeria and to strengthen technical expertise in the design, implementation, and analysis of such systems; and ;
- To generate data on the situation of children and women, including the identification of vulnerable groups and of disparities, to inform policies and interventions.

II. Sample and Survey Methodology

Sample Design

The sample for the Nigeria Multiple Indicator Cluster Survey (MICS) was designed to provide estimates for a large number of indicators on the situation of children and women at the national level, for urban and rural areas, and for the 36 states of the Federation and the Federal Capital Territory as well as the 6 geo-political zones of Nigeria namely South-West, South-East, South-South, North-WestNorth-West, North-EastNorth-East and North-CentralNorth-Central. The states within each zone were identified as the main sampling strata while the Enumeration Areas (EAs) within each state were identified as the main sampling units and the sample was selected in two stages. Within each state, 40 census enumeration areas (demarcated by the National Population Commission (NPopC) for the 2006 housing and population census) were selected systematically with equal probability within each state reaching a total of 1,480. After a household listing was carried out within the selected EAs, a systematic sample of 20 households was drawn in each sample EA. All the 1,480 selected enumeration areas were covered during the fieldwork period. Nationally, a total of 29,349 households were selected as against the expected 29,600 for the second stage sample due to some EAs containing fewer than 20 households. The sample was stratified by state and is not self-weighting. For reporting national level results, sample weights are used. In total 29,077 households were successfully interviewed for a response rate of approximately 100 percent. In the interviewed households, 30,791 of the 33,699 women (age 15-49 years) identified were successfully interviewed, yielding a response rate of 91 percent. Questionnaires were completed for 25,201 (of a total 26,018) children, yielding a response rate of 97 percent within interviewed households. A more detailed description of the sample design can be found in Appendix A.

Questionnaires

Three sets of questionnaires were used in the survey. The first was the household questionnaire, which was used to collect socio-demographic information and other general characteristics on all members of the household, household and the dwelling units. The second was the individual women questionnaire which was administered in each household to all women aged 15-49 years while the third was the under-five children questionnaire which was administered to mothers or caretakers of under-five children living in the households interviewed. The questionnaires and their corresponding modules are as listed below:

Household Questionnaire:

- Household Listing Form
- Education
- Water and Sanitation
- Household Characteristics
- Insecticide Treated Nets
- Child Labour
- Child Discipline
- Hand washing
- Salt Iodization

Questionnaire for Individual Women:

- Women's Background
- Child Mortality
- Desire for Last Birth
- Maternal and Newborn Health
- Illness Symptoms
- Contraception
- Unmet Need
- Female Genital Mutilation/Cutting

- Attitudes Toward Domestic Violence
- Marriage/Union
- Sexual Behaviour
- HIV/AIDS

Questionnaire for Children Under-Five:

- Age
- Birth Registration
- Early Childhood Development
- Breastfeeding
- Care of Illness
- Malaria
- Immunization
- Anthropometry

The questionnaires were developed by domesticating the English version of the generic MICS4 model questionnaire. Although the questionnaires were not translated into local languages, during the pre-test, the field staff used were those fluent and competent in local languages, familiar with the culture and beliefs as well as the peculiarities of the inhabitants of the communities in the selected states. For a good representative of the country, the pre-test was done in Osun and Akwa-Ibom states from the South and Kano and Gombe from the North in November 2010. Based on the results of the pre-test and inputs from UNICEF officials, NBS Technical team and other stakeholders, modifications were made to the wording and sequencing of the questionnaires. A copy of the Nigeria MICS4 questionnaires is provided in Appendix F.

Training and Fieldwork

Training for the fieldwork was conducted simultaneously in the six geo-political zones for 15 days in February 2011. Training programme included lectures on survey design, interview techniques, explanation of the contents and how to complete the questionnaires, mock interviews to gain practice in asking questions. Two rounds of field practice were organised towards the end of the training period for the trainees to gain experience on how to conduct interviews in purposively selected residential areas in 2 communities. Each round of the field practice lasted for a day. Fieldwork lasted for about six weeks; between February 2011 and March 2011. In each state, the data were collected by two roving teams; each was comprised of 5 interviewers, one driver, one editor, one measurer and a supervisor.

Data Processing

A 2-day training of trainers was organized for data processing team in Abuja in February 2011; there was also a subsequent five-day training of data processing personnel in February 2011 simultaneously at each of the six zonal data processing centers. Data entry was done using the CSPro software at each of the six data processing centers, each zone handling data from the constituent states. The data processing at each zone was being monitored at regular intervals from the ICT department at NBS headquarters through phone communications. In order to ensure data quality, all questionnaires were double entered and internal consistency checks were performed. Procedures and standard programs developed under the global MICS4 project and adapted to the Nigeria questionnaire were used throughout. Data processing began two weeks into data collection in February and was completed in April. Regular checks were carried out for data quality and to ensure compliance with global data processing guidelines by UNICEF Nigeria and UNICEF New York. Data were analyzed using the Statistical Package for Social Sciences (SPSS) software program, Version 18, and the model syntax and tabulation plans developed by UNICEF for this purpose. The following provisions were made for data processing: 71 desktop computers (65 for data entry operators, 6 for supervisors), adequate office space, and effective and functional software and hardware. In addition, 17 secondary editors and 6 data administrators were deployed. The procedures for primary and secondary data processing phases as advised in global MICS4 manual of instructions were adhered to.

III. Sample Coverage and the Characteristics of Households and Respondents

Sample Coverage

Out of a total of 29,600 households planned for selected for coverage, 29,349 were actually canvassed but only 29,151 were found to be occupied. Of these, 29,077 were successfully interviewed for a household response rate of approximately 100 percent.

Table HH.1: Results of household, women's and under-5 interviews

Number of households, women, and children under 5 by results of the household, women's and under-5's interviews, and household, women's and under-5's response rates, Nigeria, 2011

	Households				Women				Children under 5			
	Sampled	Occupied	Interviewed	Household response rate	Eligible	Interviewed	Women's response rate	Women's overall response rate	Eligible	Mothers/caretakers interviewed	Under-5's response rate	Under-5's overall response rate
Area of residence												
Urban	7312	7271	7251	99.7	8283	7541	91.0	90.8	5298	5155	97.3	97.0
Rural	22037	21880	21826	99.8	25416	23231	91.4	91.2	20720	20037	96.7	96.5
State												
Abia	797	797	797	100.0	688	664	96.5	96.5	465	463	99.6	99.6
Adamawa	790	790	790	100.0	1076	960	89.2	89.2	875	828	94.6	94.6
Akwa ibom	798	798	798	100.0	878	792	90.2	90.2	564	559	99.1	99.1
Anambra	800	798	797	99.9	754	714	94.7	94.6	562	561	99.8	99.7
Bauchi	777	774	773	99.9	969	905	93.4	93.3	1001	951	95.0	94.9
Bayelsa	799	795	792	99.6	698	635	91.0	90.6	552	538	97.5	97.1
Benue	800	800	800	100.0	946	891	94.2	94.2	633	621	98.1	98.1
Borno	762	719	703	97.8	835	711	85.1	83.3	796	731	91.8	89.8
Cross River	788	788	787	99.9	853	785	92.0	91.9	593	586	98.8	98.7
Delta	799	799	798	99.9	800	737	92.1	92.0	552	542	98.2	98.1
Ebonyi	800	800	800	100.0	1117	1001	89.6	89.6	685	661	96.5	96.5
Edo	789	786	786	100.0	796	743	93.3	93.3	519	518	99.8	99.8
Ekiti	785	784	784	100.0	701	621	88.6	88.6	402	397	98.8	98.8
Enugu	799	774	771	99.6	656	625	95.3	94.9	352	349	99.1	98.8
Gombe	774	774	774	100.0	1031	918	89.0	89.0	971	921	94.9	94.9
Imo	799	758	756	99.7	690	659	95.5	95.3	414	411	99.3	99.0
Jigawa	795	777	766	98.6	1023	988	96.6	95.2	1063	1051	98.9	97.5
Kaduna	800	800	800	100.0	1100	1024	93.1	93.1	962	937	97.4	97.4
Kano	798	798	798	100.0	952	880	92.4	92.4	956	913	95.5	95.5
Katsina	800	792	791	99.9	995	982	98.7	98.6	1024	1020	99.6	99.5
Kebbi	800	800	800	100.0	964	892	92.5	92.5	947	905	95.6	95.6
Kogi	781	781	781	100.0	810	770	95.1	95.1	430	426	99.1	99.1
Kwara	800	800	800	100.0	738	676	91.6	91.6	564	547	97.0	97.0
Lagos	796	796	796	100.0	946	892	94.3	94.3	545	529	97.1	97.1
Nasarawa	777	774	763	98.6	1248	968	77.6	76.5	891	802	90.0	88.7
Niger	800	799	799	100.0	1176	1079	91.8	91.8	957	927	96.9	96.9
Ogun	800	800	800	100.0	839	741	88.3	88.3	588	583	99.1	99.1
Ondo	799	799	799	100.0	723	643	88.9	88.9	427	413	96.7	96.7
Osun	765	758	757	99.9	714	682	95.5	95.4	456	454	99.6	99.4
Oyo	800	794	790	99.5	740	655	88.5	88.1	592	586	99.0	98.5
Plateau	791	786	784	99.7	1114	972	87.3	87.0	687	653	95.1	94.8
Rivers	799	799	799	100.0	816	714	87.5	87.5	467	460	98.5	98.5
Sokoto	799	799	799	100.0	1079	1064	98.6	98.6	1020	1014	99.4	99.4
Taraba	800	800	800	100.0	1144	956	83.6	83.6	792	736	92.9	92.9
Yobe	797	797	797	100.0	957	872	91.1	91.1	1015	968	95.4	95.4
Zamfara	800	790	784	99.2	1048	972	92.7	92.0	1053	1013	96.2	95.5
FCT (Abuja)	796	778	768	98.7	1085	989	91.2	90.0	646	618	95.7	94.4
Total	29349	29151	29077	99.7	33699	30772	91.3	91.1	26018	25192	96.8	96.6

In the interviewed households, 33,699 women (age 15-49 years) were identified. Of these, 30,772 were successfully interviewed, yielding a response rate of 91 percent within interviewed households. In addition, 26,018 children under age five were listed in the household questionnaire. Questionnaires were completed for 25,192 of these children, which corresponds to a response rate of 97 percent within interviewed households. Overall response rates of 91 and 97 are calculated for the women's and under-5's interviews respectively (Table HH.1).

From the table, the household response rates were similar for urban and rural areas. Most states had more than 99 percent household response rate with the exception of Borno state with 98 percent, Jigawa and Nasarawa with 99 percent each and FCT with 99 percent. The women response rates were also similar across the states except Borno, Nasarawa and Taraba with 85, 78 and 84 percents respectively. It is advised that results for these states be interpreted with cautions. The difference between the sampled and occupied households was due to households that moved away or not at home throughout the period of the survey and those that refused.

Characteristics of Households

The weighted age and sex distribution of survey population is provided in Table HH.2. The distribution is also used to produce the population pyramid in Figure HH.1. In the 29,077 households successfully interviewed in the survey, 146,243 household members were listed. Of these, 72,124 were males, and 74,119 were females.

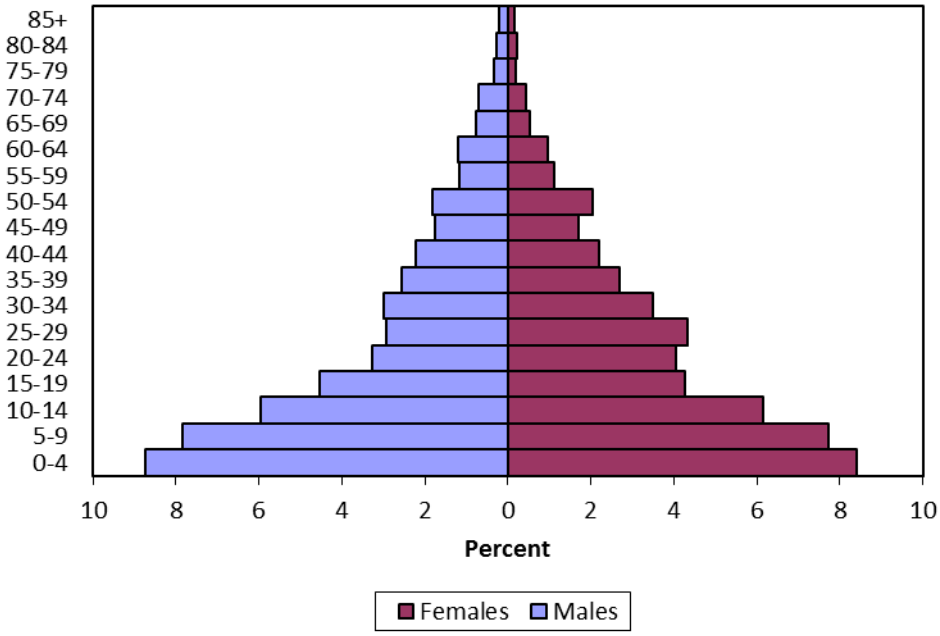
Table HH.2: Household age distribution by sex

Percent and frequency distribution of the household population by five-year age groups, dependency age groups, and by child (age 0-17 years) and adult populations (age 18 or more), by sex, Nigeria, 2011

	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Age						
0-4	12757	17.7	12303	16.6	25060	17.1
5-9	11471	15.9	11274	15.2	22746	15.6
10-14	8695	12.1	8981	12.1	17676	12.1
15-19	6645	9.2	6252	8.4	12897	8.8
20-24	4763	6.6	5910	8.0	10672	7.3
25-29	4266	5.9	6330	8.5	10597	7.2
30-34	4372	6.1	5092	6.9	9464	6.5
35-39	3746	5.2	3912	5.3	7658	5.2
40-44	3266	4.5	3230	4.4	6496	4.4
45-49	2574	3.6	2505	3.4	5079	3.5
50-54	2671	3.7	2970	4.0	5641	3.9
55-59	1718	2.4	1613	2.2	3331	2.3
60-64	1740	2.4	1388	1.9	3128	2.1
65-69	1117	1.5	778	1.1	1895	1.3
70-74	1030	1.4	648	.9	1679	1.1
75-79	478	.7	294	.4	772	.5
80-84	405	.6	322	.4	726	.5
85+	297	.4	251	.3	549	.4
Missing/DK	112	.2	66	.1	178	.1
Dependency age groups						
0-14	32924	45.6	32558	43.9	65482	44.8
15-64	35761	49.6	39202	52.9	74962	51.3
65+	3327	4.6	2294	3.1	5621	3.8
Missing/DK	112	.2	66	.1	178	.1
Child and adult populations						
Children age 0-17 years	37047	51.4	36142	48.8	73189	50.0
Adults age 18+ years	34965	48.5	37911	51.1	72876	49.8
Missing/DK	112	.2	66	.1	178	.1
Total	72124	100.0	74119	100.0	146243	100.0

The age structure of Nigeria shows a larger proportion of its population in the younger age groups than in the older. About 45 percent of the population is under the age of 15 years, thereby contributing to the dependency ratio. The population pyramid shown in Figure HH.1 indicates that there is even distribution at the base up to age group 19-24. However, it is clearly shown that age specific sex ratio is greater than 1.0 for age groups 25-29 and 50-54.

Figure HH.1: Age and sex distribution of household population, Nigeria, 2011



Tables HH.3 - HH.5 provide basic information on the households, female respondents age 15-49, male respondents 15-49 and children under-5 by presenting the unweighted, as well as the weighted numbers. Information on the basic characteristics of households, women, men and children under-5 interviewed in the survey is essential for the interpretation of findings presented later in the report and also can provide an indication of the representativeness of the survey. The remaining tables in this report are presented only with weighted numbers. See Appendix A for more details about the weighting.

Table HH.3 provides basic background information on the households. Within households, the sex of the household head, region, area, and number of household members, education of household head and geo-political zone of the household are shown in the table. These background characteristics are used in subsequent tables in this report; the figures in the table are also intended to show the numbers of observations by major categories of analysis in the report.

Table HH.3: Household composition			
Percent and frequency distribution of households by selected characteristics, Nigeria, 2011			
	Weighted percent	Number of households	
		Weighted	Unweighted
Sex of household head			
Male	83.9	24389	24502
Female	16.1	4686	4574
Missing	.0	1	1
State			
Abia	2.6	755	797
Adamawa	1.9	560	790
Akwa ibom	3.1	890	798
Anambra	3.5	1023	797
Bauchi	2.8	817	773
Bayelsa	1.5	440	792
Benue	2.8	827	800
Borno	2.9	833	703
Cross River	2.3	658	787
Delta	3.6	1032	798
Ebonyi	1.3	388	800
Edo	2.6	752	786
Ekiti	2.3	673	784
Enugu	3.2	925	771
Gombe	1.3	378	774
Imo	3.3	952	756
Jigawa	2.3	683	766
Kaduna	3.2	943	800
Kano	5.5	1592	798
Katsina	3.3	955	791
Kebbi	1.8	531	800
Kogi	2.6	762	781
Kwara	1.9	551	800
Lagos	7.6	2196	796
Nasarawa	1.0	291	763
Niger	2.2	626	799
Ogun	3.0	887	800
Ondo	3.2	916	799
Osun	3.0	882	757
Oyo	4.6	1345	790
Plateau	2.0	583	784
Rivers	4.2	1216	799
Sokoto	2.2	634	799
Taraba	1.3	381	800
Yobe	1.3	388	797
Zamfara	1.8	528	784
FCT (Abuja)	1.0	286	768

Table HH.3: Household composition (continued)			
Percent and frequency distribution of households by selected characteristics, Nigeria, 2011			
	Weighted percent	Number of households	
		Weighted	Unweighted
Area of residence			
Urban	36.5	10608	7251
Rural	63.5	18469	21826
Number of household members			
1	9.7	2813	2791
2	10.5	3045	2962
3	13.8	4026	3784
4	14.8	4302	4074
5	13.7	3974	3934
6	11.9	3462	3378
7	8.6	2514	2638
8	5.8	1675	1837
9	3.9	1131	1196
10+	7.3	2135	2483
Education of household head			
None	35.2	10221	11608
Primary	22.1	6424	6335
Secondary +	42.7	12424	11127
Missing/DK	.0	8	7
Household composition			
At least one child age 0-4 years	53.0	29077	29077
At least one child age 0-17 years	77.7	29077	29077
At least one woman age 15-49 years	79.6	29077	29077
Mean household size	5.0	29077	29077
Geo-political zone			
North-Central	13.5	3925	5495
North-East	11.5	3357	4637
North-West	20.2	5866	5538
South-East	13.9	4043	3921
South South	17.2	4988	4760
South-West	23.7	6899	4726
Total	100.0	29077	29077

(*) Less than 25 cases unweighted cases

The weighted and unweighted numbers of households are equal, since sample weights were normalized (See Appendix A). The table also shows the proportions of households with at least one child under 18, at least one child under 5, at least one eligible woman age 15-49 and at least one man age 15-49. The table also shows the weighted average household size estimated by the survey.

Sixteen percent of the households are headed by women and 64percent of the households live in the rural area. Table HH.3 indicates also that 35 percent of the household head do not have any formal education,

while about 22 percent have primary education. At least two out of every five household heads have secondary education or above.

Characteristics of Female Respondents 15-49 Years of Age and Children Under-5

Tables HH.4 and HH.5 provide information on the background characteristics of female respondents 15-49 years of age and of children under age 5. In the two 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 and children, 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 HH.4 provides background characteristics of female respondents 15-49 years of age. The table includes information on the distribution of women according to state, area, age, marital status and motherhood status; births in last two years, education[1], wealth index quintiles[2], and geo-political zone of the household.

The distribution pattern of the women population is similar to that of the households in general. About 63 percent of the sample women live in the rural area while on about 37 live in the urban. About 70 percent of the eligible women are currently married while about a quarter never married. About 2 percent are widows while 2 percent are either divorced or separated. The women are almost evenly distributed among the 5 wealth index quintiles, with 18 percent in the richest and 23 percent in the poorest.

[1] Unless otherwise stated, "education" refers to educational level attended by the respondent throughout this report when it is used as a background variable.

[2] Principal components analysis was 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 assign weights (factor scores) to each of the household assets. Each household was then assigned a wealth score based on these weights and the assets owned by that household. The survey household population was then ranked according to the wealth score of the household they are living in, and was finally divided into 5 equal parts (quintiles) from lowest (poorest) to highest (richest). The assets used in these calculations were as follows:

Electricity ,Radio, Television, Non-mobile telephone, Refrigerator, VCR/VCD/DVD, Sewing machine, Clock, Generator,Computer, Internet facility, Fan, Air conditioner, Blender/Mixer/Food processor, Water heater

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. Gwatkin, D.R., Rutstein, S., Johnson, K. , Pande, R. and Wagstaff. A., 2000. Socio-Economic Differences in Health, Nutrition, and Population. HNP/Poverty Thematic Group, Washington, DC: World Bank. Rutstein, S.O. and Johnson, K., 2004. The DHS Wealth Index. DHS Comparative Reports No. 6. Calverton, Maryland: ORC Macro.*

Table HH.4: Women's background characteristics			
Percent and frequency distribution of women age 15-49 years by selected background characteristics, Nigeria, 2011			
	Weighted percent	Number of women	
		Weighted	Unweighted
State			
Abia	2.2	662	664
Adamawa	2.3	723	960
Akwa ibom	3.1	964	792
Anambra	2.9	887	714
Bauchi	3.0	912	905
Bayelsa	1.2	376	635
Benue	2.9	898	891
Borno	2.7	844	711
Cross River	2.1	650	785
Delta	3.2	976	737
Ebonyi	1.6	493	1001
Edo	2.4	741	743
Ekiti	1.8	542	621
Enugu	2.5	783	625
Gombe	1.5	455	918
Imo	2.8	849	659
Jigawa	2.7	829	988
Kaduna	4.3	1308	1024
Kano	5.9	1822	880
Katsina	3.7	1128	982
Kebbi	1.9	593	892
Kogi	2.4	747	770
Kwara	1.7	510	676
Lagos	7.7	2382	892
Nasarawa	1.5	456	968
Niger	2.8	855	1079
Ogun	2.9	884	741
Ondo	2.6	801	643
Osun	2.5	768	682
Oyo	3.8	1174	655
Plateau	2.5	784	972
Rivers	4.1	1257	714
Sokoto	2.5	776	1064
Taraba	1.7	512	956
Yobe	1.4	427	872
Zamfara	2.1	652	972
FCT (Abuja)	1.1	354	989

Table HH.4: Women's background characteristics (continued)			
Percent and frequency distribution of women age 15-49 years by selected background characteristics, Nigeria, 2011			
	Weighted percent	Number of women	
		Weighted	Unweighted
Area of residence			
Urban	36.8	11330	7541
Rural	63.2	19442	23231
Age			
15-19	17.7	5436	5474
20-24	17.2	5278	5389
25-29	19.2	5923	5886
30-34	15.9	4882	4675
35-39	12.2	3756	3755
40-44	10.1	3113	3132
45-49	7.7	2384	2461
Marital/Union status			
Currently married/in union	70.7	21740	22141
Widowed	2.2	663	640
Divorced	.7	217	234
Separated	1.5	476	464
Never married/in union	24.9	7674	7292
Missing	.0	2	1
Motherhood status			
Ever gave birth	71.8	22088	22483
Never gave birth	28.2	8684	8289
Births in last two years			
Had a birth in last two years	32.1	9879	10036
Had no birth in last two years	67.9	20893	20736
Education			
None	31.8	9771	11437
Primary	17.7	5453	5723
Secondary +	50.5	15546	13608
Missing/DK	.0	2	4
Wealth index quintile			
Poorest	17.7	5456	7102
Second	18.7	5742	7112
Middle	19.8	6099	6324
Fourth	21.0	6475	5534
Richest	22.8	7001	4700
Geo-political zone			
North-Central	15.0	4603	6345
North-East	12.6	3873	5322
North-West	23.1	7108	6802
South-East	11.9	3673	3663
South-South	16.1	4964	4406
South-West	21.3	6551	4234
Total	100.0	30772	30772

(*) Less than 25 cases unweighted cases

Some background characteristics of children under 5 are presented in Table HH.5. These include the distribution of children by several attributes: sex, state and area, age, mother's or caretaker's education, wealth, and geo-political zone of the household head.

Table HH.5: Under-5's background characteristics			
Percent and frequency distribution of children under five years of age by selected characteristics, Nigeria, 2011			
	Weighted percent	Number of under-5 children	
		Weighted	Unweighted
Sex			
Male	51.0	12851	12865
Female	49.0	12349	12334
State			
Abia	1.9	483	463
Adamawa	2.5	631	828
Akwa ibom	2.6	660	559
Anambra	2.9	737	561
Bauchi	4.3	1072	951
Bayelsa	1.3	335	538
Benue	2.4	617	621
Borno	3.1	776	731
Cross River	2.0	494	586
Delta	2.8	700	542
Ebonyi	1.3	333	661
Edo	2.1	516	518
Ekiti	1.3	337	397
Enugu	1.9	471	349
Gombe	1.8	462	921
Imo	2.1	539	411
Jigawa	3.7	933	1051
Kaduna	4.9	1240	937
Kano	7.8	1971	913
Katsina	4.9	1242	1020
Kebbi	2.6	644	905
Kogi	1.7	436	426
Kwara	1.7	425	547
Lagos	6.0	1502	529
Nasarawa	1.4	344	802
Niger	3.1	769	927
Ogun	2.5	628	583
Ondo	2.0	500	413
Osun	2.1	538	454
Oyo	4.0	1011	586
Plateau	1.9	480	653
Rivers	3.1	777	460
Sokoto	3.1	783	1014
Taraba	1.6	396	736
Yobe	2.0	504	968
Zamfara	2.7	688	1013
FCT (Abuja)	.9	214	618

Table HH.5: Under-5's background characteristics (continued)		
Percent and frequency distribution of children under five years of age by selected characteristics, Nigeria, 2011		
	Weighted	Number of under-5 children

	percent	Weighted	Unweighted
Area of residence			
Urban	30.4	7664	5155
Rural	69.6	17528	20037
Age (in months)			
0-5	10.6	2659	2714
6-11	11.0	2773	2582
12-23	19.8	4986	4946
24-35	18.8	4747	4720
36-47	20.5	5170	5237
48-59	19.3	4857	4993
Mother's education			
None	43.6	10992	12122
Primary	19.8	4989	5244
Secondary +	36.6	9209	7820
Missing/DK	(*)	(*)	6
Wealth index quintile			
Poorest	23.0	5797	7033
Second	20.7	5220	6176
Middle	18.7	4711	4836
Fourth	19.1	4801	4083
Richest	18.5	4662	3064
Geo-political zone			
North-Central	13.0	3285	4594
North-East	15.3	3843	5135
North-West	29.8	7501	6853
South-East	10.2	2563	2445
South-South	13.8	3483	3203
South-West	17.9	4516	2962
Total	100.0	25192	25192

(*) Less than 25 cases unweighted cases

IV. Child Mortality

One of the overarching goals of the Millennium Development Goals (MDGs) is the reduction of infant and under-five mortality. Specifically, the MDGs call for the reduction in under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important but difficult objective. Measuring childhood mortality may seem easy, but attempts using direct questions, such as "Has anyone in this household died in the last year?" give inaccurate results. Using direct measures of child mortality from birth histories generates detailed and recent data, but is time consuming, more expensive, and may be subject to potential data quality problems if excellent training and supervision has not been undertaken. Alternatively, indirect methods developed to measure child mortality produce robust estimates that are comparable with the ones obtained from other sources. Indirect methods minimize the pitfalls of memory lapses, inexact or misinterpreted definitions, and poor interviewing technique.

The infant mortality rate is the probability of dying before the first birthday. The under-five mortality rate is the probability of dying before the fifth birthday. In MICS surveys, infant and under five mortality rates are calculated based on an indirect estimation technique known as the Brass method[3]. The data used in the estimation are: the mean number of children ever born for five year age groups of women from age 15 to 49, and the proportion of these children who are dead, also for five-year age groups of women (Table CM.1). The technique converts the proportions dead among children of women in each age 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 Nigeria, the North model life table was selected as most appropriate.

Table CM.1: Children ever born, children surviving and proportion dead

Mean and total numbers of children ever born, children surviving and proportion dead by age of women, Nigeria, 2011

Age	Children ever born		Children surviving		Proportion dead	Number of women
	Mean	Total	Mean	Total		
15-19	.104	565	.086	465	.176	5436
20-24	.653	3445	.539	2844	.174	5278
25-29	1.310	7761	1.100	6513	.161	5923
30-34	2.083	10170	1.725	8419	.172	4882
35-39	2.692	10111	2.213	8312	.178	3756
40-44	3.132	9749	2.479	7716	.208	3113
45-49	3.443	8207	2.644	6302	.232	2384
Total	1.625	50006	1.318	40571	.189	30772

[3] *United Nations, 1983. Manual X: Indirect Techniques for Demographic Estimation (United Nations publication, Sales No. E.83.XIII.2). United Nations, 1990a. QFIVE, United Nations Program for Child Mortality Estimation. New York, UN Pop Division. United Nations, 1990b. Step-by-step Guide to the Estimation of Child Mortality. New York, UN.*

Table CM.2 provides estimates of child mortality. These estimates have been calculated by averaging mortality estimates obtained from women age 25-29 and 30-34, and refer to mid-2005. The infant mortality rate is estimated at 97 per thousand, while the probability of dying under age 5 (under five mortality rate) are 158 per thousand. There are visible differences in mortality rate in terms of sex of child, educational level and wealth status of the parents, and states or geopolitical zones. The Nigerian male child has greater probability of dying at infant or at an age under five years. The table shows that infant mortality rate is 106 per thousand for male child as against 86 per thousand for the female counterpart. Similarly, the under-five mortality rate was 170 per thousand and 144 per thousand respectively for the male and female child.

Table CM.2: Child mortality

Infant and under-five mortality rates, North Model, Nigeria, 2011

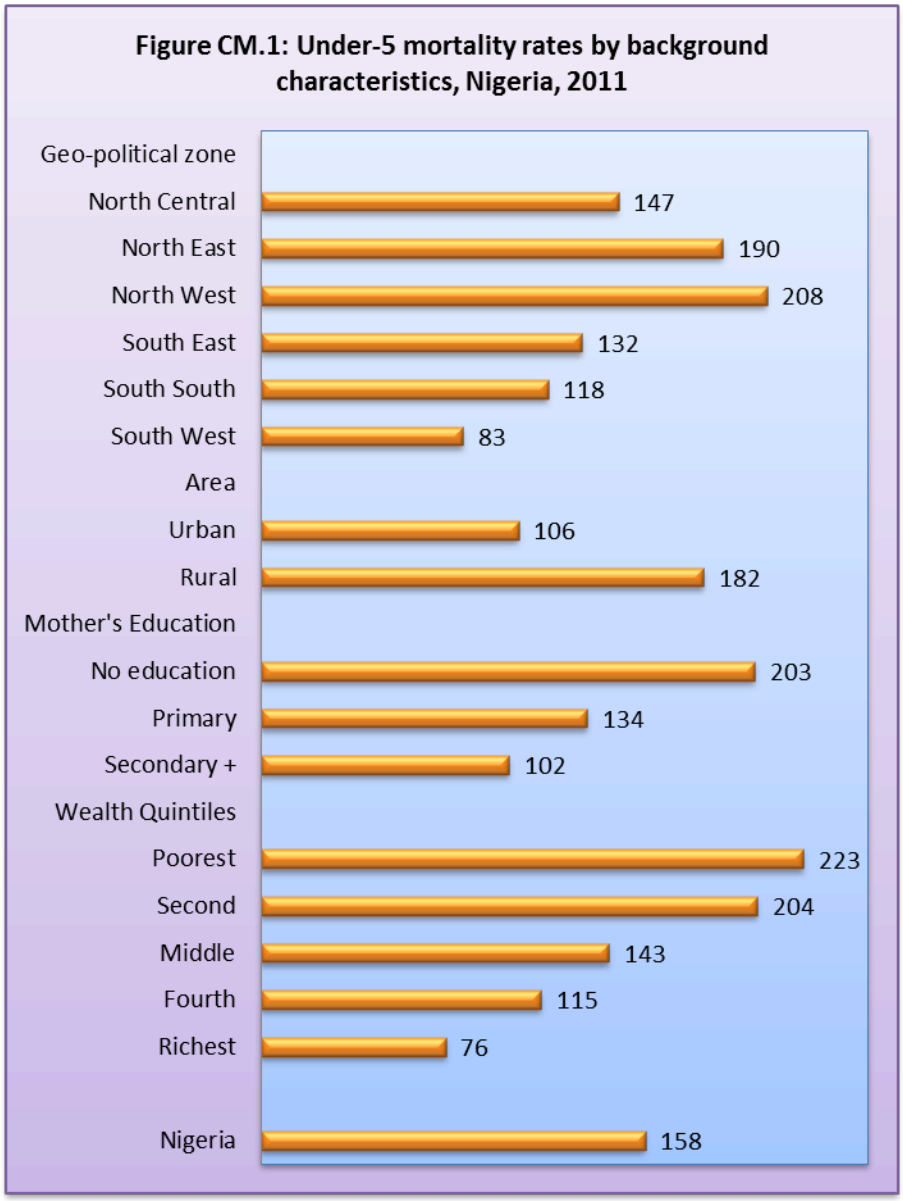
	Infant mortality rate[1]	Under-five mortality rate[2]
Sex		
Male	106	170
Female	86	144
State		
Abia	74	116
Adamawa	81	129
Akwa ibom	72	113
Anambra	71	111
Bauchi	140	236
Bayelsa	107	178
Benue	97	158
Borno	116	192
Cross River	80	127
Delta	72	112
Ebonyi	77	122
Edo	69	107
Ekiti	48	71
Enugu	81	129
Gombe	117	196
Imo	116	194
Jigawa	163	275
Kaduna	103	169
Kano	111	184
Katsina	133	225
Kebbi	127	212
Kogi	82	132
Kwara	70	110
Lagos	45	65
Nasarawa	109	182
Niger	78	123
Ogun	67	105
Ondo	55	82
Osun	40	56
Oyo	70	110
Plateau	103	171
Rivers	63	97
Sokoto	107	178
Taraba	71	111
Yobe	142	240
Zamfara	150	254
FCT (Abuja)	92	148

Table CM.2: Child mortality (continued)		
Infant and under-five mortality rates, North Model, Nigeria, 2011		
	Infant mortality rate[1]	Under-five mortality rate[2]
Area of residence		
Urban	68	106
Rural	110	182
Mother's education		
None	121	203
Primary	83	134
Secondary +	66	102
Wealth index quintile		
Poorest	132	223
Second	121	204
Middle	89	143
Fourth	73	115
Richest	51	76
Geo-political zone		
North-Central	91	147
North- East	114	190
North-West	123	208
South-East	83	132
South-South	75	118
South-West	55	83
Total	97	158
[1] MICS indicator 1.2; MDG indicator 4.2		
[2] MICS indicator 1.1; MDG indicator 4.1		
Rates refer to mid-2005, North Model was assumed to approximate the age pattern of mortality in Nigeria		

Infant and under-5 mortality rates are lowest in South-West zone of the country (55 and 83 per thousand respectively) while the figures for North-West are 123 and 208 per thousand respectively. Infant and under-5 mortality rates are higher in rural than urban sectors of the population; Infant mortality rate was 110 per thousand in rural areas, whereas it was 68 per thousand in the urban. Also, under-5 mortality rate was 182 in rural areas, while it was 106 for urban areas.

Infant and under five mortality rates decrease by the level of education of mother. Infant mortality rate for children of mothers with no education is 121 per thousand while that of children of mothers with secondary education or higher stood at 66. Also, under-five mortality rate for children of mothers with no education is 203 per thousand while that of children of mothers with secondary education or higher was 102 per thousand. Considering the wealth index quintiles, the infant mortality rate as well as under-five mortality rate decrease from poorest to richest quintile. Infant mortality rate is 132 for the poorest quintile while the richest is 51 per thousand. Similarly, under-five mortality rates are 223 and 76 per thousand respectively, for the poorest and the richest quintiles.

Figure CM.1: Under-5 mortality rates by background characteristics, Nigeria, 2011



V. Nutrition

Nutritional Status

Children's nutritional status is a reflection of their overall health. When children have access to an adequate food supply, are not exposed to repeated illness, and are well cared for, they reach their growth potential and are considered well nourished.

Malnutrition is 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 the children who die from causes related to malnutrition were only mildly or moderately malnourished – showing no outward sign of their vulnerability. The Millennium Development target is to reduce by half the proportion of people who suffer from hunger between 1990 and 2015. A reduction in the prevalence of malnutrition will also assist in the goal to reduce child mortality.

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[4]. Each of the three nutritional status indicators 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 or 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 *moderately or 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.

Finally, children whose *weight-for-height* is more than two standard deviations below the median of the reference population are classified as *moderately or 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 may exhibit significant seasonal shifts associated with changes in the availability of food or disease prevalence.

In MICS 4, weights and heights of all children under 5 years of age were measured using anthropometric equipment recommended by UNICEF (www.childinfo.org). Findings in this section are based on the results of these measurements.

Table NU.1 shows percentages of children classified into each of the above described categories, based on the anthropometric measurements that were taken during fieldwork. Additionally, the table includes the percentage of children who are overweight, which takes into account those children whose weight for height is above 2 standard deviations from the median of the reference population, and mean z-scores for all three anthropometric indicators.

[4] http://www.who.int/childgrowth/standards/second_set/technical_report_2.pdf

Table NU.1: 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, 2011

	Weight for age			Number of children under age 5	Height for age			Number of children under age 5	Weight for height				
	Underweight		Mean Z-Score (SD)		Stunted		Mean Z-Score (SD)		Wasted			Mean Z-Score (SD)	Number of children
	percent below				percent below				percent below		percent above		
	- 2 SD[1]	- 3 SD[2]			- 2 SD[3]	- 3 SD[4]			- 2 SD[5]	- 3 SD[6]	+ 2 SD		
Sex													
Male	24.4	9.3	-1.1	12327	36.8	19.8	-1.4	12193	11.0	3.6	3.2	-.4	12354
Female	24.0	8.7	-1.1	11843	34.9	18.8	-1.3	11782	9.5	2.7	2.7	-.4	11857
Area of residence													
Urban	16.8	4.9	-.8	7356	23.3	10.9	-.9	7294	9.7	2.6	3.0	-.4	7360
Rural	27.5	10.9	-1.2	16814	41.3	22.9	-1.6	16680	10.5	3.4	3.0	-.4	16850
State													
Abia	12.9	2.3	-.7	476	14.0	5.3	-.5	475	11.3	2.5	1.7	-.5	476
Adamawa	27.4	10.7	-1.3	591	47.3	24.1	-1.9	588	6.4	1.1	1.4	-.3	590
Akwa ibom	13.6	3.3	-.7	643	23.3	8.3	-.9	642	4.5	.7	3.4	-.3	642
Anambra	4.5	1.8	-.4	715	11.1	4.3	-.4	716	4.4	.9	.7	-.3	716
Bauchi	35.9	16.3	-1.6	1051	56.4	31.7	-2.2	1047	9.1	2.5	1.7	-.5	1046
Bayelsa	12.9	3.5	-.7	322	15.9	7.4	-.8	322	7.3	.9	1.8	-.4	322
Benue	12.4	4.1	-.5	596	26.0	11.3	-1.0	593	4.9	1.2	4.7	.0	591
Borno	35.5	14.2	-1.5	740	46.9	29.5	-1.6	733	18.7	5.6	3.5	-.8	737
Cross River	13.0	3.6	-.8	468	28.1	10.1	-1.2	468	5.0	1.3	2.7	-.2	466
Delta	15.7	4.2	-.8	683	21.9	9.4	-.8	681	10.3	2.7	2.3	-.5	677
Ebonyi	16.6	3.8	-.9	322	25.1	11.0	-1.0	322	6.2	1.8	.9	-.5	322
Edo	7.9	1.8	-.5	504	14.6	5.3	-.6	503	4.7	1.4	1.9	-.3	503
Ekiti	8.7	2.9	-.6	320	13.6	6.0	-.8	318	6.1	.5	3.2	-.1	320
Enugu	9.5	.0	-.4	470	10.8	4.0	-.5	461	7.1	2.6	2.7	-.2	463
Gombe	37.1	14.3	-1.6	456	56.3	29.6	-2.1	447	12.3	4.1	2.8	-.5	450
Imo	11.6	1.4	-.6	535	14.6	3.0	-.6	533	5.9	.7	1.3	-.3	535
Jigawa	43.8	18.0	-1.8	882	58.8	39.6	-2.4	867	14.3	6.6	4.7	-.5	874
Kaduna	27.2	11.0	-1.3	1213	43.0	23.5	-1.6	1180	11.9	4.5	2.2	-.5	1212
Kano	37.4	15.1	-1.5	1898	53.6	32.7	-2.1	1883	10.6	2.8	3.5	-.4	1912
Katsina	44.8	20.1	-1.8	1049	61.9	40.1	-2.5	1026	14.7	5.1	4.4	-.5	1157
Kebbi	43.4	20.4	-1.7	621	53.9	33.7	-2.0	608	18.2	5.7	2.3	-.8	613
Kogi	14.7	5.3	-.6	434	26.7	10.3	-1.0	429	6.4	1.3	6.0	.0	434
Kwara	21.5	6.5	-1.1	425	29.5	15.1	-1.1	423	11.5	3.9	.8	-.6	424
Lagos	11.5	.7	-.7	1443	8.9	2.1	-.4	1440	11.6	2.6	1.4	-.6	1444
Nasarawa	16.9	5.1	-.9	326	33.2	15.1	-1.3	325	6.2	1.7	2.3	-.2	325
Niger	29.8	12.0	-1.3	745	46.6	28.2	-1.7	739	14.5	4.7	4.5	-.4	740
Ogun	13.8	3.4	-.9	574	19.8	7.1	-.9	571	8.4	3.2	1.5	-.5	571
Ondo	12.2	4.2	-.7	486	43.2	20.5	-1.6	481	5.7	3.1	13.9	.4	484
Osun	11.0	1.6	-.8	529	22.2	6.6	-1.0	529	6.6	.8	.6	-.3	529
Oyo	20.0	4.3	-1.0	944	27.3	9.5	-1.1	936	11.1	3.1	2.8	-.5	934
Plateau	19.6	5.8	-.9	472	33.9	15.6	-1.3	472	6.3	1.4	2.6	-.1	469
Rivers	9.4	3.9	-.4	763	13.5	6.2	-.3	759	6.7	2.6	4.8	-.3	761
Sokoto	31.8	14.2	-1.5	763	47.5	24.9	-1.8	760	16.7	6.4	3.9	-.7	771
Taraba	19.6	5.9	-1.0	363	40.0	20.6	-1.5	358	6.2	2.6	3.7	-.1	359
Yobe	48.0	22.3	-2.0	484	64.8	40.4	-2.5	480	14.9	4.9	2.3	-.7	483
Zamfara	47.5	21.9	-1.9	655	61.7	41.6	-2.4	648	17.5	6.7	2.0	-.7	653
FCT (Abuja)	11.0	2.5	-.7	210	19.6	7.0	-.8	210	3.4	.6	1.8	-.2	207

Table NU.1: Nutritional status of children (continued)

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, 2011

	Weight for age			Number of children under age 5	Height for age			Number of children under age 5	Weight for height				
	Underweight		Mean Z-Score (SD)		Stunted		Mean Z-Score (SD)		Wasted			Mean Z-Score (SD)	Number of children
	percent below				percent below				percent below		percent above		
	- 2 SD[1]	- 3 SD[2]			- 2 SD[3]	- 3 SD[4]			- 2 SD[5]	- 3 SD[6]	+ 2 SD		
Age in months													
0-5	14.4	5.4	-.5	2540	14.7	6.2	-.2	2501	14.1	4.5	4.6	-.5	2504
6-11	24.3	9.1	-1.1	2701	19.0	8.9	-.6	2665	19.9	6.3	2.3	-.9	2693
12-23	28.7	11.0	-1.2	4860	37.0	19.3	-1.4	4824	15.5	4.2	2.9	-.7	4855
24-35	25.4	11.7	-1.1	4551	43.8	25.0	-1.7	4510	7.3	2.7	3.1	-.2	4573
36-47	24.5	8.7	-1.2	4957	43.9	25.4	-1.8	4923	4.9	1.8	3.0	-.1	4979
48-59	23.5	6.7	-1.2	4560	39.4	20.3	-1.7	4552	5.6	1.3	2.4	-.3	4607
Mother's education													
None	36.3	15.4	-1.5	10426	53.0	31.7	-2.0	10306	12.7	4.4	3.5	-.5	10481
Primary	20.6	6.6	-1.0	4812	31.7	15.1	-1.3	4780	8.9	2.1	2.4	-.4	4817
Secondary +	12.1	3.0	-.7	8930	18.2	7.1	-.7	8886	8.1	2.2	2.7	-.4	8910
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile													
Poorest	38.2	16.8	-1.6	5522	54.0	32.4	-2.1	5442	13.2	4.6	3.3	-.5	5529
Second	30.6	12.1	-1.4	4969	48.5	27.8	-1.9	4931	10.4	3.5	3.4	-.4	4995
Middle	22.4	7.7	-1.1	4528	34.9	16.6	-1.4	4485	9.2	2.8	2.7	-.4	4544
Fourth	16.8	4.8	-.8	4643	23.6	10.6	-1.0	4623	9.9	2.4	2.7	-.4	4641
Richest	9.6	1.8	-.5	4507	13.4	5.7	-.5	4495	7.8	2.1	2.6	-.4	4501
Geo-political zone													
North-Cent	19.4	6.7	-.9	3207	32.8	16.3	-1.2	3191	8.4	2.4	3.6	-.2	3190
North-East	34.6	14.5	-1.5	3686	52.5	29.8	-2.0	3653	11.5	3.4	2.4	-.5	3666
North-West	38.4	16.5	-1.6	7080	53.8	33.2	-2.1	6972	13.9	4.9	3.4	-.5	7191
South-East	10.1	1.7	-.5	2518	14.1	5.0	-.6	2508	6.8	1.6	1.4	-.3	2512
South-South	12.1	3.4	-.7	3383	19.5	7.8	-.7	3375	6.5	1.7	3.0	-.3	3370
South-West	13.5	2.5	-.8	4296	20.3	7.3	-.9	4275	9.4	2.5	3.2	-.4	4281
Total	24.2	9.0	-1.1	24170	35.8	19.3	-1.4	23975	10.2	3.1	3.0	-.4	24210

[1] MICS indicator 2.1a
[2] MICS indicator 2.1b
[3] MICS indicator 2.2a,
[4] MICS indicator 2.2b
[5] MICS indicator 2.3a,
[6] MICS indicator 2.3b

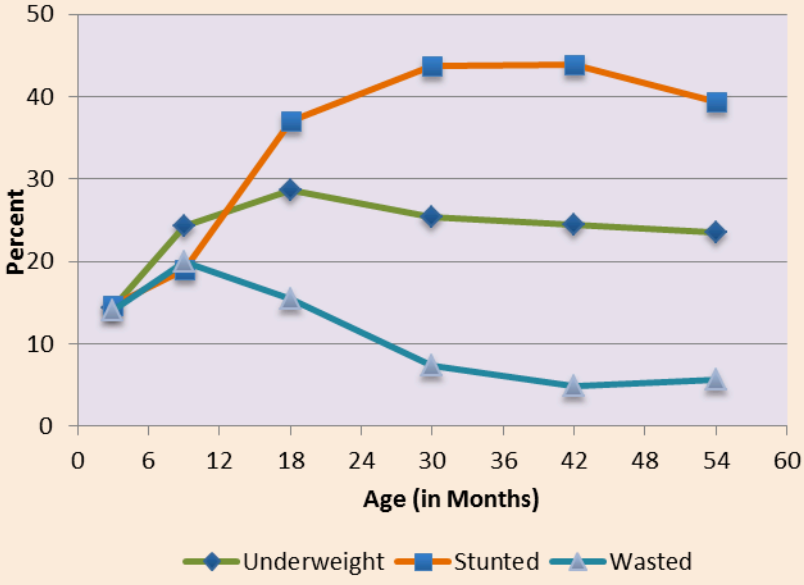
The nutritional status table based on the NCHS/CDC/WHO reference can be produced if needed

(*) less than 25 unweighted cases

Children whose full birth date (month and year) were not obtained and children whose measurements are outside a plausible range are excluded from Table NU.1. Children are excluded from one or more of the anthropometric indicators when their weights and heights have not been measured, whichever applicable. For example if a child has been weighed but his/her height has not been measured, the child is included in underweight calculations, but not in the calculations for stunting and wasting. Percentages of children by age and reasons for exclusion are shown in the data quality tables DQ.6 and DQ.7. Overall 97 percentage of children had both their weights and heights measured (Table DQ.6). Table DQ.7 shows that due to incomplete dates of birth, implausible measurements, and missing weight and/or height, 4 percent of children have been excluded from calculations of the weight-for-age indicator, while the figures are 5 percent for the height-for-age indicator, and 4 percent for the weight-for-height indicator.

More than one in five (15 percent) of children under age five in Nigeria are moderately underweight and 9 percent are classified as severely underweight (Table NU.1). More than one in five children (17 percent) are moderately stunted or too short for their age and 7 percent are moderately wasted or too thin for their height. Severely stunted and severely wasted are 19percent and about 3 percent respectively.

Figure NU.1: Percentage of children under age 5 who are underweight, stunted and wasted, Nigeria, 2011



Children in North are more likely to be underweight and stunted than other children. In contrast, the percentage (14) wasted is highest in North-West while the South-South has the lowest at 7 percent.

Those children whose mothers have secondary or higher education are the less likely to be underweight and stunted compared to children of mothers with no education. Boys appear to be slightly more likely to be underweight, stunted, and wasted than girls. The age pattern shows that a higher percentage of children aged 12-23 months are undernourished according to all three indices in comparison to children who are younger and older (Figure NU.1). This pattern is expected and is related to the age at which many children cease to be breastfed and are exposed to contamination in water, food, and environment.

Table NU.2: Initial breastfeeding

Percentage of last-born children in the 2 years preceding the survey who were ever breastfed, percentage who were breastfed within one hour of birth and within one day of birth, and percentage who received a prelacteal feed, Nigeria, 2011

	Percentage who were ever breastfed[1]	Percentage who were first breastfed:		Percentage who received a prelacteal feed	Number of last-born children in the two years preceding the survey
		Within one hour of birth[2]	Within one day of birth		
State					
Abia	96.8	19.1	83.0	55.6	189
Adamawa	97.4	25.0	63.1	49.3	226
Akwa ibom	96.3	28.6	63.2	36.3	254
Anambra	96.2	26.5	63.2	65.1	270
Bauchi	98.2	6.5	52.3	90.0	455
Bayelsa	97.1	26.3	68.5	53.7	144
Benue	97.6	32.5	74.0	42.9	244
Borno	94.5	26.6	76.1	75.1	270
Cross River	97.4	32.0	80.4	51.5	203
Delta	98.8	30.1	76.2	54.0	293
Ebonyi	95.7	30.7	79.8	33.4	137
Edo	96.7	41.1	69.0	42.9	204
Ekiti	99.2	15.4	86.5	27.5	152
Enugu	97.1	24.6	58.1	79.8	181
Gombe	97.9	26.4	61.7	62.4	175
Imo	97.3	29.7	71.2	64.5	180
Jigawa	96.6	16.6	50.9	89.0	333
Kaduna	96.6	17.2	77.4	67.3	494
Kano	96.2	23.2	75.8	84.2	725
Katsina	61.8	16.6	33.6	45.6	443
Kebbi	95.7	20.1	55.7	77.8	252
Kogi	99.3	41.9	73.4	50.2	161
Kwara	96.6	29.4	76.0	30.4	168
Lagos	99.1	22.6	62.8	35.6	686
Nasarawa	95.2	28.1	75.2	45.4	157
Niger	99.3	12.8	64.4	76.0	285
Ogun	99.8	18.1	66.7	52.0	272
Ondo	98.9	27.7	88.1	22.8	206
Osun	99.1	7.9	83.6	27.7	215
Oyo	98.4	20.3	81.8	33.0	416
Plateau	97.0	34.2	73.2	44.5	196
Rivers	95.9	26.1	71.4	55.2	318
Sokoto	96.5	39.3	90.6	59.3	273
Taraba	95.7	30.7	75.5	44.4	145
Yobe	96.4	13.7	52.3	80.3	191
Zamfara	89.2	5.9	46.0	73.5	275
FCT (Abuja)	99.1	26.7	77.8	51.6	90

(*) less than 25 unweighted cases

Table NU.2: Initial breastfeeding (continued)

Percentage of last-born children in the 2 years preceding the survey who were ever breastfed, percentage who were breastfed within one hour of birth and within one day of birth, and percentage who received a prelacteal feed, Nigeria, 2011

	Percentage who were ever breastfed[1]	Percentage who were first breastfed:		Percentage who received a prelacteal feed	Number of last-born children in the two years preceding the survey
		Within one hour of birth[2]	Within one day of birth		
Area of residence					
Urban	97.2	23.4	71.9	47.3	3122
Rural	94.8	22.7	66.5	62.0	6757
Months since birth					
0-11 months	94.5	21.9	67.2	56.2	5165
12-23 months	96.6	24.0	69.4	58.9	4616
Assistance at delivery					
Skilled attendant	97.7	25.9	72.6	45.8	4814
Traditional birth attendant	97.5	18.6	69.1	72.7	1509
Other/Missing	97.8	23.2	69.6	70.1	2312
Place of delivery					
Public sector health facility	97.8	29.4	76.3	42.2	2369
Private sector health facility	98.0	22.9	69.2	48.1	2088
Home	97.9	21.2	66.7	72.1	4916
Other/Missing	51.7	9.2	41.0	23.0	506
Mother's education					
None	93.7	19.9	62.4	71.2	3951
Primary	96.5	23.0	72.3	54.4	1852
Secondary +	96.8	25.8	72.0	45.2	4076
Missing/DK	(*)	(*)	(*)	(*)	(*)
Wealth index quintile					
Poorest	95.2	18.3	58.7	70.9	2167
Second	92.4	21.3	66.1	63.2	2002
Middle	95.7	23.0	72.2	57.8	1830
Fourth	96.6	27.3	75.9	48.8	1963
Richest	97.8	25.1	69.5	44.1	1917
Geo-political zone					
North-Central	97.8	28.3	72.4	50.6	1301
North-East	96.9	18.8	61.8	71.9	1463
North-West	90.2	19.9	63.1	71.6	2795
South-East	96.6	25.9	70.0	61.4	956
South-South	97.0	30.4	71.6	49.1	1417
South-West	99.0	19.8	74.2	34.5	1948
Total	95.5	22.9	68.2	57.3	9879

[1] MICS indicator 2.4

[2] MICS indicator 2.5

(*) less than 25 unweighted cases

Children in the rural area of the country are more undernourished than their counterparts in urban area. The percentage of children, who are moderately underweighted, stunted and wasted in urban area are 17, 23 and 10 percent respectively, while those of rural area are 28, 41 and 11 percent respectively. Similarly, percentage of children, who are severely underweighted, stunted and wasted in urban area are 5, 11 and 3 percent respectively. The values for rural area are 11, 23 and 3 percent respectively.

Level of education of mother has influence on the nutritional status of the children. Children whose mothers have secondary or higher education have relatively lower rates of underweight, stunting or wasting than their counterparts with no formal education. Table NU.1 shows that children whose mothers have no education have rates of 21, 21 and 8 percent respectively for moderately underweight, stunted and wasted; while the rates for severe underweight, stunted and wasted are 15, 32 and 4 percent respectively.

Prevalence of malnourishments decreases as wealth status improves from poorest to richest quintiles. Undernourishment increases from about 10 to 38 percent, for underweight, 13 to 54 percent for stunting and about 8 to 13 percent for wasting

Breastfeeding and Infant and Young Child Feeding

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 stop breastfeeding too soon and there are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient malnutrition and is unsafe if clean water is not readily available.

WHO/UNICEF have the following feeding recommendations:

- Exclusive breastfeeding for first six months
- Continued breastfeeding for two years or more
- Safe and age-appropriate complementary foods beginning at 6 months
- Frequency of complementary feeding: 2 times per day for 6-8 month olds; 3 times per day for 9-11 month olds

It is also recommended that breastfeeding be initiated within one hour of birth.

The indicators related to recommended child feeding practices are as follows:

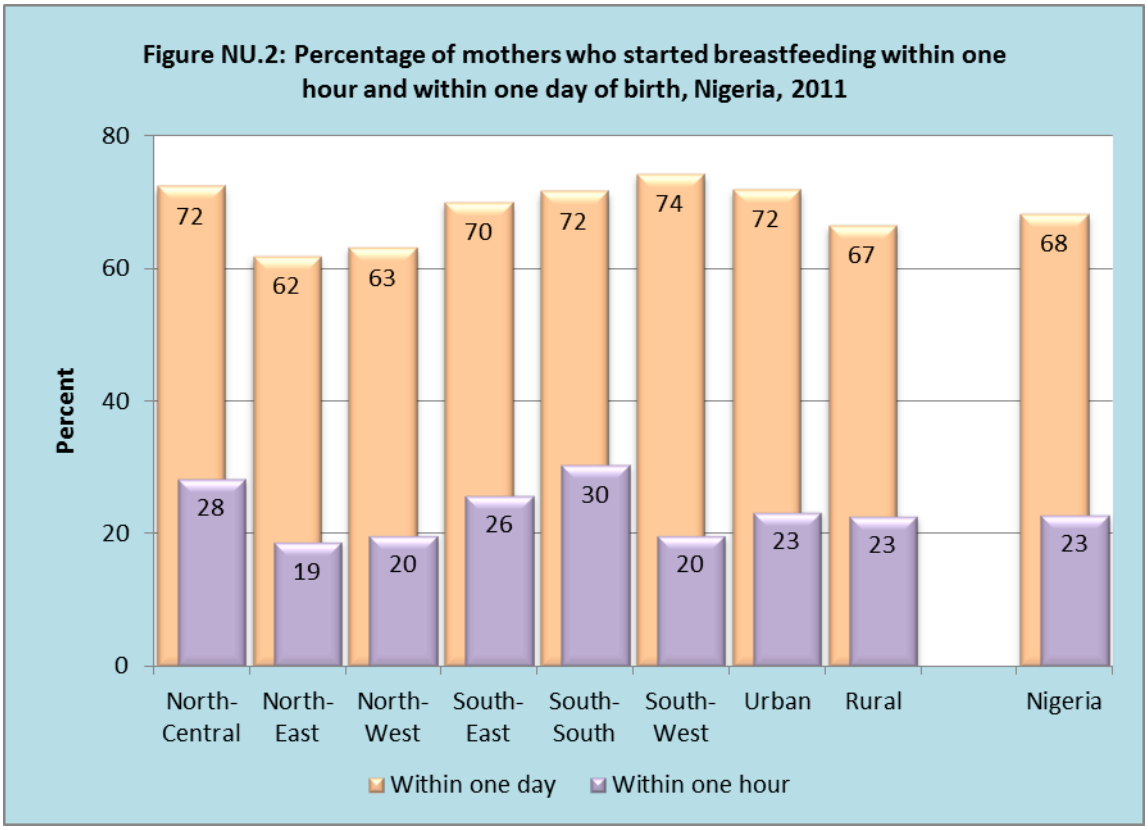
- Early initiation of breastfeeding (within 1 hour of birth)
- Exclusive breastfeeding rate (< 6 months)
- Predominant breastfeeding (< 6 months)
- Continued breastfeeding rate (at 1 year and at 2 years)
- Duration of breastfeeding
- Age-appropriate breastfeeding (0-23 months)
- Introduction of solid, semi-solid and soft foods (6-8 months)
- Minimum meal frequency (6-23 months)
- Milk feeding frequency for non-breastfeeding children (6-23 months)
- Bottle feeding (0-23 months)

Table NU.2 shows the proportion of children born in the two years preceding the survey who were ever breastfed, those who were first breastfed within one hour and one day of birth, and those who received a prelacteal feed. Although a very important step in management of lactation and establishment of a physical and emotional relationship between the baby and the mother, only 23 percent of babies is breastfed for the first time within one hour of birth, while 68 percent of new-borns in Nigeria start breastfeeding within one day of birth and about 57 percent received a prelatic feed.

Ninety-seven percent of children were ever breastfed in urban area while it was 95 percent in the rural area. About 23 and 23 percent were breastfed within one hour of birth in urban and rural areas respectively. About 72 percent and 67 percent were breastfed within one day in urban and rural areas respectively.

Comparative analysis among the geopolitical zones indicate that percentage of children who were ever breastfed was between 90 percent and 99 percent; the lowest was 90 percent in North-West and South-West recorded the highest percentage of 99 percent. The percentage of children that were breastfed within one hour of birth was between 19 and 30 percent and those that were breastfed within one day was 62 and 74 percent across the geopolitical zones. Percentage of those who received prelatic feed was about 72 percent in North-East and North-West zones while it was about 35 percent in South-West.

Figure NU.2: Percentage of mothers who started breastfeeding within one hour and within one day of birth, Nigeria, 2011



In Table NU.3, breastfeeding status is based on the reports of mothers/caretakers of children's consumption of food and fluids during the previous day or night prior to the interview. *Exclusively breastfed* refers to infants who received only breast milk (and vitamins, mineral supplements, or medicine). The table shows exclusive breastfeeding of infants during the first six months of life, as well as continued breastfeeding of children at 12-15 and 20-23 months of age.

Table NU.3: Breastfeeding

Percentage of living children according to breastfeeding status at selected age groups, Nigeria, 2011

	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
Sex							
Male	15.9	70.1	1376	78.5	986	32.6	825
Female	14.1	69.6	1283	80.1	935	36.6	742
Area of residence							
Urban	20.6	69.7	716	76.5	566	23.2	558
Rural	13.0	70.0	1943	80.4	1355	40.7	1009
Mother's education							
None	8.4	77.4	1162	88.3	857	58.2	635
Primary	18.5	69.3	522	79.6	342	31.6	293
Secondary +	21.2	61.2	975	68.4	723	12.3	640
Wealth index quintile							
Poorest	10.3	77.7	656	86.9	474	55.0	318
Second	11.9	74.1	571	87.6	429	52.7	310
Middle	12.5	64.2	485	72.0	357	29.3	287
Fourth	21.5	65.1	493	74.1	348	25.8	344
Richest	21.6	64.4	454	70.4	313	9.5	309
Geo-political zone							
North- Central	23.8	72.0	341	83.5	227	30.4	217
North-East	12.8	77.5	402	88.1	348	55.0	228
North-West	6.2	78.0	864	89.6	580	66.7	408
South-East	13.5	49.5	281	59.7	198	8.5	145
South-South	16.8	50.6	310	62.5	254	14.0	240
South-West	27.0	71.9	461	73.3	314	9.4	329
Total	15.1	69.9	2659	79.3	1921	34.5	1567

[1] MICS indicator 2.6
[2] MICS indicator 2.9
[3] MICS indicator 2.7
[4] MICS indicator 2.8

About 15 percent of children aged less than six months are exclusively breastfed, a level considerably lower than recommended. By age 12-15 months, 79 percent of children are still being breastfed and by age 20-23 months, 35 percent are still breastfed. Boys (16 percent) were more likely to be exclusively breastfed than girls (14 percent).

There is no significant difference in the pattern of continued breastfeeding for male and female children at age one or age two. For female children, about 80 percent continued receiving breast milk at age one while the percentage was reduced to 37 at age two. Similar pattern is also observed for male children. About 78 percent continued receiving breast milk at age one but the percentage was 33 percent at age two. More children in the urban areas are exclusively breastfed in the first five months of life than children in rural areas (21 percent versus 13 percent). Conversely, percentage of children that were predominantly being breastfed was higher in rural area than in urban. In urban area, about 77 percent of children continued receiving breast milk at age one while only 23 percent continued at age two years. Similarly in the rural area, 80 percent continued receiving breast milk at age one while 41 percent continued at age two.

The table shows that both education and wealth status of mothers are influential to the feeding pattern of children. Children of mothers with secondary or higher education fare best with respect to exclusive breastfeeding in early life. Percentage of children whose mothers have at least secondary education and who received exclusive breastfeeding is about 21 percent, while those of mothers with no education is about 8 percent. Percentage of children (0 – 5 months) who were exclusively breastfed increase as wealth status improves. It was 22 percent for richest quintile and about 10 percent for the poorest. Percentage of predominantly breastfed decreases as the wealth status improves, about 78 to 64 percent from poorest to richest. Also the percentage of children who continue receiving breast milk at age one or two years is decreasing as the wealth status of mother improves.

Figure NU.3 shows the detailed pattern of breastfeeding by the child's age in months. Even at the earliest ages, the majority of children are receiving liquids or foods other than breast milk. By the end of the sixth month, the percentage of children exclusively breastfed is 3 percent. Only about 22 percent of children are receiving breast milk after 2 years.

Figure NU.3: Infant feeding patterns by age, Nigeria, 2011

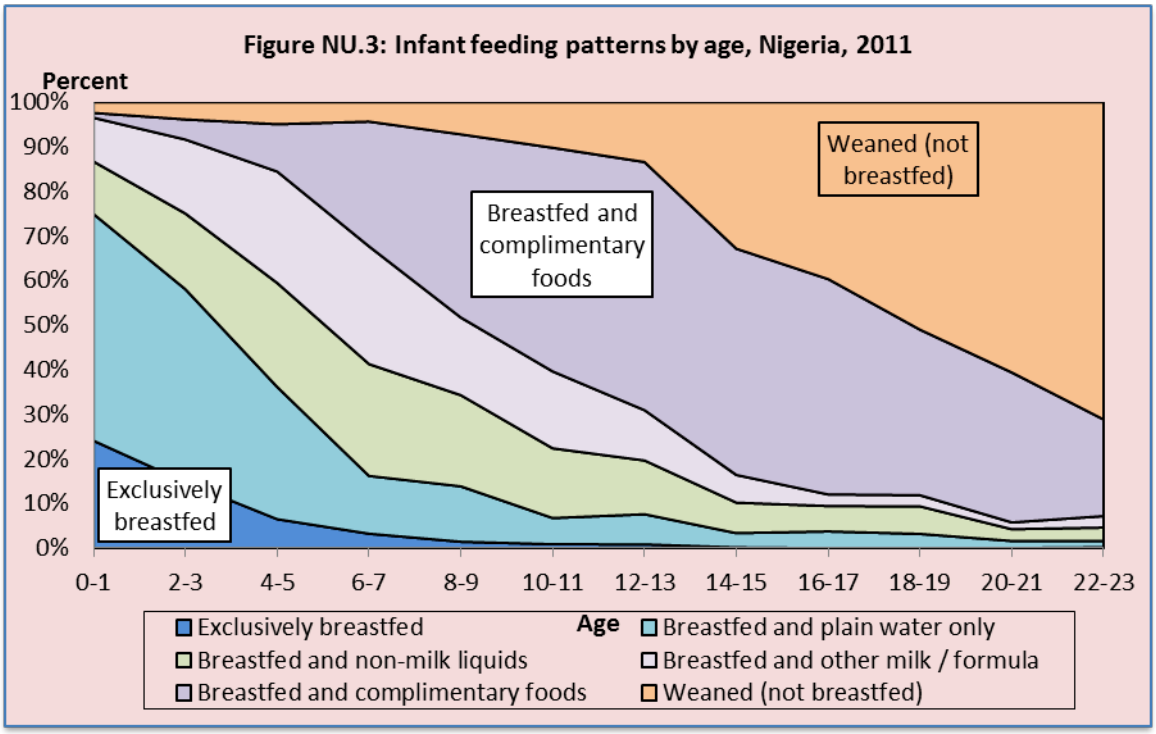


Table NU.4 shows the median duration of breastfeeding by selected background characteristics. Among children under age 3, the median duration is about 18 months for any breastfeeding, about a month for exclusive breastfeeding, and about 6 months for predominant breastfeeding. For male and female under age 3, the median duration is over 18 months for any breastfeeding, about half a month for exclusive breastfeeding for both sexes and about 5 months for predominant breastfeeding for male and female. The median duration for any breastfeeding among children under age 3 in the urban area is 16 months which is lower than the median duration in rural area which is about 20 months. The median duration is about half a month for exclusive breastfeeding in both urban and rural area and about 4 and 5months for predominant breastfeeding in urban and rural areas. Among the mothers who have secondary education or more, the median duration of children under age 3 who received any breastfeeding is about 15 months while it was about 22 months for mothers with no education. Gender of child, education of mother or wealth status has little or no influence in the median duration of exclusive breastfeeding of children. For any breastfeeding, the median duration is higher for the poorest quintile (about 22 months) and lowest for the richest (15 months). Median duration for predominant breastfeeding is about 4 months for the richest quintile and 7 months for the poorest quintile.

In the Northern zones, the median duration of any breastfeeding is between 18 and 22 months, while it is between 14 to 16 months in the southern zones. Median duration for exclusive breastfeeding is less than one month in all the zones. For predominant breastfeeding, North-West zone has the highest median duration of about 7 months while South-East and South-South zones have the lowest of about two and half months.

Table NU.4: Duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Nigeria, 2011

	Median duration (in months) of			Number of children age 0-35 months
	Any breastfeeding[1]	Exclusive breastfeeding	Predominant breastfeeding	
Sex				
Male	17.9	.5	4.9	7727
Female	18.9	.5	4.6	7437
State				
Abia	13.2	.5	4.1	304
Adamawa	20.8	.5	8.5	370
Akwa ibom	14.0	1.5	2.2	375
Anambra	13.4	.5	2.0	462
Bauchi	20.9	.4	6.5	666
Bayelsa	14.7	.6	2.3	204
Benue	16.9	1.0	5.4	373
Borno	22.2	.4	3.3	440
Cross River	15.6	.6	3.4	302
Delta	17.8	.4	3.1	416
Ebonyi	16.9	.7	5.1	207
Edo	18.1	.6	4.0	322
Ekiti	15.9	1.0	7.1	195
Enugu	15.6	.5	3.0	291
Gombe	19.5	.5	8.2	262
Imo	13.9	.5	1.4	336
Jigawa	21.7	.4	9.0	516
Kaduna	21.2	.4	4.1	743
Kano	22.1	.4	5.8	1168
Katsina	22.4	.4	8.1	721
Kebbi	22.3	.4	6.5	385
Kogi	20.5	.6	5.6	263
Kwara	17.2	.6	4.0	267
Lagos	15.6	1.6	3.4	980
Nasarawa	19.0	.7	5.3	209
Niger	21.6	.5	4.0	433
Ogun	14.0	.4	3.8	399
Ondo	16.3	.5	5.6	310
Osun	16.2	2.1	5.6	336
Oyo	16.7	.7	4.8	633
Plateau	19.1	.9	5.8	286
Rivers	12.0	.4	1.7	484
Sokoto	22.5	.4	10.3	449
Taraba	21.3	.4	6.0	240
Yobe	23.0	.5	8.9	296
Zamfara	23.9	.4	5.9	383
FCT (Abuja)	16.3	.4	3.4	135

Table NU.4: Duration of breastfeeding (continued)				
Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Nigeria, 2011				
	Median duration (in months) of			Number of children age 0-35 months
	Any breastfeeding[1]	Exclusive breastfeeding	Predominant breastfeeding	
Area of residence				
Urban	16.0	.5	4.0	4752
Rural	20.1	.5	5.3	10413
Mother's education				
None	21.7	.4	6.3	6302
Primary	18.4	.5	4.8	2906
Secondary +	15.4	.6	3.6	5956
Wealth index quintile				
Poorest	21.6	.4	7.1	3395
Second	21.3	.5	5.5	3071
Middle	17.0	.5	4.2	2793
Fourth	16.0	.6	3.8	2925
Richest	15.3	.6	3.7	2981
Geo-political zone				
North-Central	18.6	.6	4.9	1966
North-East	21.4	.4	6.5	2274
North-West	22.1	.4	6.6	4366
South-East	14.5	.5	2.5	1600
South-South	15.1	.5	2.6	2104
South-West	15.7	.7	4.2	2854
Median	19.5	.5	5.2	14964
Mean for all children (0-35 months)	18.3	1.0	6.3	15165
[1] MICS indicator 2.10				

The adequacy of infant feeding in children less than 24 months is provided in Table NU.5. Different criteria of feeding are used depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered as age-appropriate feeding, while infants aged 6-23 months are considered to be appropriately fed if they are receiving breast milk and solid, semi-solid or soft food. Percentage of children aged 0 - 5 months who were exclusively breastfed during the previous 24 hours is 15. About 21 percent and 13 percent are exclusively breastfed in urban and rural area respectively. Children whose mother has secondary education or more have higher percentage of exclusive breastfeeding than mothers with no education (21 percent versus 8 percent). As wealth status of mother improves, the percentage of children (age 0 – 5 months) receiving exclusive breastfeeding increases, the richest quintile is 22 percent while the poorest is about 10 percent. Percentage of children age 0 – 5 months who receive exclusive breastfeeding was about 27 percent in South-west which is the highest and the lowest is from North-west (6 percent). As a result of these feeding patterns, only 35 percent of children aged 6-23 months are being appropriately fed. Age-appropriate feeding among all infants age 0-5 months drops to 15 percent.

Percentage of children age 6 – 23 months who were currently being breastfed and receiving solid, semi-solid or soft food is 41 percent. The percentage is about 42 and 40 for female and male respectively. In urban and rural areas, about 35 and 44 percent of children age 6 – 23 months are currently being breastfed and receiving solid, semi-solid or soft food.

It is about 54 percent in NorthEast and 29 percent in South-West. Education of mothers also show some differences, the percentage of the children age 6 – 23 months who are currently being breastfed and receiving solid, semi-solid or soft food whose their mothers have secondary education is about 32 percent while mothers with no education is 51 percent. The percentage decreases as the wealth status of mother improves, about 52 percent for poorest and 2 7percent for richest quintiles. Considering children age 0 – 23 months about 35 percent received appropriate breastfeed, the percentage for male and female is about 35 percent. It is about 32 and 36 percent for urban rural areas respectively. About 38 to 44 percent of children age 0 – 23 months are appropriately breastfed in Northern zones while the percentage is between 27 and 29 percent in Southern zones.

Table NU.5: Age-appropriate breastfeeding

Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Nigeria, 2011

	Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
	Percent exclusively breastfed[1]	Number of children	Percent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Percent appropriately breastfed[2]	Number of children
Sex						
Male	15.9	1376	40.3	3948	34.0	5325
Female	14.1	1283	42.3	3810	35.2	5093
State						
Abia	11.9	55	23.5	150	20.4	205
Adamawa	18.1	68	44.6	176	37.2	243
Akwa ibom	24.7	46	29.4	206	28.6	252
Anambra	9.9	83	35.0	208	27.9	291
Bauchi	6.0	123	66.9	361	51.5	484
Bayelsa	19.3	33	25.8	111	24.3	144
Benue	28.2	65	43.3	191	39.4	257
Borno	10.5	82	58.7	237	46.3	320
Cross River	18.5	50	40.0	160	34.9	210
Delta	9.3	75	34.3	231	28.2	305
Ebonyi	30.0	41	36.4	111	34.7	152
Edo	24.8	60	25.8	154	25.5	214
Ekiti	47.2	30	30.2	121	33.6	152
Enugu	12.4	50	32.3	155	27.5	204
Gombe	15.2	37	45.5	139	39.0	176
Imo	8.9	53	30.7	146	24.9	199
Jigawa	6.4	110	54.0	228	38.5	339
Kaduna	8.4	158	52.4	358	39.0	516
Kano	6.5	221	50.0	576	38.0	797
Katsina	6.3	156	52.5	343	38.1	499
Kebbi	6.6	77	58.9	190	43.8	266
Kogi	20.4	40	30.6	133	28.2	173
Kwara	28.2	40	33.0	143	31.9	182
Lagos	28.1	123	25.4	586	25.9	708
Nasarawa	34.4	36	45.9	106	42.9	143
Niger	13.9	90	52.7	209	41.1	299
Ogun	13.6	78	15.9	197	15.2	275
Ondo	8.6	51	27.7	157	23.1	207
Osun	40.7	61	31.3	167	33.8	228
Oyo	30.4	119	43.4	321	39.9	439
Plateau	33.5	49	54.8	145	49.4	194
Rivers	7.5	47	29.9	266	26.5	314
Sokoto	1.2	75	32.7	223	24.7	299
Taraba	30.0	38	43.9	114	40.4	153
Yobe	11.3	54	44.4	151	35.7	204
Zamfara	4.5	67	56.4	212	43.9	279
FCT (Abuja)	10.4	21	30.5	75	26.1	96

Table NU.5: Age-appropriate breastfeeding (continued)						
Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Nigeria, 2011						
	Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
	Percent exclusively breastfed[1]	Number of children	Percent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Percent appropriately breastfed[2]	Number of children
Area of residence						
Urban	20.6	716	35.0	2560	31.8	3276
Rural	13.0	1943	44.4	5199	35.8	7142
Mother's education						
None	8.4	1162	51.0	3149	39.5	4311
Primary	18.5	522	39.9	1420	34.1	1942
Secondary +	21.2	975	32.3	3190	29.7	4165
Wealth index quintile						
Poorest	10.3	656	52.4	1677	40.5	2333
Second	11.9	571	50.7	1565	40.3	2136
Middle	12.5	485	39.2	1424	32.4	1909
Fourth	21.5	493	35.9	1540	32.4	2033
Richest	21.6	454	27.0	1553	25.8	2007
Geo-political zone						
North-Central	23.8	341	43.1	1002	38.2	1343
North-East	12.8	402	54.3	1178	43.7	1580
North-West	6.2	864	50.9	2131	38.0	2995
South-East	13.5	281	31.6	770	26.7	1052
South-South	16.8	310	31.2	1128	28.1	1439
South-West	27.0	461	29.2	1549	28.7	2010
Total	15.1	2659	41.3	7759	34.6	10418
[1] MICS indicator 2.6						
[2] MICS indicator 2.14						

Appropriate complementary feeding of children from 6 months to two years of age is particularly important for growth and development and the prevention of undernutrition. Continued breastfeeding beyond six months should be accompanied by consumption of nutritionally adequate, safe and appropriate complementary foods that help meet nutritional requirements when breastmilk is no longer sufficient. This requires that for breastfed children, two or more meals of solid, semi-solid or soft foods are needed if they are six to eight months old, and three or more meals if they are 9-23 months of age. For children 6-23 months and older who are not breastfed, four or more meals of solid, semi-solid or soft foods or milk feeds are needed.

Overall, 33 percent of infants age 6-8 received solid, semi-solid, or soft foods (Table NU.6). Among currently breastfeeding infants this percentage is 32 percent while it is 50 percent among infants currently not breastfeeding.

Infant age 6 – 8 months who are currently being breastfed and receiving solid, semi-solid or soft food in rural area is about 31 percent and 35 percent in urban area. Those who are not currently being fed with breast milk but receiving solid, semi-solid or soft food is about 41 and 62 percent in rural and urban respectively. There are differences in proportion for the geopolitical zones of the country. For infant 6 – 8 months who are currently being breastfed and receiving solid, semi-solid or soft food, the percentage was 48 percent in South-east which is the highest while it is 28 percent in South-west which is the lowest. In

South-west, about 76 percent of infant (6 – 8 months) are currently not being breastfed but receiving solid, semi-solid or soft food which is highest. South-south recorded the lowest percentage of about 21 percent.

Table NU.6: Introduction of solid, semi-solid or soft foods

Percentage of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day, Nigeria, 2011

	Currently breastfeeding		Currently not breastfeeding		All	
	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods[1]	Number of children age 6-8 months
Sex						
Male	31.1	687	64.9	30	32.5	717
Female	33.2	690	35.0	32	33.3	722
Residence						
Urban	34.7	449	62.1	25	36.2	474
Rural	30.9	929	40.9	37	31.3	966
Geo-political zone						
North-Central	37.0	171	19.8	4	36.6	175
North-East	30.3	209	48.6	7	30.9	217
North-West	29.0	448	58.9	18	30.1	466
South-East	48.3	127	27.6	9	46.8	136
South-South	31.8	165	21.2	8	31.4	173
South-West	28.3	257	75.5	15	30.9	272
Total	32.2	1377	49.5	62	32.9	1440

[1] MICS indicator 2.12

Table NU.7 presents the proportion of children age 6-23 months who received semi-solid or soft foods the minimum number of times or more during the day or night preceding the interview by breastfeeding status. Overall, about one quarter of the children age 6-23 months were receiving solid, semi-solid and soft foods the minimum number of times.

About 26 and 23 percent are for urban and rural areas receive minimum meal frequency. Twenty-seven (27) percent of children aged 6–23 months whose mothers are educated received minimum meal while it is about 21 percent for whose mothers have no education. South-East and South-South have 33 percent while it is 19 percent in South-West, North-Central and North-West is about 23 percent while it is 21 percent for North-East. Effect of mother wealth status is also noticeable, among the richest wealth quintile it is about 28 percent while in the poorest wealth quintile it is 18 percent.

Table NU.7: Minimum meal frequency

Percentage of children age 6-23 months who received solid, semi-solid, or soft foods (and milk feeds for non-breastfeeding children) the minimum number of times or more during the previous day, according to breastfeeding status, Nigeria, 2011

	Currently breastfeeding		Currently not breastfeeding				All
	Percent receiving solid, semi-solid and soft foods the minimum number of times	Number of children age 6-23 months	Percent receiving at least 2 milk feeds[1]	Percent receiving solid, semi-solid and soft foods or milk feeds 4 times or more	Number of children age 6-23 months	Percent with minimum meal frequency[2]	Number of children age 6-23 months
Sex							
Male	18.5	2729	31.5	34.6	1220	23.5	3948
Female	21.7	2735	28.5	32.5	1075	24.8	3810
Age							
6-8 months	20.1	1377	35.4	29.1	62	20.5	1440
9-11 months	11.2	1200	57.7	53.3	133	15.4	1333
12-17 months	21.5	1996	32.7	37.2	708	25.6	2704
18-23 months	29.0	891	26.0	30.1	1391	29.7	2282
State							
Abia	16.2	70	50.2	44.0	80	31.0	150
Adamawa	24.6	138	19.4	27.8	38	25.3	176
Akwa ibom	24.7	93	18.0	29.6	113	27.4	206
Anambra	27.6	103	34.1	50.2	105	39.0	208
Bauchi	15.7	295	2.4	7.0	67	14.1	361
Bayelsa	9.4	61	20.2	26.0	50	16.9	111
Benue	31.8	118	16.1	32.3	73	32.0	191
Borno	21.0	206	8.9	23.8	31	21.4	237
Cross River	46.9	95	26.2	37.5	65	43.1	160
Delta	21.3	146	31.6	35.9	85	26.7	231
Ebonyi	34.0	68	19.5	28.3	43	31.8	111
Edo	9.6	118	41.2	41.2	37	17.1	154
Ekiti	11.5	76	15.3	17.9	45	13.9	121
Enugu	37.5	76	41.9	48.2	78	43.0	155
Gombe	28.9	101	23.7	24.3	38	27.7	139
Imo	6.9	79	26.5	24.4	67	14.9	146
Jigawa	21.7	207	18.5	17.4	21	21.3	228
Kaduna	30.4	310	23.6	42.5	48	32.0	358
Kano	24.4	487	15.8	32.5	89	25.6	576
Katsina	17.0	293	25.0	36.0	50	19.8	343
Kebbi	20.6	160	16.7	31.3	30	22.3	190
Kogi	11.3	102	24.2	18.2	32	13.0	133
Kwara	4.6	96	53.1	36.6	47	15.1	143
Lagos	13.4	332	43.6	30.0	254	20.6	586
Nasarawa	24.8	74	20.9	25.5	32	25.0	106
Niger	26.3	169	12.5	19.1	40	24.9	209
Ogun	5.1	103	33.6	39.9	94	21.7	197
Ondo	9.7	93	7.2	12.8	64	10.9	157
Osun	2.0	105	31.5	19.6	62	8.5	167
Oyo	20.4	219	36.4	35.7	102	25.3	321
Plateau	18.1	110	44.1	46.8	34	24.9	145
Rivers	36.0	117	64.1	65.0	149	52.3	266
Sokoto	3.1	188	6.9	4.6	36	3.3	223
Taraba	21.8	93	13.0	23.9	21	22.2	114
Yobe	18.9	129	17.6	42.8	22	22.3	151
Zamfara	23.5	188	12.2	35.7	24	24.9	212
FCT (Abuja)	12.5	46	35.5	35.7	29	21.4	75

Table NU.7: Minimum meal frequency (continued)

Percentage of children age 6-23 months who received solid, semi-solid, or soft foods (and milk feeds for non-breastfeeding children) the minimum number of times or more during the previous day, according to breastfeeding status, Nigeria, 2011

	Currently breastfeeding		Currently not breastfeeding				All
	Percent receiving solid, semi-solid and soft foods the minimum number of times	Number of children age 6-23 months	Percent receiving at least 2 milk feeds[1]	Percent receiving solid, semi-solid and soft foods or milk feeds 4 times or more	Number of children age 6-23 months	Percent with minimum meal frequency[2]	Number of children age 6-23 months
Area of residence							
Urban	19.1	1595	40.7	38.4	965	26.4	2560
Rural	20.6	3869	22.5	30.2	1330	23.0	5199
Mother's education							
None	20.3	2605	14.7	23.9	544	21.0	3149
Primary	20.6	1007	21.8	34.0	412	24.5	1420
Secondary +	19.6	1852	38.9	37.5	1338	27.1	3190
Wealth index quintile							
Poorest	18.4	1390	9.4	16.5	287	18.1	1677
Second	24.2	1263	15.0	29.3	302	25.2	1565
Middle	22.0	945	25.1	32.9	479	25.6	1424
Fourth	19.4	977	27.1	34.0	563	24.8	1540
Richest	15.7	889	52.1	43.2	664	27.5	1553
Geo-political zone							
North-Central	19.9	716	28.4	30.9	287	23.0	1002
North-East	20.5	962	12.6	21.3	216	20.7	1178
North-West	21.3	1832	17.5	30.4	299	22.6	2131
South-East	24.5	397	36.1	41.3	374	32.6	770
South-South	25.1	630	37.1	42.8	498	32.9	1128
South-West	12.3	928	33.9	28.7	620	18.9	1549
Total	20.1	5464	30.1	33.6	2295	24.1	7759

[1] MICS indicator 2.15

[2] MICS indicator 2.13

Among currently breastfeeding children age 6-23 months, one-fifth of them (20 percent) were receiving solid, semi-solid and soft foods the minimum number of times and this proportion was higher among females (22 percent) compared to males (19 percent). Among non-breastfeeding children, one-third of the children were receiving solid, semi-solid and soft foods or milk feeds 4 times or more.

The continued practice of bottle-feeding is a concern because of the possible contamination due to unsafe water and lack of hygiene in preparation. Table NU.8 shows that bottle-feeding is still prevalent in Nigeria. About 27 percent of children 0-5 months are fed using a bottle with a nipple.

Bottle-feeding prevalence is 20 percent for female children while it is 17 percent for male. In urban area and rural area, 21 percent and 18 percent respectively are being fed with bottle with a nipple. The percentage is higher for children 0 – 23 months whose mothers have secondary education or higher (23 percent) while it is 13 percent for mother with no education. Also the richest quintile is about 27 percent while the poorest is about 11 percent. About 26 percent of children age 0 – 23 months are being fed with bottle with nipple in South-East while it is about 11 percent in North-East.

Table NU.8: Bottle feeding		
Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day, Nigeria, 2011		
	Percentage of children age 0-23 months fed with a bottle with a nipple[1]	Number of children age 0-23 months
Sex		
Male	17.0	5325
Female	20.4	5093
Age		
0-5 months	27.2	2659
6-11 months	24.2	2773
12-23 months	11.0	4986
State		
Abia	39.6	205
Adamawa	16.6	243
Akwa ibom	17.2	252
Anambra	31.0	291
Bauchi	11.9	484
Bayelsa	21.6	144
Benue	24.4	257
Borno	7.9	320
Cross River	15.8	210
Delta	22.8	305
Ebonyi	12.5	152
Edo	32.3	214
Ekiti	23.9	152
Enugu	17.1	204
Gombe	10.0	176
Imo	21.6	199
Jigawa	22.4	339
Kaduna	26.1	516
Kano	18.3	797
Katsina	12.2	499
Kebbi	8.1	266
Kogi	41.5	173
Kwara	13.5	182
Lagos	26.8	708
Nasarawa	16.1	143
Niger	15.7	299
Ogun	23.9	275
Ondo	13.3	207
Osun	17.6	228
Oyo	12.3	439
Plateau	15.7	194
Rivers	18.0	314
Sokoto	11.4	299
Taraba	10.7	153
Yobe	10.8	204
Zamfara	7.4	279
FCT (Abuja)	28.1	96

Table NU.8: Bottle feeding (continued)		
Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day, Nigeria, 2011		
	Percentage of children age 0-23 months fed with a bottle with a nipple[1]	Number of children age 0-23 months
Area of residence		
Urban	20.7	3276
Rural	17.7	7142
Mother's education		
None	13.3	4311
Primary	21.2	1942
Secondary +	23.0	4165
Wealth index quintile		
Poorest	11.0	2333
Second	15.4	2136
Middle	18.2	1909
Fourth	23.2	2033
Richest	26.9	2007
Geo-political zone		
North-Central	21.3	1343
North-East	11.3	1580
North-West	16.5	2995
South-East	25.5	1052
South-South	21.0	1439
South-West	20.6	2010
Total	18.7	10418
[1] MICS indicator 2.11		

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. Iodine deficiency is most commonly and visibly associated with goitre. 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 adequately iodized salt ($\geq$15 parts per million).

In Nigeria, there has been a massive, concerted effort by the Federal Government through the National Food and Drug Administration and Control (NAFDAC) to ensure cheap availability and consumption of adequately iodized salt.

It was planned to have test conducted for iodine contents in salt used for cooking in all the households surveyed. However, owing to non-availability of cooking salt, the test was not carried out in some sample households. Table NU.9 shows that 93 percent of households surveyed was actually tested for iodine content by using salt kits for the presence of potassium iodide content.

Table NU.9: Iodized salt consumption

Percent distribution of households by consumption of iodized salt, Nigeria, 2011

	Percentage of households in which salt was tested	Number of households	Percent of households with				Total	Number of households in which salt was tested or with no salt
			No salt	Salt test result				
				Not iodized 0 PPM	>0 and <15 PPM	15+ PPM[1]		
State								
Abia	95.5	755	3.9	2.2	6.7	87.2	100.0	751
Adamawa	94.0	560	5.2	1.2	17.0	76.6	100.0	555
Akwa ibom	98.2	890	1.6	1.8	3.1	93.6	100.0	888
Anambra	96.6	1023	2.0	1.0	4.7	92.3	100.0	1009
Bauchi	87.2	817	12.2	1.3	18.1	68.4	100.0	811
Bayelsa	94.1	440	4.7	1.6	14.7	79.0	100.0	434
Benue	98.1	827	1.8	1.3	13.9	83.0	100.0	826
Borno	91.5	833	7.9	.0	2.0	90.2	100.0	827
Cross River	95.9	658	3.7	2.0	5.2	89.0	100.0	655
Delta	92.5	1032	6.3	1.0	9.5	83.2	100.0	1020
Ebonyi	97.9	388	1.2	.6	10.0	88.3	100.0	384
Edo	92.1	752	3.3	.3	7.4	89.0	100.0	716
Ekiti	95.0	673	4.4	1.5	6.8	87.3	100.0	669
Enugu	96.5	925	2.4	.8	9.4	87.4	100.0	914
Gombe	90.1	378	8.7	.1	31.8	59.4	100.0	373
Imo	96.6	952	2.9	.8	4.8	91.6	100.0	946
Jigawa	91.0	683	7.3	3.2	31.8	57.7	100.0	671
Kaduna	94.6	943	4.5	3.9	16.7	75.0	100.0	935
Kano	88.0	1592	10.5	1.9	14.7	72.9	100.0	1565
Katsina	91.2	955	6.3	5.4	20.1	68.2	100.0	930
Kebbi	86.0	531	12.2	3.4	26.1	58.3	100.0	520
Kogi	96.7	762	3.1	1.2	17.9	77.8	100.0	760
Kwara	92.9	551	6.1	.6	10.9	82.4	100.0	545
Lagos	91.6	2196	7.4	2.2	1.4	89.0	100.0	2172
Nasarawa	92.9	291	5.8	2.7	15.3	76.2	100.0	287
Niger	96.3	626	3.0	2.7	45.0	49.3	100.0	621
Ogun	88.5	887	10.3	1.2	13.4	75.1	100.0	875
Ondo	98.2	916	1.8	.6	3.0	94.6	100.0	916
Osun	93.0	882	6.8	.5	3.5	89.3	100.0	881
Oyo	92.9	1345	6.7	1.8	5.0	86.5	100.0	1338
Plateau	88.8	583	8.9	1.6	10.1	79.4	100.0	568
Rivers	96.9	1216	2.1	.8	5.0	92.1	100.0	1204
Sokoto	95.8	634	3.4	8.1	54.5	34.0	100.0	630
Taraba	95.1	381	4.2	8.3	36.4	51.1	100.0	378
Yobe	88.5	388	9.4	.8	9.7	80.1	100.0	379
Zamfara	93.6	528	4.9	3.4	47.5	44.2	100.0	520
FCT (Abuja)	96.9	286	3.1	.4	6.1	90.5	100.0	286

Table NU.9: Iodized salt consumption (continued)

Percent distribution of households by consumption of iodized salt, Nigeria, 2011

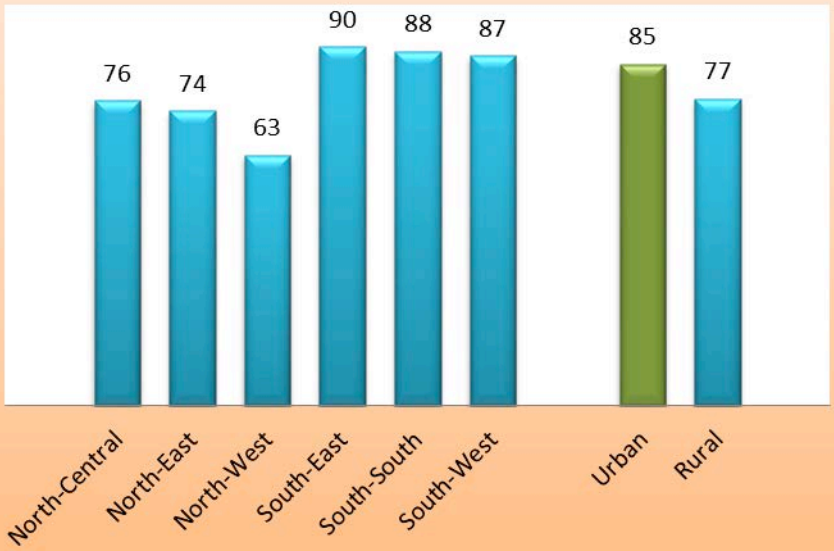
	Percentage of households in which salt was tested	Number of households	Percent of households with				Total	Number of households in which salt was tested or with no salt
			No salt	Salt test result				
				Not iodized 0 PPM	>0 and <15 PPM	15+ PPM[1]		
Area of residence								
Urban	93.3	10608	5.9	1.7	7.2	85.3	100.0	10514
Rural	93.5	18469	5.3	2.0	16.1	76.6	100.0	18245
Geo-political zone								
North-Central	95.0	3925	4.3	1.5	18.2	76.1	100.0	3894
North-East	90.8	3357	8.3	1.6	16.6	73.5	100.0	3323
North-West	91.1	5866	7.4	3.9	26.2	62.6	100.0	5770
South-East	96.5	4043	2.6	1.1	6.7	89.7	100.0	4004
South-South	95.1	4988	3.5	1.2	6.8	88.5	100.0	4917
South-West	92.8	6899	6.5	1.5	4.7	87.4	100.0	6850
Wealth index quintile								
Poorest	91.4	5397	7.5	2.7	22.4	67.4	100.0	5337
Second	93.8	5540	5.1	2.3	17.7	74.9	100.0	5478
Middle	92.9	5915	6.4	1.7	10.9	81.1	100.0	5869
Fourth	93.4	6066	5.2	1.3	9.0	84.5	100.0	5972
Richest	95.5	6160	3.7	1.5	5.7	89.2	100.0	6104
Total	93.4	29077	5.5	1.9	12.8	79.8	100.0	28759

[1] MICS indicator 2.16

In about 80 percent of the households, salt was found to be adequately iodized and contained 15 parts per million (ppm) or more of iodine, while 13 percent of households had iodized salt with less than 15 ppm of iodine and about 2 percent of household had salt with no iodine at all (0 ppm). In all, about 93 percent of households in Nigeria used iodized salt.

Table NU.9 shows that in a very small proportion of households (6percent), there was no salt available. Use of iodized salt was lowest in North-West (63 percent) and highest in South-East (90 percent). About 85 percent of urban households were found to be using adequately iodized salt as compared to 77 percent in rural areas. Use of adequately iodized salt increases with wealth status, it is lowest among households in the poorest wealth quintile (67 percent) and highest among those in the richest quintile (89 percent). See (Figure NU.4).

Figure NU.4: Percentage of households consuming adequately iodized salt, Nigeria, 2011



Children's Vitamin A Supplementation

Vitamin A is essential for eye health and proper functioning of the immune system. It is found in foods such as milk, liver, eggs, red and orange fruits, red palm oil and green leafy vegetables, although the amount of vitamin A readily available to the body from these sources varies widely. In developing areas of the world, where vitamin A is largely consumed in the form of fruits and vegetables, daily per capita intake is often insufficient to meet dietary requirements. Inadequate intakes are further compromised by increased requirements for the vitamin as children grow or during periods of illness, as well as increased losses during common childhood infections. As a result, vitamin A deficiency is quite prevalent in the developing world and particularly in countries with the highest burden of under-five deaths.

The 1990 World Summit for Children set the goal of virtual elimination of vitamin A deficiency and its consequences, including blindness, by the year 2000. This goal was also endorsed at the Policy Conference on Ending Hidden Hunger in 1991, the 1992 International Conference on Nutrition, and the UN General Assembly's Special Session on Children in 2002. The critical role of vitamin A for child health and immune function also makes control of deficiency a primary component of child survival efforts, and therefore critical to the achievement of the fourth Millennium Development Goal: a two-thirds reduction in under-five mortality by the year 2015.

For countries with vitamin A deficiency problems, current international recommendations call for high-dose vitamin A supplementation every four to six months, targeted to all children between the ages of six to 59 months living in affected areas. Providing young children with two high-dose vitamin A capsules a year is a safe, cost-effective, efficient strategy for eliminating vitamin A deficiency and improving child survival. Giving vitamin A to new mothers who are breastfeeding helps protect their children during the first months of life and helps to replenish the mother's stores of vitamin A, which are depleted during pregnancy and lactation. For countries with vitamin A supplementation programs, the definition of the indicator is the percent of children 6-59 months of age receiving at least one high dose vitamin A supplement in the last six months.

Based on UNICEF/WHO guidelines, the Federal Ministry of Health recommends that children aged 6-11 months be given one high dose Vitamin A capsules and children aged 12-59 months given a vitamin A capsule every 6 months. The Federal Authorities subsidies purchase of vitamin A supplement and, through NAFDAC, releases the product for free consumption by the needy.In some parts of the country, Vitamin A capsules are linked to immunization services and are given when the child has contact with these services after six months of age. It is also recommended that mothers take a Vitamin A supplement within eight weeks of giving birth due to increased Vitamin A requirements during pregnancy and lactation.

Within the six months prior to the MICS 4, 65 percent of children aged 6-59 months received a high dose Vitamin A supplement (Table NU.10). Vitamin A supplementation coverage is lower in the North-Eastthan in other regions. The health record (vaccination card) indicated that 2 percent of children age 6-59 months received vitamin A supplement while the mother's report put it at 65 percent, (65 percent for female and 65 percent for male child). The mother's report put the rate at 76 percent of for urban area and 60 percent for rural. The percentage was highest in South-East (79 percent) than in the North-East with the lowest is 50 percent.

Table NU.10: Children's vitamin A supplementation

Percent distribution of children age 6-59 months by receipt of a high dose vitamin A supplement in the last 6 months, Nigeria, 2011

	Percentage who received Vitamin A in the last 6 months according to:		Percentage of children who received Vitamin A in the last 6 months[1]	Number of children age 6-59 months
	Child health book/card/vaccination card	Mother's report		
Sex				
Male	2.1	64.9	65.1	11480
Female	2.2	65.0	65.2	11053
State				
Abia	3.5	80.2	80.6	428
Adamawa	4.4	66.6	67.8	564
Akwa ibom	4.6	85.7	85.7	614
Anambra	.8	79.9	80.1	654
Bauchi	.7	45.4	45.7	950
Bayelsa	2.2	71.9	71.9	302
Benue	.3	49.5	49.5	552
Borno	.3	33.0	33.2	694
Cross River	1.6	75.2	75.2	444
Delta	2.9	61.4	61.8	625
Ebonyi	1.5	67.5	67.8	293
Edo	1.7	72.2	72.3	457
Ekiti	2.5	88.6	88.6	307
Enugu	5.4	83.7	83.9	422
Gombe	1.2	69.0	69.4	425
Imo	1.7	78.7	79.0	486
Jigawa	.2	64.6	64.6	822
Kaduna	1.3	66.0	66.0	1082
Kano	.2	45.8	45.9	1750
Katsina	.2	71.9	71.9	1086
Kebbi	.0	68.4	68.4	568
Kogi	.7	65.0	65.0	397
Kwara	2.9	83.5	83.9	385
Lagos	10.2	76.8	77.5	1380
Nasarawa	.9	58.7	58.9	307
Niger	.1	60.6	60.6	679
Ogun	3.4	67.3	67.6	549
Ondo	.8	81.2	81.6	450
Osun	1.3	91.2	91.2	478
Oyo	2.3	73.8	73.8	892
Plateau	3.5	63.0	63.0	431
Rivers	8.3	82.0	82.8	730
Sokoto	.0	28.6	28.6	708
Taraba	1.1	49.0	49.7	358
Yobe	.2	50.7	50.9	451
Zamfara	.0	41.8	41.8	621
FCT (Abuja)	2.3	81.8	81.9	193

Table NU.10: Children's vitamin A supplementation (continued)

Percent distribution of children age 6-59 months by receipt of a high dose vitamin A supplement in the last 6 months, Nigeria, 2011

	Percentage who received Vitamin A according to:		Percentage of children who received Vitamin A during the last 6 months[1]	Number of children age 6-59 months
	Child health book/card/vaccination card	Mother's report		
Area of residence				
Urban	4.2	75.9	76.2	6948
Rural	1.2	60.1	60.2	15584
Age				
6-11 months	9.2	53.5	54.4	2773
12-23 months	3.4	64.5	64.7	4986
24-35 months	.7	66.5	66.7	4747
36-47 months	.4	67.8	67.9	5170
48-59 months	.1	67.4	67.4	4857
Mother's education				
None	.5	51.9	52.0	9830
Primary	1.7	68.7	68.9	4467
Secondary +	4.4	78.5	78.9	8234
Wealth index quintile				
Poorest	.6	47.3	47.4	5141
Second	.7	57.5	57.7	4649
Middle	1.4	65.5	65.8	4226
Fourth	2.6	76.7	76.8	4309
Richest	6.0	82.1	82.6	4208
Geo-political zone				
North-Central	1.3	63.6	63.7	2944
North-East	1.3	50.4	50.8	3441
North-West	.3	55.4	55.4	6638
South-East	2.5	78.8	79.1	2282
South-South	4.0	75.3	75.6	3173
South-West	4.9	77.9	78.2	4055
Total	2.2	64.9	65.2	22533

[1] MICS indicator 2.17

The age pattern of Vitamin A supplementation shows that supplementation in the last six months [rises] from 54 percent among children aged 6-11 months to about 65 percent among children aged 12-23 months and still slightly increases with age to 67 percent among the oldest children.

The mother's level of education is also related to the likelihood of Vitamin A supplementation. The percentage receiving a supplement in the last six months increases from 52 percent among children whose mothers have no education to 69 percent of those whose mothers have primary education and 79 percent among children of mothers with secondary or higher education. It also increases from 47 percent of children in the poorest wealth quintile to 83 percent among those in the richest quintile.

Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face a greatly increased risk of dying during their early months and years. Those who survive 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 underweight also tend to have a lower IQ and cognitive disabilities, affecting their performance in school and their job opportunities as adults.

In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have most impact: the mother's poor nutritional status before conception, short stature (due mostly to under nutrition and infections during her childhood), and poor nutrition during the pregnancy. Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation. Moreover, diseases such as diarrhoea and malaria, which are common in many developing countries, can significantly impair foetal growth if the mother becomes infected while pregnant.

In the industrialized world, cigarette smoking during pregnancy is the leading cause of low birth weight. In developed and developing countries alike, teenagers who give birth when their own bodies have yet to finish growing run the risk of bearing underweight babies.

One of the major challenges in measuring the incidence of low birth weight is the fact that more than half of infants in the developing world are not weighed. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased for most developing countries because the majority of newborns are not delivered in facilities, and those who are represent only a selected sample of all births.

Because many infants are not weighed at birth and those who are weighed may be a biased sample of all births, the reported birth weights usually cannot be used to estimate the prevalence of low birth weight among all children. Therefore, 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[5] .

[5] For a detailed description of the methodology, see *Boerma, J. T., Weinstein, K. I., Rutstein, S.O., and Sommerfelt, A. E. , 1996. Data on Birth Weight in Developing Countries: Can Surveys Help? Bulletin of the World Health Organization, 74(2), 209-16*.

Table NU.11: Low birth weight infants			
	Percent of live births:		Number of last-born children in the two years preceding the survey
	Below 2500 grams[1]	Weighed at birth[2]	
State			
Abia	13.0	58.6	189
Adamawa	13.3	18.3	226
Akwa ibom	10.9	26.1	254
Anambra	16.0	65.3	270
Bauchi	15.2	1.6	455
Bayelsa	15.0	13.4	144
Benue	11.1	28.8	244
Borno	16.7	3.5	270
Cross River	12.2	19.4	203
Delta	14.4	38.6	293
Ebonyi	12.9	14.7	137
Edo	16.1	41.3	204
Ekiti	15.3	17.0	152
Enugu	14.8	40.9	181
Gombe	13.8	9.2	175
Imo	13.1	44.6	180
Jigawa	18.5	1.9	333
Kaduna	14.5	22.0	494
Kano	20.7	9.7	725
Katsina	28.1	1.8	443
Kebbi	18.0	1.6	252
Kogi	14.7	41.8	161
Kwara	14.1	62.1	168
Lagos	11.1	63.5	686
Nasarawa	12.0	25.2	157
Niger	16.7	16.6	285
Ogun	9.9	44.4	272
Ondo	11.4	25.8	206
Osun	9.9	59.2	215
Oyo	14.6	26.0	416
Plateau	13.9	23.9	196
Rivers	7.8	50.7	318
Sokoto	20.7	3.6	273
Taraba	16.0	3.3	145
Yobe	19.5	3.2	191
Zamfara	15.8	1.4	275
FCT (Abuja)	12.0	54.8	90

Table NU.11: Low birth weight infants (continued)			
	Percent of live births:		Number of last-born children in the two years preceding the survey
	Below 2500 grams[1]	Weighed at birth[2]	
Area of residence			
Urban	12.6	46.6	3122
Rural	16.4	16.0	6757
Mother's education			
None	18.5	5.6	3951
Primary	13.9	18.8	1852
Secondary +	12.7	48.3	4076
Wealth index quintile			
Poorest	18.8	3.0	2167
Second	17.1	7.5	2002
Middle	14.5	18.7	1830
Fourth	13.6	36.5	1963
Richest	11.6	66.0	1917
Geo political zone			
North-Central	13.8	32.7	1301
North-East	15.7	5.8	1463
North-West	19.8	7.6	2795
South-East	14.2	48.2	956
South-South	12.3	34.2	1417
South-West	11.9	44.7	1948
Total	15.2	25.7	9879
[1] MICS indicator 2.18			
[2] MICS indicator 2.19			

Overall, 26 percent of births were weighed at birth and approximately 15 percent of infants are estimated to weigh less than 2500 grams at birth (Table NU.11). There was variation by region (Figure NU.5 ranging from about 20 percent in the North-West to 12 percent in South-South and South-West. The percentage of low birth weight in urban and rural areas is 13 percent and 16 percent respectively.

Figure NU.5: Percentage of infants weighing less than 2500 grams at birth, Nigeria, 2011

VI. Child Health

Vaccinations

The Millennium Development Goal (MDG) 4 is to reduce child mortality by two thirds between 1990 and 2015. Immunization plays a key part in this goal. Immunizations have saved the lives of millions of children in the three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide there are still 27 million children overlooked by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

A World Fit for Children goal is to ensure full immunization of children less than one year of age at 90 percent nationally, with at least 80 percent coverage in every state.

According to UNICEF and WHO guidelines, a child should receive a BCG vaccination to protect against tuberculosis, three doses of DPT to protect against diphtheria, pertussis, and tetanus, three doses of polio vaccine, and a measles vaccination by the age of 12 months. Mothers were asked to provide vaccination cards for children under the age of five. Interviewers copied vaccination information from the cards onto the MICS questionnaire.

Overall, 29.4 percent of children had vaccination cards (Table CH.2). If the child did not have a card, the mother was asked to recall whether or not the child had received each of the vaccinations and, for DPT and Polio, how many times. The percentage of children age 12 to 23 months who received each of the vaccinations is shown in Table CH.1. The denominator for the table is comprised of children age 12-23 months so that only children who are old enough to be fully vaccinated are counted. In the top panel, 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 bottom panel, only those 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.

Table CH.1: Vaccinations in first year of life

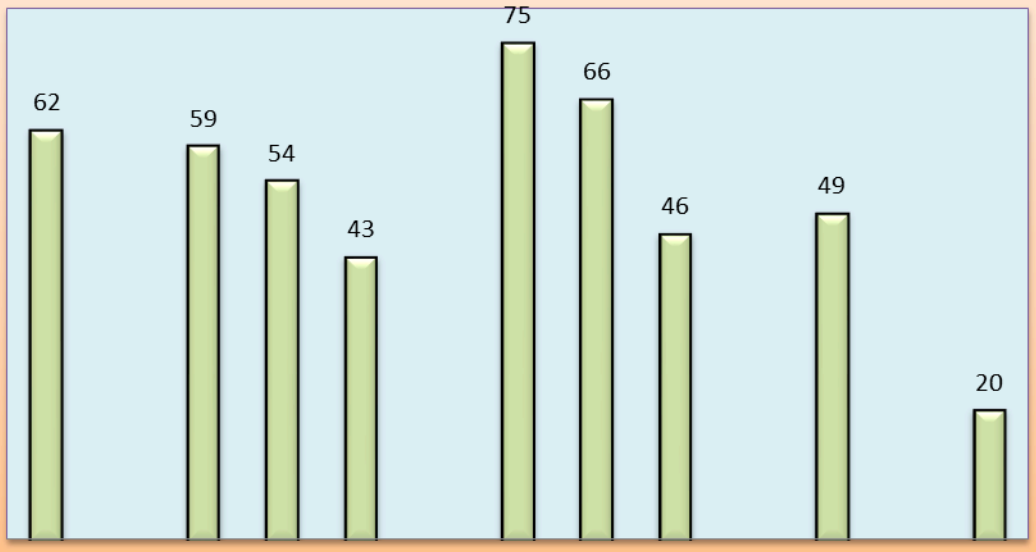
Percentage of children age 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Nigeria, 2011

	Vaccinated at any time before the survey according to			Vaccinated by 12 months of age
	Vaccination card	Mother's report	Either	
BCG[1]	28.5	33.9	62.4	61.7
Polio				
At birth	25.6	19.6	45.2	44.8
1	28.3	48.1	76.4	74.8
2	27.1	41.1	68.2	66.3
3[2]	25.3	23.5	48.8	46.1
DPT				
1	29.3	31.1	60.4	59.3
2	28.4	27.2	55.6	54.1
3[3]	26.5	18.2	44.7	42.6
Measles[4]	23.8	31.7	55.6	49.2
HepB				
At birth	17.7	11.6	29.3	29.0
1	28.8	26.3	55.1	54.1
2	27.9	20.5	48.4	47.1
3[5]	26.1	9.8	35.9	34.0
Yellow fever[6]	22.9	27.1	50.1	40.4
All vaccinations	23.0	4.6	27.6	19.6
No vaccinations	.0	20.6	20.6	20.6
Number of children age 12-23 months	4986	4986	4986	4986

[1] MICS indicator 3.1;
[2] MICS indicator 3.2;
[3] MICS indicator 3.3;
[4] MICS indicator 3.4; MDG indicator 4.3
[5] MICS indicator 3.5;
[6] MICS indicator 3.6

Approximately 62 percent of children age 12-23 months received a BCG vaccination by the age of 12 months and the first dose of DPT was given to 60 percent. The percentage declines for subsequent doses of DPT to 56 percent for the second dose, and 45 percent for the third dose (Figure CH.2). Similarly, 76 percent of children received Polio 1 by age 12 months and this declines to 68 percent by the second dose (Polio 2) and to 49 percent by the third dose (Polio 3). The coverage for measles vaccine by the time of survey is 56 percent while those vaccinated for yellow fever by 12 months of age is 40 percent.

Figure CH.1: Percentage of children aged 12-23 months who received the recommended vaccinations by 12 months, Nigeria, 2011



Vaccinations by background characteristics

Table CH.2 shows vaccination coverage rates among children 12-23 months by background characteristics. The figures indicate children receiving the vaccinations at any time up to the date of the survey, and are based on information from both the vaccination cards and mothers'/caretakers' reports.

Urban-rural disparity indicates that children who are in possession of immunization cards are almost twice for urban area (43 percent) than rural area (23 percent). There are wide North-South disparities, showing that the rates are low in the North (with lowest figure of 8 percent recorded in North West) and high in the South (highest figure of 48 percent recorded in South-East).

Mother's education and wealth status affect the chances of a child having vaccination cards; only 11 percent of children of mothers with no education have vaccination cards as against 48 percent of children of mothers with secondary education or higher.

In general, it is observed that the percentage of children vaccinated against polio is higher than that of DPT and of measles. For instance, 73 percent of children were vaccinated for polio1 whereas only 53 percent for DPT1 and only 50 percent for measles. There is need for further investigations to confirm the findings which tends to indicate that polio, particularly polio first dose may have included campaign doses since polio1 is so much higher than DTP1 despite these vaccines being recommended in the national schedule at the same time. It is also observed that MCV first dose coverage is higher than the third dose of DPT; this often indicates that campaign doses have crept into the MCV coverage.this often indicates that campaign doses have crept into the MCV coverage.

Table CH.2: Vaccinations by background characteristics

Percentage of children age 12-23 months currently vaccinated against childhood diseases, Nigeria, 2011

	Percentage of children who received:															Percentage with vaccination card seen	Number of children age 12-23 months
	BCG	Polio				DPT			Measles	HepB				Yellow fever	None	All		
		At birth	1	2	3	1	2	3		At birth	1	2	3					
Sex																		
Male	57.0	40.1	74.4	66.9	45.8	54.9	50.0	37.8	50.9	27.6	48.7	42.0	30.5	44.8	22.8	24.1	25.8	2485
Female	53.7	38.6	71.9	62.6	44.2	51.1	45.6	36.2	48.3	24.9	45.8	38.9	28.4	42.9	24.7	21.6	22.8	2396
State																		
Abia	89.1	74.7	91.1	86.4	63.6	87.3	86.1	82.5	83.7	59.8	86.1	86.1	71.8	78.5	7.0	58.1	51.8	48
Adamawa	72.1	53.1	78.7	65.6	50.7	69.4	66.1	48.7	68.4	43.6	65.7	52.1	37.7	67.2	17.4	34.2	28.8	100
Akwa Ibom	77.9	47.0	87.0	83.4	54.3	84.2	82.8	67.0	77.0	27.6	64.7	70.6	47.1	63.6	11.9	30.6	40.2	126
Anambra	86.8	67.2	85.8	77.0	63.5	83.3	80.6	73.8	85.9	61.9	77.9	73.2	62.6	74.4	10.0	50.0	42.2	73
Bauchi	32.6	23.1	77.2	68.7	55.3	32.1	26.0	20.7	35.7	20.0	27.1	22.7	19.3	28.0	20.8	18.3	17.7	236
Bayelsa	72.9	37.7	88.2	73.9	51.5	73.9	63.1	38.3	64.7	20.8	67.6	54.6	36.6	53.8	7.3	23.3	29.1	40
Benue	73.9	45.6	74.0	68.4	51.3	69.1	61.8	41.5	52.6	15.3	55.9	43.0	32.7	46.7	12.6	13.1	27.7	120
Borno	34.7	11.0	49.7	42.4	22.9	25.5	21.7	14.8	23.5	9.4	20.7	17.2	9.8	19.1	48.7	7.7	6.4	225
Cross River	83.4	50.1	80.1	74.2	52.5	80.8	82.4	60.1	69.4	30.3	71.3	68.2	47.1	68.4	10.0	24.8	51.5	98
Delta	85.3	63.4	85.5	80.1	56.8	83.3	76.6	64.7	73.8	23.1	80.3	74.5	59.3	68.8	10.2	40.8	58.9	108
Ebonyi	95.8	69.9	95.1	87.8	62.2	94.1	91.0	74.8	85.6	65.0	90.9	82.5	60.6	81.3	3.7	53.4	48.0	86
Edo	93.1	70.6	97.1	86.4	62.7	89.2	85.1	61.5	80.6	39.4	82.7	67.5	44.1	71.7	2.1	31.4	48.3	43
Ekiti	96.3	86.2	97.1	95.4	84.6	97.1	96.3	93.4	90.9	30.5	95.4	91.6	66.0	89.2	2.9	59.8	49.1	35
Enugu	95.3	88.1	89.4	87.2	68.5	95.3	93.1	87.2	80.9	69.0	92.5	84.8	66.8	73.7	4.7	47.9	68.4	59
Gombe	51.1	35.4	78.3	72.2	59.9	49.7	48.1	36.6	52.7	29.6	48.0	43.6	33.5	48.4	20.5	31.3	25.3	108
Imo	91.3	77.5	89.3	83.6	60.1	86.1	84.1	75.7	85.9	59.9	82.3	80.4	65.5	84.0	6.7	51.5	45.4	59
Jigawa	26.9	13.2	41.9	34.2	21.6	20.7	12.4	7.2	22.3	4.9	11.3	9.5	5.4	22.6	51.2	4.6	2.5	164
Kaduna	69.0	35.4	85.2	59.9	29.2	60.5	49.9	29.1	56.1	32.7	49.3	25.6	17.3	40.1	11.0	14.6	13.8	347
Kano	25.4	18.2	51.2	44.0	27.7	25.7	23.3	14.7	28.1	14.4	19.2	15.0	8.6	23.4	45.6	7.8	7.8	381
Katsina	31.5	26.8	68.6	58.3	37.8	27.6	19.7	11.4	38.0	12.2	20.9	13.3	9.7	23.8	30.1	9.2	9.2	272
Kebbi	20.4	15.5	69.9	63.2	50.1	11.7	10.6	6.5	19.5	8.2	8.5	7.2	6.3	13.3	27.6	4.3	4.3	149
Kogi	77.9	63.0	83.6	73.1	39.7	78.0	68.2	50.2	68.6	33.4	66.9	53.9	31.8	60.4	10.5	17.4	25.0	58
Kwara	93.8	82.7	90.8	84.8	59.1	91.8	87.8	78.3	81.6	79.8	90.5	84.6	59.7	79.9	5.0	50.4	50.9	74
Lagos	91.6	85.5	91.6	91.2	74.9	89.4	89.4	81.7	88.9	72.3	88.2	87.0	68.1	89.3	8.4	64.7	55.3	251
Nasarawa	65.0	45.5	86.9	73.6	51.1	65.9	55.0	31.8	53.6	18.2	55.1	44.2	30.6	49.1	8.6	14.1	25.0	80
Niger	41.8	19.7	73.9	68.6	37.8	45.9	41.5	23.9	38.0	10.3	43.0	36.9	21.8	36.2	23.5	13.4	20.4	173
Ogun	77.9	58.3	80.4	67.8	37.2	76.6	70.7	47.9	62.2	15.2	73.2	61.2	39.7	60.9	17.8	28.0	28.5	113
Ondo	85.5	68.4	86.8	77.9	55.0	84.7	78.4	64.4	78.2	45.0	82.9	76.9	46.5	72.6	11.7	42.4	29.7	73
Osun	94.9	78.2	97.1	93.7	68.7	95.4	92.9	86.3	80.8	25.9	95.4	87.5	71.8	77.6	.0	55.7	57.7	79
Oyo	73.8	62.9	77.2	69.4	52.2	76.3	68.2	55.0	59.6	28.9	76.6	64.2	55.0	57.5	16.2	36.7	41.8	127
Plateau	84.1	73.8	86.4	77.5	59.0	83.4	77.6	63.3	68.3	56.3	73.4	63.9	47.6	63.7	10.8	39.0	50.1	86

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

Percentage of children age 12-23 months currently vaccinated against childhood diseases, Nigeria, 2011

	Percentage of children who received:																Percentage with vaccination card seen	Number of children age 12-23 months
	BCG	Polio				DPT			Measles	HepB				Yellow fever	None	All		
		At birth	1	2	3	1	2	3		At birth	1	2	3					
Rivers	81.1	63.3	89.4	81.7	52.5	80.4	72.6	64.1	74.3	21.3	75.6	63.0	42.1	63.5	9.4	25.1	39.9	98
Sokoto	10.3	6.9	42.3	35.7	18.6	10.5	8.5	6.9	6.6	5.7	8.5	6.9	5.5	7.7	56.3	4.3	4.1	242
Taraba	53.0	37.8	56.7	47.0	33.0	52.6	42.3	29.9	45.8	32.4	44.2	35.5	27.7	46.6	37.9	25.0	24.0	93
Yobe	30.6	15.2	67.2	60.3	49.7	27.6	20.8	13.0	31.2	7.8	23.2	19.6	12.1	18.8	31.6	10.1	7.9	191
Zamfara	21.4	7.7	60.6	54.1	40.6	15.1	4.5	3.7	11.4	2.9	7.3	3.6	1.8	8.3	38.1	1.8	1.8	228
FCT (Abuja)	90.4	71.0	93.3	87.9	61.2	91.8	87.7	80.7	85.0	62.9	83.9	78.0	60.5	82.4	6.1	50.1	51.1	37
Area of residence																		
Urban	78.9	63.3	85.3	78.5	56.9	76.1	73.1	59.4	70.4	44.8	69.4	62.8	47.1	66.5	11.5	38.3	38.7	1240
Rural	47.3	31.2	69.1	60.1	41.0	45.2	39.2	29.3	42.6	19.9	39.7	32.9	23.4	36.1	27.9	17.6	19.5	3641
Mother's education																		
None	31.4	18.5	61.4	52.3	33.6	28.5	22.5	14.9	27.8	11.3	22.1	16.6	11.2	20.9	35.8	8.7	9.5	2525
Primary	70.3	50.7	79.3	71.4	51.4	68.7	62.5	46.1	61.1	33.6	63.6	53.7	37.7	55.7	16.7	29.4	30.7	821
Secondary+	86.6	67.8	89.3	81.7	60.3	84.5	81.1	68.0	79.0	46.4	79.1	72.0	54.5	75.1	7.8	42.6	45.5	1534
Wealth index quintile																		
Poorest	26.1	15.5	53.4	43.9	30.7	25.0	20.3	14.1	24.1	11.2	20.2	16.4	11.6	18.9	44.4	9.8	9.4	1032
Second	38.5	22.5	68.0	60.4	40.2	35.7	28.7	20.6	33.8	14.1	29.8	23.3	16.9	27.5	28.9	13.2	14.1	1038
Middle	53.3	36.1	72.5	64.3	43.6	49.7	44.5	33.2	49.1	22.7	43.3	36.9	27.4	40.8	23.8	20.4	23.2	939
Fourth	74.1	52.2	81.6	71.9	49.7	70.5	64.6	48.4	61.9	32.0	63.5	53.4	37.1	56.0	13.6	27.1	30.0	958
Richest	89.7	75.4	93.3	86.3	63.0	88.8	85.6	72.7	83.8	54.0	84.0	76.7	57.6	80.7	5.4	46.7	48.2	915
Geo-political zone																		
North-Central	69.5	49.9	81.3	73.9	49.1	69.2	62.8	46.0	57.8	32.4	61.7	52.6	36.4	53.9	13.3	23.9	32.3	628
North-East	40.9	24.6	67.0	58.7	44.4	37.8	32.5	23.6	38.5	20.2	33.3	27.8	20.3	32.5	30.8	18.0	15.7	952
North-West	32.1	19.3	61.2	50.1	31.3	27.8	21.5	13.2	28.8	13.5	20.6	13.1	8.6	21.8	36.0	7.5	7.1	1783
South-East	91.9	74.7	90.3	84.3	63.5	89.5	87.1	78.2	84.5	63.4	86.0	81.0	64.8	78.4	6.3	52.0	50.5	326
South-South	82.0	55.4	86.8	80.2	54.6	82.3	78.2	62.0	73.7	26.4	73.1	68.0	47.7	65.5	9.5	30.1	46.0	513
South-West	86.0	74.1	87.5	82.3	62.0	85.5	82.0	70.5	77.0	44.3	84.2	77.7	59.0	75.5	10.5	49.6	45.5	679
Total	55.4	39.4	73.2	64.8	45.0	53.1	47.9	37.0	49.6	26.3	47.3	40.5	29.5	43.9	23.8	22.9	24.4	4881

Neonatal Tetanus Protection

One of the MDGs is to reduce by three quarters the maternal mortality ratio, with one strategy to eliminate maternal tetanus. In addition, another goal is to reduce the incidence of neonatal tetanus to less than 1 case of neonatal tetanus per 1000 live births. A World Fit for Children goal is to eliminate maternal and neonatal tetanus by 2005.

Prevention of maternal and neonatal tetanus is to assure all pregnant women receive at least two doses of tetanus toxoid vaccine. However, if women have not received two doses of the vaccine during the pregnancy, they (and their newborn) are also considered to be protected if the following conditions are met:

- Received at least two doses of tetanus toxoid vaccine, within the last 5 years preceding the pregnancy;
- Received at least 3 doses, within the last years preceding the pregnancy; 5 years;
- Received at least 4 doses, the last within 10 years;
- Received at least 5 doses during lifetime

Table CH.3 shows the protection status from tetanus of women who have had a live birth within the last 2 years. Figure CH.2 shows the protection of women against neonatal tetanus by major background characteristics.

Table CH.3: Neonatal tetanus protection

Percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus, Nigeria, 2011

	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:				Protected against tetanus[1]	Number of women with a live birth in the last 2 years
		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		
State							
Abia	90.5	2.5	.2	.0	.0	93.2	189
Adamawa	48.9	4.7	.0	.0	.0	53.6	226
Akwa Ibom	56.9	6.4	.0	.0	.0	63.3	254
Anambra	85.2	2.4	.7	.0	.0	88.3	270
Bauchi	20.2	2.3	.0	.0	.0	22.4	455
Bayelsa	53.6	3.7	.0	.0	.0	57.3	144
Benue	50.2	5.4	.0	.0	.0	55.6	244
Borno	25.1	.4	.0	.0	.0	25.4	270
Cross River	65.9	4.1	.0	.0	.0	70.0	203
Delta	65.5	6.6	.0	.0	.0	72.1	293
Ebonyi	63.0	3.0	.0	.0	.0	66.0	137
Edo	68.9	3.4	.0	.0	.0	72.4	204
Ekiti	74.5	4.2	.1	.0	.0	78.8	152
Enugu	86.7	3.5	.0	.0	.0	90.2	181
Gombe	50.4	4.5	.3	.0	.0	55.2	175
Imo	89.4	2.8	.0	.0	.0	92.1	180
Jigawa	25.4	3.2	.3	.0	.0	28.9	333
Kaduna	51.9	10.5	.0	.0	.0	62.4	494
Kano	35.5	4.4	1.3	.2	.0	41.4	725
Katsina	11.3	1.7	.1	.0	.0	13.1	443
Kebbi	15.1	2.7	.0	.0	.0	17.8	252
Kogi	55.9	1.4	.8	.0	.0	58.1	161
Kwara	70.9	5.8	.6	.0	.0	77.3	168
Lagos	78.4	3.2	.0	.9	.0	82.5	686
Nasarawa	36.2	8.6	.0	.0	.0	44.7	157
Niger	36.6	1.9	.0	.0	.0	38.5	285
Ogun	77.7	2.9	.0	.0	.0	80.6	272
Ondo	74.2	3.5	.0	.0	.0	77.7	206
Osun	78.0	5.6	1.0	1.0	.0	85.6	215
Oyo	63.9	1.8	.3	.4	.0	66.4	416
Plateau	42.8	8.1	.0	.0	.0	50.9	196
Rivers	83.8	5.9	.0	.0	.0	89.7	318
Sokoto	6.5	2.7	.0	.0	.0	9.2	273
Taraba	28.1	4.3	.0	.0	.0	32.3	145
Yobe	26.7	1.8	.2	.0	.3	29.0	191
Zamfara	12.3	.3	.1	.0	.0	12.8	275
FCT (Abuja)	61.2	13.5	.0	.5	.0	75.2	90

Table CH.3: Neonatal tetanus protection (continued)

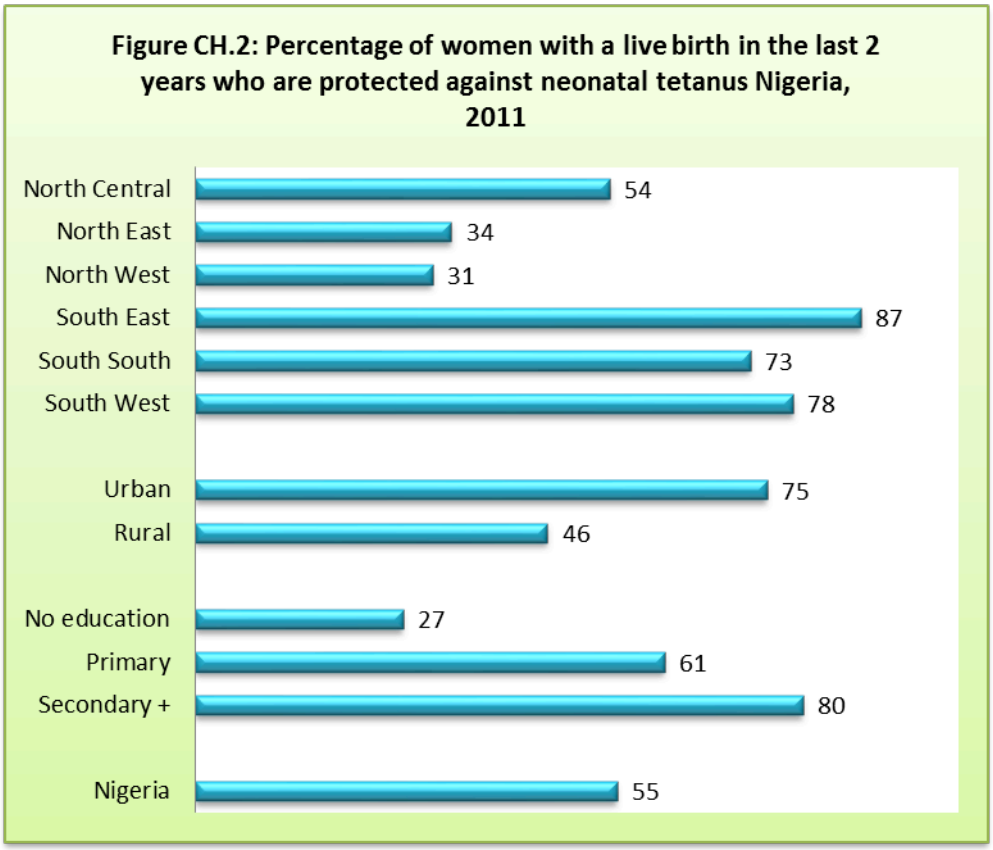
Percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus, Nigeria, 2011

	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:				Protected against tetanus[1]	Number of women with a live birth in the last 2 years
		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		
Area of residence							
Urban	69.2	5.1	.2	.3	.0	74.9	3122
Rural	42.5	3.5	.2	.0	.0	46.1	6757
Education							
None	24.2	2.7	.1	.1	.0	27.1	3951
Primary	57.0	4.2	.3	.0	.0	61.5	1852
Secondary+	74.0	5.1	.2	.2	.0	79.6	4076
Wealth index quintile							
Poorest	18.9	2.3	.0	.0	.0	21.2	2167
Second	35.4	3.4	.2	.0	.0	38.9	2002
Middle	53.1	4.0	.3	.0	.0	57.4	1830
Fourth	70.6	4.6	.1	.5	.0	75.9	1963
Richest	81.0	5.8	.5	.1	.0	87.4	1917
Geo-political zone							
North-Central	48.6	5.5	.2	.0	.0	54.3	1301
North-East	30.8	2.7	.1	.0	.0	33.5	1463
North-West	26.4	4.2	.4	.0	.0	31.0	2795
South-East	84.2	2.8	.2	.0	.0	87.2	956
South-South	67.4	5.3	.0	.0	.0	72.7	1417
South-West	74.4	3.2	.2	.5	.0	78.3	1948
Total	50.9	4.0	.2	.1	.0	55.2	9879

[1] MICS indicator 3.7

Tetanus protection status of women who had live birth within the last 24 months is shown in table CH.3. Protection against tetanus toxoid revealed that 51 percent of the women received at least two doses during the last pregnancy. More than half (55 percent) of the women with live birth in the last two years preceding the survey received neonatal tetanus protection. Variation in proportion of women protected with tetanus toxoid vaccine is significant between rural (46 percent) and urban (75 percent), and between North and South with north having the highest of 54 percent and south having the lowest of 73 percent). Wealth status and education of mother have impact on the protection against tetanus; proportion of mothers with no education (27 percent) is far low compared to mothers with secondary education or higher (80 percent). Likewise proportion of mothers in the poorest wealth quintile (21 percent) is very low compared to those in the richest quintile (87 percent).

Overall, 4 percent of women who did not receive two or more doses during last pregnancy received 2 doses within 3 years preceding. Similarly, the figures for women who did not receive two or more doses during last pregnancy but received 3 doses within the last 5 years preceding and 4 doses within the 10 years preceding is negligible. Education, wealth index quintiles, and area follow the same pattern as for women who are protected against tetanus.



Oral Rehydration Treatment

Diarrhoea is the second 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. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

The goals are to reduce by one half death due to diarrhoea among children under five by 2010 compared to 2000 (A World Fit for Children); and 2) reduce by two thirds the mortality rate among children under five by 2015 compared to 1990 (Millennium Development Goals). In addition, the World Fit for Children calls for a reduction in the incidence of diarrhoea by 25 percent.

In the MICS questionnaire, mothers (or caretakers) were asked to report whether their child had had diarrhoea in the two weeks prior to the survey. If so, the mother/caretaker was asked a series of questions about what the child had to drink and eat during the episode and whether this was more or less than the child usually ate and drank.

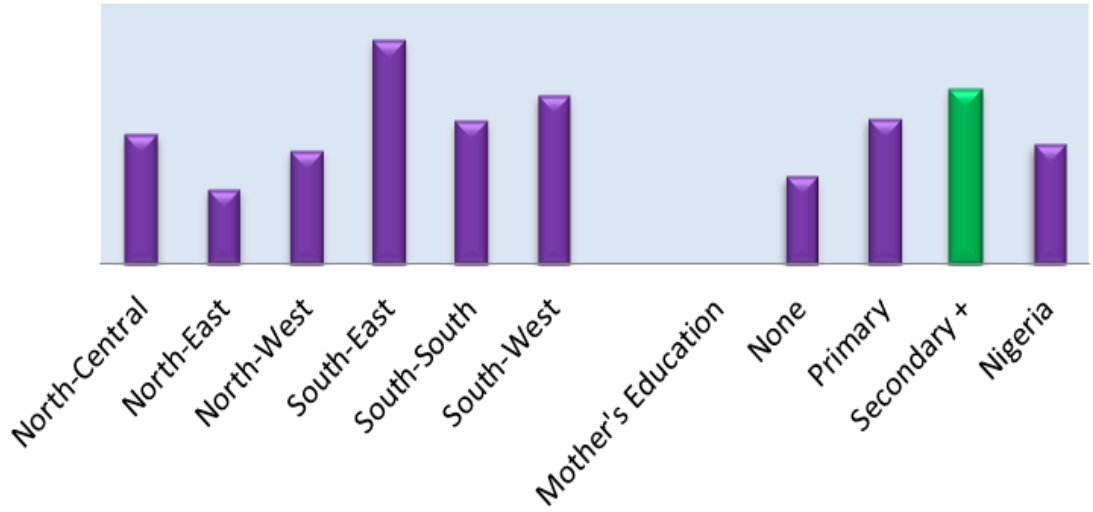
Overall, 14 percent of under-five children had diarrhoea in the two weeks preceding the survey (Table CH.4). Since mothers were able to name more than one type of liquid, the percentages do not necessarily add to 100. About 26 percent received fluids from ORS packets or pre-packaged ORS fluids and 17 percent received recommended homemade fluids. Children of mothers with secondary education are more likely to receive oral rehydration solution than other children. Approximately 37 percent of children with diarrhoea received one or more of the recommended home treatments i.e. were treated with ORS or any recommended homemade fluid.

Table CH.4: Oral rehydration solutions and recommended homemade fluids

Percentage of children age 0-59 months with diarrhea in the last two weeks, and treatment with oral rehydration solutions and recommended homemade fluids, Nigeria, 2011

	Had diarrhea in last two weeks	Number of children age 0-59 months	Children with diarrhea who received:					Number of children age 0-59 months with diarrhea in last two weeks
			ORS (Fluid from ORS packet or pre-packaged ORS fluid)	Recommended homemade fluids			ORS or any recommended homemade fluid	
				Salt Sugar Solution	Coconut/Rice water	Any recommended homemade fluid		
Sex								
Male	14.6	12856	27.4	15.3	2.5	16.7	38.3	1878
Female	13.0	12336	24.4	14.8	2.6	16.5	35.1	1602
Area of residence								
Urban	10.3	7664	44.5	15.1	1.9	16.2	52.3	788
Rural	15.4	17528	20.6	15.1	2.7	16.7	32.3	2692
Age								
0-11 months	16.3	5432	32.6	11.5	1.2	12.3	41.0	884
12-23 months	19.3	4986	27.0	16.5	3.0	18.8	38.8	962
24-35 months	14.3	4747	22.6	15.6	2.3	16.7	33.3	679
36-47 months	10.6	5170	19.8	13.7	2.9	15.8	30.4	548
48-59 months	8.4	4857	23.1	20.3	4.2	21.7	37.7	406
Mother's education								
None	18.5	10992	18.6	12.2	2.3	13.6	27.4	2036
Primary	12.3	4989	26.9	23.7	3.9	26.0	45.0	613
Secondary+	9.0	9209	43.5	15.7	2.1	16.8	53.8	830
Wealth index quintile								
Poorest	20.7	5797	12.0	10.1	1.6	11.1	20.3	1198
Second	16.6	5220	20.7	14.6	3.7	17.2	33.5	868
Middle	14.0	4711	35.1	22.3	4.0	24.3	48.8	658
Fourth	8.5	4801	37.7	22.5	1.8	23.1	50.8	409
Richest	7.4	4662	56.3	11.0	1.1	11.7	63.0	347
Geo-political zone								
North-Central	11.1	3285	28.5	17.0	3.0	17.7	40.3	365
North-East	22.1	3843	14.2	10.3	1.7	11.4	23.0	850
North-Wes	20.1	7501	26.0	15.8	2.2	17.3	35.2	1509
South-East	8.3	2563	42.7	28.7	5.3	32.8	68.7	213
South-South	7.0	3483	29.7	16.1	6.0	19.7	43.7	243
South-West	6.7	4516	41.3	11.7	.9	12.4	51.6	300
Total	13.8	25192	26.0	15.1	2.5	16.6	36.8	3480

Figure CH.3: Percentage of children under age 5 with diarrhoea who received ORS or recommended home fluids, Nigeria,2011



About 14 percent of under-five children with diarrhoea drank more than usual while 30 percent drank the same and 52 percent drank less (Table CH.5). Sixty seven percent ate somewhat less, same or more (continued feeding), but 31 percent ate much less or ate almost none.

Table CH.5: Feeding practices during diarrhea (continued)

Percent distribution of children age 0-59 months with diarrhoea in the last two weeks by amount of liquids and food given during episode of diarrhea, Nigeria, 2011

	Had diarrhea in last two weeks	Number of children age 0-59 months	Drinking practices during diarrhea:							Eating practices during diarrhea:								Number of children age 0-59 months with diarrhoea in last two weeks
			Given much less to drink	Given somewhat less to drink	Given about the same to drink	Given more to drink	Given nothing to drink	Missing /DK	Total	Given much less to eat	Given somewhat less to eat	Given about the same to eat	Given more to eat	Stopped food	Had never been given food	Missing /DK	Total	
Sex																		
Male	14.6	12856	26.9	25.8	30.2	13.6	2.6	.9	100.0	26.5	27.9	31.3	6.7	4.9	2.0	.8	100.0	1878
Female	13.0	12336	25.2	26.1	30.6	14.1	3.5	.6	100.0	23.2	29.9	31.0	7.0	5.7	2.8	.4	100.0	1602
Area of residence																		
Urban	10.3	7664	24.1	24.5	34.2	13.9	2.8	.5	100.0	27.2	27.6	31.4	6.6	4.4	2.5	.3	100.0	788
Rural	15.4	17528	26.7	26.4	29.2	13.8	3.1	.8	100.0	24.3	29.1	31.1	6.9	5.5	2.3	.7	100.0	2692
Age (in months)																		
0-11	16.3	5432	27.4	28.0	28.5	12.8	2.7	.6	100.0	27.5	24.8	30.2	6.3	3.1	7.5	.6	100.0	884
12-23	19.3	4986	27.8	21.6	31.5	14.8	2.9	1.4	100.0	26.0	25.6	31.8	7.5	7.0	.9	1.3	100.0	962
24-35	14.3	4747	27.3	25.8	31.1	12.6	2.9	.3	100.0	25.5	31.4	32.4	6.3	4.0	.3	.0	100.0	679
36-47	10.6	5170	22.4	27.6	32.7	12.0	4.3	1.0	100.0	21.2	33.3	32.2	6.7	5.3	.8	.5	100.0	548
48-59	8.4	4857	22.1	30.0	27.3	18.0	2.6	.2	100.0	21.3	34.6	28.5	7.2	7.7	.4	.3	100.0	406
Mother's education																		
None	18.5	10992	26.9	28.0	29.3	12.0	2.7	1.1	100.0	24.7	30.4	29.8	6.6	5.0	2.4	1.0	100.0	2036
Primary	12.3	4989	24.6	22.6	32.7	15.7	4.0	.4	100.0	24.1	26.3	33.7	6.2	8.1	1.7	.0	100.0	613
Secondary +	9.0	9209	25.1	23.5	31.3	16.8	3.0	.2	100.0	26.2	26.6	32.8	7.7	3.9	2.8	.1	100.0	830
Wealth index quintile																		
Poorest	20.7	5797	24.8	28.0	28.1	15.4	2.2	1.7	100.0	22.3	30.4	29.9	7.5	5.5	3.2	1.2	100.0	1198
Second	16.6	5220	27.6	27.2	29.3	11.2	4.3	.4	100.0	24.9	29.2	31.9	6.3	5.1	2.3	.4	100.0	868
Middle	14.0	4711	27.6	24.0	33.0	12.2	3.1	.0	100.0	25.0	30.7	30.8	5.3	6.4	1.7	.3	100.0	658
Fourth	8.5	4801	23.5	24.3	34.1	15.1	2.6	.4	100.0	28.5	24.4	35.8	6.2	4.3	.4	.4	100.0	409
Richest	7.4	4662	27.0	21.8	31.5	16.4	3.1	.2	100.0	30.4	23.9	29.4	8.9	3.8	3.5	.2	100.0	347
Geo-political zone																		
North-Central	11.1	3285	20.5	25.5	33.6	16.4	3.7	.4	100.0	27.6	26.3	35.7	4.8	4.0	1.2	.4	100.0	365
North-East	22.1	3843	27.3	25.3	26.0	18.3	1.3	1.8	100.0	24.1	27.7	29.1	10.5	3.7	3.5	1.3	100.0	850
North-West	20.1	7501	28.6	30.0	28.2	9.5	3.1	.6	100.0	25.4	32.6	27.9	5.0	6.2	2.2	.6	100.0	1509
South-East	8.3	2563	24.9	18.4	23.5	28.2	4.9	.1	100.0	22.6	24.9	26.7	16.0	8.2	1.6	.0	100.0	213
South-South	7.0	3483	17.3	16.2	46.0	16.0	4.3	.2	100.0	22.5	18.7	43.9	6.3	6.5	2.0	.0	100.0	243
South-West	6.7	4516	24.8	21.7	41.8	7.5	4.3	.0	100.0	25.6	26.6	41.1	1.6	2.8	2.3	.0	100.0	300
Total	13.8	25192	26.1	26.0	30.4	13.8	3.0	.8	100.0	25.0	28.8	31.2	6.8	5.2	2.4	.6	100.0	3480

Oral Rehydration Therapy with Continued Feeding and Other Treatments

Table CH.6 provides the proportion of children age 0-59 months with diarrhoea in the last two weeks who received oral rehydration therapy (ORT) with continued feeding, and percentage of children with diarrhoea who received other treatments. Overall, 35 percent of children with diarrhoea received ORS or increased fluids, 44 percent received ORT (ORS or recommended homemade fluids or increased fluids). Combining the information in Table CH.5 with those in Table CH.4 on oral rehydration therapy, it is observed that 28 percent of children either received ORT and, at the same time, feeding was continued, as is the recommendation.

There are significant differences in the home management of diarrhoea by background characteristics. In South-East, about half of children with diarrhea (51 percent) received ORT and continued feeding, while the figure is 23 percent in North-West.

Similar pattern of distribution is observed for the children with diarrhoea who were given ORS or increased fluids and those who were given ORS or recommended homemade fluids.

Figure CH.4: Percentage of children under age 5 with diarrhoea who received ORT or increased fluids, AND continued feeding Nigeria, 2011

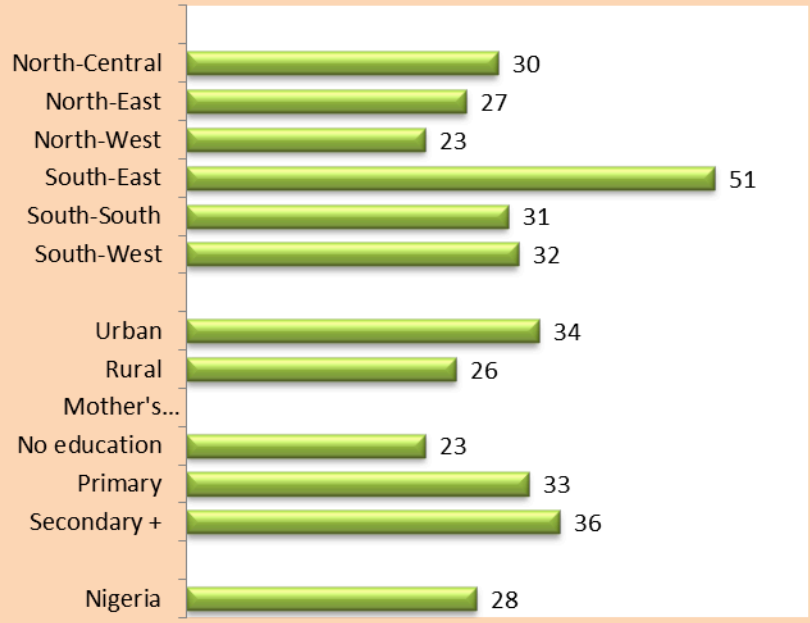


Table CH.6: Oral rehydration therapy with continued feeding and other treatments

Percentage of children age 0-59 months with diarrhea in the last two weeks who received oral rehydration therapy with continued feeding, and percentage of children with diarrhea who received other treatments, Nigeria, 2011

	Children with diarrhea who received:			Other treatments:											Not given any treatment or drug	Number of children age 0-59 months with diarrhea in last two weeks
				Pill or syrup					Injection							
	ORS or increased fluids	ORT (ORS or recommended homemade fluids or increased fluids)	ORT with continued feeding[1]	Anti-biotic	Anti-motility	Zinc	Other	Unknown	Anti-biotic	Non-antibiotic	Unknown	Intravenous	Home remedy, herbal medicine	Other		
Sex																
Male	36.2	45.2	27.7	21.5	10.4	.7	.8	10.5	3.2	.2	2.1	.6	11.8	8.9	21.5	1878
Female	34.1	42.6	28.0	23.1	8.7	1.0	.8	9.8	3.7	.2	1.6	.4	12.4	11.4	23.2	1602
Area of residence																
Urban	52.0	58.8	34.5	30.8	13.4	.6	1.5	10.5	5.7	.0	1.4	1.4	6.4	10.6	13.0	788
Rural	30.4	39.7	25.9	19.8	8.5	.9	.6	10.0	2.8	.2	2.0	.2	13.7	9.9	25.0	2692
Age																
0-11 months	40.6	47.6	27.0	20.3	9.5	.9	.6	8.5	5.3	0	1.3	1.0	14.9	8.4	24.7	972.0
12-23 months	36.4	45.9	30.3	22.6	9.1	1.2	1.1	10.8	1.9	0.3	2.1	.1	10.4	11.0	24.8	1090.0
24-35 months	31.8	40.6	25.1	23.9	10.4	.6	.2	11.2	3.7	0.1	1.4	.3	13.1	10.0	21.7	788.0
36-47 months	29.7	37.3	27.3	25.3	8.2	.9	1.9	8.2	3.2	0.1	1.1	.2	13.3	10.4	24.1	646.0
48-59 months	34.3	46.7	29.2	19.0	11.4	.1	.1	13.1	3.0	0.3	2.4	.4	12.3	9.5	22.3	482.0
Mother's education																
None	27.1	34.4	22.9	17.5	9.7	.7	.6	9.8	2.5	.1	1.7	.2	14.7	9.0	28.6	2036
Primary	37.3	53.0	33.1	27.8	7.1	1.6	.4	13.4	3.1	.3	1.6	.2	12.0	9.4	16.3	613
Secondary	53.9	61.0	36.3	29.9	11.1	.5	1.7	8.5	6.1	.2	2.4	1.4	5.6	13.2	11.1	830
Wealth index quintile																
Poorest	24.3	30.5	21.5	18.3	8.1	.7	.5	8.9	2.7	.4	1.3	.1	15.3	9.4	31.4	1198
Second	28.6	39.9	26.4	16.8	9.5	.8	.5	10.8	2.5	.2	2.4	.2	14.4	9.0	24.3	868
Middle	42.2	53.2	32.2	29.5	10.1	1.0	.4	12.0	3.3	.0	1.7	.5	11.3	10.0	15.3	658
Fourth	45.2	55.8	33.7	25.0	10.5	1.5	1.8	11.8	3.5	.0	3.0	.5	5.8	11.5	17.1	409
Richest	65.0	69.6	38.3	32.7	13.1	.3	2.1	7.3	8.8	.0	1.3	3.0	3.6	13.4	5.0	347
Geo-political zone																
North-Central	37.9	47.8	30.3	23.8	7.0	.9	.6	14.1	3.5	.3	3.3	.3	17.6	8.5	14.2	365
North-East	28.9	35.3	26.5	25.2	14.1	.9	.6	8.9	2.1	.1	.4	.1	12.0	10.7	24.0	850
North-West	32.0	40.0	23.4	17.2	7.4	.6	.5	9.6	2.6	.1	1.5	.2	13.0	8.5	28.8	1509
South- East	57.0	75.8	51.4	27.2	8.5	1.4	2.2	13.1	7.0	1.4	7.1	1.2	6.4	15.3	10.0	213
South-South	40.8	50.6	30.5	31.4	8.9	1.4	2.0	14.9	3.7	.0	3.7	2.4	10.4	10.5	12.8	243
South-West	46.5	56.2	32.2	26.4	12.5	.7	1.6	5.8	8.6	.0	.5	1.5	6.1	13.7	10.7	300
Total	35.3	44.0	27.9	22.3	9.6	.8	.8	10.1	3.4	.2	1.8	.5	12.0	10.1	22.3	3480

[1] MICS indicator 3.8

Table CH.7: Care seeking for suspected pneumonia and antibiotic use during suspected pneumonia

Percentage of children age 0-59 months with suspected pneumonia in the last two weeks who were taken to a health provider and percentage of children who were given antibiotics, Nigeria, 2011

	Had suspected pneumonia in the last two weeks	Number of children age 0-59 months	Children with suspected pneumonia who were taken to:															Any appropriate provider[1]	Percentage of children with suspected pneumonia who received antibiotics in the last two weeks[2]	Number of children age 0-59 months with suspected pneumonia in the last two weeks
			Public sources						Private sources						Other source					
			Govt. hospital	Govt. health centre	Govt. health post	Village health worker	Mobile/ outreach clinic	Other public	Private hospital/ clinic	Private physician	Private pharmacy	Mobile clinic	Other private medical	Relative or friend	Shop	Trad. Practi-tioner	Other			
Sex																				
Male	3.7	12856	10.	7.3	2.0	4.3	1.0	.2	8.1	.8	11.4	.7	4.6	3.7	5.2	4.7	1.5	38.8	46.6	474
Female	3.4	12336	12.	7.6	3.4	3.1	2.0	.8	8.1	1.9	9.7	.7	4.2	4.9	4.7	4.2	.9	40.8	44.0	416
Area of residence																				
Urban	2.5	7664	23.	4.6	3.5	.9	.8	.1	17.9	3.4	11.0	.0	3.3	2.3	3.3	1.0	1.6	53.0	52.9	191
Rural	4.0	17528	8.3	8.2	2.4	4.5	1.7	.6	5.4	.7	10.5	.9	4.7	4.8	5.4	5.5	1.1	36.1	43.3	699
Age (months)																				
0-11	4.0	5432	6.6	7.2	1.9	3.9	1.5	.5	11.9	.8	7.5	1.1	8.6	5.0	3.1	1.7	1.7	43.6	41.5	216
12-23	4.0	4986	14.	12.2	4.3	5.2	1.9	.5	5.4	.8	15.6	.3	4.3	3.0	5.7	6.0	1.9	45.8	52.9	201
24-35	3.3	4747	17.	5.7	1.7	3.2	1.0	.0	12.0	.0	5.1	.3	3.3	2.8	5.8	3.5	1.1	44.7	46.4	156
36-47	2.8	5170	14.	8.8	2.3	.2	2.1	.2	2.5	2.3	16.9	.2	.3	4.6	8.3	3.5	.2	28.0	48.9	144
48-59	3.6	4857	7.1	2.5	2.6	5.3	.8	1.1	7.7	2.6	8.4	1.6	3.9	5.8	2.8	7.9	.7	33.1	37.6	173
Mother's education																				
None	4.9	10992	8.5	5.1	3.4	4.2	1.8	.4	3.0	.3	9.4	.2	6.3	4.7	3.2	6.2	1.4	32.3	36.0	535
Primary	2.8	4989	9.3	11.3	1.1	5.7	2.4	.7	7.3	1.9	7.5	2.5	.7	3.5	11.3	3.5	2.1	40.8	46.1	140
Secondary +	2.3	9209	20.	10.7	1.7	1.5	.2	.6	21.2	3.3	15.6	.7	2.1	3.6	5.4	.8	.3	57.9	68.2	214

Table CH.7: Care seeking for suspected pneumonia and antibiotic use during suspected pneumonia (continued)

Percentage of children age 0-59 months with suspected pneumonia in the last two weeks who were taken to a health provider and percentage of children who were given antibiotics, Nigeria, 2011

	Had suspected pneumonia in the last two weeks	Number of children age 0-59 months	Children with suspected pneumonia who were taken to:															Any appropriate provider[1]	Percentage of children with suspected pneumonia who received antibiotics in the last two weeks[2]	Number of children age 0-59 months with suspected pneumonia in the last two weeks
			Public sources						Private sources						Other source					
			Govt. hospital	Govt. health centre	Govt. health post	Village health worker	Mobile/ outreach clinic	Other public	Private hospital/ clinic	Private physician	Private pharmacy	Mobile clinic	Other private	Relative or friend	Shop	Trad. Practi-tioner	Other			
Wealth index																				
Poorest	5.1	5797	5.4	3.0	4.7	4.3	.6	.0	2.3	.4	10.1	.2	7.8	3.9	3.3	6.4	2.1	27.8	32.8	294
Second	4.5	5220	6.0	8.7	2.5	3.6	3.8	.8	3.5	.5	9.9	.7	4.9	7.0	6.2	6.9	1.6	33.9	39.9	233
Middle	3.0	4711	13.6	14.3	.5	7.0	.2	1.5	7.6	.6	14.4	1.7	2.9	4.8	6.5	2.1	.5	47.2	60.7	144
Fourth	2.7	4801	15.2	13.0	.0	1.4	.5	.0	14.4	1.1	8.9	1.4	.7	2.1	6.7	1.4	.0	45.0	47.4	129
Richest	1.9	4662	37.4	.0	3.3	.4	1.6	.3	30.5	7.5	10.5	.0	.0	.4	2.3	.4	.4	74.5	73.5	90
Geo-political zone																				
North-	2.2	3285	6.2	17.7	.4	10.9	6.7	.0	20.3	3.7	14.4	1.7	3.7	2.3	5.1	6.5	.0	65.1	59.8	73
North-	7.9	3843	9.7	4.4	4.9	2.1	1.2	.3	2.2	.3	13.2	.4	8.0	3.9	3.7	.8	1.7	33.5	43.2	304
North-	4.0	7501	12.8	6.2	2.7	5.3	1.2	.6	6.3	1.6	5.2	.7	.8	6.1	2.2	9.1	1.7	34.0	35.6	301
South-	2.0	2563	9.1	20.6	.0	4.2	.0	.0	12.2	.4	14.1	.0	.0	.8	16.2	5.6	.0	46.5	69.9	52
South-	2.6	3483	14.7	6.8	.0	.8	1.1	1.6	13.0	2.9	18.9	2.0	2.1	3.3	12.2	1.5	.8	44.2	59.6	89
South-	(1.6)	(4516)	(16.9)	(6.2)	(.0)	(.0)	(.0)	(.0)	(19.4	(.0)	(5.6)	(.0)	(1)1	(3.4)	(4.6)	(1.5)	(.0)	(53.8)	(45.2)	(70)
Total	3.5	25192	11.5	7.4	2.6	3.8	1.5	.5	8.1	1.3	10.6	.7	4.4	4.2	5.0	4.5	1.2	39.7	45.4	890

[1] MICS indicator 3.9

[2] MICS indicator 3.10

( ) based on 25-49 unweighted cases

Care Seeking and Antibiotic Treatment of Pneumonia

Pneumonia is the leading cause of death in children and the use of antibiotics in under-5s with suspected pneumonia is a key intervention. A World Fit for Children goal is to reduce by one-third the deaths due to acute respiratory infections.

Children with suspected pneumonia are those who had an illness with a cough accompanied by rapid or difficult breathing and whose symptoms were due to a problem in the chest or both a problem in the chest and a blocked nose. The indicators are:

- Antibiotic treatment for suspected pneumonia
- Knowledge of the danger signs of pneumonia

Table CH.7 presents the prevalence of suspected pneumonia and, if care was sought outside the home, and the site of care. About four percent of children ages 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the survey. Of these children, 40 percent were taken to an appropriate provider.

Table CH.7 also presents the use of antibiotics for the treatment of suspected pneumonia in under-fives by sex, age, region, residence, and socioeconomic factors. In Nigeria, 45 percent of under-five children with suspected pneumonia had received an antibiotic during the two weeks prior to the survey. The percentage was considerably higher in the urban areas than in the rural (53 percent versus 43 percent); antibiotic treatment of pneumonia was most prevalent among children 12-23 months (53 percent), infants 0-11 months old have 42 percent prevalent rate and least prevalent among 48-59 months old 38 percent). The table also shows that antibiotic treatment of suspected pneumonia is very low among the poorest households (33 percent), and among children whose mothers/caretakers have no education (36 percent).

Knowledge of the two danger signs of pneumonia

Issues related to knowledge of danger signs of pneumonia are presented in Table CH.8. Obviously, mothers' knowledge of the danger signs is an important determinant of care-seeking behaviour. Overall, 10 percent of women know of the two danger signs of pneumonia – fast and difficult breathing. The most commonly identified symptom for taking a child to a health facility is 'develop a fever'. Nineteen percent of mothers identified fast breathing and 23 percent of mothers identified difficult breathing as symptoms for taking children immediately to a health care provider.

Although wealth status, level of education, rural-urban and North-South geographical location hardly affect knowledge of symptoms of pneumonia in children, development of fever is more easily identified by the educated than by the uneducated mothers; by the rich than by the poor quintiles and by the urban mothers/caretakers than by their rural counterparts. Blood in stool and drinking poorly are identifiedas symptoms for taking children immediately to a health care provider By 19 and 16 percent of mothers/caregivers respectively.

Table CH.8: Knowledge of the two danger signs of pneumonia

Percentage of mothers and caretakers of children age 0-59 months by symptoms that would cause them to take the child immediately to a health facility, and percentage of mothers who recognize fast and difficult breathing as signs for seeking care immediately, Nigeria, 2011

	Percentage of mothers/caretakers of children age 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/caretakers who recognize the two danger signs of pneumonia	Number of mothers/caretakers of children age 0-59 months
	Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficulty breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
State										
Abia	36.3	51.7	82.9	32.1	33.7	25.8	19.3	23.2	18.7	291
Adamawa	38.9	50.3	67.3	23.7	23.0	15.0	39.1	17.9	10.1	391
Akwa Ibom	22.0	25.0	90.3	20.3	29.5	25.3	3.5	7.0	7.2	412
Anambra	24.5	39.3	89.7	27.6	28.2	23.3	8.9	38.2	19.5	400
Bauchi	22.8	13.6	66.8	9.6	8.8	4.0	20.8	53.2	4.1	634
Bayelsa	14.5	31.3	74.6	8.3	13.2	12.4	8.5	55.5	3.1	210
Benue	26.6	41.3	77.4	19.6	29.3	24.0	15.6	47.4	13.4	369
Borno	38.1	62.5	56.2	46.5	59.5	39.9	23.7	8.9	35.2	486
Cross River	17.4	50.0	83.5	29.6	30.8	36.3	11.0	36.1	21.4	313
Delta	27.1	44.0	83.1	33.6	35.0	24.5	32.2	18.8	24.5	443
Ebonyi	35.6	57.8	88.7	32.6	30.4	48.9	30.1	10.0	20.5	207
Edo	43.0	36.5	69.0	31.9	35.7	20.0	18.2	19.7	19.9	315
Ekiti	19.0	22.6	65.7	2.1	2.4	4.5	4.7	28.2	.1	229
Enugu	22.1	23.2	79.3	7.8	11.9	9.9	12.5	38.1	1.5	267
Gombe	7.2	23.1	75.0	10.8	7.3	2.0	6.7	41.7	.9	298
Imo	13.0	14.7	77.1	10.6	7.1	9.0	8.1	38.8	3.2	290
Jigawa	17.0	55.7	76.1	27.3	22.0	32.6	9.0	19.2	6.7	556
Kaduna	47.3	45.7	69.8	28.0	35.7	18.9	24.8	19.5	15.1	807
Kano	34.9	56.9	75.2	30.6	32.6	21.7	16.0	17.6	19.3	1177
Katsina	23.1	58.7	78.0	15.2	13.6	8.9	27.7	17.3	5.5	768
Kebbi	11.6	40.6	67.1	12.3	23.9	17.4	10.4	9.5	1.5	408
Kogi	27.8	43.1	72.7	29.1	35.8	40.7	25.0	10.7	20.7	284
Kwara	19.3	38.1	73.8	9.3	13.8	16.6	18.2	27.6	2.2	266
Lagos	18.4	15.6	81.7	8.4	12.0	18.3	7.2	43.5	5.4	975
Nasarawa	16.3	41.3	81.6	10.6	11.4	8.7	4.7	20.2	5.0	258
Niger	34.1	40.7	83.6	17.8	28.2	13.3	31.2	14.9	11.9	516
Ogun	16.2	35.3	76.6	20.8	21.0	17.0	9.5	23.9	9.9	456
Ondo	23.2	59.2	78.1	19.8	17.1	11.1	12.8	13.7	6.8	350
Osun	17.9	25.2	82.0	7.4	18.7	11.3	17.6	27.0	4.0	360
Oyo	13.3	35.2	81.5	5.5	20.8	18.6	4.7	32.8	1.9	657
Plateau	8.1	22.1	78.4	8.4	6.5	12.3	6.9	33.4	.6	326
Rivers	29.1	25.2	88.3	14.7	13.8	28.1	21.9	35.5	6.5	494
Sokoto	14.2	58.3	66.8	22.6	27.7	17.6	15.0	10.8	10.0	494
Taraba	27.0	38.9	59.8	20.8	15.1	12.1	15.9	29.0	6.9	261
Yobe	26.1	49.3	60.7	10.8	12.8	14.8	19.3	40.6	9.2	314
Zamfara	17.4	31.8	64.6	19.5	18.6	12.9	1.8	10.9	8.4	435
FCT (Abuja)	17.2	36.9	75.3	3.5	9.2	10.8	7.7	35.3	.7	145

Table CH.8: Knowledge of the two danger signs of pneumonia (continued)

Percentage of mothers and caretakers of children age 0-59 months by symptoms that would cause them to take the child immediately to a health facility, and percentage of mothers who recognize fast and difficult breathing as signs for seeking care immediately, Nigeria, 2011

	Percentage of mothers/caretakers of children age 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/caretakers who recognize the two danger signs of pneumonia	Number of mothers/caretakers of children age 0-59 months
	Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficulty breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
Area of residence										
Urban	24.4	33.7	78.3	16.3	21.3	18.6	12.9	29.1	8.9	4966
Rural	24.6	42.5	74.5	20.9	23.3	18.8	17.4	24.2	11.0	10895
Mother's education										
None	25.4	45.5	70.7	20.6	23.3	16.6	17.3	20.5	10.4	6602
Primary	22.7	39.9	78.9	18.9	24.4	19.6	15.4	27.4	11.1	3151
Secondary	24.6	33.5	79.5	18.5	21.0	20.6	14.7	30.5	9.9	6106
Wealth index quintile										
Poorest	21.2	44.1	69.7	19.9	20.6	16.4	15.9	24.1	9.2	3568
Second	25.9	44.3	73.5	19.7	23.3	18.1	18.5	22.8	11.0	3298
Middle	23.7	41.7	78.7	20.7	24.4	19.7	16.1	24.5	12.0	2969
Fourth	27.0	36.1	78.9	18.7	23.1	19.4	14.5	27.5	10.1	3021
Richest	25.2	31.4	79.1	18.1	22.3	20.6	14.7	30.3	9.5	3005
Geo-political zone										
North-Central	23.0	37.8	78.3	15.3	21.1	18.3	17.7	26.2	8.9	2164
North-East	27.5	38.3	64.2	20.9	22.5	15.2	21.9	32.6	12.0	2384
North-West	27.1	51.5	72.2	23.7	26.1	18.8	16.7	16.0	11.2	4645
South-East	25.7	36.6	83.8	22.2	22.4	22.2	14.5	31.3	12.9	1455
South-South	26.3	34.7	82.8	23.6	26.6	25.3	17.1	26.5	14.0	2186
South-West	17.5	29.5	79.3	10.3	15.9	15.4	8.7	31.7	4.9	3026
Total	24.5	39.8	75.7	19.4	22.7	18.7	16.0	25.7	10.4	15861

Solid Fuel Use

More than 3 billion people around the world rely on solid fuels (biomass and coal) for their basic energy needs, including cooking and heating. Cooking and heating with solid fuels leads to high levels of indoor smoke, a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is products of incomplete combustion, including CO, polyaromatic hydrocarbons, SO_2, and other toxic elements. Use of solid fuels increases the risks of acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, low birth weight, cataracts, and asthma. The primary indicator is the proportion of the population using solid fuels as the primary source of domestic energy for cooking.

Overall, about three-quarters of all households in Nigeria are using solid fuels for cooking. Use of solid fuels is moderate in urban areas 45 percent), but very high in rural areas, where 90 percent of the households are using solid fuels. Differentials with respect to household wealth and the educational level of the household head are also significant. The findings show that use of solid fuels is low among households in South-West, and among the richest households. The table also clearly shows that the overall percentage is high due to high level of use wood for cooking purposes.

Differentials in use of solid fuels with respect to household wealth, education of the household head, rural-urban and north-south geopolitical zones or states are only too obvious. Use of solid fuels is predominant in the North-East geopolitical zone (98 percent), in households where the household heads have no education (95 percent) and among households in the first three wealth quintiles (100, 99, 91 percent respectively); it is least among the richest quintile (19 percent) and about 54 percent among households headed by persons with at least secondary education.

Table CH.9: Solid fuel use

Percent distribution of household members according to type of cooking fuel used by the household, and percentage of household members living in households using solid fuels for cooking, Nigeria, 2011

	Percentage of household members in households using:															
	Electricity	Natural Gas	Biogas	Kerosene	Solid fuels							Other fuel	Missing	Total	Solid fuels for cooking[1]	Number of household members
					Coal, lignite	Char-coal	Wood	Straw, shrubs, grass	Animal dung	Agricultural crop residue	No food cooked in the household					
State																
Abia	.0	.3	.0	40.6	.0	1.5	57.5	.0	.0	.0	.0	.1	.0	100.0	59.0	3004
Adamawa	.0	.0	.0	2.3	.0	1.0	96.1	.5	.0	.0	.1	.0	.0	100.0	97.6	3372
Akwa ibom	.1	2.7	.0	23.3	1.3	2.5	70.1	.0	.0	.0	.0	.0	.0	100.0	74.0	4151
Anambra	.0	.6	.0	38.6	.0	1.4	58.5	.0	.0	.0	.9	.0	.0	100.0	59.9	4338
Bauchi	.0	.0	.0	.0	.0	.8	94.3	.7	.4	3.5	.2	.0	.0	100.0	99.8	4875
Bayelsa	.8	1.1	.0	51.4	.4	1.9	44.0	.0	.0	.0	.1	.2	.1	100.0	46.4	1755
Benue	.0	.0	.0	2.9	.0	2.1	94.8	.1	.0	.0	.1	.0	.0	100.0	97.0	4375
Borno	.0	.0	.0	1.1	.0	4.7	91.3	.1	.0	.0	2.8	.0	.0	100.0	96.1	4246
Cross River	.1	.7	.0	16.4	.0	.9	81.0	.1	.0	.1	.0	.4	.2	100.0	82.1	3043
Delta	4.6	.7	.0	30.7	.0	1.4	62.3	.0	.0	.0	.3	.0	.0	100.0	63.7	4313
Ebonyi	.0	.1	.0	9.4	8.2	2.4	79.8	.0	.0	.0	.0	.0	.1	100.0	90.4	2241
Edo	.2	2.9	.0	34.4	.0	.7	61.8	.0	.0	.0	.0	.0	.0	100.0	62.5	3451
Ekiti	1.8	1.3	.0	34.4	.1	3.7	58.7	.0	.0	.0	.1	.0	.0	100.0	62.5	2470
Enugu	.3	.9	.0	26.1	.0	8.0	64.6	.0	.0	.0	.1	.1	.0	100.0	72.6	3460
Gombe	.9	.0	.0	2.0	.0	.9	91.8	.7	.9	2.4	.2	.1	.0	100.0	96.7	2435
Imo	.0	.8	.0	15.9	.0	.9	82.2	.0	.1	.0	.1	.1	.0	100.0	83.1	4134
Jigawa	.0	.0	.0	3.3	.0	.8	79.1	4.6	1.8	9.8	.5	.0	.2	100.0	96.0	4486
Kaduna	.9	.0	.0	12.8	.0	.6	77.0	.7	.0	7.6	.1	.0	.3	100.0	85.9	6378
Kano	.0	.3	.0	8.5	.1	7.0	74.0	2.4	.1	6.9	.2	.0	.4	100.0	90.6	9729
Katsina	.0	.0	.0	1.9	.0	.8	95.1	.3	.1	1.7	.0	.1	.0	100.0	97.9	6048

Table CH.9: Solid fuel use (Continued)

Percent distribution of household members according to type of cooking fuel used by the household, and percentage of household members living in households using solid fuels for cooking, Nigeria, 2011

	Percentage of household members in households using:															
	Electricity	Natural Gas	Biogas	Kerosene	Solid fuels							Other fuel	Missing	Total	Solid fuels for cooking[1]	Number of household members
					Coal, lignite	Char-coal	Wood	Straw, shrubs, grass	Animal dung	Agricultural crop residue	No food cooked in the household					
Kebbi	.0	.0	.0	.2	.0	.9	95.7	.3	1.0	1.6	.2	.0	.0	100.0	99.6	3387
Kogi	6.0	.0	.1	12.8	.2	1.1	79.5	.0	.0	.0	.3	.0	.0	100.0	80.8	3514
Kwara	1.7	.3	.0	24.5	.0	27.7	45.9	.0	.0	.0	.0	.0	.0	100.0	73.6	2491
Lagos	.5	4.6	1.9	89.7	.1	2.5	.5	.0	.0	.0	.1	.0	.0	100.0	3.1	9407
Nasarawa	.0	.5	.2	6.9	.0	2.4	88.4	1.7	.0	.0	.0	.0	.0	100.0	92.5	1925
Niger	.3	.3	.0	3.5	.0	3.4	92.4	.0	.0	.0	.1	.0	.0	100.0	95.8	4151
Ogun	.3	1.7	.4	66.9	.5	1.5	28.3	.4	.0	.0	.1	.0	.0	100.0	30.7	3850
Ondo	.9	.1	.0	17.5	.1	1.2	80.2	.0	.0	.0	.0	.0	.0	100.0	81.5	3592
Osun	5.4	1.9	.0	45.9	.0	8.1	38.4	.0	.0	.0	.3	.0	.0	100.0	46.5	3582
Oyo	.1	.2	.5	45.4	.2	16.0	37.4	.0	.0	.0	.0	.2	.0	100.0	53.6	5793
Plateau	2.0	.7	1.0	12.8	.0	5.4	76.6	1.2	.0	.2	.1	.0	.0	100.0	83.4	3340
Rivers	.1	6.1	.0	57.8	.0	.0	35.9	.0	.0	.0	.0	.0	.0	100.0	35.9	5403
Sokoto	.3	.3	.0	1.2	.0	.7	87.8	4.7	.0	4.8	.0	.0	.2	100.0	98.0	3861
Taraba	.0	.0	.0	.6	.1	1.4	97.8	.0	.0	.0	.1	.0	.0	100.0	99.3	2399
Yobe	.0	.0	.0	.2	.1	.5	94.2	1.8	1.1	1.2	.9	.1	.0	100.0	98.7	2409
Zamfara	.0	.0	.0	.5	.0	1.0	61.0	20.1	3.5	13.6	.2	.0	.1	100.0	99.2	3376
FCT (Abuja)	.1	7.4	.9	43.1	.0	9.7	38.6	.0	.0	.0	.0	.0	.0	100.0	48.4	1458
Area of residence																
Urban	1.4	2.7	.5	50.4	.2	5.6	38.3	.2	.1	.3	.3	.0	.0	100.0	44.6	49677
Rural	.3	.2	.0	9.4	.2	2.2	82.8	1.6	.3	2.6	.2	.0	.1	100.0	89.8	96566

Table CH.9: Solid fuel use (continued)

Percent distribution of household members according to type of cooking fuel used by the household, and percentage of household members living in households using solid fuels for cooking, Nigeria, 2011

	Percentage of household members in households using:															
	Electricity	Natural Gas	Biogas	Kerosene	Solid fuels							Other fuel	Missing	Total	Solid fuels for cooking[1]	Number of household members
					Coal, lignite	Char-coal	Wood	Straw, shrubs, grass	Animal dung	Agricultural crop residue	No food cooked in household					
Education of household head																
None	.0	.0	.0	4.7	.1	2.4	85.3	2.3	.5	4.0	.3	.1	.1	100.0	94.7	54986
Primary	.2	.2	.0	22.9	.5	3.3	71.8	.3	.1	.6	.0	.0	.0	100.0	76.6	32847
Secondary +	1.6	2.5	.5	41.1	.2	4.3	48.8	.4	.0	.4	.2	.0	.0	100.0	54.1	58382
Missing/DK	(.0)	(.0)	(.0)	(25.7)	(.0)	(.0)	(74.3)	(.0)	(.0)	(.0)	(.0)	(.0)	(.0)	(100.0)	(74.3)	(29)
Wealth Index quintiles																
Poorest	.0	.0	.0	.0	.1	.6	89.3	3.0	.8	5.8	.2	.0	.1	100.0	99.6	29245
Second	.0	.0	.0	.9	.3	1.3	92.7	1.5	.3	2.7	.1	.1	.1	100.0	98.8	29256
Middle	.1	.0	.0	8.8	.2	4.0	85.5	.6	.0	.3	.4	.0	.0	100.0	90.6	29240
Fourth	.4	.1	.1	35.4	.3	6.7	56.2	.3	.0	.3	.2	.0	.0	100.0	63.9	29254
Richest	3.0	5.2	.9	71.5	.1	4.3	14.8	.1	.0	.1	.2	.0	.0	100.0	19.3	29249
Geo-political zone																
North-Central	1.6	.8	.3	11.8	.0	6.3	78.8	.4	.0	.0	.1	.0	.0	100.0	85.5	21253
North-East	.1	.0	.0	1.0	.0	1.7	94.1	.6	.3	1.3	.8	.0	.0	100.0	98.1	19737
North-West	.2	.1	.0	5.3	.0	2.4	80.7	3.7	.7	6.4	.2	.0	.2	100.0	94.0	37265
South-East	.1	.6	.0	27.2	1.1	2.7	68.0	.0	.0	.0	.3	.1	.0	100.0	71.9	17179
South-South	1.1	2.8	.0	36.2	.3	1.1	58.4	.0	.0	.0	.1	.1	.0	100.0	59.8	22116
South-West	1.2	2.2	.8	58.4	.1	5.7	31.4	.1	.0	.0	.1	.0	.0	100.0	37.3	28694
Total	.7	1.1	.2	23.3	.2	3.4	67.7	1.1	.2	1.8	.2	.0	.1	100.0	74.4	146243

[1] MICS indicator 3.11

( ) based on 25-49 unweighted cases

Solid Fuel Use by Place of Cooking

The solid fuel use alone is a poor proxy for indoor air pollution, since the concentration of the pollutants is different when the same fuel is burnt in different stoves or fires. Use of closed stoves with chimneys minimizes indoor pollution, while open stove or fire with no chimney or hood means that there is no protection from the harmful effects of solid fuels. The type of stove used with a solid fuel is depicted in Table CH.10.

The findings show that 29 percent of households using solid fuels for cooking do so in a separate room. More households in the urban (41 percent) than in rural (26 percent) have their place of cooking in a separate room used as kitchen; similarly, distribution by wealth index quintiles shows steady increase in the proportion of households who have their place of cooking in a separate room used as kitchen. It ranges from poorest (19 percent) to the richest (53 percent).

Table CH.10: Solid fuel use by place of cooking

Percent distribution of household members in households using solid fuels by place of cooking, Nigeria, 2011

	Place of cooking:						Number of household members in households using solid fuels for cooking
	In a separate room used as kitchen	Elsewhere in the house	In a separate building	Outdoors	At another place	Total	
State							
Abia	57.0	.4	27.1	15.4	.1	100.0	1772
Adamawa	53.7	14.6	12.0	19.6	.1	100.0	3292
Akwa Ibom	29.7	8.4	18.2	43.6	.0	100.0	3070
Anambra	19.3	7.5	44.7	28.3	.1	100.0	2597
Bauchi	28.9	44.1	4.3	22.8	.0	100.0	4865
Bayelsa	18.7	13.0	55.6	12.7	.0	100.0	813
Benue	64.2	3.1	14.7	18.0	.0	100.0	4245
Borno	40.3	24.2	3.8	30.8	.8	100.0	4080
Cross River	16.0	.3	43.5	39.9	.1	100.0	2497
Delta	15.3	5.4	56.2	23.1	.1	100.0	2748
Ebonyi	16.7	3.5	22.1	56.0	1.8	100.0	2027
Edo	12.3	9.9	26.3	51.6	.0	100.0	2156
Ekiti	34.1	6.8	24.2	35.0	.0	100.0	1543
Enugu	14.9	1.6	28.2	55.2	.0	100.0	2511
Gombe	51.3	14.7	6.1	27.9	.0	100.0	2355
Imo	9.4	2.3	44.7	43.6	.0	100.0	3436
Jigawa	8.8	69.3	2.4	19.0	.0	100.0	4308
Kaduna	67.9	12.0	1.1	18.9	.0	100.0	5479
Kano	26.4	18.1	2.9	52.3	.1	100.0	8813
Katsina	18.9	26.5	2.1	52.4	.1	100.0	5923
Kebbi	15.4	50.9	2.2	31.2	.0	100.0	3374
Kogi	21.0	4.7	16.4	57.1	.8	100.0	2840
Kwara	34.5	5.5	3.1	56.8	.0	100.0	1833
Lagos	37.0	24.1	.0	38.9	.0	100.0	294
Nasarawa	35.6	5.6	23.6	35.2	.0	100.0	1781
Niger	42.9	21.4	8.5	27.2	.0	100.0	3977
Ogun	6.9	3.7	1.1	88.3	.0	100.0	1180
Ondo	39.9	12.8	24.0	23.3	.0	100.0	2928
Osun	9.7	6.3	27.6	55.6	.8	100.0	1666
Oyo	7.8	5.8	5.1	81.2	.1	100.0	3105
Plateau	40.7	2.3	28.8	28.2	.0	100.0	2786
Rivers	31.4	2.1	34.1	32.2	.0	100.0	1942
Sokoto	5.2	45.9	6.7	39.6	.0	100.0	3784
Taraba	21.1	47.4	10.3	21.1	.1	100.0	2382
Yobe	34.6	24.9	1.4	39.1	.1	100.0	2379
Zamfara	18.6	51.2	5.4	24.7	.1	100.0	3348
FCT (Abuja)	29.7	3.0	4.8	62.5	.0	100.0	705

Table CH.10: Solid fuel use by place of cooking (continued)

Percent distribution of household members in households using solid fuels by place of cooking, Nigeria, 2011

	Place of cooking:						Number of household members in households using solid fuels for cooking
	In a separate room used as kitchen	Elsewhere in the house	In a separate building	Outdoors	At another place	Total	
Area of residence							
Urban	41.1	13.5	11.5	33.9	.0	100.0	22147
Rural	25.8	20.9	15.4	37.6	.2	100.0	86686
Education of household head							
None	24.7	27.4	7.9	39.6	.2	100.0	52051
Primary	28.2	11.9	21.7	38.0	.1	100.0	25173
Secondary +	36.5	12.1	20.0	31.2	.1	100.0	31588
Wealth index quintiles							
Poorest	19.3	35.8	6.4	37.9	.2	100.0	29122
Second	25.2	20.3	12.9	41.4	.1	100.0	28908
Middle	33.0	10.0	19.5	37.3	.2	100.0	26481
Fourth	36.6	9.7	22.7	31.0	.0	100.0	18681
Richest	53.1	6.4	15.9	24.6	.1	100.0	5640
Geo-political zone							
North-Central	42.0	7.7	15.1	35.0	.1	100.0	18167
North-East	38.0	29.4	6.1	26.3	.2	100.0	19353
North-West	25.4	34.2	3.0	37.0	.0	100.0	35029
South East	20.6	3.2	35.1	40.7	.3	100.0	12343
South-South	20.9	5.8	36.8	36.4	.0	100.0	13227
South West	21.4	8.2	15.9	54.3	.2	100.0	10715
Total	28.9	19.4	14.6	36.8	.1	100.0	108833

Malaria

Malaria is a leading cause of death of children under age five in Nigeria. It also contributes to anemia in children and is a common cause of school absenteeism. Preventive measures, especially the use of mosquito nets treated with insecticide (ITNs), can dramatically reduce malaria mortality rates among children. In 2010 the World Health Organization started recommending universal use of diagnostic testing to confirm malaria infection and apply appropriate treatment based on the results. According to the new guidelines, treatment solely on the basis of clinical suspicion should only be considered when a parasitological diagnosis is not accessible. Children with severe malaria symptoms, such as fever or convulsions, should be taken to a health facility. Also, children recovering from malaria should be given extra liquids and food and, for younger children, should continue breastfeeding.

Table CH.11: Household availability of insecticide treated nets and protection by a vector control method

Percentage of households with at least one mosquito net, percentage of households with at least one long-lasting treated net, percentage of households with at least one insecticide treated net (ITN), Nigeria, 2011

	Percentage of households with at least one mosquito net	Percentage of households with at least one long-lasting treated net	Percentage of households with at least one ITN[1]	Number of households
State				
Abia	16.3	10.7	11.6	755
Adamawa	83.7	83.4	83.6	560
Akwa ibom	68.9	66.8	67.0	890
Anambra	75.4	74.3	74.3	1023
Bauchi	83.9	81.7	81.7	817
Bayelsa	27.3	19.0	20.0	440
Benue	18.6	8.1	9.7	827
Borno	55.5	12.4	13.0	833
Cross River	68.7	65.4	67.1	658
Delta	25.6	21.0	22.0	1032
Ebonyi	44.3	36.7	38.2	388
Edo	14.7	10.6	11.4	752
Ekiti	58.4	56.5	58.1	673
Enugu	13.8	10.8	11.0	925
Gombe	88.0	85.0	86.3	378
Imo	20.1	15.8	17.0	952
Jigawa	80.5	77.3	79.0	683
Kaduna	71.7	67.9	70.7	943
Kano	63.5	61.3	61.4	1592
Katsina	79.4	78.1	79.1	955
Kebbi	84.9	65.7	75.6	531
Kogi	26.7	16.6	18.7	762
Kwara	27.8	20.4	22.6	551
Lagos	14.7	11.6	12.4	2196
Nasarawa	62.8	52.5	53.4	291
Niger	73.8	69.0	69.8	626
Ogun	45.5	42.8	43.9	887
Ondo	11.2	7.6	8.1	916
Osun	13.9	11.4	13.0	882
Oyo	17.8	12.4	13.9	1345
Plateau	79.8	76.4	78.4	583
Rivers	56.5	47.0	53.7	1216
Sokoto	67.3	38.3	41.8	634
Taraba	21.9	16.4	17.9	381
Yobe	42.4	20.0	20.7	388
Zamfara	17.4	10.0	11.7	528
FCT (Abuja)	39.8	30.7	34.3	286

Table CH.11: Household availability of insecticide treated nets and protection by a vector control method (continued)

Percentage of households with at least one mosquito net, percentage of households with at least one long-lasting treated net, percentage of households with at least one insecticide treated net (ITN), Nigeria, 2011

	Percentage of households with at least one mosquito net	Percentage of households with at least one long-lasting treated net	Percentage of households with at least one ITN[1]	Number of households
Area of residence				
Urban	36.3	29.9	32.0	10608
Rural	50.1	43.5	44.8	18469
Education of household head				
None	49.5	41.3	42.4	10221
Primary	43.3	38.9	40.1	6424
Secondary +	42.4	36.2	38.2	12424
Missing/DK	(*)	(*)	(*)	(*)
Wealth index quintiles				
Poorest	52.8	44.6	45.8	5397
Second	50.6	43.4	44.4	5540
Middle	45.2	38.5	39.8	5915
Fourth	39.9	35.2	36.4	6066
Richest	38.4	32.5	35.1	6160
Geo-political zone				
North-Central	44.2	36.3	38.1	3925
North-East	65.4	50.6	51.2	3357
North-West	67.6	60.3	62.5	5866
South-East	34.3	30.5	31.2	4043
South-South	45.0	39.6	41.9	4988
South-West	23.0	19.6	20.7	6899
Total	45.1	38.6	40.1	29077

[1] MICS indicator 3.12, [2] MICS indicator 3.13

(*) less than 25 unweighted cases

Children Sleeping Under Mosquito Nets

The questionnaire incorporates questions on the availability and use of bed nets, both at household level and among children under five years of age, as well as anti-malarial treatment, and intermittent preventive therapy for malaria. In Nigeria, the survey results indicate that 40 percent of households have at least one insecticide treated net (Table CH.11). Possession of insecticide treated nets is associated with place of residence (urban versus rural), education of household head and wealth status; Higher percentage of children from rural areas (45 percent) compare to those in urban areas (32 percent) sleep under insecticide treated nets, from households with uneducated heads (42 percent) to those with at least secondary education (38 percent) and from the poorest households (46 percent) to the richest households (35 percent). Geopolitical zones are hardly a factor although state differentials are strong. Figures of percentage of households with at least one mosquito net whether treated or untreated are just marginally higher than those of households with at least one ITN and the trends are similar across regimes of associated factors.

Table CH.12: Children sleeping under mosquito nets

Percentage of children age 0-59 months who slept under a mosquito net during the previous night, by type of net, Nigeria, 2011

	Percentage of children age 0-59 who stayed in the household the previous night	Number of children age 0-59 months	Percentage of children who:		Number of children age 0-59 months who slept in the household the previous night	Percentage of children who slept under an ITN living in households with at least one ITN	Number of children age 0-59 living in households with at least one ITN
			Slept under any mosquito net[1]	Slept under an insecticide treated net[2]			
Sex							
Male	99.4	12856	18.5	16.2	12776	32.2	6423
Female	99.3	12336	18.8	16.7	12244	32.9	6191
State							
Abia	99.7	483	11.2	8.2	482	45.0	88
Adamawa	98.6	631	21.1	21.1	622	23.4	562
Akwa ibom	99.3	660	28.8	28.3	656	40.4	460
Anambra	99.3	737	26.3	26.0	732	31.2	609
Bauchi	98.6	1072	12.9	12.7	1057	15.0	898
Bayelsa	98.5	335	11.5	6.7	330	25.7	86
Benue	99.2	617	6.8	3.9	612	28.4	84
Borno	99.7	776	18.5	2.2	774	31.0	55
Cross River	99.1	494	42.7	40.6	489	53.9	368
Delta	99.0	700	15.8	15.3	693	43.6	244
Ebonyi	98.9	333	9.8	7.6	330	19.0	131
Edo	97.6	516	5.6	4.0	504	25.0	81
Ekiti	100.0	337	27.0	26.5	337	40.4	221
Enugu	99.7	471	7.0	4.7	470	17.8	125
Gombe	99.8	462	40.8	40.2	462	45.6	407
Imo	99.4	539	5.2	3.6	536	12.8	150
Jigawa	99.7	933	33.9	33.5	930	41.3	755
Kaduna	99.9	1240	35.2	34.9	1239	48.7	886
Kano	99.5	1971	22.8	22.3	1962	32.6	1341
Katsina	99.9	1242	26.7	26.7	1241	33.4	993
Kebbi	99.4	644	13.8	11.1	640	14.1	505
Kogi	99.6	436	17.6	11.5	435	50.8	99
Kwara	99.2	425	13.4	11.9	422	39.4	127
Lagos	99.5	1502	9.1	7.0	1495	39.0	268
Nasarawa	98.9	344	20.1	16.5	340	32.8	171
Niger	99.2	769	10.8	9.8	762	13.5	555
Ogun	99.2	628	17.8	16.9	622	33.1	318
Ondo	99.2	500	5.4	4.0	496	31.6	62
Osun	99.3	538	7.0	5.8	534	33.3	94
Oyo	99.6	1011	10.2	8.8	1007	56.6	156
Plateau	100.0	480	32.8	31.8	480	36.8	415
Rivers	98.3	777	29.2	26.8	765	39.2	523
Sokoto	99.5	783	19.9	6.9	779	15.9	340
Taraba	98.8	396	5.2	4.0	392	16.5	94
Yobe	98.8	504	11.4	7.3	498	27.3	133
Zamfara	99.4	688	6.4	4.8	684	31.6	103
FCT (Abuja)	99.6	214	21.2	18.8	214	38.4	105

Table CH.12: Children sleeping under mosquito nets (continued)

Percentage of children age 0-59 months who slept under a mosquito net during the previous night, by type of net, Nigeria, 2011

	Percentage of children age 0-59 who stayed in the household the previous night	Number of children age 0-59 months	Percentage of children who:		Number of children age 0-59 months who slept in the household the previous night	Percentage of children who slept under an ITN living in households with at least one ITN	Number of children age 0-59 living in households with at least one ITN
			Slept under any mosquito net[1]	Slept under an insecticide treated net[2]			
Area of residence							
Urban	99.2	7664	18.6	16.0	7604	38.1	3199
Rural	99.4	17528	18.6	16.6	17417	30.7	9415
Age (in months)							
0-11	99.6	5432	20.6	18.6	5412	36.0	2793
12-23	99.3	4986	20.8	17.9	4951	35.5	2494
24-35	99.4	4747	16.9	15.5	4719	31.1	2349
36-47	99.0	5170	16.5	14.1	5117	29.3	2460
48-59	99.3	4857	18.2	15.9	4822	30.4	2518
Mother's education							
None	99.4	10992	17.8	15.2	10926	27.6	6014
Primary	99.4	4989	18.6	17.0	4960	35.2	2404
Secondary+	99.2	9209	19.7	17.6	9132	38.2	4196
Wealth index quintiles							
Poorest	99.4	5797	14.3	12.6	5762	24.2	2991
Second	99.5	5220	21.8	18.7	5195	33.7	2874
Middle	99.4	4711	19.3	16.8	4683	32.7	2398
Fourth	99.3	4801	18.8	17.2	4766	36.2	2266
Richest	99.0	4662	19.6	17.6	4615	39.0	2085
Geo-political zone							
North-Central	99.3	3285	16.2	13.7	3264	28.8	1556
North-East	99.0	3843	17.8	13.7	3804	24.2	2149
North-West	99.6	7501	24.3	22.4	7474	33.9	4924
South East	99.4	2563	13.3	11.6	2549	26.8	1104
South-South	98.7	3483	23.2	21.5	3437	41.9	1762
South West	99.5	4516	11.2	9.8	4492	39.2	1119
Total	99.3	25192	18.6	16.4	25021	32.6	12614

[1] MICS indicator 3.14,

[2] MICS indicator 3.15; MDG indicator 6.7

Results indicate that 19 percent of children under the age of five slept under any mosquito net the night prior to the survey. Out of this figure, 16 percent slept under an insecticide treated net (Table CH.12). There is no significant gender disparities in ITN use among children under five.

The same percentage of children in urban and rural areas (16 percent) sleep under insecticide treated nets ; this chance decreases from 19 percent at infant to 16 percent at age 48-59 months and from 18 percent in the richest households to 13 percent in the poorest households. The figure is highest in the North-West (22 percent), while South-West has the least percentage of 10. Percentage of children under-five sleeping under ITNs are fractions less than percentage of those sleeping under any net at all and the relative trends are quite similar across levels of associated factors.

Pregnant Women Sleeping Under Mosquito Nets

Table CH.13 presents the proportion of pregnant women who slept under a mosquito net during the previous night. 19 percent of pregnant women slept under any mosquito net the night prior to the survey and 17 percent slept under an insecticide treated net. North-South analysis shows that Northern zones have more pregnant women who slept under insecticide treated nets as against the zones in the South. North-Central has 20 percent; North-West has 22 percent, North-East (16 percent), while South-South, South-West, and South-East have 17 percent, 10 percent and 9 percent respectively. The more educated the woman or the richer her household, the more likely she is to sleep under an insecticide treated net.

Table CH.13: Pregnant women sleeping under mosquito nets

Percentage of pregnant women who slept under a mosquito net during the previous night, by type of net, Nigeria, 2011

	Percentage of pregnant women who stayed in the household the previous night	Number of pregnant women	Percentage of pregnant women who:		Number of pregnant women who slept in the household the previous night	Percentage of pregnant women who slept under an ITN, living in households with at least one ITN	Number of pregnant women living in households with at least one ITN
			Slept under any mosquito net	Slept under an insecticide treated net[1]			
Area of residence							
Urban	98.8	1131	19.0	17.5	1117	44.7	437
Rural	99.4	2419	18.4	16.6	2405	31.6	1264
Age							
15-19	99.2	351	19.9	19.6	348	43.2	158
20-24	99.4	709	21.7	20.4	705	39.6	364
25-29	99.6	1045	17.6	15.9	1041	32.3	511
30-34	98.1	775	16.7	15.8	761	32.7	368
35-39	99.9	392	17.2	12.1	391	28.6	166
40-44	99.7	199	23.5	21.8	198	42.0	103
45-49	99.2	79	10.8	8.8	79	21.6	32
Education							
None	99.3	1397	18.2	16.4	1387	28.9	787
Primary	98.1	627	21.9	19.0	615	41.7	281
Secondary+	99.6	1525	17.6	16.5	1520	39.7	633
Wealth index quintiles							
Poorest	99.4	783	14.6	13.5	778	25.7	409
Second	99.5	730	22.0	19.5	727	36.0	394
Middle	99.3	614	20.3	17.8	610	35.7	305
Fourth	98.3	720	16.6	15.9	708	37.5	301
Richest	99.7	703	20.1	18.1	700	43.3	293
Geo-political zone							
North-Central	99.0	509	22.8	20.2	504	40.7	251
North-East	99.2	520	17.5	16.4	516	29.5	287
North-West	99.4	1083	23.5	21.8	1076	34.2	685
South-East	100.0	315	9.4	8.7	315	23.5	117
South-South	98.1	494	19.6	16.9	484	39.3	209
South-West	99.7	630	11.7	10.3	628	42.6	152
Total	99.2	3550	18.6	16.9	3523	35.0	1701

[1] MICS indicator 3.19

Anti-Malaria Treatment of Children with anti-malaria drugs

In 2010 the World Health Organization (WHO) started recommending universal use of diagnostic testing to confirm malaria infection and apply appropriate treatment based on the results. According to the new guidelines, treatment solely on the basis of clinical suspicion should only be considered when a parasitological diagnosis is not accessible.

Nigeria, like many other countries in the region is now greatly expanding the use of diagnostics to focus treatment on only those children with malaria. Thus, it is increasingly challenging to track trends in antimalarial treatment among febrile children as lower levels of coverage may indicate that antimalarials are being provided only to confirmed malaria cases. However, this may also indicate that children who are ill with malaria are not receiving needed treatment.

Questions on the prevalence and treatment of fever were asked for all children under age five. About one in five (20 percent) of under five children were ill with fever in the two weeks prior to the survey (Table CH.14). Fever prevalence peaked in the age group 12-23 months 24 percent. Fever is less common among children whose mothers have secondary or higher education than among children of less educated mothers. Regional differences in fever prevalence are large, ranging from 10 to 26 percent.

Mothers were asked to report all of the medicines given to a child to treat the fever, including both medicines given at home and medicines given or prescribed at a health facility. Overall, 36 percent of children with fever in the last two weeks were treated with an "appropriate" anti-malarial drug.

Since 2004 artemisinin combination therapyies (ACTs) has been the first-line treatment for malaria. In Nigeria, Only 5 percent of the children with fever received artemisinin combination therapy, 25 percent of the children were given chloroquine, and 6 percent were given sulfadoxine pyrimehamine. A large percentage of children (75 percent) were given other types of medicines that are not anti-malarials, including anti-pyretics such as paracetemol, aspirin, or ibuprofen.

Overall, children with fever in South-East, where malaria is known to be most prevalent, are the most likely to have received an appropriate anti-malarial drug while those in North-West are the least likely to receive an appropriate drug. Urban children are more likely than rural children to be treated appropriately as are the children of mothers with secondary or higher education. Little difference was noted between boys and girls receiving appropriate anti-malarial drugs.

Table CH.14: Anti-malarial treatment of children with anti-malarial drugs

Percentage of children age 0-59 months who had fever in the last two weeks who received anti-malarial drugs, Nigeria, 2011

	Had a fever in last two weeks	Number of children age 0-59 months	Children with a fever in the last two weeks who were treated with:													Missing/ DK	Percentage who took an anti-malarial drug same or next day[2]	Number of children with fever in last two weeks
			Anti-malarials:							Other medications:								
			SP/ Fansidar	Chloroquine	Amodia-quine	Quinine	Combination with artemisinin	Other anti-malarial	Any anti-malarial drug[1]	Antibiotic pill or syrup	Antibiotic injection	Paracet-amol/ Panadol/ Acetamin-ophen	Aspirin	Ibuprofen	Other			
Sex																		
Male	20.1	12856	6.4	25.0	4.3	3.7	4.9	6.4	45.9	12.0	9.4	58.4	1.2	.4	15.0	2.8	29.8	2586
Female	18.8	12336	5.6	25.9	4.4	2.4	4.8	4.1	43.1	9.4	7.8	59.5	1.3	.4	13.0	3.8	29.0	2317
State																		
Abia	26.0	483	8.6	10.5	18.4	9.4	1.7	12.7	60.7	30.6	7.5	63.6	2.3	.0	18.5	2.1	29.1	126
Adamawa	19.0	631	2.7	27.6	.0	.7	3.3	1.5	31.3	15.5	7.8	50.5	2.2	.0	7.6	1.3	22.9	120
Akwa ibom	21.2	660	3.5	32.9	3.4	1.8	3.9	.4	45.8	10.0	7.0	74.6	.8	1.2	2.2	.3	39.8	140
Anambra	10.1	737	2.9	29.4	5.1	2.9	3.3	13.0	51.5	3.6	6.1	71.7	.0	1.3	14.9	1.6	39.9	74
Bauchi	30.7	1072	4.6	27.3	.1	1.7	.0	1.1	34.5	15.5	11.6	58.5	.4	.0	14.4	1.8	16.6	329
Bayelsa	25.9	335	.1	35.6	3.8	12.7	9.3	6.7	64.1	9.8	7.0	53.8	.0	.0	24.2	6.9	34.0	87
Benue	9.9	617	14.7	28.5	7.2	8.6	6.4	6.6	56.4	15.8	4.0	48.9	2.7	.9	20.7	5.8	28.4	61
Borno	10.3	776	.6	34.3	1.9	2.3	3.0	3.7	44.7	7.6	4.5	70.6	1.1	.0	6.3	2.2	36.2	80
Cross River	22.8	494	6.0	28.4	7.8	2.7	1.2	5.6	50.3	5.4	6.4	75.9	2.8	2.1	20.3	2.2	28.0	113
Delta	15.5	700	.6	38.9	2.3	6.7	8.3	5.3	58.4	8.5	6.2	78.4	.6	.0	23.1	.3	48.1	108
Ebonyi	29.4	333	2.5	29.2	9.7	3.7	11.7	2.2	54.0	19.2	14.4	68.8	1.4	.6	17.6	7.4	38.4	98
Edo	11.0	516	7.3	22.0	2.3	5.6	13.1	8.1	48.4	17.9	27.5	86.5	7.8	.0	10.4	1.3	21.5	57
Ekiti	10.3	337	(.3)	(12.6	(10.4)	(.0)	(4.1)	(10.9)	(33.3)	(11.8)	(14.7)	(75.4)	(10.0)	(.0)	(20.8)	(1.5)	(21.4)	(35)
Enugu	17.8	471	2.0	30.9	3.7	4.4	.0	20.7	59.5	6.5	2.1	54.6	1.9	.0	11.3	3.5	36.2	84
Gombe	24.2	462	3.6	35.2	.7	.0	5.6	2.2	47.3	6.8	4.5	56.0	.0	.2	7.2	4.0	35.7	112
Imo	35.2	539	6.2	20.9	2.5	4.8	19.5	9.1	57.0	13.2	7.9	65.5	.3	.0	15.4	4.3	40.9	190
Jigawa	23.3	933	5.0	28.4	1.0	.4	3.2	4.6	36.0	3.2	5.1	58.9	.0	.9	10.7	.7	19.4	218
Kaduna	27.3	1240	5.2	41.5	3.1	4.2	1.1	3.9	58.1	17.6	10.9	68.4	1.6	.7	8.3	1.2	46.7	339
Kano	16.2	1971	9.8	38.3	6.5	4.6	1.3	4.9	60.4	9.6	14.9	68.0	.0	.2	15.2	5.1	48.8	319
Katsina	25.0	1242	9.2	11.1	1.2	1.0	2.6	1.9	20.8	4.9	11.0	38.1	1.0	1.2	11.7	2.0	9.6	311
Kebbi	26.4	644	9.0	18.8	4.9	3.0	3.5	.6	25.7	9.5	8.2	41.7	.9	.8	10.2	.8	8.8	170
Kogi	8.9	436	(5.8)	(18.8)	(7.6)	(3.8)	(.0)	(1.8)	(37.9)	(10.0)	(3.0)	(43.4)	(1.3)	(.0)	(25.2)	(12.1)	(32.9)	(39)
Kwara	13.6	425	2.8	29.7	2.0	1.5	5.7	12.2	46.9	19.0	17.2	68.0	.5	1.1	16.9	2.7	29.9	58

Table CH.14: Anti-malarial treatment of children with anti-malarial drugs (continued)

Percentage of children age 0-59 months who had fever in the last two weeks who received anti-malarial drugs, Nigeria, *2011*

	Had a fever in last two weeks	Number of children age 0-59 months	Children with a fever in the last two weeks who were treated with:													Missing/ DK	Percentage who took an anti-malarial drug same or next day[2]	Number of children with fever in last two weeks
			Anti-malarials:							Other medications:								
			SP/ Fansidar	Chloroquine	Amodia-quine	Quinine	Combination with artemisinin	Other anti-malarial	Any anti-malarial drug[1]	Antibiotic pill or syrup	Antibiotic injection	Paracet-amol/ Panadol/ Acetamin-ophen	Aspirin	Ibuprofen	Other			
Lagos	9.5	1502	6.3	30.4	9.7	1.9	29.0	19.4	88.8	31.4	10.1	71.7	.0	.0	17.6	5.6	80.8	143
Nasarawa	19.6	344	9.6	24.6	4.5	1.0	3.6	6.1	39.9	12.1	7.0	51.7	1.1	.4	17.9	12.8	27.6	67
Niger	13.5	769	2.7	32.7	5.1	2.2	2.0	4.6	43.5	18.7	11.8	54.1	.4	.0	9.7	5.1	26.3	103
Ogun	15.3	628	15.3	12.3	9.2	5.0	2.1	8.5	48.6	8.7	11.9	55.1	2.6	.0	26.4	2.4	38.0	96
Ondo	(10.4)	(500)	(.0)	(25.9)	(1.1)	(3.5)	(1.4)	(.0)	(32.0)	(26.6)	(13.0)	(74.5)	(3.8)	(.0)	(16.2)	(.0)	(19.3)	(52)
Osun	10.6	538	.9	20.1	7.5	8.2	.0	18.3	51.3	2.4	5.4	67.3	.0	.0	17.6	.0	46.2	57
Oyo	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Plateau	12.1	480	11.0	21.7	6.7	.0	14.0	15.1	59.6	3.5	5.9	33.8	.0	1.7	4.6	16.5	26.5	58
Rivers	27.1	777	7.1	12.0	14.2	6.0	12.9	9.4	58.9	7.4	2.8	55.8	.0	.0	28.4	8.6	31.8	210
Sokoto	39.5	783	4.5	18.7	.1	.0	1.0	2.1	23.6	1.5	7.8	48.3	.8	.1	20.2	.3	8.6	309
Taraba	14.3	396	9.6	25.5	.0	2.1	.4	1.7	34.7	6.2	2.4	71.0	1.9	.0	3.1	4.6	19.8	57
Yobe	23.6	504	2.4	28.2	1.5	.4	3.8	2.4	34.7	3.9	.7	68.0	.0	.0	11.5	.6	22.8	119
Zamfara	41.6	688	6.5	15.0	1.3	2.0	.5	1.6	21.7	5.8	6.7	39.1	3.9	.0	4.9	5.8	10.9	286
FCT (Abuja)	15.6	214	6.2	14.2	22.5	1.9	19.9	6.9	59.4	7.2	9.2	73.5	.7	1.6	22.2	1.8	50.3	33
Area of residence																		
Urban	15.5	7664	6.2	27.5	7.4	3.0	9.0	9.8	57.9	15.0	9.0	67.4	1.5	.2	15.6	3.0	41.5	1187
Rural	21.2	17528	6.0	24.7	3.3	3.0	3.5	3.9	40.3	9.4	8.6	56.2	1.2	.5	13.6	3.3	25.5	3715
Age																		
0-11 months	16.7	5432	3.3	21.6	3.6	2.9	5.3	6.5	39.1	12.6	9.1	56.5	.9	.1	16.0	3.3	25.4	908
12-23	23.7	4986	4.0	28.3	5.1	3.7	4.5	5.8	47.5	14.5	10.2	62.9	.7	.4	13.8	2.9	31.4	1181
24-35	20.2	4747	7.8	24.2	3.2	4.0	6.3	5.4	46.6	9.2	7.6	60.5	1.0	.4	13.6	2.7	30.7	957
36-47	19.5	5170	6.1	25.0	5.4	2.7	3.6	4.2	43.0	8.7	8.1	57.8	2.7	.5	14.1	3.3	29.4	1009
48-59	17.5	4857	9.8	27.3	3.9	1.6	4.6	4.6	45.8	7.8	8.0	55.3	.9	.4	12.9	4.2	29.5	848
Mother's education																		
None	22.6	10992	5.1	23.4	1.8	2.1	1.6	2.2	32.2	8.3	9.2	52.6	.9	.4	11.5	3.1	20.0	2479
Primary	17.7	4989	6.3	32.4	5.2	2.5	3.6	5.1	50.8	11.0	8.9	61.5	1.9	.6	16.3	3.8	32.2	885
Secondary +	16.7	9209	7.5	24.6	7.9	5.0	10.8	10.5	61.0	14.7	7.7	67.5	1.4	.2	17.0	3.2	43.0	1538
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)

Table CH.14: Anti-malarial treatment of children with anti-malarial drugs (continued)

Percentage of children age 0-59 months who had fever in the last two weeks who received anti-malarial drugs, Nigeria, 2011

	Had a fever in last two weeks	Number of children age 0-59 months	Children with a fever in the last two weeks who were treated with:													Missing/ DK	Percentage who took an anti-malarial drug same or next day[2]	Number of children with fever in last two weeks
			Anti-malarials:							Other medications:								
			SP/ Fansidar	Chloroquine	Amodia-quine	Quinine	Combination with artemisinin	Other anti-malarial	Any anti-malarial drug[1]	Antibiotic pill or syrup	Antibiotic injection	Paracet-amol/ Panadol/ Acetamin-ophen	Aspirin	Ibuprofen	Other			
Wealth index quintiles																		
Poorest	24.0	5797	4.8	19.8	1.1	1.4	2.0	1.6	26.7	7.6	7.9	46.6	.9	.0	13.2	3.2	13.8	1393
Second	21.7	5220	5.0	29.4	2.6	2.6	2.0	3.0	40.4	8.6	10.3	58.7	1.4	.5	11.8	3.3	26.8	1132
Middle	20.5	4711	7.0	27.4	4.6	2.8	3.5	4.7	47.3	11.4	8.6	63.6	1.0	.6	12.8	4.1	28.4	967
Fourth	15.0	4801	7.0	29.7	7.6	4.4	5.9	8.5	56.9	12.5	6.9	69.1	2.3	.8	17.1	3.5	43.7	721
Richest	14.8	4662	7.9	23.1	9.9	6.0	15.9	14.2	70.7	18.2	9.5	66.8	1.1	.2	18.0	1.6	51.4	690
Geo-political zone																		
North-Central	12.8	3285	7.3	26.1	6.7	2.7	6.3	7.6	48.2	13.4	8.8	52.6	.9	.7	15.3	8.1	29.8	420
North-East	21.2	3843	3.8	29.1	.5	1.2	2.1	1.8	36.8	11.2	7.1	60.4	.7	.0	10.4	2.1	23.2	816
North-west	26.0	7501	7.0	25.2	2.5	2.3	1.7	2.9	36.5	7.7	9.6	52.6	1.2	.5	11.8	2.4	23.5	1952
South-East	22.3	2563	5.1	22.6	7.8	5.3	9.3	10.9	57.0	15.8	7.9	64.9	1.1	.3	15.8	3.9	37.0	571
South-South	20.5	3483	4.4	26.4	7.1	5.6	8.2	6.0	54.7	8.9	7.2	68.3	1.3	.6	19.3	3.9	34.7	715
South-West	9.5	4516	8.9	20.8	8.2	3.3	11.4	12.0	59.0	17.9	11.0	66.9	2.8	.0	19.3	2.5	48.6	428
Total	19.5	25192	6.0	25.4	4.3	3.0	4.8	5.3	44.6	10.8	8.7	58.9	1.3	.4	14.1	3.2	29.4	4902

[1] MICS indicator 3.18; MDG indicator 6.8

[2] MICS indicator 3.17

( ) based on 25-49 unweighted cases
(*) less than 25 unweighted cases

Table CH.15 provides the proportion of children age 0-59 months who had a fever in the last two weeks and who had a finger or heel stick for malaria testing. Overall, 8 percent of children with a fever in the last two weeks had a finger or heel stick. The figure is higher in the urban areas (11 percent) than in the rural areas (7 percent), North-Central has the highest percentage (16 percent), closely followed by South-East (14 percent) while North-West has the lowest figure (5 percent).

Once infected, pregnant women risk anemia, premature delivery and stillbirth. Their babies are likely to be of low birth weight, which makes them unlikely to survive their first year of life. For this reason, steps are taken to protect pregnant women by distributing insecticide-treated mosquito nets and treatment during antenatal check-ups with drugs that prevent malaria infection (Intermittent preventive treatment or IPT). In Nigeria MICS, women were asked of the medicines they had received in their last pregnancy during the 2 years preceding the survey. Women are considered to have received intermittent preventive therapy if they have received at least 2 doses of SP/Fansidar during the pregnancy.

Table CH.15: Malaria diagnostics usage Percentage of children age 0-59 months who had a fever in the last two weeks and who had a finger or heel stick for malaria testing, Nigeria, 2011		
	Had a finger or heel stick[1]	Number of children age 0-59 months with fever in the last two weeks
Sex		
Male	8.1	2586
Female	7.7	2317
State		
Abia	25.0	126
Adamawa	5.2	120
Akwa Ibom	5.2	140
Anambra	6.4	74
Bauchi	3.6	329
Bayelsa	6.2	87
Benue	14.8	61
Borno	3.1	80
Cross River	4.6	113
Delta	15.0	108
Ebonyi	4.6	98
Edo	27.8	57
Ekiti	(9.8)	(35)
Enugu	3.9	84
Gombe	2.1	112
Imo	17.7	190
Jigawa	2.9	218
Kaduna	4.2	339
Kano	7.5	319
Katsina	4.6	311
Kebbi	11.0	170
Kogi	(6.0)	(39)
Kwara	19.5	58
Lagos	19.6	143
Nasarawa	19.7	67
Niger	12.2	103
Ogun	3.6	96
Ondo	14.2	52
Osun	11.1	57
Oyo	(*)	(*)
Plateau	19.7	58
Rivers	8.1	210
Sokoto	.9	309
Taraba	6.4	57
Yobe	3.7	119
Zamfara	4.6	286
FCT (Abuja)	21.0	33

Table CH.15: Malaria diagnostics usage (continued)		
Percentage of children age 0-59 months who had a fever in the last two weeks and who had a finger or heel stick for malaria testing, Nigeria, 2011		
	Had a finger or heel stick[1]	Number of children age 0-59 months with fever in the last two weeks
Area of residence		
Urban	11.2	1187
Rural	6.9	3715
Age (in months)		
0-11	7.9	908
12-23	8.9	1181
24-35	7.2	957
36-47	6.8	1009
48-59	8.9	848
Mother's education		
None	4.8	2479
Primary	7.6	885
Secondary +	13.3	1539
Wealth index quintiles		
Poorest	4.1	1393
Second	6.0	1132
Middle	7.2	967
Fourth	12.9	721
Richest	14.9	690
Geo-political zone		
North-Central	15.9	420
North-East	3.8	816
North-West	4.8	1952
South-East	13.6	571
South-South	9.4	715
South-West	12.7	428
Total	7.9	4902
[1] MICS indicator 3.16		

( ) based on 25-49 unweighted cases
(*) less than 25 unweighted cases

Intermittent Preventive Treatment for Malaria

Intermittent preventive treatment for malaria in pregnant women who gave birth in the two years preceding the survey is presented in Table CH.16. Table CH.16 presents intermittent preventive treatment for malaria by residence, region, and socioeconomic factors. In Nigeria, 20 percent of women age 15-49 years who had a live birth during the two years preceding the survey took SP/Fansidar two or more times. The percentage was higher in the rural areas than in the urban areas (21 percent versus 18 percent); coverage of this intervention in zones shows that northern part of Nigeria has higher figures than their southern counterparts, North-West (41 percent), North-Central (19 percent), North-East (21 percent) while South-East has 14 percent, South-South has 12 and South-West has 13 percent.

Table CH.16: 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, 2011

	Percentage of women who received antenatal care (ANC)	Number of women who had a live birth in the last two years	Percentage of pregnant women who took:			Number of women who had a live birth in the last two years and who received antenatal care
			Any medicine to prevent malaria at any ANC visit during pregnancy	SP/Fansidar at least once	SP/Fansidar two or more times[1]	
State						
Abia	95.0	189	85.6	26.9	17.0	180
Adamawa	67.1	226	50.4	9.8	4.2	152
Akwa Ibom	67.3	254	80.9	15.5	7.6	171
Anambra	93.6	270	73.9	18.8	10.9	252
Bauchi	31.2	455	73.0	50.9	39.9	142
Bayelsa	47.9	144	79.6	28.7	15.1	69
Benue	69.2	244	53.4	30.8	22.2	169
Borno	43.4	270	55.4	21.2	15.0	117
Cross River	67.5	203	89.8	23.5	15.6	137
Delta	81.7	293	73.2	25.1	15.1	240
Ebonyi	80.3	137	77.9	21.3	14.0	110
Edo	86.7	204	70.0	11.9	8.7	177
Ekiti	95.9	152	69.8	20.9	15.4	146
Enugu	98.6	181	71.5	19.3	14.0	178
Gombe	68.1	175	66.0	44.5	30.0	119
Imo	97.6	180	90.4	16.5	13.1	175
Jigawa	42.1	333	77.1	46.4	37.4	140
Kaduna	76.6	494	81.0	41.3	28.0	378
Kano	55.5	725	82.5	71.0	56.5	402
Katsina	16.9	443	69.4	56.6	47.0	75
Kebbi	32.5	252	54.9	37.6	24.5	82
Kogi	85.8	161	56.7	29.5	24.8	138
Kwara	91.7	168	79.1	20.4	9.5	155
Lagos	92.8	686	62.6	25.9	14.7	637
Nasarawa	70.8	157	65.4	25.6	16.7	111
Niger	65.5	285	52.7	27.2	13.7	187
Ogun	89.7	272	50.5	16.3	9.0	244
Ondo	82.0	206	43.7	3.7	2.6	169
Osun	97.2	215	43.0	3.3	.9	209
Oyo	85.1	416	64.6	33.9	22.7	354
Plateau	77.6	196	70.4	39.4	27.7	152
Rivers	80.3	318	62.7	20.0	10.3	256
Sokoto	16.6	273	63.9	41.9	26.7	45
Taraba	44.5	145	67.0	19.5	12.4	65
Yobe	45.4	191	68.0	37.2	20.6	87
Zamfara	15.5	275	89.2	48.8	43.5	42
FCT (Abuja)	90.7	90	72.2	33.6	23.1	82

Table CH.16: Intermittent preventive treatment for malaria (continued)

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, 2011

	Percentage of women who received antenatal care (ANC)	Number of women who had a live birth in the last two years	Percentage of pregnant women who took:			Number of women who had a live birth in the last two years and who received antenatal care
			Any medicine to prevent malaria at any ANC visit during pregnancy	SP/Fansidar at least once	SP/Fansidar two or more times[1]	
Area						
Urban	87.6	3122	66.4	28.1	17.9	2735
Rural	56.4	6757	69.6	29.2	20.6	3809
Education						
None	39.4	3951	66.6	34.7	25.4	1556
Primary	72.7	1852	65.1	28.9	20.2	1346
Secondary+	89.3	4076	70.2	26.2	16.6	3641
Wealth index quintiles						
Poorest	30.0	2167	61.6	30.1	23.1	649
Second	50.6	2002	62.1	27.9	18.9	1012
Middle	73.0	1830	69.7	27.3	19.0	1337
Fourth	87.8	1963	70.3	28.4	19.2	1723
Richest	95.1	1917	71.1	30.2	19.1	1823
Geo-political zone						
North-Central	76.3	1301	63.2	29.3	19.3	992
North-East	46.6	1463	62.5	30.8	20.9	682
North-West	41.7	2795	78.1	53.2	40.5	1165
South-East	93.7	956	79.5	20.4	13.5	896
South-South	74.1	1417	74.0	20.1	11.7	1050
South-West	90.3	1948	57.8	20.9	12.8	1759
Total	66.2	9879	68.3	28.8	19.5	6544

[1] MICS indicator 3.20

VII. Water and Sanitation

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, physical and radiological contaminants with harmful effects on human health. In addition to its association with disease, 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.

The MDG goal (7, C) is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The World Fit for Children goal calls for a reduction in the proportion of households without access to hygienic sanitation facilities and affordable and safe drinking water by at least one-third.

The list of indicators used in MICS is as follows:

Water

- Use of improved drinking water sources
- Use of adequate water treatment method
- Time to source of drinking water
- Person collecting drinking water

Sanitation

- Use of improved sanitation
- Sanitary disposal of child's faeces

For more details on water and sanitation and to access some reference documents, please visit the UNICEF childinfo website[6].

MICS also collects additional information on the availability of facilities and conditions for hand washing. The following indicators are collected:

- Place for handwashing observed
- Availability of soap

Use of Improved Water Sources

The distribution of the population by main source of drinking water is shown in Table WS.1 and Figure WS.1. The population using *improved sources* of drinking water are those using any of the following types of supply: 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.

Table WS.1: Use of improved water sources

Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Nigeria, 2011

State	Main source of drinking water																				
	Improved sources									Unimproved sources											
	Piped water																				
	Into dwelling	Into yard/plot	To neigh-bour	Public tap/ stand-pipe	Tube-well/ bore-hole	Protected well	Protected spring	Rain-water collection	Bottled water*	Unprotected well	Unprotected spring	Tanker truck	Cart with tank/ drum	Surface water	Bottled water*	Sachet/Pure water	Other	Missing	Total	Percentage using improved sources of drinking water[1]	Number of household members
Abia	.0	.0	.0	2.1	80.1	.0	1.7	.0	.0	.3	5.0	.1	.0	9.2	.0	1.5	.0	.0	100.0	83.9	3004
Adamawa	1.4	.9	.0	.5	47.2	4.9	.0	.0	.0	8.3	3.4	4.5	.3	27.4	.0	1.1	.0	.0	100.0	54.8	3372
Akwa ibom	.8	.0	.0	.3	73.4	1.3	.4	.0	.2	1.1	1.9	.0	.0	16.8	.0	3.8	.0	.0	100.0	76.3	4151
Anambra	.2	.1	.0	.2	53.7	5.3	1.0	2.9	.8	.3	1.1	4.6	.5	16.7	.0	12.7	.0	.0	100.0	64.3	4338
Bauchi	.0	.4	.4	1.9	38.7	3.2	.0	.0	.0	51.5	.1	.0	.0	3.6	.0	.0	.2	.0	100.0	44.6	4875
Bayelsa	.0	1.3	.1	8.9	16.2	.0	.0	.3	.6	5.0	.3	.5	.0	59.9	.2	6.4	.1	.2	100.0	27.5	1755
Benue	.0	.0	.0	.5	6.3	40.6	1.5	.0	.0	8.2	.2	1.7	.4	39.6	.0	.5	.3	.0	100.0	49.0	4375
Borno	.6	.7	.2	2.6	52.0	3.7	.0	.0	.0	29.5	.8	7.4	.1	.1	.0	.2	2.1	.0	100.0	59.7	4246
Cross River	1.7	.7	.0	.9	38.2	8.0	.0	.0	.0	2.9	.1	.0	.2	46.3	.0	.8	.0	.1	100.0	49.4	3043
Delta	3.9	1.6	.8	11.7	42.9	11.3	.4	2.4	.0	13.6	.4	.1	.0	5.2	.0	5.5	.0	.0	100.0	75.1	4313
Ebonyi	3.0	.0	.0	4.2	47.5	3.5	.4	.6	.1	2.4	3.3	.5	.3	31.9	.0	2.1	.2	.0	100.0	59.3	2241
Edo	1.6	.0	2.2	.5	56.9	10.2	.0	.9	.8	.5	.9	1.0	.0	16.8	.0	7.5	.0	.0	100.0	73.2	3451
Ekiti	2.8	4.2	1.0	21.1	15.9	26.8	2.3	.0	.4	2.5	2.0	.0	.2	8.7	.1	12.1	.0	.0	100.0	74.4	2470
Enugu	2.4	5.1	5.9	9.8	11.4	2.3	.5	2.4	.0	3.0	9.4	21.2	3.3	18.3	.4	4.7	.0	.0	100.0	39.6	3460
Gombe	3.6	1.9	.7	9.4	14.5	8.6	.1	.0	.0	32.4	8.8	4.1	1.2	14.6	.0	.1	.0	.0	100.0	38.8	2435
Imo	.3	1.2	.5	1.2	76.2	1.0	.5	5.2	.2	.6	1.6	1.2	.0	8.1	.0	2.0	.2	.0	100.0	86.4	4134
Jigawa	4.5	3.9	2.8	3.0	40.8	9.9	.1	.0	.0	34.0	.4	.0	.4	.0	.0	.4	.0	.0	100.0	64.9	4486
Kaduna	6.5	8.6	5.2	1.8	4.0	42.6	.3	.0	1.4	22.6	.9	.3	.4	2.6	.0	2.4	.3	.0	100.0	70.4	6378
Kano	8.4	1.3	1.0	18.8	13.4	7.8	.7	.0	.0	27.9	.6	2.3	5.8	5.4	.0	5.0	1.4	.1	100.0	51.4	9729
Katsina	3.3	1.0	2.9	6.7	16.5	11.4	1.4	.0	.0	44.4	2.1	5.7	.8	2.3	.3	1.3	.0	.0	100.0	43.2	6048
Kebbi	1.3	.7	.3	2.0	15.7	23.3	.5	.0	.0	43.5	3.1	.5	.0	8.7	.0	.4	.0	.1	100.0	43.8	3387

Table WS.1: Use of improved water sources (continued)

Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Nigeria, 2011

State	Main source of drinking water																				
	Improved sources									Unimproved sources											
	Piped water																				
	Into dwelling	Into yard/plot	To neigh-bour	Public tap/ stand-pipe	Tube-well/ bore-hole	Protected well	Protected spring	Rain-water collection	Bottled water*	Unprotected well	Unprotected spring	Tanker truck	Cart with tank/ drum	Surface water	Bottled water*	Sachet/Pure water	Other	Missing	Total	Percentage using improved sources of drinking water[1]	Number of household members
Kogi	1.4	.8	2.5	8.7	8.6	14.5	.9	.1	.0	2.0	3.5	8.0	1.3	43.9	.6	1.7	1.5	.0	100.0	37.4	3514
Kwara	5.3	5.6	7.5	18.3	23.1	12.0	.5	.0	.1	2.3	.0	.0	.3	12.7	.0	12.3	.0	.0	100.0	72.4	2491
Lagos	3.8	1.8	3.6	7.3	27.8	3.0	.0	.0	6.2	.4	.0	4.6	.0	.0	.5	40.9	.1	.0	100.0	53.4	9407
Nasarawa	.3	1.2	.3	2.3	16.5	14.5	1.9	.0	.0	30.2	.6	2.7	.4	28.3	.0	.7	.2	.0	100.0	36.9	1925
Niger	2.0	1.5	.2	2.8	40.4	21.9	.7	.0	.0	6.6	.3	1.0	.8	21.0	.0	.7	.0	.0	100.0	69.6	4151
Ogun	1.6	1.9	.2	9.2	47.3	10.8	.6	.0	1.7	5.6	2.4	.4	.0	2.1	.0	16.3	.0	.0	100.0	73.2	3850
Ondo	.4	.5	.2	4.7	22.1	25.1	.7	1.0	.1	3.5	3.7	.0	.0	34.9	.0	3.1	.0	.0	100.0	54.8	3592
Osun	4.8	3.2	1.2	16.7	19.4	29.0	.1	.2	.2	1.6	4.7	.0	.1	8.2	.0	10.8	.0	.0	100.0	74.7	3582
Oyo	1.3	.2	1.2	10.7	32.5	28.1	.4	.0	.5	2.4	2.1	.5	.3	10.5	.0	9.2	.1	.0	100.0	74.9	5793
Plateau	.7	1.8	2.2	1.8	24.5	14.1	.2	.0	.8	20.4	1.4	.1	.1	25.4	.0	6.4	.0	.0	100.0	46.2	3340
Rivers	3.7	5.0	1.6	15.7	54.1	5.3	.0	.1	1.0	8.5	.7	.0	.0	.5	.0	2.7	1.1	.0	100.0	86.4	5403
Sokoto	1.9	1.2	.9	2.9	3.6	8.3	.7	.0	.0	73.2	1.8	.1	.2	4.4	.1	.5	.0	.1	100.0	19.5	3861
Taraba	.0	.1	.0	2.4	21.5	5.9	1.7	.0	.0	9.2	6.5	.5	6.9	44.4	.0	.2	.8	.0	100.0	31.5	2399
Yobe	3.2	5.0	1.8	9.1	42.0	.8	.0	.0	.2	32.2	.1	1.2	.0	1.2	.0	.1	3.1	.0	100.0	62.1	2409
Zamfara	.6	.2	.0	2.8	27.6	12.6	.2	.2	.0	32.7	1.6	.0	4.4	17.1	.0	.0	.0	.0	100.0	44.2	3376
FCT (Abuja)	8.0	.9	.7	4.0	39.1	4.1	.2	.0	2.6	.6	.5	22.4	1.0	7.8	.0	7.3	.8	.0	100.0	59.6	1458
Area of residence																					
Urban	5.3	3.9	3.2	9.7	35.1	13.2	.3	.3	1.8	4.2	.5	4.2	1.6	1.6	.2	14.6	.4	.0	100.0	72.6	49677
Rural	1.3	.7	.6	5.0	30.5	11.9	.7	.5	.1	22.4	2.5	1.5	.5	19.4	.0	2.0	.3	.0	100.0	51.3	96566
Education of household head																					
None	1.5	1.3	1.0	5.3	25.2	12.4	.6	.4	.1	29.9	2.1	1.9	.9	15.5	.0	1.6	.3	.0	100.0	47.7	54986
Primary	1.1	1.6	1.1	6.0	39.2	12.7	.6	.7	.1	9.7	2.3	3.1	.7	16.0	.0	4.7	.2	.0	100.0	63.1	32847
Secondary	4.6	2.5	2.1	8.0	34.5	12.1	.4	.4	1.6	7.1	1.2	2.5	1.0	9.8	.2	11.6	.5	.0	100.0	66.2	58382
Missing/DK	(.0)	(.0)	(12.7)	(.0)	(28.8)	(.0)	(.0)	(.0)	(.0)	(.0)	(.0)	(.0)	(.0)	(45.5)	(.0)	(13.0)	(.0)	(.0)	(100.0)	(41.5)	(29)

Table WS.1: Use of improved water sources (continued)

Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Nigeria, 2011

State	Main source of drinking water																				
	Improved sources									Unimproved sources											
	Piped water																				
	Into dwelling	Into yard/plot	To neigh-bour	Public tap/ stand-pipe	Tube-well/ bore-hole	Protected well	Protected spring	Rain-water collection	Bottled water*	Unprotected well	Unprotected spring	Tanker truck	Cart with tank/ drum	Surface water	Bottled water*	Sachet/Pure water	Other	Missing	Total	Percentage using improved sources of drinking water[1]	Number of household members
Wealth index quintile																					
Poorest	.0	.0	.1	1.7	18.5	7.8	.7	.1	.0	43.8	3.3	.2	.6	22.9	.0	.0	.1	.1	100.0	29.0	29245
Second	.2	.4	.7	4.6	27.0	14.0	.7	.2	.0	23.8	3.1	1.0	.5	23.3	.0	.3	.3	.0	100.0	47.8	29256
Middle	1.3	.9	1.3	8.7	34.9	18.1	.7	.6	.0	10.2	1.9	2.9	1.2	14.3	.0	2.3	.6	.0	100.0	66.5	29240
Fourth	2.4	2.3	2.7	9.9	44.3	14.7	.3	1.0	.3	2.8	.7	4.5	1.5	5.4	.1	6.7	.5	.0	100.0	77.9	29254
Richest	9.3	5.5	2.5	7.9	35.6	7.2	.1	.3	3.1	.7	.1	3.4	.8	.9	.3	22.1	.2	.0	100.0	71.5	29249
Geo-political zone																					
North-Central	1.9	1.5	1.8	5.0	21.4	20.3	.9	.0	.3	9.6	1.0	3.7	.6	28.1	.1	3.5	.4	.0	100.0	53.0	21253
North-East	1.2	1.2	.5	3.7	38.3	4.3	.2	.0	.0	29.5	2.7	3.1	1.1	13.0	.0	.3	1.0	.0	100.0	49.4	19737
North-West	4.7	2.7	2.1	7.4	16.1	16.5	.6	.0	.3	37.0	1.3	1.6	2.2	5.0	.1	2.0	.4	.1	100.0	50.3	37265
South-East	1.0	1.4	1.3	3.2	54.4	2.5	.8	2.6	.3	1.2	3.8	5.8	.8	15.6	.1	5.2	.1	.0	100.0	67.4	17179
South-South	2.3	1.7	.9	7.1	50.8	6.4	.1	.7	.5	5.8	.8	.2	.0	18.0	.0	4.3	.3	.0	100.0	70.5	22116
South-West	2.6	1.7	1.7	10.3	28.6	17.2	.5	.2	2.4	2.2	2.0	1.7	.1	8.5	.2	20.2	.0	.0	100.0	65.1	28694
Total	2.6	1.8	1.5	6.6	32.1	12.4	.5	.4	.7	16.2	1.8	2.4	.9	13.4	.1	6.3	.4	.0	100.0	58.5	146243

[1] MICS indicator 4.1; MDG indicator 7.8

* Households using bottled water as the main source of drinking water are classified into improved or unimproved drinking water users according to the water source used for other purposes such as cooking and handwashing.

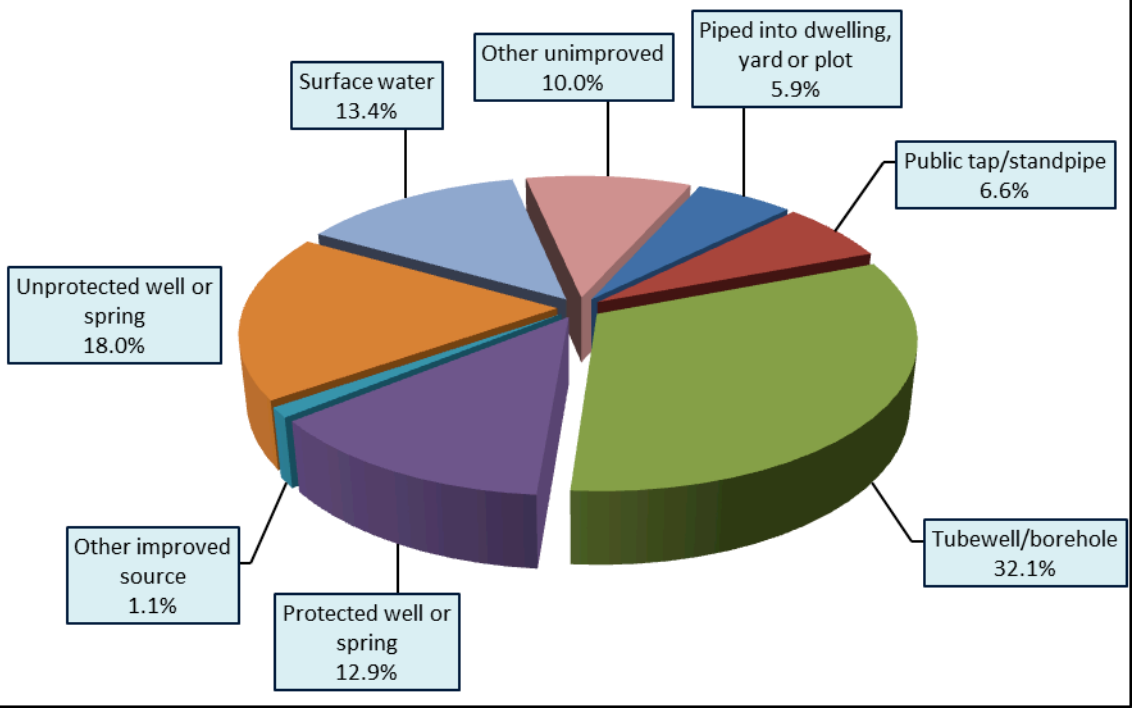
( ) based on 25-49 unweighted cases

(*) less than 25 unweighted cases

Overall, 59 percent of the population is using an improved source of drinking water; 73 percent in urban areas and 31 percent in rural areas. The situation in North-East zone is considerably worse than in other zones; only 49 percent of the population in this region gets its drinking water from an improved source.

The source of drinking water for the population varies strongly by region (Table WS.1). In North-West, 17 percent of the population uses drinking water that is piped into their dwelling or into their yard or plot. In South-West and South-South, 16 and 12 percent respectively use piped water. In contrast, only about 7 percent of those residing in South-East and those in North-East have piped water respectively. The second most important source of drinking water In South-East and South-South is borehole with more than half of the households (54 and 50 percent respectively) using it while in North-West, more than one-thirds use unprotected well/spring water (an unimproved source) and most of the remainder use surface water.

Figure WS.1: Percent distribution of household members by source of drinking water, Nigeria, 2011



Three states were outstanding in terms of access to improved water sources. These include Imo, Abia, and Rivers States, each of which has over 84 percent of households with improved water sources. Taraba, Bayelsa and Sokoto states were among the states with the lowest percentage with 32 percent, 28 percent and 20 percent respectively.

Use of household water treatment is presented in Table WS.2. Households were asked of ways they may be 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 proper treatment of drinking water. The table shows water treatment by all households and the percentage of household members living in households using unimproved water sources but using appropriate water treatment methods.

Table WS.2: Household water treatment

Percentage of household population by drinking water treatment method used in the household, and for household members living in households where an unimproved drinking water source is used, the percentage who are using an appropriate treatment method, Nigeria, 2011

State	Water treatment method used in the household									Number of household members	Percentage of household members in households using unimproved drinking water sources and using an appropriate water treatment method[1]	Number of household members in households using unimproved drinking water sources
	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Solar dis-infection	Let it stand and settle	Other	Missing/DK			
Abia	88.3	9.9	.2	.3	.3	.0	.0	.5	.0	3004	4.0	485
Adamawa	93.6	1.4	.3	.7	.3	.0	.7	.3	.0	3372	2.7	1524
Akwa ibom	89.1	4.5	2.9	.0	.0	.0	3.3	.2	.0	4151	1.2	982
Anambra	88.4	8.3	.6	1.6	.3	.0	1.1	.3	.1	4338	4.7	1550
Bauchi	95.6	.4	.1	1.4	.7	.0	1.0	.1	.4	4875	.9	2699
Bayelsa	45.5	2.1	.7	.7	.5	.0	2.1	3.9	.1	1755	2.1	1272
Benue	61.9	1.6	.6	27.5	2.6	.0	1.0	.1	.0	4375	5.6	2232
Borno	94.7	.1	.3	.8	.6	.0	2.4	.4	.0	4246	1.9	1709
Cross River	85.2	2.0	.2	2.1	8.6	.0	2.4	.0	.0	3043	6.6	1539
Delta	89.6	3.3	.4	.9	.1	.0	.1	.0	.0	4313	2.2	1074
Ebonyi	78.0	3.1	.2	7.0	5.2	.2	7.8	.4	.4	2241	9.6	913
Edo	94.0	3.6	.2	.1	.7	.1	.0	.2	.1	3451	2.4	925
Ekiti	79.6	2.8	.7	.4	1.2	.0	.2	1.7	.1	2470	5.6	632
Enugu	90.8	5.8	.0	1.1	1.8	.0	.2	.2	.0	3460	5.0	2088
Gombe	88.4	4.3	.0	4.3	1.2	.0	.6	.4	.0	2435	5.0	1490
Imo	91.2	7.6	.1	.3	.4	.0	.4	.5	.1	4134	14.4	562
Jigawa	94.0	.7	.0	.4	.3	.2	4.0	.0	.0	4486	.3	1577
Kaduna	70.0	8.7	3.8	7.9	2.5	.1	5.8	.4	.0	6378	10.7	1890
Kano	93.7	2.0	.0	1.9	.8	.0	1.8	.0	.0	9729	4.4	4726
Katsina	90.6	2.0	.0	7.6	.8	.0	4.6	.4	.0	6048	3.3	3437
Kebbi	95.0	.4	.0	1.2	.6	.0	.6	.0	.0	3387	.9	1904
Kogi	75.2	3.4	.9	1.0	2.6	.0	2.4	.0	.0	3514	4.2	2200
Kwara	78.0	6.0	2.2	3.9	.9	.0	7.9	.0	.0	2491	6.2	687
Lagos	83.7	8.2	3.5	.2	1.4	.0	.4	.3	.0	9407	6.6	4381
Nasarawa	84.5	3.0	.4	3.5	.5	.0	1.8	.7	.0	1925	4.9	1213
Niger	90.0	.6	.3	.5	.4	.0	.6	.0	.0	4151	.3	1262
Ogun	89.0	4.1	.7	1.0	.1	.0	1.7	.5	.0	3850	4.0	1031
Ondo	79.2	1.9	.8	1.2	1.0	.0	1.3	.1	.0	3592	2.7	1622
Osun	71.6	4.8	8.7	3.3	2.1	.0	2.9	1.5	.0	3582	11.5	908
Oyo	70.9	5.6	5.6	6.3	1.8	.0	3.4	2.6	.0	5793	5.4	1455
Plateau	82.5	5.7	2.1	2.2	.9	.0	1.9	.6	.1	3340	8.0	1796
Rivers	84.9	11.1	1.4	.0	3.4	.0	.1	.7	.7	5403	8.7	733
Sokoto	91.5	.8	.0	3.5	.0	.0	3.0	.3	.0	3861	.1	3107
Taraba	95.7	.8	.0	.3	.6	.0	.3	.2	.0	2399	1.6	1643
Yobe	95.2	.5	.0	3.8	.1	.0	.6	.0	.0	2409	.7	913
Zamfara	91.4	1.2	.0	2.8	2.6	.0	2.3	.0	.0	3376	3.0	1882
FCT (Abuja)	80.2	6.5	.5	.5	2.3	.0	.9	.6	.0	1458	4.7	589

Table WS.2: Household water treatment (continued)

Percentage of household population by drinking water treatment method used in the household, and for household members living in households where an unimproved drinking water source is used, the percentage who are using an appropriate treatment method, Nigeria, 2011

State	Water treatment method used in the household									Number of household members	Percentage of household members in households using unimproved drinking water sources and using an appropriate water treatment method[1]	Number of household members in households using unimproved drinking water sources
	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Solar dis-infection	Let it stand and settle	Other	Missing/DK			
Area of residence												
Urban	81.1	7.1	2.4	2.6	1.7	.0	2.0	.7	.1	49677	7.8	13632
Rural	87.7	2.4	.6	3.1	1.1	.0	1.9	.3	.0	96566	3.1	46997
Main source of drinking water												
Improved	85.2	5.0	1.7	2.8	1.5	.0	1.7	.5	.1	85615	na	na
Unimproved	85.8	2.6	.6	3.1	1.1	.0	2.3	.3	.1	60628	4.1	60628
Education of household head												
None	90.6	1.6	.4	2.4	.8	.0	1.7	.1	.0	54986	1.9	28760
Primary	84.7	4.0	1.2	3.7	.9	.0	2.2	.4	.1	32847	4.5	12108
Secondary	81.0	6.3	2.0	3.0	2.1	.0	2.1	.8	.1	58382	7.1	19744
Missing/DK	(77.3)	(22.7)	(.0)	(.0)	(.0)	(.0)	(22.7)	(.0)	(.0)	(29)	(.0)	(17)
Wealth index quintile												
Poorest	91.1	.7	.2	3.5	.7	.0	2.3	.0	.1	29245	1.5	20755
Second	87.7	1.0	.2	3.7	1.2	.0	2.1	.1	.0	29256	2.6	15276
Middle	86.1	3.1	.8	3.2	1.1	.0	1.6	.3	.0	29240	6.6	9789
Fourth	84.7	4.2	1.5	2.7	.8	.0	2.0	.8	.0	29254	6.5	6459
Richest	77.7	11.1	3.5	1.5	2.7	.0	1.8	.9	.1	29249	8.8	8351
Geo-political zone												
North-Central	78.0	3.3	1.0	7.1	1.5	.0	2.2	.2	.0	21253	5.0	9978
North-East	94.1	1.0	.1	1.7	.6	.0	1.1	.2	.1	19737	2.1	9977
North-West	88.8	2.6	.7	3.9	1.1	.0	3.3	.2	.0	37265	3.2	18523
South-East	88.2	7.2	.2	1.7	1.3	.0	1.5	.4	.1	17179	6.5	5598
South-South	84.9	5.2	1.1	.5	2.2	.0	1.2	.5	.2	22116	3.8	6524
South-West	79.4	5.5	3.6	2.1	1.3	.0	1.6	1.0	.0	28694	5.9	10027
Total	85.5	4.0	1.2	2.9	1.3	.0	1.9	.4	.1	146243	4.1	60628

[1] MICS indicator 4.2

( ) based on 25-49 unweighted cases
(*) less than 25 unweighted cases

The result of the survey has shown that a few proportion (4 percent) of the household members living in households where an unimproved drinking water source is used, are using appropriate water treatment method. In the urban areas, the figure was 8 percent as against 3 percent in rural areas. Education of the household head and wealth status are also factors with the likelihood of the household using appropriate water methods increases as the level of education of the household head increases or as wealth status improves. According to the results, 2 percent of households in the poorest wealth quintile used appropriate water treatment as against 9 percent of households in the richest wealth quintile; the figure was also 7 percent among households headed by persons with secondary education or higher as against 2 percent among those headed by persons with no education. Among the treatment methods, boiling of water is the most popular. A large proportion (86 percent) of such household members does not use any water treatment method. The pattern of treatment method is similar across the geo-political zones. However, North-East zone has the highest proportion (94 percent) of household members not using any water treatment method.

The amount of time it takes to obtain water is presented in Table WS.3 and the person who usually collected the water in Table WS.4. The results of this survey refer to one roundtrip from home to drinking water source. Information on the number of trips made in one day was not collected.

Table WS.3 shows that for about 19 percent of households, the drinking water source is on the premises. For more than a quarter of all households, it takes less than 30 minutes to get to the water source and bring water, while eleven percent of households spend 30 minutes or more for this purpose. In rural areas more households (11 percent) spend time in collecting water compared to those in urban areas (10 percent). One striking finding is the high percentage of households spending 30 minutes or more to go to source of drinking water in North-East with 21 percent followed by South-East with 18 percent.

In addition, more households in the richest wealth quintile (38 percent) had their improved water sources within their premises than their counterparts in the poorest wealth quintile (5 percent).

Table WS.3: Time to source of drinking water

Percent distribution of household population according to time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources, Nigeria, 2011

	Time to source of drinking water									
	Users of improved drinking water sources				Users of unimproved drinking water sources					Number of household members
	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK	Total	
State										
Abia	9.6	48.7	25.5	.0	.2	8.2	7.8	.0	100.0	3004
Adamawa	9.2	22.7	21.5	1.4	4.0	12.3	26.7	2.2	100.0	3372
Akwa Ibom	7.1	56.9	12.3	.0	.5	8.7	14.4	.0	100.0	4151
Anambra	15.7	36.7	11.9	.0	7.4	11.9	16.3	.2	100.0	4338
Bauchi	1.9	24.2	18.6	.0	10.6	23.5	21.2	.0	100.0	4875
Bayelsa	5.2	20.6	1.7	.1	2.1	53.1	17.3	.0	100.0	1755
Benue	26.9	11.2	10.5	.4	6.7	15.4	27.6	1.4	100.0	4375
Borno	2.4	13.4	38.2	5.7	1.4	8.7	27.8	2.3	100.0	4246
Cross River	14.5	27.9	7.1	.0	2.5	13.5	34.5	.0	100.0	3043
Delta	22.0	47.3	5.3	.5	6.7	16.1	2.1	.0	100.0	4313
Ebonyi	11.4	30.1	17.7	.1	3.3	10.9	26.5	.1	100.0	2241
Edo	16.5	46.4	10.2	.1	1.9	11.4	12.9	.5	100.0	3451
Ekiti	24.8	36.6	13.0	.0	6.1	12.1	7.4	.0	100.0	2470
Enugu	22.1	7.8	9.8	.0	26.3	9.3	24.4	.4	100.0	3460
Gombe	9.3	19.1	10.4	.0	13.1	20.5	27.6	.0	100.0	2435
Imo	14.3	43.5	27.7	.9	2.0	2.5	8.7	.3	100.0	4134
Jigawa	13.7	44.8	6.4	.0	3.5	19.9	11.7	.0	100.0	4486
Kaduna	59.1	10.1	1.2	.0	16.6	9.9	3.1	.0	100.0	6378
Kano	18.5	15.4	15.8	1.6	18.0	13.8	14.1	2.7	100.0	9729
Katsina	16.3	18.9	7.7	.2	16.9	25.6	14.3	.0	100.0	6048
Kebbi	22.1	15.4	6.2	.0	22.5	20.8	12.6	.4	100.0	3387
Kogi	14.1	15.6	7.5	.3	2.1	29.8	30.2	.5	100.0	3514
Kwara	34.1	31.1	7.1	.2	7.7	10.9	8.9	.1	100.0	2491
Lagos	24.2	28.1	1.1	.0	18.5	26.7	.9	.5	100.0	9407
Nasarawa	14.9	20.2	1.8	.0	13.5	31.1	17.4	1.0	100.0	1925
Niger	21.7	34.8	10.9	2.2	4.4	15.1	10.0	.9	100.0	4151
Ogun	18.6	46.4	8.2	.0	10.3	14.1	2.4	.0	100.0	3850
Ondo	19.9	28.8	6.1	.0	11.5	14.9	18.7	.0	100.0	3592
Osun	30.4	34.9	9.4	.0	7.4	11.0	7.0	.0	100.0	3582
Oyo	18.2	44.8	11.7	.2	4.7	8.2	12.3	.0	100.0	5793
Plateau	15.8	23.6	6.8	.0	13.3	24.8	15.4	.4	100.0	3340
Rivers	33.8	44.6	7.5	.6	5.9	5.7	1.6	.4	100.0	5403
Sokoto	10.0	7.2	2.3	.0	21.7	40.6	18.0	.1	100.0	3861
Taraba	4.4	15.7	10.9	.6	1.6	19.1	47.0	.8	100.0	2399
Yobe	11.7	28.8	17.3	4.4	1.1	21.1	14.5	1.3	100.0	2409
Zamfara	8.5	21.7	10.5	3.5	11.9	23.8	15.9	4.2	100.0	3376
FCT (Abuja)	17.8	28.3	13.5	.0	1.7	21.9	14.8	2.0	100.0	1458

Table WS.3: Time to source of drinking water (continued)

Percent distribution of household population according to time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources, Nigeria, 2011

	Time to source of drinking water									
	Users of improved drinking water sources				Users of unimproved drinking water sources					Number of household members
	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK	Total	
Area of residence										
Urban	28.8	33.3	9.8	.6	9.8	12.0	4.7	.9	100.0	49677
Rural	13.6	25.7	11.4	.7	9.4	19.2	19.5	.5	100.0	96566
Education of household head										
None	13.6	21.9	11.3	.8	11.2	20.1	20.3	.7	100.0	54986
Primary	15.6	34.7	12.1	.7	7.3	14.3	15.1	.2	100.0	32847
Secondary +	25.4	30.7	9.8	.4	9.3	15.0	8.6	.8	100.0	58382
Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile										
Poorest	4.6	14.4	9.5	.5	11.6	26.9	32.1	.4	100.0	29245
Second	10.4	24.9	11.6	.8	12.3	20.3	19.4	.3	100.0	29256
Middle	17.7	33.7	14.1	1.0	6.5	14.0	12.3	.7	100.0	29240
Fourth	23.4	41.2	12.6	.8	5.2	9.9	5.8	1.2	100.0	29254
Richest	37.6	27.2	6.5	.1	12.3	12.8	2.8	.7	100.0	29249
Geo-political zone										
North-Central	21.2	22.8	8.5	.6	6.9	20.5	18.7	.8	100.0	21253
North-East	5.7	20.5	21.2	2.1	5.6	17.2	26.7	1.1	100.0	19737
North-West	23.1	18.3	8.1	.8	16.1	20.1	12.4	1.1	100.0	37265
South-East	15.0	33.7	18.4	.2	8.1	8.3	15.9	.2	100.0	17179
South-South	18.9	43.5	7.9	.3	3.7	14.0	11.6	.2	100.0	22116
South-West	22.6	35.6	6.9	.0	11.3	16.6	6.9	.2	100.0	28694
Total	18.8	28.3	10.9	.6	9.6	16.8	14.5	.7	100.0	146243

(*) less than 25 unweighted cases

Table WS.4 shows that for the majority of households (48 percent), an adult female is usually the person collecting the water, when the source of drinking water is not on the premises. Adult men collect water in only 35 percent of cases, while for the rest of the households, female or male children under age 15 collect water (17 percent).

Table WS.4: Person collecting water

Percentage of households without drinking water on premises, and percent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Nigeria, 2011

	Percentage of households without drinking water on premises	Number of households	Person usually collecting drinking water							Number of households without drinking water on premises
			Adult woman	Adult man	Female child under age 15	Male child under age 15	DK	Missing	Total	
State										
Abia	91.0	755	45.8	33.1	12.0	9.0	.0	.0	100.0	687
Adamawa	87.0	560	51.5	33.9	9.1	4.9	.5	.0	100.0	487
Akwa ibom	92.4	890	44.6	36.5	12.4	6.5	.0	.0	100.0	822
Anambra	75.6	1023	46.3	31.3	9.0	12.9	.4	.1	100.0	773
Bauchi	89.5	817	11.8	51.4	22.6	14.0	.1	.0	100.0	731
Bayelsa	93.0	440	56.7	34.3	5.1	3.9	.0	.0	100.0	409
Benue	65.3	827	73.1	14.4	8.1	3.2	1.2	.0	100.0	540
Borno	96.8	833	23.5	67.6	5.4	3.1	.5	.0	100.0	806
Cross River	83.2	658	63.2	22.7	7.1	6.6	.0	.3	100.0	547
Delta	69.4	1032	55.4	26.8	9.6	8.1	.0	.2	100.0	716
Ebonyi	82.7	388	51.0	23.6	15.1	10.2	.0	.1	100.0	321
Edo	79.8	752	55.1	27.5	11.8	5.2	.0	.4	100.0	599
Ekiti	70.3	673	57.2	26.4	9.2	7.2	.0	.0	100.0	473
Enugu	53.1	925	56.1	30.1	9.4	4.1	.3	.0	100.0	491
Gombe	80.6	378	20.8	51.5	13.6	13.8	.4	.0	100.0	305
Imo	81.7	952	48.5	33.4	11.1	6.0	.6	.5	100.0	778
Jigawa	84.2	683	13.9	63.7	13.0	9.2	.0	.2	100.0	575
Kaduna	27.7	943	50.9	36.7	9.2	3.2	.0	.0	100.0	261
Kano	66.2	1592	15.9	71.7	6.2	5.1	.0	1.2	100.0	1053
Katsina	67.4	955	19.8	65.7	8.9	5.3	.2	.1	100.0	644
Kebbi	58.6	531	49.7	28.1	12.1	7.0	.6	2.5	100.0	311
Kogi	81.1	762	62.9	24.0	9.8	2.3	1.0	.0	100.0	618
Kwara	59.2	551	67.6	21.2	7.5	3.7	.0	.0	100.0	326
Lagos	60.1	2196	53.2	32.6	8.3	5.3	.5	.0	100.0	1319
Nasarawa	74.7	291	75.3	11.4	10.7	2.4	.1	.1	100.0	218
Niger	74.3	626	74.9	16.1	6.7	2.2	.1	.0	100.0	465
Ogun	71.5	887	69.8	17.2	8.9	4.1	.1	.0	100.0	634
Ondo	71.2	916	58.3	23.4	11.0	7.2	.1	.0	100.0	652
Osun	63.7	882	64.4	19.0	11.5	5.1	.0	.0	100.0	562
Oyo	77.0	1345	74.2	11.3	8.9	5.6	.1	.0	100.0	1035
Plateau	70.6	583	65.6	22.1	8.9	3.5	.0	.0	100.0	411
Rivers	61.1	1216	46.6	38.5	8.2	6.4	.0	.3	100.0	743
Sokoto	72.6	634	26.1	54.5	6.8	12.4	.0	.2	100.0	461
Taraba	94.4	381	70.3	17.9	9.7	1.7	.3	.0	100.0	360
Yobe	90.8	388	25.9	49.3	12.9	7.0	4.9	.0	100.0	352
Zamfara	80.6	528	10.8	53.8	12.8	22.1	.0	.5	100.0	425
FCT (Abuja)	78.7	286	51.9	34.6	9.8	3.6	.0	.0	100.0	225

Table WS.4: Person collecting water (continued)

Percentage of households without drinking water on premises, and percent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Nigeria, 2011

	Percentage of households without drinking water on premises	Number of households	Person usually collecting drinking water							Number of households without drinking water on premises
			Adult woman	Adult man	Female child under age 15	Male child under age 15	DK	Missing	Total	
Area of residence										
Urban	62.6	10608	46.9	36.8	9.8	5.8	.4	.2	100.0	6643
Rural	78.5	18469	48.2	34.5	10.0	7.0	.2	.1	100.0	14491
Education of household head										
None	77.4	10221	41.3	39.7	10.8	7.6	.4	.2	100.0	7909
Primary	78.0	6424	50.9	31.0	10.6	7.0	.2	.2	100.0	5011
Secondary +	66.1	12424	52.1	33.5	8.7	5.4	.2	.1	100.0	8210
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile										
Poorest	84.8	5397	41.3	40.2	10.7	7.4	.2	.2	100.0	4574
Second	79.7	5540	49.7	33.2	10.1	6.6	.3	.1	100.0	4415
Middle	77.4	5915	50.5	32.3	9.7	7.0	.2	.3	100.0	4581
Fourth	72.3	6066	49.7	34.2	10.0	5.6	.3	.1	100.0	4385
Richest	51.6	6160	47.8	36.8	8.8	6.2	.3	.1	100.0	3179
Geo-political zone										
North-Central	71.4	3925	67.9	20.1	8.6	2.9	.5	.0	100.0	2802
North-East	90.6	3357	30.7	48.7	12.3	7.4	.9	.0	100.0	3040
North-West	63.6	5866	22.2	59.2	9.2	8.6	.1	.7	100.0	3730
South-East	75.4	4043	48.8	31.2	10.9	8.6	.3	.2	100.0	3050
South-South	76.9	4988	52.6	31.5	9.4	6.3	.0	.2	100.0	3836
South-West	67.8	6899	62.6	22.3	9.4	5.6	.2	.0	100.0	4675
Total	72.7	29077	47.8	35.3	9.9	6.6	.3	.2	100.0	21134

(*) less than 25 unweighted cases

Use of Improved Sanitation Facilities

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrhoeal diseases and polio. An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation can reduce diarrheal disease by more than a third, and can significantly lessen the adverse health impacts of other disorders responsible for death and disease among millions of children in developing countries. 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.

More than half (51 percent) of the population of Nigeria are living in households using improved sanitation facilities (Table WS.5). This percentage is 79 in urban areas and 37 percent in rural areas. Residents of North-East are less likely than others to use improved facilities. The table indicates that use of improved sanitation facilities is strongly correlated with wealth with 95 percent of richest households using improved sanitation facilities compared to 12 percent of poorest households and is profoundly different between urban and rural areas. In rural areas, the population is mostly using pit latrines without slabs (23 percent), or simply have no facilities (37 percent). In contrast, the most common facilities in urban areas are flush toilets with connection to a sewage system or septic tank.

The most popular toilets used in the urban areas are flush to septic tank and pit latrine for which are in use by 33 and 26 percent of the households respectively. In the rural areas, the toilet facilities commonly used are Bush/field toilet and pit latrine without slab/open pit with 37 percent and 23 percent respectively. Bush/field is commonly used as toilets in some states such as Kogi with 66, Ekiti 61 percent, Plateau 56 percent and Oyo 54 percent.

Education of the household head and wealth status are critical factors with the likelihood of the households using improved sanitation facilities increases as the level of education of the household heads increases or as wealth status improves. Only three percent of the households headed by persons with no education used flush to septic tank (toilet) as against 27 percent for the households headed by persons with secondary education or higher.

Table WS.5: Types of sanitation facilities

Percent distribution of household population according to type of toilet facility used by the household, Nigeria, 2011

	Type of toilet facility used by household												Open defecation (no facility, bush, field)	Total	Number of household members
	Improved sanitation facility							Unimproved sanitation facility							
	Flush/pour flush to:				Ventilated improved pit latrine	Pit latrine with slab	Compos-ting toilet	Flush/ pour flush to somewhere else	Pit latrine without slab/ open pit	Bucket	Hanging toilet/ hanging latrine	Other	Missing			
	Piped sewer system	Septic tank	Pit latrine	Unknown place/not sure/DK where											
State															
Abia	.1	36.2	1.0	.0	2.0	35.2	5.5	.0	16.0	.0	2.9	.0	.0	1.2	100.0	3004
Adamawa	2.0	.9	1.1	.0	.2	36.7	.0	.0	25.1	.0	.0	.1	.0	33.9	100.0	3372
Akwa ibom	.2	14.2	.1	.0	.0	69.7	.0	.0	11.6	.0	.6	.0	.0	3.6	100.0	4151
Anambra	7.1	30.6	9.7	.0	5.4	25.2	.3	.0	6.9	.0	.0	.0	.0	14.9	100.0	4338
Bauchi	.4	.0	.4	.0	1.6	8.3	.0	.0	53.9	.0	.1	.0	.0	35.2	100.0	4875
Bayelsa	4.9	11.1	.3	.0	.0	.9	.0	.2	2.3	.3	39.3	8.0	.6	32.1	100.0	1755
Benue	3.6	.9	8.8	.0	1.1	12.0	.0	1.0	19.8	.0	.0	.0	.0	52.9	100.0	4375
Borno	.5	.9	.9	.0	.6	46.0	.0	.0	27.9	.1	.4	.0	.0	22.7	100.0	4246
Cross River	2.8	11.3	2.2	.0	1.5	11.0	.0	.0	14.0	.0	3.3	.0	.2	53.6	100.0	3043
Delta	1.5	31.4	8.3	.0	1.8	8.2	.0	.0	19.4	.0	6.3	.0	.0	23.1	100.0	4313
Ebonyi	5.5	6.2	.7	.0	1.5	16.0	.8	.0	22.6	.0	1.2	.0	.0	45.5	100.0	2241
Edo	14.0	14.9	3.0	.0	4.5	26.5	1.2	.2	12.5	.2	1.1	.0	.0	22.0	100.0	3451
Ekiti	12.1	4.4	3.0	.0	.0	18.2	.0	.0	1.6	.0	.0	.0	.0	60.8	100.0	2470
Enugu	.0	28.6	2.2	.0	.0	16.1	.3	.0	4.1	.0	.0	.1	.0	48.6	100.0	3460
Gombe	.1	.3	1.2	.0	.0	10.8	.0	.0	60.3	.0	.0	.0	.0	27.3	100.0	2435
Imo	11.3	15.4	1.0	.0	1.2	49.3	.0	.0	5.7	.3	.0	.0	.0	15.8	100.0	4134
Jigawa	.9	.3	8.0	.0	.5	31.5	.0	.7	10.1	.0	.0	.0	.0	48.1	100.0	4486
Kaduna	11.5	1.0	7.9	.0	.1	45.6	.0	.1	26.0	.0	.0	.0	.0	7.8	100.0	6378
Kano	11.7	1.7	4.2	.4	6.9	46.6	.0	.0	23.6	.0	.0	.3	.3	4.3	100.0	9729
Katsina	.5	.0	.1	.0	.8	37.5	.0	.4	47.7	.0	.0	.2	1.3	11.5	100.0	6048
Kebbi	1.7	.1	.9	.0	.4	16.3	.1	.2	41.9	.2	.0	.0	.6	37.6	100.0	3387

Table WS.5: Types of sanitation facilities (continued)

Percent distribution of household population according to type of toilet facility used by the household, Nigeria, 2011

	Type of toilet facility used by household												Open defecation (no facility, bush, field)	Total	Number of household members
	Improved sanitation facility							Unimproved sanitation facility							
	Flush/pour flush to:				Ventilated improved pit latrine	Pit latrine with slab	Compos-ting toilet	Flush/ pour flush to somewhere else	Pit latrine without slab/ open pit	Bucket	Hanging toilet/ hanging latrine	Other	Missing		
	Piped sewer system	Septic tank	Pit latrine	Unknown place/not sure/DK where											
Kogi	7.1	7.3	1.9	.0	.9	9.9	.1	.1	7.0	.0	.0	.0	.0	65.8	100.0	3514
Kwara	.0	17.1	13.5	.0	.3	12.9	.0	.0	5.7	.0	.0	.0	.0	50.5	100.0	2491
Lagos	6.2	67.5	15.7	.0	1.6	6.0	.0	.0	1.1	.0	.0	.0	.0	2.0	100.0	9407
Nasarawa	6.0	3.1	2.0	.0	.7	16.9	.0	.0	20.3	.0	.0	.1	.0	50.8	100.0	1925
Niger	3.8	4.9	3.4	.0	1.1	23.3	1.1	.0	15.0	.0	.0	.0	.0	47.5	100.0	4151
Ogun	6.2	25.7	12.3	.0	2.1	34.6	.0	.2	7.1	.1	.0	.0	.0	11.7	100.0	3850
Ondo	3.2	7.8	9.4	.0	.1	23.2	.2	.0	8.4	.0	.0	.0	.0	47.6	100.0	3592
Osun	.0	29.9	4.0	.0	1.4	23.7	.0	.0	1.8	.0	.0	.0	.0	39.2	100.0	3582
Oyo	1.4	20.1	2.4	.6	.9	18.6	.4	.3	1.3	.0	.1	.0	.0	54.0	100.0	5793
Plateau	14.5	4.2	1.2	.0	1.4	12.4	.0	.0	10.2	.0	.0	.0	.0	56.2	100.0	3340
Rivers	2.0	44.2	10.8	.0	.5	2.3	.0	.3	6.9	.1	15.6	.8	.0	16.6	100.0	5403
Sokoto	1.0	.3	1.4	.0	.0	45.0	.0	.0	20.9	.0	.0	.3	.3	30.7	100.0	3861
Taraba	.7	.0	.9	.0	.1	13.2	.1	.0	32.3	.0	.2	.0	.0	52.5	100.0	2399
Yobe	.9	.5	9.0	.0	4.0	9.6	.1	.4	35.8	.0	.3	.0	.0	39.5	100.0	2409
Zamfara	.5	.0	1.5	7.8	.3	27.6	.0	.3	52.0	.0	.2	.0	.1	9.8	100.0	3376
FCT (Abuja)	3.5	48.3	8.9	.0	.8	14.1	.0	.1	4.2	.0	.0	.0	.0	20.0	100.0	1458

Table WS.5: Types of sanitation facilities (continued)

Percent distribution of household population according to type of toilet facility used by the household, Nigeria, 2011

	Type of toilet facility used by household												Open defecation (no facility, bush, field)	Total	Number of household members
	Improved sanitation facility							Unimproved sanitation facility							
	Flush/pour flush to:				Ventilated improved pit latrine	Pit latrine with slab	Compos-ting toilet	Flush/ pour flush to somewhere else	Pit latrine without slab/ open pit	Bucket	Hanging toilet/ hanging latrine	Other	Missing		
	Piped sewer system	Septic tank	Pit latrine	Unknown place/not sure/DK where											
Area of residence													0		
Urban	7.8	32.7	9.7	.1	2.2	25.9	.1	.2	9.0	.0	.2	.1	.0	11.9	100.0	49677
Rural	2.6	5.6	2.5	.3	1.2	24.7	.3	.1	23.1	.0	2.1	.2	.1	37.0	100.0	96566
Education of household head													0		
None	1.1	2.5	2.7	.4	1.4	26.0	.2	.1	27.4	.0	.5	.1	.2	37.1	100.0	54986
Primary	3.3	14.6	4.9	.1	1.4	27.1	.3	.1	15.4	.0	2.0	.1	.0	30.5	100.0	32847
Secondary	8.1	26.5	7.1	.1	1.6	23.1	.2	.2	11.4	.0	2.0	.3	.0	19.2	100.0	58382
Missing/DK	(.0)	(.0)	(.0)	(.0)	(.0)	(50.0)	(.0)	(.0)	11.1	(.0)	(.0)	(.0)	(.0)	(38.9)	(100.0)	(29)
Wealth index quintile													0		
Poorest	.0	.0	.8	.4	.5	10.5	.1	.0	29.7	.0	.4	.0	.1	57.3	100.0	29245
Second	.0	.0	1.6	.3	.7	25.0	.2	.2	31.3	.0	1.2	.3	.3	38.8	100.0	29256
Middle	1.1	3.0	3.6	.3	1.9	37.4	.5	.1	18.3	.0	2.6	.4	.0	30.8	100.0	29240
Fourth	5.9	15.7	9.2	.1	2.7	39.3	.4	.2	10.0	.1	2.3	.1	.1	14.0	100.0	29254
Richest	15.1	55.4	9.5	.0	1.7	13.4	.0	.1	2.3	.0	.8	.1	.0	1.6	100.0	29249
Geo-political zone													0		
North-Central	5.7	8.6	5.4	.0	1.0	14.6	.2	.2	12.5	.0	.0	.0	.0	51.8	100.0	21253
North-East	.7	.4	1.8	.0	1.1	22.3	.0	.1	39.3	.0	.2	.0	.0	33.9	100.0	19737
North-West	5.5	.7	3.8	.8	2.1	38.5	.0	.2	30.2	.0	.0	.1	.4	17.6	100.0	37265
South-East	5.2	24.3	3.4	.0	2.2	29.7	1.2	.0	9.7	.1	.7	.0	.0	23.5	100.0	17179
South-South	3.8	24.4	5.1	.0	1.4	20.9	.2	.1	11.7	.1	8.9	.8	.1	22.6	100.0	22116
South-West	4.6	34.7	9.2	.1	1.2	17.8	.1	.1	3.0	.0	.0	.0	.0	29.2	100.0	28694
Total	4.4	14.8	5.0	.2	1.5	25.1	.2	.1	18.3	.0	1.5	.2	.1	28.5	100.0	146243

( ) based on 25-49 unweighted cases

The MDGs and the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation classify households as using an unimproved sanitation facility if they are using otherwise acceptable sanitation facilities but sharing a facility between two or more households or using a public toilet facility.

As shown in Table WS.6, about half (51 percent) of the household population are using an improved sanitation facility, 20 percent are using unimproved facility while 29 percent have no facility at all (open defecation). Amongst households that use improved facility, 20 percent shared the facility. Also of the 20 percent using unimproved facility, 6 percent shared with other households. About 57 percent of poorest households have no sanitation facility compared to only 2 percent of the richest households.

Table WS.6: Shared use of sanitation facilities

Percent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, Nigeria, 2011

	Users of improved sanitation facilities					Users of unimproved sanitation facilities					Open defecation (no facility, bush, field)	Total	Number of household members
	Not shared[1]	Public facility	Shared by		Missing /DK	Not shared	Public facility	Shared by		Missing /DK			
			5 households or less	More than 5 households				5 households or less	More than 5 households				
State													
Abia	35.8	4.2	27.7	11.7	.3	8.9	.5	6.2	3.2	.0	1.2	100.0	3004
Adamawa	36.6	.3	2.1	1.7	.2	20.9	.1	3.6	.6	.0	33.9	100.0	3372
Akwa ibom	46.2	5.1	24.6	7.4	.8	7.0	.9	3.8	.5	.0	3.6	100.0	4151
Anambra	46.9	1.0	25.4	4.9	.0	3.0	.1	2.4	1.4	.0	14.9	100.0	4338
Bauchi	8.2	.0	2.2	.3	.0	42.5	.6	8.6	1.8	.6	35.2	100.0	4875
Bayelsa	8.4	2.6	4.1	2.0	.0	8.4	41.8	.0	.2	.3	32.1	100.0	1755
Benue	18.8	.6	4.2	2.6	.1	14.8	2.1	1.4	2.1	.3	52.9	100.0	4375
Borno	29.8	.2	12.1	4.1	2.8	25.8	.0	1.1	1.4	.0	22.7	100.0	4246
Cross River	10.6	3.3	5.6	9.3	.0	8.8	1.4	3.5	3.6	.1	53.6	100.0	3043
Delta	29.2	.7	10.8	10.3	.2	9.7	4.6	7.1	4.3	.0	23.1	100.0	4313
Ebonyi	18.7	2.4	7.9	1.3	.3	14.2	7.5	1.2	.8	.0	45.5	100.0	2241
Edo	37.4	10.5	9.7	5.9	.6	6.9	5.6	1.0	.5	.0	22.0	100.0	3451
Ekiti	18.3	1.1	10.7	7.6	.0	.1	.0	.2	1.3	.0	60.8	100.0	2470
Enugu	22.0	.5	14.0	10.7	.0	3.8	.0	.4	.0	.0	48.6	100.0	3460
Gombe	9.6	.6	1.1	1.1	.0	54.0	.2	3.0	2.3	.9	27.3	100.0	2435
Imo	60.0	1.4	13.0	3.9	.1	4.7	.0	1.2	.1	.0	15.8	100.0	4134
Jigawa	38.4	.4	1.4	.6	.3	9.3	.7	.3	.5	.0	48.1	100.0	4486
Kaduna	38.0	.1	18.8	9.3	.0	19.0	.0	5.5	1.6	.0	7.8	100.0	6378
Kano	59.6	.3	10.0	1.6	.1	21.3	.1	2.2	.5	.0	4.3	100.0	9729
Katsina	34.7	.0	3.5	.4	.3	43.0	.2	6.3	.1	.0	11.5	100.0	6048
Kebbi	16.2	.1	1.8	.9	.5	31.9	.2	8.0	2.7	.0	37.6	100.0	3387
Kogi	21.4	2.0	2.5	1.2	.0	4.3	.4	1.6	.8	.0	65.8	100.0	3514
Kwara	20.0	1.3	11.0	11.6	.0	.9	1.3	1.8	1.7	.0	50.5	100.0	2491
Lagos	34.8	.5	16.1	45.1	.3	.0	.0	.0	1.1	.0	2.0	100.0	9407
Nasarawa	19.0	.6	5.0	4.2	.0	13.8	1.4	3.6	1.7	.1	50.8	100.0	1925
Niger	23.3	1.1	9.0	4.0	.1	10.0	.8	2.3	1.9	.0	47.5	100.0	4151
Ogun	37.9	2.2	17.3	23.6	.0	.8	1.2	1.9	3.5	.0	11.7	100.0	3850
Ondo	16.8	1.9	11.8	13.5	.0	1.7	.0	1.3	5.4	.0	47.6	100.0	3592
Osun	28.3	.2	20.0	10.5	.0	.6	.0	.9	.3	.0	39.2	100.0	3582
Oyo	17.0	1.7	12.1	13.5	.2	.9	.8	.0	.0	.0	54.0	100.0	5793
Plateau	26.9	1.1	4.7	1.0	.0	8.4	.6	.6	.5	.0	56.2	100.0	3340
Rivers	33.0	3.4	11.6	11.7	.0	4.2	14.6	.8	3.9	.1	16.6	100.0	5403
Sokoto	40.7	.2	5.6	1.1	.0	17.2	.7	3.5	.1	.0	30.7	100.0	3861
Taraba	12.8	.6	.4	1.3	.0	28.7	.4	.8	2.5	.1	52.5	100.0	2399
Yobe	20.6	.1	3.2	.1	.0	30.6	.3	4.9	.5	.2	39.5	100.0	2409
Zamfara	27.7	.1	4.7	4.8	.3	30.8	3.9	11.1	6.3	.4	9.8	100.0	3376
FCT (Abuja)	52.0	6.3	9.5	7.9	.0	3.0	.0	.8	.6	.0	20.0	100.0	1458

Table WS.6: Shared use of sanitation facilities (continued)

Percent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, Nigeria, 2011

	Users of improved sanitation facilities					Users of unimproved sanitation facilities					Open defecation (no facility, bush, field)	Total	Number of household members
	Not shared[1]	Public facility	Shared by		Missing /DK	Not shared	Public facility	Shared by		Missing /DK			
			5 households or less	More than 5 households				5 households or less	More than 5 households				
Area of residence													
Urban	40.5	2.2	16.3	19.0	.5	6.1	.4	1.4	1.6	.0	11.9	100.0	49677
Rural	26.2	.9	7.2	2.9	.1	17.9	2.7	3.5	1.5	.1	37.0	100.0	96566
Education of household head													
None	24.5	.7	6.1	3.1	.1	22.1	1.2	3.6	1.5	.1	37.1	100.0	54986
Primary	28.1	1.6	12.0	9.9	.2	10.6	2.5	2.7	1.9	.0	30.5	100.0	32847
Secondary	38.8	1.9	13.3	12.5	.4	8.1	2.2	2.1	1.5	.0	19.2	100.0	58382
Missing/Dk	(22.7)	(.0)	(14.3)	(13.0)	(.0)	(.0)	(5.0)	(6.1)	(.0)	(.0)	(38.9)	(100.0)	(29)
Wealth index quintile													
Poorest	10.6	.1	1.2	.4	.1	25.1	.6	3.3	1.1	.1	57.3	100.0	29245
Second	20.9	.3	5.1	1.4	.2	24.9	2.1	4.4	1.8	.1	38.8	100.0	29256
Middle	30.2	1.6	10.4	5.5	.1	12.8	3.0	3.5	2.0	.1	30.8	100.0	29240
Fourth	37.0	2.3	17.5	16.1	.4	5.1	2.8	2.5	2.4	.0	14.0	100.0	29254
Richest	56.5	2.5	17.5	18.4	.3	1.7	.9	.3	.4	.0	1.6	100.0	29249
Geo -political zone													
North-Central	23.8	1.5	6.2	4.0	.0	8.6	1.0	1.7	1.4	.1	51.8	100.0	21253
North-East	20.0	.2	4.1	1.5	.6	33.5	.3	4.0	1.5	.3	33.9	100.0	19737
North-West	40.5	.2	7.7	2.8	.2	24.4	.6	4.7	1.3	.0	17.6	100.0	37265
South-East	39.4	1.7	18.2	6.6	.1	6.1	1.1	2.2	1.1	.0	23.5	100.0	17179
South-South	30.4	4.2	12.2	8.6	.3	7.2	9.0	2.9	2.5	.1	22.6	100.0	22116
South-West	27.1	1.2	14.9	24.3	.1	.6	.3	.6	1.7	.0	29.2	100.0	28694
Total	31.0	1.4	10.3	8.3	.2	13.9	1.9	2.8	1.6	.1	28.5	100.0	146243

[1] **MICS indicator 4.3; MDG indicator 7.9**

( ) based on 25-49 unweighted cases

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. Disposal of faeces of children 0-2 years of age is presented in Table WS.7. More than half (52 percent) of the population of children 0-2 years of age in Nigeria have their faeces disposed safely. The percentage for children in urban is more than two-thirds (68 percent) compared to 45 percent in rural areas. More children in richest households (73 percent) than children in poorest households (31 percent) have their stool disposed safely in Nigeria. Looking at the place of disposal of children faeces, more than half of the children have their faeces rinsed into toilet or latrine while about a quarter of them (25 percent) have their faeces thrown into garbage. The same pattern is observed across the zones.

Table WS.7: Disposal of child's faces

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, 2011

	Place of disposal of child's faeces										Percentage of children whose 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	Left in the open	Other	Missing	DK	Total		
Type of sanitation facility in dwelling												
Improved	2.6	73.1	4.4	14.6	1.1	.8	1.3	1.0	1.1	100.0	75.7	7557
Unimproved	1.3	55.9	6.5	21.6	4.6	1.1	4.5	1.9	2.5	100.0	57.2	3250
Open defecation	.6	6.8	9.6	46.9	10.5	7.3	15.8	1.4	1.2	100.0	7.5	4318
State												
Abia	.4	81.7	6.6	7.6	.7	.0	.4	2.8	.0	100.0	82.0	304
Adamawa	2.2	46.7	6.4	11.5	19.8	.6	8.0	4.8	.0	100.0	48.9	370
Akwa ibom	1.0	75.1	7.0	11.6	.6	4.1	.0	.0	.6	100.0	76.1	375
Anambra	1.3	76.2	3.8	6.9	1.2	.2	6.9	2.9	.7	100.0	77.5	461
Bauchi	1.0	39.5	4.0	30.9	16.0	.6	5.0	3.0	.0	100.0	40.5	653
Bayelsa	.5	14.5	9.4	34.8	.0	.0	35.1	1.9	3.9	100.0	15.0	204
Benue	3.7	14.1	11.7	50.5	2.0	.9	16.2	.8	.0	100.0	17.8	373
Borno	.3	68.9	2.5	10.1	14.4	.8	1.3	1.7	.0	100.0	69.2	437
Cross River	.4	20.9	20.4	46.9	4.9	.1	1.1	2.3	3.1	100.0	21.3	302
Delta	3.5	45.8	7.3	23.3	3.9	.8	14.1	.0	1.3	100.0	49.2	415
Ebonyi	.4	29.0	7.7	40.7	2.7	1.5	15.2	2.7	.1	100.0	29.4	207
Edo	7.7	40.6	3.2	35.8	1.3	4.4	4.3	.7	2.0	100.0	48.3	322
Ekiti	1.2	25.4	2.9	47.8	2.1	1.6	18.9	.0	.1	100.0	26.6	195
Enugu	.6	41.0	3.6	23.6	2.5	10.8	17.1	.4	.4	100.0	41.5	291
Gombe	1.1	54.5	7.8	27.4	2.6	.0	2.5	4.2	.0	100.0	55.6	261
Imo	1.9	59.6	1.1	25.2	8.0	.4	3.0	.0	.8	100.0	61.5	336
Jigawa	1.4	27.4	18.6	27.6	13.9	2.5	1.3	.8	6.5	100.0	28.8	515
Kaduna	1.5	74.2	3.8	17.0	.1	.4	.6	.4	2.0	100.0	75.7	743
Kano	.9	69.8	7.6	13.6	.6	.5	2.0	1.8	3.1	100.0	70.7	1157
Katsina	.3	56.2	2.8	23.8	7.9	.3	3.0	.8	4.9	100.0	56.4	723
Kebbi	6.0	40.0	16.2	27.3	3.6	.9	2.5	.2	3.2	100.0	46.0	385
Kogi	1.6	19.2	1.1	62.4	.3	11.7	3.8	.0	.0	100.0	20.8	262
Kwara	1.8	47.6	3.7	39.4	4.2	1.4	1.5	.4	.0	100.0	49.4	266
Lagos	2.2	63.0	4.9	27.9	.2	.0	.9	.8	.1	100.0	65.2	980
Nasarawa	4.3	29.3	8.5	29.7	1.8	6.5	17.3	2.6	.0	100.0	33.6	208
Niger	1.0	33.1	15.3	33.2	1.1	9.3	6.3	.6	.0	100.0	34.1	432
Ogun	3.3	80.2	1.6	6.7	.2	.3	6.8	1.0	.0	100.0	83.5	398
Ondo	1.5	44.8	3.7	31.4	.2	11.1	6.3	1.0	.0	100.0	46.3	309
Osun	.6	62.1	3.3	13.2	.5	2.2	17.3	.8	.0	100.0	62.7	336
Oyo	4.9	31.8	6.6	30.4	2.3	5.7	17.4	.9	.0	100.0	36.7	632
Plateau	2.5	23.2	8.7	39.5	.8	21.1	1.6	2.5	.0	100.0	25.7	286
Rivers	1.6	33.7	5.3	33.6	7.7	1.3	15.1	.1	1.7	100.0	35.2	483
Sokoto	.1	47.5	4.8	25.7	10.8	7.9	.1	.2	2.8	100.0	47.7	447
Taraba	.7	23.5	7.4	47.5	8.2	4.3	7.1	1.4	.0	100.0	24.1	240
Yobe	1.5	58.8	.6	15.2	11.0	4.7	5.0	3.0	.2	100.0	60.3	296
Zamfara	.2	79.0	1.7	11.1	.5	.2	1.0	.9	5.4	100.0	79.2	386
FCT (Abuja)	1.2	61.9	4.1	20.4	2.8	3.7	5.7	.1	.1	100.0	63.1	134

Table WS.7: Disposal of child's faces (continued)

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, 2011

	Place of disposal of child's faeces										Percentage of children whose 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	Left in the open	Other	Missing	DK	Total		
Area of residence												
Urban	2.5	65.4	3.9	20.2	1.1	1.5	3.7	1.0	.6	100.0	68.0	4745
Rural	1.4	43.7	7.4	27.7	6.0	3.3	7.3	1.4	1.8	100.0	45.1	10380
Mother's education												
None	1.3	45.7	7.2	26.7	7.4	2.8	5.1	1.6	2.2	100.0	47.0	6276
Primary	1.3	44.9	7.4	28.7	3.1	3.4	9.2	.8	1.2	100.0	46.3	2897
Secondary +	2.5	58.3	4.9	22.3	2.1	2.3	5.8	1.1	.8	100.0	60.7	5951
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile												
Poorest	.9	29.7	8.5	34.0	12.1	4.0	7.5	1.4	1.9	100.0	30.6	3375
Second	.6	42.1	7.8	30.2	4.0	3.6	7.2	2.1	2.5	100.0	42.7	3066
Middle	1.6	48.4	7.3	25.5	3.2	3.9	8.0	.9	1.3	100.0	50.0	2785
Fourth	1.7	66.4	4.7	16.4	1.6	1.6	5.9	1.0	.8	100.0	68.2	2922
Richest	4.1	69.0	3.1	19.2	.5	.4	2.1	1.0	.6	100.0	73.1	2978
Geo-political zone												
North-Centra	2.3	29.7	8.7	40.9	1.7	8.0	7.6	1.0	.0	100.0	32.0	1961
North-East	1.1	48.9	4.5	23.0	13.3	1.5	4.7	3.0	.0	100.0	50.0	2258
North-West	1.2	59.2	7.4	19.8	4.6	1.5	1.6	.9	3.8	100.0	60.4	4356
South-East	1.0	61.2	4.2	18.3	3.0	2.3	7.7	1.8	.5	100.0	62.2	1599
South-South	2.5	40.8	8.2	30.0	3.6	1.9	10.5	.6	1.9	100.0	43.3	2102
South-West	2.6	53.8	4.4	25.5	.8	2.9	9.1	.8	.0	100.0	56.4	2850
Total	1.8	50.5	6.3	25.3	4.5	2.7	6.1	1.3	1.4	100.0	52.3	15125

[1] MICS indicator 4.4

( ) less than on 25 unweighted cases

In its 2008 report[7], 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. For sanitation, this gives an understanding of the proportion of population with no sanitation facilities at all, of those reliant on technologies defined by JMP as "unimproved," of those sharing sanitation facilities of otherwise acceptable technology, and those using "improved" sanitation facilities. Table WS.8 presents the percentages of household population by drinking water and sanitation ladders. The table also shows the percentage of household members using improved sources of drinking water and sanitary means of excreta disposal.

[7] *WHO/UNICEF JMP (2008), MDG assessment report* - http://www.wssinfo.org/download?id_document=1279

Table WS.8: Drinking water and sanitation ladders

Percentage of household population by drinking water and sanitation ladders, Nigeria, 2011

	Percentage of household population using:										Number of household members
	Improved drinking water[1]		Unimproved drinking water	Total		Unimproved sanitation			Total	Improved drinking water sources and improved sanitation	
	Piped into dwelling, plot or yard	Other improved			Improved sanitation[2]	Shared improved facilities	Unimproved facilities	Open defecation			
State											
Abia	.0	83.9	16.1	100.0	35.8	44.0	18.9	1.2	100.0	31.4	3004
Adamawa	2.2	52.6	45.2	100.0	36.6	4.3	25.2	33.9	100.0	27.2	3372
Akwa ibom	.8	75.5	23.7	100.0	46.2	38.0	12.2	3.6	100.0	37.6	4151
Anambra	.3	63.9	35.7	100.0	46.9	31.3	6.9	14.9	100.0	30.4	4338
Bauchi	.4	44.3	55.4	100.0	8.2	2.5	54.1	35.2	100.0	6.1	4875
Bayelsa	1.3	26.2	72.5	100.0	8.4	8.7	50.8	32.1	100.0	4.3	1755
Benue	.0	49.0	51.0	100.0	18.8	7.6	20.8	52.9	100.0	12.3	4375
Borno	1.3	58.5	40.3	100.0	29.8	19.1	28.4	22.7	100.0	23.3	4246
Cross River	2.3	47.1	50.6	100.0	10.6	18.2	17.5	53.6	100.0	7.1	3043
Delta	5.5	69.6	24.9	100.0	29.2	22.0	25.7	23.1	100.0	25.2	4313
Ebonyi	3.0	56.3	40.7	100.0	18.7	12.0	23.8	45.5	100.0	13.2	2241
Edo	1.6	71.6	26.8	100.0	37.4	26.6	14.0	22.0	100.0	29.7	3451
Ekiti	7.0	67.5	25.6	100.0	18.3	19.4	1.6	60.8	100.0	14.3	2470
Enugu	7.4	32.2	60.4	100.0	22.0	25.2	4.2	48.6	100.0	10.8	3460
Gombe	5.5	33.3	61.2	100.0	9.6	2.8	60.4	27.3	100.0	4.4	2435
Imo	1.6	84.8	13.6	100.0	60.0	18.2	6.0	15.8	100.0	52.3	4134
Jigawa	8.4	56.5	35.1	100.0	38.4	2.7	10.8	48.1	100.0	32.2	4486
Kaduna	15.0	55.4	29.6	100.0	38.0	28.1	26.1	7.8	100.0	27.2	6378
Kano	9.7	41.7	48.6	100.0	59.6	11.9	24.2	4.3	100.0	35.4	9729
Katsina	4.3	38.8	56.8	100.0	34.7	4.2	49.6	11.5	100.0	20.0	6048
Kebbi	2.1	41.7	56.2	100.0	16.2	3.4	42.9	37.6	100.0	10.9	3387

Table WS.8: Drinking water and sanitation ladders (continued)

Percentage of household population by drinking water and sanitation ladders, Nigeria, 2011

	Percentage of household population using:										Number of household members
	Improved drinking water[1]		Unimproved drinking water	Total		Unimproved sanitation			Total	Improved drinking water sources and improved sanitation	
	Piped into dwelling, plot or yard	Other improved			Improved sanitation[2]	Shared improved facilities	Unimproved facilities	Open defecation			
Kogi	2.2	35.2	62.6	100.0	21.4	5.7	7.1	65.8	100.0	14.5	3514
Kwara	10.8	61.6	27.6	100.0	20.0	23.9	5.7	50.5	100.0	15.0	2491
Lagos	8.6	44.8	46.6	100.0	34.8	62.0	1.2	2.0	100.0	19.4	9407
Nasarawa	1.5	35.4	63.1	100.0	19.0	9.8	20.4	50.8	100.0	12.5	1925
Niger	3.5	66.1	30.4	100.0	23.3	14.2	15.0	47.5	100.0	19.5	4151
Ogun	3.5	69.8	26.8	100.0	37.9	43.0	7.4	11.7	100.0	29.3	3850
Ondo	.9	54.0	45.2	100.0	16.8	27.3	8.4	47.6	100.0	12.3	3592
Osun	7.9	66.7	25.3	100.0	28.3	30.6	1.8	39.2	100.0	22.8	3582
Oyo	1.5	73.4	25.1	100.0	17.0	27.4	1.6	54.0	100.0	14.7	5793
Plateau	2.8	43.4	53.8	100.0	26.9	6.8	10.2	56.2	100.0	18.3	3340
Rivers	8.8	77.7	13.6	100.0	33.0	26.8	23.6	16.6	100.0	30.8	5403
Sokoto	3.1	16.5	80.5	100.0	40.7	6.9	21.6	30.7	100.0	10.2	3861
Taraba	.1	31.5	68.5	100.0	12.8	2.2	32.5	52.5	100.0	5.6	2399
Yobe	8.4	53.7	37.9	100.0	20.6	3.5	36.5	39.5	100.0	18.2	2409
Zamfara	.9	43.4	55.8	100.0	27.7	9.9	52.6	9.8	100.0	12.6	3376
FCT (Abuja)	10.7	49.0	40.4	100.0	52.0	23.6	4.3	20.0	100.0	35.0	1458

Table WS.8: Drinking water and sanitation ladders (continued)

Percentage of household population by drinking water and sanitation ladders, Nigeria, 2011

	Percentage of household population using:										Number of household members
	Improved drinking water[1]		Unimproved drinking water	Total	Improved sanitation[2]	Unimproved sanitation			Total	Improved drinking water sources and improved sanitation	
	Piped into dwelling, plot or yard	Other improved				Shared improved facilities	Unimproved facilities	Open defecation			
Area of residence											
Urban	9.8	62.7	27.4	100.0	40.5	38.0	9.5	11.9	100.0	30.3	49677
Rural	2.0	49.3	48.7	100.0	26.2	11.1	25.7	37.0	100.0	17.2	96566
Education of household head											
None	2.8	44.9	52.3	100.0	24.5	9.9	28.4	37.1	100.0	14.6	54986
Primary	2.7	60.5	36.9	100.0	28.1	23.7	17.6	30.5	100.0	20.8	32847
Secondary+	7.6	58.6	33.8	100.0	38.8	28.0	14.0	19.2	100.0	28.7	58382
Missing/DK	(.0)	(41.5)	(58.5)	(100.0)	(22.7)	(27.3)	(11.1)	(38.9)	(100.0)	(22.7)	(29)
Wealth index quintile											
Poorest	.0	29.0	71.0	100.0	10.6	1.7	30.4	57.3	100.0	3.7	29245
Second	.5	47.2	52.2	100.0	20.9	7.0	33.3	38.8	100.0	11.2	29256
Middle	2.2	64.4	33.5	100.0	30.2	17.6	21.5	30.8	100.0	21.5	29240
Fourth	4.7	73.3	22.1	100.0	37.0	36.3	12.8	14.0	100.0	29.9	29254
Richest	16.0	55.5	28.5	100.0	56.5	38.7	3.3	1.6	100.0	41.8	29249
Geo-political zone											
North-Central	3.6	49.4	47.0	100.0	23.8	11.6	12.8	51.8	100.0	16.9	21253
North-East	2.5	47.0	50.6	100.0	20.0	6.5	39.6	33.9	100.0	14.6	19737
North-West	7.4	42.9	49.7	100.0	40.5	10.9	31.0	17.6	100.0	24.2	37265
South-East	2.4	65.1	32.6	100.0	39.4	26.6	10.4	23.5	100.0	29.6	17179
South-South	4.1	66.4	29.5	100.0	30.4	25.3	21.7	22.6	100.0	25.4	22116
South-West	5.3	59.8	34.9	100.0	27.1	40.6	3.1	29.2	100.0	18.9	28694
Total	4.7	53.9	41.5	100.0	31.0	20.3	20.2	28.5	100.0	21.6	146243

[1] MICS indicator 4.1; MDG indicator 7.8

[2] MICS indicator 4.3; MDG indicator 7.9

( ) 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. 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 hand washing behaviour at these critical times is challenging. A reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct hand washing behaviour takes place by observing if a household has a specific place where people most often wash their hands and observing if water and soap (or other local cleansing materials) are present at a specific place for hand washing.

In Nigeria, only 28 percent of the households with a specific place for hand washing was observed while 55 percent of households could not indicate a specific place where household members usually wash their hands and 5 percent of the households did not give a permission to see the place used for hand washing (Table WS.9). Of those households where a place for hand washing was observed, 48 percent had both water and soap present at the specific place. In about 10 percent of the households only water was available at the specific place, while in 21 percent of the households the place only had soap but no water. The remaining 22 percent of households had neither water nor soap available at the designated place for hand washing.

The proportion of households in urban whose place of hand washing was observed is 31 percent compared with 26 percent in rural. The same pattern was recorded for availability of water and soap where the percentage for urban is 64 compared to 37 percent in the rural. The result of the survey shows that only 7 percent of households in South-East allowed their place of washing to be observed. Other zones have not less than 20 percent of such households. More than two-third of households observed in South-West have soap and water for hand washing while the figure was only 19 percent for NE.

Table WS.9: Water and soap at place for handwashing

Percentage of households where place for handwashing was observed and percent distribution of households by availability of water and soap at place for handwashing, Nigeria, 2011

State	Percentage of households where place for handwashing was observed	Percentage of households where place for handwashing was not observed				Total	Number of households	Percent distribution of households where place for handwashing was observed, where:				Missing	Total	Number of households where place for handwashing was observed
		Not in dwelling /plot/yard	No permission to see	Other reasons	Missing			Water and soap are available[1]	Water is available, soap is not available	Water is not available, soap is available	Water and soap are not available			
Abia	5.3	92.3	1.1	1.4	.0	100.0	755	43.6	7.6	23.3	25.5	.0	100.0	40
Adamawa	23.1	46.7	10.3	19.9	.0	100.0	560	42.5	5.1	41.2	11.2	.0	100.0	130
Akwa ibom	13.8	83.6	2.6	.0	.0	100.0	890	41.8	.6	12.7	44.9	.0	100.0	122
Anambra	6.0	87.6	4.1	2.1	.2	100.0	1023	55.1	13.9	18.7	12.3	.0	100.0	62
Bauchi	79.7	18.6	.2	1.5	.0	100.0	817	9.5	19.7	6.6	64.3	.0	100.0	651
Bayelsa	27.9	36.5	3.4	32.1	.1	100.0	440	27.3	2.6	52.5	17.6	.0	100.0	123
Benue	38.6	45.0	4.1	12.3	.0	100.0	827	34.4	2.6	37.7	25.3	.0	100.0	319
Borno	11.3	31.6	20.4	36.7	.0	100.0	833	47.6	20.2	17.7	14.4	.0	100.0	94
Cross River	12.5	85.4	1.0	1.1	.0	100.0	658	14.9	.7	68.8	15.5	.0	100.0	82
Delta	23.3	60.8	4.8	11.1	.0	100.0	1032	49.5	12.1	15.9	22.5	.0	100.0	240
Ebonyi	3.1	51.7	1.7	43.3	.1	100.0	388	42.3	11.2	39.9	6.6	.0	100.0	12
Edo	36.7	33.4	7.9	22.1	.0	100.0	752	49.9	.8	42.2	7.2	.0	100.0	276
Ekiti	9.4	57.4	1.4	31.8	.0	100.0	673	88.7	.0	7.8	3.5	.0	100.0	64
Enugu	9.3	89.0	.7	1.0	.0	100.0	925	50.5	19.1	15.0	15.4	.0	100.0	86
Gombe	6.3	82.9	9.9	.9	.0	100.0	378	36.4	8.3	12.9	42.5	.0	100.0	24
Imo	8.8	86.9	4.1	.1	.0	100.0	952	30.7	5.9	45.1	18.4	.0	100.0	84
Jigawa	37.0	31.4	1.5	30.0	.2	100.0	683	53.8	2.1	35.4	8.4	.4	100.0	253
Kaduna	63.4	22.2	1.1	13.4	.0	100.0	943	46.8	6.8	12.3	34.0	.0	100.0	598
Kano	36.7	59.4	2.1	1.8	.0	100.0	1592	48.4	21.8	17.9	11.9	.0	100.0	584
Katsina	28.8	55.9	12.5	2.6	.1	100.0	955	28.1	14.1	12.3	44.6	.9	100.0	275
Kebbi	31.1	61.7	5.6	1.5	.0	100.0	531	25.9	13.5	6.0	54.4	.2	100.0	165
Kogi	36.4	45.9	13.3	4.4	.0	100.0	762	73.4	7.2	9.7	9.7	.0	100.0	277
Kwara	23.9	56.5	9.3	10.3	.0	100.0	551	80.6	.5	17.6	1.4	.0	100.0	132

Table WS.9: Water and soap at place for handwashing (continued)

Percentage of households where place for handwashing was observed and percent distribution of households by availability of water and soap at place for handwashing, Nigeria, 2011

State	Percentage of households where place for handwashing was observed	Percentage of households where place for handwashing was not observed				Total	Number of households	Percent distribution of households where place for handwashing was observed, where:				Missing	Total	Number of households where place for handwashing was obse rved
		Not in dwelling /plot/yard	No permission to see	Other reasons	Missing			Water and soap are available[1]	Water is available, soap is not available	Water is not available, soap is available	Water and soap are not available			
Lagos	35.8	50.1	8.4	5.7	.0	100.0	2196	63.4	14.4	16.1	6.1	.0	100.0	786
Nasarawa	11.6	54.7	2.1	31.6	.0	100.0	291	36.0	8.2	31.9	23.9	.0	100.0	34
Niger	36.5	51.3	1.4	10.8	.0	100.0	626	33.0	15.5	14.4	37.1	.0	100.0	228
Ogun	25.6	29.1	4.4	40.9	.0	100.0	887	55.2	3.5	30.3	11.0	.0	100.0	227
Ondo	2.3	95.6	1.9	.2	.0	100.0	916	83.2	.0	.0	16.8	.0	100.0	21
Osun	10.8	86.0	2.7	.4	.0	100.0	882	97.0	.0	3.0	.0	.0	100.0	96
Oyo	18.6	15.3	1.7	64.4	.0	100.0	1345	69.5	2.8	16.4	11.3	.0	100.0	250
Plateau	23.6	64.1	3.2	9.1	.0	100.0	583	67.5	7.0	3.6	21.8	.0	100.0	137
Rivers	54.9	38.5	3.0	3.5	.2	100.0	1216	76.6	3.7	19.2	.5	.0	100.0	668
Sokoto	46.9	44.5	2.4	6.1	.1	100.0	634	20.0	5.6	59.1	15.3	.0	100.0	298
Taraba	19.4	35.9	4.2	40.5	.0	100.0	381	14.3	52.6	5.2	27.9	.0	100.0	74
Yobe	49.7	28.7	2.3	19.4	.0	100.0	388	18.5	8.9	21.8	50.9	.0	100.0	193
Zamfara	43.3	48.5	1.3	6.7	.2	100.0	528	60.1	9.4	9.0	21.2	.2	100.0	229
FCT (Abuja)	24.6	68.8	5.1	1.5	.0	100.0	286	73.5	4.8	17.7	4.0	.0	100.0	70

Table WS.9: Water and soap at place for handwashing **(continued)**

Percentage of households where place for handwashing was observed and percent distribution of households by availability of water and soap at place for handwashing, Nigeria, 2011

	Percentage of households where place for handwashing was observed	Percentage of households where place for handwashing was not observed				Total	Number of households	Percent distribution of households where place for handwashing was observed, where:				Missing	Total	Number of households where place for handwashing was observed
		Not in dwelling /plot/yard	No permission to see	Other reasons	Missing			Water and soap are available[1]	Water is available, soap is not available	Water is not available, soap is available	Water and soap are not available			
Area of residence														
Urban	30.5	50.0	5.9	13.6	.0	100.0	10608	63.5	8.3	16.8	11.3	.1	100.0	3238
Rural	25.8	57.5	3.9	12.7	.0	100.0	18469	37.4	10.9	23.0	28.7	.1	100.0	4765
Education of household head														
None	28.6	52.5	4.4	14.4	.1	100.0	10221	32.1	14.2	19.5	34.0	.1	100.0	2925
Primary	20.2	64.5	3.6	11.7	.0	100.0	6424	43.9	8.3	23.8	24.0	.0	100.0	1295
Secondary +	30.4	51.7	5.3	12.6	.0	100.0	12424	61.6	7.0	20.2	11.3	.0	100.0	3781
Wealth index quintiles														
Poorest	27.4	53.8	3.9	14.9	.0	100.0	5397	19.7	13.9	18.1	48.3	.1	100.0	1477
Second	24.8	58.5	4.1	12.5	.1	100.0	5540	30.9	12.6	24.2	32.1	.2	100.0	1372
Middle	21.8	60.5	4.2	13.5	.0	100.0	5915	45.8	10.5	22.5	21.3	.0	100.0	1289
Fourth	23.3	57.7	4.4	14.5	.0	100.0	6066	52.4	9.6	23.9	14.1	.0	100.0	1414
Richest	39.8	44.0	6.3	10.0	.0	100.0	6160	73.2	5.6	16.9	4.3	.0	100.0	2450
Geo-political zone														
North-Central	30.5	53.1	6.0	10.4	.0	100.0	3925	54.4	6.7	19.3	19.6	.0	100.0	1198
North-East	34.7	36.9	8.7	19.7	.0	100.0	3357	18.6	18.2	13.9	49.4	.0	100.0	1165
North-West	40.9	47.2	3.8	7.9	.1	100.0	5866	42.3	11.3	21.2	25.0	.2	100.0	2401
South-East	7.0	85.2	2.5	5.2	.1	100.0	4043	44.3	12.1	27.0	16.6	.0	100.0	284
South-South	30.3	56.4	3.8	9.5	.0	100.0	4988	57.2	4.0	27.8	11.0	.0	100.0	1511
South-West	20.9	52.0	4.3	22.8	.0	100.0	6899	66.8	8.9	16.9	7.4	.0	100.0	1443
Total	27.5	54.8	4.6	13.0	.0	100.0	29077	48.0	9.8	20.5	21.6	.1	100.0	8002

Table WS.10: Availability of soap

Percent distribution of households by availability of soap in the dwelling, Nigeria, 2011

State	Place for handwashing observed					Place for handwashing not observed				Total	Percentage of households with soap anywhere in the dwelling[1]	Number of households
	Soap observed	Soap not observed at place for handwashing			Missing	Soap shown	No soap in household	Not able/Does not want to show soap	Missing			
		Soap shown	No soap in household	Does not want to show soap								
Abia	3.5	.1	1.6	.0	.0	7.6	87.0	.2	.0	100.0	11.2	755
Adamawa	19.4	1.6	2.0	.2	.0	24.3	52.5	.1	.0	100.0	45.3	560
Akwa ibom	7.5	6.0	.3	.0	.0	83.3	2.9	.0	.0	100.0	96.8	890
Anambra	4.4	1.3	.3	.0	.0	50.4	42.9	.7	.0	100.0	56.1	1023
Bauchi	12.8	36.8	30.1	.1	.0	7.5	12.8	.0	.0	100.0	57.0	817
Bayelsa	22.3	3.6	2.1	.0	.0	42.9	29.0	.3	.0	100.0	68.7	440
Benue	27.8	9.1	1.7	.0	.0	30.8	30.6	.0	.0	100.0	67.7	827
Borno	7.4	2.0	1.8	.1	.0	9.4	79.0	.3	.0	100.0	18.8	833
Cross River	10.5	.8	1.2	.0	.0	71.7	15.8	.0	.0	100.0	83.0	658
Delta	15.2	2.1	5.8	.1	.0	44.8	31.8	.1	.0	100.0	62.1	1032
Ebonyi	2.6	.0	.6	.0	.0	3.5	93.3	.1	.0	100.0	6.1	388
Edo	33.8	1.5	1.4	.0	.0	48.1	14.9	.2	.0	100.0	83.5	752
Ekiti	9.1	.3	.1	.0	.0	55.4	35.1	.0	.0	100.0	64.8	673
Enugu	6.1	1.1	2.1	.0	.0	54.2	35.2	1.3	.0	100.0	61.4	925
Gombe	3.1	.7	2.1	.4	.0	16.2	75.9	1.6	.0	100.0	20.1	378
Imo	6.7	1.1	1.1	.0	.0	81.9	9.2	.0	.0	100.0	89.7	952
Jigawa	33.0	.5	3.3	.0	.2	33.6	29.4	.0	.0	100.0	67.2	683
Kaduna	37.5	8.5	17.3	.0	.0	22.5	13.8	.3	.1	100.0	68.5	943
Kano	24.3	4.1	5.9	2.4	.0	16.0	47.0	.4	.0	100.0	44.4	1592
Katsina	11.6	9.4	6.2	1.3	.3	35.2	35.6	.4	.0	100.0	56.3	955
Kebbi	9.9	6.0	15.1	.1	.1	11.4	57.0	.4	.0	100.0	27.3	531
Kogi	30.2	1.6	4.5	.0	.0	53.4	9.8	.5	.0	100.0	85.2	762
Kwara	23.4	.3	.1	.0	.0	51.5	24.2	.4	.0	100.0	75.3	551

Table WS.10: Availability of soap (continued)

Percent distribution of households by availability of soap in the dwelling, Nigeria, 2011

State	Place for handwashing observed					Place for handwashing not observed				Total	Percentage of households with soap anywhere in the dwelling[1]	Number of households
	Soap observed	Soap not observed at place for handwashing			Missing	Soap shown	No soap in household	Not able/Does not want to show soap	Missing			
		Soap shown	No soap in household	Does not want to show soap								
Lagos	28.5	6.1	1.2	.0	.0	47.0	16.7	.5	.0	100.0	81.6	2196
Nasarawa	7.9	1.5	2.2	.0	.0	28.9	59.4	.1	.0	100.0	38.2	291
Niger	17.3	3.9	15.3	.0	.0	31.8	31.6	.1	.0	100.0	53.0	626
Ogun	21.9	.7	3.0	.0	.0	57.5	16.1	.8	.0	100.0	80.1	887
Ondo	1.9	.2	.0	.2	.0	10.0	85.2	2.6	.0	100.0	12.1	916
Osun	10.8	.0	.0	.0	.0	58.7	30.1	.3	.0	100.0	69.6	882
Oyo	16.0	.0	2.6	.0	.0	59.3	21.9	.2	.0	100.0	75.3	1345
Plateau	16.8	.7	6.1	.0	.0	30.4	45.5	.5	.0	100.0	47.9	583
Rivers	52.6	2.0	.3	.0	.0	42.4	2.3	.5	.0	100.0	97.0	1216
Sokoto	37.1	9.2	.5	.1	.0	22.5	30.6	.0	.0	100.0	68.8	634
Taraba	3.8	.3	15.1	.1	.0	21.3	59.0	.3	.0	100.0	25.5	381
Yobe	20.0	4.1	25.2	.3	.0	19.8	30.1	.5	.0	100.0	43.9	388
Zamfara	29.9	1.9	11.2	.1	.1	6.5	49.8	.5	.0	100.0	38.3	528
FCT (Abuja)	22.4	1.1	1.1	.0	.0	65.5	9.8	.2	.0	100.0	89.0	286

Table WS.10: Availability of soap (continued)

Percent distribution of households by availability of soap in the dwelling, Nigeria, 2011

	Place for handwashing observed					Place for handwashing not observed				Total	Percentage of households with soap anywhere in the dwelling[1]	Number of households
	Soap observed	Soap not observed at place for handwashing			Missing	Soap shown	No soap in household	Not able/Does not want to show soap	Missing			
		Soap shown	No soap in household	Does not want to show soap								
Area of residence												
Urban	24.5	3.1	2.8	.1	.0	42.6	26.3	.6	.0	100.0	70.3	10608
Rural	15.6	4.3	5.6	.3	.0	36.7	37.2	.3	.0	100.0	56.5	18469
Education of household head												
None	14.8	5.4	7.9	.5	.0	27.7	43.4	.3	.0	100.0	48.0	10221
Primary	13.6	3.2	3.2	.1	.0	47.0	32.6	.3	.0	100.0	63.8	6424
Secondary+	24.9	2.9	2.6	.1	.0	43.7	25.3	.6	.0	100.0	71.5	12424
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile												
Poorest	10.3	6.4	10.2	.4	.0	20.8	51.6	.2	.0	100.0	37.6	5397
Second	13.6	4.4	6.2	.5	.0	33.1	41.9	.3	.0	100.0	51.1	5540
Middle	14.9	3.2	3.5	.2	.0	44.9	32.9	.4	.0	100.0	63.0	5915
Fourth	17.8	3.0	2.5	.0	.0	47.3	29.0	.4	.0	100.0	68.1	6066
Richest	35.8	2.6	1.4	.0	.0	45.6	13.9	.7	.0	100.0	84.0	6160
Geo-political zone												
North-Central	22.5	3.2	4.8	.0	.0	40.6	28.7	.3	.0	100.0	66.3	3925
North-East	11.3	10.3	13.0	.2	.0	14.7	50.2	.3	.0	100.0	36.3	3357
North-West	26.0	5.8	8.2	.9	.1	21.7	37.1	.3	.0	100.0	53.4	5866
South-East	5.0	.8	1.2	.0	.0	46.2	46.3	.5	.0	100.0	52.0	4043
South-South	25.8	2.7	1.9	.0	.0	54.9	14.6	.2	.0	100.0	83.4	4988
South-West	17.5	2.1	1.3	.0	.0	48.2	30.3	.7	.0	100.0	67.8	6899
Total	18.8	3.9	4.6	.2	.0	38.8	33.3	.4	.0	100.0	61.5	29077

[1] MICS indicator 4.6

(*) less than 25 unweighted cases

VIII. Reproductive Health

Fertility

In MICS4, adolescent birth rates and total fertility rates are calculated by using information on the date of last birth of each woman and are based on the one-year period (1-12 months) preceding the survey. Rates are under-estimated by a very small margin due to absence of information on multiple births (twins, triplets or more) and on women having multiple deliveries during the one year period preceding the survey.

Table RH.1 shows adolescent birth rates and total fertility rates. 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 one 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 1000 women. The total fertility rate (TFR) is calculated by summing the age-specific fertility rates calculated for each of the 5-year age groups of women, from age 15 through to age 49. The TFR denotes the average number of children to which a woman will have given birth by the end of her reproductive years if current fertility rates prevailed.

Table RH.1: Adolescent birth rate and total fertility rate		
Adolescent birth rates and total fertility rates, Nigeria, 2011		
	Adolescent birth rate[1] (Age-specific fertility rate for women age 15-19)	Total fertility rate
State		
Abia	19	5.2
Adamawa	131	5.6
Akwa Ibom	57	4.0
Anambra	53	5.7
Bauchi	175	8.6
Bayelsa	208	6.7
Benue	83	4.9
Borno	132	6.7
Cross river	77	5.8
Delta	74	5.3
Ebonyi	38	6.1
Edo	52	5.3
Ekiti	26	4.8
Enugu	41	4.3
Gombe	119	5.6
Imo	8	4.6
Jigawa	190	6.7
Kaduna	130	7.9
Kano	154	7.5
Katsina	249	8.2
Kebbi	185	7.0
Kogi	27	3.9
Kwara	29	5.1
Lagos	18	4.7
Niger	53	6.1
Nasarawa	80	5.5
Ogun	42	5.6
Ondo	34	3.9
Osun	32	4.9
Oyo	83	6.4
Plateau	19	4.5
Rivers	49	4.3
Sokoto	150	5.2
Taraba	109	5.3
Yobe	248	7.9
Zamfara	142	6.5
Abuja(FCT)	75	3.8

Table RH.1: Adolescent birth rate and total fertility rate (continued)		
Adolescent birth rates and total fertility rates, Nigeria, 2011		
	Adolescent birth rate[1] (Age-specific fertility rate for women age 15-19)	Total fertility rate
Area of residence		
Urban	35	4.7
Rural	120	6.3
Women's education		
None	211	7.2
Primary	148	6.5
Secondary+	42	4.8
Wealth index quintile		
Poorest	178	7.3
Second	134	6.3
Middle	80	5.6
Fourth	53	5.0
Richest	22	4.8
Geo-political zone		
North-Central	53	4.9
North-East	150	6.7
North-West	170	7.2
South-East	31	5.1
South-South	71	4.9
South-West	37	5.1
Total	89	5.7
[1] MICS indicator 5.1; MDG indicator 5.4		

In Nigeria, adolescent birth rate for women age 15-19 is 89 per 1000, while total fertility rate is 5.7. Adolescent birth rate (age-specific fertility rate for women age 15-19) is highest in the North-West at 170 and North-East at 150, followed by South-South (71) and North-Central (53). The rate for South-West is (37) and the lowest is 31 for South-East. These figures point to very strong disparities among geopolitical zones. The result shows that adolescent birth rate is higher among less educated women or women in poorer households. Adolescent birth rate rises from 42 among those with secondary or higher education to 148 for those with primary education and to 211 among those with no education and also from 22 among the richest quintile to 80 for those in the middle quintile and to 178 among the poorest quintile class. Adolescent birth rate in the rural and urban areas is 120 and 35 per 1000 respectively.

There is strong disparity between urban and rural. Age specific fertility rate for women age 15-19 in the urban is 35 while the figure for rural is 120.

Early Childbearing

Sexual activity and childbearing early in life carry significant risks for young people all around the world. Table RH.2 presents some early childbearing indicators for women age 15-19 and 20-24. About 19 percent of women age 15-19 have begun childbearing, within this age category, 14 had a live birth, while 4 percent are pregnant with their first child. In Nigeria, About 3 percent of women 15-19 years have had a live birth before age 15 and 29 percent of women aged 20-24 have had a live birth before age 18. Distribution by geopolitical zones shows that about one in three (31 percent) women age 15-19 in North-West have had a live birth, North-East has 23 percent, South-South has 11 percent, and North-Central has 9 percent while South-East has the least figure (4 percent). More rural women age 15-19 (20 percent) have had a live birth compare to their urban counterparts (6 percent). The less educated the woman or the poorer her household, the more likely she is to have had a live birth, the percentage decreases from 42 percent among women with no education to 22 percent with primary education and to 6 percent among those with secondary education or higher and from 34 percent among the poorest quintile to 13 percent of women in the middle quintile to 2 percent among the richest quintile class.

Table RH.2: Early childbearing

Percentage of women age 15-19 years who have had a live birth or who are pregnant with the first child and percentage of women age 15-19 years who have begun childbearing, percentage of women who have had a live birth before age 15, and percentage of women age 20-24 who have had a live birth before age 18, Nigeria, 2011

	Percentage of women age 15-19 who:				Number of women age 15-19	Percentage of women age 20-24 who have had a live birth before age 18[1]	Number of women age 20-24
	Have had a live birth	Are pregnant with first child	Have begun childbearing	Have had a live birth before age 15			
State							
Abia	3.2	2.9	6.1	.9	115	3.4	109
Adamawa	16.0	6.3	22.3	2.5	136	30.5	149
Akwa Ibom	16.3	.0	16.3	2.6	169	15.5	193
Anambra	6.8	2.0	8.8	.0	140	18.9	128
Bauchi	34.4	10.8	45.2	3.0	128	66.4	225
Bayelsa	37.4	3.6	41.0	4.1	59	31.7	62
Benue	12.7	5.5	18.2	1.0	209	15.3	160
Borno	15.7	13.7	29.4	4.9	167	31.8	170
Cross river	11.0	1.2	12.3	.0	129	15.1	125
Delta	7.2	.8	8.0	.8	193	22.0	134
Ebonyi	3.5	2.9	6.4	.5	102	9.5	93
Edo	4.3	4.7	8.9	.0	145	5.7	124
Ekiti	.0	4.5	4.5	.0	97	18.0	90
Enugu	4.9	1.9	6.8	.0	191	5.4	139
Gombe	29.7	7.3	37.0	11.6	68	48.3	94
Imo	1.5	.0	1.5	.0	189	.8	133
Jigawa	33.6	12.8	46.4	4.4	110	60.7	152
Kaduna	27.0	4.9	31.9	5.3	219	46.5	233
Kano	28.5	8.1	36.6	6.5	340	49.3	334
Katsina	38.7	10.6	49.3	11.0	202	57.6	232
Kebbi	29.5	16.4	46.0	12.0	78	52.4	104
Kogi	5.5	.0	5.5	1.4	164	12.4	135
Kwara	8.4	1.8	10.2	1.4	84	16.7	75
Lagos	1.3	.9	2.2	.0	389	6.4	367
Niger	14.8	5.1	20.0	2.7	77	24.9	88
Nasarawa	12.3	4.3	16.6	1.5	124	47.0	138
Ogun	3.9	4.3	8.2	.0	131	6.5	113
Ondo	8.4	.3	8.7	.5	171	13.7	105
Osun	3.5	2.8	6.3	.0	140	6.9	104
Oyo	14.5	4.0	18.5	2.1	195	16.3	138
Plateau	4.2	2.4	6.6	.4	153	12.8	148
Rivers	5.8	.7	6.5	.3	204	19.9	196
Sokoto	33.9	6.6	40.6	8.4	133	61.0	140
Taraba	15.3	7.1	22.4	2.4	74	29.3	94
Yobe	36.4	7.9	44.4	5.6	64	58.7	65
Zamfara	28.0	12.8	40.8	8.8	86	52.2	127
Abuja(FCT)	5.6	.6	6.2	.2	62	5.3	58

Table RH.2: Early childbearing (continued)

Percentage of women age 15-19 years who have had a live birth or who are pregnant with the first child and percentage of women age 15-19 years who have begun childbearing, percentage of women who have had a live birth before age 15, and percentage of women age 20-24 who have had a live birth before age 18, Nigeria, 2011

	Percentage of women age 15-19 who:				Number of women age 15-19	Percentage of women age 20-24 who have had a live birth before age 18[1]	Number of women age 20-24
	Have had a live birth	Are pregnant with first child	Have begun childbearing	Have had a live birth before age 15			
Area of residence							
Urban	5.6	3.1	8.7	.5	2059	14.6	1749
Rural	19.5	5.4	24.8	3.9	3377	35.6	3528
Education							
None	42.3	10.5	52.9	11.2	984	58.8	1655
Primary	21.9	6.4	28.3	3.2	609	40.7	623
Secondary+	5.8	2.7	8.4	.3	3843	9.4	2998
Wealth index quintile							
Poorest	33.7	9.4	43.1	8.6	800	52.2	1048
Second	22.0	4.3	26.3	4.1	1039	43.6	975
Middle	12.6	3.7	16.2	1.7	1256	26.4	1135
Fourth	7.8	4.6	12.4	.7	1227	14.0	1108
Richest	1.8	2.0	3.8	.1	1114	8.1	1011
Geo-political zone							
North-Central	9.1	3.0	12.1	1.2	873	20.3	803
North-East	23.1	9.5	32.6	4.5	636	45.2	798
North-West	31.1	9.1	40.2	7.6	1169	53.4	
South-East	3.9	1.7	5.7	.2	736	7.5	602
South-South	10.6	1.5	12.1	1.0	899	17.3	835
South-West	5.1	2.3	7.4	.4	1124	10.0	917
Total	14.2	4.5	18.7	2.6	5436	28.6	5278

[1] MICS indicator 5.2

Trends in Early Childbearing

Table RH.3 presents the trends for early childbearing. In Nigeria, about one in three (27 percent) of women had a live birth before age 18, and about 7 percent of women have had a live birth before age 15, there is no significant percentage differentials in the distribution of women with a live birth before age 18 by age group; it ranges between 29 percent for age group 20-24 to 26 for age group 45-49. Distribution by sector shows that more women in the rural areas (32 percent) than their counterparts in the urban (17 percent) had a live birth before age 18. The trend is similar for women with a live birth before the age 15.

Table RH.3: Trends in early childbearing

Percentage of women who have had a live birth, by age 15 and 18, by residence and age group, Nigeria, 2011

	Urban				Rural				All			
	Percentage of women with a live birth before age 15	Number of women	Percentage of women with a live birth before age 18	Number of women	Percentage of women with a live birth before age 15	Number of women	Percentage of women with a live birth before age 18	Number of women	Percentage of women with a live birth before age 15	Number of women	Percentage of women with a live birth before age 18	Number of women
Age												
15-19	.5	2059	na	na	3.9	3377	na	na	2.6	5436	na	na
20-24	3.1	1749	14.6	1749	9.3	3528	35.6	3528	7.3	5278	28.6	5278
25-29	4.3	2276	16.2	2276	9.2	3647	31.3	3647	7.3	5923	25.5	5923
30-34	6.0	1917	16.7	1917	11.5	2965	35.7	2965	9.3	4882	28.2	4882
35-39	4.2	1418	16.1	1418	8.9	2339	30.9	2339	7.1	3756	25.3	3756
40-44	8.2	1037	22.3	1037	9.8	2076	29.4	2076	9.2	3113	27.0	3113
45-49	5.7	874	23.8	874	7.7	1509	27.8	1509	7.0	2384	26.3	2384
Total	4.2	11330	17.4	9271	8.6	19442	32.4	16065	6.9	30772	26.9	25336

Contraception

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 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.

About 18 percent of women currently married or in union reported current use of contraception (Table RH.4). The most popular method is the injectable which is used by 4 percent of married women in Nigeria. The next most popular method is male condom, which is used by 2 percent of married women. Between 4 and 2 percent of women reported use of periodic abstinence/Rhythm, IUD, and withdrawa. Less than 1 percent use female sterilization, male sterilization, implants, female condom, diaphragm/foam/jelly, or the lactational amenorrhea method (LAM).

Table RH.4: Use of contraception

Percentage of women 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Nigeria, 2011

	Not using any method	Percent of women (currently married or in union) who are using:																Number of women currently married or in union
		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]	
State																		
Abia	52.1	1.5	.0	.5	8.8	.8	3.7	5.1	.0	.0	5.6	17.9	3.5	.5	20.4	27.5	47.9	385
Adamawa	94.5	.1	.0	.0	2.9	.0	1.3	.1	.0	.0	.0	.8	.3	.0	4.3	1.1	5.5	501
Akwa ibom	73.9	.1	.0	1.5	7.4	.1	3.1	1.1	.0	.0	2.3	9.2	.9	.3	13.4	12.7	26.1	543
Anambra	49.5	.5	.0	1.6	3.9	.2	2.0	6.8	.5	.4	1.7	27.6	5.1	.2	15.9	34.6	50.5	514
Bauchi	95.2	.0	.0	.0	1.4	.0	.7	.1	.0	.0	.4	.1	.3	1.6	2.3	2.5	4.8	843
Bayelsa	90.7	.0	.0	.0	4.0	.2	1.5	.2	.0	.0	.0	1.7	1.8	.0	5.9	3.5	9.3	235
Benue	87.6	1.9	.0	.4	3.5	.2	1.3	1.0	.0	.0	.1	1.0	1.4	1.5	8.4	4.0	12.4	564
Borno	96.8	.1	.0	.0	.1	.0	2.8	.1	.0	.0	.0	.0	.0	.1	3.1	.1	3.2	686
Cross River	80.4	.4	.0	.5	5.4	.0	2.7	2.4	.0	.2	2.1	3.1	1.7	1.0	11.6	8.0	19.6	373
Delta	81.7	.4	.0	.4	3.2	.0	4.7	1.8	.0	.1	4.3	1.6	1.0	.9	10.5	7.7	18.3	614
Ebonyi	41.3	.0	.0	.0	2.0	.0	5.7	5.1	.0	.0	10.7	32.5	2.1	.6	12.8	45.9	58.7	281
Edo	81.5	.7	.0	.3	4.8	.1	4.6	.7	.4	.0	1.8	2.1	1.0	2.0	11.5	7.0	18.5	436
Ekiti	69.9	.7	.0	3.1	4.4	.0	5.6	9.0	.3	.0	.3	4.3	1.9	.5	23.1	7.0	30.1	345
Enugu	59.1	1.4	.0	.0	3.6	.7	.0	7.7	.0	.0	4.4	14.7	8.4	.0	13.4	27.4	40.9	369
Gombe	80.1	.0	.0	.1	4.9	.4	2.7	.0	.0	.0	11.3	.3	.1	.1	8.1	11.7	19.9	375
Imo	60.7	.1	.0	.6	2.0	2.0	2.6	4.7	1.0	.0	4.0	13.7	6.6	2.0	13.0	26.4	39.3	421
Jigawa	99.0	.2	.0	.0	.6	.0	.2	.0	.0	.0	.0	.0	.0	.0	1.0	.0	1.0	765
Kaduna	91.0	.0	.0	.1	6.7	.0	1.5	.1	.0	.0	.0	.1	.2	.2	8.4	.5	9.0	1064
Kano	99.3	.0	.0	.0	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.7	.0	.7	1526
Katsina	96.3	.1	.0	.0	.5	.0	.4	.3	.0	.0	.0	1.3	.2	.9	1.3	2.4	3.7	995
Kebbi	95.9	.0	.0	.0	2.1	.0	1.3	.0	.0	.0	.2	.0	.0	.5	3.4	.6	4.1	546
Kogi	88.1	1.0	.0	1.0	3.4	.0	3.3	1.3	.0	.0	.0	.1	1.3	.6	9.9	2.0	11.9	433
Kwara	62.9	.0	.1	.7	4.7	.5	5.5	8.1	.5	.6	.5	9.6	4.5	1.9	20.6	16.5	37.1	372

Table RH.4: Use of contraception (continued)

Percentage of women 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Nigeria, 2011

	Not using any method	Percent of women (currently married or in union) who are using:																Number of women currently married or in union
		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]	
Lagos	71.5	.3	.0	2.4	6.1	.9	2.5	5.9	.2	.0	.7	5.2	3.6	.7	18.3	10.2	28.5	1437
Nasarawa	87.8	.2	.0	.4	7.5	.3	2.0	.6	.0	.2	.2	.2	.0	.4	11.4	.8	12.2	346
Niger	92.2	.3	.0	1.0	2.6	.0	1.5	.4	.0	.0	.2	.2	.4	1.1	5.9	1.9	7.8	734
Ogun	69.8	.3	.0	1.1	7.8	.8	7.4	5.9	.1	.0	.6	2.3	3.0	.9	23.4	6.8	30.2	648
Ondo	65.6	.2	.0	3.7	4.6	.2	10.3	6.2	.0	.0	.8	1.9	6.2	.3	25.1	9.3	34.4	504
Osun	67.5	.3	.0	7.7	7.9	.8	2.9	6.8	.5	.0	.0	2.6	2.1	.8	27.0	5.5	32.5	486
Oyo	78.1	.4	.0	4.7	5.3	.2	2.9	4.3	.0	.0	.1	.9	1.8	1.4	17.8	4.1	21.9	904
Plateau	81.2	.7	.0	.4	10.9	1.5	1.4	1.3	.0	.2	.4	2.1	.0	.0	16.3	2.5	18.8	480
Rivers	67.0	.1	.0	.4	5.0	.0	7.9	7.1	.0	.5	.7	5.7	2.6	2.9	21.1	11.9	33.0	725
Sokoto	96.2	.0	.0	.1	.7	.1	.4	.2	.0	.0	.0	.2	1.8	.5	1.4	2.4	3.8	703
Taraba	90.4	1.2	.0	.0	3.2	.0	2.2	1.3	.0	.1	.0	.8	.8	.0	8.0	1.6	9.6	374
Yobe	94.9	.0	.0	.0	.7	.0	1.4	.0	.0	.0	1.9	.3	.0	.8	2.1	3.0	5.1	389
Zamfara	95.2	.1	.0	.1	1.4	.1	1.2	.0	.1	.0	.0	.8	.6	.4	3.0	1.8	4.8	604
FCT (Abuja)	61.2	.0	.1	3.1	12.7	3.4	2.4	3.0	.0	.1	2.8	6.1	2.0	3.0	24.8	14.0	38.8	220
Area of residence																		
Urban	75.0	.4	.0	1.9	5.7	.6	4.1	4.4	.1	.1	.9	3.8	2.1	.9	17.3	7.7	25.0	7223
Rural	86.1	.3	.0	.5	3.0	.1	1.8	1.5	.1	.0	1.2	3.4	1.4	.7	7.2	6.7	13.9	14517
Age																		
15-19	96.5	.0	.0	.0	.5	.2	.5	.8	.0	.1	.4	.5	.1	.3	2.2	1.3	3.5	1101
20-24	89.2	.0	.0	.1	1.9	.0	1.9	2.2	.1	.0	1.0	1.9	1.3	.4	6.2	4.5	10.8	3147
25-29	83.8	.1	.0	.5	2.7	.2	2.3	2.9	.1	.1	1.7	3.3	1.6	.8	8.8	7.4	16.2	4753
30-34	80.4	.1	.0	.7	5.9	.2	2.6	2.6	.1	.1	1.2	3.7	1.8	.5	12.4	7.3	19.6	4413
35-39	77.8	.6	.0	1.8	4.8	.7	3.0	2.7	.1	.0	1.0	4.3	2.3	1.0	13.6	8.6	22.2	3443
40-44	77.2	.8	.0	1.7	5.4	.3	3.8	2.6	.1	.1	.6	4.2	1.9	1.2	14.9	7.9	22.8	2818
45-49	80.9	.8	.0	2.1	3.3	.5	2.4	1.5	.0	.0	.8	5.7	.9	1.1	10.6	8.5	19.1	2066

Table RH.4: Use of contraception **(continued)**

Percentage of women 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Nigeria, 2011

	Not using any method	Percent of women (currently married or in union) who are using:																Number of women currently married or in union
		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]	
Number of living children																		
0	97.0	.1	.0	.1	.1	.0	.9	.6	.0	.0	.0	.6	.1	.5	1.8	1.2	3.0	1628
1	86.6	.0	.0	.2	2.0	.2	1.6	3.2	.2	.1	1.1	2.6	1.8	.4	7.5	5.9	13.4	3202
2	83.3	.0	.0	.7	3.0	.3	2.3	3.2	.1	.0	1.4	3.3	1.9	.4	9.6	7.1	16.7	3669
3	80.4	.2	.0	1.6	4.5	.2	2.9	3.0	.0	.0	1.0	3.8	1.9	.6	12.4	7.2	19.6	3595
4+	79.1	.6	.0	1.2	5.2	.4	3.1	2.0	.1	.1	1.2	4.4	1.6	1.1	12.7	8.2	20.9	9646
Education																		
None	94.2	.1	.0	.2	1.3	.0	1.0	.3	.0	.0	.6	1.1	.6	.5	3.1	2.8	5.8	9071
Primary	79.3	.4	.0	.8	5.2	.5	2.8	2.2	.1	.0	1.4	4.8	1.4	1.0	12.1	8.6	20.7	4370
Secondary +	71.3	.4	.0	1.8	6.0	.5	4.1	4.8	.1	.1	1.5	5.6	2.9	.9	17.9	10.8	28.7	8298
Wealth index quintile																		
Poorest	94.3	.2	.0	.1	.9	.0	.5	.3	.0	.0	.9	1.3	.9	.5	2.2	3.5	5.7	4692
Second	89.4	.2	.0	.3	2.6	.0	1.8	.8	.0	.1	.9	2.1	1.0	.8	5.8	4.8	10.6	4405
Middle	83.0	.2	.0	.7	3.7	.3	2.2	2.1	.1	.0	1.7	3.8	1.4	.9	9.3	7.7	17.0	3883
Fourth	75.9	.3	.0	1.2	5.8	.3	3.7	3.5	.1	.0	1.1	5.0	2.1	1.0	14.9	9.1	24.1	4279
Richest	69.0	.5	.0	2.5	6.5	.8	4.6	5.5	.2	.2	1.1	5.8	2.7	.6	20.8	10.2	31.0	4481
Geo-political zone																		
North -Central	83.0	.7	.0	.8	5.6	.6	2.3	1.9	.1	.1	.4	2.2	1.2	1.1	12.1	4.8	17.0	3148
North-East	93.1	.2	.0	.0	1.9	.0	1.8	.2	.0	.0	1.7	.3	.2	.6	4.1	2.8	6.9	3169
North-West	96.3	.0	.0	.0	1.8	.0	.7	.1	.0	.0	.0	.3	.3	.3	2.7	1.0	3.7	6203
South-East	53.0	.7	.0	.6	4.1	.7	2.6	6.0	.3	.1	4.7	21.0	5.3	.7	15.2	31.7	47.0	1969
South-South	77.2	.3	.0	.6	5.0	.1	4.7	2.8	.1	.2	2.0	4.3	1.5	1.4	13.6	9.3	22.8	2926
South-West	71.4	.3	.0	3.5	6.1	.6	4.5	6.0	.1	.0	.5	3.1	3.1	.8	21.1	7.5	28.6	4325
Total	82.5	.3	.0	1.0	3.9	.3	2.5	2.4	.1	.1	1.1	3.6	1.6	.7	10.5	7.0	17.5	21740

[1] MICS indicator 5.3; MDG indicator 5.3

Contraceptive prevalence is highest in South-East at 47 percent and also high in South-West and South-South at 29 percent and 23 percent respectively. Seventeen percent of married women in North-Central and 7 percent in North-East use a method of contraception. In North-West, contraceptive use is rare; only 4 percent of married women reported using any method.

Adolescents are less likely to use contraception than older women. Only 4 percent of adolescents (15-19 years old) currently use a method of contraception compared to 11 percent of 20-24 year olds and 19 to 23 percent for older women.

Women's education level is strongly associated with contraceptive prevalence. The percentage of women using any method of contraception rises from 6 percent among those with no education to 21 percent among women with primary education, and to 29 percent among women with secondary or higher education. In addition to differences in prevalence, the method mix varies by education. About 3 percent the women age 15-49 who use pill have primary education while only 0.4 percent of them use female sterilization. In contrast, 4 percent of contraceptive users with secondary or higher education use the pill and 0.4 percent use female sterilization.

Unmet Need

Unmet need for contraception refers to fecund women who are not using any method of contraception, but who wish to postpone the next birth (spacing) or who wish to stop childbearing altogether (limiting). Unmet need is identified in MICS4 by using a set of questions eliciting current behaviours and preferences pertaining to contraceptive use, fecundity, and fertility preferences.

Table RH.5 shows the results of the survey on contraception, unmet need, and the demand for contraception satisfied.

Unmet need for spacing is defined as percentage of women who are not using a method of contraception AND

- are not pregnant and not postpartum amenorrheic and are fecund and say they want to wait two or more years for their next birth OR
- are not pregnant and not postpartum amenorrheic 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 amenorrheic and say that the birth was mistimed: would have wanted to wait

Unmet need for limiting is defined as percentage of women who are not using a method of contraception AND

- are not pregnant and not postpartum amenorrheic and are fecund and say they do not want any more children OR
- are pregnant and say they didn't want to have a child OR
- are postpartum amenorrheic and say that they didn't want the birth

Total unmet need for contraception is simply the sum of unmet need for spacing and unmet need for limiting.

Table RH.5: 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, 2011

	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]			
State									
Abia	22.8	25.2	48.0	5.5	3.4	8.9	385	84.3	219
Adamawa	3.9	1.6	5.5	17.9	7.6	25.4	501	17.7	155
Akwa Ibom	17.4	8.7	26.1	23.1	6.8	29.9	543	46.6	304
Anambra	27.3	24.1	51.4	6.8	3.4	10.2	514	83.4	316
Bauchi	3.7	1.0	4.8	12.5	2.6	15.1	843	23.9	168
Bayelsa	6.2	3.1	9.3	30.7	11.6	42.3	235	18.1	121
Benue	6.1	6.3	12.4	15.8	7.1	22.9	564	35.1	199
Borno	.9	2.3	3.2	14.0	3.6	17.6	686	15.4	143
Cross river	13.2	6.4	19.6	22.3	9.3	31.6	373	38.2	191
Delta	11.4	7.1	18.6	17.3	10.6	27.9	614	40.0	285
Ebonyi	35.0	24.5	59.5	3.1	3.2	6.3	281	90.4	185
Edo	9.9	8.7	18.5	18.9	10.7	29.6	436	38.5	210
Ekiti	14.2	15.9	30.1	11.4	7.3	18.8	345	61.6	169
Enugu	20.0	20.9	40.9	7.2	4.2	11.4	369	78.2	193
Gombe	16.7	3.2	19.9	7.4	2.7	10.1	375	66.3	113
Imo	19.9	19.4	39.3	7.2	5.6	12.7	421	75.6	219
Jigawa	.7	.4	1.1	8.1	3.1	11.2	765	8.9	94
Kaduna	7.4	1.7	9.1	19.1	5.9	25.0	1064	26.7	363
Kano	.5	.2	.7	13.7	3.9	17.6	1526	3.8	279
Katsina	3.3	.5	3.8	9.6	2.4	12.1	995	24.0	158
Kebbi	3.4	.9	4.3	15.7	4.6	20.4	546	17.4	135
Kogi	4.4	7.5	11.9	17.2	9.9	27.1	433	30.5	169
Kwara	22.4	14.7	37.1	10.4	7.7	18.2	372	67.1	205
Lagos	16.1	12.4	28.5	12.5	7.7	20.2	1437	58.6	700
Niger	6.4	5.8	12.2	12.2	7.0	19.2	346	38.8	109
Nasarawa	4.8	3.0	7.8	10.3	2.7	13.0	734	37.4	153
Ogun	18.1	12.2	30.2	10.0	10.8	20.7	648	59.3	330
Ondo	18.2	16.2	34.4	13.2	10.1	23.3	504	59.6	291
Osun	14.8	17.8	32.5	13.5	6.3	19.8	486	62.1	255
Oyo	10.7	11.2	21.9	13.8	9.2	23.0	904	48.7	406
Plateau	10.1	8.8	18.8	15.8	10.3	26.1	480	41.9	216
Rivers	23.2	10.8	33.9	12.4	7.7	20.1	725	62.8	392
Sokoto	3.5	.3	3.8	12.3	1.5	13.8	703	21.8	124
Taraba	4.8	4.8	9.6	11.1	9.0	20.1	374	32.3	111
Yobe	4.1	1.1	5.3	15.0	4.3	19.3	389	21.4	96
Zamfara	3.9	1.1	5.0	16.1	4.3	20.4	604	19.8	153
Abuja(FCT)	20.3	18.5	38.8	9.1	6.2	15.3	220	71.6	119

Table RH.5: Unmet need for contraception (continued)

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, 2011

	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]			
Area of residence									
Urban	13.8	9.8	22.3	14.0	6.9	20.8	5850	51.8	2523
Rural	8.4	4.5	11.5	13.1	5.2	18.3	17006	38.5	5058
Age									
15-19	3.8	.1	2.8	12.4	.3	12.7	1382	18.2	214
20-24	10.6	.3	8.5	16.5	.7	17.2	3564	33.0	916
25-29	14.8	1.4	13.3	19.1	2.4	21.5	4909	38.2	1709
30-34	13.5	4.7	16.4	13.9	5.0	19.0	4487	46.4	1590
35-39	10.6	9.6	19.0	10.9	10.1	21.0	3444	47.5	1376
40-44	4.1	14.7	18.5	8.5	12.1	20.7	2886	47.3	1130
45-49	2.8	13.1	15.3	4.4	9.9	14.3	2183	51.7	646
Education									
None	3.7	2.2	5.9	11.7	4.9	16.6	9071	26.2	2044
Primary	10.0	10.8	20.8	13.2	9.5	22.6	4370	47.9	1898
Secondary+	17.4	11.5	28.8	15.1	5.5	20.6	8298	58.3	4103
Wealth index quintiles									
Poorest	3.9	1.8	5.8	12.0	4.4	16.4	4692	26.1	1038
Second	6.8	3.9	10.7	13.1	5.0	18.1	4405	37.2	1270
Middle	9.2	7.9	17.1	15.6	7.5	23.1	3883	42.5	1563
Fourth	13.5	10.6	24.1	15.1	7.3	22.4	4279	51.9	1990
Richest	17.7	13.5	31.2	11.2	6.4	17.6	4481	63.9	2185
Geo-political zone									
North-Central	9.1	7.8	17.0	13.2	7.0	20.2	3148	45.7	1170
North-East	4.9	2.1	7.0	13.2	4.6	17.8	3169	28.1	785
North-West	3.1	.7	3.8	13.5	3.7	17.3	6203	18.0	1307
South-East	24.6	22.8	47.3	6.2	4.0	10.2	1969	82.3	1132
South-South	15.0	8.1	23.2	19.1	9.1	28.2	2926	45.1	1503
South-West	15.2	13.4	28.6	12.5	8.6	21.1	4325	57.6	2150
Total	10.2	7.5	17.7	13.3	6.0	19.4	21740	47.7	8046

[1] MICS indicator 5.4; MDG indicator 5.6

Met need for limiting includes women who are using a contraceptive method and who want no more children, are using male or female sterilization or declare themselves as infecund. Met need for spacing includes women who are using a contraceptive method and who want to have another child or undecided whether to have another child. The total of met need for spacing and limiting add up to the total met need for contraception.

Met need for contraception among women 15-49 years currently married or in union is highest in South-East at 47 percent and also high in South-West and South-South at 29 and 23 percent respectively. Seventeen percent of married women in North-Central and 7 percent in North-East have their contraception need met.

Women's education level is strongly associated with met need for contraception. The percentage of women with met need for contraception rises from 6 percent among those with no education to 21 percent among women with primary education, and to 29 percent among women with secondary or higher

education and from 6 percent among the poorest quintile to 17 percent of women in the middle quintile to 31 percent among the richest quintile class..

Using information on contraception and unmet need, the percentage of demand for contraception satisfied is also estimated from the MICS data. Percentage of demand satisfied is defined as the proportion of women currently married or in a marital union who are currently using contraception, of 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.

Table RH.5 shows the results of the survey on contraception, unmet need, and whether the demand for contraception is satisfied. In Nigeria, demand for contraception satisfied varied across different background characteristics, such as area of residence, education and wealth status. Women in urban area present higher levels of satisfied demand for contraception as compared to their rural counterparts (52 percent and39 percent respectively). Similarly 58 percent of women with secondary education and above have higher level of satisfied demand for contraception as compared to the women with no education (26 percent). Twenty six percent of women in poorest quintile and 64 percent of women in richest quintile have their contraception demand satisfied.

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 newborn health. For example, if the antenatal period is used to inform women and families about the danger signs and symptoms and about the risks of labour and delivery, it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider. The antenatal period also provides 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 infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of 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 period 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 bateriuria and proteinuria
- Blood testing to detect syphilis and severe anaemia
- Weight/height measurement (optional)

The type of personnel providing antenatal care to women aged 15-49 years who gave birth in the two years preceding the survey is presented in Table RH.6. Coverage of antenatal care (by a doctor, nurse, midwife, or auxiliary midwife) is relatively high in Nigeria with 66 percent of women receiving antenatal care at least once during the pregnancy. The lowest level of antenatal care is found in North-West (42 percent), while the highest level is in the South-East (94 percent). Antenatal care coverage in urban areas (88 percent) is higher than in rural areas (56 percent).

Probability of the women seeing skilled health personnel for antenatal care is highly associated with education, age and wealth status; it is 49 percent for teenage mothers (less than 20 years), rises to peak at 70 percent for women at the intermediate age group 20-34 years and declines to 65 percent for women aged 35-49 years; I coverage of this important intevention Is under 39 percent for women with no education, 73 percent for those with primary education and over 89 percent for women with secondary education or higher;women in the poorest quintile of wealth are the least likely to have attended at least one antenatal care visit with skilled provider during their last pregnancy (30 percent) while 73 percent and 95 percent of women in the middle and richest wealth quintile respectively received this important intervention.

In Nigeria, there is significant little difference between the proportion of women that visit the Doctor and those that visit the nurse/midwife for antenatal care (34 percent versus 31 percent); the relative disparity in prevalence of visits to the doctor and the nurse/midwife widens at the lower levels of education and wealth status of the women and in the rural areas or geopolitical zones where the overall probability of the woman seeing skilled health personnel is relatively low.

Table RH.6: Antenatal care coverage

Percent distribution of women age 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care, Nigeria, 2011

	Person providing antenatal care						No antenatal care received	Total	Any skilled personnel[1]	Number of women who gave birth in the preceding two years
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Other				
State										
Abia	50.4	43.9	.7	.7	.0	.8	3.5	100.0	95.0	189
Adamawa	22.8	41.7	2.7	.0	5.3	.3	27.3	100.0	67.1	226
Akwa Ibom	42.1	25.3	.0	10.4	.8	.0	21.5	100.0	67.3	254
Anambra	58.3	34.6	.8	2.0	.7	.0	3.7	100.0	93.6	270
Bauchi	2.0	27.3	1.9	.0	6.8	3.0	59.0	100.0	31.2	455
Bayelsa	34.0	13.9	.0	.0	.0	.2	51.9	100.0	47.9	144
Benue	31.4	37.8	.0	1.1	.0	1.3	28.4	100.0	69.2	244
Borno	11.4	31.4	.7	.0	1.1	2.2	53.3	100.0	43.4	270
Cross river	27.6	39.9	.0	1.8	4.2	.2	26.3	100.0	67.5	203
Delta	38.3	43.2	.2	.8	.4	.0	17.0	100.0	81.7	293
Ebonyi	31.4	46.3	2.6	.5	.5	.2	18.4	100.0	80.3	137
Edo	36.0	50.7	.0	.0	1.3	.5	11.4	100.0	86.7	204
Ekiti	34.5	61.4	.0	.0	.0	1.6	2.5	100.0	95.9	152
Enugu	52.5	42.7	3.4	.0	.0	.0	1.4	100.0	98.6	181
Gombe	12.6	55.3	.2	.0	1.6	.3	30.0	100.0	68.1	175
Imo	52.1	44.8	.7	.0	.0	.0	2.4	100.0	97.6	180
Jigawa	10.1	28.9	3.1	.3	.4	.7	56.6	100.0	42.1	333
Kaduna	35.8	35.1	5.6	.0	.1	1.0	22.3	100.0	76.6	494
Kano	22.0	33.0	.4	1.0	1.3	.6	41.6	100.0	55.5	725
Katsina	7.0	9.7	.2	.0	.0	.5	82.5	100.0	16.9	443
Kebbi	19.5	12.4	.6	.4	1.1	1.0	65.0	100.0	32.5	252
Kogi	34.4	50.9	.4	.7	.0	.0	13.5	100.0	85.8	161
Kwara	67.5	23.9	.3	.0	.0	.0	8.3	100.0	91.7	168
Lagos	74.4	16.8	1.6	3.2	1.3	.3	2.3	100.0	92.8	686
Niger	46.6	22.4	1.8	.0	.9	.0	28.3	100.0	70.8	157
Nasarawa	26.3	38.6	.6	.0	2.1	.3	32.1	100.0	65.5	285
Ogun	57.7	29.2	2.7	2.2	.7	.5	6.9	100.0	89.7	272
Ondo	35.4	45.4	1.2	.0	.9	.4	16.7	100.0	82.0	206
Osun	48.0	48.9	.3	.3	.0	.0	2.5	100.0	97.2	215
Oyo	53.4	31.2	.5	.2	.0	.5	14.2	100.0	85.1	416
Plateau	34.8	42.8	.0	.6	2.2	.0	19.7	100.0	77.6	196
Rivers	60.3	19.6	.4	3.6	.0	.4	15.7	100.0	80.3	318
Sokoto	12.9	3.7	.0	.0	.0	.8	82.6	100.0	16.6	273
Taraba	16.3	27.8	.4	.0	4.3	.3	50.9	100.0	44.5	145
Yobe	14.5	30.9	.0	.3	.7	1.3	52.3	100.0	45.4	191
Zamfara	5.4	9.7	.4	.4	2.3	1.6	80.3	100.0	15.5	275
Abuja(FCT)	63.6	26.8	.2	2.9	.0	.0	6.5	100.0	90.7	90

Table RH.6: Antenatal care coverage (continued)

Percent distribution of women age 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care, Nigeria, 2011

	Person providing antenatal care						No antenatal care received	Total	Any skilled personnel[1]	Number of women who gave birth in the preceding two years
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Other				
Area of residence										
Urban	55.9	30.7	1.0	1.2	.6	.4	10.2	100.0	87.6	3122
Rural	24.2	31.1	1.1	.9	1.5	.8	40.5	100.0	56.4	6757
Mother's age at birth										
Less than 20	17.4	30.2	1.8	.9	1.8	.5	47.5	100.0	49.4	1091
20-34	37.3	31.3	1.0	1.1	1.1	.7	27.5	100.0	69.7	6755
35-49	33.1	30.5	.9	.7	1.2	.5	33.0	100.0	64.6	1660
Missing/DK	31.3	29.1	.7	.6	1.8	1.6	34.9	100.0	61.1	372
Education										
None	15.4	22.8	1.1	.4	1.5	.9	57.8	100.0	39.4	3951
Primary	29.5	41.3	1.9	2.3	1.6	.7	22.6	100.0	72.7	1852
Secondary+	54.5	34.2	.7	1.0	.7	.4	8.6	100.0	89.3	4076
Wealth index quintiles										
Poorest	8.4	20.5	1.1	1.0	1.7	.8	66.6	100.0	30.0	2167
Second	18.1	31.2	1.2	.6	2.2	.9	45.7	100.0	50.6	2002
Middle	29.5	41.9	1.6	1.4	1.1	.5	24.0	100.0	73.0	1830
Fourth	45.4	41.1	1.3	1.5	.3	.6	9.9	100.0	87.8	1963
Richest	73.0	21.8	.3	.6	.7	.5	3.2	100.0	95.1	1917
Geo-political zone										
North-Central	39.9	35.9	.5	.6	.9	.3	21.9	100.0	76.3	1301
North-East	11.3	34.1	1.2	.0	3.9	1.6	47.9	100.0	46.6	1463
North-West	17.9	22.2	1.6	.4	.7	.8	56.4	100.0	41.7	2795
South-East	50.6	41.6	1.5	.8	.3	.2	5.1	100.0	93.7	956
South-South	41.6	32.3	.1	3.1	1.0	.2	21.6	100.0	74.1	1417
South-West	57.4	31.7	1.2	1.5	.7	.5	7.0	100.0	90.3	1948
Total	34.2	31.0	1.1	1.0	1.2	.7	30.9	100.0	66.2	9879

[1] MICS indicator 5.5a; MDG indicator 5.5

Number of Antenatal Care Visits

UNICEF and WHO recommend a minimum of at least four antenatal care visits during pregnancy. In Nigeria, more than one-half (57 percent) of women that had a live birth during the two years preceding the survey made 4 or more antenatal care visits (Table RH.7). South-West has the highest percentage (86 percent), South-East has 83 percent, moderate in North-Central (59 percent), and lowest in North-West (33 percent). The more educated the woman or the richer her household, the more likely she is to make 4 or more antenatal visits; the percentage rises from 30 percent among women with no education, 61 percent for primary education and 81 percent among those with secondary education or higher and from 22 percent among the poorest quintile to 62 percent among the middle quintile and 89 percent among the richest quintile class. In the rural areas, percentage of women that made 4 or more visits in the period is 46 percent compared to 80 percent in urban areas.

Overall, about one in three (31 percent) of the women who had live birth in two years prior to the survey made no antenatal care visits. Area of residence, education and wealth status have direct effect on the number of antenatal care visits. These figures vary across geopolitical zones, ages and level of education of the women.

Table RH.7: Number of antenatal care visits

Percent distribution of women who had a live birth during the two years preceding the survey by number of antenatal care visits by any provider, Nigeria, 2011

	Percent distribution of women who had:							Number of women who had a live birth in the preceding two years
	No antenatal care visits	One visit	Two visits	Three visits	4 or more visits[1]	Missing/DK	Total	
State								
Abia	3.5	.0	1.5	2.9	88.5	3.7	100.0	189
Adamawa	27.3	3.4	6.7	6.1	54.5	2.0	100.0	226
Akwa Ibom	21.8	.9	4.9	5.9	57.2	9.3	100.0	254
Anambra	4.0	.0	1.9	3.9	86.0	4.3	100.0	270
Bauchi	59.0	1.9	3.6	5.2	29.0	1.3	100.0	455
Bayelsa	51.9	.7	3.0	3.2	37.6	3.6	100.0	144
Benue	28.4	4.3	7.7	11.8	46.8	1.0	100.0	244
Borno	53.3	2.6	1.9	5.8	32.5	3.9	100.0	270
Cross River	26.3	.8	3.7	7.1	60.0	2.2	100.0	203
Delta	17.0	.7	2.7	5.2	72.4	2.0	100.0	293
Ebonyi	18.4	1.3	5.0	10.7	57.0	7.7	100.0	137
Edo	12.0	.4	4.4	2.3	77.6	3.2	100.0	204
Ekiti	2.5	.0	.0	.5	95.4	1.6	100.0	152
Enugu	1.4	.0	.0	4.6	86.8	7.2	100.0	181
Gombe	30.0	3.2	6.3	12.4	44.9	3.2	100.0	175
Imo	2.4	.0	1.0	5.1	89.0	2.5	100.0	180
Jigawa	56.6	3.7	3.2	4.7	31.7	.2	100.0	333
Kaduna	22.3	.3	2.7	6.9	67.1	.7	100.0	494
Kano	41.6	2.0	5.3	6.9	44.0	.2	100.0	725
Katsina	82.5	1.7	.5	1.2	13.9	.2	100.0	443
Kebbi	65.6	5.4	6.0	5.7	16.0	1.4	100.0	252
Kogi	13.5	2.2	5.3	6.7	68.4	3.8	100.0	161
Kwara	8.3	.0	.9	5.6	82.7	2.5	100.0	168
Lagos	2.8	.0	.0	.0	91.2	5.9	100.0	686
Nasarawa	28.3	4.8	4.7	9.9	51.8	.5	100.0	157
Niger	32.4	2.3	9.0	9.9	44.0	2.3	100.0	285
Ogun	6.9	.0	1.5	2.1	84.5	5.0	100.0	272
Ondo	16.7	.0	.6	.9	81.5	.3	100.0	206
Osun	2.5	.0	.0	.0	97.5	.0	100.0	215
Oyo	14.2	1.9	1.2	4.1	69.7	9.0	100.0	416
Plateau	19.7	2.1	5.8	9.0	60.3	3.1	100.0	196
Rivers	15.7	.7	1.5	.7	72.2	9.1	100.0	318
Sokoto	82.6	2.4	2.9	3.6	8.5	.1	100.0	273
Taraba	50.9	2.0	5.1	9.3	31.5	1.2	100.0	145
Yobe	52.3	2.9	5.6	10.8	26.4	2.1	100.0	191
Zamfara	80.3	.5	1.9	3.0	13.6	.7	100.0	275
FCT (Abuja)	6.5	.0	.4	2.1	90.1	1.0	100.0	90

Table RH.7: Number of antenatal care visits (continued)

Percent distribution of women who had a live birth during the two years preceding the survey by number of antenatal care visits by any provider, Nigeria, 2011

	Percent distribution of women who had:							Number of women who had a live birth in the preceding two years
	No antenatal care visits	One visit	Two visits	Three visits	4 or more visits[1]	Missing/DK	Total	
Area of residence								
Urban	10.4	.6	1.8	3.6	79.5	4.1	100.0	3122
Rural	40.5	1.9	3.7	5.5	46.0	2.4	100.0	6757
Mother's age at birth								
Less than 20	47.5	2.2	3.9	6.1	38.3	2.1	100.0	1091
20-34	27.9	1.5	3.2	5.0	59.2	3.2	100.0	7124
35-49	33.1	1.1	2.2	4.0	57.3	2.1	100.0	1660
Education								
None	57.9	2.2	3.4	5.5	29.6	1.3	100.0	3951
Primary	22.8	1.6	5.0	6.9	60.8	2.8	100.0	1852
Secondary +	8.7	.7	1.9	3.5	80.8	4.5	100.0	4076
Wealth index quintile								
Poorest	66.6	3.4	3.3	3.4	22.4	.7	100.0	2167
Second	45.8	2.0	4.7	7.9	37.5	2.1	100.0	2002
Middle	24.1	1.3	3.7	7.2	61.5	2.1	100.0	1830
Fourth	10.1	.3	2.1	4.5	77.8	5.2	100.0	1963
Richest	3.2	.2	1.5	1.9	88.6	4.6	100.0	1917
Geo-political zone								
North-Central	22.0	2.5	5.7	8.6	59.1	2.1	100.0	1301
North-East	47.9	2.5	4.5	7.5	35.4	2.2	100.0	1463
North-West	56.4	2.1	3.3	4.9	32.8	.4	100.0	2795
South-East	5.1	.2	1.7	5.0	83.1	4.9	100.0	956
South-South	21.7	.7	3.3	4.0	65.1	5.2	100.0	1417
South-West	7.2	.4	.5	1.3	85.7	4.9	100.0	1948
Total	31.0	1.5	3.1	4.9	56.6	2.9	100.0	9879

[1] MICS indicator 5.5b; MDG indicator 5.5

Content of Antenatal Care

The types of services pregnant women received are shown in table RH.8. Among those women who have given birth to a child during the two years preceding the survey, 56 percent reported that a blood sample was taken during antenatal care visits, 62 percent reported that their blood pressure was checked, 56 percent that urine specimen was taken. About 51 percent of women age 15-49 years had their blood pressure measured, urine specimen and blood sample taken. This percentage is highest in the South-West at 78 percent and South-East at 79 percent, moderate in the South-South (60 percent) and North-Central (58 percent); the percentage is lowest at 27 percent in the North-West. The more educated the woman or the richer her household, the more likely she is to have her blood pressure measured, urine specimen and blood sample taken; the percentage rises from 23 percent among women with no education to 54 percent for women with primary education and to 77 percent among those with secondary education or higher and

from 16 percent among the poorest quintile to 55 percent for women in the middle quintile to 88 percent among the richest quintile class. In the rural areas, percentage of women who had blood pressure measured, urine specimen and blood test taken is 40 percent compared to 76 percent in the urban areas.

The types of services pregnant women received are shown in table RH.8. Fifty-six percent have blood sample taken, 63 percent of women attending antenatal care have their blood pressure taken, 56 percent have urine sample take while. These figures vary across areas of residence, geopolitical zones, age and level of education of the women, but the relative trend within each background characteristic is quite similar.

Table RH.8: Content of antenatal care

Percentage of women age 15-49 years who had their blood pressure measured, urine sample taken, and blood sample taken as part of antenatal care, Nigeria, 2011

	Percentage of pregnant women who had:				Number of women who had a live birth in the preceding two years
	Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken[1]	
State					
Abia	90.2	85.4	88.4	82.2	189
Adamawa	63.2	54.1	56.3	51.0	226
Akwa Ibom	65.1	63.6	62.7	62.1	254
Anambra	89.0	84.5	86.6	83.2	270
Bauchi	35.6	15.9	19.6	13.4	455
Bayelsa	44.1	35.3	34.1	31.6	144
Benue	57.2	57.9	55.0	45.8	244
Borno	39.4	31.0	26.5	24.4	270
Cross river	69.2	63.9	61.2	58.6	203
Delta	75.2	61.3	68.3	57.2	293
Ebonyi	71.1	64.7	64.5	60.8	137
Edo	80.1	72.6	64.1	58.2	204
Ekiti	92.4	83.8	85.5	80.1	152
Enugu	93.3	85.2	85.9	80.1	181
Gombe	66.2	59.0	63.3	56.7	175
Imo	93.3	83.9	90.4	83.0	180
Jigawa	37.6	29.6	28.9	25.2	333
Kaduna	67.0	67.2	56.3	50.5	494
Kano	46.8	43.2	45.1	39.5	725
Katsina	14.3	12.6	12.2	11.2	443
Kebbi	23.2	16.3	16.7	10.9	252
Kogi	77.3	79.0	79.7	73.6	161
Kwara	89.2	83.5	79.1	76.7	168
Lagos	93.2	83.0	85.4	80.4	686
Niger	61.6	58.1	56.6	52.1	157
Nasarawa	61.0	47.3	42.8	38.2	285
Ogun	89.6	73.6	76.2	70.7	272
Ondo	78.5	74.8	75.1	73.7	206
Osun	95.2	86.6	87.0	80.9	215
Oyo	84.1	80.9	81.3	79.2	416
Plateau	74.6	70.8	72.5	69.2	196
Rivers	78.8	75.9	76.9	73.9	318
Sokoto	16.0	15.3	14.6	14.2	273
Taraba	40.4	37.4	39.3	34.5	145
Yobe	45.3	32.2	34.5	28.0	191
Zamfara	12.3	15.2	12.0	9.1	275
Abuja(FCT)	93.2	81.2	86.4	78.5	90

Table RH.8: Content of antenatal care

Percentage of women age 15-49 years who had their blood pressure measured, urine sample taken, and blood sample taken as part of antenatal care, Nigeria, 2011

	Percentage of pregnant women who had:				Number of women who had a live birth in the preceding two years
	Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken[1]	
Area of residence					
Urban	85.3	79.7	80.2	76.0	3122
Rural	51.9	45.1	44.9	40.1	6757
Mother's age at birth					
Less than 20	43.6	38.6	37.0	32.7	1091
20-34	65.6	59.0	59.2	54.5	7124
35-49	61.6	55.0	55.0	50.8	1660
Education					
None	35.0	28.0	27.1	23.4	3951
Primary	67.6	59.9	60.5	54.2	1852
Secondary+	86.8	81.4	82.1	77.4	4076
Wealth index quintile					
Poorest	26.3	19.7	19.6	16.1	2167
Second	45.1	37.9	37.8	32.3	2002
Middle	68.2	60.4	58.8	54.5	1830
Fourth	84.6	76.9	79.0	72.0	1963
Richest	93.4	90.6	90.2	87.6	1917
Geo-political zone					
North-Central	70.3	65.1	63.5	58.1	1301
North-East	46.0	34.0	35.7	30.4	1463
North-West	35.6	33.1	31.1	27.2	2795
South-East	88.3	81.9	84.4	79.2	956
South-South	70.9	64.3	64.1	59.6	1417
South-West	89.4	80.8	82.3	78.1	1948
Total	62.5	56.1	56.0	51.5	9879

[1] MICS indicator 5.6

Overall, fifty-six percent of the pregnant women had their blood sample taken, about 56 percent had their urine specimen taken and 63 percent had their blood pressure measured. The relative disparity in the figures of percentage that had the blood pressure measured, urine specimen taken and blood sample taken respectively remains substantially similar across background characteristics.

Assistance at Delivery

Three quarters of all maternal deaths occur during delivery and the immediate post-partum period. The single most critical intervention for safe motherhood is to ensure a competent health worker with midwifery skills is present at every birth, and transport is available to a referral facility for obstetric care in case of emergency. A World Fit for Children goal is to ensure that women have ready and affordable access to skilled attendance at delivery. The indicators are the proportion of births with a skilled attendant and proportion of institutional deliveries. The skilled attendant at delivery indicator is also used to track

progress toward the Millennium Development target of reducing the maternal mortality ratio by three quarters between 1990 and 2015.

The MICS 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.

About forty nine percent of births occurring in the two years preceding the MICS survey were delivered by skilled personnel (Table RH.9). This percentage is highest in South-East at 89 percent and lowest in North-East at 19 percent. The more educated a woman is, the more likely she is to have delivered with the assistance of a skilled attendant.

More than one in three of the births 32 percent) in the two years preceding the MICS survey were delivered with assistance by a nurse/midwife. Doctors assisted with the delivery of 15 percent of births. Overall, about half of births were delivered by skilled attendants and 15 percent by traditional birth attendants.

Table RH.9: Assistance during delivery

Percent distribution of women age 15-49 who had a live birth in the two years preceding the survey by person assisting at delivery and percentage of births delivered by C-section, Nigeria, 2011

	Person assisting at delivery									Delivery assisted by any skilled attendant[1]	Percent delivered by C-section[2]	Number of women who had a live birth in preceding two years
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Relative/Friend	Other	No attendant	Total			
State												
Abia	25.9	65.4	.2	6.4	.0	.2	1.9	.0	100.0	91.5	8.5	189
Adamawa	7.9	29.0	.4	20.7	1.9	31.5	4.0	4.6	100.0	37.3	1.1	226
Akwa Ibom	17.0	20.9	1.9	49.5	1.8	6.8	1.8	.3	100.0	39.7	9.0	254
Anambra	20.2	70.9	.3	4.5	.7	1.9	.7	.8	100.0	91.5	8.1	270
Bauchi	.8	6.7	.5	26.0	4.2	34.0	13.7	14.2	100.0	7.9	.5	455
Bayelsa	12.2	23.2	1.6	56.5	1.0	1.0	3.1	1.4	100.0	37.0	2.1	144
Benue	14.7	42.5	2.3	11.4	1.7	17.9	2.5	7.0	100.0	59.6	2.3	244
Borno	4.1	14.7	.3	20.2	.5	47.1	4.9	8.1	100.0	19.2	2.3	270
Cross River	9.0	33.4	.8	30.7	3.8	13.4	3.6	5.3	100.0	43.2	2.8	203
Delta	14.2	57.8	.7	22.0	.3	2.0	.3	2.6	100.0	72.7	6.9	293
Ebonyi	15.9	35.1	7.2	16.2	3.8	16.9	3.0	1.8	100.0	58.3	3.6	137
Edo	19.8	62.3	.9	6.7	1.5	3.6	3.1	2.2	100.0	83.0	10.9	204
Ekiti	17.0	70.6	2.2	1.9	.9	5.1	2.3	.0	100.0	89.8	4.5	152
Enugu	13.7	78.4	3.2	3.1	.4	1.2	.0	.0	100.0	95.3	13.6	181
Gombe	5.8	15.9	.0	2.3	.4	58.3	5.5	11.8	100.0	21.7	4.2	175
Imo	20.6	73.9	2.7	1.8	.0	.0	.9	.0	100.0	97.3	10.8	180
Jigawa	2.4	10.0	.0	44.6	.8	32.1	.5	9.6	100.0	12.4	1.0	333
Kaduna	8.4	24.8	4.4	18.7	1.5	28.4	3.1	10.7	100.0	37.6	1.2	494
Kano	9.6	11.0	.4	24.2	6.1	40.5	2.9	5.3	100.0	21.0	.5	725
Katsina	2.8	6.0	.5	6.5	1.6	13.6	38.0	30.9	100.0	9.3	1.1	443
Kebbi	.5	6.0	1.1	9.2	1.6	50.8	.9	29.9	100.0	7.6	1.4	252
Kogi	21.0	53.5	.4	7.0	3.0	10.1	3.4	1.5	100.0	75.0	4.9	161
Kwara	36.4	44.2	1.2	1.1	.0	13.2	1.5	2.5	100.0	81.8	9.5	168
Lagos	44.4	39.6	1.9	9.0	.0	2.4	1.6	1.0	100.0	85.9	15.7	686
Niger	30.6	22.0	1.3	4.0	1.4	26.4	9.2	5.1	100.0	53.9	6.8	157
Nasarawa	6.9	25.4	2.8	10.3	2.0	44.1	.7	7.7	100.0	35.1	.7	285
Ogun	37.3	40.7	4.1	7.0	.5	6.3	1.1	3.1	100.0	82.1	11.7	272
Ondo	21.8	53.8	3.4	5.5	.0	8.5	3.3	3.7	100.0	79.0	7.5	206
Osun	30.7	58.1	1.0	1.7	.0	5.1	2.6	.8	100.0	89.8	4.1	215
Oyo	27.9	39.5	2.1	1.7	1.3	19.8	6.2	1.4	100.0	69.6	3.5	416
Plateau	18.4	30.2	1.2	8.0	.6	37.3	2.6	1.8	100.0	49.8	5.2	196
Rivers	14.6	57.0	.8	16.7	5.2	1.2	4.2	.3	100.0	72.4	4.6	318
Sokoto	4.9	2.3	.2	31.9	.5	53.5	5.8	.9	100.0	7.4	.4	273
Taraba	5.1	12.2	.3	4.9	3.7	61.4	6.5	5.9	100.0	17.6	1.8	145
Yobe	3.3	17.1	.1	24.3	3.7	31.6	7.3	12.6	100.0	20.5	.2	191
Zamfara	1.8	7.0	1.0	6.3	2.4	25.4	7.1	49.0	100.0	9.8	.4	275
Abuja(FCT)	27.8	47.5	2.4	4.8	.1	16.1	.6	.6	100.0	77.7	8.0	90

Table RH.9: Assistance during delivery (continued)

Percent distribution of women age 15-49 who had a live birth in the two years preceding the survey by person assisting at delivery and percentage of births delivered by C-section, Nigeria, 2011

	Person assisting at delivery									Delivery assisted by any skilled attendant[1]	Percent delivered by C-section[2]	Number of women who had a live birth in preceding two years
	Medical doctor	Nurse/ Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Relative/Friend	Other	No attendant	Total			
Area of residence												
Urban	28.9	43.5	1.5	8.5	1.0	10.7	2.8	3.1	100.0	73.9	8.8	3122
Rural	9.2	26.5	1.4	18.4	2.2	26.6	6.1	9.6	100.0	37.1	2.8	6757
Mother's age at birth												
Less than 20	8.0	19.4	1.3	20.8	3.6	31.7	6.4	8.9	100.0	28.6	2.2	1091
20-34	16.9	33.9	1.4	14.5	1.5	20.9	4.5	6.4	100.0	52.2	5.0	7124
35-49	13.9	31.6	1.6	15.2	2.1	17.7	6.6	11.3	100.0	47.2	5.1	1660
Missing/DK												
Place of delivery												
Public sector health facility	30.0	67.2	.8	.5	1.4	.0	.0	.0	100.0	98.0	10.0	2369
Private sector health facility	35.7	58.6	1.8	2.6	1.2	.0	.2	.0	100.0	96.0	10.9	2088
Home	1.1	4.8	1.5	27.6	2.4	43.0	5.2	14.5	100.0	7.3	.0	4916
Other	4.0	33.8	5.4	29.9	.8	5.2	16.2	4.6	100.0	43.2	.0	284
Missing/DK	1.0	.6	.0	.6	.0	.5	89.2	8.1	100.0	1.6	.0	221
Education												
None	4.7	9.5	.8	20.3	2.6	38.9	8.3	15.0	100.0	15.0	.6	3951
Primary	12.3	36.8	2.2	18.6	1.6	18.8	4.6	5.1	100.0	51.3	3.6	1852
Secondary +	27.2	51.3	1.8	8.8	1.2	6.1	2.2	1.4	100.0	80.3	9.2	4076
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintiles												
Poorest	2.5	7.9	.5	23.1	1.6	43.0	6.2	15.2	100.0	11.0	.8	2167
Second	5.6	18.0	2.2	18.0	3.8	31.5	8.9	12.0	100.0	25.8	1.4	2002
Middle	11.1	37.0	1.7	19.8	1.9	17.9	4.9	5.6	100.0	49.8	3.8	1830
Fourth	20.5	50.1	2.0	9.9	1.5	9.5	3.6	2.7	100.0	72.7	5.6	1963
Richest	39.1	49.8	.9	4.8	.2	2.9	1.4	.9	100.0	89.7	12.5	1917
Geo-political zone												
North-Central	20.0	36.4	1.8	7.4	1.4	25.9	2.8	4.4	100.0	58.1	4.6	1301
North-East	3.9	14.6	.3	19.0	2.6	41.4	8.0	10.3	100.0	18.8	1.4	1463
North-West	5.4	10.8	1.2	20.5	2.6	33.8	8.7	16.9	100.0	17.4	.8	2795
South-East	19.6	66.7	2.3	5.8	.8	3.2	1.2	.5	100.0	88.6	9.1	956
South-South	14.7	44.6	1.1	28.3	2.4	4.4	2.6	1.9	100.0	60.4	6.3	1417
South-West	33.8	45.7	2.4	5.4	.4	7.8	2.9	1.6	100.0	81.9	9.5	1948
Total	15.4	31.9	1.4	15.3	1.8	21.6	5.1	7.5	100.0	48.7	4.7	9879

[1] MICS indicator 5.7; MDG indicator 5.2

[2] MICS indicator 5.9

(*) less than 25 unweighted cases

Place of Delivery

Increasing the proportion of births that are delivered in health facilities is an important factor in reducing the health risks to 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 RH.10 presents the percent 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 births delivered in a health facility, according to background characteristics.

Forty-five percent of births in Nigeria are delivered in a health facility; Twenty-four percent of deliveries occur in public sector facilities and 21 percent occur in private sector facilities. About half of birth occurs at home. By age, women 20-34 are most likely to deliver in a health facility (49 percent). Women in urban areas are more than twice as likely to deliver in a health facility as their rural counterparts (69 percent) compared with (34 percent). South-East has the highest proportion of institutional deliveries (85 percent), followed by South-West (75 percent), while North-West has the lowest proportion (14 percent). Women with higher levels of educational attainment are more likely to deliver in a health facility than women with less education or no education. The proportion of births occurring in a health facility increases steadily with increasing wealth quintile, from 10 percent of births in the lowest wealth quintile to 85percent among those in the highest quintile.

Table RH.10: Place of delivery

Percent distribution of women age 15-49 who had a live birth in two years preceding the survey by place of delivery, Nigeria, 2011

	Place of delivery					Total	Delivered in health facility[1]	Number of women who had a live birth in preceding two years
	Public sector health facility	Private sector health facility	Home	Other	Missing/DK			
State								
Abia	24.1	67.0	5.7	3.2	.0	100.0	91.1	189
Adamawa	27.6	6.4	63.4	1.4	1.2	100.0	34.0	226
Akwa Ibom	26.7	21.0	42.6	9.3	.3	100.0	47.7	254
Anambra	23.6	64.6	8.0	3.8	.0	100.0	88.3	270
Bauchi	8.0	.5	91.0	.3	.2	100.0	8.5	455
Bayelsa	21.0	12.7	63.8	2.0	.4	100.0	33.8	144
Benue	34.2	21.8	42.4	1.5	.0	100.0	56.1	244
Borno	9.7	7.3	82.2	.6	.2	100.0	17.0	270
Cross River	34.7	7.5	53.9	3.3	.5	100.0	42.3	203
Delta	43.9	26.0	25.1	5.0	.0	100.0	69.9	293
Ebonyi	26.4	28.7	41.5	2.3	1.2	100.0	55.1	137
Edo	31.6	49.0	17.3	1.3	.7	100.0	80.7	204
Ekiti	54.3	24.9	4.4	16.4	.0	100.0	79.2	152
Enugu	27.3	59.6	12.4	.7	.0	100.0	86.9	181
Gombe	15.3	3.3	81.2	.1	.1	100.0	18.6	175
Imo	37.9	54.5	5.7	1.9	.0	100.0	92.4	180
Jigawa	10.0	.1	89.5	.0	.4	100.0	10.2	333
Kaduna	16.7	12.9	70.2	.1	.2	100.0	29.6	494
Kano	17.3	1.6	79.8	.0	1.3	100.0	18.9	725
Katsina	8.8	.0	53.3	.3	37.6	100.0	8.8	443
Kebbi	4.6	.0	94.4	.0	1.1	100.0	4.6	252
Kogi	47.7	26.1	22.3	3.8	.0	100.0	73.9	161
Kwara	47.7	30.1	21.4	.7	.0	100.0	77.8	168
Lagos	18.0	61.3	16.5	4.2	.0	100.0	79.3	686
Nasarawa	35.4	11.6	51.1	1.9	.0	100.0	47.0	157
Niger	23.3	4.1	72.6	.0	.0	100.0	27.4	285
Ogun	34.3	43.6	13.5	8.7	.0	100.0	77.8	272
Ondo	46.5	23.7	18.8	11.1	.0	100.0	70.2	206
Osun	44.1	33.6	7.7	14.6	.0	100.0	77.8	215
Oyo	37.4	27.1	27.4	7.6	.5	100.0	64.5	416
Plateau	27.2	16.8	54.4	1.5	.0	100.0	44.0	196
Rivers	36.0	34.0	25.2	4.3	.5	100.0	70.0	318
Sokoto	5.5	.0	92.6	.0	1.9	100.0	5.5	273
Taraba	9.9	4.0	85.7	.4	.0	100.0	13.9	145
Yobe	17.2	1.4	79.0	.9	1.6	100.0	18.6	191
Zamfara	7.4	.3	84.6	.6	7.1	100.0	7.7	275
FCT (Abuja)	46.5	25.9	23.9	3.7	.0	100.0	72.4	90

Table RH.10: Place of delivery (continued)

Percent distribution of women age 15-49 who had a live birth in two years preceding the survey by place of delivery, Nigeria, 2011

	Place of delivery					Total	Delivered in health facility[1]	Number of women who had a live birth in preceding two years
	Public sector health facility	Private sector health facility	Home	Other	Missing/DK			
Area of residence								
Urban	32.6	35.8	25.9	4.9	.8	100.0	68.5	3122
Rural	20.0	14.3	60.8	2.0	2.9	100.0	34.3	6757
Mother's age at birth								
Less than 20	16.5	9.5	67.1	2.7	4.2	100.0	26.0	1091
20-34	25.5	23.2	46.6	2.9	1.8	100.0	48.7	7124
35-49	22.5	20.1	51.8	2.8	2.8	100.0	42.6	1660
Number of antenatal care visits								
None	16.5	9.5	67.1	2.7	4.2	100.0	26.0	1091
1-3 visits	25.5	23.2	46.6	2.9	1.8	100.0	48.7	7124
4+ visits	22.5	20.1	51.8	2.8	2.8	100.0	42.6	1660
Education								
None	9.7	3.3	82.1	.8	4.0	100.0	13.1	3951
Primary	25.3	20.7	48.1	4.3	1.6	100.0	46.0	1852
Secondary +	37.2	38.6	19.2	4.2	.9	100.0	75.8	4076
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintiles								
Poorest	6.6	2.9	87.5	.7	2.3	100.0	9.5	2167
Second	14.4	8.2	70.1	2.5	4.7	100.0	22.6	2002
Middle	27.6	18.2	47.5	4.6	2.2	100.0	45.8	1830
Fourth	36.1	31.5	27.0	4.0	1.5	100.0	67.5	1963
Richest	37.8	47.4	11.4	2.9	.4	100.0	85.3	1917
Geo-political zone								
North-Central	35.2	17.8	45.4	1.6	.0	100.0	53.0	1301
North-East	13.6	3.5	81.8	.6	.5	100.0	17.1	1463
North-West	11.7	2.7	78.1	.1	7.3	100.0	14.4	2795
South-East	27.5	57.1	12.7	2.5	.2	100.0	84.6	956
South-South	33.7	26.2	35.2	4.5	.4	100.0	59.9	1417
South-West	33.1	41.7	16.7	8.4	.1	100.0	74.8	1948
Total	24.0	21.1	49.8	2.9	2.2	100.0	45.1	9879

[1] MICS indicator 5.8

(*) less than 25 unweighted cases

IX. Child Development

Early Childhood Education

Attendance to pre-school education in an organized learning or child education program is important for the readiness of children to school.

Forty three percent of children aged 36-59 months are attending pre-school (Table CD.1). Urban-rural and regional differentials are significant; the figure is as high as 67 percent in urban areas, compared to 33 percent in rural areas. Among children aged 36-59 months, attendance to pre-school is more prevalent in South-West (83 percent), and lowest in the North-East (12 percent). No gender differential exists, but differentials by socio economic status are significant. Eighty percent of children living in rich households attend pre-school, while the figure drops to 10 percent in poorest households. It is interesting to note that the proportions of children attending pre-school at ages 36-47 months and 48-59 months are significant (39 percent and 47 percent) respectively.

Table CD.1: Early childhood education		
Percentage of children age 36-59 months who are attending an organized early childhood education programme, Nigeria, 2011		
	Percentage of children age 36-59 months currently attending early childhood education[1]	Number of children age 36-59 months
Sex		
Male	42.3	5129
Female	43.0	4898
State		
Abia	72.8	179
Adamawa	23.1	261
Akwa ibom	82.9	285
Anambra	85.9	275
Bauchi	7.7	406
Bayelsa	45.7	131
Benue	50.9	244
Borno	7.3	336
Cross River	62.2	192
Delta	74.4	284
Ebonyi	42.1	126
Edo	69.1	194
Ekiti	89.7	141
Enugu	78.5	181
Gombe	13.1	201
Imo	89.4	202
Jigawa	10.0	417
Kaduna	32.2	497
Kano	9.4	803
Katsina	8.6	521
Kebbi	7.8	259
Kogi	47.3	173
Kwara	66.4	158
Lagos	93.5	523
Nasarawa	35.5	135
Niger	18.5	335
Ogun	83.8	228
Ondo	78.4	190
Osun	94.8	202
Oyo	61.3	378
Plateau	42.6	194
Rivers	68.9	293
Sokoto	15.4	335
Taraba	18.0	156
Yobe	9.5	208
Zamfara	15.0	305
FCT (Abuja)	72.2	80

Table CD.1: Early childhood education (continued)		
Percentage of children age 36-59 months who are attending an organized early childhood education programme, Nigeria, 2011		
	Percentage of children age 36-59 months currently attending early childhood education[1]	Number of children age 36-59 months
Area of residence		
Urban	67.4	2913
Rural	32.5	7114
Age		
36-47 months	38.9	5170
48-59 monhts	46.6	4857
Mother's education		
None	14.8	4690
Primary	52.8	2083
Secondary	76.3	3253
Wealth index quintiles		
Poorest	10.0	2402
Second	22.9	2149
Middle	44.7	1919
Fourth	67.8	1876
Richest	84.0	1681
Geo-political zone		
North-Central	42.5	1319
North-East	12.1	1568
North-West	14.0	3136
South-East	77.1	963
South-South	69.8	1379
South-West	83.0	1662
Total	42.6	10027
[1] MICS indicator 6.7		

Support for Learning

It is well recognized that a period of rapid brain development occurs in the first 3-4 years of life, and the quality of home care is the major determinant of the child's development during this period. In this context, adult activities with children, presence of books in the home, for the child, and the conditions of care are important indicators of quality of home care. Children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn.

Information on a number of activities that support early learning was collected in the survey. 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.

About two-thirds (65 percent) of under-five children are engaged in more than four activities that promote learning and school readiness by adult household members during the 3 days preceding the survey, (Table CD.2). The table also indicates that the father's involvement in such activities is insignificant. Father's involvement with one or more activities is less than 1 percent. Only 13 percent of children were living with their natural fathers.

There are no gender differentials in terms of adult activities with children; however, a larger proportion of fathers engaged in activities with male children (66 percent) than with female children (64 percent). Larger proportions of adults engaged in learning and school readiness activities with children in urban areas (80 percent) than in rural areas (60 percent). Strong differentials by region and socio-economic status are also observed: Adult engagement in activities with children was greatest in the South-West (84 percent) and lowest in the North-East (43 percent), while the proportion was 89 percent for children living in the richest households, as opposed to those living in the poorest households (48 percent). Father's involvement showed a similar pattern in terms of adults' engagement in such activities.

Table CD.2: Support for learning

Percentage of children age 36-59 months with whom an adult household member engaged in activities that promote learning and school readiness during the last three days, Nigeria, 2011

	Percentage of children age 36-59 months		Mean number of activities		Percentage of children not living with their natural father	Number of children age 36-59 months
	With whom adult household members engaged in four or more activities[1]	With whom the father engaged in one or more activities[2]	Any adult household member engaged with the child	The father engaged with the child		
Sex						
Male	66.4	39.7	4.1	.9	11.5	5129
Female	64.4	34.5	4.0	.7	13.7	4898
State						
Abia	87.1	45.9	5.2	1.5	10.1	179
Adamawa	48.6	27.1	3.1	.6	12.3	261
Akwa ibom	89.7	47.5	5.4	1.3	19.1	285
Anambra	81.4	46.1	4.8	1.3	15.0	275
Bauchi	50.1	31.4	3.3	.7	4.9	406
Bayelsa	66.8	26.6	3.9	.8	29.2	131
Benue	71.0	42.9	4.4	1.0	16.3	244
Borno	33.0	10.3	2.6	.2	7.2	336
Cross River	79.1	36.5	4.6	1.2	29.2	192
Delta	71.8	37.9	4.4	.9	28.7	284
Ebonyi	55.4	37.6	3.7	.8	23.2	126
Edo	78.6	31.7	4.6	.8	26.1	194
Ekiti	85.9	53.0	5.0	1.1	11.7	141
Enugu	75.7	25.6	4.5	.5	19.9	181
Gombe	39.1	36.3	2.6	.6	4.9	201
Imo	67.1	54.0	4.3	1.6	21.5	202
Jigawa	73.2	19.7	4.0	.3	12.6	417
Kaduna	68.5	34.8	4.1	.5	5.6	497
Kano	56.6	58.4	3.6	1.0	3.9	803
Katsina	44.4	41.8	3.3	.8	7.5	521
Kebbi	29.6	23.9	2.5	.4	5.2	259
Kogi	65.7	41.4	4.0	.9	31.2	173
Kwara	83.8	44.1	4.7	1.0	20.7	158
Lagos	87.7	26.2	5.2	.7	11.8	523
Nasarawa	45.8	47.3	3.3	.9	10.5	135
Niger	66.9	42.2	4.1	.9	4.6	335
Ogun	80.1	28.8	4.8	.6	15.1	228
Ondo	88.1	48.0	5.1	1.3	15.3	190
Osun	94.3	45.4	5.5	1.1	18.0	202
Oyo	73.1	39.0	4.3	.8	17.0	378
Plateau	56.2	31.5	3.6	.6	15.8	194
Rivers	88.4	38.1	5.2	.9	22.9	293
Sokoto	77.5	57.9	4.2	.9	4.1	335
Taraba	43.9	27.9	2.7	.5	9.5	156
Yobe	40.6	14.6	2.9	.2	9.3	208
Zamfara	38.0	23.0	2.9	.3	4.6	305
FCT (Abuja)	74.8	37.2	4.6	.8	3.6	80

Table CD.2: Support for learning (continued)

Percentage of children age 36-59 months with whom an adult household member engaged in activities that promote learning and school readiness during the last three days, Nigeria, 2011

	Percentage of children age 36-59 months		Mean number of activities		Percentage of children not living with their natural father	Number of children age 36-59 months
	With whom adult household members engaged in four or more activities[1]	With whom the father engaged in one or more activities[2]	Any adult household member engaged with the child	The father engaged with the child		
Area of residence						
Urban	79.7	39.8	4.7	.9	13.0	2913
Rural	59.6	36.1	3.7	.8	12.4	7114
Age						
36-47 months	64.6	36.2	4.0	.8	12.8	5170
48-59 months	66.2	38.3	4.1	.8	12.3	4857
Mother's education						
None	51.5	32.0	3.3	.6	11.1	4690
Primary	68.3	35.9	4.2	.8	13.5	2083
Secondary +	83.7	45.5	4.9	1.1	14.1	3253
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)
Father's education						
None	50.1	31.9	3.2	.5	na	3331
Primary	68.1	39.5	4.1	.8	na	1675
Secondary +	77.1	48.5	4.6	1.2	na	3759
Father not in household	67.3	14.2	4.2	na	na	1260
Missing/DK	61.5	61.5	4.5	.6	.0	2
Wealth index quintiles						
Poorest	48.2	29.3	3.1	.5	9.7	2402
Second	55.2	34.4	3.5	.6	13.4	2149
Middle	66.2	40.4	4.1	.9	15.1	1919
Fourth	77.4	42.8	4.7	1.0	12.6	1876
Richest	88.9	42.1	5.2	1.1	12.7	1681
Geo-political zone						
North-Central	66.3	41.1	4.1	.9	14.4	1319
North-East	42.9	24.2	2.9	.5	7.6	1568
North-West	56.9	40.4	3.6	.7	6.1	3136
South-East	75.0	42.8	4.5	1.2	17.5	963
South-South	80.5	37.8	4.8	1.0	25.2	1379
South-West	84.0	36.6	4.9	.9	14.6	1662
Total	65.4	37.2	4.0	.8	12.6	10027

[1] MICS indicator 6.1

[2] MICS Indicator 6.2

(*) less than 25 unweighted cases

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 and IQ scores. The mother/caretaker of all children under-five were asked about number of children's books or picture books they have for the child, household objects or outside objects, and homemade toys or toys that came from a shop that are available at home.

In Nigeria, only 6 percent of children age 0-59 months are living in households where at least 3 children's books are present (Table CD.3). Children living in the households have 10 or more children books decline to 0.6 percent. While no gender differentials are observed, urban children appear to have more access to children's books than those living in rural households. The proportion of under-5 children who have 3 or more children's books is 13 percent in urban areas, as compared to 3 percent in rural areas. The presence of children's books is positively correlated to the child's age; the percentage is higher for children that are between the age24-59 months (10 percent) compare to those within the age range 0-23 months (1 percent).

Table CD.3 also shows that 38 percent of children aged 0-59 months had 2 or more playthings to play with in their homes. The playthings in MICS4 included 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). It is interesting to note that 33 percent of children play with toys that come from a store; however, the percentages for homemade toys and household objects/objects found outside are 33 percent and 57 percent respectively. The proportion of children who have 2 or more playthings to play with is 38 percent among male children and 38 percent among female children. There are significant differentials in the figures between the children in urban and rural; urban (44 percent and 35 percent). Significant differences are observed in terms of mother's education;45 percent of children whose mothers are educated have 2 or more playthings, while the proportion is 32 percent for children whose mothers have no education. Differentials are small by socioeconomic status of the households, and regions.

Table CD.3: Learning materials

Percentage of children under age 5 by numbers of children's books present in the household, and by playthings that child plays with, Nigeria, 2011

	Household has for the child:		Child plays with:			Two or more types of playthings[2]	Number of children under age 5
	3 or more children's books[1]	10 or more children's books	Homemade toys	Toys from a shop/manu-factured toys	Household objects/objects found outside		
Sex							
Male	6.3	.6	33.1	32.7	56.9	38.1	12856
Female	5.8	.5	32.6	33.6	56.6	38.2	12336
State							
Abia	11.1	.4	40.4	54.4	32.8	41.0	483
Adamawa	1.8	.4	27.5	15.5	37.9	24.3	631
Akwa ibom	14.8	.3	43.9	58.6	72.2	60.0	660
Anambra	8.5	.7	28.8	53.1	47.7	37.3	737
Bauchi	.1	.0	36.5	2.0	82.0	36.9	1072
Bayelsa	10.8	2.3	24.4	43.6	46.2	34.2	335
Benue	4.3	.2	66.9	35.3	68.3	62.4	617
Borno	2.4	.0	14.0	8.5	30.4	13.0	776
Cross River	8.1	.3	35.7	36.5	70.4	43.2	494
Delta	9.1	1.4	34.2	44.9	55.7	42.5	700
Ebonyi	3.8	.1	48.6	23.1	64.4	47.9	333
Edo	14.4	.8	38.3	44.3	47.1	46.5	516
Ekiti	9.9	.6	30.6	60.1	67.8	58.2	337
Enugu	3.9	.0	40.5	45.2	52.4	42.1	471
Gombe	1.0	.0	49.0	6.9	62.5	38.5	462
Imo	14.8	1.5	34.7	50.6	55.5	47.3	539
Jigawa	1.3	.0	57.9	13.1	78.5	55.9	933
Kaduna	3.9	.2	47.5	43.4	50.4	46.3	1240
Kano	.6	.0	52.6	22.0	61.6	48.4	1971
Katsina	.3	.0	23.8	5.5	57.1	23.9	1242
Kebbi	.6	.1	13.6	3.3	53.6	7.3	644
Kogi	8.8	.4	37.9	28.0	45.6	33.0	436
Kwara	14.7	.5	30.3	57.5	59.5	45.2	425
Lagos	14.1	1.7	15.3	75.9	33.4	33.1	1502
Nasarawa	3.3	.6	8.1	23.7	65.7	21.8	344
Niger	2.6	.1	43.6	19.7	73.1	41.1	769
Ogun	9.4	.9	37.4	57.0	55.5	46.3	628
Ondo	9.5	.1	19.7	62.3	62.9	53.8	500
Osun	12.1	1.7	10.2	74.8	58.9	49.2	538
Oyo	5.5	.2	14.8	37.9	48.9	26.4	1011
Plateau	8.1	2.9	23.6	17.2	61.6	26.6	480
Rivers	21.2	3.4	35.1	62.4	61.4	52.3	777
Sokoto	.6	.2	22.3	7.0	61.8	21.4	783
Taraba	.5	.0	19.3	6.6	58.2	18.3	396
Yobe	.0	.0	29.4	11.8	53.2	29.8	504
Zamfara	.5	.0	18.5	8.3	55.8	20.8	688
FCT (Abuja)	10.5	1.3	19.2	44.9	61.3	32.3	214

Table CD.3: Learning materials (continued)

Percentage of children under age 5 by numbers of children's books present in the household, and by playthings that child plays with, Nigeria, 2011

	Household has for the child:		Child plays with:			Two or more types of playthings[2]	Number of children under age 5
	3 or more children's books[1]	10 or more children's books	Homemade toys	Toys from a shop/manu-factured toys	Household objects/objects found outside		
Area of residence							
Urban	12.6	1.3	31.1	57.0	51.2	44.3	7664
Rural	3.2	.2	33.6	22.7	59.1	35.4	17528
Age							
0-23 months	1.0	.2	23.2	31.9	38.3	27.1	10418
24-59 months	9.6	.8	39.7	34.0	69.7	45.9	14774
Mother's education							
None	.9	.1	32.7	12.6	60.3	31.6	10992
Primary	4.5	.2	34.9	31.9	58.6	39.4	4989
Secondary +	13.1	1.4	31.9	58.3	51.5	45.3	9209
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintiles							
Poorest	.3	.0	31.9	6.1	63.0	29.3	5797
Second	1.2	.0	32.6	15.2	60.3	32.8	5220
Middle	3.2	.1	34.0	31.4	58.9	39.1	4711
Fourth	8.7	.3	34.0	48.0	54.7	44.5	4801
Richest	18.7	2.6	32.0	73.3	44.9	47.6	4662
Geo-political zone							
North-Central	6.7	.7	37.3	30.3	63.6	39.8	3285
North-East	1.0	.1	29.3	7.9	55.8	27.3	3843
North-West	1.2	.1	38.0	17.3	59.9	36.1	7501
South-East	8.9	.6	36.9	47.5	49.6	42.4	2563
South-South	13.7	1.5	36.1	50.0	60.0	47.9	3483
South-West	10.5	1.0	19.3	61.9	48.8	39.5	4516
Total	6.0	.6	32.9	33.1	56.7	38.1	25192

[1] MICS indicator 6.3

[2] MICS indicator 6.4

(*) less than 25 unweighted cases

Inadequate Care

Leaving children alone or in the presence of other young children is known to increase the risk of accidents. In MICS 4, two questions were asked to find out whether children aged 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 CD.4 shows that 35 percent of children aged 0-59 months were left in the care of other children younger than 10 years of age in the week preceding the survey, while 24 percent were left alone during the week preceding the interview. Combining the two care indicators, it is calculated that 40 percent of children were left with inadequate care during the week preceding the survey, either by being left alone or in the care of another child. No significant differences were observed by the sex of the child or between urban and rural areas. On the other hand, inadequate care was more prevalent among children whose mothers had at least secondary education (37 percent), as opposed to children whose mothers had no education (41 percent). Children aged 24-59 months were left with inadequate care more (53 percent) than those who were aged 0-23 months (21 percent). No significant differences are observed with regard to socioeconomic status of the household.

Table 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, 2011

	Percentage of children under age 5			Number 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]	
Sex				
Male	24.1	34.4	39.8	12856
Female	24.0	34.9	39.9	12336
State				
Abia	22.1	30.8	39.5	483
Adamawa	18.5	49.6	51.2	631
Akwa ibom	22.2	46.0	46.0	660
Anambra	18.6	55.0	56.7	737
Bauchi	23.6	38.6	42.9	1072
Bayelsa	32.7	31.9	39.3	335
Benue	27.1	38.9	45.8	617
Borno	7.0	30.6	33.9	776
Cross River	43.1	60.6	62.9	494
Delta	22.6	27.9	36.4	700
Ebonyi	23.9	68.7	69.9	333
Edo	26.3	30.2	34.6	516
Ekiti	36.0	36.2	48.4	337
Enugu	24.1	38.9	45.7	471
Gombe	21.8	35.3	37.8	462
Imo	26.9	47.9	51.9	539
Jigawa	23.0	19.6	29.4	933
Kaduna	44.3	56.0	61.7	1240
Kano	27.9	33.6	37.2	1971
Katsina	31.3	37.3	40.8	1242
Kebbi	22.8	27.8	30.8	644
Kogi	28.3	29.5	37.2	436
Kwara	33.1	40.8	51.3	425
Lagos	13.1	11.3	19.8	1502
Nasarawa	16.5	37.3	41.6	344
Niger	22.7	35.7	37.0	769
Ogun	20.6	15.2	24.1	628
Ondo	28.0	25.0	31.9	500
Osun	6.0	17.5	20.4	538
Oyo	17.6	12.3	22.0	1011
Plateau	23.7	49.5	52.2	480
Rivers	19.1	37.9	43.5	777
Sokoto	23.9	41.7	46.4	783
Taraba	26.2	53.5	54.5	396
Yobe	22.8	26.5	30.9	504
Zamfara	24.0	26.1	34.0	688
FCT (Abuja)	15.5	31.8	36.3	214

Table CD.4: Inadequate care (continued)

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, 2011

	Percentage of children under age 5			Number 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]	
Area of residence				
Urban	22.5	28.8	35.7	7664
Rural	24.7	37.2	41.7	17528
Age				
0-23 months	11.0	17.7	21.2	10418
24-59 months	33.2	46.5	53.0	14774
Mother's education				
None	25.2	35.8	40.5	10992
Primary	25.2	39.4	44.2	4989
Secondary	21.9	30.6	36.8	9209
Missing/DK	(*)	(*)	(*)	(*)
Wealth index quintiles				
Poorest	23.0	36.2	40.2	5797
Second	26.4	38.2	42.9	5220
Middle	26.0	37.7	43.0	4711
Fourth	23.8	33.1	38.9	4801
Richest	20.8	26.9	34.1	4662
Geo-political Zone				
North-Central	24.6	38.1	43.2	3285
North-East	19.4	38.4	41.5	3843
North-West	29.4	35.8	41.0	7501
South-East	22.7	47.7	52.1	2563
South-South	26.2	38.9	43.6	3483
South-West	17.7	16.2	24.5	4516
Total	24.0	34.6	39.9	25192

* MICS indicator 6.5

(*) less than 25 unweighted cases

Early Child Development

Early child 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, which is a basis for overall human development.

A 10-item module that has been developed for the MICS4 programme was used to calculate the Early Child Development Index (ECDI). The indicator is based on some benchmarks that children would be expected to have if they are developing as the majority of children in that age group. The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Nigeria.

Each of the 10 items is used in one of the four domains, to determine if children are developmentally on track in that domain. The domains in question are:

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 is 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.

In the social-emotional domain, children are considered to be developmentally on track if two of the following is 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 the learning domain.

ECDI is then calculated as the percentage of children who are developmentally on track in at least three of these four domains.

Table CD.5: Early child development index

Percentage of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score, Nigeria, 2011

	Percentage of children age 36-59 months who are developmentally on track for indicated domains				Early child development index score[1]	Number of children age 36-59 months
	Literacy-numeracy	Physical	Social-Emotional	Learning		
Sex						
Male	31.9	93.5	63.8	77.4	59.9	5129
Female	32.8	93.1	66.1	79.1	61.9	4898
State						
Abia	63.4	96.7	71.0	56.6	62.1	179
Adamawa	15.3	92.1	52.7	80.3	49.0	261
Akwa Ibom	66.4	98.9	34.7	73.3	67.8	285
Anambra	54.6	93.5	62.8	73.0	63.2	275
Bauchi	4.9	96.4	58.5	72.3	42.8	406
Bayelsa	52.2	95.6	69.5	78.2	73.3	131
Benue	34.2	94.0	51.7	75.8	55.3	244
Borno	7.1	91.3	78.1	69.8	48.1	336
Cross River	40.4	95.1	38.2	77.6	52.9	192
Delta	55.1	98.0	62.9	75.5	75.3	284
Ebonyi	23.7	98.0	78.4	80.4	71.5	126
Edo	58.4	89.7	61.0	80.9	68.6	194
Ekiti	51.3	98.8	81.6	78.9	78.7	141
Enugu	50.7	94.4	66.3	91.8	72.8	181
Gombe	9.2	84.9	69.9	88.0	59.7	201
Imo	65.7	98.9	79.8	80.9	83.1	202
Jigawa	10.4	95.7	50.5	72.9	45.5	417
Kaduna	27.3	98.7	55.4	90.0	65.3	497
Kano	5.7	95.9	70.2	84.3	64.3	803
Katsina	6.9	89.2	51.0	60.7	33.4	521
Kebbi	4.2	93.7	53.3	68.1	35.5	259
Kogi	31.3	94.9	75.5	71.7	60.0	173
Kwara	53.2	93.7	67.4	86.8	73.5	158
Lagos	77.4	94.1	82.0	93.5	86.5	523
Nasarawa	19.7	92.9	63.2	87.7	60.3	135
Niger	14.0	87.5	61.5	74.1	44.4	335
Ogun	68.7	95.6	83.1	83.0	84.4	228
Ondo	38.2	90.5	76.0	80.3	64.5	190
Osun	58.6	91.9	86.0	96.8	88.5	202
Oyo	47.1	90.6	78.5	77.4	70.2	378
Plateau	26.4	97.1	70.0	79.7	64.4	194
Rivers	73.6	99.8	64.4	90.2	79.6	293
Sokoto	24.0	88.6	77.8	65.4	56.4	335
Taraba	12.0	92.9	49.1	72.9	43.3	156
Yobe	7.0	93.7	60.5	79.2	49.9	208
Zamfara	8.2	70.6	62.7	70.1	39.3	305
FCT (Abuja)	57.5	92.6	70.7	94.6	79.6	80

Table CD.5: Early child development index (continued)

Percentage of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score, Nigeria, 2011

	Percentage of children age 36-59 months who are developmentally on track for indicated domains				Early child development index score[1]	Number of children age 36-59 months
	Literacy-numeracy	Physical	Social-Emotional	Learning		
Area of residence						
Urban	56.1	94.9	67.8	85.4	74.0	2913
Rural	22.7	92.7	63.7	75.4	55.5	7114
Age						
36-47 months	25.7	92.2	64.2	74.7	55.8	5170
48-59 months	39.5	94.6	65.7	82.1	66.2	4857
Preschool attendance						
Attending preschool	65.8	95.8	68.1	86.1	78.9	4275
Not attending preschool	7.5	91.5	62.5	72.5	47.4	5752
Mother's education						
None	10.4	91.5	62.0	73.9	48.5	4690
Primary	34.9	93.9	64.2	80.1	63.1	2083
Secondary +	62.4	95.6	69.6	83.3	77.3	3253
Missing/Dk	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintiles						
Poorest	5.6	91.6	62.4	70.9	45.6	2402
Second	12.9	91.5	63.9	75.3	52.1	2149
Middle	30.4	93.8	63.8	79.5	60.8	1919
Fourth	54.0	94.9	64.9	80.9	70.9	1876
Richest	73.7	95.8	71.2	88.3	82.7	1681
Geo- political zone						
North-Central	29.8	92.7	64.2	79.1	58.7	1319
North-East	8.7	92.4	62.5	76.1	48.1	1568
North-West	12.0	91.8	60.7	75.0	51.2	3136
South-East	53.8	96.0	70.6	76.1	70.1	963
South-South	59.5	96.7	54.3	79.5	70.4	1379
South-West	60.3	93.2	81.1	86.0	79.6	1662
Total	25.6	92.5	63.6	77.5	57.4	10236

[1] MICS indicator 6.6

(*) less than 25 unweighted cases

The results are presented in Table CD.5. In Nigeria, 61 percent of children aged 36-59 months are developmentally on track. ECDI is lower among boys (60 percent) than girls (62 percent). As expected, ECDI is much higher in older age group (66 percent among 48-59 months old compared to 56 percent among 36-47 months old), since children mature more skills with increasing age. Higher ECDI is seen in children attending secondary school (77 percent compared to 49 percent for those who are not attending preschool). Children living in poorest households have lower ECDI (46 percent) compared to children living in richest households (83 percent of children developmentally on track). The analysis of four domains of child development shows that 78 percent of children are on track in the learning domain, but much less on track (32 percent) in literacy-numeracy, physical (93 percent), and social-emotional (65 percent) domains. In each individual domain the higher score is associated with children living in richest households, with children attending preschool, older children, and among girls.

X. Literacy and Education

Literacy among Young Women

One of the World Fit for Children goals is to assure adult literacy. Adult literacy is also an MDG indicator, relating to both men and women. In MICS, since only a women's questionnaire was administered, the results are based only on females age 15-24. Literacy was assessed on the ability of women to read a short simple statement or on school attendance. Simple statements like "I AM GOING TO MARKET"; "MY NAME IS PEACE" was used to assess literacy level. (Women who had attended secondary or higher were assumed to be literate). The percent literate is presented in Table ED.1.

The table indicates that more than half of women in Nigeria are literate. Literacy rate among young women is 66 percent, i.e. about 12 out of every 20 women aged 15-24 years are literate. And that literacy status varies greatly by place of residence. The rate increases from 54percent in the rural to 86 percent in the urban areas. It also increases from the North to the South, from the lowest figure of 32 percent in the North-West to 37 percent in North-East and 65 percent in the North-Central these figures are lower than those in the South where women aged 15-24 years literacy ranged from 89 percent in the South-West to 91 percent in South-East and to 91 percent in South-South.

Female youth literacy rate is positively associated with education of head of household or social economic status of the household.

It is slightly over zero percent in household headed by persons with no education (2.1 percent), 11 percent in those headed by persons with primary education and 100 percent when the household heads have at least secondary education. Young women in the poorest households are also only 22 percent literate as against 72 percent of them in middle wealth quintile and 94 percent of the young women in the richest households.

Table ED.1: Literacy among young women			
Percentage of women age 15-24 years who are literate, Nigeria, 2011			
	Percentage literate[1]	Percentage not known	Number of women age 15-24 years
State			
Abia	94.1	.0	224
Adamawa	59.7	.0	284
Akwa Ibom	91.3	.0	362
Anambra	92.7	.4	268
Bauchi	12.6	.5	353
Bayelsa	86.2	.0	121
Benue	70.8	.3	369
Borno	43.6	2.5	337
Cross River	90.7	.3	254
Delta	84.6	.0	327
Ebonyi	74.0	.0	195
Edo	93.5	1.1	270
Ekiti	96.8	.3	188
Enugu	94.0	.0	330
Gombe	31.8	.0	162
Imo	95.9	.4	322
Jigawa	18.0	1.4	262
Kaduna	48.3	9.9	452
Kano	40.7	.7	675
Katsina	27.1	6.9	434
Kebbi	10.7	3.8	182
Kogi	83.0	.2	299
Kwara	64.9	.0	159
Lagos	93.3	1.2	756
Nasarawa	51.3	.0	165
Niger	28.3	2.0	262
Ogun	87.5	.0	244
Ondo	89.8	.0	276
Osun	92.2	.0	244
Oyo	74.1	.8	333
Plateau	74.1	.0	301
Rivers	95.6	.6	399
Sokoto	28.3	1.5	273
Taraba	54.8	.3	168
Yobe	19.6	2.3	129
Zamfara	15.8	9.8	213
FCT (Abuja)	80.7	.1	119

Table ED.1: Literacy among young women (continued)			
Percentage of women age 15-24 years who are literate, Nigeria, 2011			
	Percentage literate[1]	Percentage not known	Number of women age 15-24 years
Area of residence			
Urban	86.2	.8	3808
Rural	54.3	1.8	6906
Education			
None	2.1	4.6	2639
Primary	10.9	2.7	1233
Secondary +	100.0	.0	6841
Age in years			
15-19	72.7	1.1	5436
20-24	58.3	1.9	5278
Wealth index quintile			
Poorest	21.6	2.1	1848
Second	43.2	3.2	2014
Middle	72.3	1.1	2391
Fourth	86.8	1.1	2334
Richest	94.3	.2	2126
Geo-political zone			
North-Central	65.1	.4	1676
North-East	37.0	1.0	1434
North-West	31.6	4.6	2491
South-East	91.3	.2	1338
South-South	90.9	.3	1734
South-West	89.2	.6	2041
Total	65.6	1.5	10714
[1] MICS indicator 7.1; MDG indicator 2.3			

School Readiness

Attendance to pre-school education in an organised learning or child education programme is important for the readiness of children to school. Table ED.2 shows the proportion of children in the first grade of primary school who attended pre-school the previous year. Overall, 45 percent of children who are currently attending the first grade of primary school were attending pre-school the previous year. Gender differential is not significant. The proportion among males is 45 per cent and females 45 Rural-urban disparity is strong; almost half of children in urban areas (54 percent) had attended pre-school the previous year compared to 40 percent among children living in rural areas. Regional differentials are also very significant; first graders in the North-East geopolitical zone have 6 percent preschool attendance rate, the corresponding figure is 19 percent in North-CentralNorth-Central and 19 percent for North-West. This is against over 64 percent rate in each of the other zones. Socioeconomic status and mother's education each appears to have a positive association with school readiness; the indicator is 16 percent among the poorest households, and increases to 62 percent among those children living in the richest households; and the figure 21 percent among children of mothers with no education rises to 62 percent in children of mothers with secondary education or higher.

Table ED.2: School readiness		
Percentage of children attending first grade of primary school who attended pre-school the previous year, Nigeria, 2011		
	Percentage of children attending first grade who attended preschool in previous year[1]	Number of children attending first grade of primary school
Sex		
Male	45.2	1935
Female	44.5	1685
State		
Abia	94.3	73
Adamawa	19.7	94
Akwa ibom	73.8	119
Anambra	80.6	151
Bauchi	2.3	104
Bayelsa	69.3	56
Benue	17.8	81
Borno	5.2	88
Cross River	65.2	81
Delta	95.1	144
Ebonyi	20.0	62
Edo	72.5	98
Ekiti	65.8	54
Enugu	87.1	91
Gombe	1.6	81
Imo	64.9	98
Jigawa	2.0	78
Kaduna	13.6	179
Kano	41.1	232
Katsina	1.0	101
Kebbi	23.2	38
Kogi	10.4	53
Kwara	56.9	82
Lagos	83.8	243
Nasarawa	6.1	85
Niger	.7	78
Ogun	76.4	97
Ondo	10.4	127
Osun	90.3	98
Oyo	57.5	199
Plateau	14.6	103
Rivers	92.5	104
Sokoto	4.1	55
Taraba	.0	68
Yobe	.0	28
Zamfara	7.6	38
FCT (Abuja)	23.7	58

Table ED.2: School readiness (continued)		
Percentage of children attending first grade of primary school who attended pre-school the previous year, Nigeria, 2011		
	Percentage of children attending first grade who attended preschool in previous year[1]	Number of children attending first grade of primary school
Area of residence		
Urban	54.0	1286
Rural	39.8	2334
Mother's education		
None	21.2	1374
Primary	52.0	1003
Secondary+	66.2	1223
Wealth index quintile		
Poorest	16.2	489
Second	27.1	809
Middle	47.6	827
Fourth	62.2	820
Richest	62.4	675
Geo-political zone		
North-Central	18.7	539
North-East	5.8	464
North-West	18.9	722
South-East	72.8	475
South-South	80.3	603
South-West	64.7	818
Total	44.8	3620
[1] MICS indicator 7.2		

Universal access to basic education and the achievement of primary education by the world's children is one of the most important goals of the Millennium Development Goals and A World Fit for Children. 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.

The indicators for primary and secondary school attendance include:

- Net intake rate in primary education
- Primary school net attendance ratio (adjusted)
- Secondary school net attendance ratio (adjusted)
- Female to male education ratio (or gender parity index - GPI) in primary and secondary school

The indicators of school progression include:

- Children reaching last grade of primary
- Primary completion rate
- Transition rate to secondary school

More than two in five (44 percent) of children who are of primary school entry age (age 6) in Nigeria, are attending the first grade of primary school (Table ED.3). Sex differentials are not significant. The ratio of male to female stands at 46 to 42 percent; however, significant differentials are present across geopolitical zones, states and urban-rural areas. North-South disparity is very strong; attendance to pre-school is more prevalent in the South where it ranged from 56 percent in the South-South to 63 percent in the South-East and to 64 percent in the South-West; than those in the North where primary school entry range from 29 percent in North-West to 30 percent in North-EastNorth-East and 42. percent in the North-CentralNorth-Central.

Table ED.3: Primary school entry		
Percentage of children of primary school entry age entering grade 1 (net intake rate), Nigeria, 2011		
	Percentage of children of primary school entry age entering grade 1[1]	Number of children of primary school entry age
Sex		
Male	45.8	2435
Female	41.7	2415
State		
Abia	75.0	75
Adamawa	48.2	122
Akwa ibom	65.0	108
Anambra	65.2	150
Bauchi	23.3	199
Bayelsa	61.1	64
Benue	38.9	137
Borno	19.0	175
Cross River	50.8	82
Delta	57.9	130
Ebonyi	39.1	71
Edo	59.7	98
Ekiti	57.5	77
Enugu	65.3	72
Gombe	42.2	87
Imo	66.7	90
Jigawa	30.8	206
Kaduna	35.2	230
Kano	35.2	373
Katsina	29.8	248
Kebbi	19.1	136
Kogi	38.4	105
Kwara	58.4	82
Lagos	70.0	263
Nasarawa	43.1	62
Niger	25.5	172
Ogun	68.7	98
Ondo	70.3	102
Osun	53.6	115
Oyo	57.5	208
Plateau	51.6	96
Rivers	44.8	120
Sokoto	17.4	125
Taraba	41.2	81
Yobe	24.8	126
Zamfara	13.0	121
FCT (Abuja)	72.4	43

Table ED.3: Primary school entry **(continued)**		
Percentage of children of primary school entry age entering grade 1 (net intake rate), Nigeria, 2011		
	Percentage of children of primary school entry age entering grade 1[1]	Number of children of primary school entry age
Area of residence		
Urban	56.8	1449
Rural	38.2	3401
Mother's education		
None	30.5	2353
Primary	52.3	1067
Secondary +	59.2	1429
Wealth index quintile		
Poorest	20.4	1155
Second	38.0	1084
Middle	51.2	944
Fourth	54.3	881
Richest	65.4	784
Geo-political zone		
North-Central	42.0	697
North-East	30.3	790
North-West	28.7	1438
South-East	63.1	458
South-South	56.2	603
South-West	63.6	864
Total	43.8	4850
[1] MICS indicator 7.3		

Primary and secondary school participation

State disparities are very wide; northern states like Kebbi, Sokoto and Zamfara records less than 20 percent children of primary school entry age, entry rate against southern states like Abia, Enugu, Imo, Lagos and Ondo each with over 70 percent rate primary school entry age, entry rate. Children's participation to primary school is timelier in urban areas (57 percent) than in rural areas (38 percent). A positive association between mother's education and socioeconomic status is observed; for children whose mothers have at least secondary school education, 59 percent were attending the first grade; this is against 31 percent of their counterparts by mothers with no education. In richest households, the proportion is 65 percent, while it is just 20 percent among children living in the poorest households.

Table ED.4 provides the percentage of children of primary school age (6 to 11 years) who are attending primary or secondary school[8]. About 3 out of every 5 children of primary school age are attending school (70 percent) including 72 percent of the males and 68 percent of the females. However, 30percent of the children are out of school when they are expected to be participating in school. A North-South and rural-urban trend is noticeable and there is a positive association between primary school NAR and education of mother and social economic status of the household.

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

Table ED.4: Primary school attendance

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), Nigeria, 2011

	Male		Female		Total	
	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted)[1]	Number of children
State						
Abia	95.0	217	95.8	208	95.4	425
Adamawa	77.4	280	74.6	310	75.9	590
Akwa Ibom	93.6	302	92.2	298	92.9	600
Anambra	92.7	351	91.8	346	92.2	697
Bauchi	36.2	457	34.7	445	35.5	902
Bayelsa	92.8	156	89.3	141	91.2	297
Benue	73.0	436	70.6	357	71.9	792
Borno	38.5	442	35.6	381	37.2	822
Cross River	86.4	255	86.1	214	86.3	469
Delta	91.3	313	91.0	320	91.1	633
Ebonyi	77.2	209	73.9	173	75.7	381
Edo	93.2	262	91.0	241	92.2	503
Ekiti	91.6	203	96.2	186	93.8	389
Enugu	88.5	220	91.2	217	89.8	437
Gombe	65.5	242	52.0	234	58.9	476
Imo	93.8	262	93.2	265	93.5	527
Jigawa	48.1	416	38.9	487	43.2	903
Kaduna	71.5	580	76.6	657	74.2	1236
Kano	62.5	915	53.1	955	57.7	1870
Katsina	55.0	568	43.6	636	49.0	1204
Kebbi	35.9	333	26.1	340	30.9	673
Kogi	83.8	298	78.9	281	81.4	579
Kwara	79.1	242	88.7	192	83.3	434
Lagos	97.1	644	96.0	685	96.6	1329
Nasarawa	81.5	181	69.0	163	75.6	345
Niger	57.6	438	45.2	418	51.6	856
Ogun	91.4	278	90.9	316	91.2	594
Ondo	94.7	267	96.5	282	95.7	549
Osun	90.4	310	89.2	265	89.8	575
Oyo	83.7	532	81.8	427	82.9	958
Plateau	80.2	286	77.0	269	78.6	556
Rivers	90.9	405	91.4	360	91.1	765
Sokoto	38.8	371	32.2	361	35.5	732
Taraba	71.3	210	69.9	199	70.6	410
Yobe	36.7	261	35.7	279	36.2	540
Zamfara	38.4	316	31.7	367	34.8	682
FCT (Abuja)	90.5	127	87.5	122	89.0	249

Table ED.4: Primary school attendance (continued)

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), Nigeria, 2011

	Male		Female		Total	
	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted)	Number of children	Net attendance ratio (adjusted)[1]	Number of children
Area of residence						
Urban	87.2	3947	87.4	4067	87.3	8014
Rural	65.1	8635	58.6	8331	61.9	16966
Age at beginning of school year						
6	55.7	2435	51.0	2415	53.4	4850
7	68.1	2316	66.1	2265	67.1	4580
8	72.5	2172	70.4	2091	71.5	4264
9	79.0	1932	72.6	1991	75.8	3923
10	79.8	2197	76.2	2048	78.1	4245
11	83.2	1530	77.4	1587	80.3	3118
Education						
None	54.5	5975	46.1	5943	50.3	11918
Primary	83.9	2896	84.2	2752	84.1	5648
Secondary+	91.1	3708	91.3	3698	91.2	7407
Wealth index quintile						
Poorest	37.1	2693	30.2	2737	33.6	5430
Second	65.1	2780	56.6	2653	60.9	5433
Middle	82.0	2549	80.7	2474	81.3	5023
Fourth	89.3	2353	88.0	2360	88.6	4713
Richest	93.6	2207	93.6	2174	93.6	4381
Geo-political zone						
North-Central	74.9	2008	69.9	1803	72.5	3811
North-East	50.5	1892	47.7	1848	49.1	3740
North-West	53.8	3498	47.3	3803	50.4	7301
South-East	90.0	1258	90.1	1209	90.1	2467
South-South	91.3	1693	90.5	1574	90.9	3267
South-West	91.5	2233	91.7	2160	91.6	4394
Total	72.0	12582	68.0	12397	70.1	24980

[1] MICS indicator 7.4; MDG indicator 2.1

In the urban areas 87 percent of children attend school while in rural areas attendance is 62 percent. Four out of every Five (87 percent) children of primary school age are in school as against less than 3 out of every 5 (62 percent) in the rural areas. Primary school net attendance ratio is 49 percent in the North-EastNorth-East, 50 percent in the North-West, 73 percent further South in the North-Central and over 90 percent in most of the Southern zones. More than ninety percent of children of primary school age by mothers with at least secondary education are attending school as against 50 percent of such children whose mothers have no education and 84 percent for the same category of children having mothers with primary education. The primary school net attendance ratio for children in richest households is 94 percent; the figure declines quite systematically to 33 percent in the case of counterpart children in the poorest households. Trend of relative disparities in primary school NAR across socio-economic status of households, education of mother, rural-urban sectors, geopolitical zones and states is identical for both sexes; it is not gender-specific.

The secondary school net attendance ratio is presented in Table ED.5[9] is 54 percent. In the urban sector about 2 out of every 3 (72 percent) children of secondary school age are in school as against more than 2 out of every 5 (45 percent) in the rural areas. Secondary school net attendance ratio is least in the North-East (32 percent), North-West (34 percent), 51 percent in the North-Central, 69 percent in the South-East, 76 percent in the South-West and South-South (75 percent). Over seventy-nine percent of children of secondary school age by mothers with at least secondary education are attending school as against 35 percent of the children whose mothers have no education and 62 percent in the case of same category of children with mothers having primary education. The secondary school net attendance ratio for children in richest households is 81 percent; the figure declines quite systematically to 15 percent in the case of their counterparts in the poorest households. Trend of the disparities in secondary school NAR across socio-economic status of households, education of mother, rural-urban sectors, and geopolitical zones/states is not consistent over sex, it is gender-specific.

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

Table ED.5: Secondary school attendance

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio) and percentage of children attending primary school, Nigeria, 2011

	Male			Female			Total		
	Net attendance ratio (adjusted)[1]	Percent attending primary school	Number of children	Net attendance ratio (adjusted)[1]	Percent attending primary school	Number of children	Net attendance ratio (adjusted)[1]	Percent attending primary school	Number of children
State									
Abia	70.4	19.8	134	72.5	20.9	160	71.5	20.4	294
Adamawa	46.8	33.4	191	46.9	28.5	194	46.8	30.9	385
Akwa Ibom	71.1	24.4	193	78.2	15.7	253	75.1	19.5	446
Anambra	68.2	25.5	273	71.6	18.1	227	69.7	22.2	500
Bauchi	15.4	15.8	332	13.3	19.2	241	14.5	17.2	574
Bayelsa	73.1	21.1	113	79.2	9.6	78	75.6	16.4	191
Benue	40.8	44.4	297	43.6	40.8	308	42.2	42.6	605
Borno	37.2	19.2	273	29.1	20.0	226	33.6	19.5	499
Cross River	71.2	20.4	194	74.7	15.4	168	72.8	18.1	362
Delta	72.2	22.0	203	70.4	24.4	266	71.2	23.3	469
Ebonyi	53.9	37.3	155	42.2	45.4	156	48.1	41.4	311
Edo	65.1	24.1	192	83.6	14.7	199	74.5	19.3	391
Ekiti	82.9	14.0	147	83.8	13.3	147	83.4	13.6	295
Enugu	68.1	25.1	162	77.1	21.3	253	73.6	22.8	415
Gombe	38.2	30.0	180	32.2	21.3	161	35.4	25.9	341
Imo	73.8	22.4	259	79.6	15.0	269	76.7	18.6	528
Jigawa	27.1	14.6	226	19.3	9.8	256	22.9	12.0	482
Kaduna	52.3	23.4	421	54.7	18.2	367	53.4	21.0	789
Kano	49.3	25.0	538	40.1	20.6	584	44.5	22.7	1122
Katsina	31.8	17.3	369	27.9	15.5	346	29.9	16.5	716
Kebbi	24.4	22.9	246	12.9	12.6	183	19.5	18.5	429
Kogi	64.7	30.9	232	63.6	28.1	220	64.1	29.5	451
Kwara	66.5	19.2	154	64.6	19.0	121	65.7	19.1	275
Lagos	81.0	10.4	417	77.7	7.6	515	79.2	8.9	932
Nasarawa	46.1	43.0	107	43.3	34.9	117	44.6	38.8	224
Niger	31.3	34.6	286	26.2	32.4	254	28.9	33.6	539
Ogun	70.7	19.8	242	74.7	9.8	204	72.5	15.2	447
Ondo	78.5	17.7	221	79.1	11.7	233	78.8	14.6	453
Osun	80.6	12.2	229	82.7	13.2	199	81.6	12.7	428
Oyo	63.0	15.6	310	63.1	18.4	356	63.0	17.1	666
Plateau	61.7	25.2	232	54.7	30.4	219	58.3	27.7	451
Rivers	78.3	15.8	328	80.6	8.6	308	79.4	12.3	636
Sokoto	19.8	24.9	244	13.0	5.8	182	16.9	16.8	426
Taraba	40.9	39.6	156	42.2	27.9	136	41.5	34.2	292
Yobe	31.8	9.8	139	22.6	10.9	148	27.0	10.4	287
Zamfara	27.1	25.8	217	23.2	12.8	206	25.2	19.5	423
FCT (Abuja)	79.4	13.5	103	65.3	20.0	80	73.2	16.3	183

Table ED.5: Secondary school attendance (continued)

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio) and percentage of children attending primary school, Nigeria, 2011

	Male			Female			Total		
	Net attendance ratio (adjusted)[1]	Percent attending primary school	Number of children	Net attendance ratio (adjusted)[1]	Percent attending primary school	Number of children	Net attendance ratio (adjusted)[1]	Percent attending primary school	Number of children
Area of residence									
Urban	70.6	18.1	2980	73.2	15.6	3006	71.9	16.8	5986
Rural	45.6	25.2	5738	44.0	20.5	5532	44.9	22.9	11270
Age at beginning of school year									
12	32.8	45.9	1701	34.9	38.5	1839	33.9	42.1	3541
13	48.3	34.7	1416	49.9	26.5	1524	49.1	30.4	2940
14	54.8	21.9	1600	61.3	16.7	1542	58.0	19.3	3142
15	60.9	13.4	1580	61.9	10.2	1301	61.3	11.9	2881
16	66.0	7.8	1179	65.3	5.2	1096	65.7	6.6	2275
17	69.8	4.8	1241	62.2	3.9	1236	66.0	4.4	2477
Mother's education									
None	33.8	26.8	3744	36.2	24.7	3320	34.9	25.8	7064
Primary	60.1	28.4	2039	64.3	24.2	1792	62.1	26.5	3831
Secondary +	78.6	16.2	2329	79.5	13.4	2457	79.1	14.8	4786
Mother not in household	69.3	30.7	3	1.7	1.0	366	2.2	1.2	369
Wealth index quintile									
Poorest	17.5	21.9	1739	13.0	18.1	1485	15.4	20.1	3224
Second	41.1	31.2	1768	36.7	25.6	1748	38.9	28.4	3516
Middle	60.8	25.9	1907	60.6	23.1	1874	60.7	24.5	3781
Fourth	72.0	20.7	1764	75.4	16.9	1738	73.7	18.8	3502
Richest	82.2	12.6	1539	80.0	9.8	1694	81.1	11.1	3233
Geo-political zone									
North-Central	52.2	31.9	1411	48.6	31.6	1317	50.5	31.7	2728
North-East	32.9	23.4	1271	30.0	21.2	1106	31.6	22.4	2377
North-West	36.8	22.2	2262	31.8	15.3	2125	34.4	18.9	4386
South-East	67.7	25.7	984	70.8	22.5	1065	69.3	24.0	2049
South-South	72.5	20.7	1224	77.6	15.2	1272	75.1	17.9	2495
South-West	75.6	14.5	1566	75.5	11.9	1654	75.6	13.2	3220
Total	54.2	22.8	8717	54.3	18.8	8538	54.2	20.8	17256

[1] MICS indicator 7.5

The percentage of children entering first grade who eventually reach grades 5 and 6 respectively are presented in Tables ED.6. In Nigeria, the final grade in government-owned primary school is grade 6; it is grade 5 in privately owned primary schools; but most primary schools are government-owned Of all children starting grade one, the majority of them (97 percent) will eventually reach the last grade. Notice that this number includes children that repeat grades and that eventually move up to reach last grade. The figure is consistently high (above 90 percent) Primary school drop-out rate is lower than 10 percent in all. Male-female, rural-urban and wealth quintile differentials are insignificant.

Table ED.6: Children reaching last grade of primary 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, 2011

	Percent attending grade 1 last school year who are in grade 2 this school year	Percent attending grade 2 last school year who are attending grade 3 this school year	Percent attending grade 3 last school year who are attending grade 4 this school year	Percent attending grade 4 last school year who are attending grade 5 this school year	Percent attending grade 5 last school year who are attending grade 6 this school year	Percent who reach grade 6 of those who enter grade 1[1]
Sex						
Male	99.1	99.9	98.9	99.8	99.7	97.4
Female	99.7	99.6	99.7	99.7	98.6	97.3
State						
Abia	100.0	100.0	100.0	98.0	97.0	95.1
Adamawa	100.0	100.0	100.0	100.0	98.7	98.7
Akwa Ibom	99.5	100.0	100.0	100.0	100.0	99.5
Anambra	100.0	95.3	100.0	100.0	100.0	95.3
Bauchi	99.6	100.0	83.6	98.8	100.0	82.2
Bayelsa	98.5	100.0	98.0	100.0	100.0	96.5
Benue	97.5	100.0	100.0	99.2	98.3	95.1
Borno	100.0	100.0	100.0	100.0	98.3	98.3
Cross River	100.0	100.0	100.0	100.0	100.0	100.0
Delta	100.0	100.0	100.0	100.0	100.0	100.0
Ebonyi	100.0	100.0	100.0	98.7	100.0	98.7
Edo	100.0	100.0	99.4	100.0	100.0	99.4
Ekiti	99.3	100.0	100.0	100.0	100.0	99.3
Enugu	100.0	100.0	100.0	100.0	100.0	100.0
Gombe	100.0	100.0	99.3	100.0	98.9	98.2
Imo	98.7	100.0	100.0	98.9	100.0	97.6
Jigawa	100.0	100.0	98.1	100.0	100.0	98.1
Kaduna	100.0	100.0	100.0	100.0	99.7	99.7
Kano	100.0	100.0	100.0	100.0	100.0	100.0
Katsina	99.7	100.0	100.0	100.0	100.0	99.7
Kebbi	100.0	98.7	100.0	97.4	98.9	95.1
Kogi	100.0	100.0	100.0	100.0	100.0	100.0
Kwara	100.0	100.0	100.0	100.0	100.0	100.0
Lagos	99.5	100.0	100.0	100.0	94.7	94.2
Nasarawa	95.7	100.0	100.0	100.0	100.0	95.7
Niger	99.8	98.9	100.0	100.0	98.2	96.9
Ogun	100.0	100.0	99.3	100.0	100.0	99.3
Ondo	100.0	100.0	100.0	100.0	100.0	100.0
Osun	100.0	100.0	100.0	100.0	100.0	100.0
Oyo	100.0	100.0	100.0	100.0	98.1	98.1
Plateau	99.7	100.0	100.0	100.0	100.0	99.7
Rivers	100.0	100.0	94.8	100.0	100.0	94.8
Sokoto	100.0	100.0	100.0	100.0	100.0	100.0
Taraba	100.0	99.2	100.0	100.0	97.1	96.3
Yobe	89.5	100.0	100.0	100.0	100.0	89.5
Zamfara	87.8	100.0	99.5	100.0	98.3	85.8
FCT (Abuja)	100.0	100.0	97.6	96.5	100.0	94.2

Table ED.6: Children reaching last grade of primary school (continued)

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, 2011

	Percent attending grade 1 last school year who are in grade 2 this school year	Percent attending grade 2 last school year who are attending grade 3 this school year	Percent attending grade 3 last school year who are attending grade 4 this school year	Percent attending grade 4 last school year who are attending grade 5 this school year	Percent attending grade 5 last school year who are attending grade 6 this school year	Percent who reach grade 6 of those who enter grade 1[1]
Area of residence						
Urban	99.8	99.9	99.3	99.8	98.8	97.7
Rural	99.1	99.7	99.3	99.7	99.4	97.3
Education						
None	99.0	99.8	99.7	99.6	99.6	97.7
Primary	99.9	100.0	98.9	100.0	98.3	97.1
Secondary +	99.5	99.9	99.4	99.9	99.7	98.4
Wealth index quintile	100.0	100.0	100.0	100.0	100.0	100.0
Poorest	99.5	99.8	97.4	99.0	99.5	95.3
Second	98.6	99.8	99.7	99.8	99.1	97.0
Middle	99.3	100.0	99.6	99.6	99.5	98.1
Fourth	99.7	99.8	99.8	100.0	99.9	99.1
Richest	100.0	99.4	99.2	100.0	97.7	96.2
Geo-political zone						
North-Central	98.9	99.8	99.8	99.6	99.3	97.5
North-East	98.9	99.8	96.9	99.8	98.7	94.3
North-West	99.2	99.9	99.8	99.8	99.7	98.4
South-East	99.7	98.7	100.0	99.2	99.6	97.2
South-South	99.8	100.0	98.5	100.0	100.0	98.3
South-West	99.8	100.0	99.9	100.0	98.0	97.7
Total	98.8	99.5	99.2	99.7	99.3	96.5

[1] MICS indicator 7.6; MDG indicator 2.2

The primary school completion rate and transition rate to secondary education are presented in Table ED.7. At the moment of the survey, 73 percent of the children of primary completion age 11 years were attending the last grade of primary education. This value showed cases of majority of over and under aged children attending the last grade of primary education. This is prominent in Adamawa, Anambra, Ebonyi, and Imo state, which recorded primary school completion rate above 120 percent. Some gender differential exists; it is in favour of the male children (94 percent male versus 77 percent female). There is North-South movement from 55 percent in the North-WestNorth-West to 85.6 percent in North-Central, 93 percent in the South-South to 123 percent in the South-East geopolitical zone. Net primary school completion rate is positively correlated with education of the mother and socio-economic status of the household. It increases from 59 percent in the poorest to 79 percent in the richest households and from 71 percent of children of mothers with no education to 104 percent of those of mothers with Primary education.

However, only 71 percent of the children that completed successfully the last grade of primary school were found at the moment of the survey to be attending the first grade of secondary school.

Table ED.7: Primary school completion and transition to secondary school

Primary school completion rates and transition rate to secondary school, Nigeria, 2011

	Primary school completion rate[1]	Number of children of primary school completion age	Transition rate to secondary school[2]	Number of children who were in the last grade of primary school the previous year
Sex				
Male	94.3	1530	74.2	1375
Female	76.9	1587	73.8	1134
State				
Abia	(84.3)	(66)	(87.5)	(39)
Adamawa	127.4	63	73.6	68
Akwa Ibom	72.4	90	88.2	74
Anambra	138.8	87	91.1	106
Bauchi	55.5	106	42.4	32
Bayelsa	104.2	35	90.4	45
Benue	91.9	112	10.8	71
Borno	(80.0)	(88)	(81.3)	(41)
Cross River	91.3	67	78.5	59
Delta	113.7	78	95.5	95
Ebonyi	129.8	49	70.9	56
Edo	89.7	61	70.3	83
Ekiti	92.0	61	96.6	58
Enugu	123.2	58	79.7	78
Gombe	73.8	69	62.3	28
Imo	122.7	72	84.4	97
Jigawa	(64.6)	(91)	(53.4)	(33)
Kaduna	55.0	187	74.2	122
Kano	(60.6)	(247)	(59.7)	(143)
Katsina	(58.0)	(139)	(47.8)	(50)
Kebbi	(54.0)	(72)	(27.4)	(21)
Kogi	91.0	92	41.4	100
Kwara	71.3	61	91.0	49
Lagos	116.7	141	92.3	198
Nasarawa	114.2	38	82.1	38
Niger	86.8	71	4.7	59
Ogun	51.4	100	83.9	85
Ondo	106.8	84	95.8	71
Osun	96.1	78	98.4	67
Oyo	113.1	106	82.9	126
Plateau	87.2	75	69.6	69
Rivers	119.5	83	88.2	129
Sokoto	(73.2)	(70)	(27.3)	(26)
Taraba	132.9	40	71.8	26
Yobe	(34.0)	(62)	(49.6)	(18)
Zamfara	(70.8)	(73)	(52.2)	(14)
FCT (Abuja)	69.3	46	70.6	36

Table ED.7: Primary school completion and transition to secondary school (continued)				
Primary school completion rates and transition rate to secondary school, Nigeria, 2011				
	Primary school completion rate[1]	Number of children of primary school completion age	Transition rate to secondary school[2]	Number of children who were in the last grade of primary school the previous year
Area of residence				
Urban	85.5	1136	77.0	1048
Rural	85.3	1982	71.9	1462
Mother's education				
None	71.2	1419	58.8	725
Primary	103.8	722	78.0	657
Secondary +	83.5	976	86.8	979
Wealth index quintile				
Poorest	59.3	592	56.1	184
Second	90.5	609	65.1	414
Middle	97.9	687	66.3	628
Fourth	97.5	625	80.1	645
Richest	79.0	605	86.4	639
Geo-political zone				
North-Central	85.6	544	44.3	437
North-East	59.0	724	60.5	297
North-West	54.6	1339	61.0	541
South-East	122.7	252	81.0	271
South-South	92.5	346	87.5	372
South-West	95.8	452	91.7	498
Total	73.4	3657	70.6	2415
[1] MICS indicator 7.7				
[2] MICS indicator 7.8				

( ) based on 25-49 unweighted cases
(*) less than 25 unweighted cases

The ratio of girls to boys attending primary and secondary education is provided in Table ED.8. These ratios are better known as the Gender Parity Index (GPI). Notice that the ratios included here are obtained from net attendance ratios rather than gross attendance ratios. The last ratios provide an erroneous description of the GPI mainly because in most of the cases the majority of over-aged children attending primary education tend to be boys. The table shows that gender parity for primary school is 0.94, indicating no difference in the attendance of girls and boys to primary school. The indicator increased to 1.0 for secondary education. The disadvantage of girls is particularly pronounced in North-West which is less than 0.90, as well as among children living in the poorest, second quintiles households and rural areas.

Gender parity Index (GPI) net attendance ratio for both primary and secondary schools are presented in Table ED.8. For primary school, the parity index net attendance ratio is higher in urban (1.04) areas than in the rural areas (0.96). It is also higher in the South than in the North. Education of mothers also affects the gender parity for both primary and secondary schools. Among children of mothers with no education, the index is 1.07, while it is 1.07 among children of mothers with primary education and 1.01 among children of mothers with at least secondary education. A striking feature of gender parity index in respect of primary school attendance ratio is that the figure is consistently less than 1 over the major divisions of the population of the children; the message is that the girls are on the aggregate the disadvantaged.

Table ED.8: Education gender parity

Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Nigeria, 2011

	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]
State						
Abia	95.8	95.0	1.01	72.5	70.4	1.03
Adamawa	74.6	77.4	.96	46.9	46.8	1.00
Akwa ibom	92.2	93.6	.99	78.2	71.1	1.10
Anambra	91.8	92.7	.99	71.6	68.2	1.05
Bauchi	34.7	36.2	.96	13.3	15.4	.86
Bayelsa	89.3	92.8	.96	79.2	73.1	1.08
Benue	70.6	73.0	.97	43.6	40.8	1.07
Borno	35.6	38.5	.92	29.1	37.2	.78
Cross River	86.1	86.4	1.00	74.7	71.2	1.05
Delta	91.0	91.3	1.00	70.4	72.2	.97
Ebonyi	73.9	77.2	.96	42.2	53.9	.78
Edo	91.0	93.2	.98	83.6	65.1	1.28
Ekiti	96.2	91.6	1.05	83.8	82.9	1.01
Enugu	91.2	88.5	1.03	77.1	68.1	1.13
Gombe	52.0	65.5	.79	32.2	38.2	.84
Imo	93.2	93.8	.99	79.6	73.8	1.08
Jigawa	38.9	48.1	.81	19.3	27.1	.71
Kaduna	76.6	71.5	1.07	54.7	52.3	1.05
Kano	53.1	62.5	.85	40.1	49.3	.81
Katsina	43.6	55.0	.79	27.9	31.8	.88
Kebbi	26.1	35.9	.73	12.9	24.4	.53
Kogi	78.9	83.8	.94	63.6	64.7	.98
Kwara	88.7	79.1	1.12	64.6	66.5	.97
Lagos	96.0	97.1	.99	77.7	81.0	.96
Nasarawa	69.0	81.5	.85	43.3	46.1	.94
Niger	45.2	57.6	.78	26.2	31.3	.84
Ogun	90.9	91.4	.99	74.7	70.7	1.06
Ondo	96.5	94.7	1.02	79.1	78.5	1.01
Osun	89.2	90.4	.99	82.7	80.6	1.03
Oyo	81.8	83.7	.98	63.1	63.0	1.00
Plateau	77.0	80.2	.96	54.7	61.7	.89
Rivers	91.4	90.9	1.01	80.6	78.3	1.03
Sokoto	32.2	38.8	.83	13.0	19.8	.66
Taraba	69.9	71.3	.98	42.2	40.9	1.03
Yobe	35.7	36.7	.97	22.6	31.8	.71
Zamfara	31.7	38.4	.83	23.2	27.1	.85
FCT (Abuja)	87.5	90.5	.97	65.3	79.4	.82

Table ED.8: Education gender parity (continued)						
Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Nigeria, 2011						
	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]
Area of residence						
Urban	87.4	87.2	1.00	73.2	70.6	1.04
Rural	58.6	65.1	.90	44.0	45.6	.96
Mother's education						
None	46.1	54.5	.85	36.2	33.8	1.07
Primary	84.2	83.9	1.00	64.3	60.1	1.07
Secondary +	91.3	91.1	1.00	79.5	78.6	1.01
Mother not in household	14.1	100.0	.14	26.0	59.9	.43
Wealth index quintile						
Poorest	30.2	37.1	.82	13.0	17.5	.75
Second	56.6	65.1	.87	36.7	41.1	.89
Middle	80.7	82.0	.98	60.6	60.8	1.00
Fourth	88.0	89.3	.98	75.4	72.0	1.05
Richest	93.6	93.6	1.00	80.0	82.2	.97
Geo-political zone						
North-Central	69.9	74.9	.93	48.6	52.2	.93
North-East	47.7	50.5	.94	30.0	32.9	.91
North-West	47.3	53.8	.88	31.8	36.8	.87
South-East	90.1	90.0	1.00	70.8	67.7	1.05
South-South	90.5	91.3	.99	77.6	72.5	1.07
South-West	91.7	91.5	1.00	75.5	75.6	1.00
Total	68.0	72.0	.94	54.3	54.2	1.00
[1] MICS indicator 7.9; MDG indicator 3.1						
[2] MICS indicator 7.10; MDG indicator 3.1						

Table ED.8 also shows that, overall gender parity figure of 0.94 for primary school and 1.0 for secondary school. This indicates that little difference exists in the probabilities of secondary school attendance by girls and boys. But rural-urban differential exists and education of the mother and socio-economic status of the household matter; disparities are pronounced between geopolitical zones and highly more pronounced between states. In the urban area, the GPI is 1.04, an indication that the girls have but a slim edge over the boys; but in the rural areas, the boys have clear advantage over the girls when the GPI reduces to 0.96. Among children of mothers with education, secondary, GPI is 1.01 putting neither of the sexes at any definite advantage over the other. Interestingly, among children of mothers with no education; the GPI is 1.07, the girls having explicit relative advantage over the boys. The GPI is lowest in the North-West (0.87) and highest in the South-South (1.07).

XI. Child Protection

Birth Registration

The International Convention on the Rights of the Child states that every child has the right to a name and a nationality and the right to protection from being deprived of his or her identity. Birth registration is a fundamental means of securing these rights for children. The World Fit for Children states the goal to develop systems to ensure the registration of every child at or shortly after birth, and fulfil his or her right to acquire a name and a nationality, in accordance with national laws and relevant international instruments. The MICS indicator related to birth registration is the percentage of children under 5 years of age whose birth is registered.

Table CP.1: Birth registration

Percentage of children under age 5 by whether birth is registered and percentage of children not registered whose mothers/caretakers know how to register birth, Nigeria, 2011

	Children under age 5 whose birth is registered with civil authorities				Number of children	Children under age 5 whose birth is not registered	
	Has birth certificate		No birth certificate	Total registered[1]		Percent of children whose mother/caretaker knows how to register birth	Number of children without birth registration
	Seen	Not seen					
Sex							
Male	14.1	25.5	2.8	42.4	12856	7411	8187
Female	14.0	23.7	2.9	40.6	12336	7326	7992
State							
Abia	17.6	44.5	.8	62.9	483	179	99
Adamawa	23.9	23.0	1.2	48.1	631	328	302
Akwa ibom	16.9	34.9	.3	52.2	660	316	278
Anambra	29.9	39.1	1.2	70.1	737	220	126
Bauchi	2.0	4.0	.4	6.3	1072	1004	1030
Bayelsa	6.4	19.5	5.2	31.2	335	231	129
Benue	10.3	15.0	.8	26.1	617	456	439
Borno	3.7	11.2	.3	15.2	776	658	947
Cross River	10.9	25.3	2.2	38.4	494	304	270
Delta	14.8	27.2	5.0	47.1	700	370	240
Ebonyi	17.8	25.6	1.4	44.8	333	184	231
Edo	30.1	35.5	7.0	72.5	516	142	97
Ekiti	14.8	44.0	9.6	68.4	337	106	47
Enugu	27.0	24.2	1.5	52.7	471	223	104
Gombe	15.8	17.7	2.3	35.8	462	297	334
Imo	22.3	43.1	4.3	69.7	539	163	107
Jigawa	5.1	13.7	.7	19.5	933	751	774
Kaduna	10.8	23.8	3.9	38.5	1240	763	1246
Kano	9.3	17.5	1.9	28.6	1971	1407	1671
Katsina	7.9	24.4	2.3	34.7	1242	812	1002
Kebbi	2.3	10.8	.3	13.4	644	558	615
Kogi	14.4	26.8	8.9	50.1	436	218	150
Kwara	25.9	38.1	1.2	65.2	425	148	125
Lagos	33.0	36.8	3.3	73.0	1502	405	327
Nasarawa	13.6	17.6	4.5	35.7	344	221	237
Niger	9.3	19.4	1.8	30.4	769	535	685
Ogun	15.9	35.7	3.7	55.2	628	281	224
Ondo	12.9	36.5	2.9	52.3	500	239	142
Osun	24.9	51.3	1.0	77.2	538	123	97
Oyo	22.5	32.0	2.5	57.0	1011	435	310
Plateau	14.1	18.3	2.5	34.9	480	313	292
Rivers	12.1	34.9	9.7	56.7	777	337	232
Sokoto	1.6	9.6	10.5	21.7	783	613	981
Taraba	8.1	16.7	1.4	26.2	396	293	370
Yobe	5.6	10.1	.6	16.3	504	422	869
Zamfara	1.8	6.5	.7	9.0	688	626	986
FCT (Abuja)	26.6	42.0	3.9	72.5	214	59	63

Table CP.1: Birth registration (continued)

Percentage of children under age 5 by whether birth is registered and percentage of children not registered whose mothers/caretakers know how to register birth, Nigeria, 2011

	Children under age 5 whose birth is registered with civil authorities				Number of children	Children under age 5 whose birth is not registered	
	Has birth certificate		No birth certificate	Total registered[1]		Percent of children whose mother/caretaker knows how to register birth	Number of children without birth registration
Area of residence							
Urban	24.2	35.4	3.2	62.8	7664	46.4	2848
Rural	9.6	19.9	2.7	32.2	17528	20.5	11889
Age (in months)							
0-11	15.8	17.7	3.7	37.2	5432	29.5	3411
12-23	15.2	25.1	2.5	42.8	4986	25.0	2853
24-35	14.4	27.5	2.8	44.7	4747	25.8	2627
36-47	13.4	25.6	3.2	42.2	5170	24.8	2988
48-59	11.3	27.9	2.0	41.1	4857	21.5	2859
Mother's education							
None	5.3	12.8	2.3	20.5	10992	15.1	8737
Primary	13.2	25.5	3.0	41.6	4989	30.9	2916
Secondary+	24.9	38.2	3.4	66.5	9209	49.6	3084
Geo-political zone							
North-Central	14.6	23.1	3.0	40.7	3285	25.1	1949
North-East	8.7	12.3	.9	21.9	3843	19.3	3002
North-West	6.7	16.8	2.8	26.3	7501	16.5	5529
South-East	23.9	36.5	1.8	62.2	2563	29.6	969
South-South	15.5	30.6	5.1	51.2	3483	35.2	1699
South-West	23.7	37.8	3.3	64.8	4516	55.9	1588
Total	14.1	24.6	2.8	41.5	25192	25.5	14737

[1] MICS indicator 8.1

The births of 42 percent of children under-five years in Nigeria have been registered (Table CP.1). There are no significant variations in birth registration across sex and age, in education categories; percentage of children whose birth are registered were 67 percent for mothers who have at least secondary education while it was 21 percent for mothers with no education. Children in North-East are somewhat less likely to have their births registered than other children

Child Labour

Article 32 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 World Fit for Children mentions nine strategies to combat child labour and the MDGs call for the protection of children against exploitation. In the MICS questionnaire, a number of questions addressed the issue of child labour, that is, children 5-14 years of age involved in labour activities. A child is considered to be involved in child labour activities at the moment of the survey if during the week preceding the survey he/she performed the following activities:

- Ages 5-11: at least one hour of economic work or 28 hours of domestic work per week.
- Ages 12-14: at least 14 hours of economic work or 28 hours of domestic work per week.

This definition allows differentiation between child labour and child work to identify the type of work that should be eliminated. Table CP.2 presents the results of child labour by the type of work. Percentages do not add up to the total child labour as children may be involved in more than one type of work.

Table CP.2: Child labour

Percentage of children by involvement in economic activity and household chores during the past week, according to age groups, and percentage of children age 5-14 involved in child labour, Nigeria, 2011

	Percentage of children age 5-11 involved in							Number of children age 5-11	Percentage of children age 12-14 involved in							Number of children age 12-14	Total child labour[1]	Number of children age 5-14 years
	Economic activity			Economic activity for at least one hour	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour		Economic activity			Economic activity less than 14 hours	Economic activity for 14 hours or more	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour			
	Working outside household		Working for family business						Working outside household		Working for family business								
	Paid work	Unpaid work							Paid work	Unpaid work									
Sex																			
Male	4.0	10.6	50.8	55.2	55.7	.5	55.3	15434	9.3	12.7	75.1	61.7	16.3	78.6	.9	16.6	4732	46.2	20166
Female	3.9	10.4	55.0	58.6	64.4	.8	58.8	15110	5.1	12.8	77.2	63.5	15.8	86.4	1.3	16.3	5144	48.0	20255
Missing	.0	.0	.0	.0	.0	.0	.0	0	.	.	.	.	.	.	.	.	0	.0	0
State																			
Abia	1.3	11.4	66.6	69.1	80.2	.0	69.1	504	7.2	16.5	92.3	85.7	6.6	97.2	.0	6.6	165	53.7	670
Adamawa	1.6	7.3	48.3	51.1	50.9	.0	51.1	719	8.1	9.8	69.6	49.5	23.2	78.1	.3	23.2	218	44.6	937
Akwa ibom	2.9	15.4	68.9	72.3	85.4	.2	72.5	777	5.5	21.3	91.5	83.4	9.8	97.1	.0	9.8	227	58.3	1005
Anambra	4.2	31.6	50.8	64.9	68.5	3.5	65.8	838	10.8	37.8	83.9	62.1	25.8	84.1	5.7	27.5	277	56.3	1115
Bauchi	10.6	10.5	72.9	74.2	72.6	1.2	74.4	1148	11.4	6.7	85.0	70.4	16.3	82.7	.3	16.6	372	60.2	1521
Bayelsa	3.8	14.0	50.6	54.2	51.6	.3	54.2	368	13.2	11.0	72.9	59.9	14.0	81.6	2.9	14.3	93	46.2	461
Benue	1.0	3.5	55.1	55.9	62.7	.0	55.9	953	2.7	2.0	83.6	73.7	10.6	87.7	.0	10.6	321	44.5	1273
Borno	.6	5.7	24.7	28.7	55.4	.3	28.7	1021	3.4	5.1	41.6	37.5	7.3	75.5	.5	7.5	328	23.5	1348
Cross River	1.2	7.4	69.0	71.0	79.1	.0	71.0	575	3.6	9.8	91.4	82.5	8.9	91.2	.0	8.9	198	55.1	773
Delta	4.0	28.4	48.9	59.5	73.4	.0	59.5	784	8.4	27.7	81.8	75.6	8.3	97.4	.0	8.3	235	47.7	1019
Ebonyi	2.1	5.8	66.6	69.0	68.9	.2	69.1	458	7.6	7.1	87.6	70.6	18.0	88.0	.4	18.2	174	55.1	632
Edo	1.2	5.8	40.1	42.8	51.3	1.5	43.0	642	5.6	6.5	74.5	64.2	15.3	85.0	3.9	16.8	203	36.7	845
Ekiti	.7	11.8	60.6	63.2	66.3	.0	63.2	442	6.5	9.4	85.9	78.6	7.8	92.0	.0	7.8	156	48.8	598
Enugu	5.2	24.0	57.1	64.7	83.7	.0	64.7	532	4.7	21.7	88.5	83.1	7.7	89.8	2.5	7.7	221	47.9	754
Gombe	2.2	16.2	49.5	56.7	60.7	.0	56.7	579	5.9	29.1	69.9	74.6	9.0	80.2	.0	9.0	206	44.2	785
Imo	2.6	36.1	71.4	77.4	81.4	.3	77.4	642	3.8	42.2	87.3	62.3	29.7	90.5	1.1	29.7	267	63.4	908
Jigawa	8.1	4.7	62.9	65.8	40.8	2.9	65.8	1100	17.5	6.5	81.6	71.9	12.0	65.1	3.2	14.1	297	54.8	1397
Kaduna	9.3	5.1	64.8	68.2	55.8	1.9	70.1	1548	15.0	6.6	82.1	64.7	19.6	86.1	.0	19.6	471	58.4	2019
Kano	1.3	2.3	38.7	40.3	52.4	.2	40.4	2326	3.1	5.2	65.3	43.6	22.8	86.3	.2	23.1	798	36.0	3124

Table CP.2: Child labour (continued)

Percentage of children by involvement in economic activity and household chores during the past week, according to age groups, and percentage of children age 5-14 involved in child labour, Nigeria, 2011

	Percentage of children age 5-11 involved in							Number of children age 5-11	Percentage of children age 12-14 involved in							Number of children age 12-14	Total child labour[1]	Number of children age 5-14 years
	Economic activity			Economic activity for at least one hour	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour		Economic activity			Economic activity less than 14 hours	Economic activity for 14 hours or more	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour			
	Working outside household		Working for family business						Working outside household		Working for family business								
	Paid work	Unpaid work							Paid work	Unpaid work									
Katsina	2.3	2.5	48.5	50.1	48.0	.0	50.1	1510	5.0	2.7	69.3	59.5	10.4	67.4	.2	10.7	418	41.5	1928
Kebbi	8.7	3.8	47.1	49.4	40.9	.9	49.4	834	17.3	6.6	72.2	45.2	30.1	62.4	2.7	30.5	275	44.7	1109
Kogi	2.3	5.5	62.5	63.8	62.8	1.9	64.0	684	3.9	7.3	80.2	56.5	25.0	81.8	4.3	27.2	259	53.9	944
Kwara	2.9	8.1	66.9	68.8	71.0	.4	68.8	527	4.0	9.6	89.8	74.4	15.5	84.6	.9	15.5	141	57.5	668
Lagos	4.0	13.5	32.4	40.9	61.9	.0	40.9	1547	.2	17.2	58.3	60.0	3.7	89.1	.0	3.7	521	31.5	2068
Nasarawa	5.2	7.2	52.2	54.0	50.4	.5	54.0	429	7.4	8.8	75.8	40.7	37.8	64.2	1.4	38.7	117	50.8	546
Niger	5.1	8.8	52.2	55.2	61.0	.5	55.5	1057	7.0	7.2	70.1	61.2	12.9	79.5	2.5	14.2	311	46.1	1368
Ogun	6.2	10.2	41.0	48.5	57.1	.0	48.5	698	7.7	9.5	71.2	61.7	12.2	82.3	.0	12.2	249	39.0	947
Ondo	1.0	12.0	44.0	50.2	47.6	1.1	50.2	678	2.2	13.9	77.8	65.9	14.7	77.3	1.3	14.7	242	40.9	920
Osun	2.4	13.7	60.8	62.3	78.5	.0	62.3	686	1.9	10.6	82.8	75.5	8.3	96.2	.0	8.3	239	48.3	925
Oyo	2.7	21.2	56.5	66.0	57.1	.1	66.0	1174	5.0	31.8	89.4	77.8	14.2	88.7	.0	14.2	383	53.2	1557
Plateau	4.8	4.1	58.5	60.2	64.3	.1	60.3	649	10.3	8.4	75.6	71.7	6.3	80.6	.5	6.6	231	46.2	880
Rivers	1.1	4.9	53.6	54.6	52.8	.4	54.6	932	1.7	11.5	75.0	58.5	16.7	80.7	.6	17.3	328	44.9	1260
Sokoto	8.3	14.6	55.5	59.3	57.8	.0	59.3	904	23.8	15.7	83.2	67.4	20.0	82.6	.6	20.6	225	51.5	1129
Taraba	2.8	1.2	48.5	49.1	46.8	.4	49.2	545	9.8	2.6	68.9	35.2	35.3	69.0	2.8	36.0	162	46.2	707
Yobe	1.0	21.5	51.8	59.4	56.6	.0	59.4	627	4.7	24.7	70.7	51.4	22.4	73.3	1.0	23.2	192	50.9	819
Zamfara	10.4	12.3	63.6	68.3	57.9	2.2	68.3	817	13.5	10.7	78.0	47.4	33.5	74.9	5.3	33.9	252	60.2	1069
FCT (Abuja)	1.9	.8	39.4	40.1	63.7	.0	40.1	290	5.0	.8	65.6	59.1	7.4	85.0	.3	7.7	104	31.5	394

Table CP.2: Child labour (continued)

Percentage of children by involvement in economic activity and household chores during the past week, according to age groups, and percentage of children age 5-14 involved in child labour, Nigeria, 2011

	Percentage of children age 5-11 involved in							Number of children age 5-11	Percentage of children age 12-14 involved in							Number of children age 12-14	Total child labour[1]	Number of children age 5-14 years
	Economic activity			Economic activity for at least one hour	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour		Economic activity			Economic activity less than 14 hours	Economic activity for 14 hours or more	Household chores less than 28 hours	Household chores for 28 hours or more	Child labour			
	Working outside household		Working for family business						Working outside household		Working for family business								
	Paid work	Unpaid work							Paid work	Unpaid work									
Area of residence																			
Urban	2.7	11.0	46.0	51.1	61.0	.5	51.4	9670	3.3	13.1	70.2	64.1	9.2	85.9	.6	9.3	3390	40.5	13060
Rural	4.5	10.3	56.1	59.6	59.6	.7	59.7	20876	9.0	12.5	79.3	61.9	19.7	81.0	1.4	20.2	6486	50.3	27361
School attendance																			
Yes	3.7	11.6	53.7	58.1	63.2	.6	58.3	22892	6.1	13.7	75.8	64.2	14.2	84.5	1.0	14.6	7922	47.1	30814
No	4.7	7.1	50.5	53.2	50.4	.7	53.3	7653	11.0	8.9	77.7	56.5	23.4	75.5	1.7	23.9	1954	47.3	9607
Mother's education																			
None	4.9	8.3	55.3	58.1	56.4	.8	58.1	14547	9.1	10.6	78.2	60.8	19.8	78.9	1.4	20.3	4676	48.9	19224
Primary	3.2	13.4	55.8	61.3	65.0	.3	61.3	6884	7.0	15.0	79.7	68.4	14.3	87.3	.6	14.7	2269	49.8	9152
Secondary +	3.0	11.8	46.7	51.7	62.1	.7	52.1	9106	4.0	14.3	70.4	61.3	11.6	85.5	.9	11.8	2901	42.3	12006
Mother not in	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(.0)	(7.8)	(50.7)	(51.5)	(1.8)	(63.4)	(4.7)	(6.5)	(30)	(13.5)	(35)
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile																			
Poorest	5.9	7.5	58.1	60.9	56.3	.9	61.0	6731	12.0	9.8	82.1	61.3	22.7	76.6	1.4	23.3	1972	52.4	8703
Second	4.0	8.6	57.7	60.1	59.1	.7	60.2	6682	8.7	10.4	81.4	64.0	19.8	80.5	1.5	20.3	2060	50.8	8742
Middle	3.2	12.2	55.9	60.0	64.1	.2	60.1	6098	6.9	14.7	79.6	64.9	16.7	84.6	.6	16.9	2109	49.0	8207
Fourth	2.8	13.4	49.5	54.7	61.5	.5	54.8	5773	4.3	16.0	73.4	63.4	12.3	87.0	.9	12.6	1891	44.4	7664
Richest	3.4	11.5	40.3	46.4	59.7	.9	47.1	5262	3.1	12.9	63.2	59.3	7.9	85.0	1.1	8.3	1843	37.0	7105
Geo-political zone																			
North-Central	3.3	5.8	56.1	57.9	62.4	.5	58.0	4589	5.6	6.2	77.6	64.2	15.3	81.5	1.6	16.1	1484	47.7	6073
North-East	3.7	10.1	49.8	53.5	58.8	.4	53.5	4639	7.3	11.8	67.4	54.3	17.2	77.4	.7	17.5	1478	44.8	6117
North-West	5.9	5.4	52.5	55.1	50.8	1.0	55.4	9040	11.1	6.7	73.9	55.2	20.7	77.3	1.3	21.1	2735	47.5	11775
South-East	3.2	23.8	61.5	68.9	76.0	1.1	69.2	2975	6.8	27.6	87.5	71.2	19.0	89.4	2.3	19.5	1103	55.7	4078
South-South	2.3	12.7	55.4	59.3	66.3	.4	59.4	4077	5.3	15.1	81.5	70.7	12.3	89.0	1.0	12.8	1285	48.2	5363
South-West	3.1	14.5	46.6	53.4	60.9	.2	53.5	5225	3.3	17.2	75.1	68.5	9.6	87.6	.2	9.6	1790	42.3	7015
Total	4.0	10.5	52.9	56.9	60.0	.6	57.1	30545	7.1	12.7	76.2	62.7	16.1	82.7	1.1	16.5	9876	47.1	40421

[1] MICS indicator 8.2

(*) less than 25 unweighted cases

( ) based on 25-49 unweighted cases

Of all children aged 5-14 years, 47 percent are engaged in child labour according to the definition given above. Percentage differentials' in sex, area, wealth quintile are negligible. More females (48 percent) compared to male (46 percent) of the children age 5-14 are involved in child labour. Similarly area and wealth index quintiles have similar pattern. Analysis by geopolitical zone shows that South-East has the highest figure of 56 percent, closely followed by South-South (48 percent) and South-West have the list percentage of 42 percent.

Percentage of children age 12- 14 that are involved in child labour is 17 percent as compared to 57 percent for children that are age 5-11. Also, geopolitical zone distribution shows that children age 12- 14 that are involved in child labour in North-West are 21 percent which is the highest, while South-West maintains the lowest percentage of 10 percent. In contrary, South-East has the highest percentage of 69 for children age 5-11 that are engaged in child labour. Generally, more children in the age category 5-11 are engaged in child labour compared to children in age group 12-14. More of the children (10 percent) age 5-11 working outside the household are unpaid as compared to 4 percent of the children working outside the household that are paid. This pattern is the same for children age 12-14 that are working outside the household.

Table CP.3 presents the percentage of children age 5-14 years involved in child labour who are attending school and percentage of children age 5-14 years attending school who are involved in child labour. Of the 76 percent of the children 5-14 years of age attending school, 47 percent are also involved in child labour activities.

On the other hand, out of the 47 percent of the children who are involved in child labour, 76 percent are child labourers who are attending school. Analysis by geopolitical zone shows that South-East has the highest percentage (56 percent) of children attending school and are also involved in child labour. North-East has the least figures for this category of children (42 percent). Also, South-East has the highest number of children that are involved in child labour while South-West has the least percentage (42 percent)

There is significant differential in the percentage of children involved in child labour and are also attending school in the rural and urban sectors. In the urban, 41 percent of the children attending school who are involved in child labour of this number (92 percent) of them are also attending school. Similarly, in the urban, 41 percent of the children attending school and are involved in child labour, 92 percent of them are also attending school. There is moderate difference between the poorest and the richest. About 52 percent of the children from poorest household are children involved in child labour, while only 41 percent of them are going to school. On the other hand, 42 percent of the children in the poorest household are attending school; of this number 54 percent are involved in child labour.

Table CP.3: Child labour and school attendance

Percentage of children age 5-14 years involved in child labour who are attending school, and percentage of children age 5-14 years attending school who are involved in child labour, Nigeria, 2011

	Percentage of children involved in child labour	Percentage of children attending school	Number of children age 5-14 years	Percentage of child labourers who are attending school[1]	Number of children age 5-14 years involved in child labour	Percentage of children attending school who are involved in child labour[2]	Number of children age 5-14 years attending school
Sex							
Male	46.2	78.2	20166	78.1	9324	46.2	15769
Female	48.0	74.3	20255	74.2	9729	48.0	15045
State							
Abia	53.7	96.4	670	96.7	360	53.9	646
Adamawa	44.6	77.3	937	79.7	418	45.9	725
Akwa ibom	58.3	98.0	1005	97.9	586	58.2	984
Anambra	56.3	95.6	1115	95.6	628	56.3	1066
Bauchi	60.2	34.2	1521	35.4	916	62.3	521
Bayelsa	46.2	96.2	461	99.4	213	47.7	444
Benue	44.5	88.0	1273	92.1	567	46.6	1120
Borno	23.5	54.2	1348	35.9	318	15.6	731
Cross River	55.1	95.6	773	96.2	425	55.4	739
Delta	47.7	96.9	1019	96.7	486	47.6	987
Ebonyi	55.1	86.7	632	89.2	348	56.7	547
Edo	36.7	97.6	845	98.4	310	36.9	825
Ekiti	48.8	99.4	598	99.4	292	48.8	595
Enugu	47.9	97.5	754	97.5	361	47.9	735
Gombe	44.2	57.5	785	59.6	347	45.8	451
Imo	63.4	98.2	908	97.8	576	63.1	892
Jigawa	54.8	57.0	1397	57.5	766	55.3	797
Kaduna	58.4	83.5	2019	82.2	1178	57.5	1685
Kano	36.0	60.0	3124	56.4	1124	33.8	1875
Katsina	41.5	50.7	1928	52.9	801	43.3	978
Kebbi	44.7	33.7	1109	31.0	496	41.2	373
Kogi	53.9	93.3	944	94.0	509	54.3	880
Kwara	57.5	84.9	668	83.6	384	56.6	567
Lagos	31.5	98.2	2068	99.6	652	32.0	2031
Nasarawa	50.8	80.1	546	78.8	277	49.9	437
Niger	46.1	59.1	1368	59.5	631	46.4	808
Ogun	39.0	96.2	947	96.7	369	39.2	911
Ondo	40.9	98.8	920	99.4	376	41.1	909
Osun	48.3	98.4	925	98.5	447	48.4	911
Oyo	53.2	86.5	1557	88.0	829	54.2	1347
Plateau	46.2	82.6	880	83.8	407	46.9	727
Rivers	44.9	95.8	1260	97.9	566	45.9	1208
Sokoto	51.5	53.2	1129	54.9	582	53.2	601
Taraba	46.2	69.8	707	72.9	327	48.2	494
Yobe	50.9	39.2	819	34.4	417	44.6	321
Zamfara	60.2	55.0	1069	47.7	644	52.1	589
FCT (Abuja)	31.5	90.9	394	90.4	124	31.3	358

Table CP.3: Child labour and school attendance (continued)

Percentage of children age 5-14 years involved in child labour who are attending school, and percentage of children age 5-14 years attending school who are involved in child labour, Nigeria, 2011

	Percentage of children involved in child labour	Percentage of children attending school	Number of children age 5-14 years	Percentage of child labourers who are attending school[1]	Number of children age 5-14 years involved in child labour	Percentage of children attending school who are involved in child labour[2]	Number of children age 5-14 years attending school
Area of residence							
Urban	40.5	91.9	13060	92.4	5287	40.7	12003
Rural	50.3	68.7	27361	69.9	13765	51.1	18811
Age							
5-11	57.1	74.9	30545	76.6	17427	58.3	22892
12-14	16.5	80.2	9876	71.3	1626	14.6	7922
Mother's education							
None	48.9	57.2	19224	57.8	9407	49.5	10989
Primary	49.8	89.5	9152	90.6	4555	50.4	8190
Secondary +	42.3	96.8	12006	97.2	5082	42.5	11624
Mother not in household	(13.5)	(22.1)	(35)	(*)	(*)	(*)	(*)
Wealth index quintile							
Poorest	52.4	40.5	8703	41.7	4562	54.0	3521
Second	50.8	68.3	8742	70.3	4437	52.3	5969
Middle	49.0	86.8	8207	90.1	4021	50.8	7127
Fourth	44.4	95.2	7664	96.6	3403	45.1	7293
Richest	37.0	97.2	7105	98.0	2630	37.3	6903
Geo-political zone							
North-Central	47.7	80.7	6073	81.7	2898	48.3	4898
North-East	44.8	53.0	6117	49.6	2742	41.9	3243
North-West	47.5	58.6	11775	58.1	5590	47.1	6897
South-East	55.7	95.3	4078	95.6	2272	55.9	3886
South-South	48.2	96.7	5363	97.6	2585	48.6	5187
South-West	42.3	95.6	7015	95.8	2965	42.4	6703
Total	47.1	76.2	40421	76.1	19053	47.1	30814

[1] MICS indicator 8.3

[2] MICS indicator 8.4

(*) less than 25 unweighted cases

(*) based on 25-49 unweighted cases

Child Discipline

As stated in A World Fit for Children, "children must be protected against any acts of violence …" and the Millennium Declaration calls for the protection of children against abuse, exploitation and violence. In the Nigeria MICS survey, respondents to the household questionnaire were asked a series of questions on the ways adults in the household tend to use to discipline children during the past month preceding the survey. Note that for the child discipline module, one child aged 2-14 per household was selected randomly during fieldwork. Out of these questions, the two indicators used to describe aspects of child discipline are: 1) the number of children 2-14 years that experience psychological aggression as punishment *or* physical punishment; and 2) the number of respondents who believe that in order to raise children properly, they need be physically punished.

In Nigeria, 91 percent of children age 2-14 years were subjected to at least one form of psychological or physical punishment by their mothers/caretakers or other household members. More importantly, 34 percent of children were subjected to severe physical punishment. On the other hand, 61 percent of mothers/caretakers believed that children should be physically punished, which implies an interesting contrast with the actual prevalence of physical discipline.

Male children were subjected to both any and severe physical discipline (80 and 35 percent respectively) than female children (79 and 34 percent). It is very interesting that differentials with respect to many of the background variables were relatively small. Despite the fact that older children, those living in rural areas, and those living in the poorest households were subjected to at least one psychological or physical punishment, the differentials in terms of severe physical punishment was small. It is of importance also to indicate that many parents/caretakers believe that in order to raise their children properly, they need to physically punish them (61 percent).

Table CP.4: Child discipline

Percentage of children age 2-14 years according to method of disciplining the child, Nigeria, *2011*

	Percentage of children age 2-14 years who experienced:					Number of children age 2-14 years
	Only non-violent discipline	Psychological aggression	Physical punishment		Any violent discipline method[1]	
			Any	Severe		
Sex						
Male	5.9	81.6	80.1	34.9	91.4	26625
Female	7.1	80.7	78.5	33.6	90.3	28552
State						
Abia	5.9	83.9	87.4	43.8	93.7	947
Adamawa	6.3	74.3	85.0	40.7	91.5	1321
Akwa ibom	5.9	89.0	88.5	48.4	93.7	1410
Anambra	1.7	83.3	93.7	50.7	98.0	1559
Bauchi	4.0	82.6	76.0	25.0	90.5	2114
Bayelsa	3.3	90.7	88.2	47.0	95.9	650
Benue	1.2	87.6	87.6	21.4	94.5	1634
Borno	24.8	53.3	60.2	21.8	70.5	1806
Cross River	2.6	90.6	92.8	54.9	96.4	1055
Delta	1.0	95.3	87.9	34.8	97.9	1416
Ebonyi	2.6	89.5	87.2	46.6	94.2	817
Edo	9.4	82.2	69.6	34.3	85.3	1146
Ekiti	2.9	89.7	82.3	15.3	96.5	785
Enugu	6.5	78.5	82.0	34.8	93.0	1018
Gombe	1.3	84.8	92.0	29.5	98.1	1065
Imo	1.7	87.1	93.2	46.8	98.3	1245
Jigawa	18.6	56.4	61.7	7.5	77.5	1992
Kaduna	1.4	86.6	85.6	61.5	94.5	2742
Kano	9.0	76.1	69.2	26.3	88.7	4292
Katsina	5.1	75.4	81.7	35.1	91.4	2675
Kebbi	11.9	70.8	67.9	31.5	78.8	1488
Kogi	5.5	85.1	70.0	29.1	90.9	1209
Kwara	2.2	92.2	95.3	36.9	97.6	909
Lagos	10.2	78.6	74.6	30.4	88.0	2861
Nasarawa	1.6	88.1	86.3	37.7	95.5	750
Niger	6.3	88.4	79.4	25.3	92.6	1842
Ogun	4.9	86.6	86.0	26.1	94.8	1297
Ondo	8.0	77.3	63.2	30.4	85.0	1213
Osun	2.6	90.2	81.2	20.0	96.6	1234
Oyo	3.7	90.0	81.5	33.0	95.0	2125
Plateau	5.8	83.4	77.0	43.9	90.2	1166
Rivers	7.0	84.5	82.5	39.7	91.3	1721
Sokoto	8.9	68.8	77.2	26.1	90.3	1617
Taraba	2.5	84.2	81.7	53.0	90.7	950
Yobe	6.6	80.5	68.4	31.4	91.0	1117
Zamfara	10.4	81.2	77.2	45.6	86.4	1477
FCT (Abuja)	3.2	91.9	89.6	36.2	96.7	513

Table CP.4: Child discipline (continued)

Percentage of children age 2-14 years according to method of disciplining the child, Nigeria, *2011*

	Percentage of children age 2-14 years who experienced:					
	Only non-violent discipline	Psychological aggression	Physical punishment		Any violent discipline method[1]	Number of children age 2-14 years
			Any	Severe		
Area of residence						
Urban	7.2	82.0	79.4	30.7	90.7	17428
Rural	6.2	80.7	79.2	35.8	90.9	37750
Age						
2-4 years	5.9	76.7	79.2	30.4	89.4	14252
5-9 years	6.1	83.1	80.8	35.0	91.9	22294
10-14 years	7.5	82.2	77.5	36.3	90.6	18632
Education of household head						
None	7.9	77.6	75.6	32.1	88.4	21795
Primary	4.2	85.3	84.1	37.2	93.9	11981
Secondary +	6.4	82.3	80.3	34.7	91.6	21391
Missing/DK	.0	100.0	100.0	52.3	100.0	10
Respondent's education						
None	8.0	77.3	75.7	31.7	88.3	23280
Primary	4.1	85.4	83.3	36.5	93.8	11781
Secondary +	6.2	83.0	81.1	35.8	92.0	20113
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile						
Poorest	7.6	76.6	75.9	31.4	88.2	12165
Second	6.8	81.0	77.7	36.4	90.0	11858
Middle	4.1	83.7	82.0	33.1	93.3	10999
Fourth	6.1	82.9	82.5	37.2	92.4	10408
Richest	7.8	82.2	78.7	33.3	90.7	9749
Geopolitical zone						
North-Central	4.0	87.6	82.4	31.0	93.5	8023
North-East	8.7	75.2	75.7	31.4	87.4	8374
North-West	8.6	74.6	74.5	33.6	87.8	16282
South-East	3.4	84.3	89.5	45.2	95.9	5586
South-South	5.1	88.5	84.7	42.4	93.2	7399
South-West	6.1	84.5	77.7	27.8	91.9	9514
Total	6.5	81.1	79.3	34.2	90.8	55178

[1] MICS indicator 8.5

(*) less than 25 unweighted cases

Early Marriage and Polygyny

Marriage before the age of 18 is a reality for many young girls. According to UNICEF's worldwide estimates, over 60 million women age 20-24 were married/in union before the age of 18. Factors that influence child marriage rates include: the state of the country's civil registration system, which provides proof of age for children; the existence of an adequate legislative framework with an accompanying enforcement mechanism to address cases of child marriage; and the existence of customary or religious laws and practices that condone the practice.

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. 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 this young wife to reproduce and the power imbalance resulting from the age differential, often leads to very low condom use among such couples.

Two of the indicators are to estimate the percentage of women married before 15 years of age and percentage married before 18 years of age. The percentage of women married at various ages is provided in Table CP.5. About one in five young women age 15-19 years is currently married (20 percent). This proportion do varies much between urban (8 percent) and rural (28 percent), but is strongly related to the level of education. The percentage of women in a polygynous union is also provided in Table CP.5.

Table CP.5: Early marriage and polygyny

Percentage of women age 15-49 years who first married or entered a marital union before their 15th birthday, percentages of women age 20-49 years who first married or entered a marital union before their 15th and 18th birthdays, percentage of women age 15-19 years currently married or in union, and the percentage of women currently married or in union who are in a polygynous marriage or union, Nigeria, 2011

	Percentage married before age 15[1]	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18[2]	Number of women age 20-49 years	Percentage of women 15-19 years currently married/in union[3]	Number of women age 15-19 years	Percentage of women age 15-49 years in polygynous marriage/ union[4]	Number of women age 15-49 years currently married/in union
State									
Abia	1.9	662	2.4	8.6	547	2.7	115	7.9	385
Adamawa	18.2	723	21.2	43.6	587	20.4	136	43.8	501
Akwa ibom	7.9	964	9.3	24.8	795	4.5	169	6.0	543
Anambra	4.8	887	5.5	18.1	747	6.5	140	6.4	514
Bauchi	47.5	912	51.4	83.8	784	57.2	128	42.5	843
Bayelsa	19.4	376	20.9	50.0	317	23.8	59	27.5	235
Benue	13.8	898	16.0	41.2	689	20.2	209	39.1	564
Borno	26.7	844	30.6	59.6	677	38.4	167	36.7	686
Cross River	8.1	650	9.9	31.3	521	7.2	129	19.4	373
Delta	7.5	976	9.1	25.3	783	6.9	193	26.0	614
Ebonyi	7.6	493	9.1	23.4	391	2.9	102	30.5	281
Edo	7.4	741	9.0	19.5	596	7.7	145	19.5	436
Ekiti	5.6	542	6.9	22.0	445	1.3	97	26.5	345
Enugu	6.6	783	8.8	20.6	592	3.7	191	8.3	369
Gombe	34.4	455	36.2	65.2	387	42.6	68	40.3	375
Imo	2.6	849	3.2	14.9	659	1.5	189	6.8	421
Jigawa	41.6	829	43.7	87.4	719	64.3	110	49.1	765
Kaduna	31.0	1308	33.0	55.6	1090	37.5	219	47.5	1064
Kano	37.1	1822	40.4	68.5	1482	41.5	340	40.0	1526
Katsina	45.0	1128	48.3	78.7	926	60.8	202	55.9	995
Kebbi	33.0	593	33.9	73.0	515	54.9	78	47.2	546
Kogi	13.2	747	16.0	32.4	583	4.8	164	36.9	433
Kwara	5.9	510	6.8	23.2	426	9.0	84	37.4	372
Lagos	2.4	2382	2.9	10.9	1992	1.2	389	15.0	1437
Nasarawa	15.9	456	17.7	43.5	378	16.1	77	46.6	346
Niger	21.2	855	24.0	54.1	731	24.2	124	49.5	734
Ogun	2.2	884	2.5	13.3	753	4.3	131	28.7	648
Ondo	6.3	801	7.5	22.8	630	4.7	171	27.1	504
Osun	1.3	768	1.6	14.7	628	2.5	140	32.9	486
Oyo	4.5	1174	4.7	16.0	979	15.4	195	38.9	904
Plateau	8.8	784	10.7	28.2	631	3.5	153	27.8	480
Rivers	7.6	1257	9.0	22.6	1053	5.0	204	10.8	725
Sokoto	46.3	776	50.0	79.3	643	65.8	133	43.7	703
Taraba	17.5	512	19.4	45.2	438	18.1	74	39.7	374
Yobe	37.4	427	38.9	81.5	363	59.4	64	44.5	389
Zamfara	48.6	652	50.4	78.6	566	63.6	86	54.0	604
FCT (Abuja)	7.9	354	9.4	23.1	292	6.4	62	21.4	220

Table CP.5: Early marriage and polygyny (continued)

Percentage of women age 15-49 years who first married or entered a marital union before their 15th birthday, percentages of women age 20-49 years who first married or entered a marital union before their 15th and 18th birthdays, percentage of women age 15-19 years currently married or in union, and the percentage of women currently married or in union who are in a polygynous marriage or union, Nigeria, 2011

	Percentage married before age 15[1]	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18[2]	Number of women age 20-49 years	Percentage of women 15-19 years currently married/in union[3]	Number of women age 15-19 years	Percentage of women age 15-49 years in polygynous marriage/ union[4]	Number of women age 15-49 years currently married/in union
Area of residence									
Urban	9.1	11330	10.7	24.5	9271	7.6	2059	23.6	7223
Rural	22.6	19442	24.7	48.8	16065	27.9	3377	38.6	14517
Age									
15-19	8.5	5436	na	na	na	20.2	5436	32.1	1101
20-24	19.6	5278	19.6	39.0	5278	na	na	27.5	3147
25-29	18.9	5923	18.9	37.8	5923	na	na	28.2	4753
30-34	21.1	4882	21.1	41.3	4882	na	na	33.8	4413
35-39	17.6	3756	17.6	39.8	3756	na	na	37.2	3443
40-44	20.4	3113	20.4	41.7	3113	na	na	40.2	2818
45-49	19.8	2384	19.8	42.6	2384	na	na	40.9	2066
Education									
None	38.3	9771	38.5	69.3	8787	71.7	984	49.0	9071
Primary	18.9	5453	20.1	44.8	4844	24.8	609	34.5	4370
Secondary +	4.1	15546	5.1	15.9	11704	6.4	3843	16.3	8298
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile									
Poorest	36.7	5456	38.2	67.5	4656	52.5	800	41.4	4692
Second	25.9	5742	28.6	57.2	4703	31.5	1039	45.7	4405
Middle	16.4	6099	19.3	41.0	4842	14.0	1256	38.2	3883
Fourth	9.6	6475	11.3	27.4	5248	12.2	1227	25.8	4279
Richest	4.4	7001	5.2	14.6	5887	2.6	1114	17.1	4481
Geo-political zone									
North-Central	13.1	4603	15.3	36.9	3730	12.5	873	38.9	3148
North-East	30.9	3873	34.0	63.7	3237	38.5	636	41.1	3169
North-West	39.5	7108	42.1	72.5	5940	51.5	1169	47.4	6203
South-East	4.5	3673	5.5	16.8	2936	3.4	736	10.6	1969
South-South	8.6	4964	10.1	26.4	4065	7.3	899	16.8	2926
South-West	3.4	6551	3.9	14.9	5427	4.7	1124	26.4	4325
Total	17.6	30772	19.6	39.9	25336	20.2	5436	33.6	21740

[1] MICS indicator 8.6
[2] MICS indicator 8.7
[3] MICS indicator 8.8
[4] MICS indicator 8.9

(*) less than 25 unweighted cases

Table CP.6 presents the proportion of women who were first married or entered into a marital union before age 15 and 18 by residence and age groups. Examining the percentages married before age 15 and 18 by different age groups allow us to see the trends in early marriage over time. Generally, the result shows that in Nigeria, 40 percent of women married before age 15 while 44 percent married before age 18. In urban area 9 percent of women married before age 15, it was 49 percent in rural areas. Also 24 percent and 18 percent of women married before age 18 in urban and rural areas respectively.

Table CP.6: Trends in early marriage

Percentage of women who were first married or entered into a marital union before age 15 and 18, by residence and age groups, Nigeria,2011

	Urban				Rural				All			
	Percentage of women married before age 15	Number of women	Percentage of women married before age 18	Number of women	Percentage of women married before age 15	Number of women	Percentage of women married before age 18	Number of women	Percentage of women married before age 15	Number of women	Percentage of women married before age 18	Number of women
Age												
15-19	1.5	2059	na	na	12.7	3377	na	na	8.5	5436	na	na
20-24	8.6	1749	19.8	1749	25.1	3528	48.5	3528	19.6	5278	39.0	5278
25-29	9.5	2276	22.7	2276	24.8	3647	47.2	3647	18.9	5923	37.8	5923
30-34	12.4	1917	25.3	1917	26.7	2965	51.7	2965	21.1	4882	41.3	4882
35-39	9.4	1418	24.6	1418	22.6	2339	49.0	2339	17.6	3756	39.8	3756
40-44	13.7	1037	28.2	1037	23.7	2076	48.4	2076	20.4	3113	41.7	3113
45-49	13.2	874	32.8	874	23.7	1509	48.2	1509	19.8	2384	42.6	2384
Total	9.1	11330	24.5	9271	22.6	19442	48.8	16065	17.6	30772	39.9	25336

Another component is the spousal age difference with an indicator being the percentage of married/in union women with a difference of 10 or more years younger than their current spouse. Table CP.7 presents the results of the age difference between husbands and wives. The results show that there are some important spousal age differences in Nigeria. About 44 percent of women age 20-24 are currently married men who is older by ten years or more, and about half (52 percent) of women age 15-19 are currently married to men who are older by ten years or more.

Generally, northern part of Nigeria has more women age 20-24 currently married to men who are older by ten years or more as compare to the southern part. North-West zone has the highest figure of 58 percent; North-East has 52 percent while North-Central has 28 percent. In the southern part, South-East has the highest percentage of 37 percent; South-South has 27 percent while South-West has the least figure 24 percent. More women in the rural (45 percent) married to men who are older by ten years or more compare to urban (41 percent). Similarly, analysis by wealth index quintiles shows that 48 percent of the poorest, 44 percent of the middle and 39 percent of the richest are in that category. Analysis by education shows that more women with no secondary education (55 percent) married men that are ten years older or more compare to 29 percent of those with secondary or higher education.

Distribution by geopolitical zone shows that South-East and North-West has the highest percentage (58 percent) of currently married/in union woman age 15-19 years have partners that are ten years older or more while South-South has the least figure (26 percent).

Table CP.7: 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, 2011

	Percentage of currently married/in union women age 15-19 years whose husband or partner is:						Number of women age 15-19 years currently married/ in union	Percentage of currently married/in union women age 20-24 years whose husband or partner is:						Number of women age 20-24 years currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older[1]	Husband/ partner's age unknown	Total		Younger	0-4 years older	5-9 years older	10+ years older[2]	Husband/ partner's age unknown	Total	
State														
Abia	.0	.0	53.2	46.8	.0	100.0	3	2.4	26.9	28.1	27.5	15.1	100.0	30
Adamawa	.0	15.4	21.8	61.7	1.2	100.0	28	.4	11.2	33.3	50.5	4.6	100.0	96
Akwa ibom	.0	49.1	50.9	.0	.0	100.0	8	.0	30.3	40.6	26.8	2.2	100.0	61
Anambra	.0	12.5	34.4	53.1	.0	100.0	9	1.4	16.0	35.0	47.6	.0	100.0	43
Bauchi	.9	27.0	21.3	49.7	1.1	100.0	73	.4	11.6	24.9	57.0	6.1	100.0	216
Bayelsa	.0	31.1	30.6	30.5	7.8	100.0	14	.0	38.5	42.2	16.2	3.1	100.0	37
Benue	.0	20.6	21.7	49.5	8.2	100.0	42	1.1	23.7	40.5	25.9	8.8	100.0	95
Borno	5.5	7.1	38.0	48.4	1.0	100.0	64	.4	4.2	34.9	51.1	9.5	100.0	133
Cross River	.0	44.5	46.6	4.1	4.7	100.0	9	5.6	35.8	34.1	21.5	2.9	100.0	53
Delta	.0	11.7	50.2	29.5	8.6	100.0	13	.0	38.6	27.3	25.8	8.3	100.0	73
Ebonyi	.0	.0	16.8	70.7	12.5	100.0	3	2.0	25.8	38.7	25.8	7.7	100.0	26
Edo	.0	51.2	14.7	34.1	.0	100.0	11	1.3	43.7	31.6	16.8	6.5	100.0	38
Ekiti	.0	100.0	.0	.0	.0	100.0	1	.0	26.3	42.6	31.1	.0	100.0	39
Enugu	.0	21.8	10.6	67.6	.0	100.0	7	.0	15.0	41.0	44.0	.0	100.0	29
Gombe	.0	9.9	35.4	53.2	1.5	100.0	29	1.4	12.0	39.3	45.4	1.9	100.0	67
Imo	.0	50.1	.0	49.9	.0	100.0	3	5.1	16.5	43.8	33.0	1.7	100.0	42
Jigawa	.0	5.6	30.6	53.6	10.2	100.0	71	.0	3.5	35.4	58.2	2.9	100.0	146
Kaduna	3.6	18.1	26.4	47.9	4.2	100.0	82	.8	12.8	23.9	58.7	3.8	100.0	179
Kano	1.1	4.8	28.7	65.4	.0	100.0	141	.0	4.2	36.8	58.6	.5	100.0	294
Katsina	.0	4.1	28.2	61.1	6.7	100.0	123	2.7	6.8	35.4	54.6	.5	100.0	208
Kebbi	.0	4.5	49.0	43.5	3.1	100.0	43	.0	16.0	30.6	51.4	2.0	100.0	99
Kogi	.0	27.2	53.5	5.7	13.7	100.0	8	1.6	38.1	40.6	17.1	2.5	100.0	42
Kwara	.0	33.6	17.5	48.9	.0	100.0	8	.0	30.3	45.1	24.6	.0	100.0	35

Table CP.7: Spousal age difference (continued)

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, 2011

	Percentage of currently married/in union women age 15-19 years whose husband or partner is:						Number of women age 15-19 years currently married/ in union	Percentage of currently married/in union women age 20-24 years whose husband or partner is:						Number of women age 20-24 years currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older[1]	Husband/ partner's age unknown	Total		Younger	0-4 years older	5-9 years older	10+ years older[2]	Husband/ partner's age unknown	Total	
Lagos	.0	12.9	12.9	42.6	31.5	100.0	5	1.6	43.2	29.6	24.3	1.2	100.0	126
Nasarawa	.0	10.0	28.3	48.5	13.3	100.0	12	.4	27.7	32.8	25.9	13.2	100.0	62
Niger	.0	23.4	40.1	36.5	.0	100.0	30	.0	20.7	43.8	33.4	2.1	100.0	121
Ogun	.0	20.2	28.3	51.5	.0	100.0	6	.0	20.3	47.8	31.0	.9	100.0	53
Ondo	.0	.0	47.7	52.3	.0	100.0	8	.0	39.6	33.2	25.4	1.8	100.0	49
Osun	.0	5.2	42.4	52.3	.0	100.0	4	3.7	33.9	47.0	13.3	2.2	100.0	35
Oyo	5.5	34.3	26.4	33.8	.0	100.0	30	2.1	22.4	48.1	18.3	9.0	100.0	89
Plateau	.0	6.3	47.5	46.2	.0	100.0	5	4.0	36.6	31.5	23.3	4.7	100.0	62
Rivers	.0	27.6	13.5	46.2	12.8	100.0	10	.0	14.5	42.8	41.1	1.6	100.0	83
Sokoto	.0	6.6	31.6	61.8	.0	100.0	88	.8	7.5	30.0	61.5	.2	100.0	129
Taraba	.0	7.7	9.2	66.8	16.3	100.0	13	3.3	12.6	28.6	55.0	.5	100.0	52
Yobe	.8	8.5	45.5	43.9	1.4	100.0	38	.5	13.3	41.3	43.0	2.0	100.0	62
Zamfara	.0	16.2	24.6	57.4	1.8	100.0	55	.0	8.2	25.8	63.6	2.3	100.0	121
FCT (Abuja)	.0	6.7	19.8	68.4	5.1	100.0	4	.3	13.9	26.4	57.2	2.3	100.0	25

Table CP.7: Spousal age difference (continued)

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, 2011

	Percentage of currently married/in union women age 15-19 years whose husband or partner is:						Number of women age 15-19 years currently married/ in union	Percentage of currently married/in union women age 20-24 years whose husband or partner is:						Number of women age 20-24 years currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older[1]	Husband/ partner's age unknown	Total		Younger	0-4 years older	5-9 years older	10+ years older[2]	Husband/ partner's age unknown	Total	
Area of residence														
Urban	1.2	10.6	32.0	51.3	5.0	100.0	157	.6	20.2	35.6	41.0	2.6	100.0	773
Rural	.9	13.6	29.9	52.3	3.2	100.0	943	1.1	16.1	34.3	44.8	3.7	100.0	2374
Age														
15-19	1.0	13.2	30.2	52.2	3.5	100.0	1101	na	na	na	na	na	na	na
20-24	na	na	na	na	na	na	na	.9	17.1	34.6	43.9	3.4	100.0	3147
Education														
None	1.0	10.9	29.5	55.8	2.8	100.0	705	1.0	9.9	31.4	54.7	3.0	100.0	1566
Primary	.8	16.7	27.7	51.3	3.5	100.0	151	.9	21.7	32.0	41.7	3.7	100.0	487
Secondary +	1.1	17.5	33.7	42.3	5.4	100.0	244	.9	25.4	40.4	29.3	3.9	100.0	1093
Wealth index quintile														
Poorest	1.2	13.3	30.0	51.6	3.9	100.0	420	.5	15.4	32.9	48.2	2.9	100.0	877
Second	.7	13.5	27.7	54.9	3.2	100.0	327	1.6	13.3	33.5	46.5	5.1	100.0	724
Middle	.6	12.2	30.9	54.2	2.1	100.0	176	1.4	19.4	31.8	43.8	3.7	100.0	611
Fourth	1.2	15.2	36.7	42.8	4.0	100.0	149	.6	18.2	42.6	37.0	1.5	100.0	562
Richest	.0	2.6	24.5	66.9	6.1	100.0	29	.6	23.2	33.5	38.9	3.8	100.0	374
Geo-political zone														
North-Central	.0	20.3	30.7	43.2	5.8	100.0	109	1.0	26.6	38.7	28.4	5.3	100.0	441
North-East	1.8	14.6	30.4	51.2	2.0	100.0	245	.7	10.3	31.8	52.0	5.3	100.0	626
North-West	.7	7.8	30.0	57.9	3.5	100.0	602	.7	7.6	32.0	58.1	1.6	100.0	1175
South-East	.0	16.5	24.0	58.1	1.5	100.0	25	2.4	19.4	37.5	36.5	4.3	100.0	169
South-South	.0	34.0	33.9	26.0	6.0	100.0	66	1.0	31.5	36.5	27.0	4.0	100.0	345
South-West	3.1	25.3	29.0	39.7	2.9	100.0	53	1.3	32.4	39.6	23.7	3.0	100.0	391
Total	1.0	13.2	30.2	52.2	3.5	100.0	1101	.9	17.1	34.6	43.9	3.4	100.0	3147

[1] MICS indicator 8.10a

[2] MICS indicator 8.10b

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. 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. Among those rights violated are the rights to the highest attainable standard of health and to bodily integrity. Furthermore, it could be argued that girls (under 18) cannot be said to give informed consent to such a potentially damaging practice as FGM/C.

Table CP.8 presents the prevalence of FGM/C among women and the type and extent of the procedure as well as the woman's attitudes towards FGM/C. In Nigeria, 27 percent of women aged 15-49 years had one form or another of FGM/C. Of this number, 13 percent had flesh removed, two percent were nicked, and one percent was sewn closed while 11 percent could not determine the form of the mutilation. FGM/C is least prevalent in the North-East where four percent of the women experienced the practice; it is higher in the South and particularly highest in the South-West (48 percent) and in the South-East (47percent). It is more prevalent in the urban areas than in the rural areas (33 percent versus 24 percent). The percentages increased from 15 percent for women without formal education to 32 percent for women with secondary education and above.

The prevalence of FGM/C is associated with age, education and wealth status. It is presented as a problem of the old, the educated and the rich. It is 12 percent practised among the poorest quintiles, 40 percent in the fourth quintile and 31 percent among the richest quintile. The percentages increased from 15 percent for women without formal education to 32 percent for women with secondary education and above; the prevalence figure of 19 percent among women aged 15-19 increases to 38 percent among women aged 45-49 years. A further analysis is required to provide an insight to the factors responsible for the practice. It is however certain that culture plays an important role. Cutting with flesh removed is the most identified method and the relative popularity of each method varies across categories of background characteristics.

Table CP.8: Female genital mutilation/cutting (FGM/C) among women

Percent distribution of women age 15-49 years by FGM/C status, Nigeria, 2011

	Percent distribution of women age 15-49 years:						Percentage who had any form of FGM/C[1]	Number of women age 15-49 years
	No FGM/C	Who had FGM/C						
		Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total		
State								
Abia	56.0	11.9	1.7	5.3	25.2	100.0	44.0	662
Adamawa	99.6	.2	.0	.0	.2	100.0	.4	723
Akwa ibom	77.5	18.9	1.9	1.4	.3	100.0	22.5	964
Anambra	69.2	10.2	.3	1.5	18.7	100.0	30.8	887
Bauchi	99.8	.1	.0	.0	.2	100.0	.2	912
Bayelsa	59.3	27.6	6.8	2.6	3.6	100.0	40.7	376
Benue	85.6	10.9	.6	1.4	1.4	100.0	14.4	898
Borno	85.6	8.2	1.9	2.3	2.0	100.0	14.4	844
Cross River	61.3	34.9	1.0	1.4	1.4	100.0	38.7	650
Delta	51.1	36.4	1.2	2.5	8.8	100.0	48.9	976
Ebonyi	37.7	27.2	.3	1.3	33.4	100.0	62.3	493
Edo	52.5	31.2	2.0	2.2	12.1	100.0	47.5	741
Ekiti	33.8	34.5	2.1	2.2	27.3	100.0	66.2	542
Enugu	55.0	10.0	.8	5.4	28.9	100.0	45.0	783
Gombe	99.6	.1	.2	.0	.0	100.0	.4	455
Imo	41.6	19.2	1.7	2.8	34.6	100.0	58.4	849
Jigawa	98.0	.8	.1	.6	.6	100.0	2.0	829
Kaduna	81.0	14.5	.3	.3	4.0	100.0	19.0	1308
Kano	73.0	17.2	4.7	1.5	3.6	100.0	27.0	1822
Katsina	94.7	1.5	.0	.0	3.8	100.0	5.3	1128
Kebbi	98.8	.1	.0	.1	1.0	100.0	1.2	593
Kogi	96.7	2.1	.3	.5	.4	100.0	3.3	747
Kwara	41.2	23.2	1.6	1.0	33.0	100.0	58.8	510
Lagos	69.0	10.8	3.6	1.0	15.5	100.0	31.0	2382
Nasarawa	80.9	13.0	.4	.6	5.1	100.0	19.1	456
Niger	97.7	.7	.1	.1	1.3	100.0	2.3	855
Ogun	79.9	4.8	2.2	.2	12.8	100.0	20.1	884
Ondo	37.6	27.6	4.9	1.3	28.7	100.0	62.4	801
Osun	26.6	45.7	10.1	1.3	16.3	100.0	73.4	768
Oyo	29.0	13.5	14.7	2.1	40.8	100.0	71.0	1174
Plateau	97.5	.7	.2	.5	1.0	100.0	2.5	784
Rivers	71.5	14.9	1.0	.5	12.1	100.0	28.5	1257
Sokoto	99.2	.3	.0	.0	.5	100.0	.8	776
Taraba	99.8	.0	.0	.0	.2	100.0	.2	512
Yobe	98.3	1.1	.0	.1	.5	100.0	1.7	427
Zamfara	97.5	2.3	.1	.0	.1	100.0	2.5	652
FCT (Abuja)	83.5	9.4	1.4	.2	5.6	100.0	16.5	354

Table CP.8: Female genital mutilation/cutting (FGM/C) among women (continued)								
Percent distribution of women age 15-49 years by FGM/C status, Nigeria, 2011								
	Percent distribution of women age 15-49 years:						Percentage who had any form of FGM/C[1]	Number of women age 15-49 years
	No FGM/C	Who had FGM/C						
		Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total		
Area of residence								
Urban	67.4	14.1	2.9	1.2	14.4	100.0	32.6	11330
Rural	76.2	12.4	1.7	1.2	8.5	100.0	23.8	19442
Age								
15-19	81.3	8.3	1.9	.8	7.7	100.0	18.7	5436
20-24	78.5	11.0	1.4	.8	8.3	100.0	21.5	5278
25-29	73.9	12.2	2.1	1.2	10.6	100.0	26.1	5923
30-34	70.3	14.3	2.4	1.6	11.3	100.0	29.7	4882
35-39	68.5	15.3	2.2	1.3	12.7	100.0	31.5	3756
40-44	65.1	16.5	3.1	1.7	13.6	100.0	34.9	3113
45-49	62.0	19.6	2.7	1.5	14.2	100.0	38.0	2384
Education								
None	85.5	8.4	1.5	.5	4.1	100.0	14.5	9771
Primary	65.2	17.2	3.0	1.7	12.9	100.0	34.8	5453
Secondary +	67.8	14.5	2.3	1.5	14.0	100.0	32.2	15546
Wealth index quintile								
Poorest	87.8	7.2	1.0	.6	3.4	100.0	12.2	5456
Second	79.2	11.4	1.8	1.1	6.5	100.0	20.8	5742
Middle	70.7	15.6	2.2	1.3	10.2	100.0	29.3	6099
Fourth	61.1	17.3	3.5	1.8	16.4	100.0	38.9	6475
Richest	69.2	12.6	2.1	1.1	14.9	100.0	30.8	7001
Geo-political zone								
North-Central	86.2	7.3	.5	.6	5.4	100.0	13.8	4603
North-East	96.5	2.0	.4	.5	.6	100.0	3.5	3873
North-West	88.1	7.7	1.3	.5	2.5	100.0	11.9	7108
South-East	53.2	14.8	1.0	3.3	27.7	100.0	46.8	3673
South-South	63.6	25.9	1.8	1.6	7.1	100.0	36.4	4964
South-West	51.6	18.6	6.2	1.3	22.4	100.0	48.4	6551
Total	73.0	13.0	2.2	1.2	10.7	100.0	27.0	30772
[1] MICS indicator 8.12								

Table CP.9 presents the prevalence and extent of FGM/C performed on the respondents daughters' age 0-14. Overall, 14 per cent of girls have undergone FGM/C. Daughters whose mothers have no education (19 percent) are more likely to be exposed to the practice of FGM/C compared to daughters whose mothers have primary education (13 percent) or secondary education (12 percent).

FGM/C is least prevalent in the North-East where 4 percent of daughters experienced the practice as against 28 percent in the North-West. In the South, it is highest in the South-West (18 percent) and lowest in South-South (9 percent). It is more prevalent in the rural areas (17 percent) than in the urban areas (11 percent). FGM/C is common among daughters age 10-14 (24 percent) as compared to 16 percent among daughters age 0-4. It is 19 percent practised among the poorest quintiles, and 8 percent among the richest quintile.

Table CP.9: Female genital mutilation/cutting (FGM/C) among daughters

Percent distribution of daughters age 0-14 by FGM/C status, Nigeria, 2011

	Percent distribution of daughters age 0-14 years:						Percentage who had any form of FGM/C[1]	Number of daughters age 0-14 years
	No FGM/C	Who had FGM/C						
		Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total		
State								
Abia	92.1	3.0	.2	1.8	3.1	100.0	7.9	505
Adamawa	98.4	1.6	.0	.0	.0	100.0	1.6	113
Akwa ibom	98.5	1.0	.0	.4	.2	100.0	1.5	617
Anambra	90.5	7.0	.8	1.3	.4	100.0	9.5	672
Bauchi	99.9	.1	.0	.0	.0	100.0	.1	368
Bayelsa	98.1	1.1	.3	.5	.0	100.0	1.9	342
Benue	93.5	5.5	.2	.5	.4	100.0	6.5	363
Borno	91.2	7.4	.0	.2	1.2	100.0	8.8	730
Cross River	86.4	12.1	.0	.1	1.3	100.0	13.6	465
Delta	80.7	15.4	1.8	.9	1.1	100.0	19.3	719
Ebonyi	93.6	4.4	.0	.2	1.7	100.0	6.4	384
Edo	76.8	20.4	.6	1.9	.3	100.0	23.2	477
Ekiti	59.7	31.7	3.3	1.6	3.7	100.0	40.3	377
Enugu	87.1	6.5	.5	4.8	1.1	100.0	12.9	531
Gombe	99.3	.0	.2	.5	.0	100.0	.7	137
Imo	66.6	22.1	1.3	6.0	4.0	100.0	33.4	604
Jigawa	63.1	14.2	.3	22.4	.0	100.0	36.9	181
Kaduna	61.7	35.7	1.3	.0	1.3	100.0	38.3	769
Kano	48.6	32.4	13.4	.1	5.4	100.0	51.4	1212
Katsina	47.0	32.0	.0	.5	20.4	100.0	53.0	201
Kebbi	99.7	.3	.0	.0	.0	100.0	.3	121
Kogi	94.8	3.8	.0	.8	.6	100.0	5.2	132
Kwara	67.2	25.2	2.5	1.7	3.3	100.0	32.8	374
Lagos	89.4	6.7	3.3	.3	.3	100.0	10.6	1383
Nasarawa	90.3	9.2	.0	.0	.5	100.0	9.7	292
Niger	97.8	1.1	.3	.6	.2	100.0	2.2	266
Ogun	92.0	3.3	2.9	.0	1.8	100.0	8.0	478
Ondo	65.6	24.8	5.4	1.0	3.2	100.0	34.4	585
Osun	66.6	31.0	.9	.4	1.0	100.0	33.4	593
Oyo	67.1	12.4	16.4	.9	3.2	100.0	32.9	1027
Plateau	92.8	6.4	.0	.8	.0	100.0	7.2	170
Rivers	91.5	6.1	1.8	.0	.6	100.0	8.5	770
Sokoto	100.0	.0	.0	.0	.0	100.0	.0	356
Taraba	99.3	.0	.0	.7	.0	100.0	.7	39
Yobe	96.4	3.5	.0	.1	.0	100.0	3.6	267
Zamfara	95.0	4.4	.0	.6	.0	100.0	5.0	96
FCT (Abuja)	98.9	.8	.3	.1	.0	100.0	1.1	158

Table CP.9: Female genital mutilation/cutting (FGM/C) among daughters (continued)								
Percent distribution of daughters age 0-14 by FGM/C status, Nigeria, 2011								
	Percent distribution of daughters age 0-14 years:						Percentage who had any form of FGM/C[1]	Number of daughters age 0-14 years
	No FGM/C	Who had FGM/C						
		Had flesh removed	Were nicked	Were sewn closed	Form of FGM/C not determined	Total		
Area of residence								
Urban	84.6	10.6	2.7	.7	1.3	100.0	15.4	6866
Rural	78.1	15.1	3.2	1.4	2.1	100.0	21.9	10008
Age								
0-4	83.9	10.9	2.5	1.0	1.6	100.0	16.1	6950
5-9	80.2	13.8	3.2	1.2	1.7	100.0	19.8	5654
10-14	76.4	16.4	3.7	1.2	2.2	100.0	23.6	4270
Mothers Education								
None	74.2	18.0	4.4	1.0	2.3	100.0	25.8	4780
Primary	81.0	12.6	3.1	1.3	2.0	100.0	19.0	4263
Secondary +	84.7	10.8	2.1	1.0	1.4	100.0	15.3	7828
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Mother's FGM/C experience								
No FGM/C	96.8	1.7	.4	.6	.5	100.0	3.2	8785
Had FGM/C	63.4	25.8	5.9	1.7	3.2	100.0	36.6	8089
Wealth index quintile								
Poorest	75.3	17.5	3.3	1.1	2.9	100.0	24.7	2099
Second	76.9	15.9	3.7	1.3	2.1	100.0	23.1	2843
Middle	79.2	14.7	2.7	1.7	1.7	100.0	20.8	3574
Fourth	78.6	14.7	3.7	1.1	2.0	100.0	21.4	4238
Richest	89.8	6.7	2.1	.5	.9	100.0	10.2	4120
Geo-political zone								
North-Central	88.5	9.2	.7	.7	.9	100.0	11.5	1756
North-East	95.3	4.0	.0	.2	.5	100.0	4.7	1654
North-West	62.7	25.9	5.9	1.5	4.0	100.0	37.3	2937
South-East	85.2	9.2	.6	3.0	2.0	100.0	14.8	2697
South-South	88.4	9.5	.9	.6	.6	100.0	11.6	3389
South-West	75.8	15.4	6.3	.6	1.9	100.0	24.2	4442
Total	80.8	13.3	3.0	1.1	1.8	100.0	19.2	16874
[1] MICS indicator 8.13								

(*) less than 25 unweighted cases

Table CP.10 presents the woman's attitudes towards FGM/C. Regarding opinion as to whether the practice should be continued or discontinued, 22 percent of women thought it should be continued while 66 percent believed it should be discontinued. Women in North-West are more likely to approve of the continuation of the practice of FGM/C than women in other regions. Approval of the continuation of the practice is highest among women with no education (25 percent) than those with secondary education and above (19 percent). About 16 percent of women from the richest households approve of the continuation of the practice compare to 25 percent from the poorest households.

Table CP.10: Approval of female genital mutilation/cutting (FGM/C)

Percentage of women age 15-49 years who have heard of FGM/C, and percent distribution of women according to attitudes towards whether the practice of FGM/C should be continued, Nigeria, 2011

	Percentage of women who have heard of FGM/C	Number of women age 15-49 years	Percent distribution of women who believe the practice of FGM/C should be:					Number of women age 15-49 years who have heard of FGM/C
			Continued[1]	Discontinued	Depends	Don't know	Total	
State								
Abia	92.1	662	11.8	83.2	3.8	1.2	100.0	610
Adamawa	16.8	723	9.8	73.8	10.3	6.1	100.0	121
Akwa ibom	84.1	964	11.9	85.2	.6	2.2	100.0	810
Anambra	72.5	887	22.8	65.3	3.2	8.8	100.0	643
Bauchi	29.6	912	.5	73.6	23.0	2.8	100.0	270
Bayelsa	91.6	376	10.1	85.8	2.1	1.9	100.0	345
Benue	44.8	898	21.9	66.7	9.9	1.4	100.0	402
Borno	76.6	844	18.8	63.5	9.9	7.8	100.0	647
Cross River	81.3	650	12.9	83.7	2.4	1.0	100.0	528
Delta	85.7	976	35.6	57.8	4.0	2.6	100.0	836
Ebonyi	95.9	493	11.8	82.3	4.9	1.0	100.0	473
Edo	78.3	741	38.0	53.9	6.5	1.6	100.0	580
Ekiti	88.4	542	50.2	33.8	9.9	6.2	100.0	479
Enugu	88.3	783	16.5	73.9	2.2	7.4	100.0	691
Gombe	25.0	455	2.3	79.1	9.4	9.3	100.0	114
Imo	90.8	849	27.8	61.2	6.2	4.8	100.0	771
Jigawa	13.9	829	9.1	79.9	2.5	8.6	100.0	115
Kaduna	48.9	1308	37.4	45.8	8.0	8.7	100.0	639
Kano	52.6	1822	38.5	42.6	14.2	4.7	100.0	958
Katsina	13.2	1128	45.2	32.8	12.0	10.0	100.0	149
Kebbi	17.8	593	6.5	70.9	16.5	6.0	100.0	106
Kogi	22.9	747	5.2	71.7	13.4	9.7	100.0	171
Kwara	79.7	510	42.1	44.3	9.5	4.1	100.0	406
Lagos	80.7	2382	14.4	76.2	5.6	3.7	100.0	1921
Nasarawa	56.5	456	25.6	60.8	9.6	4.0	100.0	257
Niger	27.1	855	7.5	42.6	27.1	22.7	100.0	232
Ogun	64.4	884	12.2	69.9	13.9	4.0	100.0	570
Ondo	90.5	801	28.8	62.0	6.9	2.3	100.0	726
Osun	94.3	768	34.8	61.6	1.6	2.0	100.0	724
Oyo	97.1	1174	21.2	64.1	11.1	3.6	100.0	1140
Plateau	31.8	784	7.0	73.2	8.3	11.6	100.0	249
Rivers	83.6	1257	16.9	78.2	2.3	2.5	100.0	1050
Sokoto	41.0	776	.1	79.1	11.9	9.0	100.0	319
Taraba	6.6	512	11.5	74.9	.0	13.6	100.0	34
Yobe	40.9	427	3.4	56.3	26.7	13.6	100.0	174
Zamfara	12.5	652	15.6	66.5	17.2	.8	100.0	82
FCT (Abuja)	69.4	354	7.2	84.9	5.5	2.4	100.0	246

Table CP.10: Approval of female genital mutilation/cutting (FGM/C) (continued)

Percentage of women age 15-49 years who have heard of FGM/C, and percent distribution of women according to attitudes towards whether the practice of FGM/C should be continued, Nigeria, 2011

	Percentage of women who have heard of FGM/C	Number of women age 15-49 years	Percent distribution of women who believe the practice of FGM/C should be:					Number of women age 15-49 years who have heard of FGM/C
			Continued[1]	Discontinued	Depends	Don't know	Total	
Area of residence								
Urban	76.0	11330	20.7	67.6	7.0	4.7	100.0	8616
Rural	51.3	19442	22.7	64.2	8.4	4.7	100.0	9970
Age								
15-19	50.2	5436	32.1	51.5	11.6	4.9	100.0	2731
20-24	54.5	5278	25.0	59.4	9.2	6.5	100.0	2877
25-29	63.6	5923	23.2	63.6	7.4	5.8	100.0	3768
30-34	64.5	4882	21.5	68.4	5.9	4.2	100.0	3148
35-39	65.0	3756	20.8	66.7	7.4	5.1	100.0	2442
40-44	64.8	3113	19.7	68.1	8.4	3.8	100.0	2017
45-49	67.3	2384	20.8	66.0	10.0	3.2	100.0	1603
Education								
None	36.9	9771	25.2	54.5	13.9	6.5	100.0	3602
Primary	64.3	5453	23.9	65.7	6.2	4.2	100.0	3507
Secondary +	73.8	15546	18.9	71.7	5.3	4.0	100.0	11476
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
FGM/C experience								
No FGM/C	45.7	22451	5.1	79.2	8.8	6.8	100.0	10265
Had FGM/C	100.0	8321	39.6	51.2	6.7	2.5	100.0	8321
Wealth index quintile								
Poorest	32.5	5456	25.2	56.4	13.2	5.2	100.0	1771
Second	45.5	5742	23.1	60.5	10.4	6.0	100.0	2612
Middle	61.5	6099	24.1	63.8	7.1	5.0	100.0	3748
Fourth	74.6	6475	23.6	64.2	7.3	5.0	100.0	4831
Richest	80.3	7001	16.3	75.4	5.0	3.3	100.0	5625
Geo-political zone								
North-Central	42.7	4603	20.4	60.3	11.9	7.4	100.0	1964
North-East	35.1	3873	10.3	67.2	14.9	7.6	100.0	1360
North-West	33.3	7108	29.8	51.7	11.7	6.8	100.0	2367
South-East	86.8	3673	18.9	72.1	4.0	5.0	100.0	3187
South-South	83.6	4964	21.1	74.0	2.8	2.1	100.0	4149
South-West	84.9	6551	23.1	65.5	7.7	3.6	100.0	5559
Total	60.4	30772	21.8	65.7	7.8	4.7	100.0	18586

[1] MICS indicator 8.11

(*) less than 25 unweighted cases

Attitudes toward Domestic Violence

The Nigeria MICS4 assessed the attitudes of women and men age 15-49 years towards wife/partner beating for a variety of scenarios by asking the respondents whether husbands are justified to hit or beat their wives/partners for a variety of scenarios. These questions were asked to have an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women that agree with the statements indicating that husbands/partners are justified to beat their wives/partners under the situations described in reality tend to be abused by their own husbands/partners and similarly, men who agree with the statements in reality tend to exercise violence towards their wives or partners.

The responses to these questions can be found in Table CP.11 for women. Overall, 46 percent of women in Nigeria feel that a husband/partner has a right to hit or beat his wife/partner for at least one of a variety of reasons. Women who approve a husband's violence, in most cases agree and justify violence in instances when the woman neglects the children (29 percent), or if she demonstrates her autonomy, e.g. goes out without telling her husband or argues with him (26 percent). Around 26 percent of women believe that their partner has a right to hit or beat them if they refuse to have sex with him or burn food (14 percent).

Women in the middle quintile households (50 percent) feel that their husband/partner has a right to hit or beat them for at least one of a variety of reasons while it is 53 percent and 34 percent for the poorest and the richest respectively. There is no significant disparity between the North and the South. The percentage ranges between North-Central (49 percent) and North-West (50 percent) while it ranges from 42 percent for South-East and 47 percent for South-South. The table also shows that more rural women (49 percent) as against urban women (40 percent) feel that their husband/partner has a right to hit or beat them for at least one of a variety of reasons.

Table CP.11: Attitudes toward domestic violence

Percentage of women age 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, Nigeria, 2011

	Percentage of women age 15-49 years who believe a husband is justified in beating his wife/partner:						Number of women age 15-49 years
	If goes out without telling him	If she neglects the children	If she argues with him	If she refuses sex with him	If she burns the food	For any of these reasons[1]	
State							
Abia	21.4	31.6	21.9	15.4	13.7	43.5	662
Adamawa	27.7	30.7	31.3	25.7	12.8	43.3	723
Akwa ibom	40.7	37.6	37.9	36.8	22.2	56.3	964
Anambra	21.5	24.8	18.2	9.3	7.1	37.5	887
Bauchi	35.6	32.1	33.2	54.4	27.2	61.2	912
Bayelsa	21.7	16.9	15.8	10.0	3.4	33.9	376
Benue	61.7	60.9	51.8	50.3	41.6	80.5	898
Borno	11.0	11.5	12.5	26.4	6.5	30.4	844
Cross River	44.2	55.2	37.6	25.0	37.7	69.0	650
Delta	16.0	25.9	14.9	10.6	12.4	37.2	976
Ebonyi	15.2	19.0	14.9	9.2	5.9	30.6	493
Edo	12.3	25.8	23.6	17.0	7.4	40.5	741
Ekiti	22.2	31.0	20.6	16.8	6.7	39.2	542
Enugu	25.9	31.8	24.9	11.7	12.3	44.6	783
Gombe	21.2	19.3	23.2	26.9	15.7	38.7	455
Imo	27.6	35.1	27.2	19.6	21.9	51.4	849
Jigawa	29.9	24.3	45.8	51.4	16.1	61.4	829
Kaduna	29.5	37.6	40.4	42.8	13.8	62.3	1308
Kano	6.6	8.5	13.2	23.6	6.1	30.7	1822
Katsina	41.3	36.9	38.7	50.9	12.0	64.8	1128
Kebbi	20.3	21.9	21.4	36.6	12.6	48.1	593
Kogi	30.0	28.5	22.4	26.7	11.0	44.3	747
Kwara	12.3	18.6	11.2	6.9	5.6	24.8	510
Lagos	14.5	24.9	18.1	9.4	4.8	32.5	2382
Nasarawa	28.7	31.2	27.1	24.6	16.8	43.8	456
Niger	28.4	28.4	31.9	37.4	15.6	50.8	855
Ogun	24.9	33.4	30.8	16.6	16.0	44.2	884
Ondo	22.3	29.2	24.7	17.5	12.7	37.1	801
Osun	52.3	60.7	48.7	41.2	34.9	66.9	768
Oyo	21.4	29.5	14.9	12.3	9.6	36.9	1174
Plateau	32.8	37.8	31.8	27.6	24.0	48.5	784
Rivers	25.1	30.2	25.8	13.2	15.3	42.4	1257
Sokoto	14.6	13.6	14.9	25.9	1.7	32.9	776
Taraba	27.7	31.8	31.8	34.7	22.2	45.4	512
Yobe	28.9	25.6	27.3	38.5	23.0	50.3	427
Zamfara	36.7	21.5	32.4	45.8	9.3	55.6	652
FCT (Abuja)	6.7	11.2	9.0	7.8	3.0	17.8	354

Table CP.11: Attitudes toward domestic violence (continued)

Percentage of women age 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, Nigeria, 2011

	Percentage of women age 15-49 years who believe a husband is justified in beating his wife/partner:						Number of women age 15-49 years
	If goes out without telling him	If she neglects the children	If she argues with him	If she refuses sex with him	If she burns the food	For any of these reasons[1]	
Area of residence							
Urban	20.9	27.9	23.0	18.9	11.2	39.7	11330
Rural	28.2	29.8	28.3	29.8	15.9	49.0	19442
Age							
15-19	23.3	26.7	24.3	20.1	13.3	41.1	5436
20-24	25.5	29.3	26.8	26.4	14.5	46.3	5278
25-29	25.2	28.9	25.7	25.7	14.0	45.2	5923
30-34	24.9	30.1	26.8	29.5	13.9	48.0	4882
35-39	25.7	30.0	26.3	26.4	14.8	46.1	3756
40-44	27.0	29.5	27.7	27.0	14.4	46.3	3113
45-49	30.4	31.2	28.8	27.5	15.1	48.3	2384
Marital/Union status							
Currently married/in union	27.0	30.1	28.1	29.7	14.8	48.4	21740
Formerly married/in union	29.8	33.9	29.5	24.4	17.5	48.1	1358
Never married/in union	20.7	25.7	20.9	15.0	11.9	37.2	7674
Education							
None	28.1	26.6	30.2	38.6	14.9	50.9	9771
Primary	32.2	36.6	31.3	27.5	18.7	52.3	5453
Secondary +	21.6	28.1	22.2	17.2	12.1	39.8	15546
Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintile							
Poorest	29.9	28.8	31.3	39.6	18.0	52.7	5456
Second	30.8	30.5	31.6	33.8	16.8	51.8	5742
Middle	29.4	33.0	28.9	26.5	16.4	49.5	6099
Fourth	24.1	30.4	24.3	20.4	13.5	43.0	6475
Richest	15.8	23.8	17.8	12.9	7.7	33.8	7001
Geo-political zone							
North-Central	32.5	34.2	29.7	29.6	19.4	49.0	4603
North-East	25.3	25.1	26.3	35.4	17.5	45.2	3873
North-West	23.8	23.1	28.7	38.1	10.0	49.5	7108
South-East	23.0	29.1	22.0	13.3	12.7	42.4	3673
South-South	26.7	32.4	26.5	19.1	16.9	46.6	4964
South-West	23.2	32.1	23.8	16.2	11.8	40.0	6551
Total	25.5	29.1	26.4	25.8	14.2	45.6	30772

[1] MICS indicator 8.14

(*) less than 25 unweighted cases

XII. HIV/AIDS, Sexual Behaviour, and Orphanhood

Knowledge about HIV Transmission and Misconceptions about HIV/AIDS

One of the most important prerequisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. Correct information is the first step toward raising awareness and giving young people the tools to protect them from infection. Misconceptions about HIV are common and can confuse young people and hinder prevention efforts. Different regions are likely to have variations in misconceptions although some appear to be universal (for example, that HIV can be transmitted through sharing food or mosquito bites). The UN General Assembly Special Session on HIV/AIDS (UNGASS) called on governments to improve the knowledge and skills of young people to protect themselves from HIV. The indicators to measure this goal as well as the MDG of reducing HIV infections by half include improving the level of knowledge of HIV and its prevention, and changing behaviors to prevent further spread of the disease. The HIV module was administered to women 15 – 49 years of age.

One indicator which is both an MDG and UNGASS indicator is the percentage of young women who have comprehensive and correct knowledge of HIV prevention and transmission. In Nigeria MICS, all women who have heard of AIDS were asked whether they knew of the three main ways of preventing HIV transmission – having only one faithful uninfected partner, using a condom every time, and abstaining from sex. The results are presented in Table HA.1. Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission: In Nigeria, almost all of the interviewed women (90 percent) have heard of AIDS. However, the percentage of women 15-49 who know of both main ways of preventing HIV transmission is [only 49 percent and 70 percent of women know of that having only one faithful uninfected sex partner can prevent HIV transmission. 54 percent know of using a condom every time as main way of preventing HIV transmission. While 49 percent of women know at least one way, a high proportion of women (51 percent) do not know any of the two ways.

Table HA.1: Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission

Percentage of women age 15-49 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission Nigeria, 2011

	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:		Percentage of women who know both ways	Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge[1]	Number of women
		Having only one faithful uninfected sex partner	Using a condom every time			Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
State											
Abia	99.1	85.8	62.4	58.5	83.2	80.1	77.4	78.4	57.6	40.0	662
Adamawa	92.3	65.6	50.8	46.9	63.6	57.2	51.5	66.2	36.6	23.0	723
Akwa ibom	99.9	97.2	84.6	83.4	85.5	62.4	47.3	77.2	48.9	41.3	964
Anambra	99.4	78.9	47.4	42.9	71.0	77.9	68.8	81.8	49.5	22.4	887
Bauchi	88.1	71.3	29.1	22.9	42.0	60.6	70.0	63.2	22.2	12.3	912
Bayelsa	89.8	61.1	51.3	45.2	53.6	57.4	44.5	64.0	27.7	18.6	376
Benue	96.6	70.0	55.9	48.8	69.7	51.6	44.7	77.4	36.5	21.4	898
Borno	83.3	68.2	49.3	47.7	48.2	60.3	58.4	63.6	39.4	28.9	844
Cross River	96.7	81.6	79.9	69.9	75.5	58.5	49.3	72.1	40.1	31.0	650
Delta	94.6	76.4	59.1	53.1	69.0	67.9	63.8	77.3	44.1	28.9	976
Ebonyi	96.9	82.6	62.9	57.7	66.1	79.0	80.8	75.9	48.9	35.6	493
Edo	92.7	65.7	56.0	46.4	65.1	73.8	68.1	63.4	39.3	19.7	741
Ekiti	96.5	68.5	60.7	52.0	61.5	51.5	64.2	67.7	30.3	20.9	542
Enugu	99.4	69.9	55.3	45.0	82.2	74.7	72.2	83.7	56.7	28.7	783
Gombe	88.9	70.9	33.4	29.6	53.7	58.0	62.2	65.6	38.0	16.4	455
Imo	99.8	80.5	63.9	57.3	75.5	66.0	68.8	84.6	47.8	31.0	849
Jigawa	81.7	61.6	21.6	18.8	33.5	53.8	63.1	60.1	20.7	7.9	829
Kaduna	92.5	81.4	71.3	65.6	59.4	60.3	72.7	70.0	32.8	25.5	1308
Kano	92.8	77.9	55.1	50.4	50.5	65.7	66.7	67.3	31.5	22.3	1822
Katsina	58.8	36.8	25.2	17.9	27.4	39.8	42.0	41.3	17.1	8.0	1128
Kebbi	55.6	37.9	27.1	20.9	15.3	45.6	43.3	44.7	8.8	4.3	593
Kogi	79.3	65.2	43.6	38.5	49.0	51.1	44.2	51.6	24.6	15.9	747
Kwara	88.2	74.2	61.8	55.1	63.1	38.6	56.1	62.7	23.4	15.6	510
Lagos	97.7	80.6	64.9	57.1	77.9	76.2	79.8	80.6	52.7	31.2	2382
Nasarawa	86.0	69.0	53.5	47.8	53.3	34.3	26.6	53.6	19.6	13.8	456
Niger	60.4	40.6	25.5	19.0	29.4	32.9	27.9	35.2	16.8	6.2	855
Ogun	84.5	66.3	54.8	47.2	64.3	53.9	67.4	58.8	32.5	22.4	884
Ondo	97.9	83.0	72.6	67.3	59.2	60.6	69.7	62.3	24.0	20.0	801
Osun	99.1	90.0	75.0	70.2	82.4	59.7	78.5	71.6	37.6	28.4	768
Oyo	91.9	79.2	64.1	60.8	66.4	67.2	75.9	72.8	42.9	31.7	1174
Plateau	88.7	70.8	53.5	47.9	61.2	53.3	50.5	64.8	35.4	23.9	784
Rivers	98.6	86.6	66.1	60.4	74.0	62.6	58.6	81.6	44.1	26.5	1257
Sokoto	85.8	56.8	46.2	38.0	46.1	55.9	51.0	60.0	26.9	17.6	776
Taraba	75.6	66.9	53.4	51.8	47.3	33.2	35.0	37.0	17.5	12.2	512
Yobe	92.6	62.9	20.2	17.6	30.0	51.8	63.2	61.4	16.0	6.0	427
Zamfara	79.7	60.4	37.1	34.9	39.9	45.9	68.2	53.5	24.6	19.7	652
FCT (Abuja)	98.2	84.2	75.4	67.4	80.5	72.9	58.8	80.7	58.6	48.0	354

Table HA.1: Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission (continued)

Percentage of women age 15-49 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission Nigeria, 2011

	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:		Percentage of women who know both ways	Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge[1]	Number of women
		Having only one faithful uninfected sex partner	Using a condom every time			Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
Area of residence											
Urban	96.8	81.1	65.7	59.4	71.8	68.3	70.2	76.5	45.2	29.8	11330
Rural	85.7	66.9	47.9	42.5	53.1	54.9	56.1	61.7	30.1	19.1	19442
Age											
15-24	89.2	70.1	54.3	47.5	58.9	60.1	60.7	67.7	36.0	22.5	10714
25-29	90.7	74.4	57.4	52.2	61.2	58.8	61.8	68.1	35.8	23.6	5923
30-39	89.9	73.0	55.2	49.8	62.2	61.8	62.3	67.8	37.3	24.8	8638
40-49	89.6	72.1	50.3	45.9	57.5	57.4	60.1	64.1	32.5	20.8	5496
Marital status											
Ever married/in union	88.3	70.9	52.1	46.9	57.4	57.5	60.0	64.7	32.9	21.4	23098
Never married/in union	94.1	76.0	61.3	54.3	68.0	67.0	65.0	74.5	44.2	28.1	7674
Education											
None	76.9	56.5	35.1	30.4	38.4	46.5	49.6	50.8	20.4	11.9	9771
Primary	90.9	72.8	53.3	48.2	59.9	55.3	57.6	64.1	30.1	19.2	5453
Secondary +	97.4	81.7	66.9	60.4	73.6	69.9	69.9	78.6	47.3	31.4	15546
Wealth index quintiles											
Poorest	75.7	54.6	32.7	27.8	36.9	44.6	49.0	48.3	18.4	10.8	5456
Second	84.1	64.1	44.8	39.6	48.1	51.1	52.0	57.7	25.8	15.8	5742
Middle	91.2	74.4	56.7	51.2	60.8	58.0	59.4	68.8	34.1	23.0	6099
Fourth	95.6	80.6	63.1	57.9	69.8	65.9	67.8	74.6	42.0	27.2	6475
Richest	98.7	82.6	69.2	61.9	78.0	75.0	74.1	81.4	52.9	34.9	7001
Geo-political zone											
North-Central	83.9	65.4	49.8	43.5	55.8	46.8	43.0	59.5	29.3	18.8	4603
North-East	86.8	68.0	40.3	36.8	48.1	55.0	57.7	60.5	29.2	17.7	3873
North-West	81.0	62.9	44.5	39.1	42.1	54.6	59.9	58.9	25.2	16.7	7108
South-East	99.1	79.1	57.7	51.5	76.0	75.0	72.7	81.5	52.0	30.7	3673
South-South	96.3	81.0	67.5	61.4	72.6	64.4	56.6	74.6	42.5	28.8	4964
South-West	95.0	78.8	65.2	58.8	70.9	65.7	74.8	71.9	41.1	27.5	6551
Total	89.8	72.1	54.4	48.7	60.0	59.9	61.3	67.2	35.7	23.1	30772

[1]MICS indicator 9.1

The results for women age 15-24 are separately presented in Table HA.2. Distribution of young women age 15-24 years by knowledge of HIV transmission, and misconceptions about HIV/AIDS is presented in Table HA. 2. Nine out of 10 young women (89 percent) across the country have heard of AIDS as at 2011. This figure however, represents 97 percent in urban areas and 85 percent in rural areas. Across the zones, there was a slight variation in percentage. For instance, South-East was leading with 99 percent North-Centraland North-West has the lowest percentage of young women age 15-24 years knowledge of HIV transmission with 79 percent.

Table HA.2: Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission among young women

Percentage of young women age 15-24 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission Nigeria, 2011

	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:		Percentage of women who know both ways	Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge[1]	Number of women age 15-24
		Having only one faithful uninfected sex partner	Using a condom every time			Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
States											
Abia	98.5	86.5	70.4	65.5	80.2	79.6	79.3	75.4	52.9	41.3	224
Adamawa	91.3	65.4	48.9	46.8	60.1	52.5	45.3	64.2	32.9	21.4	284
Akwa ibom	100.0	97.7	85.3	83.6	87.0	64.5	49.5	77.8	49.9	41.5	362
Anambra	99.2	81.2	49.6	46.3	64.8	78.2	69.4	82.3	47.3	22.3	268
Bauchi	88.0	69.9	36.1	27.7	45.6	59.1	72.3	60.0	22.7	15.2	353
Bayelsa	91.3	60.7	54.0	47.4	54.5	55.7	53.9	73.0	30.5	19.6	121
Benue	97.1	72.4	56.8	48.4	75.2	52.9	48.0	82.7	40.1	23.7	369
Borno	80.5	69.3	48.3	47.3	49.8	65.1	61.8	66.4	44.8	33.9	337
Cross River	96.7	77.7	81.7	68.8	75.5	59.9	52.4	73.4	41.9	32.7	254
Delta	94.6	76.8	57.4	52.0	63.4	63.0	65.4	74.9	36.4	26.1	327
Ebonyi	96.6	81.8	64.2	57.8	67.5	76.4	81.5	74.8	45.6	32.6	195
Edo	94.7	73.7	64.9	53.9	68.4	72.3	68.8	69.7	38.6	21.5	270
Ekiti	97.0	64.0	61.2	48.1	57.0	52.1	63.0	70.3	32.9	23.5	188
Enugu	99.8	64.7	60.1	44.7	82.2	81.0	73.8	86.5	62.3	29.9	330
Gombe	88.0	66.5	36.5	31.6	53.0	60.3	64.4	68.6	38.4	19.1	162
Imo	99.5	80.6	61.4	52.9	65.9	60.4	60.6	81.5	39.9	25.7	322
Jigawa	78.7	59.7	22.5	20.9	36.2	53.4	59.0	57.9	24.5	9.9	262
Kaduna	95.0	76.6	73.5	62.0	57.1	58.2	72.6	71.7	29.8	22.7	452
Kano	92.1	72.1	52.5	47.6	52.3	65.7	64.6	68.7	35.8	23.2	675
Katsina	56.2	34.5	25.4	17.9	27.0	41.1	40.4	42.0	19.0	8.2	434
Kebbi	48.5	35.8	22.5	17.5	12.6	41.3	38.5	40.0	7.9	2.9	182
Kogi	80.6	65.5	44.9	39.4	50.4	50.9	46.1	51.8	26.7	16.5	299
Kwara	87.8	70.9	63.3	56.1	64.2	46.3	55.8	59.8	26.4	15.4	159

Table HA.2: Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission among young women (continued)

Percentage of young women age 15-24 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission Nigeria, 2011

	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:		Percentage of women who know both ways	Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge[1]	Number of women age 15-24
		Having only one faithful uninfected sex partner	Using a condom every time			Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
Lagos	98.3	74.8	60.1	49.6	73.5	76.9	82.2	86.1	52.7	25.7	756
Nasarawa	84.1	65.2	55.4	49.5	52.2	32.9	26.1	49.2	16.5	10.7	165
Niger	61.9	42.5	28.1	20.9	30.2	33.3	29.9	37.2	19.9	8.3	262
Ogun	85.4	64.8	49.1	41.5	64.7	55.8	73.1	64.4	37.1	22.2	244
Ondo	98.0	82.3	71.8	65.9	59.4	68.0	68.9	58.7	25.7	22.8	276
Osun	98.5	90.6	71.6	67.1	81.7	59.4	76.4	70.1	38.2	26.0	244
Oyo	86.8	73.4	52.7	49.4	65.6	65.4	66.0	68.5	45.0	27.3	333
Plateau	87.3	67.2	52.9	46.2	57.4	53.1	53.8	66.2	35.9	23.8	301
Rivers	98.5	86.0	67.5	59.3	65.4	62.3	56.0	79.5	37.3	21.2	399
Sokoto	82.8	53.8	43.8	38.6	45.3	56.3	43.4	58.8	27.3	16.6	273
Taraba	75.1	65.3	50.5	48.9	45.2	35.3	39.1	38.1	16.4	10.0	168
Yobe	92.9	59.2	23.8	20.4	32.3	56.1	66.3	63.6	16.0	7.2	129
Zamfara	74.7	54.2	34.4	31.6	34.0	46.4	63.6	49.5	21.9	17.0	213
FCT (Abuja)	98.0	76.8	75.9	58.2	80.8	75.7	63.6	82.2	60.2	43.0	119

Table HA.2: Knowledge about HIV transmission, misconceptions about HIV/AIDS, and comprehensive knowledge about HIV transmission among young women (continued)

Percentage of young women age 15-24 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission Nigeria, 2011

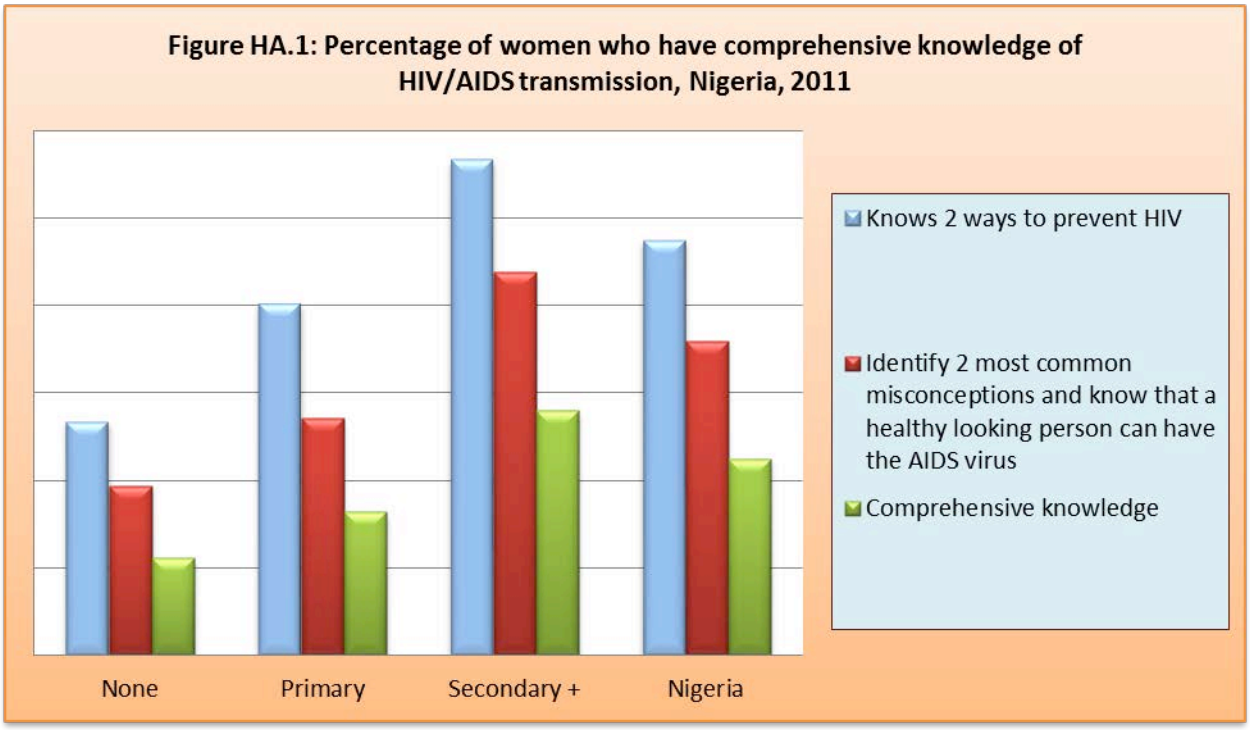
	Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:		Percentage of women who know both ways	Percentage who know that a healthy looking person can have the AIDS virus	Percentage who know that HIV cannot be transmitted by:			Percentage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge[1]	Number of women age 15-24
		Having only one faithful uninfected sex partner	Using a condom every time			Mosquito bites	Supernatural means	Sharing food with someone with AIDS			
Area of residence											
Urban	96.6	77.2	64.0	55.6	70.0	69.4	70.1	78.4	46.7	29.0	3808
Rural	85.2	66.2	48.9	43.0	52.7	55.0	55.5	61.9	30.0	18.9	6906
Age											
15-19	88.9	69.2	53.1	46.4	58.1	60.7	59.8	67.9	35.8	21.9	5436
20-24	89.6	71.1	55.5	48.6	59.7	59.5	61.6	67.6	36.1	23.0	5278
Marital status											
Ever married/in union	83.5	64.2	46.5	40.6	49.3	52.8	55.3	60.2	27.9	17.2	4465
Never married/in union	93.3	74.4	59.9	52.4	65.7	65.3	64.6	73.1	41.7	26.2	6249
Geo-political l zone											
North-Central	84.8	65.0	51.3	43.6	57.6	48.6	45.6	61.6	31.6	19.3	1676
North-East	85.8	67.0	42.1	38.4	49.1	56.3	59.1	61.1	30.3	19.9	1434
North-West	79.3	58.9	43.7	37.6	41.8	54.3	56.9	58.6	26.4	16.3	2491
South-East	98.9	78.0	60.6	52.4	72.3	74.6	71.8	80.9	49.9	29.7	1338
South-South	96.7	81.8	70.0	62.7	70.7	63.6	57.7	75.4	40.2	28.0	1734
South-West	94.7	75.3	60.6	52.8	68.7	66.9	74.2	73.6	42.4	25.0	2041
Total	89.2	70.1	54.3	47.5	58.9	60.1	60.7	67.7	36.0	22.5	10714

[1]MICS indicator 9.2; MDG indicator 6.3

Table HA.1 and HA.2 also present the percent of women who can correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions in Nigeria, that HIV can be transmitted by supernatural means and mosquito bites. The table also provides information on whether women know that HIV cannot be transmitted by sharing food, and that HIV can be transmitted by sharing needles. Sixty percent of the young women 15 – 24 years in 2011 knew that HIV cannot be transmitted by mosquito bites, or transmitted by supernatural means (61 percent) or HIV cannot be transmitted by sharing food 68 percent. Of the interviewed women, 36 percent reject the two most common misconceptions and know that a healthy-looking person can be infected.

Women who have comprehensive knowledge about HIV prevention include women 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 have the AIDS virus, and who reject the two most common misconceptions. Tables HA.1 and HA.2 also present the percentage of women with comprehensive knowledge. Comprehensive knowledge of HIV prevention methods and transmission is fairly low although there are differences by area. Overall, 235 percent of women were found to have comprehensive knowledge, which was slightly higher in urban areas 29 percent. As expected, the percent of women with comprehensive knowledge increases with the woman's education level (Figure HA.1). In addition it also varies greatly across the states.

Figure HA.1: Percentage of women who have comprehensive knowledge of HIV/AIDS transmission, Nigeria, 2011



Knowledge of mother-to-child transmission of HIV is also an important first step for women to seek HIV testing when they are pregnant to avoid infection in the baby. Women should know that HIV can be transmitted during pregnancy, during delivery, and through breastfeeding. The level of knowledge among women age 15-49 years concerning mother-to-child transmission is presented in Table HA.3.

In 2011, 77 percent of women knew that HIV could be transmitted from mother to child compared to 68 percent recorded in (MICS Nigeria, 2007). It is evident that more women are knowledgeable about mother-to-child transmission of HIV. About a little above two-thirds (71 percent) of the women know that mother-to-child transmission may occur through breast milk. The percentage of women who have known all the ways is 50 percent while 13 percent of women did not know of any specific way. Age is seemingly immaterial, but area is relevant as the knowledge increases from the rural to urban sector and from the North to the South. For instance, in rural 45 percent of the women knew all the three means through which HIV can be transmitted to a baby or child while it is 57 percent in the urban

Table HA.3: Knowledge of mother-to-child HIV transmission

Percentage of women age 15-49 years who correctly identify means of HIV transmission from mother to child, Nigeria, 2011

	Percentage who know HIV can be transmitted from mother to child	Percent who know HIV can be transmitted:				Does not know any of the specific means	Number of women
		During pregnancy	During delivery	By breastfeeding	All three means[1]		
State							
Abia	88.6	77.1	71.9	85.0	66.2	10.5	662
Adamawa	88.6	67.5	74.4	86.7	61.0	3.6	723
Akwa ibom	98.0	93.1	90.2	96.0	87.9	2.0	964
Anambra	86.7	70.3	61.5	77.0	50.4	12.8	887
Bauchi	56.5	41.1	37.0	47.0	27.5	31.6	912
Bayelsa	68.2	54.1	50.8	63.6	44.9	21.6	376
Benue	89.7	59.7	58.2	85.2	44.9	6.9	898
Borno	63.6	54.5	51.5	61.2	47.5	19.7	844
Cross River	85.9	66.1	70.0	83.0	59.0	10.8	650
Delta	87.3	69.9	73.4	85.5	65.2	7.2	976
Ebonyi	78.1	58.4	63.0	74.2	49.3	18.8	493
Edo	81.9	63.7	67.5	76.3	55.2	10.8	741
Ekiti	84.7	74.7	75.3	77.1	66.3	11.9	542
Enugu	85.0	72.9	69.0	75.6	58.4	14.4	783
Gombe	68.1	40.4	56.7	65.0	36.8	20.8	455
Imo	92.4	71.0	66.8	85.3	55.4	7.4	849
Jigawa	63.9	34.5	52.7	57.0	28.0	17.8	829
Kaduna	88.9	58.5	71.2	80.4	45.2	3.7	1308
Kano	81.7	73.1	73.1	75.8	65.7	11.1	1822
Katsina	40.4	22.1	30.5	35.5	19.0	18.5	1128
Kebbi	49.1	39.2	44.2	47.4	35.9	6.5	593
Kogi	63.7	46.7	50.5	59.4	38.9	15.6	747
Kwara	77.5	55.5	55.7	60.1	33.8	10.7	510
Lagos	84.7	67.8	65.0	77.7	55.3	13.0	2382
Nasarawa	72.7	51.5	46.6	72.0	42.1	13.3	456
Niger	45.4	34.1	31.6	37.9	24.7	15.0	855
Ogun	69.0	58.9	57.0	61.9	48.7	15.5	884
Ondo	81.0	69.3	72.0	72.5	61.9	16.9	801
Osun	88.9	75.9	74.4	82.9	67.8	10.2	768
Oyo	78.1	69.7	70.8	74.2	65.0	13.8	1174
Plateau	74.9	48.4	54.1	70.1	40.6	13.8	784
Rivers	92.7	79.4	67.4	85.2	56.7	5.9	1257
Sokoto	66.2	25.4	57.5	47.1	19.2	19.6	776
Taraba	58.0	42.4	49.4	55.1	36.7	17.5	512
Yobe	66.0	38.8	40.3	60.4	31.0	26.6	427
Zamfara	58.9	51.0	38.2	56.0	33.5	20.8	652
FCT (Abuja)	92.0	74.8	75.1	87.4	62.6	6.2	354

Table HA.3: Knowledge of mother-to-child HIV transmission (continued)

Percentage of women age 15-49 years who correctly identify means of HIV transmission from mother to child, Nigeria, 2011

	Percentage who know HIV can be transmitted from mother to child	Percent who know HIV can be transmitted:				Does not know any of the specific means	Number of women
		During pregnancy	During delivery	By breastfeeding	All three means[1]		
Area of residence							
Urban	86.0	68.7	69.0	79.0	57.4	10.7	11330
Rural	71.4	54.6	56.5	65.9	45.3	14.3	19442
Age group							
15-19	72.4	55.8	54.5	66.1	44.5	16.5	5436
20-24	75.9	57.0	58.6	69.8	46.6	13.7	5278
25-29	79.4	61.2	63.6	73.1	51.3	11.3	5923
30-34	74.1	61.2	63.6	73.1	51.3	11.3	5923
30-39	78.4	61.6	63.7	72.5	51.8	11.5	8638
40-49	76.6	62.0	63.3	70.8	52.9	13.0	5496
Marital status							
Ever married/in union	75.9	59.2	61.7	69.9	50.0	12.5	23098
Never married/in union	79.5	61.7	59.5	73.1	48.9	14.6	7674
Education							
None	59.2	42.5	47.0	52.9	34.8	17.8	9771
Primary	78.8	62.8	64.1	74.0	54.1	12.1	5453
Secondary +	87.1	69.6	68.9	80.7	57.6	10.3	15546
Wealth index quintiles							
Poorest	56.0	39.6	43.0	50.9	31.7	19.6	5456
Second	68.2	50.9	54.6	62.5	42.9	15.9	5742
Middle	80.4	63.8	65.3	75.1	54.1	10.8	6099
Fourth	85.1	68.5	68.4	79.1	58.1	10.5	6475
Richest	89.1	71.2	70.3	81.3	57.8	9.6	7001
Geo-political zone							
North-Central	71.9	50.8	51.2	65.7	39.3	12.0	4603
North-East	66.7	48.8	51.5	62.2	40.8	20.1	3873
North-West	67.9	47.7	56.3	60.7	39.6	13.1	7108
South-East	86.8	70.7	66.4	79.7	56.0	12.3	3673
South-South	88.3	74.2	72.1	84.1	63.6	7.9	4964
South-West	81.4	68.6	67.8	74.9	59.3	13.5	6551
Total	76.8	59.8	61.1	70.7	49.7	13.0	30772

[1] **MICS indicator 9.3**

Attitudes toward People Living with HIV/AIDS

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are low if respondents report an accepting attitude on the following four questions: 1) Would care for family member sick with AIDS; 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 HIV status of a family member a secret.

Table HA.4 presents the attitudes of women towards people living with HIV/AIDS. Extensive differentials exist among the states in all indicators of attitudes toward people living with HIV/AIDS in Nigeria. In Nigeria, 94 percent of women who have heard of AIDS agree with at least one discriminatory statement. One of the most common discriminative attitudes is people not wanting to keep secret that a family member got infected with the AIDS virus (40 percent). More educated women and those from richest households have more accepting attitudes than the ones with lower education and a poorer wealth statusIn the urban area 95 percent of the women agreed with at least one of the discriminatory statements, while 10 percent agreed with the four indicators. In the same manner, 93 percent of the women in the rural area agreed with at least one of the discriminatory statement as against 8percent, who agreed with all the four discriminatory statements.

About a quarter (73 percent) of the women interviewed expressed willingness to care for a family member with the AIDS virus in their homes. Also, 44 percent said they would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus. Fifty-four percent did not see any reason, why a female teacher with AIDS virus and is not sick should not be allowed to continue teaching.

Table HA.4: Accepting attitudes toward people living with HIV/AIDS

Percentage of women age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV/AIDS, Nigeria, 2011

	Percentage of women who:						Number of women who have heard of AIDS
	Are willing to care for a family member with the AIDS virus in own home	Would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus	Believe that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators[1]	
State							
Abia	69.8	33.1	52.1	32.3	95.6	2.9	656
Adamawa	90.1	47.9	57.9	30.2	97.2	5.7	667
Akwa ibom	80.4	57.8	65.5	32.0	97.5	5.7	963
Anambra	78.4	36.2	45.1	27.7	91.6	3.6	882
Bauchi	70.1	28.3	43.9	49.7	94.3	9.0	804
Bayelsa	60.6	31.9	46.2	51.6	93.4	8.2	338
Benue	91.1	55.6	68.2	61.6	98.7	27.5	868
Borno	76.1	49.6	60.8	55.0	93.4	27.8	703
Cross River	80.0	64.8	61.8	45.4	98.0	16.1	628
Delta	72.3	30.1	41.1	37.7	93.7	3.9	923
Ebonyi	70.8	36.2	55.2	40.4	89.1	9.1	477
Edo	63.4	46.9	57.2	46.4	95.6	8.3	687
Ekiti	39.7	33.8	43.7	58.7	94.2	4.3	523
Enugu	92.7	61.8	63.3	29.9	98.2	11.9	778
Gombe	84.3	63.1	66.5	17.7	94.5	4.1	405
Imo	77.9	28.8	42.6	40.1	93.0	5.6	847
Jigawa	71.3	41.0	50.7	26.6	90.1	1.3	677
Kaduna	88.8	48.5	68.1	36.4	98.2	10.3	1210
Kano	79.4	56.8	57.6	26.8	94.3	6.8	1692
Katsina	73.9	44.9	48.6	29.4	88.6	7.1	664
Kebbi	49.7	50.2	54.8	41.9	94.9	3.2	330
Kogi	80.8	41.5	58.2	63.1	96.5	21.7	592
Kwara	68.8	31.7	44.2	29.3	90.0	3.4	450
Lagos	68.9	52.4	64.7	30.6	94.0	8.4	2327
Nasarawa	80.4	42.9	63.0	40.6	94.6	11.5	392
Niger	74.0	44.2	51.6	52.5	90.0	21.6	517
Ogun	60.7	27.6	38.4	31.9	87.7	2.7	747
Ondo	40.1	32.5	36.9	65.1	96.3	3.0	784
Osun	52.8	27.7	49.1	52.8	92.0	4.9	761
Oyo	58.8	33.3	42.8	64.7	92.1	9.0	1079
Plateau	90.7	61.3	69.2	37.5	97.6	15.3	695
Rivers	69.4	43.5	48.2	44.0	89.9	10.5	1239
Sokoto	73.5	55.4	53.6	10.4	82.1	1.6	666
Taraba	89.2	54.9	57.2	39.8	97.4	13.6	387
Yobe	66.0	29.1	38.6	44.4	90.9	4.1	395
Zamfara	56.8	25.4	35.0	56.9	89.6	9.5	519
FCT (Abuja)	82.8	55.3	68.6	35.1	92.8	16.4	348

Table HA.4: Accepting attitudes toward people living with HIV/AIDS (continued)

Percentage of women age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV/AIDS, Nigeria, 2011

	Percentage of women who:						Number of women who have heard of AIDS
	Are willing to care for a family member with the AIDS virus in own home	Would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus	Believe that a female teacher with the AIDS virus and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators[1]	
Area of residence							
Urban	73.4	50.1	59.9	38.1	94.8	10.1	10964
Rural	72.4	40.4	50.1	41.5	92.8	8.4	16655
Age group							
15-24	73.5	44.3	55.3	38.5	93.5	8.9	9318
25+	73.0	44.1	53.2	40.9	93.2	9.2	17567
Age group							
15-19	73.6	44.4	55.2	38.3	93.9	8.8	9561
20-24	72.8	42.3	55.9	39.6	93.7	9.1	4833
25-29	74.5	46.5	54.6	37.0	94.0	8.4	4728
30-34	73.6	45.7	55.0	39.3	93.8	8.9	5373
30-39	72.3	44.9	53.4	41.1	93.7	9.2	7763
40-49	71.1	41.4	51.4	43.0	92.8	9.4	4922
Marital Status							
Ever married/in union	71.8	42.8	51.5	40.9	93.0	8.7	20401
Never married/in union	75.7	48.4	61.0	38.0	95.3	10.1	7218
Education							
None	70.6	38.0	47.2	38.6	90.7	6.8	7517
Primary	70.4	39.3	48.4	44.6	93.8	8.8	4958
Secondary +	74.7	49.0	59.2	39.4	95.0	10.2	15142
Wealth index quintiles							
Poorest	69.2	36.0	45.9	39.9	91.4	6.1	4128
Second	72.1	39.0	48.4	42.3	91.7	8.1	4830
Middle	73.4	43.7	53.2	42.4	94.1	9.6	5562
Fourth	70.5	44.9	53.9	43.2	94.1	10.5	6189
Richest	77.1	52.8	63.5	34.2	95.5	9.7	6910
Geo-political zone							
North-Central	82.7	48.8	61.3	48.0	95.0	18.2	3861
North-East	78.7	44.0	53.8	41.3	94.7	11.7	3361
North-West	75.4	48.5	55.3	30.8	92.2	6.4	5758
South-East	78.8	39.4	51.0	33.6	93.7	6.4	3640
South-South	72.1	46.3	53.3	41.4	94.3	8.5	4778
South-West	58.1	39.0	50.6	46.1	93.0	6.3	6221
Total	72.8	44.3	54.0	40.1	93.6	9.0	27619

[1] MICS indicator 9.4

Knowledge of a Place for HIV Testing, Counseling and Testing during Antenatal Care

Another important indicator is the knowledge of where to be tested for HIV and use of such services. In order to protect themselves and to prevent infecting others, it is important for individuals to know their HIV status. Knowledge of own status is also a critical factor in the decision to seek treatment. Questions related to knowledge among women of a facility for HIV testing and whether they have ever been tested is presented in Table HA.5. 6 out of 10 women (61 percent) of age 15 – 49 years have knowledge of a place for HIV testing in the country. This represents 74 percent in urban areas and 54 percent in the rural areas. 31 percent have actually been tested. Of these, almost half have been tested within the last 12 months 14 percent); while fewer have been tested and told the result within the last 12 months (11 percent).

Across the zones, South-East has more women age 15 – 49 years, who know where to test for HIV with 72 percent. South-South was next with 70 percent, South-West 65 percent, North-Central 58 percent, North-West 52 percent and North-East 52 percent.

In the urban areas it was 19 percent and in rural areas 11 percent, who were tested for HIV in the last 12 months. Among the women who had gone for HIV test and were told the outcome of the test or shown the result after the test (11 percent for Nigeria). The percentage is higher in the urban areas (16 percent) than the rural areas with 9 percent.

In the wealth index quintile, more women with the rich background went for HIV test than those that are from the poor background. For instance, 81 percent of the richest wealth quintile had ever been tested for the HIV as against 35 percent in the poorest wealth quintile. Generally, the number of women age 15 – 49 years who have gone for HIV test in 2011 (31 percent) increased compared to the number for 2007 (26 percent).

Table HA.5: Knowledge of a place for HIV testing

Percentage of women age 15-49 years who know where to get an HIV test, percentage of women who have ever been tested, percentage of women who have been tested in the last 12 months, and percentage of women who have been tested and have been told the result, Nigeria, 2011

	Percentage of women who:				
	Know a place to get tested[1]	Have ever been tested	Have been tested in the last 12 months	Have been tested and have been told result[2]	Number of women
State					
Abia	68.7	43.7	16.3	9.8	662
Adamawa	63.6	21.7	12.2	10.3	723
Akwa ibom	73.4	36.9	15.5	14.6	964
Anambra	75.2	52.9	20.4	15.2	887
Bauchi	39.7	6.9	3.1	1.8	912
Bayelsa	55.1	25.8	15.3	11.0	376
Benue	72.7	39.3	23.9	21.9	898
Borno	54.0	9.0	2.5	2.2	844
Cross River	68.2	45.1	22.9	21.0	650
Delta	69.6	33.5	11.8	9.1	976
Ebonyi	59.6	34.3	16.3	14.5	493
Edo	64.1	34.0	22.2	18.0	741
Ekiti	64.0	36.0	14.9	9.3	542
Enugu	71.8	49.1	19.1	17.2	783
Gombe	68.1	39.2	18.2	14.4	455
Imo	78.2	53.2	25.7	21.8	849
Jigawa	42.7	6.6	2.1	1.4	829
Kaduna	68.9	29.8	13.1	11.7	1308
Kano	64.3	21.5	8.7	5.4	1822
Katsina	38.8	7.2	3.6	2.8	1128
Kebbi	26.8	5.0	2.0	1.2	593
Kogi	50.0	30.4	11.7	10.4	747
Kwara	58.6	34.6	12.7	8.0	510
Lagos	75.4	50.8	23.0	20.3	2382
Nasarawa	52.9	32.3	16.3	14.9	456
Niger	34.3	12.4	6.5	5.4	855
Ogun	55.0	34.8	14.1	12.0	884
Ondo	56.9	28.0	10.3	8.2	801
Osun	66.6	36.9	13.3	11.0	768
Oyo	56.9	39.4	15.0	12.0	1174
Plateau	66.8	40.9	16.0	15.4	784
Rivers	76.9	45.5	25.3	23.1	1257
Sokoto	46.6	3.3	1.3	1.0	776
Taraba	39.9	17.7	8.2	5.6	512
Yobe	48.7	9.4	5.4	4.6	427
Zamfara	47.6	3.4	1.2	.9	652
FCT (Abuja)	85.3	56.8	23.6	19.4	354

Table HA.5: Knowledge of a place for HIV testing (continued)

Percentage of women age 15-49 years who know where to get an HIV test, percentage of women who have ever been tested, percentage of women who have been tested in the last 12 months, and percentage of women who have been tested and have been told the result, Nigeria, 2011

	Percentage of women who:				
	Know a place to get tested[1]	Have ever been tested	Have been tested in the last 12 months	Have been tested and have been told result[2]	Number of women
Area of residence					
Urban	73.6	43.6	19.0	16.4	11330
Rural	53.6	23.3	10.6	8.5	19442
Age					
15-19	55.6	19.0	9.8	8.0	10714
20-24	49.1	9.3	5.2	4.4	5436
25-29	62.2	29.0	14.5	11.8	5278
30-34	68.1	42.9	21.6	18.2	5923
35-39	65.1	39.8	16.4	13.3	8638
40-44	57.2	26.4	8.5	7.7	5496
Marital status					
Ever married/in union	60.9	34.4	14.7	12.0	23098
Never married/in union	61.2	20.0	10.5	9.5	7674
Education					
None	40.9	10.1	4.5	3.3	9771
Primary	57.3	29.9	11.9	9.1	5453
Secondary +	74.9	44.1	20.1	17.3	15546
Wealth index quintiles					
Poorest	35.3	8.2	4.0	2.9	5456
Second	49.5	16.3	6.9	5.4	5742
Middle	59.8	26.6	11.6	9.5	6099
Fourth	71.8	40.6	17.4	13.7	6475
Richest	81.4	54.8	25.2	22.5	7001
Geo-political zone					
North-Central	58.3	33.3	15.3	13.4	4603
North-East	51.6	15.6	7.4	5.8	3873
North-West	52.0	14.0	5.9	4.4	7108
South-East	71.9	48.0	20.1	16.1	3673
South-South	70.1	38.2	19.2	16.7	4964
South-West	65.1	40.9	17.0	14.2	6551
Total	61.0	30.8	13.7	11.4	30772

[1] MICS indicator 9.5

[2] MICS indicator 9.6

Table HA.6 presents the same results for sexually active young women. The proportion of young women who have been tested and have been told the result within the last 12 months provides a measure of the effectiveness of interventions that promote HIV counseling and testing among young people. This is important to know, because young people may feel that there are barriers to accessing services related to sensitive issues, such as sexual health.

Across the zones, South-South has the highest percentage of women age 15 – 24 years, who know where to test for HIV with 72 percent while North-West has the least percentage of 47.

About six in ten (59 percent) of women aged 15-24 have had sex and 13 percent have been tested in the last twelve months before the survey. Among the women age 15-24 years who had gone for HIV test and who know the results of theirtest, 14 percent are from urban areas against twice less in rural areas (7 percent).

More women aged 15-24 from the richest households (52 percent) had been tested for HIV than those that are from the poorest (8 percent).

Table HA.6: Knowledge of a place for HIV testing among sexually active young women

Percentage of women age 15-24 years who have had sex in the last 12 months, and among women who have had sex in the last 12 months, the percentage who know where to get an HIV test, percentage of women who have ever been tested, percentage of women who have been tested in the last 12 months, and percentage of women who have been tested and have been told the result, Nigeria, 2011

	Percentage who have had sex in the last 12 months	Number of women age 15-24 years	Percentage of women who:				Number of women age 15-24 years who have had sex in the last 12 months
			Know a place to get tested	Have ever been tested	Have been tested in the last 12 months	Have been tested and have been told result[1]	
State							
Abia	51.7	224	63.4	36.8	23.0	11.7	116
Adamawa	55.9	284	66.0	26.8	14.8	11.3	159
Akwa ibom	69.3	362	82.4	29.5	9.1	6.6	251
Anambra	43.1	268	68.7	41.0	21.2	10.9	115
Bauchi	84.1	353	35.1	6.5	2.4	.9	297
Bayelsa	78.5	121	54.5	23.0	13.7	7.7	95
Benue	58.9	369	77.2	37.6	30.5	24.6	218
Borno	60.8	337	58.6	13.3	2.2	2.2	205
Cross River	64.0	254	65.3	43.4	27.2	23.6	162
Delta	52.9	327	64.0	27.2	15.4	9.7	173
Ebonyi	47.5	195	63.9	27.3	11.0	8.1	92
Edo	53.1	270	67.5	27.3	21.6	17.7	143
Ekiti	50.8	188	51.2	31.4	14.3	12.3	95
Enugu	42.2	330	74.3	48.9	22.2	18.1	139
Gombe	64.3	162	64.7	34.8	16.6	9.1	104
Imo	38.1	322	78.6	50.9	32.8	25.1	123
Jigawa	83.3	262	39.5	7.8	3.7	1.9	218
Kaduna	68.6	452	65.0	28.2	14.6	8.3	310
Kano	68.4	675	60.4	23.3	12.7	7.8	461
Katsina	76.2	434	29.8	4.5	3.0	2.2	331
Kebbi	79.1	182	27.9	4.2	2.2	1.0	144
Kogi	44.5	299	52.0	24.7	10.4	8.2	133
Kwara	45.5	159	62.1	31.6	12.9	6.3	73
Lagos	38.8	756	68.4	35.2	17.0	10.4	294
Nasarawa	55.4	165	51.8	33.8	22.2	13.9	91
Niger	61.1	262	38.8	14.6	9.4	5.4	160
Ogun	46.9	244	48.4	23.4	12.1	11.0	115
Ondo	46.3	276	71.7	41.0	17.9	9.4	128
Osun	39.1	244	72.5	37.5	17.3	10.4	96
Oyo	45.1	333	45.1	27.9	15.5	9.1	150
Plateau	41.7	301	71.2	42.3	21.2	19.9	126
Rivers	73.0	399	78.5	44.6	22.1	14.6	292
Sokoto	80.8	273	47.4	3.4	1.4	.8	221
Taraba	59.0	168	47.9	19.9	10.0	8.7	99
Yobe	78.2	129	46.6	10.7	4.0	1.9	101
Zamfara	83.6	213	45.2	3.2	.4	.2	178
FCT (Abuja)	46.0	119	80.6	50.5	30.9	13.1	55

Table HA.6: Knowledge of a place for HIV testing among sexually active young women (continued)

Percentage of women age 15-24 years who have had sex in the last 12 months, and among women who have had sex in the last 12 months, the percentage who know where to get an HIV test, percentage of women who have ever been tested, percentage of women who have been tested in the last 12 months, and percentage of women who have been tested and have been told the result, Nigeria, 2011

	Percentage who have had sex in the last 12 months	Number of women age 15-24 years	Percentage of women who:				Number of women age 15-24 years who have had sex in the last 12 months
			Know a place to get tested	Have ever been tested	Have been tested in the last 12 months	Have been tested and have been told result[1]	
Area of residence							
Urban	46.5	3808	74.6	38.8	20.1	14.0	1769
Rural	65.1	6906	51.9	20.2	10.7	7.2	4495
Age							
15-19	37.2	5436	50.8	14.8	8.9	6.8	2023
20-24	80.4	5278	61.9	30.5	15.5	10.3	4241
Marital status							
Ever married/in union	96.7	4465	53.8	25.6	13.4	7.6	4319
Never married/in union	31.1	6249	68.5	25.0	13.3	12.5	1945
Education							
None	87.8	2639	39.5	8.9	4.7	2.6	2316
Primary	63.0	1233	55.9	25.2	10.1	6.2	776
Secondary +	46.3	6841	72.7	37.6	20.5	14.6	3170
Wealth index quintiles							
Poorest	78.2	1848	36.2	7.6	4.2	2.7	1446
Second	67.0	2014	50.5	16.4	7.9	4.9	1350
Middle	56.4	2391	60.9	24.2	13.8	9.1	1349
Fourth	52.3	2334	74.6	38.0	19.3	13.7	1220
Richest	42.3	2126	79.8	52.4	27.7	19.6	899
Geo-political zone							
North-Central	51.0	1676	61.4	31.9	19.7	14.3	856
North-East	67.3	1434	50.9	16.2	6.9	4.7	965
North-West	74.8	2491	47.8	13.2	6.9	4.1	1864
South-East	43.7	1338	70.3	42.0	22.6	15.3	585
South-South	64.4	1734	71.7	34.3	18.1	13.2	1117
South-West	43.0	2041	60.9	33.1	16.0	10.3	877
Total	58.5	10714	58.3	25.4	13.4	9.1	6264

[1] MICS indicator 9.7

Among women who had given birth within the two years preceding the survey, the percent who received counselling and HIV testing during antenatal care is presented in Table HA.7. About 7 (66 percent) out of 10 women percent have received antenatal care from a health care professional for last pregnancy. This represents 88 percent in urban areas and 56 percent in the rural areas. In addition, at 94 percent South-East has more women age 15 – 49 years, who received antenatal care from a health care professional for last pregnancy while North-West has the least at 42 percent . In the wealth index quintile, more women with the richest background (95 percent) received antenatal care from a health care professional for last pregnancy than those that are from the poorest (30 percent) background.

In Nigeria, 29 percent of women were offered HV test and were tested for HIV during antenatal care and received results. Of this, 60 percent were from the richest wealth quintile and 5 percent from the poorest. In addition, 47 percent were in the urban area and 20 percent in the rural.

Table HA.7: HIV counseling and testing during antenatal care

Among women age 15-49 who gave birth in the last 2 years, percentage of women who received antenatal care from a health professional during the last pregnancy, percentage who received HIV counselling, percentage who were offered and accepted an HIV test and received the results, Nigeria, 2011

	Percentage of women who:					Number of women who gave birth in the 2 years preceding the survey
	Received antenatal care from a health care professional for last pregnancy	Received HIV counselling during antenatal care[1]	Were offered an HIV test and were tested for HIV during antenatal care	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, accepted and received the results	
State						
Abia	95.0	82.7	63.0	34.4	34.4	189
Adamawa	67.1	54.2	31.9	25.8	25.8	226
Akwa ibom	67.3	67.3	56.5	43.2	43.2	254
Anambra	93.6	79.7	71.5	51.3	51.3	270
Bauchi	31.2	19.9	9.2	4.1	4.1	455
Bayelsa	47.9	34.5	24.1	14.6	14.6	144
Benue	69.2	43.8	36.4	34.6	34.6	244
Borno	43.4	28.2	11.3	8.8	8.8	270
Cross River	67.5	58.2	47.3	44.8	44.8	203
Delta	81.7	53.8	39.5	29.5	29.5	293
Ebonyi	80.3	65.5	47.3	37.3	37.3	137
Edo	86.7	59.7	44.7	34.7	34.7	204
Ekiti	95.9	67.0	38.0	26.2	26.2	152
Enugu	98.6	80.1	67.7	59.0	59.0	181
Gombe	68.1	50.0	45.7	29.0	29.0	175
Imo	97.6	83.8	74.7	61.0	61.0	180
Jigawa	42.1	17.0	9.1	6.0	6.0	333
Kaduna	76.6	50.9	38.1	31.4	31.4	494
Kano	55.5	35.2	26.9	14.6	14.6	725
Katsina	16.9	8.1	4.7	2.6	2.6	443
Kebbi	32.5	9.1	4.3	1.8	1.8	252
Kogi	85.8	49.6	44.3	34.7	34.7	161
Kwara	91.7	68.3	54.8	35.8	35.8	168
Lagos	92.8	80.0	70.2	60.9	60.9	686
Nasarawa	70.8	45.4	37.6	33.4	33.4	157
Niger	65.5	30.7	13.7	11.5	11.5	285
Ogun	89.7	61.2	52.6	43.8	43.8	272
Ondo	82.0	69.4	48.5	36.8	36.8	206
Osun	97.2	71.0	53.7	41.6	41.6	215
Oyo	85.1	69.7	55.6	42.4	42.4	416
Plateau	77.6	52.9	37.2	35.2	35.2	196
Rivers	80.3	67.6	51.5	45.3	45.3	318
Sokoto	16.6	13.7	5.6	4.5	4.5	273
Taraba	44.5	28.9	21.0	13.2	13.2	145
Yobe	45.4	22.0	8.4	5.2	5.2	191
Zamfara	15.5	11.5	3.9	2.7	2.7	275
FCT (Abuja)	90.7	81.7	71.8	55.1	55.1	90

Table HA.7: HIV counseling and testing during antenatal care **(continued)**

Among women age 15-49 who gave birth in the last 2 years, percentage of women who received antenatal care from a health professional during the last pregnancy, percentage who received HIV counselling, percentage who were offered and accepted an HIV test and received the results, Nigeria, 2011

	Percentage of women who:					Number of women who gave birth in the 2 years preceding the survey
	Received antenatal care from a health care professional for last pregnancy	Received HIV counseling during antenatal care[1]	Were offered an HIV test and were tested for HIV during antenatal care	Were offered an HIV test and were tested for HIV during antenatal care, and received the results[2]	Received HIV counseling, were offered an HIV test, accepted and received the results	
Area of residence						
Urban	87.6	70.5	58.6	47.1	47.1	3122
Rural	56.4	38.2	26.8	19.9	19.9	6757
Young women						
15-24	57.7	37.6	25.7	17.8	17.8	2616
Age						
15-19	48.3	30.8	16.9	12.1	12.1	598
20-24	60.4	39.6	28.3	19.6	19.6	2018
25-29	71.4	54.0	42.5	33.5	33.5	2854
30-34	70.2	53.9	42.2	33.6	33.6	3662
35-49	57.5	38.2	28.0	21.7	21.7	747
Marital status						
Ever married/in union	66.2	48.3	36.8	28.5	28.5	9672
Never married/in union	69.4	51.5	38.0	30.2	30.2	206
Education						
None	39.4	21.0	11.8	8.0	8.0	3951
Primary	72.7	51.3	37.4	26.9	26.9	1852
Secondary +	89.3	73.7	60.8	49.1	49.1	4076
Wealth index quintiles						
Poorest	30.0	14.1	7.7	5.0	5.0	2167
Second	50.6	30.1	19.1	13.3	13.3	2002
Middle	73.0	51.2	34.9	26.8	26.8	1830
Fourth	87.8	68.1	55.0	40.6	40.6	1963
Richest	95.1	83.5	71.4	60.0	60.0	1917
Geo-Political zone						
North-Central	76.3	49.0	37.5	31.1	31.1	1301
North-East	46.6	31.5	18.5	12.4	12.4	1463
North-West	41.7	24.7	16.9	11.3	11.3	2795
South-East	93.7	79.1	66.2	49.2	49.2	956
South-South	74.1	58.9	45.5	36.9	36.9	1417
South-West	90.3	72.0	58.0	47.1	47.1	1948
Total	66.2	48.4	36.8	28.5	28.5	9879

[1] MICS indicator 9.8

[2] MICS indicator 9.9

Sexual Behaviour Related to HIV Transmission

Promoting safer sexual behaviour is critical for reducing HIV prevalence. The use of condoms during sex, especially with non-regular partners, is especially important for reducing the spread of HIV. In most countries, over half of new HIV infections are among young people age 15-24 years thus a change in behaviour among this age group will be especially important to reduce new infections. A set of questions was administered to all women 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, sex with a non-marital non-cohabitating partner, and failure to use a condom.

Table HA.8: Sexual behaviour that increases the risk of HIV infection

Percentage of never-married young women age 15-24 years who have never had sex, percentage of young women age 15-24 years who have had sex before age 15, and percentage of young women age 15-24 years who had sex with a man 10 or more years older during the last 12 months, Nigeria, 2011

	Percentage of never-married women age 15-24 years who have never had sex[1]	Number of never-married women age 15-24 years	Percentage of women age 15-24 years who had sex before age 15[2]	Number of women age 15-24 years	Percentage of women age 15-24 years who had sex in the last 12 months with a man 10 or more years older[3]	Number of women age 15-24 years who had sex in the 12 months preceding the survey
State						
Abia	47.9	190	4.9	224	13.4	116
Adamawa	73.5	153	10.1	284	52.8	159
Akwa ibom	32.6	278	6.8	362	23.4	251
Anambra	58.4	215	8.0	268	26.4	115
Bauchi	92.9	60	42.4	353	56.2	297
Bayelsa	37.4	62	22.6	121	19.2	95
Benue	58.1	219	13.7	369	24.9	218
Borno	96.9	132	16.0	337	51.5	205
Cross River	40.4	184	9.9	254	19.0	162
Delta	60.7	235	7.7	327	23.7	173
Ebonyi	54.6	164	9.0	195	25.0	92
Edo	50.4	215	6.8	270	12.2	143
Ekiti	54.2	145	4.7	188	15.9	95
Enugu	55.3	289	7.0	330	21.1	139
Gombe	85.7	58	29.5	162	51.1	104
Imo	63.1	275	5.5	322	25.0	123
Jigawa	100.0	38	28.1	262	62.8	218
Kaduna	73.4	184	23.5	452	55.2	310
Kano	90.9	219	32.4	675	71.6	461
Katsina	100.0	97	35.0	434	63.5	331
Kebbi	98.3	37	27.0	182	50.4	144
Kogi	60.6	244	15.8	299	18.6	133
Kwara	69.8	116	6.1	159	21.3	73
Lagos	64.2	611	4.7	756	19.5	294
Nasarawa	74.1	88	14.7	165	29.3	91
Niger	78.9	110	18.8	262	37.1	160
Ogun	60.1	181	3.1	244	19.1	115
Ondo	67.0	216	4.5	276	17.4	128
Osun	64.0	199	3.1	244	9.3	96
Oyo	81.1	212	1.9	333	19.7	150
Plateau	63.1	227	7.7	301	25.7	126
Rivers	27.6	297	14.0	399	23.8	292
Sokoto	88.4	51	37.5	273	71.2	221
Taraba	55.8	96	17.1	168	44.8	99
Yobe	95.9	28	33.3	129	54.4	101
Zamfara	97.8	35	38.6	213	67.0	178
FCT (Abuja)	66.0	90	5.5	119	35.3	55

Table HA.8: Sexual behaviour that increases the risk of HIV infection (continued)

Percentage of never-married young women age 15-24 years who have never had sex, percentage of young women age 15-24 years who have had sex before age 15, and percentage of young women age 15-24 years who had sex with a man 10 or more years older during the last 12 months, Nigeria, 2011

	Percentage of never-married women age 15-24 years who have never had sex[1]	Number of never-married women age 15-24 years	Percentage of women age 15-24 years who had sex before age 15[2]	Number of women age 15-24 years	Percentage of women age 15-24 years who had sex in the last 12 months with a man 10 or more years older[3]	Number of women age 15-24 years who had sex in the 12 months preceding the survey
Area of residence						
Urban	64.0	2785	7.2	3808	31.8	1769
Rural	61.3	3463	20.6	6906	42.2	4495
Age						
15-19	75.0	4275	12.7	5436	36.8	2023
20-24	35.4	1974	19.0	5278	40.4	4241
Marital status						
Ever married/in union	na	na	30.6	4465	50.7	4319
Never married/in union	62.5	6249	5.2	6249	13.9	1945
Education						
None	85.2	317	38.9	2639	60.8	2316
Primary	71.9	550	19.4	1233	42.8	776
Secondary +	60.2	5381	6.2	6841	22.6	3170
Wealth index quintiles						
Poorest	67.3	506	34.7	1848	51.2	1446
Second	64.8	917	23.1	2014	45.3	1350
Middle	58.6	1536	13.5	2391	36.3	1349
Fourth	63.3	1580	7.3	2334	28.9	1220
Richest	62.7	1710	4.4	2126	29.3	899
Geo-Political zone						
North-Central	65.0	1095	12.6	1676	27.1	856
North-East	80.8	526	24.6	1434	52.7	965
North-West	88.5	662	31.5	2491	64.3	1864
South-East	56.5	1132	6.8	1338	22.0	585
South-South	41.0	1270	10.2	1734	21.1	1117
South-West	65.5	1563	3.8	2041	17.7	877
Total	62.5	6249	15.8	10714	39.3	6264

[1] MICS indicator 9.10

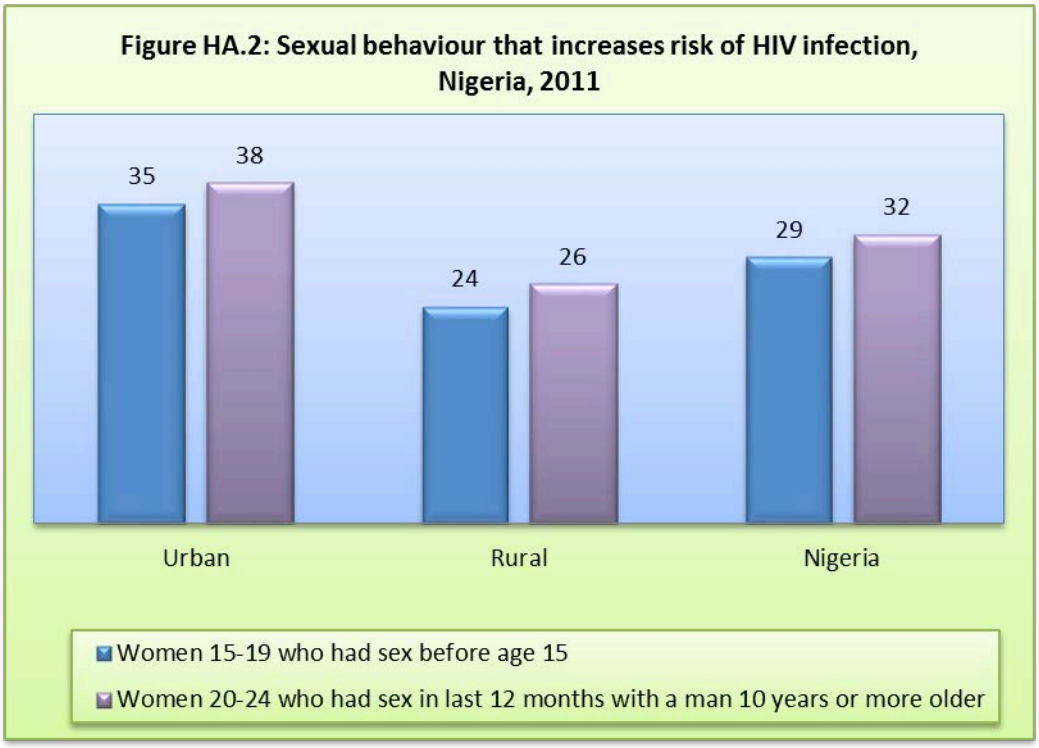
[2] MICS indicator 9.11

[3] MICS indicator 9.12

The sexual behaviours that increase the risk of HIV infection among women is presented in Table HA.8 and Figure HA.2. 39 percent of the young women age 15 – 24 years had sex in the 12 months with a man 10 or more years older. More young women (42 percent) in the rural areas had sex in the last 12 months with men 10 or more years older than their counterparts in the urban areas, 32 percent. Of these young women, 51 percent have been married before or in union while 14 percent have never married or in union.

This figure represents 31 percent among those, who were married and 5 percent for those who were not married or never married. The education and wealth status of the household heads are critical factors. For instance, the household headed by persons with no education is 39 percent of the women that had sex in

the last 12 months; as against 6 percent recorded by the household headed by persons with secondary education. In the wealth index quintile of the household heads, those households with the poorest wealth quintile recorded 35 percent than their counterparts in the richest class quintile, which is 4 percent.



Sexual behaviour and condom use during sex was assessed in all women and separately for women age 15-24 years of age who had sex with multiple partners in the previous year (Tables HA.9 and HA.10). About 3 percent of women 15-49 years of age report having sex with more than one partner. Of those women; 34 percent report using a condom when they had sex the last time. 16 percent of women with primary education used a condom during higher risk sex in the year before the MICS while 45 percent of women with secondary or higher education used a condom with such a partner. The trend was the same with the household wealth index quintile. For instance, the households headed by persons with richest wealth quintile recorded 51 percent higher than 12 percent by households that were very poor.

Distribution of women age 15–24 years, who had sex in the last 12 months and with those who had sex with more than one partner and who also reported to have used a condom at the last sex is presented in table H. A. 10. Fifty–eight percent of the young women, age 15–24 years had sex in the last 12 months. This represents 47 percent in the urban areas and 65 percent for the rural areas. For those that had sex with more than one partner in the last 12 months were 4 percent, across the country. This represents 6 percent in the urban areas and 3 percent in the rural area.

In addition, 47 percent of the young women had sex with more than one sexual partner, who also reported that they used a condom the last time they had sex. The break down by area indicated 57 percent in the urban areas and 36 percent in the rural areas. At the zonal level, the South-West seems to have recorded the highest of 67 percent followed by the South-South with 52percent, South-east, 46 percent, North-Central 33 percent, while the North-west and North-East recorded the lowest figures of 30 and 29 percent respectively of young women who had sex with more than one sexual partner through with the use of condom.

Table HA.9: Sex with multiple partners

Percentage of women age 15-49 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with more than one partner in the last 12 months and among those who had sex with multiple partners, the percentage who used a condom at last sex, Nigeria, 2011

	Percentage of women who:				Percent of women age 15-49 years who had more than one sexual partner in the last 12 months, who also reported that a condom was used the last time they had sex[2]	Number of women age 15-49 years who had more than one sexual partner in the last 12 months
	Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months[1]	Number of women age 15-49 years		
State						
Abia	83.8	75.8	3.3	662	44.6	22
Adamawa	82.6	74.9	2.4	723	26.8	17
Akwa ibom	90.6	81.1	6.4	964	69.5	61
Anambra	82.7	68.4	2.6	887	13.5	23
Bauchi	93.8	93.3	1.3	912	1.5	12
Bayelsa	93.7	86.0	6.0	376	16.3	22
Benue	85.3	75.2	9.0	898	20.3	81
Borno	84.3	82.0	.5	844	.0	4
Cross River	88.2	79.4	4.6	650	24.9	30
Delta	84.4	77.4	2.5	976	53.0	24
Ebonyi	80.7	70.0	5.5	493	34.9	27
Edo	84.8	73.2	3.5	741	66.3	26
Ekiti	84.6	73.3	2.1	542	22.6	12
Enugu	77.3	60.5	1.9	783	29.9	15
Gombe	88.6	85.1	1.1	455	23.5	5
Imo	77.7	63.7	2.3	849	70.7	20
Jigawa	94.9	92.1	1.2	829	.0	10
Kaduna	87.4	84.9	5.0	1308	26.8	65
Kano	88.8	85.9	1.8	1822	31.3	33
Katsina	90.6	87.8	.4	1128	.0	5
Kebbi	93.6	91.5	1.5	593	.0	9
Kogi	77.9	68.3	1.8	747	37.8	14
Kwara	83.4	75.2	2.6	510	43.8	13
Lagos	81.9	72.6	2.8	2382	61.5	66
Nasarawa	85.6	79.2	1.6	456	34.1	8
Niger	89.5	80.9	2.2	855	23.0	19
Ogun	87.3	79.8	1.7	884	32.8	15
Ondo	81.5	75.1	1.4	801	11.0	11
Osun	82.6	73.3	1.2	768	47.8	9
Oyo	83.6	74.2	1.1	1174	20.7	13
Plateau	79.7	69.1	1.9	784	11.5	15
Rivers	93.3	86.9	8.5	1257	31.7	107
Sokoto	93.7	90.5	1.2	776	11.6	9
Taraba	88.7	79.4	3.8	512	34.9	19
Yobe	93.4	91.8	2.0	427	.0	8
Zamfara	94.2	92.6	.6	652	.0	4
FCT (Abuja)	81.8	73.4	1.9	354	39.5	7

Table HA.9: Sex with multiple partners (continued)

Percentage of women age 15-49 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with more than one partner in the last 12 months and among those who had sex with multiple partners, the percentage who used a condom at last sex, Nigeria, 2011

	Percentage of women who:				Percent of women age 15-49 years who had more than one sexual partner in the last 12 months, who also reported that a condom was used the last time they had sex[2]	Number of women age 15-49 years who had more than one sexual partner in the last 12 months
	Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months[1]	Number of women age 15-49 years		
Area of residence						
Urban	83.0	74.7	3.2	11330	44.5	362
Rural	88.2	81.6	2.6	19442	26.9	499
Age						
15-24	63.4	58.5	4.1	10714	46.6	436
15-19	40.9	37.2	3.1	5436	43.9	168
20-24	86.7	80.4	5.1	5278	48.2	268
25-29	96.9	90.6	2.6	5923	37.3	155
30-39	99.1	92.4	2.0	8638	15.7	174
40-49	99.3	85.7	1.7	5496	7.6	96
Marital status						397
Ever married/in union	99.9	93.1	1.7	23098	12.7	397
Never married/in union	45.4	36.6	6.0	7674	52.8	464
Education						
None	96.8	91.7	1.4	9771	9.4	133
Primary	92.3	82.7	2.9	5453	15.9	159
Secondary +	77.6	69.7	3.7	15546	45.3	569
Wealth index quintiles						
Poorest	93.3	88.8	2.0	5456	12.2	110
Second	89.0	82.1	2.5	5742	20.0	143
Middle	84.2	74.6	3.0	6099	32.4	181
Fourth	83.5	75.7	3.1	6475	39.9	201
Richest	83.0	75.9	3.2	7001	50.7	226
Geo-political zone						
North-Central	83.5	74.4	3.4	4603	24.8	156
North-East	88.3	84.4	1.7	3873	19.3	66
North-West	91.0	88.3	1.9	7108	21.5	135
South-East	80.3	67.2	2.9	3673	38.1	108
South-South	89.1	80.8	5.4	4964	43.5	270
South-West	83.2	74.3	1.9	6551	44.6	127
Total	86.3	79.0	2.8	30772	34.3	861

[1] MICS indicator 9.13

[2] MICS indicator 9.14

Table HA.10: Sex with multiple partners among young women

Percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with more than one partner in the last 12 months and among those who had sex with multiple partners, the percentage who used a condom at last sex, Nigeria, 2011

	Percentage of women age 15-24 years who:				Percent of women age 15-24 years who had more than one sexual partner in the last 12 months, who also reported that a condom was used the last time they had sex	Number of women age 15-24 years who had more than one sexual partner in the last 12 months
	Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months	Number of women age 15-24 years		
State						
Abia	59.4	51.7	5.7	224	(*)	(*)
Adamawa	60.2	55.9	3.2	284	(*)	(*)
Akwa ibom	75.0	69.3	12.9	362	(*)	(*)
Anambra	53.2	43.1	4.3	268	(*)	(*)
Bauchi	84.1	84.1	.8	353	(*)	(*)
Bayelsa	80.9	78.5	8.8	121	(*)	(*)
Benue	65.5	58.9	7.3	369	(*)	(*)
Borno	61.8	60.8	.3	337	(*)	(*)
Cross River	70.7	64.0	5.5	254	(*)	(*)
Delta	56.4	52.9	3.5	327	(*)	(*)
Ebonyi	54.1	47.5	6.7	195	(41.2)	(13)
Edo	59.9	53.1	5.6	270	(*)	(*)
Ekiti	58.1	50.8	2.1	188	(*)	(*)
Enugu	51.4	42.2	1.6	330	(*)	(*)
Gombe	69.4	64.3	1.3	162	(*)	(*)
Imo	46.1	38.1	2.0	322	(*)	(*)
Jigawa	84.8	83.3	.6	262	(*)	(*)
Kaduna	69.9	68.6	6.3	452	(*)	(*)
Kano	70.5	68.4	2.2	675	(*)	(*)
Katsina	76.4	76.2	.5	434	(*)	(*)
Kebbi	80.0	79.1	1.7	182	(*)	(*)
Kogi	50.5	44.5	2.8	299	(*)	(*)
Kwara	49.2	45.5	3.2	159	(*)	(*)
Lagos	48.1	38.8	6.4	756	(*)	(*)
Nasarawa	60.8	55.4	1.2	165	(*)	(*)
Niger	66.8	61.1	4.8	262	(*)	(*)
Ogun	55.4	46.9	2.4	244	(*)	(*)
Ondo	47.4	46.3	2.0	276	(*)	(*)
Osun	48.0	39.1	2.2	244	(*)	(*)
Oyo	48.5	45.1	1.0	333	(*)	(*)
Plateau	52.2	41.7	2.8	301	(*)	(*)
Rivers	79.5	73.0	17.0	399	(*)	(*)
Sokoto	83.0	80.8	.5	273	(*)	(*)
Taraba	68.1	59.0	5.9	168	(*)	(*)
Yobe	79.1	78.2	2.5	129	(*)	(*)
Zamfara	84.0	83.6	1.2	213	(*)	(*)
FCT (Abuja)	50.4	46.0	1.8	119	(*)	(*)

Table HA.10: Sex with multiple partners among young women (continued)

Percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with more than one partner in the last 12 months and among those who had sex with multiple partners, the percentage who used a condom at last sex, Nigeria, 2011

	Percentage of women age 15-24 years who:				Percent of women age 15-24 years who had more than one sexual partner in the last 12 months, who also reported that a condom was used the last time they had sex	Number of women age 15-24 years who had more than one sexual partner in the last 12 months
	Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months	Number of women age 15-24 years		
Area of residence						
Urban	53.0	46.5	5.8	3808	57.3	220
Rural	69.2	65.1	3.1	6906	35.6	216
Age						
15-19	40.9	37.2	3.1	5436	43.9	168
20-24	86.7	80.4	5.1	5278	48.2	268
Marital status						
Ever married/in union	99.7	96.7	2.0	4465	16.8	91
Never married/in union	37.5	31.1	5.5	6249	54.4	345
Education						
None	89.6	87.8	1.3	2639	(16.9)	(35)
Primary	67.9	63.0	3.3	1233	(30.4)	(40)
Secondary +	52.5	46.3	5.3	6841	51.3	360
Wealth index quintiles						
Poorest	81.4	78.2	2.0	1848	18.4	37
Second	70.5	67.0	3.1	2014	29.4	62
Middle	62.4	56.4	4.4	2391	43.6	106
Fourth	56.9	52.3	4.8	2334	46.9	113
Richest	49.6	42.3	5.6	2126	66.7	118
Geo-political zone						
North-Central	57.5	51.0	3.9	1676	33.3	66
North-East	70.1	67.3	2.0	1434	28.6	29
North-West	76.1	74.8	2.2	2491	(30.0)	(54)
South-East	52.2	43.7	3.7	1338	46.4	49
South-South	70.0	64.4	9.6	1734	51.6	166
South-West	49.9	43.0	3.6	2041	(66.6)	(72)
Total	63.4	58.5	4.1	10714	46.6	436

(*) less than 25 unweighted cases
( ) based on 25-49 unweighted cases

Tables HA.11 presents the percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with a non-marital, non-cohabiting partner in the last 12 months and among those who had sex with a non-marital, non-cohabiting partner, the percentage who used a condom the last time they had sex with such a partner. About 3 out of 10 women (32 percent) aged 15 – 24 years reported having sex with a non-marital or non-cohabiting partner in the last 12 months. 97 percent of those that have had sex with non-marital, non-cohabiting partner in the last 12 months were never married while 3 were ever married. The figure is also higher among those with secondary or higher education (57 percent) than those with no education (3 percent). More than 5 out of 10 in the richest quintile (54 percent) have had sex in the last 12 months with non-marital and non-cohabiting partner than in the poorest quintile with 1 out of 10 (10 percent)

Table HA.11 also shows the percentage of women age 15-24 years who had sex with a non-marital, non-cohabiting partner in the last 12 months, who also reported that a condom was used the last time they had sex with such a partner. At the national level, the percentage is 47 percent; however, the percerntage varies across the geo political regions. The highest of 54 is recoreded in South-West while the least (30 percent) is recorded in North-East. Women aged 15-24 years in the richest households that have had sex in the last 12 months with non-marital and non-cohabiting partners was recorded at 66 percent and 22 percent in the poorest quintile.

Table HA.11: Sex with non-regular partners

Percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with a non-marital, non-cohabiting partner in the last 12 months and among those who had sex with a non-marital, non-cohabiting partner, the percentage who used a condom the last time they had sex with such a partner, Nigeria, 2011

	Percentage of women 15-24 who:		Number of women age 15-24 years	Percentage who had sex with a non-marital, non-cohabiting partner in the last 12 months[1]	Number of women age 15-24 years who had sex in the last 12 months	Percentage of women age 15-24 years who had sex with a non-marital, non-cohabiting partner in the last 12 months, who also reported that a condom was used the last time they had sex with such a partner[2]	Number of women age 15-24 years who had sex in last 12 months with a non-marital, non-cohabiting partner
	Ever had sex	Had sex in the last 12 months					
State							
Abia	59.4	51.7	224	71.2	116	48.0	82
Adamawa	60.2	55.9	284	20.7	159	25.8	33
Akwa ibom	75.0	69.3	362	72.4	251	48.1	182
Anambra	53.2	43.1	268	55.1	115	78.9	64
Bauchi	84.1	84.1	353	1.8	297	64.9	5
Bayelsa	80.9	78.5	121	46.6	95	28.0	44
Benue	65.5	58.9	369	42.9	218	38.1	93
Borno	61.8	60.8	337	3.1	205	13.5	6
Cross River	70.7	64.0	254	63.1	162	36.9	102
Delta	56.4	52.9	327	50.0	173	25.7	87
Ebonyi	54.1	47.5	195	71.1	92	40.7	66
Edo	59.9	53.1	270	63.1	143	49.2	90
Ekiti	58.1	50.8	188	58.8	95	46.9	56
Enugu	51.4	42.2	330	70.6	139	62.5	98
Gombe	69.4	64.3	162	4.8	104	22.3	5
Imo	46.1	38.1	322	61.0	123	60.8	75
Jigawa	84.8	83.3	262	.0	218	.	0
Kaduna	69.9	68.6	452	16.6	310	39.2	51
Kano	70.5	68.4	675	3.3	461	35.6	15
Katsina	76.4	76.2	434	.6	331	.0	2
Kebbi	80.0	79.1	182	.4	144	.0	1
Kogi	50.5	44.5	299	62.1	133	35.2	83
Kwara	49.2	45.5	159	38.7	73	67.1	28
Lagos	48.1	38.8	756	55.6	294	66.0	163
Nasarawa	60.8	55.4	165	21.2	91	31.1	19
Niger	66.8	61.1	262	15.8	160	57.9	25
Ogun	55.4	46.9	244	50.0	115	50.6	57
Ondo	47.4	46.3	276	50.9	128	51.8	65
Osun	48.0	39.1	244	62.2	96	42.2	60
Oyo	48.5	45.1	333	25.4	150	50.9	38
Plateau	52.2	41.7	301	51.3	126	27.3	64
Rivers	79.5	73.0	399	66.7	292	52.1	194
Sokoto	83.0	80.8	273	2.3	221	13.9	5
Taraba	68.1	59.0	168	35.4	99	35.9	35
Yobe	79.1	78.2	129	2.3	101	.0	2
Zamfara	84.0	83.6	213	1.9	178	.0	3
FCT (Abuja)	50.4	46.0	119	47.3	55	60.3	26

Table HA.11: Sex with non-regular partners (continued)

Percentage of women age 15-24 years who ever had sex, percentage who had sex in the last 12 months, percentage who have had sex with a non-marital, non-cohabiting partner in the last 12 months and among those who had sex with a non-marital, non-cohabiting partner, the percentage who used a condom the last time they had sex with such a partner, Nigeria, 2011

	Percentage of women 15-24 who:		Number of women age 15-24 years	Percentage who had sex with a non-marital, non-cohabiting partner in the last 12 months[1]	Number of women age 15-24 years who had sex in the last 12 months	Percentage of women age 15-24 years who had sex with a non-marital, non-cohabiting partner in the last 12 months, who also reported that a condom was used the last time they had sex with such a partner[2]	Number of women age 15-24 years who had sex in last 12 months with a non-marital, non-cohabiting partner
	Ever had sex	Had sex in the last 12 months					
Area of residence							
Urban	53.0	46.5	3808	47.2	1769	55.3	835
Rural	69.2	65.1	6906	26.5	4495	41.8	1193
Age							
15-19	40.9	37.2	5436	45.3	2023	43.3	916
20-24	86.7	80.4	5278	26.2	4241	50.7	1112
Marital status							
Ever married/in union	99.7	96.7	4465	3.2	4319	23.5	137
Never married/in union	37.5	31.1	6249	97.2	1945	49.1	1891
Education							
None	89.6	87.8	2639	2.6	2316	35.4	60
Primary	67.9	63.0	1233	18.7	776	31.8	145
Secondary +	52.5	46.3	6841	57.5	3170	49.0	1823
Wealth index quintiles							
Poorest	81.4	78.2	1848	10.2	1446	21.5	148
Second	70.5	67.0	2014	23.0	1350	35.7	310
Middle	62.4	56.4	2391	41.6	1349	43.3	561
Fourth	56.9	52.3	2334	42.8	1220	48.4	522
Richest	49.6	42.3	2126	54.2	899	66.1	488
Geo-political zone							
North-Central	57.5	51.0	1676	39.6	856	40.5	339
North-East	70.1	67.3	1434	9.0	965	30.5	87
North-West	76.1	74.8	2491	4.2	1864	33.8	78
South-East	52.2	43.7	1338	65.7	585	58.0	385
South-South	70.0	64.4	1734	62.7	1117	43.6	700
South-West	49.9	43.0	2041	50.1	877	54.9	439
Total	63.4	58.5	10714	32.4	6264	47.4	2028

[1] MICS indicator 9.15

[2] MICS indicator 9.16; MDG indicator 6.2

Orphans

As the HIV epidemic progresses, more and more children are becoming orphaned because of AIDS. Children who are orphaned may be at increased risk of neglect or exploitation if 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.12 presents information on the living arrangements and orphanhood status of children under age 18. 81 percent of children aged 0-17 years in Nigeria live with both their parents, 4 percent live with mothers (father alive) only and .7 percent live with fathers only (mother alive). 7 percent of children live with neither of their biological parents while both of them are alive. 4 percent live with mothers only while the biological father is alive.

Very few children lost one or both parents. 3 percent of children have only their father dead and 1 percent of children have only their mother dead.

As expected, older children are less likely than younger children to live with both parents and slightly more likely than younger children to have lost one or both parents. Table HA.12 also shows that the percentages of children living with both parents is the highest in the poorest wealth quintile (87 percent) and lower in the richest quintile (81 percent). Two percent of children in the poorest households live with their mother only while their father is alive. The corresponding proportion of such children in the richest quintile is 4 percent.

There are only small differences between urban and rural areas or among the regions in terms of orphan hood. In the urban areas, 7 percent of the children aged 0. 17 years had one or both parents dead while the corresponding figure in the rural areas was 6 percent.

The likelihood that a child lives with neither parent increases from rural (8 percent) to urban (10 percent) households and from northern regions (around 5 percent) to Southern regions (around 12 percent) North-Central.

Table HA.12: Children's living arrangements and Orphanhood

Percent distribution of children age 0-17 years according to living arrangements, percentage of children age 0-17 years in households not living with a biological parent and percentage of children who have one or both parents dead, Nigeria, 2011

	Living with both parents	Living with neither parent				Living with mother only		Living with father only		Impossible to determine	Total	Not living with a biological parent[1]	One or both parents dead[2]	Number of children age 0-17 years
		Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead					
Sex														
Male	82.6	.6	1.0	5.7	.8	4.0	3.1	.8	1.2	.3	100.0	7.9	6.6	37047
Female	80.1	.7	1.0	7.3	.8	4.0	3.0	.6	1.1	1.5	100.0	9.8	6.6	36141
State														
Abia	78.9	.6	.9	6.6	.7	2.6	8.6	.5	.5	.2	100.0	8.7	11.2	1292
Adamawa	84.4	.7	.6	6.8	1.2	2.6	1.2	.6	1.5	.3	100.0	9.4	5.3	1732
Akwa ibom	72.2	.6	1.7	7.6	.6	9.2	5.0	1.2	2.0	.1	100.0	10.4	9.9	1859
Anambra	74.4	.6	1.8	10.7	1.5	2.2	7.5	.6	.4	.2	100.0	14.7	11.8	2073
Bauchi	92.3	.2	.6	2.3	.4	.2	1.4	.2	2.1	.2	100.0	3.5	4.7	2804
Bayelsa	62.9	.9	1.4	9.9	.2	18.0	2.9	1.6	1.1	.9	100.0	12.5	6.6	888
Benue	65.6	.8	2.5	12.8	2.9	6.1	4.8	2.5	1.1	.9	100.0	18.9	12.1	2180
Borno	90.0	.2	.3	3.3	1.0	2.0	1.4	.1	1.3	.5	100.0	4.7	4.2	2333
Cross River	68.6	.9	1.9	9.7	.6	9.3	5.2	1.7	1.9	.2	100.0	13.1	10.5	1441
Delta	67.0	1.1	1.1	10.2	.3	13.8	4.3	1.5	.7	.2	100.0	12.6	7.4	1961
Ebonyi	72.4	.3	.7	7.6	1.3	6.9	8.5	.8	.9	.6	100.0	9.9	11.7	1107
Edo	69.7	.4	.5	11.1	.4	13.4	2.4	1.2	.6	.4	100.0	12.4	4.2	1546
Ekiti	73.5	.9	1.1	13.1	.4	6.6	2.8	1.2	.4	.0	100.0	15.5	5.6	1072
Enugu	70.3	.6	1.9	7.4	1.8	6.8	9.8	.5	.6	.2	100.0	11.8	14.8	1412
Gombe	91.9	.1	.2	1.8	.3	1.3	1.0	.2	1.4	1.8	100.0	2.5	3.0	1390
Imo	69.6	1.2	2.5	9.7	1.1	4.4	8.5	.9	1.7	.4	100.0	14.5	15.0	1676
Jigawa	87.4	.7	.9	6.1	.5	1.2	.5	.3	1.0	1.3	100.0	8.2	3.6	2542
Kaduna	89.4	.1	.6	1.2	.6	.4	2.1	.2	1.6	3.9	100.0	2.5	5.0	3577
Kano	89.9	.4	.5	2.9	.6	.9	1.3	.3	2.1	1.1	100.0	4.4	4.8	5517
Katsina	86.6	.0	.5	3.4	1.0	.6	3.9	.0	1.8	2.2	100.0	4.8	7.2	3475
Kebbi	91.4	.7	.3	2.4	.9	.3	.6	.2	1.6	1.6	100.0	4.4	4.1	1936
Kogi	73.3	.4	.6	10.2	.3	12.6	1.4	.6	.5	.1	100.0	11.5	3.3	1589
Kwara	78.8	.5	1.0	11.8	.5	3.2	2.0	1.9	.3	.0	100.0	13.8	4.3	1224
Lagos	77.1	1.3	1.0	9.2	.2	5.8	4.2	.8	.4	.0	100.0	11.7	7.0	3993
Nasarawa	84.9	.5	1.9	6.3	1.6	1.5	1.9	.5	.8	.1	100.0	10.3	6.7	994
Niger	93.4	.5	.5	3.2	.3	.4	.5	.2	.6	.4	100.0	4.4	2.4	2365
Ogun	80.7	.4	.7	8.4	.6	4.5	3.1	.8	.7	.1	100.0	10.1	5.5	1780
Ondo	76.6	.4	.6	7.9	.2	9.2	3.3	1.1	.7	.0	100.0	9.1	5.2	1619
Osun	74.4	.8	1.0	11.7	.2	6.1	3.6	2.2	.0	.0	100.0	13.6	5.6	1657
Oyo	81.0	1.1	1.1	8.5	1.5	3.6	1.5	.1	1.2	.4	100.0	12.2	6.6	2839
Plateau	80.3	1.2	1.2	7.9	.8	3.3	2.7	.7	1.2	.7	100.0	11.2	7.1	1570
Rivers	70.2	2.0	2.3	7.0	2.0	7.7	4.7	2.4	1.5	.3	100.0	13.3	12.4	2348
Sokoto	90.2	.3	.3	3.1	.0	.6	.8	1.2	.7	2.7	100.0	3.8	2.1	2125
Taraba	85.7	.6	1.8	5.1	1.0	1.4	2.0	.1	1.7	.5	100.0	8.6	7.2	1229
Yobe	88.7	.5	.9	4.3	.8	.7	1.0	.1	1.9	1.2	100.0	6.4	5.0	1420
Zamfara	91.5	.4	.7	2.3	.3	.1	1.0	.1	1.5	2.3	100.0	3.6	3.9	1933
FCT (Abuja)	81.0	.8	2.1	7.1	.6	1.6	4.6	.2	1.6	.5	100.0	10.6	9.7	694

Table HA.12: Children's living arrangements and Orphanhood (continued)

Percent distribution of children age 0-17 years according to living arrangements, percentage of children age 0-17 years in households not living with a biological parent and percentage of children who have one or both parents dead, Nigeria, 2011

	Living with both parents	Living with neither parent				Living with mother only		Living with father only		Impossible to determine	Total	Not living with a biological parent[1]	One or both parents dead[2]	Number of children age 0-17 years
		Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead					
Area of residence														
Urban	79.1	.8	1.1	7.4	.9	4.8	3.3	.7	1.1	.7	100.0	10.2	7.3	23393
Rural	82.4	.5	.9	6.0	.7	3.6	2.9	.7	1.2	1.0	100.0	8.2	6.3	49796
Age														
0-4	87.8	.3	.3	3.6	.3	5.3	1.6	.3	.4	.2	100.0	4.4	2.8	25060
5-9	82.5	.6	.9	6.8	.9	3.4	2.6	.8	1.2	.4	100.0	9.1	6.2	22746
10-14	76.5	1.0	1.6	9.0	1.2	3.2	4.2	1.0	1.8	.5	100.0	12.8	9.8	17676
15-17	68.5	1.0	2.3	8.9	1.2	3.2	6.2	1.1	2.3	5.3	100.0	13.4	13.1	7707
Wealth index quintiles														
Poorest	86.9	.4	.6	4.6	.6	1.8	2.1	.5	1.2	1.4	100.0	6.3	4.9	15858
Second	82.3	.6	.9	6.2	.6	3.4	3.0	.6	1.3	1.2	100.0	8.3	6.4	15538
Middle	76.8	.6	1.2	7.2	.8	6.1	4.4	.8	1.4	.7	100.0	9.8	8.4	14624
Fourth	79.6	.7	1.1	6.6	1.1	4.6	3.7	1.1	1.2	.3	100.0	9.6	7.8	14015
Richest	80.5	.8	1.1	8.0	.8	4.3	2.1	.6	.9	.8	100.0	10.7	5.8	13155
Geo-political zone														
North-Central	79.5	.7	1.3	8.5	1.1	4.3	2.4	1.0	.8	.4	100.0	11.5	6.3	10616
North-East	89.3	.4	.7	3.7	.8	1.3	1.3	.2	1.7	.7	100.0	5.5	4.8	10907
North-West	89.3	.3	.5	3.0	.6	.7	1.6	.3	1.6	2.1	100.0	4.5	4.7	21104
South-East	73.0	.7	1.7	8.7	1.3	4.3	8.5	.7	.8	.3	100.0	12.4	13.0	7561
South-South	69.0	1.0	1.5	9.0	.8	11.2	4.2	1.6	1.3	.3	100.0	12.4	8.9	10042
South-West	77.7	.9	.9	9.4	.5	5.7	3.2	.9	.6	.1	100.0	11.8	6.2	12960
Total	81.4	.6	1.0	6.5	.8	4.0	3.0	.7	1.2	.9	100.0	8.8	6.6	73189

[1] MICS indicator 9.17

[2] MICS indicator 9.18

One of the measures developed for the assessment of the status of orphaned children relative to their peers looks at the school attendance of children 10-14 for children who have lost both parents versus children whose parents are alive (and who live with at least one of these parents). If children whose parents have died do not have the same access to school as their peers, then families and schools are not ensuring that these children's rights are being met.

In Nigeria, 1 percent of children aged 10-14 have lost both parents (Table HA.13). Among those, only 80 percent are currently attending school. Among the children age 10-14 who have not lost a parent and who live with at least one parent, 80 percent are attending school. This would suggest that double orphans are not disadvantaged compared to the non-orphaned children in terms of school attendance as the orphans to non-orphans school attendance ratio is 1.00. School attendance rate for double orphans shows slight advantage in favor of double orphans in the urban areas (84percent) and 78 in the rural area. In the same manner, schools attendance rate for double orphans shows slight advantage in favor of female orphans (84 percent) and for male orphans at 76 percent in 2011.

Table HA.13: School attendance of orphans and non-orphans

School attendance of children age 10-14 years by orphanhood, Nigeria, 2011

	Percentage of children whose mother and father have died (orphans)	Percentage of children of whom both parents are alive and child is living with at least one parent (non-orphans)	Number of children age 10-14 years	Percentage of children who are orphans and are attending school[1]	Total number of orphan children age 10-14 years	Percentage of children who are non-orphans and are attending school[2]	Total number of non-orphan children age 10-14 years	Orphans to non-orphans school attendance ratio
Sex								
Male	1.2	81.8	8695	75.9	103	82.4	7109	.92
Female	1.3	79.6	8980	83.5	113	76.6	7148	1.09
Area of residence								
Urban	1.3	78.0	6016	83.5	77	95.1	4695	.88
Rural	1.2	82.0	11660	77.9	139	71.8	9562	1.08
Total	1.2	80.7	17676	79.9	216	79.5	14257	1.00

[1] MICS indicator 9.19; MDG indicator 6.4

[2] MICS indicator 9.20; MDG indicator 6.4

Appendix A: Sample Design

The major features of sample design are described in this appendix. Sample design features include target sample size, sample allocation, sample frame and listing, choice of domains, sampling stages, stratification, and the calculation of sample weights.

The primary objective of the sample design for the round four of the Nigeria Multiple Indicator Cluster Survey (MICS4) was to produce statistically reliable estimates of most indicators, at the national level for urban and rural areas, and for the 36 states and Federal Capital Territory of Abuja. The enumeration areas in each of the 36 states and FCT were defined as the sampling units while urban and rural areas were defined as sampling domains.

A multi-stage, stratified cluster sampling approach was used for the selection of the survey sample.

Sample Size and Sample Allocation

The target sample size for the Nigeria MICS4 was calculated as 29600 households. Determination of sample size (denoted as n), generally uses the following formula that is based on the parameters of the distribution of a characteristic adopted as the design variable and on a number of other precision parameters. The sample size n is given as:

$$n = \frac{[4(r)(1-r)(f)(1.1)]}{[(0.12r)^2(p)(\bar{n})]}$$

where

- *n* is the required sample size, expressed as number of households
- *4* is a factor to achieve the 95 percent level of confidence
- *r* is the predicted or anticipated value of the indicator, expressed in the form of a proportion
- *1.1* is the factor necessary to raise the sample size by 10 per cent for the expected non-response [the actual factor will be based on the non-response level experienced in previous surveys in the country]
- *f* is the shortened symbol for *deff* (design effect)
- *0.12r* is the margin of error to be tolerated at the 95 percent level of confidence, defined as 12 per cent of *r* (relative margin of error of *r*)
- *p* is the proportion of the total population upon which the indicator, *r*, is based

$\bar{n}$ is the average household size (number of persons per household).

The state was the principal sub-national component, the principal domain of reporting to which the sample size n was to apply. In the typical MICS sample survey design, determination of the sample size is based on the distribution characteristics of underweight prevalence in under-5 children as the design variable. Experiences at previous national surveys in Nigeria including HNLSS 2009, CWIQ 2006, NDHS 2008 and MICS3 of 2007 have put underweight prevalence between 25.3 and 30.0 percent; recommended design effect (*deff)* is valued as 2.00 and *p* (percentage of children aged 0-4 years in the total population) has varied from highest figure of 16.6 percent by 1991 Census to 13.4 percent by MICS3 of 2007; a mean value of 13 percent is tenable; and $\bar{n}$ (average household size) has ranged from 4.67 to 5.6 also making figure 5.3 quite credible.

This calculation gives 2883 suggesting that the MICS4 sample should include 2883 households for each state and 106671 households at the national level. The average cluster (enumeration area) size in Nigeria as at the time of MICS4 Nigeria is between 200 to 250 persons per rural EA and 400-650 persons per urban EA (NPopC, 2006) translating to about 40 – 50 per rural EA and 80-130 households per urban EA. Sample size figure of 2883 households per state would have required "x" sample EAs and 1300/x sample household per EA. The resulting number of households from this exercise was 800 households which is the sample size needed in each region – thus yielding about 29600 in total. The average number of households selected per cluster for the Nigeria MICS4 was determined as 20 households, based on a number of considerations, including the design effect, the budget available, and the time that would be needed per team to complete one cluster. Dividing the total number of households by the number of sample households per cluster, it was calculated that 40 sample clusters would need to be selected in each state.

MICS4 Nigeria, 2011 was to be conducted as a module of a larger Survey infrastructure known as National Integrated Survey of Households (NISH) Survey. This factor and reasons of Budget and other constraints compelled some rationalization of both the sample size and selection strategy to allow MICS Nigeria 2011contained within the survey budget and within NISH infrastructure.

NISH and MICS Nigeria 2011

National Integrated Survey of Households Survey, (NISH) has come to be the main stay of all household-based surveys at the National Bureau of Statistics. The NISH, at a time is a five-year long programme of surveys. NISH is a replicated, rotational, multi-stage, multi-phase, stratified systematic sample. At the best of times when fund was not limiting, NISH selects 200 EAs in each state of the Federation in a preliminary phase where main characteristics of the sample EAs in terms of household composition, sampling costs, etc., are observed. The selection of the 200 sample EAs recognizes explicitly or implicitly the urban-rural balance of the population. The 200 EAs are selected into a fixed number of replicates of equal size; say 20 replicates, 10 EAs per replicate. The five years are partitioned chronologically into annual and quarterly sub-periods during which a fixed number of the replicates say six are selected for each period in rotation so that there are overlaps over time.

Any survey that falls within any of the sub-periods uses the replicates slated for that period. At the time of MICS Nigeria 2011, 40 EAs were selected with equal probability. Also, the budget could not carry more than estimated 800 households per state that is 29,600 households country wide. *These numbers fall short of the theoretical optimum.*

Against the foregoing background, the sample for the Nigeria Multiple Indicator Cluster Survey (MICS) which was designed to provide estimates on a large number of indicators of the situation of children and women at the national level, for each of the 36 States of the Federation and the Federal Capital Territory of Abuja: States for urban and rural areas was two-stage in each state, where a systematic sample of 40 census enumeration areas (EAs) was selected with equal probability to form the first stage or primary sampling units (PSUs).

Household listing was conducted in each of the selected EAs to provide an adequate, up-to-date frame of housing units being the secondary sampling units (SSUs); a systematic sample of 20 households was subsequently drawn with equal probability within each of the selected EAs and all the households in each of the selected HUs were canvassed. Thus, at state level, 800 HHs were drawn from 40 EAs which meant 29600 HHs from 1,480 EAs at the national level. The sample was stratified by states and was hardly self weighting at either state or national level. Hence, sample weights were used for reporting state or national results.

All of the selected enumeration areas were successfully canvassed. Table HH.1 presents a summary of results of interviews of households, individual women aged 15 – 49 years and children aged under-5 years.

A total of 29,343 households including 22,057 and 7,292 in the rural and urban sectors respectively were sampled; total number of occupied sampled households was 29,151 including 21,880 rural and 7,271 urban households. Total number of interviewed households was 29,077 including 21,826 rural and 7,251 urban households. These figures translated into 99.7 percent response rates for the total, 99.8 percent for the rural and 99.7 percent for the urban. Total figure of eligible women was 33,699 including 25,416 and 8,283 for rural and urban sectors respectively while corresponding figures of interviewed women were 30,772, 23,231 and 7,541 respectively; these figures translated into 91.4, 91.4 and 91.1 percent effective response rates respectively. Eligible children under-5 were 26018 for the total, including 20720 and 5,298 in the rural and urban areas respectively; and interviews were achieved in respect of 25,192 overall including, 20,037 rural and 5,155 urban respectively; again the corresponding effective response rates were 96.9, 96.7 and 97.4 percent respectively.

In the end, 40 EAs were selected into the sample as PSU from each state in spite of the huge differentials in state populations. The most potent argument in favour of this disproportionate allocation is that the state as the second tier of governance is the most critical to national development; there is also this political fact about equality of states.

Sampling Frame and Selection of Clusters

Nigeria 2006 Population Census Enumeration area demarcation was used as the frame of first stage sample selection for MICS4 sample design. However, information about the household composition of enumeration areas was not available to permit selection of EAs with probability proportional to number of households in the enumeration area. Census enumeration areas were defined as primary sampling units (PSUs), and were selected from each of the sampling domains by using systematic with equal probability of selection. The first stage of sampling was thus completed by selecting the required number of enumeration areas from each of the 36 states and FCT. The urban-rural stratification was ex-post i.e. implicit and achieved to select the urban-rural composition of the population through a serpentine arrangement of the EAs.

Listing Activities

Since the sample frame (the 2006 Population Census) was not up to date, household lists in all selected enumeration areas were updated prior to the selection of households. For this purpose, listing teams were formed, who visited each enumeration area, and listed the occupied households. The listing exercise in each state had a team of 4 enumerators, 1 supervisor who had all been adequately trained in and on the job. There were coordinators each coordinating activities at each of the geopolitical zones, each comprising between 5 to 6 states. UNICEF staff also watched the exercise at each of the zones. The listing revealed a number of tendencies and problems about the EA demarcation, its obsoleteness, its imbalance and other inadequacies were too obvious. But some salvaging was done to make the listing up-to-date.

Selection of Households

Lists of households were prepared by the listing teams in the field for each enumeration area. The households were then sequentially numbered from 1 to n (the total number of households in each enumeration area) at the State office of National Bureau of Statistics where selection of 20 households was done on systematic random basis from each enumeration area. The EAs had earlier been selected at the National Headquarters of the Bureau.

Equal number of households (20) was selected from each sample EA while all the households in the selected housing units were canvassed. State differentials in number of sample households per state are a direct effect of differences in household composition of housing units across states.

Calculation of Sample Weights

The Nigeria Multiple Indicator Cluster Survey sample is not self-weighting. Essentially, by allocating equal numbers of households to each of the regions, different sampling fractions were used in each region since the size of the regions varied. For this reason, sample weights were calculated and these were used in the subsequent analyses of the survey data.

The major component of the weight is the reciprocal of the sampling fraction employed in selecting the number of sample households in that particular sampling stratum (h) and PSU (i):

$$W_{hi} = \frac{1}{f_{hi}}$$

The term f_{hi}, the sampling fraction for the i^{th} sample PSU in the h^{th} stratum, is the product of probabilities of selection at every stage in each sampling stratum:

$$f_{hi} = p_{1hi} \times p_{2hi} \times p_{3hi}$$

Where p_{shi} is the probability of selection of the sampling unit at stages "*s*" for the i^{th} sample PSU in the h^{th} sampling stratum.

Since the estimated number of households in each enumeration area (PSU) in the sampling frame used for the first stage selection and the updated number of households in the enumeration area from the listing were different, individual sampling fractions for households in each sample enumeration area (cluster) were calculated. The sampling fractions for households in each enumeration area (cluster) therefore included the first stage probability of selection of the enumeration area in that particular sampling stratum and the second stage probability of selection of a household in the sample enumeration area (cluster).

A second component in the calculation of sample weights takes into account the level of non-response for the household and individual interviews. The adjustment for household non-response is equal to the inverse value of:

RR_h = Number of interviewed households in stratum h/Number of occupied households listed in stratum h

After the completion of fieldwork, response rates were calculated for each sampling stratum. These were used to adjust the sample weights calculated for each cluster. Response rates in the Nigeria Multiple Indicator Cluster Survey are shown in Table HH.1 in this report.

Similarly, the adjustment for non-response at the individual level (women and under-5 children) for each stratum is equal to the inverse value of:

RR_h = Completed women's (or under-5's) questionnaires in stratum h/Eligible women (or under-5s) in stratum h

The non-response adjustment factors for women's and under-5's questionnaires are applied to the adjusted household weights. Numbers of eligible women and under-5 children were obtained from the roster of household members in the Household Questionnaire for households where interviews were completed.

The design weights for the households were calculated by multiplying the above factors for each enumeration area. These weights were then standardized (or normalized), one purpose of which is to make the weighted sum of the interviewed sample units equal the total sample size at the national level. Normalization is performed by dividing the aforementioned design weights by the average design weight at the national level. The average design weight is calculated as the sum of the design weights divided by the unweighted total). A similar standardization procedure was followed in obtaining standardized weights for the women's and under-5's questionnaires. . Adjusted (normalized) weights varied between [lowest weight] and [highest weight] in the sample enumeration areas

Sample weights were appended to all data sets and analyses were performed by weighting each household, woman or under-5 with these sample weights.

Appendix B. List of Personnel Involved in the Survey

Statistician-General; National Bureau of Statistics

Dr. Yemi Kale

Project Directors

1. R. A. Sanusi
2. N. G. Oparaku
3. C. O. Moneke
4. E. O. Ekezie
5. L. O. Gambo
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2.	Tunde Adebisi	-	Sampling
3.	Folorunso Busari	-	Data Processing
4.	E. O. Omameh	-	Methodology
5.	B. M. Samanja	-	Field Services

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3. J. O. Awotunde
4. Danjuma Al-Mustapha
5. Raymond Akor
6. Mahere Khalim
7. Maureen Zubie-Okolo
8. Binta Isah-Ismail
9. Saidu Bai-Kamara
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3. Florence Nenuwa
4. Lawrence Akhidenor
5. Idris Aliyu

Secretariat Service

1. Mrs. O. A. Adeyinka
2. Mrs. Helen Ogunkoya
3. Mrs. Idowu Paul

Training of Field Personnel

Resource Persons/Trainers

NORTH-CENTRAL	
OLAREWAJU, Isiaka A.	Coordinator
ADENIRAN, Semiu Adeyemi	Lead Trainer
ORIOKPA, Vincent I.	Lead Trainer
ADENIJI Beatrice O.	Trainer
KPECHI V. Ijeoma	Trainer
AKINOLA Micheal	Trainer
NORTH-EAST	
OPARAKU, N. G.	Coordinator
SANUSI Ahmed Lameed	Lead Trainer
OGUNDIYA Kola John	Lead Trainer
AJADI Abosede Bamidele	Trainer
KAREEM Bolakale Akeem	Trainer
SIMON, Appolonia	Trainer
NORTH-WEST	
GAMBO Linus L.	Coordinator
SAMANJA, B. M.	Lead Trainer
ADEBISI Adebayo Tunde	Lead Trainer
AKINSANYA, Afusatu Adepeju	Trainer
ADEOYE Oluwafemi Akinola	Trainer
ALESANMI Moremi Aina	Trainer
SOUTH-EAST	
EKEZIE, Evaristus	Coordinator
JOSEPH, Juliana Olufunke	Lead Trainer
ADETOYESE, Lawrence Akin	Lead Trainer
EWEAMA Patricia M.	Trainer
OLADUNJOYE, Samson D.	Trainer
UHUEGBU Pauline N.	Trainer
SOUTH-SOUTH	
AMOBI, Boniface Oseloka	Coordinator
IRO, Godwin Arunsi	Lead Trainer
OGUNGBANGBE, Julius	Lead Trainer
AKPAN, Moses	Trainer
LAWAL Oladehinde W.	Trainer
ELUTADE Akinloye Adeyeye	Trainer
SOUTH-WEST	
MONEKE, Chuba	Coordinator
OLOYEDE Oluyemi	Lead Trainer
ADEDEJI, Adeyinka	Lead Trainer
OLADOKUN, Khadijat Taiwo	Trainer
OLATUNBOSUN, Olutundun Mosunmola	Trainer
ASHOGBON Alexander A.	Trainer

FIELD PERSONNEL

FIELD PERSONNEL – NORTH-CENTRAL		
Name	**Gender**	**Status**
BENUE STATE		
IGAH LINUS	Male	Supervisor
TUGHTUGH SABASTINE. M.	Female	Supervisor
OGBU INNOCENT	Male	Editor
MICHAEL ENE ELIZABETH	Female	Editor
OGBU VICTORIA	Female	Interviewer
ABAYA NGUAVESE	Female	Interviewer
TARTSEA MERCY	Female	Interviewer
MOSES HILDA DOO	Female	Interviewer
OLAREWAJU JENNIFER O.	Female	Interviewer
IMOH REGINA. N.	Female	Interviewer
IFENE J. CHRISTIANA	Female	Interviewer
DODO IKYE VICTORIA	Female	Interviewer
OGWUCHE ALICE	Female	Interviewer
OCHAPA EVELYN	Female	Interviewer
AMEH THERESA	Female	Measurer
ALIA DORCAS	Female	Measurer
OSU ESTHER A.	Female	Stand By
ODIH E. FAITH	Female	Stand By
FCT		
ADETUNJI KAYODE	Male	Supervisor
EKANEM ANNE O.	Male	Supervisor
ABDULLAHI MUHAMMEAD MUKTHAR	Male	Editor
OMOIFO BETTY WRIGHT OFURE	Female	Editor
AGHOR GLORIA	Female	Interviewer
ORIMIYEYE RUTH ABIODUN	Female	Interviewer
ALUKO ENIOLA ABIOLA	Female	Interviewer
AGIM ROSEMARY	Female	Interviewer
AWUDU AMINAT	Female	Interviewer
WANIKO GRACE	Female	Interviewer
MOMODU RABIAT KASSIM	Female	Interviewer
KYAUTA. D. SHEM	Female	Interviewer
IDRIS LADIDI	Female	Interviewer
MOHAMMED ONIZE RAKIYAT	Female	Interviewer
SANUSI RASHEEDAH T.	Female	Measurer
IDOWU MORIAMO O.	Female	Measurer
OGUNNIYI FATAI O.	Female	Stand By
OKORIE BEATRICE	Female	Stand By
KOGI STATE		
AKINMULESANMI A. JULIUS	Male	Supervisor
ATULUKU USMAN	Male	Supervisor
AJAYI MICHAEL OGIDO	Male	Editor
ETE IREWOLE BOSEDE	Female	Editor
LAWAL OZIYEREYI ZAYNAB	Female	Interviewer
AGBWN MARY	Female	Interviewer
ABUBAKAR AVOYI UMMRUMAN	Female	Interviewer
OMEIZA GRACE .E.	Female	Interviewer
DAUDU OLUWATOYIN M.	Female	Interviewer
OLAYAMI RACHEAL	Female	Interviewer
ILLAMAIN NARGRET	Female	Interviewer
UGIAGBE E. PATIENCE	Female	Interviewer

ADEYENI MONICA	Female	Interviewer
OMEBIJE UGBEDE	Female	Interviewer
AGBAJE FOLASADE	Female	Measurer
BOLORUNDURO IFE	Female	Measurer
ABDULAHI ALADI .A.	Female	Stand By
OMAGWU CHARITY U.	Female	Stand By
KWARA STATE		
ADEYEMI MARY OLUBUNMI	Female	Supervisor
ADEYEMI OLADELE	Male	Supervisor
AKINTOYE ADEKUNLE SAMSOM	Male	Editor
ODETUNDE OLUKAYODE	Male	Editor
UTHMAN SIMIAT ABIOLA	Female	Interviewer
ADEDEJI TEMITOPE OLUSEGUN	Female	Interviewer
ILUFOYE S. OLUWATOSIN	Female	Interviewer
OYEDELE EREBECCA ABOLUPE	Female	Interviewer
ADEYEMI AJIBOLA AFOLAKE	Female	Interviewer
ADEOYE FELICIA TOYIN	Female	Interviewer
SHAABA BUKOLA KUBURAT	Female	Interviewer
BOLOGUN NAFISAT OYINDAMOLA	Female	Interviewer
SANUSI KAFAYAT OMOBUKOLA	Female	Interviewer
ELETU BUKOLA AISHAT	Female	Interviewer
FADAYOMI MARY BOLUWADE	Female	Measurer
WILLIAM FUNMILOLA ELIZABETH	Female	Measurer
ONIWA I. BILIKISU	Female	Stand By
MESELE GRACE	Female	Stand By
NASARAWA STATE		
GYAN DAVOU DUNG	Male	Supervisor
EKPENYONG IBORO DAVID	Male	Supervisor
FATIMA SANNI	Female	Editor
AJIBADE RASHEED AKINADE	Male	Editor
NWABOKU NKECHINYERE C.	Female	Interviewer
UMAR ADOGA MAIRO	Female	Interviewer
ANZAKU SABO RACHEL	Female	Interviewer
JATAU MONICA	Female	Interviewer
BABADE TITILAYO	Female	Interviewer
SAKA RISIKAT	Female	Interviewer
ANI JULIANA	Female	Interviewer
AMBOSON LILIAN LOUIS	Female	Interviewer
SARAH B. CHOLLOM	Female	Interviewer
CHOJI NIRI MARTHA	Female	Interviewer
AGBOGUN SHERIFAT OLAITAN	Female	Measurer
MOSUGU ESEMEJE MERCY	Female	Measurer
ABBA VERONICA	Female	Stand By
AMINA ADAH	Female	Stand By
NIGER STATE		
MUSA MARAFA B.	Female	Supervisor
WAZIRI IBRAHIM	Male	Supervisor
ADENIRAN A. A	Male	Editor
ODUNEWU A.	Female	Editor
ADAMA E.	Female	Interviewer
OKORO FAITH	Female	Interviewer
SAIDU JUMMAI	Female	Interviewer
IMOSEMI E. A	Female	Interviewer
PHILIPS O.A	Female	Interviewer
MOHAMMED T. H	Female	Interviewer
ADEBOYE C.	Female	Interviewer
NAYE ALICE	Female	Interviewer
WANAJA Y.G	Female	Interviewer

OBASIMU.C	Female	Interviewer
SALIHU TALATU	Female	Measurer
MOSADOMI B.L	Female	Measurer
ESTHER T. H	Female	Stand By
CHIOMA LARAI	Female	Stand By
PLATEAU STATE		
BOTSON ESTHER DUNG	Female	Supervisor
AMBOSON DOROTHY J. L	Female	Supervisor
AYANLAKIN JOSHUA	Male	Editor
AJESU WILLIAM ILIYA	Male	Editor
DIDEL BRIDGET LONGPAN	Female	Interviewer
ATABO SARAH OCHE	Female	Interviewer
NANDANG NAOMI	Female	Interviewer
JOHN AGNES EMMANUEL	Female	Interviewer
DAFWANG JULIE YUSUF	Female	Interviewer
MAJAU HELEN	Female	Interviewer
OGUNDELE KIKELOMO .H.	Female	Interviewer
OGAR JANET. B.	Female	Interviewer
BULUS GRACE VOU PAM	Female	Interviewer
FADARE JULIANA	Female	Interviewer
DAFEL SHAGOMA JUMMAI	Female	Measurer
EMMANUEL ABIGAIL	Female	Measurer
KAREEM RIANATU	Female	Stand By
ADEYO JOSEPHINE BOSEDE	Female	Stand By

FIELD PERSONNEL – NORTH-EAST		
Name	**Gender**	**Status**
ADAMAWA STATE		
OBIALO BLESSING.YARO	Female	Supervisor
HAMMAWA UMAR. GONGOLA	Male	Supervisor
GARBA ADAMU ALHAJI	Male	Editor
SANGOBOWALE OLANREWAJU	Male	Editor
BASIRAT LAWAL LAIDE	Female	Interviewer
YADUMA ELVA BULUS	Female	Interviewer
CASSANDRA HASSAN	Female	Interviewer
PATIENCE.N.ISIAH	Female	Interviewer
CHARITY ANTHONY	Female	Interviewer
SARAH MBRAN	Female	Interviewer
KUNAWE.W.ISAIAH	Female	Interviewer
HYELACHARLATI.E. YERIMA	Female	Interviewer
EKEZIE PATIENCE	Female	Interviewer
ADIGI MORRISON	Female	Interviewer
BITRUS LYDIA	Female	Measurer
RAHAB ANTHONY	Female	Measurer
WONOSIKA LARABA	Female	Stand By
ANYANKWA ELIZABETH	Female	Stand By
BAUCHI STATE		
OGUNJIMI S.A.	Male	Supervisor
AMOS .E. EMMANUEL	Male	Supervisor
DIO EMMANUEL A	Male	Editor
ABDULLAHI ADAMU	Male	Editor
COMFORT OBATOKE	Female	Interviewer
YAKMUT S. HAUWA	Female	Interviewer
OYISHOMA O. J.	Female	Interviewer
YAKUBU GRACE	Female	Interviewer
JANET HARUNA	Female	Interviewer

SILAS VIMINTA	Female	Interviewer
FATSHMA GARBA	Female	Interviewer
ESTHER PHILIMON	Female	Interviewer
EUNICE JOEL	Female	Interviewer
KASIMI PAULINA	Female	Interviewer
ESTHER GAGARA	Female	Measurer
SUZIE I. MAMMAN	Female	Measurer
AMINA ABDULHAMID	Female	Stand By
CHRISTIANA AMOS	Female	Stand By
BORNO STATE		
TIMI NANAKUMO	Male	Supervisor
LADI JAMES. P	Male	Supervisor
HASSANA HARUNA	Male	Editor
NGWASAR DAUDA	Male	Editor
RAHILA. J. ZOAKA	Female	Interviewer
ZAINAB UMAR	Female	Interviewer
BLESSING.U.DIKE	Female	Interviewer
FATI. M. FAROUK	Female	Interviewer
RAKIYA YASHIM	Female	Interviewer
PRICILIA.P.DAWA	Female	Interviewer
ROSELINE.O.AHIBA	Female	Interviewer
RAHAB SAMUEL	Female	Interviewer
HASSANA GONI .I	Female	Interviewer
AISHATU.M. MUSA	Female	Interviewer
LADI WAMPANA	Female	Measurer
LARABA.M.SARKI	Female	Measurer
FATI GALADIMA	Female	Stand By
ADAMU USMAN	Female	Stand By
GOMBE STATE		
ADENIYI F.O	Male	Supervisor
LENUS ABNER .W.	Male	Supervisor
SULE ULOKO	Male	Editor
ATUH CHRISTIE	Female	Editor
JAMILA D. UMAR	Female	Interviewer
FATSUMA SULE	Female	Interviewer
BINTA WABIDA	Female	Interviewer
OKORONKWO OLUCHI	Female	Interviewer
MARYAM A MAHDI	Female	Interviewer
SAKINAT MOHD YELWA	Female	Interviewer
ALHERI WABIDA	Female	Interviewer
ASABE BOAZ	Female	Interviewer
THERESA RAYMOND	Female	Interviewer
ALISABATU F.ALI	Female	Interviewer
MARY BALA	Female	Measurer
TALATU D. SIMON	Female	Measurer
RUKAIYAT ABDULLAHI	Female	Stand By
RONIS DAVID	Female	Stand By
TARABA STATE		
NUHU.J.ULEA	Female	Supervisor
UMAR.A.ADAMU	Male	Supervisor
KIKI.S.DUNIYA	Male	Editor
AUTA BLESSING	Female	Editor
JESSE.I.CHARITY	Female	Interviewer
GARBOA.G.SONLOMIYA	Female	Interviewer
PIUS.R.TAIKU	Female	Interviewer
GARBOA KUNYOA	Female	Interviewer
DOUGLAS HELEN	Female	Interviewer
OBADIAH FYAFA	Female	Interviewer

KAMAI.B.RACHAEL	Female	Interviewer
BIYAMS MINIBAH	Female	Interviewer
JITAP CHARITY	Female	Interviewer
JOHN PATIENCE	Female	Interviewer
AUTA REBECCA	Female	Measurer
OLATUNBOSUN OMOLOLA	Female	Measurer
RUKWEN.S.JIMWA	Female	Stand By
UMARU GRACE	Female	Stand By
YOBE STATE		
MUSA DALA YUSUF	Male	Supervisor
USMAN MUSA B	Male	Supervisor
ABBA AUGUSTINE	Male	Editor
AMINA ALI	Male	Editor
EKEZIE ELVIS ONYINYE	Female	Interviewer
LILIAN DUNOMA	Female	Interviewer
AISHA UMAR	Female	Interviewer
ESTHER LUKA	Female	Interviewer
RUTH MUSA	Female	Interviewer
MONICA GARBA	Female	Interviewer
MOHAMMED SAADATU BARKA	Female	Interviewer
MOHAMMED SAADATU	Female	Interviewer
RUKAIYA BUBA	Female	Interviewer
ESTHER DANIEL	Female	Interviewer
HAUWA K. AMSHI	Female	Measurer
UWANI BOMOI	Female	Measurer
HALIMA ADAMU	Female	Stand By
SALIU HAUWA	Female	Stand By

FIELD PERSONNEL – NORTH-WEST		
Name	**Gender**	**Status**
JIGAWA STATE		
IBRAHIM DANJUMA RONI	Male	Supervisor
MOHAMMED MANSUR	Male	Supervisor
LABARAN SALISU	Male	Editor
USMAN MAGAJI	Male	Editor
FATMA MOHAMMED	Female	Interviewer
MARY AJIJI	Female	Interviewer
OSAKWA RUTH	Female	Interviewer
HAUWA NA ABDULLAHI	Female	Interviewer
AMINU GULLAH NAFISA	Female	Interviewer
HAUWA ALIYU BADALA	Female	Interviewer
AISHA ABDULLAHI	Female	Interviewer
MARYAM HASSAN	Female	Interviewer
ADIJAT SOETAN	Female	Interviewer
KAHDIJAT ABDULLAHI	Female	Interviewer
OLANREWAJU BOLATITO BUSOLA	Female	Measurer
ZAINAB DALURU MUSA	Female	Measurer
FATMA HASSAN KURRA	Female	Stand By
JOSEPHINE IKPO	Female	Stand By
KADUNA STATE		
MAKOSHI JOSHUA	Male	Supervisor
DANLADI SANI ADENTO	Male	Supervisor
ANTHONY EMEKA	Male	Editor
ROSE TEMBE	Female	Editor
PATRICIA S. GAUJI	Female	Interviewer
DEBORAH D. AMBOSAW	Female	Interviewer

SANI JUMMAI HABIBA	Female	Interviewer
RAHMAN TAIBAT	Female	Interviewer
HELEN BATA	Female	Interviewer
CHAMBA TABITHA	Female	Interviewer
COMFORT YAKUBU	Female	Interviewer
GABRIEL O. GIFT	Female	Interviewer
CECILIA KWAGHKOR	Female	Interviewer
HAJARA M. WAKAWA	Female	Interviewer
MARYLOIUS M. ADO	Female	Measurer
MARY SAIDU	Female	Measurer
ESTHER ANDREW	Female	Stand By
BELLO NAFISAT	Female	Stand By
KANO STATE		
EMMANUEL UMOLO	Male	Supervisor
IDRIS HASSAN	Male	Supervisor
AMINA ABDULSALAM	Female	Editor
ENEJOH SOLOMON OJOTU	Female	Editor
ABUTU ROSE	Female	Interviewer
FATIMA N. AUWAL	Female	Interviewer
BELLO RUKAYAT REMILEKUN	Female	Interviewer
RAKIYAT AHMED DANEJI	Female	Interviewer
JENIFER F. OLUKEMI	Female	Interviewer
AISHAT BAITA	Female	Interviewer
VICTORIA BAITA	Female	Interviewer
NAIMAH D. AHMED	Female	Interviewer
UMEH AUGUSTA C.	Female	Interviewer
OLATUNDE OLAPEJU	Female	Interviewer
OFOCHE VERA IFEYINWA	Female	Measurer
RAMAT B. ABDULLAHI	Female	Measurer
DIJE GARBA AHMED	Female	Stand By
OKORHI FELIX	Female	Stand By
KATSINA STATE		
HANNATU B. RAYMOND	Female	Supervisor
SALISU AHMAD	Male	Supervisor
YAKUBU HARUNA	Male	Editor
AFOLAMI EUNICE	Female	Editor
NZELU AMARACHUKWU	Female	Interviewer
NNDODIM AMAUCHE P.	Female	Interviewer
SALLAMA L. MONICA	Female	Interviewer
ESTHER ENE AMEH	Female	Interviewer
IYABO R. ABDUL GANIYU	Female	Interviewer
HAUWA DAHIRU	Female	Interviewer
MOHAMMED RABI	Female	Interviewer
EZINNE JOHN	Female	Interviewer
GANA JAMILA	Female	Interviewer
PATIENCE AGBO	Female	Interviewer
KASANG MARY DOMINIC	Female	Measurer
HAUWA ADO	Female	Measurer
NWANETEANYA JUSTINA I.	Female	Stand By
FUNKE POPOOLA	Female	Stand By
KEBBI STATE		
SANI GARBA	Male	Supervisor
GARBA ABDULRAZAK	Male	Supervisor
ABUBAKAR ABDULLAHI	Male	Editor
USMAN MOHAMMD ALTINE	Male	Editor
SARAH MENKE	Female	Interviewer
CHARITY SUNDAY	Female	Interviewer

NAOMI SALE BELLO	Female	Interviewer
HAJARA AMINU MAIKUDI	Female	Interviewer
MARYAM MOHAMMED	Female	Interviewer
ZUWAIRA ABUBAKAR	Female	Interviewer
LADI SALE DAUDA	Female	Interviewer
ISAAC ALONGE YEMISI	Female	Interviewer
RABI MUSA	Female	Interviewer
ZALIHATU ISMAIL	Female	Interviewer
OMIKUNLE ADEKEMI DAMILOLA	Female	Measurer
RALIYA ABDULLAHI	Female	Measurer
BAKO MARY MICHEAL	Female	Stand By
DANJUMA AINAU MANGA	Female	Stand By
SOKOTO STATE		
MOHAMMED JIMOH AKAABA	Male	Supervisor
USMAN MOHAMMED	Male	Supervisor
MUSTAPHA UMAR MOH'D	Male	Editor
ALABI AYOBAMI SURAJ	Male	Editor
AMOS YEMISI DEBORAH	Female	Interviewer
ONI ESTHER KEMI	Female	Interviewer
ISHAKU ELIZABETH	Female	Interviewer
AJAYI ODUNAYO FLORENCE	Female	Interviewer
ADEWOLE FADEKEMI TOYIN	Female	Interviewer
ZAINAB ARMIYA'U MADA	Female	Interviewer
HABIBA MOHAMMED	Female	Interviewer
HABIBA ABDULLAHI	Female	Interviewer
NWACHUKWU CHINENYENWA LILIAN	Female	Interviewer
UZOAMAKA C DIMGBA	Female	Interviewer
SAFIYAT SANI	Female	Measurer
HAUWA ABUBAKAR	Female	Measurer
ILIEMENE PACHIE BENEDETH	Female	Stand By
IBRAHIM HAFSAT	Female	Stand By
ZAMFARA STATE		
MOUD ZAINU IBRAHIM	Male	Supervisor
ISAH UMARU KUDU	Male	Supervisor
ABUBAKAR IDIRISU	Male	Editor
ADEMOLA ADEROGBA R	Male	Editor
CHINEDU C. AZEBRY	Female	Interviewer
HAFSATU RABIU	Female	Interviewer
FATIMA GALADIMA	Female	Interviewer
AISHA OJEIFO	Female	Interviewer
ZAINAB M. MUHAMMAD	Female	Interviewer
HALIMA ISA USMAN	Female	Interviewer
HALISA MUHAMMED	Female	Interviewer
BILKISU ISMAIL	Female	Interviewer
HAFSAT TUNAU	Female	Interviewer
ROSE ANOKWURU	Female	Interviewer
HALIMA ISAH	Female	Measurer
MUSA NACHANA'A	Female	Measurer
ASIMOLE ANN	Female	Stand By
MARYAM ABDULLAHI	Female	Stand By

FIELD PERSONNEL – SOUTH EST		
Name	**Gender**	**Status**
ABIA STATE		
NNAMBA SARAH C.	Female	Supervisor
UMAH CHIKADIBIA. A.	Male	Supervisor
EZEH GOODLUCK . N.	Male	Editor
ANYALEBECHI REMIGIUS. E.	Female	Editor
MADUBUKO IJUOLACHI	Female	Interviewer
OPARAKU CHIMAJU	Female	Interviewer
EBENIRO BLESSING. C.	Female	Interviewer
JOYCE CHIDOZIE UBANI	Female	Interviewer
ONWUTUEBE CHINYERE SERAH	Female	Interviewer
IROZURU FAVOUR	Female	Interviewer
CHINYERE U. NWAOHA	Female	Interviewer
NWANKA CHARITY	Female	Interviewer
UMEYOR ROSANNA	Female	Interviewer
DIKE LOUISA	Female	Interviewer
IGBOKWE NKECHI	Female	Measurer
OKEKE CHIOMA	Female	Measurer
ONUOHA BERNADETTE	Female	Stand By
DAVID UZOAMAKA	Female	Stand By
ANAMBRA STATE		
OGUNBAYO E. O.	Male	Supervisor
EJIKE H.N.	Male	Supervisor
AGANAMA EBUKA	Female	Editor
EKEZIE OBINA L.	Female	Editor
EMELIFE HENRIETA	Female	Interviewer
OMEJE IFEOMA E.	Female	Interviewer
NKEMNEME IFEOMA	Female	Interviewer
UZOKIFE OGOCHUKWU	Female	Interviewer
OKOYE CATHERINE	Female	Interviewer
NKWOCHA CHRISTIANA	Female	Interviewer
NWANKWO EDITH	Female	Interviewer
OKAFOR IFEYINWA	Female	Interviewer
OKAFOR CHINWE	Female	Interviewer
ECHEBIRI VERONICA	Female	Interviewer
ILUKWE ANNE	Female	Measurer
OKAFOR CHIKA	Female	Measurer
ODUCHE CHIOMA	Female	Stand By
ODENIGBO EUNICE	Female	Stand By
EBONYI STATE		
AGHA S. A.	Male	Supervisor
OJI B. C.	Male	Supervisor
ODIAKPA LOVETT OLAEDO	Female	Editor
IBEKWE N. IFEANYI	Female	Editor
SOTOMIWA M. M.	Female	Interviewer
UMEJIAKU P. CHINAZA.	Female	Interviewer
AJUNWA CHIDINMA	Female	Interviewer
OKOH K. U.	Female	Interviewer
IWUOHA CHARITY	Female	Interviewer
IROANULAM GLORIA C.	Female	Interviewer
NWABUISI THERESA	Female	Interviewer
EZUGWU VIRGINIA U.	Female	Interviewer
ANYANWU STELLA C.	Female	Interviewer

OLUMBA CHINASA	Female	Interviewer
ONYEKACHI DORATHY N.	Female	Measurer
MARY U. UKPAI	Female	Measurer
AWARA RITA ONYEDIRA.	Female	Stand By
NWOKWU AUGUSTINA N.	Female	Stand By
ENUGU STATE		
ONYIA L. O.	Male	Supervisor
EKWEM A. I	Male	Supervisor
OKOH SABINA	Female	Editor
UDE CHIKA QUEEN	Female	Editor
EMENELU ALICE	Female	Interviewer
ONYEBUCHI LUCY C.	Female	Interviewer
NWOBODO ANN	Female	Interviewer
ILODIBIA SANDRA	Female	Interviewer
ANI F. O.	Female	Interviewer
NZE EUNICE	Female	Interviewer
NWANKWO M. A.	Female	Interviewer
NWORA GRACE U.	Female	Interviewer
AGBOGU J. N.	Female	Interviewer
ONYIA G. A.	Female	Interviewer
CHUKWUMA IFEOMA	Female	Measurer
NWOKOLO C. N.	Female	Measurer
CHRISTIAN DAVIES	Female	Stand By
URAMAH ROSE	Female	Stand By
IMO STATE		
UNACHUKWU P. C.	Male	Supervisor
OSUJI BONIFACE N	Male	Supervisor
UGWO SYLVIA N.	Female	Editor
EHEMUNU HENRY	Male	Editor
ESIOBU IFEOMA P.	Female	Interviewer
JENNIFER IMAOBONG ADEN	Female	Interviewer
EMENALO C. EMELDA	Female	Interviewer
UNEZE JULIANA C.	Female	Interviewer
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OSUJI ANN CHIOMA	Female	Interviewer
AKANUO NAOMI N	Female	Interviewer
NWOKORO BEATRICE	Female	Interviewer
OKEKE SANDRA N	Female	Interviewer
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EKEZIE IFUNANYA	Female	Measurer
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IHEKWEAZU STELLA E.	Female	Stand By

FIELD PERSONNEL – SOUTH-SOUTH		
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ASIQUO, Bassey Essang	Male	Supervisor
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ABENG, Dora	Female	Editor
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USENOBONG, Eno S.	Female	Interviewer
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UMOH, Ime E.	Female	Interviewer
EFFIONG Mary B.	Female	Interviewer
ABIE Jennifer	Female	Interviewer
AMOS, Christiana A.	Female	Interviewer
UMOH Eno. N	Female	Interviewer
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OKOLO, Maureen	Female	Measurer
NDARAKE, Uduak A. A.	Female	Stand By
NWOKEJI, Lilian	Female	Stand By
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ABEKEY PAULINE	Female	Editor
DIENAGHA ETHEL	Female	Editor
APIGI MARY	Female	Interviewer
OKUKULABE MAUREEN	Female	Interviewer
OTUGO CHIOMA HOPE	Female	Interviewer
OYERANMI KEMI E.	Female	Interviewer
AMOSU TOLULOPE	Female	Interviewer
ANDREW JENNIFER	Female	Interviewer
EMMANUELLA UJU ODOZOR	Female	Interviewer
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OKOLO MARY I.	Female	Interviewer
BOZIN ELIZABETH	Female	Interviewer
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ODU, Glorita Nchong	Female	Interviewer
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ETUK, Mayen Etoinwang	Female	Interviewer
EKEH, Glory Joseph	Female	Interviewer
EKIKO, Theresa Monday	Female	Interviewer
ADU, Theresa Samuel	Female	Interviewer
HENSHAW, Atim Okon	Female	Interviewer
NTAKIKAM, Eno Amba	Female	Interviewer
OKURE, Inimfon Etim	Female	Interviewer
OFURUM, Nkiru Esther	Female	Interviewer

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DANIEL, Magret	Female	Measurer
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AMBA, Affiong	Female	Stand By
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OMAKOBIA, Ichako Faith	Female	Interviewer
OWELLE, Jennifer Adaobi	Female	Interviewer
LAMAI, Bertha Iroboudu	Female	Interviewer
EMORDI, Fumnanya Mitchel	Female	Interviewer
ALENKHE, Faith	Female	Interviewer
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AGBACHE, Velvet	Female	Measurer
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UGBESIA, Helen	Female	Interviewer
OSAKUE, O. Mary-Jane	Female	Interviewer
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ABU, Uwalezhe Linda	Female	Interviewer
OGHOGHO, Justina	Female	Interviewer
IHEJIETO, Nnenna Thelma	Female	Interviewer
ATOGBO, Felicia	Female	Interviewer
EMEREOHA, Ephraim	Female	Interviewer
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Jimoh Princess	Female	Measurer
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MAKINDE ADEOLA TOYIN	Female	Interviewer
ALAMU MULIKAT ABIOLA	Female	Interviewer
OLOWOLAYEMO TOLULOPE AYODELE	Female	Interviewer
MICHAEL BRIDGET ABOSEDE	Female	Interviewer
ADEGBOYEGA BEATRICE	Female	Interviewer
OFEM AODEYE IKPI	Female	Interviewer
ODETUNDUN VICTORIA ODUNOLA	Female	Interviewer
OJO ABIDEMI EUNICE	Female	Interviewer
KAZEEM MONSURAT TOYOSI	Female	Measurer
AWE KEMISOLA TOLANI	Female	Measurer
ANIFOWOSE TAIWO.V	Female	Stand By
ADESOMOJU ARINOLA TOYIN	Female	Stand By
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AGWUEGWU, ALFRED.C	Male	Editor
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SANUSI, OMOWUNMI.S	Female	Interviewer
OJO, BERNICE.A	Female	Interviewer
OMOKEHINDE, ESTHER. O	Female	Interviewer
SELEM, MIMI .N	Female	Interviewer
BELLO,WALIAT.O	Female	Interviewer
FASHAE, TOYIN.A	Female	Interviewer
ADELABI,OLAYEMI.B	Female	Interviewer
FOLORUNSHO, OLAJUMOKE	Female	Interviewer
FAWOLE, OLUFUNKE.T	Female	Interviewer
ADEDOYIN, YETUNDE	Female	Interviewer
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AKINOLA OLUWATOYIN	Female	Interviewer
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OGUNYEMI OLAMIDE FATIMAT	Female	Interviewer
SALAKO BUKOLA	Female	Interviewer
IDOWU SAIDAT ADESOLA	Female	Interviewer
AKIODE ADEBOLA LATEEFAT	Female	Interviewer
OKANLAWON ABIDEMI OLUFUNKE	Female	Interviewer

OLUWOLE ESTHER OLUYOMI	Female	Interviewer
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Appendix C: Estimates of Sampling Errors

The sample of respondents selected in the Nigeria Multiple Indicator Cluster Survey is only one of the samples that could have been selected from the same population, using the same design and size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between the estimates from all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey data.

The following measures of sampling error are presented in this appendix for each of the selected indicators:

- Standard error (se): Sampling errors are usually measured in terms of standard errors for particular indicators (means, proportions etc). Standard error is the square root of the variance of the estimate. The Taylor linearization method is used for the estimation of standard errors.
- Coefficient of variation (*se*/*r*) is the ratio of the standard error to the value of the indicator, and is a measure of the relative sampling error.
- Design effect (*deff*) is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling. The square root of the design effect (*deft*) is used to show the efficiency of the sample design in relation to the precision. A *deft* value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a *deft* value above 1.0 indicates the increase in the standard error due to the use of a more complex sample design.
- Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall, with a specified level of confidence. For any given statistic calculated from the survey, the value of that statistic will fall within a range of plus or minus two times the standard error ($r + 2.se$ or $r - 2.se$) of the statistic in 95 percent of all possible samples of identical size and design.

For the calculation of sampling errors from MICS4 data, SPSS Version 18 Complex Samples module has been used. The results are shown in the tables that follow. In addition to the sampling error measures described above, the tables also include weighted and unweighted counts of denominators for each indicator.

Sampling errors are calculated for indicators of primary interest, for the national level, for the geopolitical zones, states and for urban and rural areas. Three of the selected indicators are based on households, 8 are based on household members, 13 are based on women, and 15 are based on children under 5. All indicators presented here are in the form of proportions. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.9 show the calculated sampling errors for selected domains.

Table SE.1: Indicators selected for sampling error calculations

List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator, Country, Year

MICS4 Indicator		Base Population
		HOUSEHOLDS
2.16	Iodized salt consumption	All households
3.12	Household availability of insecticide-treated nets (ITNs)	All households
		HOUSEHOLD MEMBERS
4.1	Use of improved drinking water sources	All household members
4.3	Use of improved sanitation facilities	All household members
7.4	Primary school net attendance ratio (adjusted)	Children of primary school age
7.5	Secondary school net attendance ratio (adjusted)	Children of secondary school age
7.7	Primary completion rate	Children of primary school completion age (age appropriate to final grade of primary school)
8.2	Child labour	Children age 5-14 years
8.5	Violent discipline	Children age 2-14 years
9.18	Prevalence of children with at least one parent dead	Children age 0-17 years
9.19	School attendance of orphans	Children age 10-14 years who have lost both parents
9.20	School attendance of non-orphans	Children age 10-14 years, whose parents are alive, and who are living with at least one parent
8.5	Violent discipline	Children age 2-14 years
		WOMEN
-	Pregnant women	Women age 15-49 years
3.19	Pregnant women sleeping under insecticide-treated nets (ITNs)	Pregnant women
3.20	Intermittent preventive treatment for malaria	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.2	Early childbearing	Women age 20-24 years
5.3	Contraceptive prevalence	Women age 15-49 years who are currently married or in union
5.4	Unmet need	Women age 15-49 years who are currently married or in union
5.5a	Antenatal care coverage - at least once by skilled personnel	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.5b	Antenatal care coverage – at least four times by any provider	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.7	Skilled attendant at delivery	Women age 15-49 years with a live birth in the 2 years preceding the survey
5.8	Institutional deliveries	Women age 15-49 years with a live birth in the 2 years preceding the survey
7.1	Literacy rate among young women	Women age 15-24 years
8.7	Marriage before age 18	Women age 20-49 years
8.9	Polygyny	Women age 15-49 years who are currently married or in union
8.12	Prevalence of female genital mutilation/cutting (FGM/C) among women	Women age 15-49 years
8.13	Prevalence of female genital mutilation/cutting (FGM/C) among girls	Daughters age 0-14 years
9.2	Comprehensive knowledge about HIV prevention among young people	Women age 15-24 years
9.3	Knowledge of mother- to-child transmission of HIV	Women age 15-49 years
9.4	Accepting attitudes towards people living with HIV	Women age 15-49 years
9.6	Women who have been tested for HIV and know the results	Women age 15-49 years
9.7	Sexually active young women who have been tested for HIV and know the results	Women age 15-24 years who have had sex in the 12 months preceding the survey
9.11	Sex before age 15 among young women	Women age 15-24 years
9.16	Condom use with non-regular partners	Women age 15-24 years that had a non-marital, non-cohabiting partner in the 12 months preceding the survey

MICS4 Indicator		Base Population
		UNDER-5s
2.1a	Underweight prevalence	Children under age 5
2.2a	Stunting prevalence	Children under age 5
2.3a	Wasting prevalence	Children under age 5
2.6	Exclusive breastfeeding under 6 months	Total number of infants under 6 months of age
2.14	Age-appropriate breastfeeding	Children age 0-23 months
-	Tuberculosis immunization coverage	Children age 12-23 months
-	Received polio immunization	Children age 12-23 months
-	Received DPT immunization	Children age 12-23 months
-	Received measles immunization	Children age 12-23 months
-	Received Hepatitis B immunization	Children age 12-23 months
-	Diarrhoea in the previous 2 weeks	Children under age 5
-	Illness with a cough in the previous 2 weeks	Children under age 5
-	Fever in last two weeks	Children under age 5
3.8	Oral rehydration therapy with continued feeding	Children under age 5 with diarrhoea in the previous 2 weeks
3.10	Antibiotic treatment of suspected pneumonia	Children under age 5 with suspected pneumonia in the previous 2 weeks
3.15	Children under age 5 sleeping under insecticide-treated nets (ITNs)	Children under age 5
3.18	Anti-malarial treatment of children under age 5	Children under age 5 with fever in the previous 2 weeks
6.1	Support for learning	Children age 36-59 months
6.7	Attendance to early childhood education	Children age 36-59 months
8.1	Birth registration	Children under age 5

Table SE.2: Sampling errors: Total sample

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.7977	.00516	.006	4.747	2.179	28759	28771	0.787	0.808
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.5854	.01104	.019	14.609	3.822	146243	29077	0.563	0.607
Use of improved sanitation facilities	4.3	.3103	.00930	.030	11.743	3.427	146243	29077	0.292	0.329
Secondary school net attendance ratio (adjusted)	7.5	.5285	.01002	.019	7.287	2.699	17256	18070	0.508	0.549
Child labour	8.2	.4714	.00688	.015	8.067	2.840	40421	42492	0.458	0.485
Prevalence of children with at least one parent dead	9.18	.0664	.00229	.035	6.503	2.550	73189	76606	0.062	0.071
School attendance of orphans	9.19	.7988	.03080	.039	1.345	1.160	216	229	0.737	0.860
School attendance of non-orphans	9.20	.7949	.01069	.013	10.533	3.245	14257	15039	0.774	0.816
Violent discipline	8.5	.9083	.00463	.005	5.246	2.291	55178	20379	0.899	0.918
WOMEN										
Pregnant women	-	.1154	.00284	.025	2.434	1.560	30772	30772	0.110	0.121
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.1689	.00952	.056	2.360	1.536	3523	3659	0.150	0.188
Intermittent preventive treatment for malaria	3.20	.1947	.00858	.044	2.929	1.711	6544	6244	0.178	0.212
Early childbearing	5.2	.2860	.01087	.038	3.116	1.765	5278	5389	0.264	0.308
Contraceptive prevalence	5.3	.1755	.00550	.031	4.627	2.151	21740	22141	0.165	0.187
Unmet need	5.4	.1936	.00390	.020	2.158	1.469	21740	22141	0.186	0.201
Antenatal care coverage - at least once by skilled personnel	5.5a	.6625	.01242	.019	6.924	2.631	9879	10036	0.638	0.687
Antenatal care coverage – at least four times by any provider	5.5b	.5659	.01268	.022	6.569	2.563	9879	10036	0.540	0.591
Skilled attendant at delivery	5.7	.4873	.01308	.027	6.868	2.621	9879	10036	0.461	0.513
Institutional deliveries	5.8	.4512	.01251	.028	6.345	2.519	9879	10036	0.426	0.476
Caesarean section	5.9	.0471	.00395	.084	3.494	1.869	9879	10036	0.039	0.055
Literacy rate among young women	7.1	.6561	.01201	.018	6.940	2.634	10714	10863	0.632	0.680
Marriage before age 18	8.7	.3995	.00869	.022	7.958	2.821	25336	25298	0.382	0.417
Polygyny	8.9	.3362	.00739	.022	5.423	2.329	21740	22141	0.321	0.351
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.2704	.00882	.033	12.147	3.485	30772	30772	0.253	0.288
Comprehensive knowledge about HIV prevention among young people	9.2	.2248	.00786	.035	3.849	1.962	10714	10863	0.209	0.241
Knowledge of mother- to-child transmission of HIV	9.3	.4973	.00704	.014	6.095	2.469	30772	30772	0.483	0.511
Accepting attitudes towards people living with HIV	9.4	.0904	.00413	.046	5.594	2.365	27619	26983	0.082	0.099

Women who have been tested for HIV and know the results	9.6	.1140	.00375	.033	4.292	2.072	30772	30772	0.106	0.121
Sexually active young women who have been tested for HIV and know the results	9.7	.0913	.00561	.061	2.481	1.575	6264	6545	0.080	0.103
Sex before age 15 among young women	9.11	.1580	.00675	.043	3.722	1.929	10714	10863	0.144	0.171
Condom use with non-regular partners	9.16	.4736	.01442	.030	1.683	1.297	2028	2019	0.445	0.502
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.1442	.00933	.065	14.503	3.808	22495	20543	0.125	0.163
UNDER-5s										
Underweight prevalence	2.1a	.2423	.00523	.022	3.599	1.897	24170	24175	0.232	0.253
Stunting prevalence	2.2a	.3583	.00682	.019	4.852	2.203	23975	23978	0.345	0.372
Wasting prevalence	2.3a	.1024	.00337	.033	2.987	1.728	24210	24172	0.096	0.109
Exclusive breastfeeding under 6 months	2.6	.1506	.00827	.055	1.451	1.205	2659	2714	0.134	0.167
Age-appropriate breastfeeding	2.14	.3458	.00770	.022	2.687	1.639	10418	10242	0.330	0.361
Tuberculosis immunization coverage	-	.6239	.01282	.021	3.434	1.853	4955	4907	0.598	0.649
Received polio immunization	-	.4876	.01150	.024	2.611	1.616	4972	4931	0.465	0.511
Received DPT immunization	-	.4466	.01260	.028	3.119	1.766	4889	4858	0.421	0.472
Received measles immunization	-	.5556	.01219	.022	2.936	1.713	4901	4878	0.531	0.580
Received Hepatitis B immunization	-	.3593	.01138	.032	2.705	1.645	4839	4808	0.337	0.382
Diarrhoea in the previous 2 weeks	-	.1382	.00416	.030	3.670	1.916	25192	25192	0.130	0.146
Illness with a cough in the previous 2 weeks	-	.0353	.00193	.055	2.756	1.660	25192	25192	0.031	0.039
Fever in last two weeks	-	.1946	.00446	.023	3.195	1.787	25192	25192	0.186	0.204
Oral rehydration therapy with continued feeding	3.8	.2786	.01208	.043	2.868	1.693	3480	3949	0.254	0.303
Antibiotic treatment of suspected pneumonia	3.10	.4538	.01422	.031	.804	.897	890	987	0.425	0.482
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.1643	.00670	.041	8.185	2.861	25021	25010	0.151	0.178
Anti-malarial treatment of children under age 5	3.18	.2939	.00985	.034	2.423	1.556	4902	5178	0.274	0.314
Support for learning	6.1	.6542	.00863	.013	3.367	1.835	10027	10230	0.637	0.671
Attendance to early childhood education	6.7	.4264	.01218	.029	6.201	2.490	10027	10230	0.402	0.451
Birth registration	8.1	.4150	.01014	.024	10.673	3.267	25192	25192	0.395	0.435

Table SE.3: Sampling errors: Urban areas

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se*/*r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2*se*	*r* + 2*se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.8525	.00799	.009	3.655	1.912	10514	7192	0.837	0.869
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.7256	.01770	.024	11.408	3.378	49677	7251	0.690	0.761
Use of improved sanitation facilities	4.3	.4050	.01789	.044	9.626	3.103	49677	7251	0.369	0.441
Secondary school net attendance ratio (adjusted)	7.5	.6970	.01810	.026	6.563	2.562	5986	4233	0.661	0.733
Child labour	8.2	.4049	.01349	.033	6.817	2.611	13060	9020	0.378	0.432
Prevalence of children with at least one parent dead	9.18	.0730	.00531	.073	6.763	2.601	23393	16238	0.062	0.084
School attendance of orphans	9.19	.8351	.08845	.106	2.898	1.702	77	52	0.658	1.000
School attendance of non-orphans	9.20	.9509	.00869	.009	5.277	2.297	4695	3260	0.934	0.968
Violent discipline	8.5	.9072	.01164	.013	7.599	2.757	17428	4726	0.884	0.930
WOMEN										
Pregnant women	-	.0998	.00501	.050	2.103	1.450	11330	7541	0.090	0.110
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.1748	.01950	.112	1.966	1.402	1117	747	0.136	0.214
Intermittent preventive treatment for malaria	3.20	.1786	.01504	.084	2.743	1.656	2735	1781	0.149	0.209
Early childbearing	5.2	.1457	.01796	.123	3.076	1.754	1749	1188	0.110	0.182
Contraceptive prevalence	5.3	.2497	.01385	.055	4.992	2.234	7223	4874	0.222	0.277
Unmet need	5.4	.2030	.00651	.032	1.275	1.129	7223	4874	0.190	0.216
Antenatal care coverage - at least once by skilled personnel	5.5a	.8760	.01442	.016	3.989	1.997	3122	2086	0.847	0.905
Antenatal care coverage – at least four times by any provider	5.5b	.7954	.01896	.024	4.604	2.146	3122	2086	0.757	0.833
Skilled attendant at delivery	5.7	.7389	.02382	.032	6.133	2.476	3122	2086	0.691	0.787
Institutional deliveries	5.8	.6848	.02261	.033	4.936	2.222	3122	2086	0.640	0.730
Caesarean section	5.9	.0881	.01115	.127	3.227	1.796	3122	2086	0.066	0.110
Literacy rate among young women	7.1	.8616	.01416	.016	4.325	2.080	3808	2574	0.833	0.890
Marriage before age 18	8.7	.2454	.01396	.057	6.473	2.544	9271	6155	0.218	0.273
Polygyny	8.9	.2357	.01217	.052	4.007	2.002	7223	4874	0.211	0.260
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.3263	.01649	.051	9.322	3.053	11330	7541	0.293	0.359
Comprehensive knowledge about HIV prevention among young people	9.2	.2899	.01577	.054	3.109	1.763	3808	2574	0.258	0.321

Knowledge of mother- to-child transmission of HIV	9.3	.5737	.01297	.023	5.186	2.277	11330	7541	0.548	0.600
Accepting attitudes towards people living with HIV	9.4	.1006	.00851	.085	5.757	2.399	10964	7186	0.084	0.118
Women who have been tested for HIV and know the results	9.6	.1636	.00820	.050	3.707	1.925	11330	7541	0.147	0.180
Sexually active young women who have been tested for HIV and know the results	9.7	.1399	.01577	.113	2.487	1.577	1769	1205	0.108	0.171
Sex before age 15 among young women	9.11	.0716	.00858	.120	2.850	1.688	3808	2574	0.054	0.089
Condom use with non-regular partners	9.16	.5535	.02518	.046	1.376	1.173	835	537	0.503	0.604
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.1136	.01342	.118	10.399	3.225	9275	5817	0.087	0.140
UNDER-5s										
Underweight prevalence	2.1a	.1680	.01128	.067	4.509	2.123	7356	4955	0.145	0.191
Stunting prevalence	2.2a	.2334	.01450	.062	5.778	2.404	7294	4915	0.204	0.262
Wasting prevalence	2.3a	.0965	.00869	.090	4.282	2.069	7360	4949	0.079	0.114
Exclusive breastfeeding under 6 months	2.6	.2058	.01922	.093	1.189	1.090	716	527	0.167	0.244
Age-appropriate breastfeeding	2.14	.3183	.01821	.057	3.276	1.810	3276	2145	0.282	0.355
Tuberculosis immunization coverage	-	.8259	.01807	.022	2.416	1.554	1604	1065	0.790	0.862
Received polio immunization	-	.6045	.02111	.035	1.986	1.409	1605	1067	0.562	0.647
Received DPT immunization	-	.6496	.02571	.040	3.078	1.754	1583	1061	0.598	0.701
Received measles immunization	-	.7314	.02489	.034	3.335	1.826	1571	1059	0.682	0.781
Received Hepatitis B immunization	-	.5221	.02375	.045	2.375	1.541	1561	1051	0.475	0.570
Diarrhoea in the previous 2 weeks	-	.1028	.00825	.080	3.803	1.950	7664	5155	0.086	0.119
Illness with a cough in the previous 2 weeks	-	.0249	.00386	.155	3.162	1.778	7664	5155	0.017	0.033
Fever in last two weeks	-	.1549	.00742	.048	2.167	1.472	7664	5155	0.140	0.170
Oral rehydration therapy with continued feeding	3.8	.3445	.03064	.089	2.474	1.573	788	596	0.283	0.406
Antibiotic treatment of suspected pneumonia	3.10	.5286	.03402	.064	.678	.823	191	147	0.461	0.597
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.1601	.01115	.070	4.730	2.175	7604	5118	0.138	0.182
Anti-malarial treatment of children under age 5	3.18	.4147	.02231	.054	1.677	1.295	1187	819	0.370	0.459
Support for learning	6.1	.7966	.01708	.021	3.642	1.908	2913	2023	0.762	0.831
Attendance to early childhood education	6.7	.6740	.03554	.053	11.620	3.409	2913	2023	0.603	0.745
Birth registration	8.1	.6285	.01799	.029	7.147	2.673	7664	5155	0.592	0.664

Table SE.4: Sampling errors: Rural areas

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.7661	.00648	.008	5.050	2.247	18245	21579	0.753	0.779
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.5132	.01401	.027	17.140	4.140	96566	21826	0.485	0.541
Use of improved sanitation facilities	4.3	.2615	.00929	.036	9.754	3.123	96566	21826	0.243	0.280
Secondary school net attendance ratio (adjusted)	7.5	.4389	.01052	.024	6.220	2.494	11270	13837	0.418	0.460
Child labour	8.2	.5031	.00708	.014	6.703	2.589	27361	33472	0.489	0.517
Prevalence of children with at least one parent dead	9.18	.0633	.00224	.035	5.100	2.258	49796	60368	0.059	0.068
School attendance of orphans	9.19	.7787	.00244	.003	.006	.078	139	177	0.774	0.784
School attendance of non-orphans	9.20	.7183	.01326	.018	10.238	3.200	9562	11779	0.692	0.745
Violent discipline	8.5	.9088	.00411	.005	3.184	1.784	37750	15653	0.901	0.917
WOMEN										
Pregnant women	-	.1244	.00340	.027	2.464	1.570	19442	23231	0.118	0.131
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.1662	.01058	.064	2.349	1.533	2405	2912	0.145	0.187
Intermittent preventive treatment for malaria	3.20	.2062	.01016	.049	2.817	1.678	3809	4463	0.186	0.227
Early childbearing	5.2	.3556	.01181	.033	2.558	1.599	3528	4201	0.332	0.379
Contraceptive prevalence	5.3	.1386	.00503	.036	3.663	1.914	14517	17267	0.129	0.149
Unmet need	5.4	.1889	.00481	.025	2.610	1.616	14517	17267	0.179	0.198
Antenatal care coverage - at least once by skilled personnel	5.5a	.5638	.01538	.027	7.642	2.764	6757	7950	0.533	0.595
Antenatal care coverage – at least four times by any provider	5.5b	.4598	.01413	.031	6.394	2.529	6757	7950	0.432	0.488
Skilled attendant at delivery	5.7	.3710	.01344	.036	6.155	2.481	6757	7950	0.344	0.398
Institutional deliveries	5.8	.3432	.01298	.038	5.941	2.437	6757	7950	0.317	0.369
Caesarean section	5.9	.0281	.00248	.088	1.784	1.336	6757	7950	0.023	0.033
Literacy rate among young women	7.1	.5428	.01448	.027	7.006	2.647	6906	8289	0.514	0.572
Marriage before age 18	8.7	.4884	.00998	.020	7.634	2.763	16065	19143	0.468	0.508
Polygyny	8.9	.3862	.00841	.022	5.153	2.270	14517	17267	0.369	0.403
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.2378	.01068	.045	14.628	3.825	19442	23231	0.216	0.259
Comprehensive knowledge about HIV prevention among young people	9.2	.1889	.00743	.039	2.987	1.728	6906	8289	0.174	0.204

Knowledge of mother- to-child transmission of HIV	9.3	.4529	.00710	.016	4.729	2.175	19442	23231	0.439	0.467
Accepting attitudes towards people living with HIV	9.4	.0837	.00363	.043	3.393	1.842	16655	19797	0.076	0.091
Women who have been tested for HIV and know the results	9.6	.0851	.00367	.043	4.020	2.005	19442	23231	0.078	0.092
Sexually active young women who have been tested for HIV and know the results	9.7	.0722	.00498	.069	1.975	1.405	4495	5340	0.062	0.082
Sex before age 15 among young women	9.11	.2056	.00854	.042	3.699	1.923	6906	8289	0.189	0.223
Condom use with non-regular partners	9.16	.4177	.01595	.038	1.548	1.244	1193	1482	0.386	0.450
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.1656	.01192	.072	15.145	3.892	13220	14726	0.142	0.189
UNDER-5s										
Underweight prevalence	2.1a	.2749	.00555	.020	2.970	1.723	16814	19220	0.264	0.286
Stunting prevalence	2.2a	.4130	.00700	.017	3.855	1.963	16680	19063	0.399	0.427
Wasting prevalence	2.3a	.1049	.00305	.029	1.906	1.380	16850	19223	0.099	0.111
Exclusive breastfeeding under 6 months	2.6	.1303	.00884	.068	1.507	1.228	1943	2187	0.113	0.148
Age-appropriate breastfeeding	2.14	.3584	.00766	.021	2.067	1.438	7142	8097	0.343	0.374
Tuberculosis immunization coverage	-	.5272	.01502	.028	3.475	1.864	3351	3842	0.497	0.557
Received polio immunization	-	.4319	.01284	.030	2.597	1.612	3368	3864	0.406	0.458
Received DPT immunization	-	.3494	.01257	.036	2.640	1.625	3306	3797	0.324	0.375
Received measles immunization	-	.4727	.01274	.027	2.487	1.577	3330	3819	0.447	0.498
Received Hepatitis B immunization	-	.2818	.01100	.039	2.247	1.499	3279	3757	0.260	0.304
Diarrhoea in the previous 2 weeks	-	.1536	.00477	.031	3.508	1.873	17528	20037	0.144	0.163
Illness with a cough in the previous 2 weeks	-	.0399	.00219	.055	2.518	1.587	17528	20037	0.035	0.044
Fever in last two weeks	-	.2120	.00548	.026	3.597	1.897	17528	20037	0.201	0.223
Oral rehydration therapy with continued feeding	3.8	.2593	.01185	.046	2.451	1.565	2692	3353	0.236	0.283
Antibiotic treatment of suspected pneumonia	3.10	.4333	.01590	.037	.863	.929	699	840	0.402	0.465
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.1661	.00829	.050	9.877	3.143	17417	19892	0.150	0.183
Anti-malarial treatment of children under age 5	3.18	.2553	.01057	.041	2.560	1.600	3715	4359	0.234	0.276
Support for learning	6.1	.5958	.00941	.016	3.018	1.737	7114	8207	0.577	0.615
Attendance to early childhood education	6.7	.3250	.01048	.032	4.109	2.027	7114	8207	0.304	0.346
Birth registration	8.1	.3217	.01121	.035	11.532	3.396	17528	20037	0.299	0.344

Table SE.5: Sampling errors: North-Central

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.7605	.01280	.017	4.897	2.213	3894	5443	0.735	0.786
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.5305	.02453	.046	13.274	3.643	21253	5495	0.481	0.580
Use of improved sanitation facilities	4.3	.2381	.01548	.065	7.259	2.694	21253	5495	0.207	0.269
Secondary school net attendance ratio (adjusted)	7.5	.4916	.01797	.037	5.014	2.239	2728	3880	0.456	0.528
Child labour	8.2	.4772	.01136	.024	4.535	2.130	6073	8766	0.455	0.500
Prevalence of children with at least one parent dead	9.18	.0631	.00436	.069	4.930	2.220	10616	15341	0.054	0.072
School attendance of orphans	9.19	.7537	.13950	.185	6.395	2.529	46	62	0.475	1.000
School attendance of non-orphans	9.20	.8541	.01677	.020	6.968	2.640	2100	3089	0.821	0.888
Violent discipline	8.5	.9347	.00621	.007	2.521	1.588	8023	3990	0.922	0.947
WOMEN										
Pregnant women	-	.1105	.00630	.057	2.558	1.599	4603	6345	0.098	0.123
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.2025	.02199	.109	2.123	1.457	504	710	0.158	0.246
Intermittent preventive treatment for malaria	3.20	.1928	.01430	.074	1.875	1.369	992	1429	0.164	0.221
Early childbearing	5.2	.2028	.01742	.086	2.079	1.442	803	1109	0.168	0.238
Contraceptive prevalence	5.3	.1697	.00974	.057	2.975	1.725	3148	4424	0.150	0.189
Unmet need	5.4	.2018	.00808	.040	1.794	1.339	3148	4424	0.186	0.218
Antenatal care coverage - at least once by skilled personnel	5.5a	.7629	.01709	.022	2.996	1.731	1301	1856	0.729	0.797
Antenatal care coverage – at least four times by any provider	5.5b	.5915	.01878	.032	2.707	1.645	1301	1856	0.554	0.629
Skilled attendant at delivery	5.7	.5809	.02287	.039	3.986	1.997	1301	1856	0.535	0.627
Institutional deliveries	5.8	.5303	.02311	.044	3.977	1.994	1301	1856	0.484	0.576
Caesarean section	5.9	.0458	.00632	.138	1.697	1.303	1301	1856	0.033	0.058
Literacy rate among young women	7.1	.6514	.02002	.031	4.001	2.000	1676	2268	0.611	0.691
Marriage before age 18	8.7	.3691	.01308	.035	3.809	1.952	3730	5186	0.343	0.395
Polygyny	8.9	.3889	.01579	.041	4.643	2.155	3148	4424	0.357	0.420
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.1385	.01325	.096	9.342	3.057	4603	6345	0.112	0.165
Comprehensive knowledge about HIV prevention among young people	9.2	.1934	.01509	.078	3.312	1.820	1676	2268	0.163	0.224
Knowledge of mother- to-child transmission of HIV	9.3	.3930	.01266	.032	4.265	2.065	4603	6345	0.368	0.418

Accepting attitudes towards people living with HIV	9.4	.1818	.00991	.055	3.538	1.881	3861	5364	0.162	0.202
Women who have been tested for HIV and know the results	9.6	.1343	.00763	.057	3.177	1.782	4603	6345	0.119	0.150
Sexually active young women who have been tested for HIV and know the results	9.7	.1432	.01381	.096	1.816	1.348	856	1170	0.116	0.171
Sex before age 15 among young women	9.11	.1259	.01039	.083	2.223	1.491	1676	2268	0.105	0.147
Condom use with non-regular partners	9.16	.4053	.02908	.072	1.522	1.234	339	435	0.347	0.463
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.0855	.01487	.174	9.988	3.160	2361	3533	0.056	0.115
UNDER-5s										
Underweight prevalence	2.1a	.1939	.00908	.047	2.347	1.532	3207	4456	0.176	0.212
Stunting prevalence	2.2a	.3279	.01106	.034	2.461	1.569	3191	4434	0.306	0.350
Wasting prevalence	2.3a	.0845	.00484	.057	1.345	1.160	3190	4436	0.075	0.094
Exclusive breastfeeding under 6 months	2.6	.2383	.01872	.079	.917	.958	341	476	0.201	0.276
Age-appropriate breastfeeding	2.14	.3819	.01361	.036	1.473	1.214	1343	1878	0.355	0.409
Tuberculosis immunization coverage	-	.7103	.02257	.032	2.200	1.483	645	890	0.665	0.755
Received polio immunization	-	.4990	.02359	.047	2.006	1.416	652	902	0.452	0.546
Received DPT immunization	-	.4788	.02719	.057	2.619	1.618	641	885	0.424	0.533
Received measles immunization	-	.5694	.02381	.042	2.057	1.434	648	891	0.522	0.617
Received Hepatitis B immunization	-	.3891	.02651	.068	2.561	1.600	629	867	0.336	0.442
Diarrhoea in the previous 2 weeks	-	.1111	.00643	.058	1.921	1.386	3285	4594	0.098	0.124
Illness with a cough in the previous 2 weeks	-	.0223	.00293	.132	1.812	1.346	3285	4594	0.016	0.028
Fever in last two weeks	-	.1278	.00685	.054	1.937	1.392	3285	4594	0.114	0.141
Oral rehydration therapy with continued feeding	3.8	.3028	.02257	.075	1.378	1.174	365	572	0.258	0.348
Antibiotic treatment of suspected pneumonia	3.10	.5984	.03285	.055	.449	.670	73	101	0.533	0.664
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.1373	.01306	.095	6.565	2.562	3264	4556	0.111	0.163
Anti-malarial treatment of children under age 5	3.18	.2985	.02448	.082	1.744	1.320	420	610	0.250	0.347
Support for learning	6.1	.6626	.01547	.023	1.974	1.405	1319	1845	0.632	0.694
Attendance to early childhood education	6.7	.4254	.02049	.048	3.168	1.780	1319	1845	0.384	0.466
Birth registration	8.1	.4067	.01830	.045	6.374	2.525	3285	4594	0.370	0.443

Table SE.6: Sampling errors: North-East

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.7660	.02273	.030	2.249	1.500	555	781	0.721	0.811
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.5482	.05876	.107	11.000	3.317	3372	790	0.431	0.666
Use of improved sanitation facilities	4.3	.3664	.05484	.150	10.221	3.197	3372	790	0.257	0.476
Secondary school net attendance ratio (adjusted)	7.5	.4658	.04698	.101	4.780	2.186	385	540	0.372	0.560
Child labour	8.2	.4459	.02221	.050	2.691	1.640	937	1349	0.401	0.490
Prevalence of children with at least one parent dead	9.18	.0529	.00778	.147	2.968	1.723	1732	2458	0.037	0.068
School attendance of orphans	9.19	(*)	(*)	(*)	(*)	(*)	7	10	(*)	(*)
School attendance of non-orphans	9.20	.8182	.05281	.065	8.814	2.969	324	471	0.713	0.924
Violent discipline	8.5	.9149	.01259	.014	1.184	1.088	1321	583	0.890	0.940
WOMEN										
Pregnant women	-	.0963	.00747	.078	.616	.785	723	960	0.081	0.111
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.2106	.04631	.220	1.264	1.124	69	99	0.118	0.303
Intermittent preventive treatment for malaria	3.20	.0417	.02033	.488	2.069	1.438	152	201	0.001	0.082
Early childbearing	5.2	.3052	.05523	.181	2.675	1.636	149	187	0.195	0.416
Contraceptive prevalence	5.3	.0548	.01063	.194	1.465	1.210	501	672	0.034	0.076
Unmet need	5.4	.2545	.01693	.067	1.014	1.007	501	672	0.221	0.288
Antenatal care coverage - at least once by skilled personnel	5.5a	.6714	.04367	.065	2.610	1.616	226	303	0.584	0.759
Antenatal care coverage – at least four times by any provider	5.5b	.5455	.04477	.082	2.442	1.563	226	303	0.456	0.635
Skilled attendant at delivery	5.7	.3730	.04684	.126	2.833	1.683	226	303	0.279	0.467
Institutional deliveries	5.8	.3403	.04529	.133	2.759	1.661	226	303	0.250	0.431
Caesarean section	5.9	.0107	.00609	.571	1.060	1.030	226	303	0.000	0.023
Literacy rate among young women	7.1	.5970	.05474	.092	4.609	2.147	284	371	0.487	0.706
Marriage before age 18	8.7	.4355	.03026	.069	2.887	1.699	587	776	0.375	0.496
Polygyny	8.9	.4382	.03719	.085	3.770	1.942	501	672	0.364	0.513
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.0042	.00220	.527	1.118	1.058	723	960	0.000	0.009
Comprehensive knowledge about HIV prevention among young people	9.2	.2140	.01996	.093	.877	.936	284	371	0.174	0.254

Knowledge of mother- to-child transmission of HIV	9.3	.6101	.01900	.031	1.456	1.207	723	960	0.572	0.648
Accepting attitudes towards people living with HIV	9.4	.0566	.01067	.189	1.857	1.363	667	871	0.035	0.078
Women who have been tested for HIV and know the results	9.6	.1030	.01470	.143	2.244	1.498	723	960	0.074	0.132
Sexually active young women who have been tested for HIV and know the results	9.7	.1131	.02104	.186	.905	.951	159	206	0.071	0.155
Sex before age 15 among young women	9.11	.1010	.02529	.251	2.608	1.615	284	371	0.050	0.152
Condom use with non-regular partners	9.16	(*)	(*)	(*)	(*)	(*)	33	43	(*)	(*)
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.0118	.00543	.460	.539	.734	154	214	0.001	0.023
UNDER-5s										
Underweight prevalence	2.1a	.2736	.03024	.111	3.585	1.893	591	780	0.213	0.334
Stunting prevalence	2.2a	.4728	.02833	.060	2.499	1.581	588	777	0.416	0.529
Wasting prevalence	2.3a	.0642	.01234	.192	1.978	1.407	590	781	0.039	0.089
Exclusive breastfeeding under 6 months	2.6	.1805	.05140	.285	1.554	1.246	68	88	0.078	0.283
Age-appropriate breastfeeding	2.14	.3725	.03101	.083	1.321	1.149	243	322	0.310	0.434
Tuberculosis immunization coverage	-	.7439	.04740	.064	1.804	1.343	117	154	0.649	0.839
Received polio immunization	-	.5614	.04970	.089	1.525	1.235	116	153	0.462	0.661
Received DPT immunization	-	.5359	.04894	.091	1.454	1.206	116	152	0.438	0.634
Received measles immunization	-	.7114	.04727	.066	1.643	1.282	116	152	0.617	0.806
Received Hepatitis B immunization	-	.4312	.05039	.117	1.553	1.246	115	151	0.330	0.532
Diarrhoea in the previous 2 weeks	-	.1771	.01216	.069	.839	.916	631	828	0.153	0.201
Illness with a cough in the previous 2 weeks	-	.0631	.01261	.200	2.224	1.491	631	828	0.038	0.088
Fever in last two weeks	-	.1901	.02057	.108	2.272	1.507	631	828	0.149	0.231
Oral rehydration therapy with continued feeding	3.8	.3768	.04267	.113	1.155	1.075	112	150	0.291	0.462
Antibiotic treatment of suspected pneumonia	3.10	.4288	.06218	.145	.805	.897	40	52	0.304	0.553
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.2112	.02737	.130	3.675	1.917	622	818	0.156	0.266
Anti-malarial treatment of children under age 5	3.18	.2294	.03891	.170	1.319	1.148	120	155	0.152	0.307
Support for learning	6.1	.4860	.02883	.059	1.122	1.059	261	338	0.428	0.544
Attendance to early childhood education	6.7	.2306	.02864	.124	1.558	1.248	261	338	0.173	0.288
Birth registration	8.1	.4807	.04531	.094	6.801	2.608	631	828	0.390	0.571

NA: "Not applicable"

(*): the number of unweighted observations is less than 50

Table SE.7: Sampling errors: North-West

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.9356	.01786	.019	4.208	2.051	888	796	0.900	0.971
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.7633	.05483	.072	13.263	3.642	4151	798	0.654	0.873
Use of improved sanitation facilities	4.3	.4618	.03906	.085	4.891	2.212	4151	798	0.384	0.540
Secondary school net attendance ratio (adjusted)	7.5	.7069	.01918	.027	.781	.884	446	441	0.669	0.745
Child labour	8.2	.5829	.02151	.037	1.781	1.334	1005	937	0.540	0.626
Prevalence of children with at least one parent dead	9.18	.0986	.01421	.144	3.838	1.959	1859	1691	0.070	0.127
School attendance of orphans	9.19	(*)	(*)	(*)	(*)	(*)	3	4	(*)	(*)
School attendance of non-orphans	9.20	.9886	.00608	.006	1.047	1.023	340	321	0.976	1.000
Violent discipline	8.5	.9370	.03381	.036	10.164	3.188	1410	526	0.869	1.000
WOMEN										
Pregnant women	-	.1085	.01718	.158	2.412	1.553	964	792	0.074	0.143
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.2659	.04076	.153	.596	.772	95	71	0.184	0.347
Intermittent preventive treatment for malaria	3.20	.0755	.02015	.267	.773	.879	171	134	0.035	0.116
Early childbearing	5.2	.1546	.04201	.272	2.026	1.423	193	151	0.071	0.239
Contraceptive prevalence	5.3	.2609	.06060	.232	8.302	2.881	543	437	0.140	0.382
Unmet need	5.4	.2989	.02572	.086	1.376	1.173	543	437	0.247	0.350
Antenatal care coverage - at least once by skilled personnel	5.5a	.6734	.05122	.076	2.600	1.613	254	219	0.571	0.776
Antenatal care coverage – at least four times by any provider	5.5b	.5720	.07584	.133	5.121	2.263	254	219	0.420	0.724
Skilled attendant at delivery	5.7	.3974	.05581	.140	2.836	1.684	254	219	0.286	0.509
Institutional deliveries	5.8	.4772	.06496	.136	3.687	1.920	254	219	0.347	0.607
Caesarean section	5.9	.0901	.02126	.236	1.201	1.096	254	219	0.048	0.133
Literacy rate among young women	7.1	.9128	.02186	.024	1.867	1.366	362	312	0.869	0.957
Marriage before age 18	8.7	.2477	.01962	.079	1.301	1.141	795	631	0.208	0.287
Polygyny	8.9	.0601	.01691	.281	2.206	1.485	543	437	0.026	0.094
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.2252	.05803	.258	15.263	3.907	964	792	0.109	0.341
Comprehensive knowledge about HIV prevention among young people	9.2	.4146	.04869	.117	3.038	1.743	362	312	0.317	0.512
Knowledge of mother- to-child transmission of HIV	9.3	.8786	.02483	.028	4.574	2.139	964	792	0.829	0.928

Accepting attitudes towards people living with HIV	9.4	.0572	.01469	.257	3.160	1.778	963	791	0.028	0.087
Women who have been tested for HIV and know the results	9.6	.1457	.02489	.171	3.937	1.984	964	792	0.096	0.196
Sexually active young women who have been tested for HIV and know the results	9.7	.0662	.02363	.357	1.978	1.407	251	220	0.019	0.113
Sex before age 15 among young women	9.11	.0684	.02497	.365	3.042	1.744	362	312	0.018	0.118
Condom use with non-regular partners	9.16	.4806	.04908	.102	1.476	1.215	182	154	0.382	0.579
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.0110	.00473	.430	1.465	1.210	857	713	0.002	0.020
UNDER-5s										
Underweight prevalence	2.1a	.1358	.01805	.133	1.513	1.230	643	546	0.100	0.172
Stunting prevalence	2.2a	.2328	.03033	.130	2.803	1.674	642	545	0.172	0.293
Wasting prevalence	2.3a	.0455	.01680	.370	3.540	1.881	642	545	0.012	0.079
Exclusive breastfeeding under 6 months	2.6	.2474	.08226	.332	1.744	1.321	46	49	0.083	0.412
Age-appropriate breastfeeding	2.14	.2855	.03311	.116	1.161	1.077	252	217	0.219	0.352
Tuberculosis immunization coverage	-	.8083	.04329	.054	1.379	1.174	152	115	0.722	0.895
Received polio immunization	-	.5679	.03574	.063	.594	.770	152	115	0.496	0.639
Received DPT immunization	-	.6871	.02869	.042	.437	.661	152	115	0.630	0.744
Received measles immunization	-	.7896	.06585	.083	2.976	1.725	152	115	0.658	0.921
Received Hepatitis B immunization	-	.4743	.03742	.079	.640	.800	152	115	0.399	0.549
Diarrhoea in the previous 2 weeks	-	.0568	.01533	.270	2.446	1.564	660	559	0.026	0.088
Illness with a cough in the previous 2 weeks	-	.0110	.00476	.432	1.160	1.077	660	559	0.001	0.021
Fever in last two weeks	-	.2121	.01911	.090	1.220	1.104	660	559	0.174	0.250
Oral rehydration therapy with continued feeding	3.8	(*)	(*)	(*)	(*)	(*)	38	41	(*)	(*)
Antibiotic treatment of suspected pneumonia	3.10	(*)	(*)	(*)	(*)	(*)	7	10	(*)	(*)
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.2832	.04971	.175	6.718	2.592	656	553	0.184	0.383
Anti-malarial treatment of children under age 5	3.18	.3977	.06299	.158	1.905	1.380	140	116	0.272	0.524
Support for learning	6.1	.8973	.02989	.033	2.219	1.490	285	230	0.837	0.957
Attendance to early childhood education	6.7	.8292	.04828	.058	3.769	1.941	285	230	0.733	0.926
Birth registration	8.1	.5217	.04366	.084	4.263	2.065	660	559	0.434	0.609

NA: “Not applicable”

(*): the number of unweighted observations is less than 50

Table SE.8: Sampling errors: South-East

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.9232	.01143	.012	1.446	1.202	1009	785	0.900	0.946
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.6426	.05046	.079	8.825	2.971	4338	797	0.542	0.744
Use of improved sanitation facilities	4.3	.4689	.04107	.088	5.393	2.322	4338	797	0.387	0.551
Secondary school net attendance ratio (adjusted)	7.5	.6845	.03006	.044	1.552	1.246	500	372	0.624	0.745
Child labour	8.2	.5628	.02620	.047	2.288	1.513	1115	821	0.510	0.615
Prevalence of children with at least one parent dead	9.18	.1184	.01359	.115	2.773	1.665	2073	1567	0.091	0.146
School attendance of orphans	9.19	(*)	(*)	(*)	(*)	(*)	9	8	(*)	(*)
School attendance of non-orphans	9.20	.9738	.01352	.014	1.574	1.255	317	221	0.947	1.000
Violent discipline	8.5	.9798	.00760	.008	1.462	1.209	1559	501	0.965	0.995
WOMEN										
Pregnant women	-	.0891	.01164	.131	1.190	1.091	887	714	0.066	0.112
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.1752	.03947	.225	.636	.797	79	60	0.096	0.254
Intermittent preventive treatment for malaria	3.20	.1088	.05242	.482	5.524	2.350	252	196	0.004	0.214
Early childbearing	5.2	.1888	.04824	.255	1.504	1.226	128	100	0.092	0.285
Contraceptive prevalence	5.3	.5054	.02325	.046	.869	.932	514	403	0.459	0.552
Unmet need	5.4	.1025	.01551	.151	1.052	1.025	514	403	0.071	0.133
Antenatal care coverage - at least once by skilled personnel	5.5a	.9364	.03332	.036	3.857	1.964	270	208	0.870	1.000
Antenatal care coverage – at least four times by any provider	5.5b	.8601	.02044	.024	.719	.848	270	208	0.819	0.901
Skilled attendant at delivery	5.7	.9146	.04024	.044	4.293	2.072	270	208	0.834	0.995
Institutional deliveries	5.8	.8825	.04915	.056	4.823	2.196	270	208	0.784	0.981
Caesarean section	5.9	.0811	.02015	.249	1.128	1.062	270	208	0.041	0.121
Literacy rate among young women	7.1	.9275	.01268	.014	.535	.732	268	225	0.902	0.953
Marriage before age 18	8.7	.1808	.03461	.191	4.755	2.181	747	589	0.112	0.250
Polygyny	8.9	.0638	.01337	.210	1.204	1.097	514	403	0.037	0.090
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.3077	.05024	.163	8.448	2.907	887	714	0.207	0.408
Comprehensive knowledge about HIV prevention among young people	9.2	.2228	.03217	.144	1.339	1.157	268	225	0.158	0.287
Knowledge of mother- to-child transmission of HIV	9.3	.5035	.02530	.050	1.826	1.351	887	714	0.453	0.554

Accepting attitudes towards people living with HIV	9.4	.0357	.00688	.193	.975	.987	882	709	0.022	0.049
Women who have been tested for HIV and know the results	9.6	.1523	.01549	.102	1.325	1.151	887	714	0.121	0.183
Sexually active young women who have been tested for HIV and know the results	9.7	.1087	.03749	.345	1.291	1.136	115	90	0.034	0.184
Sex before age 15 among young women	9.11	.0799	.02165	.271	1.427	1.195	268	225	0.037	0.123
Condom use with non-regular partners	9.16	.7889	.04403	.056	.594	.771	64	52	0.701	0.877
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.0745	.02025	.272	3.969	1.992	857	668	0.034	0.115
UNDER-5s										
Underweight prevalence	2.1a	.0445	.00989	.222	1.250	1.118	715	545	0.025	0.064
Stunting prevalence	2.2a	.1107	.01447	.131	1.159	1.076	716	546	0.082	0.140
Wasting prevalence	2.3a	.0439	.01062	.242	1.463	1.210	716	545	0.023	0.065
Exclusive breastfeeding under 6 months	2.6	.0991	.03328	.336	.707	.841	83	58	0.033	0.166
Age-appropriate breastfeeding	2.14	.2786	.03650	.131	1.432	1.197	291	217	0.206	0.352
Tuberculosis immunization coverage	-	.8588	.04659	.054	1.807	1.344	124	102	0.766	0.952
Received polio immunization	-	.6099	.08469	.139	3.045	1.745	124	102	0.441	0.779
Received DPT immunization	-	.7344	.06444	.088	2.150	1.466	124	102	0.606	0.863
Received measles immunization	-	.8412	.04533	.054	1.554	1.246	124	102	0.751	0.932
Received Hepatitis B immunization	-	.6276	.07456	.119	2.355	1.535	118	100	0.479	0.777
Diarrhoea in the previous 2 weeks	-	.0535	.01374	.257	2.090	1.446	737	561	0.026	0.081
Illness with a cough in the previous 2 weeks	-	.0164	.00717	.436	1.778	1.333	737	561	0.002	0.031
Fever in last two weeks	-	.1005	.01702	.169	1.793	1.339	737	561	0.067	0.135
Oral rehydration therapy with continued feeding	3.8	(*)	(*)	(*)	(*)	(*)	39	32	(*)	(*)
Antibiotic treatment of suspected pneumonia	3.10	(*)	(*)	(*)	(*)	(*)	12	9	(*)	(*)
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.2598	.03567	.137	3.686	1.920	732	558	0.188	0.331
Anti-malarial treatment of children under age 5	3.18	.3990	.06276	.157	.969	.984	74	60	0.274	0.525
Support for learning	6.1	.8144	.03702	.045	1.940	1.393	275	215	0.740	0.888
Attendance to early childhood education	6.7	.8592	.05520	.064	5.390	2.322	275	215	0.749	0.970
Birth registration	8.1	.7014	.04183	.060	4.678	2.163	737	561	0.618	0.785

NA: "Not applicable"

(*): the number of unweighted observations is less than 50

Table SE.8: Sampling errors: South-South

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.6842	.05621	.082	11.217	3.349	811	768	0.572	0.797
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.4465	.11953	.268	44.632	6.681	4875	773	0.207	0.686
Use of improved sanitation facilities	4.3	.0823	.03168	.385	10.258	3.203	4875	773	0.019	0.146
Secondary school net attendance ratio (adjusted)	7.5	.1431	.04912	.343	11.625	3.410	574	592	0.045	0.241
Child labour	8.2	.6023	.01696	.028	1.793	1.339	1521	1494	0.568	0.636
Prevalence of children with at least one parent dead	9.18	.0474	.01132	.239	7.732	2.781	2804	2724	0.025	0.070
School attendance of orphans	9.19	(*)	(*)	(*)	(*)	(*)	6	6	(*)	(*)
School attendance of non-orphans	9.20	.3371	.07546	.224	14.319	3.784	563	563	0.186	0.488
Violent discipline	8.5	.9054	.02397	.026	4.140	2.035	2114	618	0.858	0.953
WOMEN										
Pregnant women	-	.1655	.02254	.136	3.325	1.824	912	905	0.120	0.211
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.1587	.06332	.399	3.964	1.991	148	133	0.032	0.285
Intermittent preventive treatment for malaria	3.20	.3995	.03816	.096	1.069	1.034	142	177	0.323	0.476
Early childbearing	5.2	.6636	.05213	.079	2.130	1.459	225	176	0.559	0.768
Contraceptive prevalence	5.3	.0475	.01571	.331	4.420	2.102	843	812	0.016	0.079
Unmet need	5.4	.1514	.02369	.156	3.542	1.882	843	812	0.104	0.199
Antenatal care coverage - at least once by skilled personnel	5.5a	.3124	.08873	.284	14.880	3.857	455	407	0.135	0.490
Antenatal care coverage – at least four times by any provider	5.5b	.2899	.08586	.296	14.541	3.813	455	407	0.118	0.462
Skilled attendant at delivery	5.7	.0789	.02732	.346	4.171	2.042	455	407	0.024	0.134
Institutional deliveries	5.8	.0848	.02994	.353	4.688	2.165	455	407	0.025	0.145
Caesarean section	5.9	.0050	.00361	.725	1.069	1.034	455	407	0.000	0.012
Literacy rate among young women	7.1	.1257	.05332	.424	8.436	2.905	353	327	0.019	0.232
Marriage before age 18	8.7	.8382	.02958	.035	4.857	2.204	784	754	0.779	0.897
Polygyny	8.9	.4248	.04311	.101	6.168	2.484	843	812	0.339	0.511
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.0022	.00149	.677	.912	.955	912	905	0.000	0.005
Comprehensive knowledge about HIV prevention among young people	9.2	.1523	.04529	.297	5.178	2.275	353	327	0.062	0.243
Knowledge of mother- to-child transmission of HIV	9.3	.2749	.04252	.155	8.198	2.863	912	905	0.190	0.360

Accepting attitudes towards people living with HIV	9.4	.0902	.02652	.294	6.712	2.591	804	784	0.037	0.143
Women who have been tested for HIV and know the results	9.6	.0179	.00559	.313	1.610	1.269	912	905	0.007	0.029
Sexually active young women who have been tested for HIV and know the results	9.7	.0094	.00703	.746	1.318	1.148	297	250	0.000	0.023
Sex before age 15 among young women	9.11	.4242	.04071	.096	2.212	1.487	353	327	0.343	0.506
Condom use with non-regular partners	9.16	(*)	(*)	(*)	(*)	(*)	5	7	(*)	(*)
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.0010	.00107	1.060	.437	.661	483	384	0.000	0.003
UNDER-5s										
Underweight prevalence	2.1a	.3594	.03849	.107	5.990	2.448	1051	932	0.282	0.436
Stunting prevalence	2.2a	.5641	.01897	.034	1.347	1.160	1047	921	0.526	0.602
Wasting prevalence	2.3a	.0910	.01094	.120	1.340	1.158	1046	927	0.069	0.113
Exclusive breastfeeding under 6 months	2.6	.0600	.03174	.529	1.803	1.343	123	102	0.000	0.123
Age-appropriate breastfeeding	2.14	.5146	.02505	.049	.995	.997	484	397	0.465	0.565
Tuberculosis immunization coverage	-	.2687	.05356	.199	2.935	1.713	254	202	0.162	0.376
Received polio immunization	-	.5014	.07722	.154	4.795	2.190	254	202	0.347	0.656
Received DPT immunization	-	.1843	.03256	.177	1.390	1.179	251	198	0.119	0.249
Received measles immunization	-	.3358	.05037	.150	2.263	1.504	251	200	0.235	0.437
Received Hepatitis B immunization	-	.1705	.02798	.164	1.090	1.044	251	198	0.115	0.226
Diarrhoea in the previous 2 weeks	-	.3294	.01999	.061	1.719	1.311	1072	951	0.289	0.369
Illness with a cough in the previous 2 weeks	-	.1320	.02042	.155	3.458	1.860	1072	951	0.091	0.173
Fever in last two weeks	-	.3065	.02310	.075	2.384	1.544	1072	951	0.260	0.353
Oral rehydration therapy with continued feeding	3.8	.3417	.05151	.151	3.492	1.869	353	297	0.239	0.445
Antibiotic treatment of suspected pneumonia	3.10	.4271	.05260	.123	1.447	1.203	142	129	0.322	0.532
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.1274	.03254	.255	8.981	2.997	1057	944	0.062	0.192
Anti-malarial treatment of children under age 5	3.18	.1657	.03925	.237	3.365	1.835	329	303	0.087	0.244
Support for learning	6.1	.5008	.03843	.077	2.286	1.512	406	388	0.424	0.578
Attendance to early childhood education	6.7	.0774	.03047	.393	5.028	2.242	406	388	0.017	0.138
Birth registration	8.1	.0631	.02463	.390	9.744	3.122	1072	951	0.014	0.112

NA: "Not applicable"

(*): the number of unweighted observations is less than 50

Table SE.8: Sampling errors: South-West

Standard errors, coefficients of variation, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Nigeria, 2011

	MICS Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Iodized salt consumption	2.16	.7901	.02846	.036	3.835	1.958	434	786	0.733	0.847
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	4.1	.2754	.07451	.271	22.004	4.691	1755	792	0.126	0.424
Use of improved sanitation facilities	4.3	.0838	.03086	.368	9.814	3.133	1755	792	0.022	0.146
Secondary school net attendance ratio (adjusted)	7.5	.7185	.02447	.034	.992	.996	191	336	0.670	0.767
Child labour	8.2	.4616	.02728	.059	2.383	1.544	461	797	0.407	0.516
Prevalence of children with at least one parent dead	9.18	.0661	.01197	.181	3.504	1.872	888	1510	0.042	0.090
School attendance of orphans	9.19	(*)	(*)	(*)	(*)	(*)	1	3	(*)	(*)
School attendance of non-orphans	9.20	.9887	.00724	.007	1.121	1.059	137	240	0.974	1.000
Violent discipline	8.5	.9589	.01161	.012	1.587	1.260	650	465	0.936	0.982
WOMEN										
Pregnant women	-	.1241	.01888	.152	2.080	1.442	376	635	0.086	0.162
Pregnant women sleeping under insecticide-treated nets (ITNs)	3.19	.0558	.02650	.475	1.014	1.007	47	77	0.003	0.109
Intermittent preventive treatment for malaria	3.20	.1513	.05000	.331	2.200	1.483	69	114	0.051	0.251
Early childbearing	5.2	.3168	.04916	.155	1.217	1.103	62	110	0.219	0.415
Contraceptive prevalence	5.3	.0934	.01300	.139	.775	.880	235	389	0.067	0.119
Unmet need	5.4	.4225	.02449	.058	.954	.977	235	389	0.374	0.472
Antenatal care coverage - at least once by skilled personnel	5.5a	.4793	.05749	.120	3.006	1.734	144	228	0.364	0.594
Antenatal care coverage – at least four times by any provider	5.5b	.3761	.05788	.154	3.240	1.800	144	228	0.260	0.492
Skilled attendant at delivery	5.7	.3703	.04308	.116	1.807	1.344	144	228	0.284	0.456
Institutional deliveries	5.8	.3377	.05188	.154	2.732	1.653	144	228	0.234	0.441
Caesarean section	5.9	.0209	.01214	.581	1.635	1.279	144	228	0.000	0.045
Literacy rate among young women	7.1	.8624	.03390	.039	1.975	1.405	121	205	0.795	0.930
Marriage before age 18	8.7	.5000	.03670	.073	2.903	1.704	317	540	0.427	0.573
Polygyny	8.9	.2750	.02659	.097	1.375	1.173	235	389	0.222	0.328
Prevalence of female genital mutilation/cutting (FGM/C) among women	8.12	.4068	.03635	.089	3.472	1.863	376	635	0.334	0.479
Comprehensive knowledge about HIV prevention among young people	9.2	.1958	.02946	.150	1.124	1.060	121	205	0.137	0.255
Knowledge of mother- to-child transmission of HIV	9.3	.4490	.02827	.063	2.048	1.431	376	635	0.392	0.506

Accepting attitudes towards people living with HIV	9.4	.0818	.01642	.201	2.048	1.431	338	572	0.049	0.115
Women who have been tested for HIV and know the results	9.6	.1097	.01437	.131	1.340	1.158	376	635	0.081	0.138
Sexually active young women who have been tested for HIV and know the results	9.7	.0771	.02442	.317	1.341	1.158	95	161	0.028	0.126
Sex before age 15 among young women	9.11	.2262	.04230	.187	2.085	1.444	121	205	0.142	0.311
Condom use with non-regular partners	9.16	.2800	.06792	.243	1.785	1.336	44	79	0.144	0.416
Prevalence of female genital mutilation/cutting (FGM/C) among girls	8.13	.0143	.00507	.355	1.308	1.144	444	719	0.004	0.024
UNDER-5s										
Underweight prevalence	2.1a	.1289	.01545	.120	1.103	1.050	322	520	0.098	0.160
Stunting prevalence	2.2a	.1586	.01648	.104	1.054	1.027	322	519	0.126	0.192
Wasting prevalence	2.3a	.0729	.01392	.191	1.481	1.217	322	518	0.045	0.101
Exclusive breastfeeding under 6 months	2.6	.1927	.04955	.257	.852	.923	33	55	0.094	0.292
Age-appropriate breastfeeding	2.14	.2433	.03564	.147	1.574	1.254	144	229	0.172	0.315
Tuberculosis immunization coverage	-	.6829	.05578	.082	1.595	1.263	71	112	0.571	0.795
Received polio immunization	-	.4648	.06012	.129	1.627	1.276	72	113	0.345	0.585
Received DPT immunization	-	.3563	.04806	.135	1.098	1.048	69	110	0.260	0.452
Received measles immunization	-	.6147	.05289	.086	1.334	1.155	72	114	0.509	0.720
Received Hepatitis B immunization	-	.3762	.06138	.163	1.766	1.329	70	111	0.253	0.499
Diarrhoea in the previous 2 weeks	-	.0776	.01252	.161	1.176	1.084	335	538	0.053	0.103
Illness with a cough in the previous 2 weeks	-	.0497	.00871	.175	.862	.929	335	538	0.032	0.067
Fever in last two weeks	-	.2592	.02267	.087	1.437	1.199	335	538	0.214	0.305
Oral rehydration therapy with continued feeding	3.8	(*)	(*)	(*)	(*)	(*)	26	41	(*)	(*)
Antibiotic treatment of suspected pneumonia	3.10	(*)	(*)	(*)	(*)	(*)	17	23	(*)	(*)
Children under age 5 sleeping under insecticide-treated nets (ITNs)	3.15	.0668	.01512	.226	1.939	1.393	330	530	0.037	0.097
Anti-malarial treatment of children under age 5	3.18	.3396	.03764	.111	.758	.871	87	121	0.264	0.415
Support for learning	6.1	.6677	.03171	.047	.979	.989	131	217	0.604	0.731
Attendance to early childhood education	6.7	.4567	.06209	.136	3.356	1.832	131	217	0.332	0.581
Birth registration	8.1	.3118	.03318	.106	2.755	1.660	335	538	0.245	0.378

NA: “Not applicable”

(*): the number of unweighted observations is less than 50

Appendix D: Data Quality Tables

Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex,Nigeria, 2011

	Males		Females	
Age	Number	Percent	Number	Percent
0	2722	3.8	2632	3.6
1	2534	3.5	2415	3.3
2	2409	3.3	2345	3.2
3	2563	3.6	2587	3.5
4	2529	3.5	2324	3.1
5	2664	3.7	2459	3.3
6	2322	3.2	2508	3.4
7	2449	3.4	2295	3.1
8	2383	3.3	2337	3.2
9	1653	2.3	1675	2.3
10	2500	3.5	2402	3.2
11	1463	2.0	1434	1.9
12	1866	2.6	2001	2.7
13	1467	2.0	1531	2.1
14	1399	1.9	1613	2.2
15	1815	2.5	1385	1.9
16	1219	1.7	1187	1.6
17	1089	1.5	1011	1.4
18	1562	2.2	1660	2.2
19	960	1.3	1007	1.4
20	1690	2.3	2084	2.8
21	741	1.0	858	1.2
22	919	1.3	1154	1.6
23	755	1.0	866	1.2
24	658	.9	946	1.3
25	1377	1.9	2060	2.8
26	708	1.0	1102	1.5
27	761	1.1	1109	1.5
28	818	1.1	1359	1.8
29	603	.8	700	.9
30	1831	2.5	2231	3.0
31	672	.9	641	.9
32	793	1.1	929	1.3
33	502	.7	649	.9
34	574	.8	642	.9
35	1602	2.2	1572	2.1
36	577	.8	592	.8
37	515	.7	561	.8
38	639	.9	728	1.0
39	414	.6	458	.6
40	1691	2.3	1518	2.0

Table DQ.1: Age distribution of household population (continued)

Single-year age distribution of household population by sex,Nigeria, 2011

	Males		Females	
Age	Number	Percent	Number	Percent
41	369	.5	394	.5
42	538	.7	613	.8
43	386	.5	426	.6
44	282	.4	279	.4
45	1107	1.5	997	1.3
46	383	.5	358	.5
47	377	.5	344	.5
48	452	.6	498	.7
49	255	.4	308	.4
50	1315	1.8	1114	1.5
51	337	.5	459	.6
52	513	.7	677	.9
53	244	.3	378	.5
54	262	.4	342	.5
55	694	1.0	661	.9
56	307	.4	280	.4
57	245	.3	240	.3
58	297	.4	272	.4
59	176	.2	160	.2
60	999	1.4	717	1.0
61	160	.2	173	.2
62	256	.4	201	.3
63	179	.2	145	.2
64	146	.2	152	.2
65	518	.7	418	.6
66	132	.2	64	.1
67	154	.2	81	.1
68	209	.3	146	.2
69	104	.1	70	.1
70	661	.9	360	.5
71	95	.1	68	.1
72	135	.2	121	.2
73	79	.1	57	.1
74	60	.1	42	.1
75	204	.3	126	.2
76	63	.1	54	.1
77	76	.1	39	.1
78	78	.1	57	.1
79	57	.1	18	.0
80+	702	1.0	573	.8
DK/missing	112	.2	65	.1
Total	72124	100.0	74115	100.0

Table DQ.2: Age distribution of eligible and interviewed women

Household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed, by five-year age groups, Nigeria, 2011

	Household population of women age 10-54 years	Interviewed women age 15-49 years		Percentage of eligible women interviewed (Completion rate)
	Number	Number	Percent	
Age				
10-14	8980	na	na	na
15-19	6252	5406	17.7	86.5
20-24	5910	5246	17.2	88.8
25-29	6329	5873	19.2	92.8
30-34	5092	4852	15.9	95.3
35-39	3912	3738	12.2	95.6
40-44	3230	3097	10.1	95.9
45-49	2505	2369	7.7	94.6
50-54	2970	na	na	na
Total (15-49)	33229	30581	100.0	92.0
Ratio of 50-54 to 45-49		1.1		

Table DQ.3: Age distribution of under-5s in household and under-5 questionnaires

Household population of children age 0-7, children age 0-4 whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed, by single ages, Nigeria 2011

	Household population of children 0-7 years	Interviewed under-5 children		Percentage of eligible under-5s interviewed (Completion rate)
	Number	Number	Percent	
Age				
0	5355	5196	21.3	97.0
1	4949	4811	19.7	97.2
2	4754	4636	19.0	97.5
3	5150	5021	20.6	97.5
4	4853	4719	19.4	97.2
5	5123	na	na	na
6	4831	na	na	na
7	4744	na	na	na
Total (0-4)	25060	24382	100.0	97.3
Ratio of 5 to 4	1.04			

Table DQ.4: Women's completion rates by socio-economic characteristics of households

Household population of women age 15-49, interviewed women age 15-49, and percentage of eligible women who were interviewed, by selected social and economic characteristics of the household, Nigeria, 2011

	Household population of women age 15-49 years		Interviewed women age 15-49 years		Percent of eligible women interviewed (Completion rates)
	Number	Percent	Number	Percent	
State					
Abia	710	2.1	690	2.3	97.2
Adamawa	776	2.3	696	2.3	89.7
Akwa ibom	1053	3.2	939	3.1	89.2
Anambra	962	2.9	907	3.0	94.3
Bauchi	972	2.9	921	3.0	94.7
Bayelsa	405	1.2	370	1.2	91.4
Benue	976	2.9	914	3.0	93.6
Borno	885	2.7	776	2.5	87.7
Cross River	713	2.1	646	2.1	90.6
Delta	1089	3.3	972	3.2	89.2
Ebonyi	539	1.6	477	1.6	88.6
Edo	787	2.4	747	2.4	95.0
Ekiti	579	1.7	519	1.7	89.6
Enugu	852	2.6	806	2.6	94.6
Gombe	499	1.5	438	1.4	87.8
Imo	922	2.8	876	2.9	94.9
Jigawa	903	2.7	864	2.8	95.8
Kaduna	1417	4.3	1316	4.3	92.8
Kano	1975	5.9	1820	5.9	92.1
Katsina	1220	3.7	1202	3.9	98.6
Kebbi	641	1.9	593	1.9	92.6
Kogi	813	2.4	767	2.5	94.4
Kwara	541	1.6	505	1.7	93.3
Lagos	2568	7.7	2426	7.9	94.5
Nasarawa	481	1.4	382	1.2	79.4
Niger	920	2.8	848	2.8	92.1
Ogun	960	2.9	843	2.8	87.9
Ondo	844	2.5	770	2.5	91.2
Osun	836	2.5	792	2.6	94.7
Oyo	1244	3.7	1123	3.7	90.2
Plateau	846	2.5	739	2.4	87.3
Rivers	1383	4.2	1188	3.9	85.9
Sokoto	839	2.5	827	2.7	98.6
Taraba	548	1.7	462	1.5	84.3
Yobe	458	1.4	420	1.4	91.6
Zamfara	698	2.1	653	2.1	93.6
FCT (Abuja)	375	1.1	348	1.1	93.0
Area of residence					
Urban	12204	36.7	11231	36.7	92.0
Rural	21025	63.3	19350	63.3	92.0
Household size					
1-3	5534	16.7	5292	17.3	95.6
4-6	13239	39.8	12316	40.3	93.0
7+	14455	43.5	12972	42.4	89.7

Education of household head					
None	11065	33.3	10204	33.4	92.2
Primary	7544	22.7	6867	22.5	91.0
Secondary +	14613	44.0	13503	44.2	92.4
Missing/DK	7	.0	6	.0	84.3
Wealth index quintiles					
Poorest	5859	17.6	5427	17.7	92.6
Second	6229	18.7	5712	18.7	91.7
Middle	6567	19.8	6047	19.8	92.1
Fourth	6987	21.0	6420	21.0	91.9
Richest	7587	22.8	6975	22.8	91.9
Geopolitical					
North-Central	4952	14.9	4502	14.7	90.9
North-East	4139	12.5	3713	12.1	89.7
North-West	7692	23.1	7276	23.8	94.6
South-East	3984	12.0	3755	12.3	94.3
South-South	5430	16.3	4862	15.9	89.5
South-West	7032	21.2	6473	21.2	92.1
Total	33229	100.0	30581	100.0	92.0

Table DQ.5: Completion rates for under-5 questionnaires by socio-economic characteristics of households

Household population of under-5 children, under-5 questionnaires completed, and percentage of under-5 children for whom interviews were completed, by selected socio-economic characteristics of the household, Nigeria, 2011

	Household population of under-5 children		Interviewed under-5 children		Percent of eligible under-5s with completed under-5 questionnaires (Completion rates)
	Number	Percent	Number	Percent	
State					
Abia	481	1.9	479	2.0	99.6
Adamawa	621	2.5	595	2.4	95.7
Akwa ibom	654	2.6	651	2.7	99.6
Anambra	733	2.9	732	3.0	99.8
Bauchi	1066	4.3	1014	4.2	95.1
Bayelsa	332	1.3	325	1.3	97.9
Benue	615	2.5	602	2.5	97.9
Borno	780	3.1	709	2.9	91.0
Cross River	491	2.0	486	2.0	99.0
Delta	698	2.8	684	2.8	98.0
Ebonyi	332	1.3	320	1.3	96.3
Edo	514	2.0	513	2.1	99.9
Ekiti	335	1.3	331	1.4	98.9
Enugu	470	1.9	465	1.9	98.9
Gombe	465	1.9	436	1.8	93.9
Imo	537	2.1	532	2.2	99.2
Jigawa	931	3.7	918	3.8	98.6
Kaduna	1230	4.9	1202	4.9	97.7
Kano	1959	7.8	1873	7.7	95.6
Katsina	1236	4.9	1231	5.1	99.6
Kebbi	645	2.6	613	2.5	95.0
Kogi	436	1.7	430	1.8	98.7
Kwara	419	1.7	410	1.7	97.8
Lagos	1493	6.0	1451	6.0	97.2
Nasarawa	346	1.4	308	1.3	88.9
Niger	763	3.0	741	3.0	97.1
Ogun	623	2.5	619	2.5	99.5
Ondo	499	2.0	482	2.0	96.6
Osun	536	2.1	533	2.2	99.5
Oyo	1004	4.0	996	4.1	99.2
Plateau	477	1.9	454	1.9	95.2
Rivers	772	3.1	762	3.1	98.8
Sokoto	785	3.1	775	3.2	98.8
Taraba	393	1.6	367	1.5	93.2
Yobe	498	2.0	479	2.0	96.2
Zamfara	681	2.7	659	2.7	96.8
FCT (Abuja)	213	.8	204	.8	96.0
Area of residence					
Urban	7615	30.4	7433	30.5	97.6
Rural	17445	69.6	16949	69.5	97.2
Household size					
1-3	2255	9.0	2199	9.0	97.5

4-6	11426	45.6	11174	45.8	97.8
7+	11379	45.4	11009	45.2	96.8
Education of household head					
None	9137	36.5	8811	36.1	96.4
Primary	5216	20.8	5092	20.9	97.6
Secondary +	10702	42.7	10474	43.0	97.9
Missing/DK	6	.0	6	.0	100.0
Wealth index quintiles					
Poorest	5764	23.0	5561	22.8	96.5
Second	5244	20.9	5036	20.7	96.0
Middle	4685	18.7	4567	18.7	97.5
Fourth	4741	18.9	4676	19.2	98.6
Richest	4626	18.5	4542	18.6	98.2
Geopolitical Zone					
North-Central	3269	13.0	3150	12.9	96.4
North-East	3822	15.3	3599	14.8	94.2
North-West	7467	29.8	7271	29.8	97.4
South-East	2553	10.2	2528	10.4	99.0
South-South	3460	13.8	3421	14.0	98.9
South-West	4489	17.9	4412	18.1	98.3
Total	25060	100.0	24382	100.0	97.3

Table DQ.6: Completeness of reporting

Percentage of observations that are missing information for selected questions and indicators,Nigeria, 2011

Questionnaire and type of missing information	Reference group	Percent with missing/incomplete information*	Number of cases
Household			
Age	All household members	.1	150810
Salt test result	All households interviewed that have salt	0.3	29077
Starting time of interview	All households interviewed	0.1	29077
Ending time of interview	All households interviewed	0.1	29077
Women			
Woman's date of birth	All women age 15-49		
Only month		24.8	30772
Both month and year		0.6	30772
Date of first birth	All women age 15-49 with at least one live birth		
Only month		14.6	22951
Both month and year		4.8	22951
Completed years since first birth	All women age 15-49 with at least one live birth with year of first birth unknown	0.1	1151
Date of last birth	All women age 15-49 with a live birth in last 2 years		
Only month		2.8	22951
Both month and year		1.1	22951
Date of first marriage/union	All ever married women age 15-49		
Only month		32.8	24074
Both month and year		17.3	24074
Age at first marriage/union	All ever married women age 15-49 with year of first marriage not known	0.0	24074
Age at first intercourse	All women age 15-24 who have ever had sex	0.1	7106
Time since last intercourse	All women age 15-24 who have ever had sex	0.1	7106
Starting time of interview	All women interviewed	0.1	30772
Ending time of interview	All women interviewed	0.1	30772
Under-5			
Date of birth	All under-5 children		
Only month		0.4	25200
Both month and year		0.0	25200
Anthropometric measurements	All under-5 children		
Weight		3.2	25200
Height		3.4	25200
Both weight and height		3.1	25200
Starting time of interview	All under-5 children	0.1	25200
Ending time of interview	All under-5 children	0.1	25200

*** Includes "Don't know" responses**

Table DQ.7: Completeness of information for anthropometric indicators

Distribution of children under 5 by completeness of information for anthropometric indicators, Nigeria, 2011

	Valid weight and date of birth	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Weight not measured	Incomplete date of birth	Weight not measured, incomplete date of birth	Flagged cases (outliers)			
Weight by age								
<6 months	95.5	3.8	.1	.1	.5	100.0	4.5	2714
6-11 months	97.3	1.9	.2	.1	.5	100.0	2.7	2582
12-23 months	97.2	2.3	.2	.2	.1	100.0	2.8	4946
24-35 months	95.8	3.2	.8	.2	.0	100.0	4.2	4720
36-47 months	95.6	3.1	.7	.5	.0	100.0	4.4	5237
48-59 months	94.8	3.4	1.0	.7	.0	100.0	5.2	4993
Total	96.0	3.0	.6	.4	.1	100.0	4.0	25192
	Valid height and date of birth	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Height not measured	Incomplete date of birth	Height not measured, incomplete date of birth	Flagged cases (outliers)			
Height by age								
<6 months	94.1	4.1	.1	.1	1.5	100.0	5.9	2714
6-11 months	96.3	2.1	.2	.1	1.4	100.0	3.7	2582
12-23 months	96.2	2.4	.2	.2	1.0	100.0	3.8	4946
24-35 months	94.8	3.5	.7	.3	.7	100.0	5.2	4720
36-47 months	95.1	3.4	.6	.6	.3	100.0	4.9	5237
48-59 months	94.6	3.5	1.0	.8	.2	100.0	5.4	4993
Total	95.2	3.2	.5	.4	.7	100.0	4.8	25192
	Valid weight and height	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Weight not measured	Height not measured	Weight and height not measured, incomplete date of birth	Flagged cases (outliers)			
Weight by height								
<6 months	94.0	.1	.4	3.7	1.7	100.0	5.9	2714
6-11 months	96.9	.0	.2	1.9	.8	100.0	2.9	2582
12-23 months	96.8	.1	.2	2.2	.5	100.0	3.0	4946
24-35 months	95.3	.1	.4	3.1	.4	100.0	4.0	4720
36-47 months	95.3	.0	.3	3.1	.7	100.0	4.1	5237
48-59 months	94.4	.1	.1	3.3	1.1	100.0	4.7	4993
Total	95.4	.1	.3	2.9	.8	100.0	4.0	25192

Table DQ.8: Heaping in anthropometric measurements

Distribution of weight and height/length measurements by digits reported for decimals, Nigeria, 2011

	Weight		Height or length	
Digits	Number	Percent	Number	Percent
0	2435	10.0	4080	16.7
1	2364	9.7	1954	8.0
2	2578	10.6	2926	12.0
3	2469	10.1	2602	10.7
4	2291	9.4	2269	9.3
5	2706	11.1	3440	14.2
6	2447	10.0	2007	8.2
7	2221	9.1	1790	7.3
8	2421	9.9	1755	7.2
9	2420	9.9	1548	6.4
0 or 5	5141	21.1	7520	30.9
Total	24352	100.0	24371	100.0

Table DQ.9: Observation of bednets and places for hand washing

Percentage of bednets in all households interviewed observed by the interviewer, and percentage of places for handwashing observed by the interviewer in all interviewed households, Nigeria, 2011

	Percentage of bednets observed by interviewer	Total number of bednets	Place for handwashing				Total	Number of households interviewed
			Observed	Not observed				
				Not in the dwelling, plot or yard	No permission to see	Other		
State								
Abia	41.4	174	5.0	92.7	1.1	1.1	100.0	797
Adamawa	61.1	1469	23.4	45.2	10.8	20.6	100.0	790
Akwa ibom	45.9	1072	10.9	87.2	1.9	.0	100.0	798
Anambra	27.2	1249	7.2	86.7	3.9	2.1	100.0	797
Bauchi	91.0	1415	74.3	22.6	.3	2.8	100.0	773
Bayelsa	71.7	339	31.3	35.2	2.8	30.6	100.0	792
Benue	48.1	268	37.3	45.5	4.4	12.9	100.0	800
Borno	29.2	710	9.4	51.1	18.2	21.3	100.0	703
Cross River	43.1	1048	10.7	87.3	.9	1.1	100.0	787
Delta	46.8	374	22.2	62.4	4.8	10.7	100.0	798
Ebonyi	67.7	742	2.6	53.9	2.3	41.1	100.0	800
Edo	79.0	181	27.0	47.8	6.5	18.7	100.0	786
Ekiti	31.7	922	8.3	61.9	1.5	28.3	100.0	784
Enugu	63.6	151	8.8	89.9	.8	.5	100.0	771
Gombe	44.5	1543	5.9	84.8	8.5	.8	100.0	774
Imo	32.9	219	9.9	85.2	4.8	.1	100.0	756
Jigawa	71.4	1460	35.6	30.2	1.0	33.0	100.0	766
Kaduna	75.1	1361	59.5	17.3	1.3	22.0	100.0	800
Kano	35.6	902	35.0	62.2	1.8	1.1	100.0	798
Katsina	87.8	1418	26.4	58.7	12.0	2.8	100.0	791
Kebbi	84.7	1354	34.3	58.6	5.8	1.4	100.0	800
Kogi	48.4	434	38.5	43.7	12.8	5.0	100.0	781
Kwara	48.7	339	23.8	57.5	7.4	11.4	100.0	800
Lagos	61.8	199	39.2	44.6	10.9	5.3	100.0	796
Nasarawa	62.3	1160	12.2	53.3	2.2	32.2	100.0	763
Niger	55.7	1242	37.3	50.4	1.5	10.8	100.0	799
Ogun	37.9	607	26.3	33.3	4.4	36.1	100.0	800
Ondo	55.0	109	1.5	96.4	2.0	.1	100.0	799
Osun	50.9	163	9.2	88.0	2.4	.4	100.0	757
Oyo	40.6	197	16.2	16.5	1.4	65.9	100.0	790
Plateau	43.0	1405	24.0	66.3	1.7	8.0	100.0	784
Rivers	60.4	916	56.4	37.3	3.1	3.0	100.0	799
Sokoto	76.6	1205	42.9	46.4	1.8	8.5	100.0	799
Taraba	54.2	312	20.5	34.1	4.1	41.3	100.0	800
Yobe	55.4	710	49.1	29.5	2.1	19.3	100.0	797
Zamfara	47.0	266	40.1	52.7	1.1	6.0	100.0	784
FCT (Abuja)	43.0	705	29.9	64.6	4.0	1.4	100.0	768
Area of residence								
Urban	54.6	5303	28.6	53.4	5.4	12.5	100.0	7251
Rural	58.2	23037	24.9	57.1	3.8	14.1	100.0	21826
Wealth index quintiles								
Poorest	62.9	7326	25.4	53.9	3.9	16.7	100.0	6974
Second	62.2	7297	23.7	58.8	3.6	13.8	100.0	6680
Middle	55.7	5681	21.2	61.3	3.8	13.7	100.0	6111
Fourth	51.6	4442	24.2	58.3	4.2	13.3	100.0	5154

Richest	47.1	3594	38.8	45.5	6.5	9.1	100.0	4158
Total	**54.6**	**28340**	**25.7**	**56.2**	**4.3**	**13.7**	**100.0**	**29077**

Table DQ.10: Observation of women's health cards

Percent distribution of women with a live birth in the last 2 years by presence of a health card, and the percentage of health cards seen by the interviewers, Nigeria, 2011

	Woman does not have health card	Woman has health card		Missing/ DK	Total	Percent of health cards seen by the interviewer (1)/(1+2)*100	Number of women with a live birth in the last two years
		Seen by the interviewer	Not seen by the interviewer				
State							
Abia	35.3	15.2	49.5	.0	100.0	23.5	184
Adamawa	41.9	19.5	36.6	2.0	100.0	34.7	303
Akwa ibom	45.7	11.9	42.0	.5	100.0	22.0	219
Anambra	35.6	12.5	51.4	.5	100.0	19.5	208
Bauchi	63.9	10.6	25.1	.5	100.0	29.7	407
Bayelsa	53.1	10.5	36.4	.0	100.0	22.4	228
Benue	64.6	6.6	27.2	1.6	100.0	19.5	257
Borno	58.9	11.3	28.7	1.1	100.0	28.3	265
Cross River	32.9	14.0	52.3	.8	100.0	21.1	243
Delta	28.8	12.4	58.4	.4	100.0	17.5	226
Ebonyi	38.2	12.9	47.5	1.4	100.0	21.3	280
Edo	16.4	19.9	63.2	.5	100.0	24.0	201
Ekiti	10.8	26.3	62.9	.0	100.0	29.5	167
Enugu	32.6	7.2	59.4	.7	100.0	10.9	138
Gombe	54.5	9.8	34.4	1.4	100.0	22.2	358
Imo	33.6	10.7	55.7	.0	100.0	16.2	149
Jigawa	75.9	3.3	20.5	.3	100.0	14.0	390
Kaduna	58.3	10.5	29.8	1.3	100.0	26.0	372
Kano	63.3	5.6	29.8	1.3	100.0	15.8	376
Katsina	52.3	3.0	9.4	35.3	100.0	24.5	394
Kebbi	83.2	1.7	14.0	1.1	100.0	10.5	363
Kogi	30.0	10.6	58.8	.6	100.0	15.3	170
Kwara	42.5	5.1	52.3	.0	100.0	8.9	214
Lagos	13.4	13.8	72.0	.8	100.0	16.1	246
Nasarawa	56.2	9.9	32.1	1.8	100.0	23.6	333
Niger	51.7	12.6	35.1	.6	100.0	26.3	350
Ogun	18.4	13.9	67.3	.4	100.0	17.1	245
Ondo	23.0	21.1	55.9	.0	100.0	27.4	161
Osun	13.8	17.5	68.8	.0	100.0	20.2	189
Oyo	38.0	9.6	52.0	.4	100.0	15.6	229
Plateau	40.0	12.6	46.3	1.1	100.0	21.4	270
Rivers	33.9	15.8	49.2	1.1	100.0	24.3	177
Sokoto	81.5	3.6	10.9	4.1	100.0	24.6	394
Taraba	53.6	6.8	37.4	2.3	100.0	15.4	265
Yobe	60.2	8.1	29.5	2.2	100.0	21.6	369
Zamfara	77.4	1.8	15.4	5.3	100.0	10.7	434
FCT (Abuja)	17.2	31.3	51.5	.0	100.0	37.8	262
Area of residence							
Urban	27.5	17.0	54.3	1.2	100.0	23.9	2086
Rural	54.3	8.9	33.8	2.9	100.0	20.9	7950
Wealth index quintiles							
Poorest	75.4	4.0	18.1	2.5	100.0	17.9	2682
Second	56.6	8.1	30.9	4.4	100.0	20.8	2495
Middle	41.7	10.7	45.4	2.3	100.0	19.0	1924
Fourth	25.2	17.4	55.9	1.5	100.0	23.8	1665
Richest	18.7	20.5	60.1	.8	100.0	25.4	1270
Total	**48.8**	**10.6**	**38.1**	**2.6**	**100.0**	**21.8**	**10036**

Table DQ.11: Observation of under-5s birth certificates

Percent distribution of children under 5 by presence of birth certificates, and percentage of birth calendar seen, Nigeria, 2011

	Child does not have birth certificate	Child has birth certificate		Don't know/ Missing	Total	Percent of birth certificates seen by the interviewer (1)/(1+2)*100	Number of children under age 5
		Seen by the interviewer (1)	Not seen by the interviewer (2)				
State							
Abia	40.8	18.1	40.6	.4	100.0	30.9	463
Adamawa	53.6	23.6	22.8	.0	100.0	50.8	828
Akwa Ibom	58.5	12.5	28.8	.2	100.0	30.3	559
Anambra	33.5	29.1	37.1	.4	100.0	43.9	561
Bauchi	93.0	2.3	4.6	.1	100.0	33.3	951
Bayelsa	73.8	6.7	19.0	.6	100.0	26.1	538
Benue	75.7	9.8	13.7	.8	100.0	41.8	621
Borno	83.2	5.7	10.4	.7	100.0	35.6	731
Cross River	62.1	9.4	28.2	.3	100.0	25.0	586
Delta	58.1	13.7	28.2	.0	100.0	32.6	542
Ebonyi	55.2	17.2	26.6	.9	100.0	39.3	661
Edo	38.4	25.5	35.5	.6	100.0	41.8	518
Ekiti	39.8	13.4	46.3	.5	100.0	22.4	397
Enugu	53.3	23.2	22.1	1.4	100.0	51.3	349
Gombe	72.7	10.6	16.4	.2	100.0	39.4	921
Imo	31.4	21.9	44.5	2.2	100.0	33.0	411
Jigawa	78.3	6.0	15.6	.1	100.0	27.8	1051
Kaduna	71.1	8.6	20.0	.3	100.0	30.2	937
Kano	76.3	8.5	15.0	.1	100.0	36.3	913
Katsina	67.6	7.4	24.4	.6	100.0	23.1	1020
Kebbi	86.1	2.5	11.3	.1	100.0	18.4	905
Kogi	54.2	15.3	30.0	.5	100.0	33.7	426
Kwara	40.8	21.8	37.3	.2	100.0	36.8	547
Lagos	31.6	31.8	36.7	.0	100.0	46.4	529
Nasarawa	65.2	15.8	18.2	.7	100.0	46.5	802
Niger	69.6	9.6	20.3	.5	100.0	32.1	927
Ogun	46.8	17.0	35.5	.7	100.0	32.4	583
Ondo	51.3	13.1	35.6	.0	100.0	26.9	413
Osun	24.4	25.3	50.0	.2	100.0	33.6	454
Oyo	48.3	20.6	30.4	.7	100.0	40.5	586
Plateau	67.4	12.1	19.9	.6	100.0	37.8	653
Rivers	53.7	10.0	35.0	1.3	100.0	22.2	460
Sokoto	88.7	1.5	7.3	2.6	100.0	16.9	1014
Taraba	73.2	9.4	17.4	.0	100.0	35.0	736
Yobe	88.0	5.0	6.9	.1	100.0	41.7	968
Zamfara	92.0	1.5	6.3	.2	100.0	19.0	1013
FCT (Abuja)	43.0	21.7	35.1	.2	100.0	38.2	618
Area of							
Urban	41.9	23.1	34.6	.3	100.0	40.1	5155
Rural	71.0	9.3	19.2	.5	100.0	32.6	20037
Child's age							
0	70.5	12.7	16.5	.2	100.0	43.6	5262
1	63.6	13.1	22.8	.4	100.0	36.6	4905
2	61.7	12.7	25.2	.4	100.0	33.4	4757
3	63.8	11.9	23.7	.7	100.0	33.4	5263
4	65.3	10.2	23.9	.6	100.0	30.0	5005
Total	65.1	12.1	22.3	.5	100.0	35.2	25192

Table DQ.12: Observation of vaccination cards

Percent distribution of children under 5 by presence of a vaccination card, and the percentage of vaccination cards seen by the interviewers, Nigeria, 2011

-	Child does not have vaccination card		Child has vaccination card			Total	Percent of vaccination cards seen by the interviewer (1)/(1+2)*100	Number of children under age 5
	Had vaccination card previously	Never had vaccination card	Seen by the interviewer (1)	Not seen by the interviewer (2)	Don't know/Missing			
State								
Abia	1.9	17.7	42.1	38.2	.0	100.0	52.4	463
Adamawa	5.0	41.2	24.5	29.3	.0	100.0	45.5	828
Akwa ibom	3.6	23.3	30.4	42.8	.0	100.0	41.6	559
Anambra	1.1	13.5	33.0	52.4	.0	100.0	38.6	561
Bauchi	2.3	74.2	11.8	11.7	.0	100.0	50.2	951
Bayelsa	2.8	35.7	25.8	35.7	.0	100.0	42.0	538
Benue	2.7	52.0	23.5	21.7	.0	100.0	52.0	621
Borno	2.5	77.6	5.9	14.1	.0	100.0	29.5	731
Cross River	1.9	16.2	38.2	43.7	.0	100.0	46.7	586
Delta	2.4	22.5	42.6	32.5	.0	100.0	56.8	542
Ebonyi	3.0	16.6	42.8	37.4	.2	100.0	53.4	661
Edo	4.1	12.0	42.9	41.1	.0	100.0	51.0	518
Ekiti	1.3	6.5	38.0	54.2	.0	100.0	41.3	397
Enugu	3.2	12.3	43.6	41.0	.0	100.0	51.5	349
Gombe	2.2	53.2	14.4	30.2	.0	100.0	32.4	921
Imo	1.2	9.0	39.2	50.6	.0	100.0	43.6	411
Jigawa	1.0	85.6	1.7	11.6	.0	100.0	12.9	1051
Kaduna	7.3	57.6	16.0	19.0	.1	100.0	45.7	937
Kano	3.6	73.2	6.0	17.1	.1	100.0	26.1	913
Katsina	1.7	77.5	5.3	15.5	.1	100.0	25.5	1020
Kebbi	1.2	86.0	2.5	10.3	.0	100.0	19.8	905
Kogi	1.9	36.9	20.9	40.4	.0	100.0	34.1	426
Kwara	1.5	19.6	37.5	41.5	.0	100.0	47.5	547
Lagos	3.4	6.6	50.9	39.1	.0	100.0	56.5	529
Nasarawa	16.2	33.9	23.3	26.6	.0	100.0	46.8	802
Niger	4.0	51.8	16.1	28.2	.0	100.0	36.3	927
Ogun	3.8	27.6	27.8	40.8	.0	100.0	40.5	583
Ondo	1.0	20.6	25.2	53.3	.0	100.0	32.1	413
Osun	.0	8.1	44.1	47.8	.0	100.0	48.0	454
Oyo	2.4	34.0	30.9	32.8	.0	100.0	48.5	586
Plateau	4.1	25.7	35.4	34.8	.0	100.0	50.4	653
Rivers	4.1	16.1	28.9	50.7	.2	100.0	36.3	460
Sokoto	1.0	88.8	2.0	8.1	.2	100.0	19.6	1014
Taraba	1.4	53.8	15.2	29.6	.0	100.0	33.9	736
Yobe	2.3	82.6	4.8	10.3	.0	100.0	31.5	968
Zamfara	5.7	87.1	1.2	6.0	.0	100.0	16.4	1013
FCT (Abuja)	5.2	17.8	40.9	36.1	.0	100.0	53.2	618
Area of residence								
Urban	2.3	24.1	34.3	39.4	.0	100.0	46.5	5155
Rural	3.5	53.4	18.2	24.9	.0	100.0	42.1	20037
Child's age								
0	2.1	48.8	33.7	15.4	.0	100.0	68.6	5262
1	2.9	43.8	28.1	25.2	.0	100.0	52.7	4905
2	3.2	44.7	19.8	32.2	.0	100.0	38.1	4757
3	4.0	47.8	14.8	33.2	.1	100.0	30.9	5263
4	3.9	51.6	10.5	33.9	.0	100.0	23.7	5005
Total	3.2	47.4	21.4	27.9	0.0	100.0	43.5	25192

Table DQ.13: Presence of mother in the household and the person interviewed for the under-5 questionnaire

Distribution of children under five by whether the mother lives in the same household, and the person interviewed for the under-5 questionnaire, Nigeria, 2011

	Mother in the household				Mother not in the household				
	Mother interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	Total	Number of children under 5
Age									
0	97.9	.0	.0	.1	2.0	.1	.0	100.0	5355
1	96.5	.0	.0	.1	3.1	.2	.0	100.0	4949
2	94.3	.0	.0	.1	5.4	.2	.0	100.0	4754
3	92.8	.0	.0	.4	6.5	.3	.0	100.0	5150
4	91.6	.0		.5	7.5	.3	.1	100.0	4853
Total	94.7	.0	.0	.2	4.8	.2	.0	100.0	25060

Table DQ.14: Selection of children age 2-14 years for the child discipline module

Percent of households with at least two children age 2-14 years where correct selection of one child for the child discipline module was performed, Nigeria, 2011

	Percent of households where correct selection was performed	Number of households with 2 or more children age 2-14 years
State		
Abia	90.5	274
Adamawa	75.1	449
Akwa Ibom	95.3	363
Anambra	88.3	325
Bauchi	81.6	494
Bayelsa	96.2	315
Benue	89.3	429
Borno	75.6	451
Cross River	90.2	368
Delta	97.2	325
Ebonyi	83.5	436
Edo	92.2	345
Ekiti	93.1	274
Enugu	93.2	222
Gombe	75.1	503
Imo	91.6	275
Jigawa	83.1	549
Kaduna	80.0	509
Kano	83.0	493
Katsina	80.2	525
Kebbi	73.1	532
Kogi	94.7	323
Kwara	93.4	362
Lagos	88.4	311
Nasarawa	88.1	497
Niger	87.9	560
Ogun	94.0	350
Ondo	92.7	302
Osun	95.4	302
Oyo	90.6	373
Plateau	91.1	451
Rivers	97.3	297
Sokoto	84.8	526
Taraba	77.4	504
Yobe	83.3	521
Zamfara	80.4	515
FCT (Abuja)	95.7	415
Area of residence		
Urban	88.9	3308
Rural	85.7	11757
Number of children age 2-14 years		
2	92.2	4996
3	88.8	4191
4	86.9	2790
5+	73.4	3088
Total	**86.4**	**15065**

Table DQ.15: School attendance by single age

Distribution of household population age 5-24 by educational level and educational level and grade attended in the current (or most recent) school year, *Nigeria, 2011*

	Currently attending																	
	Not attending school	Preschool	Primary school Grade							Secondary school Grade						Higher	Total	Number of household members
			1	2	3	4	5	6	D/K	1	2	3	4	5	6			
Age at beginning of school year																		
5	36.9	26.8	21.5	12.0	2.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	5017
6	32.2	14.5	20.8	23.0	7.6	1.5	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	100.0	4850
7	26.0	6.8	12.2	27.4	18.3	7.0	1.5	.5	.0	.1	.0	.0	.0	.0	.0	.0	100.0	4580
8	23.6	4.9	7.0	18.8	21.1	16.5	5.6	2.0	.0	.3	.1	.1	.0	.0	.0	.0	100.0	4264
9	22.7	1.5	3.1	11.6	17.0	20.6	14.4	5.5	.0	2.2	1.0	.2	.0	.0	.0	.0	100.0	3923
10	20.7	1.3	2.2	7.2	13.0	17.0	16.7	12.3	.0	5.7	2.7	.7	.3	.3	.0	.0	100.0	4245
11	20.2	.5	.7	3.3	7.0	10.8	16.4	16.6	.0	12.0	8.3	3.1	.7	.4	.0	.0	100.0	3118
12	23.7	.3	1.2	2.5	5.1	6.5	10.7	16.0	.0	10.5	13.5	6.7	2.0	.8	.4	.0	100.0	3541
13	20.4	.1	.5	.9	3.6	5.2	7.9	12.4	.0	11.8	15.5	12.5	6.8	1.9	.6	.0	100.0	2940
14	22.6	.0	.5	.7	1.1	2.4	5.1	9.4	.0	7.2	13.7	16.9	11.9	5.9	2.5	.0	100.0	3142
15	26.7	.0	.2	.6	.7	1.4	3.4	5.6	.0	4.0	12.2	14.4	13.4	11.3	5.8	.3	100.0	2881
16	27.8	.0	.1	.1	.6	.8	1.4	3.6	.0	3.5	8.7	11.4	12.6	16.1	12.5	.7	100.0	2275
17	39.4	.0	.1	.1	.4	.6	1.3	1.9	.0	1.4	4.4	8.0	9.9	14.7	14.9	3.0	100.0	2477
18	47.2	.0	.3	.0	.3	.4	.8	1.0	.0	.9	3.3	5.9	8.2	12.0	15.5	4.0	100.0	2849
19	65.2	.0	.2	.0	.2	.2	.5	1.0	.0	.9	1.5	2.6	4.4	5.9	11.3	6.0	100.0	2702
20	70.2	.0	.0	.0	.2	.0	.3	.5	.0	.3	1.5	2.9	2.8	5.1	8.3	7.8	100.0	2936
21	73.0	.0	.1	.0	.1	.1	.4	.4	.0	.1	.9	1.5	1.6	2.5	6.2	13.2	100.0	1744
22	74.3	.0	.0	.1	.2	.0	.1	.3	.0	.1	.6	1.0	1.4	2.4	5.9	13.7	100.0	1840
23	74.9	.0	.1	.1	.1	.2	.0	.3	.0	.2	.5	.8	.9	1.7	4.0	16.3	100.0	1615
24	85.4	.0	.0	.0	.1	.0	.0	.4	.0	.0	.6	.6	1.0	.9	2.3	8.7	100.0	2387

Table DQ.16: Sex ratio at birth among children ever born and living (National)

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Nigeria, 2011

	Children Ever Born			Children Living			Children Deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age										
15-19	638	573	1.11	521	497	1.05	117	76	1.54	5474
20-24	3782	3450	1.10	3142	2975	1.06	640	475	1.35	5389
25-29	8300	7713	1.08	6908	6624	1.04	1392	1089	1.28	5886
30-34	10260	9588	1.07	8379	8003	1.05	1881	1585	1.19	4675
35-39	10845	9523	1.14	8796	7883	1.12	2049	1640	1.25	3755
40-44	10175	9096	1.12	8024	7418	1.08	2151	1678	1.28	3132
45-49	8731	7862	1.11	6705	6122	1.10	2026	1740	1.16	2461
Total	52731	47805	1.10	42475	39522	1.07	10256	8283	1.29	30772

Table DQ.16: Sex ratio at birth among children ever born and living (North-Central)

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Nigeria, 2011

	Children Ever Born			Children Living			Children Deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age										
15-19	84	64	1.31	74	57	1.30	10	7	1.43	1159
20-24	633	599	1.06	545	540	1.01	88	59	1.49	1124
25-29	1736	1455	1.19	1487	1280	1.16	249	175	1.42	1254
30-34	1910	1734	1.10	1603	1488	1.08	307	246	1.25	916
35-39	2178	1881	1.16	1830	1622	1.13	348	259	1.34	792
40-44	1853	1699	1.09	1538	1454	1.06	315	245	1.29	604
45-49	1725	1563	1.10	1407	1250	1.13	318	313	1.02	498
Total	10119	8995	1.15	8484	7691	1.12	1635	1304	1.32	6347

Table DQ.16: Sex ratio at birth among children ever born and living (North-East)

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Nigeria, 2011

	Children Ever Born			Children Living			Children Deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age										
15-19	163	154	1.06	129	133	0.97	34	21	1.62	895
20-24	954	863	1.11	812	737	1.10	142	126	1.13	1004
25-29	1834	1691	1.08	1518	1428	1.06	316	263	1.20	1025
30-34	2171	1996	1.09	1752	1633	1.07	419	363	1.15	821
35-39	2160	1924	1.12	1720	1547	1.11	440	377	1.17	639
40-44	2026	1782	1.14	1593	1405	1.13	433	377	1.15	534
45-49	1601	1442	1.11	1171	1103	1.06	430	339	1.27	404
Total	10909	9852	1.10	8695	7986	1.07	2214	1866	1.24	5322

Table DQ.16: Sex ratio at birth among children ever born and living (North-West)

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Nigeria, 2011

	Children Ever Born			Children Living			Children Deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age										
15-19	246	250	0.98	190	207	0.92	56	43	1.30	1063
20-24	1423	1250	1.14	1100	1020	1.08	323	230	1.40	1298
25-29	2442	2380	1.03	1882	1917	0.98	560	463	1.21	1296
30-34	3120	2945	1.06	2341	2283	1.03	779	662	1.18	1120
35-39	2863	2473	1.16	2137	1882	1.14	726	591	1.23	800
40-44	2752	2438	1.13	1935	1796	1.08	817	642	1.27	701
45-49	2153	1997	1.08	1434	1352	1.06	719	645	1.11	524
	14999	13733	1.08	11019	10457	1.04	3980	3276	1.24	6802
Total										

Table DQ.16: Sex ratio at birth among children ever born and living (South-East)

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Nigeria, 2011

	Children Ever Born			Children Living			Children Deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age										
15-19	21	18	1.17	19	17	1.12	2	1	2.00	786
20-24	182	201	0.91	164	191	0.86	18	10	1.80	626
25-29	581	595	0.98	514	533	0.96	67	62	1.08	627
30-34	806	797	1.01	693	700	0.99	113	97	1.16	492
35-39	1028	955	1.08	868	834	1.04	160	121	1.32	419
40-44	1085	1001	1.08	901	867	1.04	184	134	1.37	404
45-49	944	909	1.04	788	771	1.02	156	138	1.13	311
Total	4647	4476	1.04	3947	3913	1.00	700	563	1.41	3665

Table DQ.16: Sex ratio at birth among children ever born and living (South-South)

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Nigeria, 2011

	Children Ever Born			Children Living			Children Desceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age										
15-19	89	50	1.78	83	48	1.73	6	2	3.00	822
20-24	382	363	1.05	334	323	1.03	48	40	1.20	770
25-29	958	955	1.00	822	866	0.95	136	89	1.53	877
30-34	1119	1029	1.09	959	905	1.06	160	124	1.29	596
35-39	1427	1269	1.12	1185	1072	1.11	242	197	1.23	544
40-44	1322	1162	1.14	1084	979	1.11	238	183	1.30	443
45-49	1245	1028	1.21	998	839	1.19	247	189	1.31	354
Total	6542	5856	1.20	5465	5032	1.17	1077	824	1.55	4406

Table DQ.16: Sex ratio at birth among children ever born and living (South-West)

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Nigeria, 2011

	Children Ever Born			Children Living			Children Deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio at birth	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
Age										
15-19	29	29	1.00	26	29	0.90	3	0	.	752
20-24	224	186	1.20	201	175	1.15	23	11	2.09	582
25-29	771	656	1.18	701	617	1.14	70	39	1.79	816
30-34	1110	1060	1.05	1006	969	1.04	104	91	1.14	714
35-39	1180	1016	1.16	1049	922	1.14	131	94	1.39	556
40-44	1122	1011	1.11	963	914	1.05	159	97	1.64	444
45-49	1062	919	1.16	906	805	1.13	156	114	1.37	370
Total	5498	4877	1.12	4852	4431	1.08	646	446	1.57	4234

Appendix F: MICS4 Indicators: Numerators and Denominators

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
1. MORTALITY					
1.1	Under-five mortality rate[12]	CM	Probability of dying by exact age 5 years		MDG 4.1
1.2	Infant mortality rate[13]	CM	Probability of dying by exact age 1 year		MDG 4.2

2. NUTRITION					
2.1a 2.1b	Underweight prevalence	AN	Number of children under age 5 who (a) fall below minus two standard deviations (moderate and severe) (b) fall below minus three standard deviations (severe) from the median weight for age of the WHO standard	Total number of children under age 5	MDG 1.8
2.2a 2.2b	Stunting prevalence	AN	Number of children under age 5 who (a) fall below minus two standard deviations (moderate and severe) (b) fall below minus three standard deviations (severe) from the median height for age of the WHO standard	Total number of children under age 5	
2.3a 2.3b	Wasting prevalence	AN	Number of children under age 5 who (a) fall below minus two standard deviations (moderate and severe) (b) fall below minus three standard deviations (severe) from the median weight for height of the WHO standard	Total number of children under age 5	
2.4	Children ever breastfed	MN	Number of women with a live birth in the 2 years preceding the survey who breastfed the child at any time	Total number of women with a live birth in the 2 years preceding the survey	
2.5	Early initiation of breastfeeding	MN	Number of women with a live birth in the 2 years preceding the survey who put the newborn infant to the breast within 1 hour of birth	Total number of women with a live birth in the 2 years preceding the survey	
2.6	Exclusive breastfeeding under 6 months	BF	Number of infants under 6 months of age who are exclusively	Total number of infants under 6 months of age	

[M] Indicates that the indicator is also calculated for men, for the same age group, in surveys where the Questionnaire for Individual Men has been included. Calculations are carried out by using modules in the Men's Questionnaire

[10] Some indicators are constructed by using questions in several modules. In such cases, only the module(s) which contains most of the necessary information is indicated.

[11] MDG indicators as of February 2010

[12] Indicator is defined as "Probability of dying between birth and fifth birthday, during the 5-year period preceding the survey" when estimated from the birth history

[13] Indicator is defined as "Probability of dying between birth and the first birthday, during the 5-year period preceding the survey" when estimated from the birth history

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
			breastfed[14]		
2.7	Continued breastfeeding at 1 year	BF	Number of children age 12-15 months who are currently breastfeeding	Total number of children age 12-15 months	
2.8	Continued breastfeeding at 2 years	BF	Number of children age 20-23 months who are currently breastfeeding	Total number of children age 20-23 months	
2.9	Predominant breastfeeding under 6 months	BF	Number of infants under 6 months of age who received breast milk as the predominant source of nourishment[15] during the previous day	Total number of infants under 6 months of age	
2.10	Duration of breastfeeding	BF	The age in months when 50 percent of children age 0-35 months did not receive breast milk during the previous day		
2.11	Bottle feeding	BF	Number of children age 0-23 months who were fed with a bottle during the previous day	Total number of children age 0-23 months	
2.12	Introduction of solid, semi-solid or soft foods	BF	Number of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	Total number of infants age 6-8 months	
2.13	Minimum meal frequency	BF	Number of children age 6-23 months receiving solid, semi-solid and soft foods (plus milk feeds for non-breastfed children) the minimum times[16] or more, according to breastfeeding status, during the previous day	Total number of children age 6-23 months	
2.14	Age-appropriate breastfeeding	BF	Number of children age 0-23 months appropriately fed[17] during the previous day	Total number of children age 0-23 months	
2.15	Milk feeding frequency for non-breastfed children	BF	Number of non-breastfed children age 6-23 months who received at least 2 milk feedings during the previous day	Total number of non-breastfed children age 6-23 months	
2.16	Iodized salt consumption	SI	Number of households with salt testing 15 parts per million or more of iodide/iodate	Total number of households in which salt was tested or with no salt	
2.17	Vitamin A supplementation (children under age 5)	IM	Number of children age 6-59 months who received at least one high-dose vitamin A supplement in the 6 months preceding the survey	Total number of children age 6-59 months	
2.18	Low-birth weight infants	MN	Number of last live births in the 2 years preceding the survey weighing below 2,500 grams at birth	Total number of last live births in the 2 years preceding the survey	
2.19	Infants weighed at birth	MN	Number of last live births in the 2 years preceding the survey who were weighed at birth	Total number of last live births in the 2 years preceding the survey	

[14] Infants receiving breast milk, and not receiving any other fluids or foods, with the exception of oral rehydration solution, vitamins, mineral supplements and medicines

[15] Infants who receive breast milk and certain fluids (water and water-based drinks, fruit juice, ritual fluids, oral rehydration solution, drops, vitamins, minerals, and medicines), but do not receive anything else (in particular, non-human milk and food-based fluids)

[16] Breastfeeding children: Solid, semi-solid, or soft foods, two times for infants age 6-8 months, 3 times for children 9-23 months; Non-breastfeeding children: Solid, semi-solid, or soft foods, or milk feeds, four times for children age 6-23 months

[17] Infants age 0-5 who are exclusively breastfed, and children age 6-23 months who are breastfed and ate solid, semi-solid or soft foods

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
3. CHILD HEALTH					
3.1	Tuberculosis immunization coverage	IM	Number of children age 12-23 months[18] who received BCG vaccine before their first birthday	Total number of children age 12-23 months	
3.2	Polio immunization coverage	IM	Number of children age 12-23 months who received OPV3 vaccine before their first birthday	Total number of children age 12-23 months	
3.3	Immunization coverage for diphtheria, pertussis and tetanus (DPT)	IM	Number of children age 12-23 months who received DPT3 vaccine before their first birthday	Total number of children age 12-23 months	
3.4	Measles immunization coverage	IM	Number of children age 12-23 months who received measles vaccine before their first birthday	Total number of children age 12-23 months	MDG 4.3
3.5	Hepatitis B immunization coverage	IM	Number of children age 12-23 months who received the third dose of Hepatitis B vaccine before their first birthday	Total number of children age 12-23 months	
3.6	Yellow fever immunization coverage	IM	Number of children age 12-23 months who received yellow fever vaccine before their first birthday	Total number of children age 12-23 months	
3.7	Neonatal tetanus protection	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who were given at least two doses of tetanus toxoid vaccine within the appropriate interval[19] prior to giving birth	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	
3.8	Oral rehydration therapy with continued feeding	CA	Number of children under age 5 with diarrhoea in the previous 2 weeks who received ORT (ORS packet or recommended homemade fluid or increased fluids) and continued feeding during the episode of diarrhoea	Total number of children under age 5 with diarrhoea in the previous 2 weeks	
3.9	Care-seeking for suspected pneumonia	CA	Number of children under age 5 with suspected pneumonia in the previous 2 weeks who were taken to an appropriate health provider	Total number of children under age 5 with suspected pneumonia in the previous 2 weeks	

[18] Indicators 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6 may be calculated for an older age group, such as 15-26 months or 18-29 months, depending on the immunization schedule

[19] See MICS4 manual for a detailed description

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
3.10	Antibiotic treatment of suspected pneumonia	CA	Number of children under age 5 with suspected pneumonia in the previous 2 weeks who received antibiotics	Total number of children under age 5 with suspected pneumonia in the previous 2 weeks	
3.11	Solid fuels	HC	Number of household members in households that use solid fuels as the primary source of domestic energy to cook	Total number of household members	
3.12	Household availability of insecticide-treated nets (ITNs)[20]	TN	Number of households with at least one insecticide treated net (ITN)	Total number of households	
3.14	Children under age 5 sleeping under any type of mosquito net	TN	Number of children under age 5 who slept under any type of mosquito net the previous night	Total number of children under age 5	
3.15	Children under age 5 sleeping under insecticide-treated nets (ITNs)	TN	Number of children under age 5 who slept under an insecticide-treated mosquito net (ITN) the previous night	Total number of children under age 5	MDG 6.7
3.16	Malaria diagnostics usage	ML	Number of children under age 5 reported to have had fever in the previous 2 weeks who had a finger or heel stick for malaria testing	Total number of children under age 5 reported to have had fever in the previous 2 weeks	
3.17	Anti-malarial treatment of children under age 5 the same or next day	ML	Number of children under age 5 reported to have had fever in the previous 2 weeks who were treated with any anti-malarial drug within the same or next day of onset of symptoms	Total number of children under age 5 reported to have had fever in the previous 2 weeks	
3.18	Anti-malarial treatment of children under age 5	ML	Number of children under age 5 reported to have had fever in the previous 2 weeks who received any antimalarial treatment	Total number of children under age 5 reported to have had fever in the previous 2 weeks	MDG 6.8
3.19	Pregnant women sleeping under insecticide-treated nets (ITNs)	TN	Number of pregnant women who slept under an insecticide-treated net (ITN) the previous night	Total number of pregnant women	
3.20	Intermittent preventive treatment for malaria	MN	Number of women age 15-49 years who received at least 2 doses of SP/Fansidar to prevent malaria during antenatal care visits for their last pregnancy leading to a live birth in the 2 years preceding the survey	Total number of women age 15-49 years who have had a live birth in the 2 years preceding the survey	
3.21	Child at increased risk of disability	DA	Number of children age 2-9 years reported by mothers/caretakers to have at least one of the specified impairments or activity limitations[21]	Total number of children age 2-9 years	

[20] An ITN is (a) a factory treated net which does not require any treatment, (b) a pretreated net obtained within the past 12 months, or (c) a net that has been soaked with or dipped in insecticide within the past 12 months

[21] Impairments/activity limitations specified in the questionnaire are: (1) delay in sitting, standing or walking, (2) difficulty seeing, either in the daytime or at night, (3) appearing to have difficulty hearing, (4) difficulty in understanding instructions, (5) difficulty walking or moving arms or weakness or stiffness of limbs, (6) has fits, becomes rigid, loses consciousness, (7) does not learn to do things like other children of the same age, (8) cannot speak or cannot be understood in words, (9) appearing mentally backward, dull or slow, (10) cannot name at least an object (for children age 2 years) or whose speech is not normal (age 3-9 years)

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
4. WATER AND SANITATION					
4.1	Use of improved drinking water sources	WS	Number of household members using improved sources of drinking water	Total number of household members	MDG 7.8
4.2	Water treatment	WS	Number of household members using unimproved drinking water who use an appropriate treatment method	Total number of household members in households using unimproved drinking water sources	
4.3	Use of improved sanitation	WS	Number of household members using improved sanitation facilities which are not shared	Total number of household members	MDG 7.9
4.4	Safe disposal of child's faeces	CA	Number of children age 0-2 years whose last stools were disposed of safely	Total number of children age 0-2 years	
4.5	Place for handwashing	HW	Number of households with a specific place for hand washing where water and soap are present	Total number of households	
4.6	Availability of soap	HW	Number of households with soap anywhere in the dwelling	Total number of households	

5. REPRODUCTIVE HEALTH					
5.1	Adolescent birth rate[22]	CM	Age-specific fertility rate for women age 15-19 years for the one year period preceding the survey		MDG 5.4
5.2	Early childbearing	CM	Number of women age 20-24 years who had at least one live birth before age 18	Total number of women age 20-24 years	
5.3	Contraceptive prevalence rate	CP	Number of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method	Total number of women age 15-49 years who are currently married or in union	MDG 5.3
5.4	Unmet need[23]	UN	Number of women age 15-49 years who are currently married or in union who are fecund and want to space their births or limit the number of children they have and who are not currently using contraception	Total number of women age 15-49 years who are currently married or in union	MDG 5.6

[22] Indicator is defined as "Age-specific fertility rate for women age 15-19 years, for the 3-year period preceding the survey" when estimated from the birth history

[23] See MICS4 manual for a detailed description

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
5.5a 5.5b	Antenatal care coverage	MN	Number of women age 15-49 years who were attended during pregnancy in the 2 years preceding the survey (a) at least once by skilled personnel (b) at least four times by any provider	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	MDG 5.5
5.6	Content of antenatal care	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who had their blood pressure measured and gave urine and blood samples during the last pregnancy	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	
5.7	Skilled attendant at delivery	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who were attended during childbirth by skilled health personnel	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	MDG 5.2
5.8	Institutional deliveries	MN	Number of women age 15-49 years with a live birth in the 2 years preceding the survey who delivered in a health facility	Total number of women age 15-49 years with a live birth in the 2 years preceding the survey	
5.9	Caesarean section	MN	Number of last live births in the 2 years preceding the survey who were delivered by caesarean section	Total number of last live births in the 2 years preceding the survey	
6. CHILD DEVELOPMENT					
6.1	Support for learning	EC	Number of children age 36-59 months with whom an adult has engaged in four or more activities to promote learning and school readiness in the past 3 days	Total number of children age 36-59 months	
6.2	Father's support for learning	EC	Number of children age 36-59 months whose father has engaged in one or more activities to promote learning and school readiness in the past 3 days	Total number of children age 36-59 months	
6.3	Learning materials: children's books	EC	Number of children under age 5 who have three or more children's books	Total number of children under age 5	
6.4	Learning materials: playthings	EC	Number of children under age 5 with two or more playthings	Total number of children under age 5	
6.5	Inadequate care	EC	Number of children under age 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the past week	Total number of children under age 5	
6.6	Early child development index	EC	Number of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains	Total number of children age 36-59 months	
6.7	Attendance to early childhood education	EC	Number of children age 36-59 months who are attending an early childhood education programme	Total number of children age 36-59 months	

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
7. LITERACY AND EDUCATION					
7.1	Literacy rate among young women [M]	WB	Number of women age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education	Total number of women age 15-24 years	MDG 2.3
7.2	School readiness	ED	Number of children in first grade of primary school who attended pre-school during the previous school year	Total number of children attending the first grade of primary school	
7.3	Net intake rate in primary education	ED	Number of children of school-entry age who enter the first grade of primary school	Total number of children of school-entry age	
7.4	Primary school net attendance ratio (adjusted)	ED	Number of children of primary school age currently attending primary or secondary school	Total number of children of primary school age	MDG 2.1
7.5	Secondary school net attendance ratio (adjusted)	ED	Number of children of secondary school age currently attending secondary school or higher	Total number of children of secondary school age	
7.6	Children reaching last grade of primary	ED	Proportion of children entering the first grade of primary school who eventually reach last grade		MDG 2.2
7.7	Primary completion rate	ED	Number of children attending the last grade of primary school (excluding repeaters)	Total number of children of primary school completion age (age appropriate to final grade of primary school)	
7.8	Transition rate to secondary school	ED	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year	Total number of children attending the last grade of primary school during the previous school year	
7.9	Gender parity index (primary school)	ED	Primary school net attendance ratio (adjusted) for girls	Primary school net attendance ratio (adjusted) for boys	MDG 3.1
7.10	Gender parity index (secondary school)	ED	Secondary school net attendance ratio (adjusted) for girls	Secondary school net attendance ratio (adjusted) for boys	MDG 3.1
8. CHILD PROTECTION					
8.1	Birth registration	BR	Number of children under age 5 whose births are reported registered	Total number of children under age 5	
8.2	Child labour	CL	Number of children age 5-14 years who are involved in child labour	Total number of children age 5-14 years	
8.3	School attendance among child labourers	ED - CL	Number of children age 5-14 years who are involved in child labour and are currently attending school	Total number of children age 5-14 years involved in child labour	
8.4	Child labour among students	ED - CL	Number of children age 5-14 years who are involved in child labour and are currently attending school	Total number of children age 5-14 years attending school	
8.5	Violent discipline	CD	Number of children age 2-14 years who experienced psychological	Total number of children age 2-14 years	

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
			aggression or physical punishment during the past month		
8.6	Marriage before age 15 [M]	MA	Number of women age 15-49 years who were first married or in union by the exact age of 15	Total number of women age 15-49 years	
8.7	Marriage before age 18 [M]	MA	Number of women age 20-49 years who were first married or in union by the exact age of 18	Total number of women age 20-49 years	
8.8	Young women age 15-19 years currently married or in union [M]	MA	Number of women age 15-19 years who are currently married or in union	Total number of women age 15-19 years	
8.9	Polygyny [M]	MA	Number of women age 15-49 years who are in a polygynous union	Total number of women age 15-49 years who are currently married or in union	
8.10a 8.10b	Spousal age difference	MA	Number of women currently married or in union whose spouse is 10 or more years older, (a) for women age 15-19 years, (b) for women age 20-24 years	Total number of women currently married or in union (a) age 15-19 years, (b) age 20-24 years	
8.11	Approval for female genital mutilation/cutting (FGM/C)	FG	Number of women age 15-49 years favouring the continuation of FGM/C	Total number of women age 15-49 years who have heard of FGM/C	
8.12	Prevalence of female genital mutilation/cutting (FGM/C) among women	FG	Number of women age 15-49 years who report to have undergone any form of FGM/C	Total number of women age 15-49 years	
8.13	Prevalence of female genital mutilation/cutting (FGM/C) among girls	FG	Number of girls age 0-14 years who have undergone any form of FGM/C, as reported by mothers	Total number of girls age 0-14 years	
8.14	Attitudes towards domestic violence [M]	DV	Number of women who state that a husband/partner is justified in hitting or beating his wife in at least one of the following circumstances: (1) she goes out without telling him, (2) she neglects the children, (3) she argues with him, (4) she refuses sex with him, (5) she burns the food	Total number of women age 15-49 years	
9. HIV/AIDS, SEXUAL BEHAVIOUR AND ORPHANS					
9.1	Comprehensive knowledge about HIV prevention [M]	HA	Number of women age 15-49 years who correctly identify two ways of preventing HIV infection[24], know that a healthy looking person can have HIV, and reject the two most common misconceptions about HIV transmission	Total number of women age 15-49 years	
9.2	Comprehensive knowledge about HIV prevention among young people [M]	HA	Number of women age 15-24 years who correctly identify two ways of preventing HIV infection[24], know that a healthy looking person can have HIV, and reject the two most common misconceptions about HIV transmission	Total number of women age 15-24 years	MDG 6.3

[24] Using condoms and limiting sex to one faithful, uninfected partner

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
9.3	Knowledge of mother-to-child transmission of HIV [M]	HA	Number of women age 15-49 years who correctly identify all three means[25] of mother-to-child transmission of HIV	Total number of women age 15-49 years	
9.4	Accepting attitudes towards people living with HIV [M]	HA	Number of women age 15-49 years expressing accepting attitudes on all four questions[26] toward people living with HIV	Total number of women age 15-49 years who have heard of HIV	
9.5	Women who know where to be tested for HIV [M]	HA	Number of women age 15-49 years who state knowledge of a place to be tested for HIV	Total number of women age 15-49 years	
9.6	Women who have been tested for HIV and know the results [M]	HA	Number of women age 15-49 years who have been tested for HIV in the 12 months preceding the survey and who know their results	Total number of women age 15-49 years	
9.7	Sexually active young women who have been tested for HIV and know the results [M]	HA	Number of women age 15-24 years who have had sex in the 12 months preceding the survey, who have been tested for HIV in the 12 months preceding the survey and who know their results	Total number of women age 15-24 years who have had sex in the 12 months preceding the survey	
9.8	HIV counselling during antenatal care	HA	Number of women age 15-49 years who gave birth in the 2 years preceding the survey and received antenatal care, reporting that they received counselling on HIV during antenatal care	Total number of women age 15-49 years who gave birth in the 2 years preceding the survey	
9.9	HIV testing during antenatal care	HA	Number of women age 15-49 years who gave birth in the 2 years preceding the survey and received antenatal care, reporting that they were offered and accepted an HIV test during antenatal care and received their results	Total number of women age 15-49 years who gave birth in the 2 years preceding the survey	

[25] Transmission during pregnancy, during delivery, and by breastfeeding

[26] Women (1) who think that a female teacher with the AIDS virus should be allowed to teach in school, (2) who would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus, (3) who would not want to keep it as a secret if a family member became infected with the AIDS virus, and (4) who would be willing to care for a family member who became sick with the AIDS virus

MICS4 INDICATOR [M]		Module[10]	Numerator	Denominator	MDG[11]
9.10	Young women who have never had sex [M]	SB	Number of never married women age 15-24 years who have never had sex	Total number of never married women age 15-24 years	
9.11	Sex before age 15 among young women [M]	SB	Number of women age 15-24 years who have had sexual intercourse before age 15	Total number of women age 15-24 years	
9.12	Age-mixing among sexual partners [M]	SB	Number of women age 15-24 years who had sex in the 12 months preceding the survey with a partner who was 10 or more years older	Total number of women age 15-24 years who have had sex in the 12 months preceding the survey	
9.13	Sex with multiple partners [M]	SB	Number of women age 15-49 years who have had sexual intercourse with more than one partner in the 12 months preceding the survey	Total number of women age 15-49 years	
9.14	Condom use during sex with multiple partners [M]	SB	Number of women age 15-49 years who report having had more than one sexual partner in the 12 months preceding the survey who also reported that a condom was used the last time they had sex	Total number of women age 15-49 years who reported having had more than one sexual partner in the 12 months preceding the survey	
9.15	Sex with non-regular partners [M]	SB	Number of sexually active women age 15-24 years who have had sex with a non-marital, non-cohabitating partner in the 12 months preceding the survey	Total number of women age 15-24 years who have had sex in the 12 months preceding the survey	
9.16	Condom use with non-regular partners [M]	SB	Number of women age 15-24 years reporting the use of a condom during sexual intercourse with their last non-marital, non-cohabiting sex partner in the 12 months preceding the survey	Total number of women age 15-24 years who had a non-marital, non-cohabiting partner in the 12 months preceding the survey	MDG 6.2
9.17	Children's living arrangements	HL	Number of children age 0-17 years not living with a biological parent	Total number of children age 0-17 years	
9.18	Prevalence of children with one or both parents dead	HL	Number of children age 0-17 years with one or both parents dead	Total number of children age 0-17 years	
9.19	School attendance of orphans	HL - ED	Number of children age 10-14 years who have lost both parents and are attending school	Total number of children age 10-14 years who have lost both parents	MDG 6.4
9.20	School attendance of non-orphans	HL - ED	Number of children age 10-14 years, whose parents are alive, who are living with one or both parents, and who are attending school	Total number of children age 10-14 years, whose parents are alive, and who are living with one or both parents	MDG 6.4

Appendix F: MICS4 Questionnaires

MICS

HOUSEHOLD QUESTIONNAIRE

NIGERIA

HOUSEHOLD INFORMATION PANEL	HH
HH1.Cluster number:	HH2. Household number: __ __ __
HH3. Interviewer name and number: Name _____ ___ ___	HH4. Supervisor name and number: Name_____ ___ ___
HH5. Day / Month / Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___	
HH6. Area: Sector Urban.....1 Rural.....2	HH7. State Name: Code _____

WE ARE FROM (NATIONAL BUREAU OF STATISTICS). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 40 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

MAY I START NOW?

☐ *Yes, permission is given ⇨ Go to HH18 to record the time and then begin the interview.*

☐ *No, permission is not given ⇨ Complete HH9. Discuss this result with your supervisor.*

After all questionnaires for the household have been completed, fill in the following information:	
HH8. Name of head of household:	_____
HH9. Result of household interview: Completed.....01 No household member or no competent respondent at home at time of visit.....02 Entire household absent for extended period of time.....03 Refused.....04 Dwelling vacant / Address not a dwelling.....05 Dwelling destroyed.....06 Dwelling not found.....07 Partially completed.....08 Other (specify).....96	HH10. Respondent to household questionnaire: Name:_____ Line Number: ___ ___ HH11. Total number of household members: ___ ___
HH12. Number of women age 15-49 years: ___ ___	HH13. Number of woman's questionnaires completed: ___ ___
HH14. Number of children under age 5: ___ ___	HH15. Number of under-5 questionnaires completed: ___ ___

HH16. Field edited by (Name and number): Name _____ ___ ___	HH17. Data entry clerk (Name and number): Name _____ ___ ___

HH18.
Record the time.

Hour..... __ __

Minutes..... __ __

HOUSEHOLD LISTING FORM — HL

FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.

List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4)

Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW?

If yes, complete listing for questions HL2-HL4. Then, ask questions starting with HL5 for each person at a time.

Use an additional questionnaire if all rows in the household listing form have been used.

								For women age **15-49**	*For children age* **5-17**	*For children under age* **5**	*For all household members*	*For children age* **0-17** *years*						
HL1. *Line number*	HL2. *Name*	HL3. WHAT IS THE RELATION-SHIP OF (*name*) TO THE HEAD OF HOUSE-HOLD?	HL4. IS (*name*) MALE OR FEMALE? 1 Male 2 Female	HL5. WHAT IS (*name*)'S DATE OF BIRTH? 98 DK 9998 DK		HL6. HOW OLD IS (*name*)? *Record in completed years. If age is 95 or above, record '95'*	HL7. *Circle line number if woman is age* **15-49**	HL8. WHO IS THE MOTHER OR PRIMARY CAREGIVER OF THIS CHILD? *Record line number of mother/car egiver*	HL9. WHO IS THE MOTHER OR PRIMARY CAREGIVER OF THIS CHILD? *Record line number of mother/car egiver*	HL10. DID (*name*) STAY HERE LAST NIGHT? 1 Yes 2 No	HL11. IS (*name*)'S NATURAL MOTHER ALIVE? 1 Yes 2 No↘ HL13 8 DK↘ HL13	HL12. DOES (*name*)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD? *Record line number of mother or 00 for "No"*	HL13. IS (*name*)'S NATURAL FATHER ALIVE? 1 Yes 2 No↘ Next Line 8 DK↘ Next Line	HL14. DOES (*name*)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD? *Record line number of father or 00 for "No"*
Line	Name	Relation*	M F	Month	Year	Age	15-49	Mother	Mother	Y N	Y N DK	Mother	Y N DK	Father
01		0 1	1 2	__ __	__ __ __ __	__ __	01	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
02		__ __	1 2	__ __	__ __ __ __	__ __	02	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
03		__ __	1 2	__ __	__ __ __ __	__ __	03	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
04		__ __	1 2	__ __	__ __ __ __	__ __	04	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
05		__ __	1 2	__ __	__ __ __ __	__ __	05	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
06		__ __	1 2	__ __	__ __ __ __	__ __	06	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
07		__ __	1 2	__ __	__ __ __ __	__ __	07	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
08		__ __	1 2	__ __	__ __ __ __	__ __	08	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
09		__ __	1 2	__ __	__ __ __ __	__ __	09	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __

HL1. *Line number*	HL2. *Name*	HL3. WHAT IS THE RELATION-SHIP OF (*name*) TO THE HEAD OF HOUSE-HOLD?	HL4. IS (*name*) MALE OR FEMALE? 1 Male 2 Female	HL5. WHAT IS (*name*)'S DATE OF BIRTH? 98 DK 9998 DK		HL6. HOW OLD IS (*name*)? *Record in completed years. If age is 95 or above, record '95'*	HL7. *Circle line number if woman is age* **15-49**	HL8. WHO IS THE MOTHER OR PRIMARY CAREGIVER OF THIS CHILD? *Record line number of mother/car egiver*	HL9. WHO IS THE MOTHER OR PRIMARY CAREGIVER OF THIS CHILD? *Record line number of mother/car egiver*	HL10. DID (*name*) STAY HERE LAST NIGHT? 1 Yes 2 No	HL11. IS (*name*)'S NATURAL MOTHER ALIVE? 1 Yes 2 No↘ HL13 8 DK↘ HL13	HL12. DOES (*name*)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD? *Record line number of mother or 00 for "No"*	HL13. IS (*name*)'S NATURAL FATHER ALIVE? 1 Yes 2 No↘ Next Line 8 DK↘ Next Line	HL14. DOES (*name*)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD? *Record line number of father or 00 for "No"*
Line	Name	Relation*	M F	Month	Year	Age	15-49	Mother	Mother	Y N	Y N DK	Mother	Y N DK	Father
10		__ __	1 2	__ __	__ __ __ __	__ __	10	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
11		__ __	1 2	__ __	__ __ __ __	__ __	11	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
12		__ __	1 2	__ __	__ __ __ __	__ __	12	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
13		__ __	1 2	__ __	__ __ __ __	__ __	13	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
14		__ __	1 2	__ __	__ __ __ __	__ __	14	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __
15		__ __	1 2	__ __	__ __ __ __	__ __	15	__ __	__ __	1 2	1 2 8	__ __	1 2 8	__ __

Tick here if additional questionnaire used ☐

Probe for additional household members.
Probe especially for any infants or small children not listed, and others who may not be members of the family (such as servants, friends) but who usually live in the household.
Insert names of additional members in the household list and complete form accordingly.

Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of a separate Individual Women's Questionnaire.
For each child under age 5, write his/her name and line number AND the line number of his/her mother or caregiver in the information panel of a separate Under-5 Questionnaire.
You should now have a separate questionnaire for each eligible woman and each child under five in the household.

* ***Codes for HL3: Relationship to head of household:***

01 Head	06 Parent	11 Niece / Nephew
02 Wife / Husband	07 Parent-In-Law	12 Other relative
03 Son / Daughter	08 Brother / Sister	13 Adopted / Foster / Stepchild
04 Son-In-Law / Daughter-In-Law	09 Brother-In-Law / Sister-In-Law	14 Not related

Codes for ED4, ED6 & ED8: Educational Grade…

Never complete Nursery 1….00	Primary 3……..13	JSS 3……...23	NCE …… – 31,
Nursery 1 ……..01	Primary 4……..14	SS 1……24	AL / OND ……- 32
Nursery 2……..02	Primary 5……..15	SS 2……25	Technical ……-33
Nursery 3…….. 03	Primary 6……..16	SS 3…… 26	Never Complete HND1/BSc.1/PG - 40
Never complete Primary 1….10	Never Complete JSS1 - 20	Never Complete	HND - 41 BSc …….- 42

05 Grandchild	10 Uncle / Aunt	98 Don't know	Primary 1……...11 Primary 2……...12	JSS 1……21 JSS 2…… 22	NCE 1 AL/OND1/ Technical …… 30	Post Graduate…... - 43

EDUCATION ED

For household members age **5 and above** | *For household members age* **5-24** *years*

ED1. *Line number*	ED2. *Name and age* — *Copy from Household Listing Form, HL2 and HL6*	ED3. HAS (*name*) EVER ATTENDED SCHOOL OR PRE-SCHOOL? — 1 Yes; 2 No ↘ Next Line	ED4. WHAT IS THE HIGHEST LEVEL OF SCHOOL (*name*) ATTENDED? WHAT IS THE HIGHEST GRADE (*name*) COMPLETED AT THIS LEVEL? — Level: Grade: 0 Preschool 00-03; 1 Primary 10-16; 2 Secondary 20-26; 3 Higher 30-33,40-43; 4 Non-Formal Education; 8 DK 98 — *If Level is 4 go to ED5*	ED5. DURING THE (***2010-2011***) SCHOOL YEAR, DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME? — 1 Yes; 2 No ↘ ED7	ED6. DURING THIS SCHOOL YEAR, WHICH LEVEL AND GRADE IS (*name*) ATTENDING? — Level: Grade: 0 Preschool 01-03; 1 Primary 11-16; 2 Secondary 21-26; 3 Higher 31-33,41-43; 4 Non-Formal Education; 8 DK DK 98 — *If Level is 4 go to ED7*	ED7. DURING THE PREVIOUS SCHOOL YEAR, THAT IS (***2009-2010***), DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME? — 1 Yes; 2 No ↘ Next Line; 8 DK ↘ Next Line	ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (*name*) ATTEND? — Level: Grade: 0 Preschool 01-03; 1 Primary 11-16; 2 Secondary 21-26; 3 Higher 31-33,41-43; 4 Non-Formal Education; 8 DK DK 98 — *If Level is 4 go to Next line*

Line	Name	Age	Yes	No	Level	Grade	Yes	No	Level	Grade	Y	N	DK	Level	Grade
01		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
02		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
03		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
04		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
05		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
06		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
07		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
08		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
09		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
10		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4 8	__ __	1	2	8	0 1 2 3 4 8	__ __
11		__ __	1	2	0 1 2 3 4 8	__ __	1	2	0 1 2 3 4	__ __	1	2	8	0 1 2 3 4	__ __

							8			8		
12		___ ___	1 2	0 1 2 3 4 8	___ ___	1 2	0 1 2 3 4 8	___ ___	1 2 8	0 1 2 3 4 8	___ ___
13		___ ___	1 2	0 1 2 3 4 8	___ ___	1 2	0 1 2 3 4 8	___ ___	1 2 8	0 1 2 3 4 8	___ ___
14		___ ___	1 2	0 1 2 3 4 8	___ ___	1 2	0 1 2 3 4 8	___ ___	1 2 8	0 1 2 3 4 8	___ ___
15		___ ___	1 2	0 1 2 3 4 8	___ ___	1 2	0 1 2 3 4 8	___ ___	1 2 8	0 1 2 3 4 8	___ ___

WATER AND SANITATION		WS
WS1. WHAT IS THE MAIN SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	Piped water Piped into dwelling ..... 11 Piped into compound, yard or plot ..... 12 Piped to neighbour ..... 13 Public tap / standpipe ..... 14 Tube Well, Borehole ..... 21 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Tanker-truck ..... 61 Cart with small tank / drum ..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 Bottled water ..... 91 Sachet (Pure) water ..... 92 Other (*specify*) 96	 11⇨WS6 12⇨WS6 13⇨WS6 14⇨WS3 21⇨WS3 31⇨WS3 32⇨WS3 41⇨WS3 42⇨WS3 51⇨WS3 61⇨WS3 71⇨WS3 81⇨WS3 96⇨WS3
WS2. WHAT IS THE MAIN SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES (SUCH AS COOKING AND HANDWASHING)?	Piped water Piped into dwelling ..... 11 Piped into compound, yard or plot ..... 12 Piped to neighbour ..... 13 Public tap / standpipe ..... 14 Tube Well, Borehole ..... 21 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Tanker-truck ..... 61 Cart with small tank / drum ..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 Other (*specify*) 96	 11⇨WS6 12⇨WS6 13⇨WS6
WS3. WHERE IS THAT WATER SOURCE LOCATED?	In own dwelling ..... 1 In own yard / plot ..... 2 Elsewhere 3	1⇨WS6 2⇨WS6
WS4. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?	Number of minutes ..... __ __ __ DK 998	

WS4A. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK ? (A) DURING RAINY SEASON (B) DURING DRY SEASON	(A) Number of minutes..... __ __ __ DK..... 998 (B) Number of minutes..... __ __ __ DK..... 998	
WS4B. WHAT IS THE DISTANCE TO THE NEAREST WATER SOURCE IN METRES?	Metres……_ _ _ _ DK..... 9998	

WS5. WHO USUALLY GOES TO THIS SOURCE TO COLLECT THE WATER FOR YOUR HOUSEHOLD? *Probe:* IS THIS PERSON UNDER AGE 15? WHAT SEX?	Adult woman (age 15+ years)..... 1 Adult man (age 15+ years) ..... 2 Female child (under 15)..... 3 Male child (under 15)..... 4 DK..... 8	
WS6. DO YOU DO ANYTHING TO THE WATER TO MAKE IT SAFER TO DRINK?	Yes..... 1 No ..... 2 DK..... 8	2⇨WS8 8⇨WS8
WS7. WHAT DO YOU USUALLY DO TO MAKE THE WATER SAFER TO DRINK? *Probe:* ANYTHING ELSE? *Record all items mentioned.*	Boil.....A Add bleach / chlorine .....B Strain it through a cloth.....C Use water filter (ceramic, sand, composite, etc.) .....D Solar disinfection .....E Let it stand and settle.....F Add alum.....G Add water tablet/liquid.....H Other (*specify*) X DK.....Z	
WS8. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE? *If "flush" or "pour flush", probe:* WHERE DOES IT FLUSH TO? *If necessary, ask permission to observe the facility.*	Flush / Pour flush Flush to piped sewer system ..... 11 Flush to septic tank..... 12 Flush to pit (latrine)..... 13 Flush to somewhere else..... 14 Flush to unknown place / Not sure / DK where ..... 15 Pit latrine Ventilated Improved Pit latrine (VIP) .... 21 Pit latrine with slab..... 22 Pit latrine without slab / Open pit ..... 23 Composting toilet..... 31 Bucket..... 41 Hanging toilet, Hanging latrine..... 51 No facility, Bush, Field ..... 95 Other (*specify*) 96	95⇨Next Module
WS9. DO YOU SHARE THIS FACILITY WITH OTHERS WHO ARE NOT MEMBERS OF YOUR HOUSEHOLD?	Yes..... 1 No 2	2⇨Next Module
WS10. DO YOU SHARE THIS FACILITY ONLY WITH MEMBERS OF OTHER HOUSEHOLDS THAT YOU KNOW, OR IS THE FACILITY OPEN TO THE USE OF THE GENERAL PUBLIC?	Other households only (not public)..... 1 Public facility 2	2⇨Next Module
WS11. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY, INCLUDING YOUR OWN HOUSEHOLD?	Number of households (if less than 10) 0 __ Ten or more households..... 10 DK..... 98	

HOUSEHOLD CHARACTERISTICS		HC
HC1A. WHAT IS THE RELIGION OF THE HEAD OF THIS HOUSEHOLD?	*Christianity*.....1 *Islam*.....2 Other religion (*specify*) 6 No religion 7	
HC1B. WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	*Language*……__ __	
HC1C. TO WHAT ETHNIC GROUP DOES THE HEAD OF THIS HOUSEHOLD BELONG?	*Ethnic group* .....__ __	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	Number of rooms.....__ __	
HC3. *Main material of the dwelling floor.* *Record observation.*	Natural floor Earth / Sand.....11 Dung.....12 Rudimentary floor Wood planks.....21 Palm / Bamboo.....22 Finished floor Parquet or polished wood.....31 Vinyl or asphalt strips .....32 Ceramic tiles.....33 Cement.....34 Carpet.....35 Other (*specify*) 96	
HC4. *Main material of the roof.* *Record observation.*	Natural roofing No Roof .....11 Thatch / Palm leaf.....12 Sod .....13 Rudimentary Roofing Rustic mat.....21 Palm / Bamboo.....22 Wood planks.....23 Cardboard/Plastic Sheeting.....24 Finished roofing Metal/ Iron sheet/Zinc.....31 Wood .....32 Calamine / Cement fibre.....33 Ceramic tiles.....34 Cement.....35 Roofing shingles.....36 Other (*specify*) 96	

HC5. *Main material of the exterior walls.* *Record observation.*	Natural walls No walls ..... 11 Cane / Palm / Trunks ..... 12 Dirt ..... 13 Rudimentary walls Bamboo with mud ..... 21 Stone with mud ..... 22 Uncovered adobe ..... 23 Plywood ..... 24 Cardboard ..... 25 Reused wood ..... 26 Finished walls Cement ..... 31 Stone with lime / cement ..... 32 Bricks ..... 33 Cement blocks ..... 34 Covered adobe ..... 35 Wood planks / shingles ..... 36 Other (*specify*) 96	
HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?	Electricity ..... 01 Natural gas ..... 03 Biogas ..... 04 Kerosene ..... 05 Coal / Lignite ..... 06 Charcoal ..... 07 Wood ..... 08 Straw / Shrubs / Grass ..... 09 Animal dung ..... 10 Agricultural crop residue ..... 11 No food cooked in household ..... 95 Other (*specify*) 96	01⇨HC8 03⇨HC8 04⇨HC8 05⇨HC8 95⇨HC8
HC7. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS? *If 'In the house', probe*: IS IT DONE IN A SEPARATE ROOM USED AS A KITCHEN?	In the house In a separate room used as kitchen ..... 1 Elsewhere in the house ..... 2 In a separate building ..... 3 Outdoors ..... 4 Other (*specify*) 6	

HC8. DOES YOUR HOUSEHOLD HAVE:		Yes	No
[A] ELECTRICITY?	Electricity	1	2
[B] A RADIO?	Radio	1	2
[C] A TELEVISION?	Television	1	2
[D] A NON-MOBILE TELEPHONE?	Non-mobile telephone	1	2
[E] A REFRIGERATOR?	Refrigerator	1	2
[F] A VCR/VCD/DVD	VCR/VCD/DVD	1	2
[G] SEWING MACHINE	Sewing machine	1	2
[H] CLOCK	Clock	1	2
[I] GENERATOR	Generator	1	2

[J] COMPUTER [K] INTERNET FACILITY [L] FAN [M] AIR CONDITIONER [N] BLENDER/MIXER/FOOD PROCESSOR [O] WATER HEATER	Computer ..... 1 2 Internet facility ..... 1 2 Fan ..... 1 2 Air conditioner ..... 1 2 Blender/Mixer/Food processor ..... 1 2 Water heater 1 2	
HC9. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:	Yes No	
[A] A WATCH?	Watch 1 2	
[B] A MOBILE TELEPHONE?	Mobile telephone 1 2	
[C] A BICYCLE?	Bicycle 1 2	
[D] A MOTORCYCLE OR SCOOTER?	Motorcycle / Scooter 1 2	
[E] AN ANIMAL-DRAWN CART?	Animal drawn-cart 1 2	
[F] A CAR OR TRUCK?	Car / Truck 1 2	
[G] A BOAT WITH A MOTOR?	Boat with motor 1 2	
HC10. DO YOU OR SOMEONE LIVING IN THIS HOUSEHOLD OWN THIS HOUSE? *If "No", then ask:* DO YOU RENT THIS HOUSE FROM SOMEONE NOT LIVING IN THIS HOUSEHOLD? *If "Rented from someone else", circle "2". For other responses, circle "6".*	Own ..... 1 Rent ..... 2 Other (Not owned or rented) 6	
HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes ..... 1 No 2	2⇨HC13
HC12. HOW MANY UNIT OF AGRICULTURAL LAND DO MEMBERS OF THIS HOUSEHOLD OWN? *If less than 1, record "00". If 95 or more, record '95'. If unknown, record '98'.*	Hectares ……___ ___	
HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OTHER FARM ANIMALS, OR POULTRY?	Yes ..... 1 No 2	2⇨HC15
HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE?		
[A] CATTLE, MILK COWS, OR BULLS?	Cattle, milk cows, or bulls ..... ___ ___	
[B] HORSES, DONKEYS, OR MULES?	Horses, donkeys, or mules ..... ___ ___	
[C] GOATS?	Goats ..... ___ ___	
[D] SHEEP?	Sheep ..... ___ ___	
[E] CHICKENS?	Chickens ..... ___ ___	

[F] PIGS? [G] CAMELS? [H] DUCKS/ GEESE? [H] OXEN ***If none, record '00'.*** ***If 95 or more, record '95'.*** ***If unknown, record '98'.***	Pigs .....___ ___ _____ Camels .....___ ___ ___ ___ Ducks/Geese.....___ ___ Oxen.....___ ___ _____ __ ___ ___ ___ ___ ___	
HC15. DOES ANY MEMBER OF THIS HOUSEHOLD HAVE AN ACTIVE BANK ACCOUNT?	Yes .....1 No.....2	

INSECTICIDE TREATED NETS		TN
TN1. DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?	Yes .....1 No.....2	2⇨Next Module
TN2. HOW MANY MOSQUITO NETS DOES YOUR HOUSEHOLD HAVE?	Number of nets.....___ ___	
TN3. *Ask the respondent to show you the nets in the household. If more than 3 nets, use additional questionnaire(s).*		

	1st Net	2nd Net	3rd Net
TN4. *Mosquito net observed?*	Observed.....1 Not observed.....2	Observed.....1 Not observed.....2	Observed.....1 Not observed.....2
TN5. *Observe or ask the type of mosquito net.* *If type is unknown and you cannot observe the net, show pictures of typical net types to the respondent.*	Long-lasting treated nets ……..……..18 Pre-treated nets…..……28 Other nets.....31 DK type 98	Long-lasting treated nets ……..…..18 Pre-treated nets…..……28 Other nets.....31 DK type 98	Long-lasting treated nets ……..…… ..18 Pre-treated nets…..……28 Other nets.....31 DK type 98
TN6. HOW MANY MONTHS AGO DID YOUR HOUSEHOLD GET THE MOSQUITO NET? *If less than one month, record "00"*	Months ago .....___ ___ More than 36 mo. ago ...95 DK / Not sure.....98	Months ago .....___ ___ More than 36 mo. ago ...95 DK / Not sure.....98	Months ago .....___ ___ More than 36 mo. ago ...95 DK / Not sure.....98
TN7. *Check TN5 for type of net*	☐ *Long-lasting ⇨ TN11* ☐ *Re-treatable nets⇨ TN9* ☐ *Other net ⇨ Continue*	☐ *Long-lasting ⇨ TN11* ☐ *Re-treatable nets⇨ TN9* ☐ *Other net ⇨ Continue*	☐ *Long-lasting ⇨ TN11* ☐ *Re-treatable nets⇨ TN9* ☐ *Other net ⇨ Continue*
TN8. WHEN YOU GOT THE NET, WAS IT ALREADY TREATED WITH AN INSECTICIDE TO KILL OR REPEL MOSQUITOES?	Yes .....1 No.....2 DK / Not sure.....8	Yes .....1 No.....2 DK / Not sure.....8	Yes .....1 No.....2 DK / Not sure.....8
TN9. SINCE YOU GOT THE NET, WAS IT EVER SOAKED OR DIPPED IN A LIQUID TO KILL OR REPEL MOSQUITOES?	Yes .....1 No.....2 ⇨ TN11 DK / Not sure.....8 ⇨ TN11	Yes .....1 No.....2 ⇨ TN11 DK / Not sure.....8 ⇨ TN11	Yes .....1 No.....2 ⇨ TN11 DK / Not sure.....8 ⇨ TN11

TN10. HOW MANY MONTHS AGO WAS THE NET LAST SOAKED OR DIPPED? *If less than one month, record "00"*	Months ago .....___ ___ More than 24 mo. ago ... 95 DK / Not sure..... 98	Months ago .....___ ___ More than 24 mo. ago ... 95 DK / Not sure..... 98	Months ago .....___ ___ More than 24 mo. ago ... 95 DK / Not sure..... 98
TN11. DID ANYONE SLEEP UNDER THIS MOSQUITO NET LAST NIGHT?	Yes ..... 1 No..... 2 ⇨ TN13 DK / Not sure..... 8 ⇨ TN13	Yes ..... 1 No..... 2 ⇨ TN13 DK / Not sure..... 8 ⇨ TN13	Yes ..... 1 No..... 2 ⇨ TN13 DK / Not sure..... 8 ⇨ TN13
TN12. WHO SLEPT UNDER THIS MOSQUITO NET LAST NIGHT? *Record the person's line number from the household listing form* *If someone not in the household list slept under the mosquito net, record "00"*	Name_____ Line number .....___ ___ Name_____ Line number .....___ ___ Name_____ Line number .....___ ___ Name_____ Line number .....___ ___	Name_____ Line number .....___ ___ Name_____ Line number .....___ ___ Name_____ Line number .....___ ___ Name_____ Line number .....___ ___	Name_____ Line number .....___ ___ Name_____ Line number .....___ ___ Name_____ Line number .....___ ___ Name_____ Line number .....___ ___
TN13.	*Go back to TN4 for next net. If no more nets, go to next module*	*Go back to TN4 for next net. If no more nets, go to next module*	*Go back to TN4 in first column of a new questionnaire for next net. If no more nets, go to next module*
			Tick here if additional questionnaire used ☐

CHILD LABOUR CL

To be administered for children in the household age **5-17** *years. For household members below age 5 or above age 17, leave rows blank.*

NOW I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO.

CL1. *Line number*	CL2. *Name and Age* *Copy from Household Listing Form, HL2 and HL6*		CL3. DURING THE PAST WEEK, DID (*name*) DO ANY KIND OF WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD? *If yes*: FOR PAY IN CASH OR KIND? 1 Yes, for pay (cash or kind) 2 Yes, unpaid 3 No ⇨CL5			CL4. SINCE LAST (*day of the week*), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK FOR SOMEONE WHO IS NOT A MEMBER OF THIS HOUSEHOLD? *If more than one job, include all hours at all jobs.*	CL5. DURING THE PAST WEEK, DID (*name*) FETCH WATER OR COLLECT FIREWOOD FOR HOUSEHOLD USE? 1 Yes 2 No ⇨ CL7		CL6. SINCE LAST (*day of the week*), ABOUT HOW MANY HOURS DID HE/SHE FETCH WATER OR COLLECT FIREWOOD FOR HOUSEHOLD USE?	CL7. DURING THE PAST WEEK, DID (*name*) DO ANY PAID OR UNPAID WORK ON A FAMILY FARM OR IN A FAMILY BUSINESS OR SELLING GOODS IN THE STREET? *Include work for a business run by the child, alone or with one or more partners.* 1 Yes 2 No ⇨ CL9		CL8. SINCE LAST (*day of the week*), ABOUT HOW MANY HOURS DID HE/SHE DO THIS WORK FOR HIS/HER FAMILY OR HIMSELF/ HERSELF?	CL9. DURING THE PAST WEEK, DID (*name*) HELP WITH HOUSEHOLD CHORES SUCH AS SHOPPING, CLEANING, WASHING CLOTHES, COOKING; OR CARING FOR CHILDREN, OLD OR SICK PEOPLE? 1 Yes 2 No ⇨ Next Line		CL10. SINCE LAST (*day of the week*), ABOUT HOW MANY HOURS DID HE/SHE SPEND DOING THESE CHORES?
Line	Name	Age	Yes Paid	Yes Unpaid	No	Number of hours	Yes	No	Number of hours	Yes	No	Number of hours	Yes	No	Number of hours
01		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
02		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
03		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
04		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
05		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
06		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
07		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
08		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
09		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
10		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
11		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
12		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
13		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
14		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___
15		__ __	1	2	3	___ ___	1	2	___ ___	1	2	___ ___	1	2	___ ___

CHILD DISCIPLINE

TABLE 1: CHILDREN AGED 2-14 YEARS ELIGIBLE FOR CHILD DISCIPLINE QUESTIONS

- *List each of the children aged 2-14 years below in the order they appear in the Household Listing Form. Do not include other household members outside of the age range 2-14 years.*
- *Record the line number, name, sex, and age for each child.*
- *Then record the total number of children aged 2-14 in the box provided (CD6).*

CD1. *Rank number*	CD2. *Line number from HL1*	CD3. *Name from HL2*	CD4. *Sex from HL4*	CD5. *Age from HL6*
Rank	Line	Name	M F	Age
1	__ __		1 2	___ ___
2	__ __		1 2	___ ___
3	__ __		1 2	___ ___
4	__ __		1 2	___ ___
5	__ __		1 2	___ ___
6	__ __		1 2	___ ___
7	__ __		1 2	___ ___
8	__ __		1 2	___ ___
CD6.	Total children age 2-14 years			___ ___

- *If there is only one child age 2-14 years in the household, then skip table 2 and go to CD8; write down'1' and continue with CD9*

TABLE 2: SELECTION OF RANDOM CHILD FOR CHILD DISCIPLINE QUESTIONS

- *Use Table 2 to select one child between the ages of 2 and 14 years, if there is more than one child in that age range in the household.*
- *Check the last digit of the household number (HH2) from the cover page. This is the number of the row you should go to in the table below.*
- *Check the total number of eligible children (2-14) in CD6 above. This is the number of the column you should go to.*
- *Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the child (CD1) about whom the questions will be asked.*

CD7.	**Total Number of Eligible Children in the Household (CD6)**							
Last digit of household number (HH2)	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

CD8. *Record the rank number of the selected child*.....

CD9. *Write the name and line number of the child selected for the module from CD3 and CD2, based on the rank number in CD8.*	Name _____ Line number .....__ __	
CD10. ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED AND I WANT YOU TO TELL ME IF YOU OR ANYONE ELSE IN YOUR HOUSEHOLD HAS USED THIS METHOD WITH *(name)* IN THE PAST MONTH. CD11. TOOK AWAY PRIVILEGES, FORBADE SOMETHING *(name)* LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE.	Yes .....1 No 2	
CD12. EXPLAINED WHY (*name*)'S BEHAVIOR WAS WRONG.	Yes .....1 No 2	
CD13. SHOOK HIM/HER.	Yes .....1 No 2	
CD14. SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	Yes .....1 No 2	
CD15. GAVE HIM/HER SOMETHING ELSE TO DO.	Yes .....1 No 2	
CD16. SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	Yes .....1 No 2	
CD17. HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	Yes .....1 No 2	
CD18. CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	Yes .....1 No 2	
CD19. HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	Yes .....1 No 2	
CD20. HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	Yes .....1 No 2	
CD21. BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD.	Yes .....1 No 2	
CD22. DO YOU BELIEVE THAT IN ORDER TO BRING UP, RAISE, OR EDUCATE A CHILD PROPERLY, THE CHILD NEEDS TO BE PHYSICALLY PUNISHED?	Yes .....1 No .....2 Don't know / No opinion 8	

HANDWASHING		HW
HW1. PLEASE SHOW ME WHERE MEMBERS OF YOUR HOUSEHOLD MOST OFTEN WASH THEIR HANDS.	Observed ..... 1 Not observed Not in dwelling / plot / yard ..... 2 No permission to see ..... 3 Other reason 6	 2 ⇨HW4 3 ⇨HW4 6 ⇨HW4
HW2. *Observe presence of water at the specific place for handwashing.* *Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water.*	Water is available ..... 1 Water is not available 2	
HW3. *Record if soap or detergent is present at the specific place for handwashing.* *Circle all that apply.*	Bar soap .....A Detergent (Powder / Liquid / Paste).....B Liquid soap ..... C Ash / Mud / Sand ..... D None .....Y	HH 19
HW4. DO YOU HAVE ANY SOAP OR DETERGENT (***or other locally used cleansing agent***) IN YOUR HOUSEHOLD FOR WASHING HANDS?	Yes..... 1 No 2	 2⇨HH19
HW5. CAN YOU PLEASE SHOW IT TO ME? *Record observation. Circle all that apply.*	Bar soap .....A Detergent (Powder / Liquid / Paste).....B Liquid soap ..... C Ash / Mud / Sand ..... D Not able / Does not want to show .....Y	

HH19. *Record the time.*	Hour and minutes ..... __ __ : __ __	

SALT IODIZATION		**SI**
SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I HAVE A SAMPLE OF THE SALT USED TO COOK MEALS IN YOUR HOUSEHOLD? *Once you have tested the salt, circle number that corresponds to test outcome.*	Not iodized 0 PPM ..... 1 More than 0 PPM & less than 15 PPM ..... 2 15 PPM or more ..... 3 No salt in the house ..... 6 Salt not tested 7	

HH20. *Does any eligible woman age 15-49 reside in the household?*

Check household listing, column HL7 for any eligible woman.
You should have a questionnaire with the Information Panel filled in for each eligible woman.

☐ *Yes ⇨ Go to QUESTIONNAIRE FOR INDIVIDUAL WOMEN to administer the questionnaire to the first eligible woman.*

☐ *No ⇨ Continue.*

HH21. *Does any child under the age of 5 reside in the household?*

Check household listing, column HL9 for any eligible child under age 5.
You should have a questionnaire with the Information Panel filled in for each eligible child.

☐ *Yes ⇨ Go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE to administer the questionnaire to mother or caretaker of the first eligible child.*

☐ *No ⇨ End the interview by thanking the respondent for his/her cooperation. Gather together all questionnaires for this household and complete HH8 to HH15 on the cover page.*

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

MICS

QUESTIONNAIRE FOR INDIVIDUAL WOMEN
NIGERIA

WOMAN'S INFORMATION PANEL	WM
This questionnaire is to be administered to all women age 15 through 49 (see Household Listing Form, column HL7). A separate questionnaire should be used for each eligible woman.	
WM1. Cluster number ☐☐☐☐	WM2. Household number: __ __ __
WM3. Woman's name: Name_____	WM4. Woman's line number: ___ ___
WM5. Interviewer name and number: Name_____ ___ ___	WM6. Day / Month / Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___

Repeat greeting if not already read to this woman:

WE ARE FROM NATIONAL BUREAU OF STATISTICS. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT ***25*** MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

If greeting at the beginning of the household questionnaire has already been read to this woman, then read the following:

NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT YOUR HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT ***25*** MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

MAY I START NOW?

☐ *Yes, permission is given ⇨ Go to WM10 to record the time and then begin the interview.*

☐ *No, permission is not given ⇨ Complete WM7. Discuss this result with your supervisor.*

WM7. Result of woman's interview	
	Completed.....01 Not at home .....02 Refused.....03 Partly completed .....04 Incapacitated.....05 Other (*specify*).....96

WM8. Field edited by (Name and number):	WM9. Data entry clerk (Name and number):
Name _____ ___ ___	Name _____ ___ ___

WM10. *Record the time.*	Hour and minutes ..... __ __ : __ __	

WOMAN'S BACKGROUND WB

WB1. IN WHAT MONTH AND YEAR WERE YOU BORN?	Date of birth Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	
WB2. HOW OLD ARE YOU? *Probe:* HOW OLD WERE YOU AT YOUR LAST BIRTHDAY? *Compare and correct WB1 and/or WB2 if inconsistent*	Age (in completed years) ..... __ __	
WB3. HAVE YOU EVER ATTENDED SCHOOL OR PRESCHOOL?	Yes ..... 1 No 2	 2⇨WB7
WB4. WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED?	Preschool ..... 0 Primary ..... 1 Secondary ..... 2 Higher ..... 3 Non formal education 4	0⇨WB7 4⇨WB7
WB5. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?	Grade ..... __ __	

WB6. *Check WB4:*

☐ *Secondary or higher. ⇨ Go to Next Module*

☐ *Primary ⇨ Continue with WB7*

WB7. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME. *Write out any of the sample sentences to the respondent either in English or local Language. If respondent cannot read whole sentence, probe:* CAN YOU READ PART OF THE SENTENCE TO ME?	Cannot read at all ..... 1 Able to read only parts of sentence ..... 2 Able to read whole sentence ..... 3 No sentence in required language 4 *(specify language)* Blind / mute, visually / speech impaired 5	

	Pre-School	Primary	Secondary	Higher
Codes for grades in WB5	Never complete Nursery 1……..00 Nursery 1 ……01 Nursery 2 ……02 Nursery 3 ……03	Never complete Primary 1...10 Primary 1 …… ……11 Primary 2 …… 12 Primary 3……..13 Primary 4 …… 14 Primary 5……..15 Primary 6……..16	Never Complete JSS1…20 JSS 1…….... 21 JSS 2……22 JSS 3……23 SS 1…… 24 SS 2…… 25 SS 3……26	Never Complete NCE 1, AL/OND1/Technical … . 30 NCE …… 31, AL / OND …… . 32 Technical…… 33 Never Complete HND1/ BSc.1/PG …… 40 HND …… 41 BSc…….. .. 42 Post Graduate…… 43

CHILD MORTALITY		CM
All questions refer only to LIVE births.		
CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH? *If "No" probe by asking:* I MEAN, TO A CHILD WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?	Yes ..... 1 No 2	2⇨CM8
CM2. WHAT WAS THE DATE OF YOUR FIRST BIRTH? I MEAN THE VERY FIRST TIME YOU GAVE BIRTH, EVEN IF THE CHILD IS NO LONGER LIVING, OR WHOSE FATHER IS NOT YOUR CURRENT PARTNER. *Skip to CM4 only if year of first birth is given. Otherwise, continue with CM3.*	Date of first birth Day ..... __ __ DK day ..... 98 Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	⇨CM4
CM3. HOW MANY YEARS AGO DID YOU HAVE YOUR FIRST BIRTH?	Completed years since first birth ..... __ __	
CM4. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?	Yes ..... 1 No 2	2⇨CM6
CM5. HOW MANY SONS LIVE WITH YOU? HOW MANY DAUGHTERS LIVE WITH YOU? *If none, record '00'.*	Sons at home ..... __ __ Daughters at home ..... __ __	
CM6. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?	Yes ..... 1 No 2	2⇨CM8
CM7. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU? HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU? *If none, record '00'.*	Sons elsewhere ..... __ __ Daughters elsewhere ..... __ __	
CM8. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED? *If "No" probe by asking:* I MEAN, TO A CHILD WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?	Yes ..... 1 No 2	2⇨CM10
CM9. HOW MANY BOYS HAVE DIED? HOW MANY GIRLS HAVE DIED? *If none, record '00'.*	Boys dead ..... __ __ Girls dead ..... __ __	

CM10. Sum answers to CM5, CM7, and CM9.	Sum ..... __ __	

CM11. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL (*total number in CM10*) LIVE BIRTHS DURING YOUR LIFE. IS THIS CORRECT?

☐ *Yes. Check below:*

☐ *No live births ⇨ Go to ILLNESS SYMPTOMS Module*

☐ *One or more live births ⇨ Continue with CM12*

☐ *No ⇨ Check responses to CM1-CM10 and make corrections as necessary before proceeding to CM12*

CM12. OF THESE (*total number in CM10*) BIRTHS YOU HAVE HAD, WHEN DID YOU DELIVER THE LAST ONE (EVEN IF HE OR SHE HAS DIED)? Month and year must be recorded.	Date of last birth Day ..... __ __ DK day..... 98 Month..... __ __ Year ..... __ __ __ __	

CM13. *Check CM12: Last birth occurred within the last 2 years, that is, since (day and month of interview) in* ***2009***

☐ *No live birth in last 2 years. ⇨ Go to ILLNESS SYMPTOMS Module.*

☐ *One or more live births in last 2 years. ⇨ Ask for the name of the child*

*Name of child*_____

If child has died, take special care when referring to this child by name in the following modules.

Continue with the next module.

DESIRE FOR LAST BIRTH		DB
This module is to be administered to all women with a live birth in the 2 years preceding date of interview. Check child mortality module CM13 and record name of last-born child here _____. Use this child's name in the following questions, where indicated.		
DB1. WHEN YOU GOT PREGNANT WITH (*name*), DID YOU WANT TO GET PREGNANT AT THAT TIME?	Yes ..... 1 No 2	1⇨Next Module
DB2. DID YOU WANT TO HAVE A BABY LATER ON, OR DID YOU NOT WANT ANY (MORE) CHILDREN?	Later ..... 1 No more 2	2⇨Next Module
DB3. HOW MUCH LONGER DID YOU WANT TO WAIT?	Months ..... 1 __ __ Years ..... 2 __ __ DK 998	

MATERNAL AND NEWBORN HEALTH — MN

This module is to be administered to all women with a live birth in the 2 years preceding date of interview. Check child mortality module CM13 and record name of last-born child here _____. Use this child's name in the following questions, where indicated.

MN1. DID YOU SEE ANYONE FOR ANTENATAL CARE DURING YOUR PREGNANCY WITH (*name*)?	Yes ..... 1 No 2	 2⇨MN5
MN2. WHOM DID YOU SEE? *Probe:* ANYONE ELSE? *Probe for the type of person seen and circle all answers given.*	Health professional: Doctor ..... A Nurse / Midwife ..... B Auxiliary midwife/MCH Aide ..... C Other person Traditional birth attendant ..... F Community health worker ..... G Other (*specify*) X	
MN2A. HOW MANY MONTHS PREGNANT WERE YOU AT YOUR FIRST ANTENATAL CARE VISIT FOR THIS PREGNANCY?	Months ..... ----- ------ DK 98	
MN3. HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?	Number of times ..... __ __ DK 98	

MN4. AS PART OF YOUR ANTENATAL CARE DURING THIS PREGNANCY, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE:		Yes	No	
[A] WAS YOUR BLOOD PRESSURE MEASURED?	Blood pressure	1	2	
[B] DID YOU GIVE A URINE SAMPLE?	Urine sample	1	2	
[C] DID YOU GIVE A BLOOD SAMPLE?	Blood sample	1	2	
[D] WERE YOU WEIGHED ?	Weighed	1	2	

MN5. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED? MAY I SEE IT PLEASE? *If a card is presented, use it to assist with answers to the following questions.*	Yes (card seen) ..... 1 Yes (card not seen) ..... 2 No ..... 3 DK 8	
MN6. WHEN YOU WERE PREGNANT WITH (*name*), DID YOU RECEIVE ANY INJECTION IN THE ARM OR SHOULDER TO PREVENT THE BABY FROM GETTING TETANUS, THAT IS CONVULSIONS AFTER BIRTH?	Yes ..... 1 No ..... 2 DK 8	 2⇨MN9 8⇨MN9
MN7. HOW MANY TIMES DID YOU RECEIVE THIS TETANUS INJECTION DURING YOUR PREGNANCY WITH (*name*)? *If 7 or more times, record '7'.*	Number of times ..... __ DK 8	 8⇨MN9

MN8. *How many tetanus injections during last pregnancy were reported in MN7?*

☐ *At least two tetanus injections during last pregnancy. ⇨ Go to MN12*
☐ *Fewer than two tetanus injections during last pregnancy. ⇨ Continue with MN9*

MN9. DID YOU RECEIVE ANY TETANUS INJECTION AT ANY TIME BEFORE YOUR PREGNANCY WITH (*name*), EITHER TO PROTECT YOURSELF OR ANOTHER BABY?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨MN12 8⇨MN12
MN10. HOW MANY TIMES DID YOU RECEIVE A TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (*name*)? *If 7 or more times, record '7'.*	Number of times ..... __ DK..... 8	 8⇨MN12
MN11. HOW MANY YEARS AGO DID YOU RECEIVE THE LAST TETANUS INJECTION BEFORE YOUR PREGNANCY WITH (*name*)?	Years ago ..... __ __	
MN12. *Check MN1 for presence of antenatal care during (name) pregnancy* ☐ *Yes, antenatal care received.⇨ Continue with MN13* ☐ *No antenatal care received ⇨ Go to MN17*		
MN13. DURING ANY OF THESE ANTENATAL VISITS FOR THE PREGNANCY, DID YOU TAKE ANY MEDICINE IN ORDER TO PREVENT YOU FROM GETTING MALARIA?	Yes..... 1 No ..... 2 DK..... 8	 2⇨MN17 8⇨MN17
MN14. WHICH MEDICINES DID YOU TAKE TO PREVENT MALARIA? *Circle all medicines taken. If type of medicine is not determined, show typical anti-malarial to respondent.*	ANTI-MALARIA: Sulphadoxine Pyremethamine/Fansidar.....A Chloroquine .....B Amodiaquine.....C Quinine .....D Artemisinin-based combinations.....E Analgesics/Pain Relievers .....H Other (specify) .....X DK.....Z	
MN15. *Check MN14 for medicine taken:* ☐ *Sulphadoxine Pyremethamine/Fansidar taken.⇨ Continue with MN16* ☐ *Sulphadoxine Pyremethamine/Fansidar not taken.⇨ Go to MN17*		
MN16. DURING THIS PREGNANCY, HOW MANY TIMES DID YOU TAKE SULPHADOXINE PYREMETHAMINE /FANSIDAR TO PREVENT MALARIA?	Number of times ..... __ __ DK..... 98	
MN17. WHO ASSISTED WITH THE DELIVERY OF (*name*)? *Probe:* ANYONE ELSE? *Probe for the type of person assisting and circle all answers given.* *If respondent says no one assisted, probe to determine whether any adults were present at the delivery.*	Health professional: Doctor .....A Nurse / Midwife .....B Auxiliary midwife/MCH Aide.....C Other person Traditional birth attendant .....F Community health worker ..... G Relative / Friend.....H Other (*specify*) X No one .....Y	

MN18. WHERE DID YOU GIVE BIRTH TO (*name*)? *Probe to identify the type of source.* *If unable to determine whether public or private, write the name of the place.* _____ *(Name of place)* _____ *Address*	Home Your home ..... 11 Other home ..... 12 Public sector Govt. hospital ..... 21 Govt. clinic / health centre ..... 22 Govt. health post ..... 23 Other public (*specify*) 26 Private Medical Sector Private hospital ..... 31 Private clinic ..... 32 Private maternity home ..... 33 Other private medical (*specify*) 36 Other (*specify*) 96	 11⇨MN20 12⇨MN20 96⇨MN20
MN18A. HOW LONG AFTER DELIVERY OF (NAME) WERE YOU DISCHARGED FROM THE HEALTH FACILITY?	Immediately ..... 000 Hours ..... 1 _ _ Days ..... 2 _ _ Don't know/remember 998	
MN19. WAS (*name*) DELIVERED BY CAESAREAN SECTION? THAT IS, DID THEY CUT YOUR BELLY OPEN TO TAKE THE BABY OUT?	Yes ..... 1 No 2	
MN20. WHEN (*name*) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?	Very large ..... 1 Larger than average ..... 2 Average ..... 3 Smaller than average ..... 4 Very small ..... 5 DK 8	
MN21. WAS (*name*) WEIGHED AT BIRTH?	Yes ..... 1 No ..... 2 DK 8	 2⇨MN23 8⇨MN23
MN22. HOW MUCH DID (*name*) WEIGH? *Record weight from health card, if available.*	From card ..... 1 (kg) __ . __ __ __ From recall ..... 2 (kg) __ . __ __ __ DK 99998	
MN23. HAS YOUR MENSTRUAL PERIOD RETURNED SINCE THE BIRTH OF (*name*)?	Yes ..... 1 No 2	
MN24. DID YOU EVER BREASTFEED (*name*)?	Yes ..... 1 No 2	 2⇨Next Module

MN25. HOW LONG AFTER BIRTH DID YOU FIRST PUT (*name*) TO THE BREAST? *If less than 1 hour, record '00' hours.* *If less than 24 hours, record hours.* *Otherwise, record days.*	Immediately ..... 000 Hours ..... 1 __ __ Days ..... 2 __ __ Don't know / remember 998	
MN26. IN THE FIRST THREE DAYS AFTER DELIVERY, WAS (*name*) GIVEN ANYTHING TO DRINK OTHER THAN BREAST MILK?	Yes ..... 1 No 2	2⇨Next Module
MN27. WHAT WAS (*name*) GIVEN TO DRINK? *Probe:* ANYTHING ELSE?	Milk (other than breast milk) ..... A Plain water ..... B Sugar or glucose water ..... C Gripe water ..... D Sugar-salt-water solution ..... E Fruit juice ..... F Infant formula ..... G Tea / Infusions ..... H Honey ..... I Other (*specify*) _____ X	

ILLNESS SYMPTOMS		IS
IS1. *Check Household Listing, column HL9* Is the respondent the mother or caregiver of any child under age 5? ☐ Yes ⇨ Continue with IS2. ☐ No ⇨ Go to Next Module.		
IS2. SOMETIMES CHILDREN HAVE SEVERE ILLNESSES AND SHOULD BE TAKEN IMMEDIATELY TO A HEALTH FACILITY. WHAT TYPES OF SYMPTOMS WOULD CAUSE YOU TO TAKE YOUR CHILD TO A HEALTH FACILITY RIGHT AWAY? *Probe:* ANY OTHER SYMPTOMS? Keep asking for more signs or symptoms until the mother/caregiver cannot recall any additional symptoms. Circle all symptoms mentioned, but do NOT prompt with any suggestions	Child not able to drink or breastfeed.....A Child becomes sicker .....B Child develops a fever .....C Child has fast breathing.....D Child has difficult breathing .....E Child has blood in stool .....F Child is drinking poorly ..... G **Other (*specify*) X** **Other (*specify*) Y** **Other (*specify*) Z**	

CONTRACEPTION		CP
CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING. ARE YOU PREGNANT NOW?	Yes, currently pregnant ..... 1 No ..... 2 Unsure or DK 8	1⇨Next Module
CP2. SOME PEOPLE USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?	Yes ..... 1 No 2	2⇨Next Module
CP3. WHAT ARE YOU DOING TO DELAY OR AVOID A PREGNANCY? Do not prompt. If more than one method is mentioned, circle each one.	Female sterilization ..... A Male sterilization ..... B IUD ..... C Injectables ..... D Implants ..... E Pill ..... F Male condom ..... G Female condom ..... H Diaphragm ..... I Foam / Jelly ..... J Lactational amenorrhoea method (LAM) ..... K Periodic abstinence/Rhythm ..... L Withdrawal ..... M Other (*specify*) _____ X	

UNMET NEED		UN
UN1. *Check CP1. Currently pregnant?* ☐ Yes, currently pregnant ⇨ Continue with UN2 ☐ No, unsure or DK ⇨ Go to UN5		
UN2. NOW I WOULD LIKE TO TALK TO YOU ABOUT YOUR CURRENT PREGNANCY. WHEN YOU GOT PREGNANT, DID YOU WANT TO GET PREGNANT AT THAT TIME?	Yes ..... 1 No 2	1⇨UN4
UN3. DID YOU WANT TO HAVE A BABY LATER ON OR DID YOU NOT WANT ANY (MORE) CHILDREN?	Later ..... 1 No more 2	
UN4. NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY MORE CHILDREN?	Have another child ..... 1 No more / None ..... 2 Undecided / Don't know 8	1⇨UN7 2⇨UN13 8⇨UN13
UN5. *Check CP3. Currently using "Female sterilization"?* ☐ Yes ⇨ Go to UN13 ☐ No ⇨ Continue with UN6		
UN6. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?	Have (a/another) child ..... 1 No more / None ..... 2 Says she cannot get pregnant ..... 3 Undecided / Don't know 8	 2⇨UN9 3⇨UN11 8⇨UN9
UN7. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?	Months ..... 1 __ __ Years ..... 2 __ __ Soon / Now ..... 993 Says she cannot get pregnant ..... 994 After marriage ..... 995 Other ..... 996 Don't know 998	 994⇨UN11
UN8. *Check CP1. Currently pregnant?* ☐ Yes, currently pregnant ⇨ Go to UN13 ☐ No, unsure or DK ⇨ Continue with UN9		

UN9. *Check CP2. Currently using a method?* ☐ Yes ⇨ Go to UN13 ☐ No ⇨ Continue with UN10		
UN10. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?	Yes .....1 No.....2 DK 8	1 ⇨UN13 8 ⇨UN13
UN11. WHY DO YOU THINK YOU ARE NOT PHYSICALLY ABLE TO GET PREGNANT?	Infrequent sex / No sex ..... A Menopausal..... B Never menstruated..... C Hysterectomy (surgical removal of uterus) ..... D Has been trying to get pregnant for 2 years or more without result..... E Postpartum amenorrheic.....F Breastfeeding ..... G Too old ..... H Fatalistic .....I Other (*specify*)_____ X Don't know .....Z	
UN12. *Check UN11. "Never menstruated" mentioned?* ☐ Mentioned ⇨ Go to Next Module ☐ Not mentioned ⇨ Continue with UN13		
UN13. WHEN DID YOUR LAST MENSTRUAL PERIOD START?	Days ago .....1 __ __ Weeks ago .....2 __ __ Months ago .....3 __ __ Years ago.....4 __ __ In menopause / Has had hysterectomy.....994 Before last birth .....995 Never menstruated.....996	

FEMALE GENITAL MUTILATION/CUTTING		FG
FG1. HAVE YOU EVER HEARD OF FEMALE CIRCUMCISION?	Yes ..... 1 No 2	1⇨FG3
FG2. IN SOME COUNTRIES, THERE IS A PRACTICE IN WHICH A GIRL MAY HAVE PART OF HER GENITALS CUT. HAVE YOU EVER HEARD ABOUT THIS PRACTICE?	Yes ..... 1 No 2	2⇨Next Module
FG3. HAVE YOU YOURSELF EVER BEEN CIRCUMCISED?	Yes ..... 1 No 2	2⇨FG9
FG4. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO YOU AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	Yes ..... 1 No ..... 2 DK 8	1⇨FG6
FG5. WAS THE GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes ..... 1 No ..... 2 DK 8	
FG6. WAS THE GENITAL AREA SEWN CLOSED? *If necessary, probe*: WAS IT SEALED?	Yes ..... 1 No ..... 2 DK 8	
FG7. HOW OLD WERE YOU WHEN YOU WERE CIRCUMCISED? *If the respondent does not know the exact age, probe to get an estimate*	Age at circumcision ..... __ __ DK / Don't remember / Not sure 98	
FG8. WHO PERFORMED THE CIRCUMCISION?	Health professional Doctor ..... 11 Nurse/Midwife ..... 12 Other health professional (*specify*) 16 Traditional persons Traditional 'circumciser' ..... 21 Traditional birth attendant ..... 22 Other traditional (*specify*) 26 DK 98	
FG9. *Check CM5 for Number of daughters at home and CM7 for Number of daughters elsewhere, and sum the answers here*	Total number of living daughters ..... ___ ___	

FG10. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE *(total number in FG9)* LIVING DAUGHTERS. IS THIS CORRECT?

☐ *Yes*

☐ *One or more living daughters ⇨ Continue with FG11*

☐ *Does not have any living daughters ⇨ Go to FG22*

☐ *No ⇨ Check responses to CM1 – CM10 and make corrections as necessary, until FG10 = Yes*

FG11. *Ask the respondent to tell you the name(s) of her daughter(s), beginning with the youngest daughter (if more than one daughter). Write down the name of each daughter in FG12. Then, ask questions FG13 to FG20 for each daughter at a time.*

The total number of daughters in FG12 should be equal to the number in FG9

If more than 4 daughters, use additional questionnaires

	Daughter #1	Daughter #2	Daughter #3	Daughter #4
FG12. *Name of daughter*	_____	_____	_____	_____
FG13. HOW OLD IS (*name*)?	Age..... ___ ___	Age ..... ___ ___	Age ..... ___ ___	Age..... ___ ___
FG14. *Is (name) younger than 15 years of age?*	Yes..... 1 No ..... 2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*	Yes.....1 No .....2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*	Yes .....1 No.....2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*	Yes .....1 No.....2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*
FG15. IS (*name*) CIRCUMCISED?	Yes..... 1 No ..... 2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*	Yes.....1 No .....2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*	Yes .....1 No.....2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*	Yes .....1 No.....2 *If "No", go to FG13 for next daughter. If no more daughters, go to FG22*
FG16. HOW OLD WAS (*name*) WHEN THIS OCCURRED? *If the respondent does not know the age, probe to get an estimate.*	Age..... ___ ___ DK 98	Age ..... ___ ___ DK.....98	Age .....___ ___ DK.....98	Age.....___ ___ DK 98
FG17. NOW I WOULD LIKE TO ASK YOU WHAT WAS DONE TO (*name*) AT THAT TIME. WAS ANY FLESH REMOVED FROM THE GENITAL AREA?	Yes..... 1 ⇨FG19 No ..... 2 DK 8	Yes.....1 ⇨FG19 No .....2 DK.....8	Yes .....1 ⇨FG19 No.....2 DK.....8	Yes .....1 ⇨FG19 No.....2 DK 8
FG18. WAS HER GENITAL AREA JUST NICKED WITHOUT REMOVING ANY FLESH?	Yes..... 1 No ..... 2 DK 8	Yes.....1 No .....2 DK.....8	Yes .....1 No.....2 DK.....8	Yes .....1 No.....2 DK 8

FG19. WAS HER GENITAL AREA SEWN CLOSED? *If necessary, probe*: WAS IT SEALED?	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8	Yes ..... 1 No ..... 2 DK 8
FG20. WHO PERFORMED THE CIRCUMCISION?	Health professional Doctor ..... 11 Nurse/midwife 12 Other health professional (*specify*) _____ 16 Traditional persons Traditional 'circumciser' .. 21 Traditional birth attendant ..... 22 Other traditional (*specify*) _____ 26 DK 98	Health professional Doctor ..... 11 Nurse/midwife .12 Other health professional (*specify*) ____ 16 Traditional persons Traditional 'circumciser' ...21 Traditional birth attendant .....22 Other traditional (*specify*) ____ 26 DK 98	Health professional Doctor ..... 11 Nurse/midwife .12 Other health professional (*specify*) _____ 16 Traditional persons Traditional 'circumciser' ...21 Traditional birth attendant .....22 Other traditional (*specify*) ____ 26 DK 98	Health professional Doctor ..... 11 Nurse/midwife 12 Other health professional (*specify*) _____ 16 Traditional persons Traditional 'circumciser' .. 21 Traditional birth attendant ..... 22 Other traditional (*specify*) _____ 26 DK 98
FG21.	*Go back to FG13 for next daughter. If no more daughters, go to FG22*	*Go back to FG13 for next daughter. If no more daughters, go to FG22*	*Go back to FG13 for next daughter. If no more daughters, go to FG22*	*Go back to FG13 in first column of additional questionnaire for next daughter. If no more daughters, go to FG22*
				Tick here if additional questionnaire used ☐

FG22. DO YOU THINK THIS PRACTICE SHOULD BE CONTINUED OR SHOULD IT BE DISCONTINUED?	Continued ..... 1 Discontinued ..... 2 Depends ..... 3 DK 8	

ATTITUDES TOWARD DOMESTIC VIOLENCE					DV
DV1. SOMETIMES A HUSBAND IS ANNOYED OR ANGERED BY THINGS THAT HIS WIFE DOES. IN YOUR OPINION, IS A HUSBAND JUSTIFIED IN HITTING OR BEATING HIS WIFE IN THE FOLLOWING SITUATIONS:		Yes	No	DK	
[A] IF SHE GOES OUT WITHOUT TELLING HIM?	Goes out without telling	1	2	8	
[B] IF SHE NEGLECTS THE CHILDREN?	Neglects children	1	2	8	
[C] IF SHE ARGUES WITH HIM?	Argues with him	1	2	8	
[D] IF SHE REFUSES TO HAVE SEX WITH HIM?	Refuses sex	1	2	8	
[E] IF SHE BURNS THE FOOD?	Burns food	1	2	8	

MARRIAGE/UNION		MA
MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married ..... 1 Yes, living with a man ..... 2 No, not in union 3	 3⇨MA5
MA2. HOW OLD IS YOUR HUSBAND/PARTNER? *Probe*: HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	Age in years ..... __ __ DK 98	
MA3. BESIDES YOURSELF, DOES YOUR HUSBAND/PARTNER HAVE ANY OTHER WIVES OR PARTNERS OR DOES HE LIVE WITH OTHER WOMEN AS IF MARRIED?	Yes ..... 1 No ..... 2 DK 98	 2⇨MA7 2⇨MA7
MA4. HOW MANY OTHER WIVES OR PARTNERS DOES HE HAVE?	Number ..... __ __ DK 98	⇨MA7 98⇨MA7
MA5. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN AS IF MARRIED?	Yes, formerly married ..... 1 Yes, formerly lived with a man ..... 2 No 3	 3 ⇨Next Module
MA6. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed ..... 1 Divorced ..... 2 Separated 3	
MA7. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once ..... 1 More than once 2	
MA8. IN WHAT MONTH AND YEAR DID YOU FIRST MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Date of first marriage Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	 ⇨Next Module
MA9. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?	Age in years ..... __ __	

SEXUAL BEHAVIOUR		SB
Check for the presence of others. Before continuing, ensure privacy.		
SB1. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT SEXUAL ACTIVITY IN ORDER TO GAIN A BETTER UNDERSTANDING OF SOME IMPORTANT LIFE ISSUES. THE INFORMATION YOU SUPPLY WILL REMAIN STRICTLY CONFIDENTIAL. HOW OLD WERE YOU WHEN YOU HAD SEXUAL INTERCOURSE FOR THE VERY FIRST TIME?	Never had intercourse .....00 Age in years .....__ __ First time when started living with (first) husband/partner 95	00⇨Next Module
SB2. THE FIRST TIME YOU HAD SEXUAL INTERCOURSE, WAS A CONDOM USED?	Yes .....1 No .....2 DK / Don't remember.....8	
SB3. WHEN WAS THE LAST TIME YOU HAD SEXUAL INTERCOURSE? *Record 'years ago' only if last intercourse was one or more years ago. If 12 months or more the answer must be recorded in years.*	Days ago .....1 __ __ Weeks ago .....2 __ __ Months ago.....3 __ __ Years ago .....4 __ __	4⇨SB15
SB4. THE LAST TIME YOU HAD SEXUAL INTERCOURSE, WAS A CONDOM USED?	Yes .....1 No 2	
SB5. WHAT WAS YOUR RELATIONSHIP TO THIS PERSON WITH WHOM YOU LAST HAD SEXUAL INTERCOURSE? *Probe to ensure that the response refers to the relationship at the time of sexual intercourse* *If 'boyfriend', then ask:* WERE YOU LIVING TOGETHER AS IF MARRIED? *If 'yes', circle '2'. If 'no', circle'3'.*	Husband .....1 Cohabiting partner.....2 Boyfriend .....3 Casual acquaintance.....4	3⇨SB7 4⇨SB7
SB6. *Check MA1:* ☐ *Currently married or living with a man (MA1 = 1 or 2) ⇨ Go to SB8* ☐ *Not married / Not in union (MA1 = 3) ⇨ Continue with SB7*		
SB7. HOW OLD IS THIS PERSON? *If response is DK, probe:* ABOUT HOW OLD IS THIS PERSON?	Age of sexual partner…….__ __ DK…….98	
SB8. HAVE YOU HAD SEXUAL INTERCOURSE WITH ANY OTHER PERSON IN THE LAST 12 MONTHS?	Yes .....1 No 2	2⇨SB15
SB9. THE LAST TIME YOU HAD SEXUAL INTERCOURSE WITH THIS OTHER PERSON, WAS A CONDOM USED?	Yes .....1 No 2	

SB10. WHAT WAS YOUR RELATIONSHIP TO THIS PERSON? *Probe to ensure that the response refers to the relationship at the time of sexual intercourse* *If 'boyfriend' then ask:* WERE YOU LIVING TOGETHER AS IF MARRIED? *If 'yes', circle '2'. If 'no', circle' 3'.*	Husband .....1 Cohabiting partner .....2 Boyfriend .....3 Casual acquaintance .....4 **Other (*specify*) 6**	 3⇨SB12 4⇨SB12 6⇨SB12
SB11. *Check MA1 and MA7:* ☐ *Currently married or living with a man (MA1 = 1 or 2)* *AND* *Married only once or lived with a man only once (MA7 = 1) ⇨ Go to SB13* ☐ *Else ⇨ Continue with SB12*		
SB12. HOW OLD IS THIS PERSON? *If response is DK, probe:* ABOUT HOW OLD IS THIS PERSON?	Age of sexual partner .....__ __ DK 98	
SB13. OTHER THAN THESE TWO PERSONS, HAVE YOU HAD SEXUAL INTERCOURSE WITH ANY OTHER PERSON IN THE LAST 12 MONTHS?	Yes .....1 No 2	2⇨SB15
SB14. IN TOTAL, WITH HOW MANY DIFFERENT PEOPLE HAVE YOU HAD SEXUAL INTERCOURSE IN THE LAST 12 MONTHS?	Number of partners …….__ __	
SB14A. FOR ALL THE SEXUAL INTERCOURSE WITH NON MARITAL PARTNERS IN THE LAST 12 MONTHS (FROM DATE OF THIS INTERVIEW), WAS A CONDOM USED?	Yes .....1 No .....2 DK/Not sure/Don't remember 8	
SB15. IN TOTAL, WITH HOW MANY DIFFERENT PEOPLE HAVE YOU HAD SEXUAL INTERCOURSE *If a non-numeric answer is given, probe to get an estimate.* *If number of partners is 95 or more, write '95'.*	Number of lifetime partners .....__ __ DK 98	

HIV/AIDS		HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF AN ILLNESS CALLED AIDS?	Yes ..... 1 No 2	 2⇨WM11
HA2. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE HIV VIRUS THAT CAUSES AIDS BY HAVING JUST ONE UNINFECTED SEX PARTNER WHO HAS NO OTHER SEX PARTNERS?	Yes ..... 1 No ..... 2 DK..... 8	
HA3. CAN PEOPLE GET THE HIV VIRUS THAT CAUSES AIDS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes ..... 1 No ..... 2 DK..... 8	
HA4. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE HIV VIRUS THAT CAUSES AIDS BY USING A CONDOM EVERY TIME THEY HAVE SEX?	Yes ..... 1 No ..... 2 DK..... 8	
HA5. CAN PEOPLE GET THE HIV VIRUS THAT CAUSES AIDS FROM MOSQUITO BITES?	Yes ..... 1 No ..... 2 DK..... 8	
HA6. CAN PEOPLE GET THE HIV VIRUS THAT CAUSES AIDS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?	Yes ..... 1 No ..... 2 DK..... 8	
HA7. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK..... 8	
HA8. CAN HIV VIRUS THAT CAUSES AIDS BE TRANSMITTED FROM A MOTHER TO HER BABY: [A] DURING PREGNANCY? [B] DURING DELIVERY? [C] BY BREASTFEEDING?	Yes No DK During pregnancy ..... 1 2 8 During delivery..... 1 2 8 By breastfeeding..... 1 2 8	
HA8A. CAN THE HIV VIRUS THAT CAUSES AIDS IN AN INFECTED MOTHER BE PREVENTED FROM INFECTING AN UNBORN CHILD BY GIVING DRUGS THAT REDUCE THE HIV VIRUS IN MOTHER?	Yes ..... 1 .No ..... 2 DK/Not Sure 8	
HA9. IN YOUR OPINION, IF A FEMALE TEACHER HAS THE HIV VIRUS THAT CAUSES AIDS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?	Yes ..... 1 No ..... 2 DK / Not sure / Depends..... 8	
HA10. WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE HIV VIRUS THAT CAUSES AIDS?	Yes ..... 1 No ..... 2 DK / Not sure / Depends..... 8	
HA11. IF A MEMBER OF YOUR FAMILY GOT INFECTED WITH THE HIV VIRUS THAT CAUSES AIDS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes ..... 1 No ..... 2 DK / Not sure / Depends..... 8	
HA12. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH AIDS, WOULD YOU BE WILLING TO CARE FOR HER OR HIM IN YOUR OWN HOUSEHOLD?	Yes ..... 1 No ..... 2 DK / Not sure / Depends..... 8	

HA13. *Check CM13: Any live birth in last 2 years?* ☐ *No live birth in last 2 years ⇨ Go to HA24* ☐ *One or more live births in last 2 years ⇨ Continue with HA14*		
HA14. *Check MN1: Received antenatal care?* ☐ *Received antenatal care ⇨ Continue with HA15* ☐ *Did not receive antenatal care ⇨ Go to HA24*		
HA15. DURING ANY OF THE ANTENATAL VISITS FOR YOUR PREGNANCY WITH (*name*), WERE YOU GIVEN ANY INFORMATION ABOUT AIDS OR THE HIV VIRUS?	Yes..... 1 No ..... 2 DK..... 8	
HA16. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE HIV VIRUS THAT CAUSES AIDS AS PART OF YOUR ANTENATAL CARE?	Yes..... 1 No ..... 2 DK..... 8	 2⇨HA19 8⇨HA19
HA17. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes..... 1 No ..... 2 DK..... 8	 2⇨HA22 8⇨HA22
HA18. REGARDLESS OF THE RESULT, ALL WOMEN WHO ARE TESTED ARE SUPPOSED TO RECEIVE COUNSELING AFTER GETTING THE RESULT. *AFTER YOU WERE TESTED, DID YOU RECEIVE COUNSELLING?*	Yes..... 1 No ..... 2 DK..... 8	1⇨HA22 2⇨HA22 8⇨HA22
HA19. *Check MN17: Birth delivered by health professional (A, B or C)?* ☐ *Yes, birth delivered by health professional ⇨ Continue with HA20* ☐ NO, BIRTH NOT DELIVERED BY HEALTH PROFESSIONAL ⇨ GO TO HA24		
HA20. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE HIV VIRUS THAT CAUSES AIDS BETWEEN THE TIME YOU WENT FOR DELIVERY BUT BEFORE THE BABY WAS BORN?	Yes..... 1 No 2	2⇨HA24
HA21. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes..... 1 No 2	
HA22. HAVE YOU BEEN TESTED FOR THE HIV VIRUS THAT CAUSES AIDS SINCE THAT TIME YOU WERE TESTED DURING YOUR PREGNANCY?	Yes..... 1 No 2	1⇨HA25
HA23. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED FOR HIV VIRUS THAT CAUSES AIDS?	Less than 12 months ago ..... 1 12-23 months ago..... 2 2 or more years ago..... 3	1⇨WM11 2⇨WM11 3⇨WM11
HA24. I DON'T WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE THE HIV VIRUS THAT CAUSES AIDS?	Yes ..... 1 No 2	2⇨HA27
HA25. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED?	Less than 12 months ago ..... 1 12-23 months ago..... 2 2 or more years ago 3	
HA26. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes ..... 1 No ..... 2 DK..... 8	1⇨WM11 2⇨WM11 8⇨WM11

HA27. DO YOU KNOW OF A PLACE WHERE PEOPLE CAN GO TO GET TESTED FOR THE HIV VIRUS THAT CAUSES AIDS?	Yes ..... 1 No 2	
WM11. *Record the time.*	Hour and minutes ..... __ __ : __ __	

WM12. *Check household listing, column HL9.*
Is the respondent the mother or caregiver of any child age 0-4 living in this household?

☐ *Yes ⇨ Go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE for that child and start the interview with this respondent.*

☐ *No ⇨ End the interview with this respondent by thanking her for her cooperation.*
Check for the presence of any other eligible woman or children under-5 in the household.

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

MICS

QUESTIONNAIRE FOR CHILDREN UNDER FIVE
NIGERIA

UNDER-FIVE CHILD INFORMATION PANEL	UF

This questionnaire is to be administered to all mothers or caregivers (see Household Listing Form, column HL9) who care for a child that lives with them and is under the age of 5 years (see Household Listing Form, column HL6).
A separate questionnaire should be used for each eligible child.

UF1. Cluster number ☐☐☐☐	UF2. Household number: __ __ __
UF3. Child's name: Name_____	UF4. Child's line number: ___ _
UF5. Mother's / Caregiver's name: Name_____	UF6. Mother's / Caregiver's line number: ___ ___
UF7. Interviewer's name and number: Name_____ ___ ___	UF8. Day / Month / Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___

Repeat greeting if not already read to this respondent:

WE ARE FROM (***NATIONAL BUREAU OF STATISTICS***). WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT (*name*)'S HEALTH AND WELL-BEING. THE INTERVIEW WILL TAKE ABOUT 25 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

If greeting at the beginning of the household questionnaire has already been read to this woman, then read the following:

NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT (***child's name from UF3***)'S HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT ***25*** MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

MAY I START NOW?

☐ *Yes, permission is given ⇨ Go to UF12 to record the time and then begin the interview.*

☐ *No, permission is not given ⇨ Complete UF9. Discuss this result with your supervisor*

UF9. Result of interview for children under 5 Codes refer to mother/caregiver.	Completed ..... 01 Not at home ..... 02 Refused ..... 03 Partly completed ..... 04 Incapacitated ..... 05 **Other (*specify*)** _____ **96**
UF10. Field edited by (Name and number): Name _____ ___ ___	UF11. Data entry clerk (Name and number): Name _____ ___ ___

UF12. *Record the time.*	Hour and minutes ..... __ __ : __ __	

AGE		AG
AG1. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN? *Probe:* WHAT IS HIS / HER BIRTHDAY? If the mother/caregiver knows the exact birth date, also enter the day; otherwise, circle 98 for day Month and year must be recorded.	Date of birth Day ..... __ __ DK day ..... 98 Month ..... __ __ Year ..... __ __ __ __	
AG2. HOW OLD IS (*name*)? *Probe*: HOW OLD WAS (*name*) AT HIS / HER LAST BIRTHDAY? Record age in completed years. Record '0' if less than 1 year. Compare and correct AG1 and/or AG2 if inconsistent.	Age (in completed years)..... __	

BIRTH REGISTRATION		BR
BR1. DOES (*name*) HAVE A BIRTH CERTIFICATE? *If yes, ask:* MAY I SEE IT?	Yes, seen .....1 Yes, not seen .....2 No.....3 DK 8	1⇨BR3A 2 ⇨ BR3A
BR2. HAS (*name*)'S BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?	Yes .....1 No.....2 DK 8	1⇨ BR3A
BR3. DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?	Yes .....1 No.....2	1⇨BR4 2⇨ BR4
BR3A. WITH WHICH AUTHORITY WAS (NAME)'S BIRTH REGISTERED?	NPopC.....1 LGA .....2 Hospital/Private Clinic .....3 Church/Mosque.....4 Others)Specify) 6	NEXT MODULE
BR4. WHY WAS (NAME)'S BIRTH NOT REGISTERED?	Costs too much .....1 Must travel too far .....2 Did not know it should be registered .....3 Did not consider it important .....4 Does not know where to register.....5 Other (specify) _____ 6 DK 8	

EARLY CHILDHOOD DEVELOPMENT		EC
EC1. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (*name*)?	None ..... 00 Number of children's books……0 __ Ten or more books 10	
EC2. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (*name*) PLAYS WITH WHEN HE/SHE IS AT HOME. DOES HE/SHE PLAY WITH: [A] HOMEMADE TOYS (SUCH AS DOLLS, CARS, OR OTHER TOYS MADE AT HOME)? [B] TOYS FROM A SHOP OR MANUFACTURED TOYS? [C] HOUSEHOLD OBJECTS (SUCH AS BOWLS OR POTS) OR OBJECTS FOUND OUTSIDE (SUCH AS STICKS, ROCKS, ANIMAL SHELLS OR LEAVES)? If the respondent says "YES" to the categories above, then probe to learn specifically what the child plays with to ascertain the response	Y N DK Homemade toys..... 1 2 8 Toys from a shop ..... 1 2 8 Household objects or outside objects 1 2 8	
EC3. SOMETIMES ADULTS TAKING CARE OF CHILDREN HAVE TO LEAVE THE HOUSE TO GO SHOPPING, WASH CLOTHES, OR FOR OTHER REASONS AND HAVE TO LEAVE YOUNG CHILDREN. ON HOW MANY DAYS IN THE PAST WEEK WAS *name*: [A] LEFT ALONE FOR MORE THAN AN HOUR? [B] LEFT IN THE CARE OF ANOTHER CHILD (THAT IS, SOMEONE LESS THAN 10 YEARS OLD) FOR MORE THAN AN HOUR? If 'none' enter' 0'. If 'don't know' enter'8'	Number of days left alone for more than an hour ..... __ Number of days left with other child for more than an hour..... __	
EC4. *Check AG2: Age of child* ☐ *Child age 3 or 4 ⇨ Continue with EC5* ☐ *Child age 0, 1 or 2 ⇨ Go to Next Module*		
EC5. DOES (*name*) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	Yes..... 1 No ..... 2 DK..... 8	 2⇨EC7 8⇨EC7
EC5 A. WHO ORGANISED THE LEARNING CENTRE?	Public ..... 1 Private..... 2	

EC6. WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (*name*) ATTEND?	Number of hours ..... __ __	
EC7. IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER OVER 15 YEARS OF AGE ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH (*name*): *If yes, ask:* WHO ENGAGED IN THIS ACTIVITY WITH (*name*)? *Circle all that apply.*		
[A] READ BOOKS TO OR LOOKED AT PICTURE BOOKS WITH (*name*)?	Read books A B X Y	
[B] TOLD STORIES TO (*name*)?	Told stories A B X Y	
[C] SANG SONGS TO (*name*) OR WITH (*name*), INCLUDING LULLABIES?	Sang songs A B X Y	
[D] TOOK (*name*) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?	Took outside A B X Y	
[E] PLAYED WITH (*name*)?	Played with A B X Y	
[F] NAMED, COUNTED, OR DREW OBJECTS TO OR WITH (*name*)?	Named/counted A B X Y	
EC8. I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH AND DEVELOPMENT OF YOUR CHILD. CHILDREN DO NOT ALL DEVELOP AND LEARN AT THE SAME RATE. FOR EXAMPLE, SOME WALK EARLIER THAN OTHERS. THESE QUESTIONS ARE RELATED TO SEVERAL ASPECTS OF YOUR CHILD'S DEVELOPMENT. Can (*NAME*) identify or name at least ten letters of the alphabet?	Yes ..... 1 No ..... 2 DK 8	
EC9. CAN (*name*) READ AT LEAST FOUR SIMPLE, POPULAR WORDS?	Yes ..... 1 No ..... 2 DK 8	
EC10. DOES (*name*) KNOW THE NAME AND RECOGNIZE THE SYMBOL OF ALL NUMBERS FROM 1 TO 10?	Yes ..... 1 No ..... 2 DK 8	
EC11. CAN (*name*) PICK UP A SMALL OBJECT WITH TWO FINGERS, LIKE A STICK OR A ROCK FROM THE GROUND?	Yes ..... 1 No ..... 2 DK 8	
EC12. IS (*name*) SOMETIMES TOO SICK TO PLAY?	Yes ..... 1 No ..... 2 DK 8	
EC13. DOES (*name*) FOLLOW SIMPLE DIRECTIONS ON HOW TO DO SOMETHING CORRECTLY?	Yes ..... 1 No ..... 2 DK 8	
EC14. WHEN GIVEN SOMETHING TO DO, IS (*name*)	Yes 1	

ABLE TO DO IT INDEPENDENTLY?	No ..... 2 DK 8	
EC15. DOES *(name)* GET ALONG WELL WITH OTHER CHILDREN?	Yes ..... 1 No ..... 2 DK 8	
EC16. DOES (*name*) KICK, BITE, OR HIT OTHER CHILDREN OR ADULTS?	Yes ..... 1 No ..... 2 DK 8	
EC17. DOES (*name*) GET DISTRACTED EASILY?	Yes ..... 1 No ..... 2 DK 8	

BREASTFEEDING		BF
BF1. HAS (*name*) EVER BEEN BREASTFED?	Yes ..... 1 No ..... 2 DK 8	 2⇨BF3 8⇨BF3
BF2. IS HE/SHE STILL BEING BREASTFED?	Yes ..... 1 No ..... 2 DK 8	
BF3. I WOULD LIKE TO ASK YOU ABOUT LIQUIDS THAT (*name*) MAY HAVE HAD YESTERDAY DURING THE DAY OR THE NIGHT. I AM INTERESTED IN WHETHER (*name*) HAD THE ITEM EVEN IF IT WAS COMBINED WITH OTHER FOODS. DID (*name*) DRINK PLAIN WATER YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK 8	
BF4. DID (*name*) DRINK INFANT FORMULA YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK 8	 2⇨BF6 8⇨BF6
BF5. HOW MANY TIMES DID (*name*) DRINK INFANT FORMULA?	Number of times ..... __ __	
BF6. DID (*name*) DRINK MILK, SUCH AS TINNED, POWDERED OR FRESH ANIMAL MILK YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK 8	 2⇨BF8 8⇨BF8
BF7. HOW MANY TIMES DID (*name*) DRINK TINNED, POWDERED OR FRESH ANIMAL MILK?	Number of times ..... __ __	
BF8. DID (*name*) DRINK JUICE OR JUICE DRINKS YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK 8	
BF9. DID (*name*) DRINK (*vegetable/draw soup*) YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK 8	
BF10. DID (*name*) DRINK OR EAT VITAMIN OR MINERAL SUPPLEMENTS OR ANY MEDICINES YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK 8	
BF11. DID (*name*) DRINK ORS (ORAL REHYDRATION SOLUTION) YESTERDAY, DURING THE DAY OR NIGHT?	Yes ..... 1 No ..... 2 DK 8	 2⇨BF12 8⇨BF12

BF 11A. WHY DID YOU GIVE ORS TO (*name*)?	Diarrhoea ....1 Vomiting. ....2 Diarrhoea and vomiting....3 Others .....6 DK/No reason....8	
BF12. DID (*name*) DRINK ANY OTHER LIQUIDS YESTERDAY, DURING THE DAY OR NIGHT?	Yes....1 No....2 DK....8	
BF13. DID (*name*) DRINK OR EAT YOGURT YESTERDAY, DURING THE DAY OR NIGHT?	Yes....1 No....2 DK....8	2⇨BF15 8⇨BF15
BF14. HOW MANY TIMES DID (*name*) DRINK OR EAT YOGURT YESTERDAY, DURING THE DAY OR NIGHT?	Number of times....__ __	
BF15. DID (*name*) EAT THIN PORRIDGE OR SEMI-SOLID (SOFT) FOOD YESTERDAY, DURING THE DAY OR NIGHT?	Yes....1 No....2 DK....8	
BF16. DID (*name*) EAT SOLID FOOD YESTERDAY, DURING THE DAY OR NIGHT?	Yes....1 No....2 DK....8	2⇨BF18 8⇨BF18
BF17. HOW MANY TIMES DID (*name*) EAT SOLID OR SEMI-SOLID (SOFT) FOOD YESTERDAY, DURING THE DAY OR NIGHT?	Number of times....__ __	
BF18. YESTERDAY, DURING THE DAY OR NIGHT, DID (*name*) DRINK ANYTHING FROM A BOTTLE WITH A NIPPLE?	Yes....1 No....2 DK....8	

CARE OF ILLNESS		CA
CA1. IN THE LAST TWO WEEKS, HAS (*name*) HAD DIARRHOEA?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨CA7 8⇨CA7
CA2. I WOULD LIKE TO KNOW HOW MUCH (*name*) WAS GIVEN TO DRINK DURING THE DIARRHOEA (INCLUDING BREASTMILK). DURING THE TIME (*name*) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO DRINK, ABOUT THE SAME AMOUNT, OR MORE THAN USUAL? *If less, probe*: WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO DRINK, OR SOMEWHAT LESS?	Much less ..... 1 Somewhat less ..... 2 About the same ..... 3 More ..... 4 Nothing to drink ..... 5 DK..... 8	
CA3. DURING THE TIME (*name*) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO EAT, ABOUT THE SAME AMOUNT, MORE THAN USUAL, OR NOTHING TO EAT? If "less", probe: WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO EAT OR SOMEWHAT LESS?	Much less ..... 1 Somewhat less ..... 2 About the same ..... 3 More ..... 4 Stopped food ..... 5 Never gave food ..... 6 DK..... 8	
CA4. DURING THE EPISODE OF DIARRHOEA, WAS (*name*) GIVEN TO DRINK ANY OF THE FOLLOWING: Read each item aloud and record response before proceeding to the next item. [A] A FLUID MADE FROM A SPECIAL PACKET CALLED ***ORS packet***? [B] A PRE-PACKAGED ORS FLUID FOR DIARRHOEA? [C] SALT SUGAR SOLUTION [D] COCONUT/RICE WATER	Y N DK Fluid from ORS packet ..... 1 2 8 Pre-packaged ORS fluid..... 1 2 8 Salt sugar solution ..... 1 2 8 Coconut/Rice water 1 2 8	
CA5. WAS ANYTHING (ELSE) GIVEN TO TREAT THE DIARRHOEA?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨CA7 8⇨CA7

CA6. WHAT (ELSE) WAS GIVEN TO TREAT THE DIARRHOEA? *Probe*: ANYTHING ELSE? *Record all treatments given. Write brand name(s) of all medicines mentioned.* _____ (Name)	Tablet/Capsule or Syrup Antibiotic ..... A Antimotility (Imodium, lomotil, diastop) ... B Zinc (Mix mag) ..... C Other (Not antibiotic, antimotility or zinc) ..... G Unknown tablet/capsule or syrup ..... H **Injection** Antibiotic ..... L Non-antibiotic ..... M Unknown injection ..... N Intravenous ..... O Home remedy / Herbal medicine ..... Q **Other (*specify*) X**	
CA7. AT ANY TIME IN THE LAST TWO WEEKS, HAS (*name*) HAD AN ILLNESS WITH A COUGH?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA14 8⇨CA14
CA8. WHEN (*name*) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, RAPID BREATHS OR HAVE DIFFICULTY BREATHING?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA14 8⇨CA14
CA9. WAS THE FAST OR DIFFICULT BREATHING DUE TO A PROBLEM IN THE CHEST OR A BLOCKED OR RUNNY NOSE?	Problem in chest only ..... 1 Blocked or runny nose ..... 2 Both ..... 3 **Other (*specify*) 6** DK 8	 2⇨CA14 6⇨CA14
CA10. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE ILLNESS FROM ANY SOURCE?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA12 8⇨CA12
CA11. FROM WHERE DID YOU SEEK ADVICE OR TREATMENT? *Probe:* ANYWHERE ELSE? Circle all providers mentioned, but do NOT prompt with any suggestions. Probe to identify each type of source. If unable to determine if public or private sector, write the name of the place. _____ (Name of place)	Public sector Govt. hospital ..... A Govt. health centre ..... B Govt. health post ..... C Village health worker ..... D Mobile / Outreach clinic ..... E **Other public (*specify*) H** Private medical sector Private hospital / clinic ..... I Private physician ..... J Private pharmacy ..... K Mobile clinic ..... L **Other private medical (*specify*) O** Other source Relative / Friend ..... P Shop ..... Q Traditional practitioner ..... R **Other (*specify*) X**	
CA12. WAS (*name*) GIVEN ANY MEDICINE TO TREAT	Yes 1	

THIS ILLNESS?	No ..... 2 DK..... 8	2⇨CA14 8⇨CA14
CA13. WHAT MEDICINE WAS (*name*) GIVEN? *Probe:* ANY OTHER MEDICINE? Circle all medicines given. Write brand name(s) of all medicines mentioned. _____ (Names of medicines)	Antibiotic Pill / Syrup.....A Injection .....B Anti-malarials..... M Paracetamol / Panadol / Acetaminophen ...P Aspirin..... Q Ibuprofen .....R **Other (*specify*) X** DK..... Z	
CA14. Check AG2: Child aged under 3? ☐ Yes ⇨ Continue with CA15 ☐ *No ⇨ Go to Next Module*		
CA15. THE LAST TIME *(name)* PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?	Child used toilet / latrine ..... 01 Put / Rinsed into toilet or latrine..... 02 Put / Rinsed into drain or ditch ..... 03 Thrown into garbage (solid waste) ..... 04 Buried ..... 05 Left in the open..... 06 **Other (*specify*) 96** DK..... 98	

MALARIA		ML
ML1. IN THE LAST TWO WEEKS, HAS (*name*) BEEN ILL WITH A FEVER AT ANY TIME?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨Next Module 8⇨Next Module
ML2. AT ANY TIME DURING THE ILLNESS, DID (*name*) HAVE BLOOD SAMPLE FOR TESTING?	Yes ..... 1 No ..... 2 DK..... 8	
ML3. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE ILLNESS FROM ANY SOURCE?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨ML8 8⇨ML8
ML4. WAS (*name*) TAKEN TO A HEALTH FACILITY DURING THIS ILLNESS?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨ML8 8⇨ML8
ML5. WAS (*name*) GIVEN ANY MEDICINE FOR FEVER OR MALARIA AT THE HEALTH FACILITY?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨ML7 8⇨ML7
ML6. WHAT MEDICINE WAS (*name*) GIVEN? *Probe:* ANY OTHER MEDICINE? *Circle all medicines mentioned. Write brand name(s) of all medicines, if given.* _____ (Name)	Anti-malarials: SP / Fansidar ..... A Chloroquine ..... B Amodiaquine ..... C Quinine ..... D Artemisinin Combination Therapy (ACT) E Other anti-malarial **(*specify*)** **H** Antibiotic drugs Tablet/Capsule/Syrup ..... I Injection ..... J Other medications: Paracetamol/ Panadol /Acetaminophen . P Aspirin ..... Q Ibuprofen ..... R **Other (*specify*)** **X** DK..... Z	
ML7. WAS (*name*) GIVEN ANY MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?	Yes ..... 1 No ..... 2 DK..... 8	1⇨ML9 2⇨ML10 8⇨ML10
ML8. WAS (*name*) GIVEN ANY MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes ..... 1 No ..... 2 DK..... 8	 2⇨ML10 8⇨ML10

ML9. WHAT MEDICINE WAS (*name*) GIVEN? *Probe:* ANY OTHER MEDICINE? *Circle all medicines mentioned. Write brand name(s) of all medicines, if given.* _____ (Name) .	Anti-malarials: SP / Fansidar ..... A Chloroquine ..... B Amodiaquine ..... C Quinine ..... D Artemisinin Combination Therapy (ACT) E Other anti-malarial **(*specify*)** **H** Antibiotic drugs Tablet/Capsule/Syrup ..... I Injection ..... J Other medications: Paracetamol/ Panadol/ Acetaminophen . P Aspirin ..... Q Ibuprofen ..... R **Other (*specify*)** **X** DK ..... Z	
ML10. *Check ML6 and ML9: Anti-malarial mentioned (codes A - H)?* ☐ *Yes ⇨ Continue with ML11* ☐ *No ⇨ Go to Next Module*		
ML11. HOW LONG AFTER THE FEVER STARTED DID (*name*) FIRST TAKE (*name of anti-malarial from ML6 or ML9*)? *If multiple anti-malarials mentioned in ML6 or ML9, name all anti-malarial medicines mentioned.*	Same day ..... 0 Next day ..... 1 2 days after the fever ..... 2 3 days after the fever ..... 3 4 or more days after the fever ..... 4 DK 8	

IMMUNIZATION — IM

If an immunization card is available, copy the dates in IM3 for each type of immunization recorded on the card. IM6-IM17 are for registering vaccinations that are not recorded on the card. IM6-IM17 will only be asked when a card is not available.

IM1. DO YOU HAVE A CARD WHERE (*name*)'S VACCINATIONS ARE WRITTEN DOWN? (*If yes*) MAY I SEE IT PLEASE?	Yes, seen ..... 1 Yes, not seen ..... 2 No card 3	1⇨IM3 2⇨IM6
IM2. DID YOU EVER HAVE A VACCINATION CARD FOR (*name*)?	Yes ..... 1 No 2	1⇨IM6 2⇨IM6

IM3.
(a) Copy dates for each vaccination from the card.
(b) Write '44' in day column if card shows that vaccination was given but no date recorded.

		Date of Immunization								
		Day		Month		Year				
BCG	BCG									
POLIO AT BIRTH	OPV0									
POLIO 1	OPV1									
POLIO 2	OPV2									
POLIO 3	OPV3									
DPT1	DPT1									
DPT2	DPT2									
DPT3	DPT3									
HEPB AT BIRTH	H0									
HEPB1	H1									
HEPB2	H2									
HEPB3	H3									
MEASLES (OR MMR)	MEASLES									
YELLOW FEVER	YF									
VITAMIN A (MOST RECENT)	VIT A									

IM4. *Check IM3. Are all vaccines (BCG to Yellow Fever) recorded?*

☐ *Yes⇨ Go to IM18*
☐ *No ⇨ Continue with IM5*

IM5. IN ADDITION TO WHAT IS RECORDED ON THIS CARD, DID (*name*) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN CAMPAIGNS OR IMMUNIZATION DAYS? Record 'Yes' only if respondent mentions vaccines shown in the table above.	Yes ..... 1 (Probe for vaccinations and write '66' in the corresponding day column for each vaccine mentioned. Then skip to IM18) No ..... 2 DK 8	 2⇨IM18 8⇨IM18
IM6. HAS (*name*) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY?	Yes ..... 1 No ..... 2 DK 8	 2⇨IM18 8⇨IM18
IM7. HAS (*name*) EVER RECEIVED A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT USUALLY CAUSES A SCAR?	Yes ..... 1 No ..... 2 DK 8	
IM8. HAS (*name*) EVER RECEIVED ANY "VACCINATION DROPS IN THE MOUTH" TO PROTECT HIM/HER FROM GETTING DISEASES – THAT IS, POLIO?	Yes ..... 1 No ..... 2 DK 8	 2⇨IM11 8⇨IM11
IM9. WAS THE FIRST POLIO VACCINE RECEIVED IN THE FIRST TWO WEEKS AFTER BIRTH OR LATER?	First two weeks ..... 1 Later 2	
IM10. HOW MANY TIMES WAS THE POLIO VACCINE RECEIVED?	Number of times ..... __	
IM11. HAS (*name*) EVER RECEIVED A DPT VACCINATION – THAT IS, AN INJECTION IN THE THIGH OR BUTTOCKS – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, OR DIPHTHERIA? *Probe by indicating that DPT vaccination is sometimes given at the same time as Polio*	Yes ..... 1 No ..... 2 DK 8	 2⇨IM13 8⇨IM13
IM12. HOW MANY TIMES WAS A DPT VACCINE RECEIVED?	Number of times ..... __	
IM13. HAS (*name*) EVER BEEN GIVEN A HEPATITIS B VACCINATION – THAT IS, AN INJECTION IN THE THIGH OR BUTTOCKS – TO PREVENT HIM/HER FROM GETTING HEPATITIS B? *Probe by indicating that the Hepatitis B vaccine is sometimes given at the same time as Polio, DPT vaccines and Vitamin A*	Yes ..... 1 No ..... 2 DK 8	 2⇨IM16 8⇨IM16
IM14. WAS THE FIRST HEPATITIS B VACCINE RECEIVED WITHIN 24 HOURS AFTER BIRTH, OR LATER?	Within 24 hours ..... 1 Later 2	
IM15. HOW MANY TIMES WAS A HEPATITIS B VACCINE RECEIVED?	Number of times ..... __	
IM16. HAS (*name*) EVER RECEIVED A MEASLES INJECTION OR AN MMR INJECTION – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?	Yes ..... 1 No ..... 2 DK 8	
IM17. HAS (*name*) EVER RECEIVED THE YELLOW	Yes 1	

FEVER VACCINATION – THAT IS, A SHOT IN THE ARM AT THE AGE OF 9 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING YELLOW FEVER? *Probe by indicating that the yellow fever vaccine is sometimes given at the same time as the measles vaccine*	No ..... 2 DK..... 8	
IM18. HAS (*name*) RECEIVED A VITAMIN A DOSE LIKE (THIS/ANY OF THESE) WITHIN THE LAST 6 MONTHS? *Show common types of ampules / capsules / syrups*	Yes ..... 1 No ..... 2 DK..... 8	
IM19. Please tell me if (*name*) has participated in any of the following campaigns, national immunization days and/or vitamin A or child health days:	Y N DK	
[A]. *NID **APRIL 2010** (CAMPAIGN A)*	*Campaign A*..... 1 2 8	
[B] *NID **AUGUST 2010** (CAMPAIGN B)*	*Campaign B*..... 1 2 8	
[C]. *NID **NOVEMBER 2010** (CAMPAIGN C)*	*Campaign C*..... 1 2 8	

UF13. *Record the time.*	Hour and minutes ..... __ __ : __ __	

UF14. *Is the respondent the mother or caregiver of another child age 0-4 living in this household?*

☐ *Yes ⇨ Indicate to the respondent that you will need to measure the weight and height of the child later. Go to the next QUESTIONNAIRE FOR CHILDREN UNDER FIVE to be administered to the same respondent*

☐ *No ⇨ End the interview with this respondent by thanking him/her for his/her cooperation and tell her/him that you will need to measure the weight and height of the child*

Check to see if there are other woman's or under-5 questionnaires to be administered in this household.
Move to another woman's or under-5 questionnaire, or start making arrangements for anthropometric measurements of all eligible children in the household.

ANTHROPOMETRY		AN
After questionnaires for all children are complete, the measurer weighs and measures each child. Record weight and length/height below, taking care to record the measurements on the correct questionnaire for each child. Check the child's name and line number on the household listing before recording measurements.		
AN1. *Measurer's name and number:*	Name_____ ___ ___	
AN2. *Result of height / length and weight measurement*	Either or both measured ..... 1 Child not present ..... 2 Child or caregiver refused ..... 3 **Other (*specify*) 6**	 2⇨AN6 3⇨AN6 6⇨AN6
AN3. *Child's weight*	Kilograms (kg) ..... __ __ . __ Weight not measured 99.9	
AN4. *Child's length or height* Check age of child in AG2: ☐ Child under 2 years old. ⇨ Measure length (lying down). ☐ Child age 2 or more years. ⇨ Measure height (standing up).	Length (cm) Lying down..... 1 __ __ __ . __ Height (cm) Standing up..... 2 __ __ __ . __ Length / Height not measured 9999.9	
AN5. *Oedema(Body swelling)* Observe and record	Checked Present ..... 1 Not present ..... 2 Unsure ..... 3 Not checked (*specify reason*)_____ 7	

AN6. Is there another child in the household who is eligible for measurement?

☐ Yes ⇨ Record measurements for next child.

☐ No ⇨ End the interview with this household by thanking all participants for their cooperation.

Gather together all questionnaires for this household and check that all identification numbers are inserted on each page. Tally on the Household Information Panel the number of interviews completed.

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

GPS DATA COLLECTION FORM	GP
GP1. Cluster number: ___ ___ ___ ___	
GP2. Sector Urban.....1 Rural.....2	GP3. State :(Name)_____Code __ __
GP4. Operator name and number: Name_____ ___ ___	
GP5. Day/Month/Year of measurement: ___ ___ / ___ ___ / ___ ___ ___ ___	

CLUSTER POSITION CHECKLIST

☐ CHECKED ESTIMATED ACCURACY (AFTER "READY TO NAVIGATE")

☐ MARKED WAYPOINT

☐ RENAMED WAYPOINT TO CLUSTER NUMBER

☐ RECORDED WAYPOINT'S POSITION ON DATA COLLECTION FORM

☐ SAVED WAYPOINT

GP6. Waypoint name: ___ ___ ___ ___ ___ ___		
	N/S/E/W	Degrees Decimal degrees
GP7. Elevation:		__ __ __ __
GP8. Latitude:	NS	___ ___ . ___ ___ ___ ___ ___
GP9. Longitude:	EW	___ ___ ___ . ___ ___ ___ ___ ___

NIGERIA
Multiple Indicator Cluster Survey
2011