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## PREFACE

This *Bulletin* is the second in the series and sheds light on some selected measures of demographic change with a brief reflection on the sources of the data, analysis and interpretation. It featured some demographic indicators derived from the compiled health records of births, deaths, and diseases from 2010 to 2015 in the 36 states of the Federation but excluding the FCT, Abuja.

The current edition demonstrates how available data can be used to measure the reality of demographic situation in Nigeria. While the study demonstrates what is possible when all needed data is available, it also raised concerns on the imperative for better record keeping at health facilities nation-wide, strengthening the capacity of health record-keepers and creating stronger statistical synergy between reporting institutions.

This Bulletin continues to build on the foundation of the earlier and maiden edition and will focus mainly on few selected demographic indicators namely population, fertility, morbidity, mortality and other reproductive health-related issues that are of pressing public concern in Nigeria.

The Bureau remains resolutely committed to promoting and sustaining a public culture that appreciates the inherent value in the use of demographic statistics for planning and decision-making; and the expectation that development policies can be better identified, targeted, monitored and evaluated with evidence-based data collected from a well-designed statistical inquiry.

**Dr. Yemi Kale**  
Statistician General/CEO  
National Bureau of Statistics  
November 2016

## EXECUTIVE SUMMARY

Timely, reliable, comparable and accurate information on demographic conditions is a key ingredient in national development planning. This edition of the **NBS' Demographic Statistics Bulletin** provides information on some selected demographic indicators relating to population, fertility, morbidity, and mortality.

The data used for this edition of the Bulletin are updates of births, deaths and diseases' records obtained mostly from State Ministries of Health (SMoH) and Health Management Boards (HMB) in the 36 states of the Federation but excluding the FCT, Abuja for the period 2010-2015. The computation of some indicators, especially those, requiring the total population or any subset of it were carried out using the projected population estimates of each specific year from the published figures of the 2006 Population and Housing Census (NPopC, 2006).

Of the 36 states visited for the data updates, only 80.6 percent provided data that covered all the referenced periods. Three states, Akwa Ibom, Niger and Ogun did not provide any data at all throughout the periods under review. Abia, Adamawa, Gombe, Kaduna, Kano, Katsina and Oyo provided data, which covered some one or two years of the periods reviewed.

Sex ratio dropped from 103 men per 100 women in 2006 to 102 men per 100 women in 2015. This is understandable considering that sex ratios generally vary because of different patterns of mortality and migration for males and females within a population.

The total fertility rate in 2015 was 5.5 births per women or 5,500 births per 1000 women. This simply means that if the 2015 age-specific rates continued unchanged, women in Nigeria would have on the average 5.5 children each during their childbearing years.

As noted in the maiden edition, some challenges; though quite persistent and recurring were observed during the conduct of this study. As always, appropriate record-keeping culture remained a number one daunting challenge among health facilities visited, which resulted in actual data gaps. In addition, institutional synergy between health care facilities and their supervising ministries appears less than desirable and lastly, data recording and record-keeping systems in most states' health facilities are quite inadequate to effectively support robust reporting of demographic events. It is our hope that future editions of this Bulletin will continue to improve in content presented herein until the desired highest quality threshold is achieved.

# Nigeria Demographic Profile

# Chapter 1

*Demography is the study of human population. Demographic statistics provide planning information on population and various demographic events such as births, deaths, diseases, marriages and divorces categorized by age, gender, marital status, and educational attainment. Other derivative indicators such as total fertility rate, life expectancy at birth, agedependency ratios, crude rates of births, deaths and population growth as well as establishing scientific basis for monitoring and evaluating impacts of population with focus on population size, growth, distribution, processes, structure and other dynamics.*

## 1. Overview

Nigeria, ranked tenth in the world, is among the most populous and fastest growing countries in Africa. In 2015, the population was estimated at 183 million people. Of which, 49.5 percent are women and 50.5 percent are men. International migration, so far, plays very negligible role in determining the actual population of Nigeria, whereas, past fertility and mortality trends seem to have contributed significantly to the very high rate of population growth, which at the moment is estimated at 3.28 percent per annum. Figure 1 shows the projected population of Nigeria from 2006-2015.

## 1.2 Sex Ratio

In 2006, Nigeria sex ratio was 103 men per 100 women, this dropped to 102 men per 100 women in 2015. The drop, is largely explained, by the fact that sex

generally vary because of different patterns of mortality and migration for males and

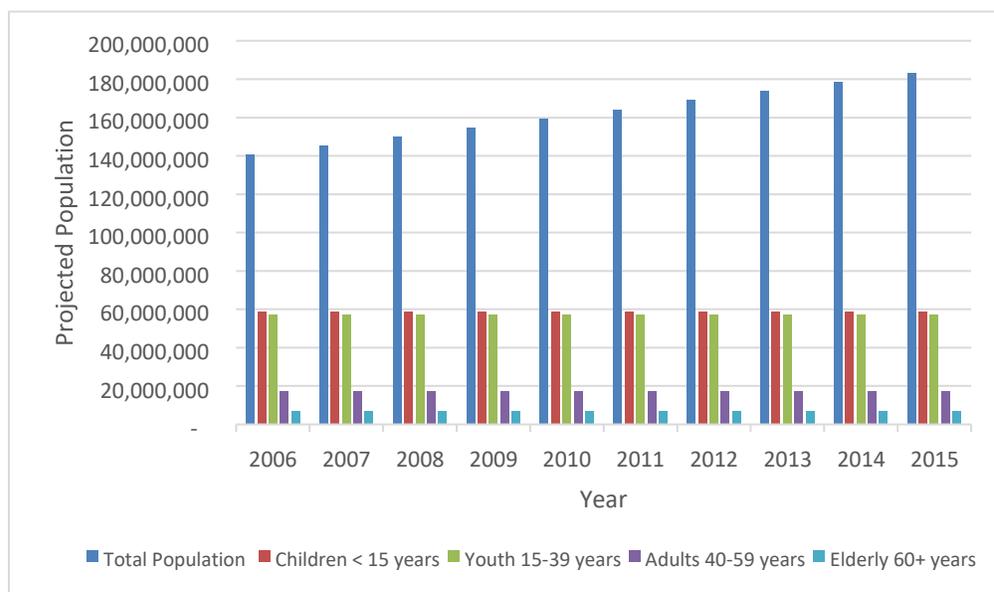
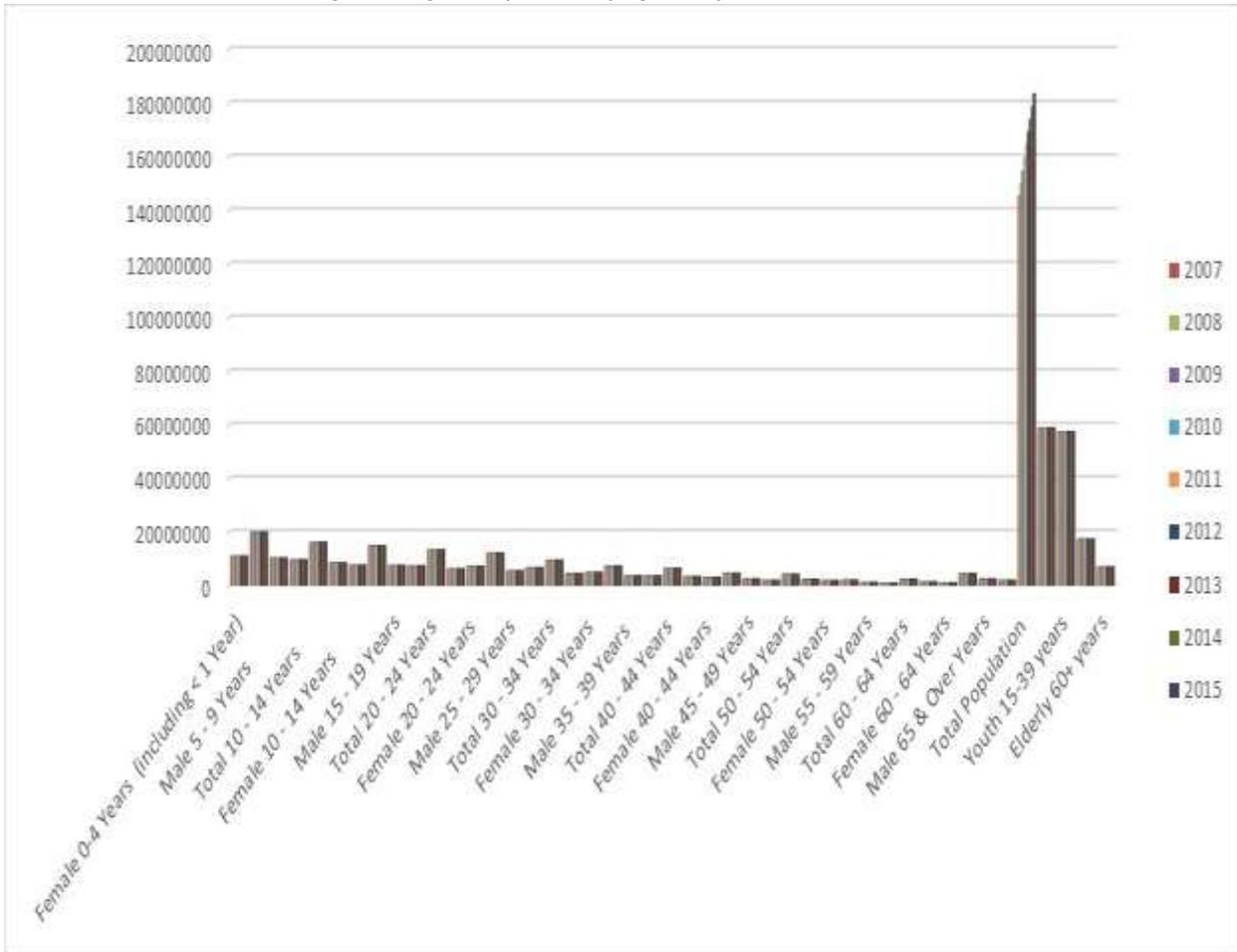


Figure 1: Nigeria Population and Specific Population Groups, 2006-2015 ratios

females within a population. From Figure 1 and 2, the trend emerging clearly shows that the population of the country is growing steadily since 2006 and will continue to grow for many years to come.

Figure 2: Nigeria Population By Age Groups and Sex, 2006-2015

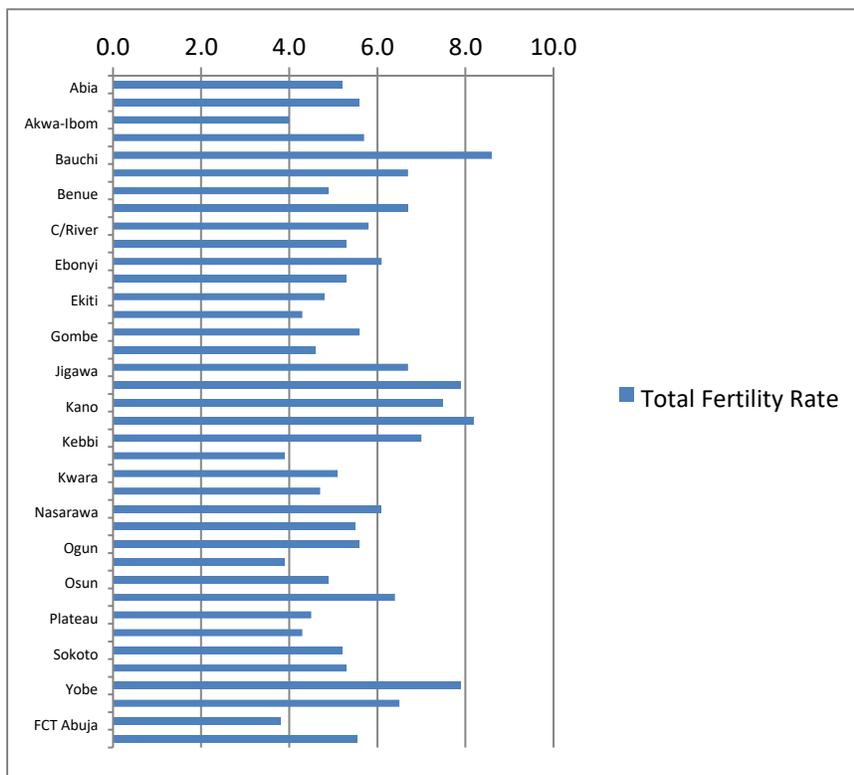


*Fertility refers to the number of live births women of reproductive age, that is, women age 15-49 years have. It differs from fecundity, which refers to the internal (that is physiological) capability of women to reproduce.*

## 2.1 Fertility

Fertility understood in terms of child bearing, refers to *the number of children ever born*. It depends on many factors and social circumstances, such as cultures, traditions, education and the overall level of development of a particular society or community. Also, the age of entry into a union and the availability of contraception are two key proximate determinants of fertility. The

most commonly used measure of fertility is the total fertility rate (TFR), which is *the number of children that a woman would have over her childbearing years, provided at each age, she experienced the age-specific fertility rate*. Age specific rate, in turn, is the number of births by women of a given age group per 1000 women in that particular age group. In 2015, the total fertility rate remained as 5.5 births



per woman (or 5,500 Figure 3: Total Fertility Rate By State births per 1000 women).

This simply means that, if the 2015 age-specific rates remained the same, then all women in Nigeria would have, on the average, 5.5 children each during their childbearing years. Figure 3 gives a breakdown of the total fertility rate for Nigeria and each of the 36 states of the Federation and FCT, Abuja.

*Morbidity refers to the presence of disease, illness, injuries and disabilities in a population.*

## 3.0 Introduction

In Nigeria, the presence of diseases, illnesses, injuries and disabilities are only known and studied through the cases reported at recognized health facilities across the country. Before going into details, it is important to note that there are three key indicators, which describes the health status of a population at a point in time.

These are incidence rate, prevalence rate, and case rate.

The **incidence rate** is the number of persons contacting a disease during a given time period per 1,000 population at risk. The incidence rate differs from other morbidity rates in that almost any constant may be used to express it in a clear manner. For example, from “per 100” or “percent” to “per 100,000”;

The **prevalence rate** is the number of persons who have a particular disease at a given point in time per 1,000 population and includes all known and new developing cases that have not resulted in death, cure or remission during the specified period;

The **case rate** is the number of reported cases of a specific disease or illness per 100,000 population during a given year. It is a special type of incidence rate but differs slightly because it is based on the number of reported cases, which is not necessarily, the number of persons contacting the disease, that is, some people may get the disease or illness more than once.

## 3.1 Case Rates and Reporting of Notifiable Diseases

The cases of notifiable diseases reported and studied covering the periods 2010-2015 are HIV/AIDS, pneumonia, malaria, hepatitis B, tuberculosis, yellow fever, measles, diarrhoea-water without blood, diarrhoea-water with blood, and meningitis. Others include cholera, other STDs, pertusis, vaginal discharge, lymphatic, male urethral discharge, NNT, filariasis, onchocerciasis, genital ulcer, polio, AFP, female non-ves genital ulcer, and plague. From 2010-2015, the total number of all cases of notifiable diseases reported in health facilities rose and fell. It rose from 1,666,854, of which 785,508 are males and 881,346 are females in 2010 to 2,161,326, of which 1,010,112 are males and 1,151,214 are females in 2011 representing 30.0 percent and further to 3,981,773, of which 1,647,865 are males and 2,333,908 are females in 2012 representing 84.0 percent and then fell to 1,438,875, of which 676,522 are males and 762,353 are females in 2015

representing 64.0 percent. Cumulatively, in the period under review, a total of 9,248,828 cases of notifiable diseases were reported. Of which, males reported 4,120,007 cases and females 5,128,821 cases. Table 1 shows the case rates and percentage of notifiable diseases reported by sex in Nigeria from 2010-2015.

**Table 1: Case Rates of Reported Notifiable Diseases by Sex in Nigeria, 2010-2015**

Notifiable Disease	2010		2011		2012		2013		2014		2015	
	Male	Female										
HIV AIDS	13.7	24.4	12.3	23.4	5.9	10.2	13.0	13.0	23.4	24.4	10.2	12.3
Pneumonia	4.9	3.5	5.1	4.3	3.9	2.9	2.6	2.6	4.3	3.5	2.9	5.1
Malaria	66.9	59.9	70.3	62.1	68.6	56.8	56.8	56.8	62.1	59.9	56.8	70.3
Hepatitis B	0.1	0.1	0.3	0.3	4.4	0.4	0.5	0.5	0.3	0.1	0.4	0.3
Tuberculosis	1.1	1.0	1.1	0.9	0.8	1.0	0.9	0.9	0.9	1.0	1.0	1.1
Yellow Fever	0.1	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Measles	0.5	0.4	0.9	0.8	5.6	4.4	4.4	4.4	0.8	0.4	4.4	0.9
Diarrhoea (Water Without Blood)	9.0	6.7	6.7	6.2	3.9	9.8	9.0	9.0	6.2	6.7	9.8	6.7
Diarrhoea (Water With Blood)	3.0	2.3	2.6	1.0	2.2	12.5	10.5	10.5	1.0	2.3	12.5	2.6
Meningitis	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.2
Cholera	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
Other STDs	0.3	0.3	0.2	0.2	0.1	0.9	1.1	1.1	0.2	0.3	0.9	0.2
Pertusis	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Vaginal Discharge	0.0	0.8	0.0	0.4	0.0	0.0	0.7	0.7	0.4	0.8	0.0	0.0
Lymphatic	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Male Urethral Discharge	0.1	0.0	0.2	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.3	0.2
NNT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Filariasis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Onchocerciasis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Genital Ulcer	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.1	0.2	0.0
Polio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AFP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Female Non-Ves Genital Ulcer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plague	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Reported Cases	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: NBS/Ministry of Health

From the above table, the most reported disease or illness in 2010 and 2015 is malaria. Males reported 66.9 percent and females 59.9 percent of the disease in 2010 while in 2015, the figures

are 56.8 percent by males and 70.3 percent by females. This was followed by HIV/AIDS, which was reported by males 13.7 percent and females 24.4 percent in 2010 to 10.2 percent by males and 12.3 percent by females in 2015. Closely following in descending order of reported cases is diarrhoea showing water without blood and diarrhoea showing water with blood. Other diseases or illnesses whose reported cases are significant include pneumonia, measles, meningitis, hepatitis B, tuberculosis, yellow fever, cholera and other STDs. Cases of pertusis, vaginal discharge, lymphatic, male urethral discharge, heart disease/stroke (as measured by the number-needed-to-treat or NNT), filariasis, onchocerciasis, genital ulcer, polio, AFP, female non-ves genital ulcer and plague are less or not reported at all.

### 3.2. Case Fatality Rate of Notifiable Diseases

Case fatality rate is the proportion of persons contacting a disease and who died of the disease during a specified time period. For the reference periods, 2010-2015, the case fatality rates were defined dividing the number of deaths from a particular disease by the number of persons contacting the disease during each of the periods and multiplying by 100. Table 2 shows the case fatality rate of the notifiable diseases by sex between January 2010 and December 31, 2015.

**Table 2: Case Fatality Rates of Notifiable Diseases By Sex, 2010-2015**

Disease	2010		2011		2012		2013		2014		2015	
	Male	Female										
HIV AIDS	15.3	11.6	7.0	4.2	9.6	11.5	29.2	26.3	9.6	15.3	4.2	11.5
Pneumonia	0.6	0.7	0.5	0.6	0.3	0.3	1.3	1.3	0.3	0.6	0.6	0.3
Malaria	7.7	10.2	9.4	11.8	4.4	3.4	5.3	6.1	4.4	7.7	11.8	3.4
Hepatitis B	25.5	11.8	14.7	6.7	0.5	1.2	24.8	14.5	0.5	25.5	6.7	1.2
Tuberculosis	23.2	21.2	19.7	19.0	15.3	15.1	38.8	43.7	15.3	23.2	19.0	15.1
Yellow Fever	0.2	0.0	0.0	0.0	0.0	0.0	30.7	26.3	0.0	0.2	0.0	0.0
Measles	4.7	5.1	2.6	2.2	0.1	0.1	0.8	0.8	0.1	4.7	2.2	0.1
Diarrhoea (Water Without Blood)	20.9	10.1	9.8	9.8	8.4	9.5	8.4	9.6	8.4	20.9	9.8	9.5
Diarrhoea (Water With Blood)	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
Meningitis	14.1	11.7	8.3	13.4	2.8	98.9	10.5	9.0	2.8	14.1	13.4	98.9
Cholera	6.8	2.2	9.8	4.4	3.8	5.1	3.9	3.9	3.8	6.8	4.4	5.1
Other STDs	7.5	6.6	18.5	18.5	10.1	8.4	0.0	0.1	10.1	7.5	18.5	8.4
Pertusis	0.4	0.6	0.4	0.5	0.1	0.0	0.0	0.0	0.1	0.4	0.5	0.0
Vaginal Discharge	0.0	0.5	0.0	1.1	0.0	0.9	0.0	16.7	0.0	0.0	1.1	0.9
Lymphatic	26.7	23.1	57.1	31.7	83.3	2.0	0.0	0.0	83.3	26.7	31.7	2.0
Male Urethral Discharge	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNT	0.0	0.3	0.5	0.6	0.9	1.4	0.0	0.4	0.9	0.0	0.6	1.4
Filariasis	0.0	0.0	0.0	2.0	5.6	11.3	0.0	0.0	5.6	0.0	2.0	11.3

Onchocerciasis	0.0	0.0	1.7	4.4	2.2	6.4	0.0	0.0	2.2	0.0	4.4	6.4
Genital Ulcer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Polio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AFP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Female Non-Ves Genital Ulcer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Plague	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Reported Cases	9.5	9.9	8.5	9.2	4.1	9.1	11.9	12.4	4.1	9.5	9.2	9.1

Source: NBS/Ministry of Health

### 3.2.1 Case Fatality Rate

In Nigeria, since the recognition of HIV/AIDS in the early 1980s, the disease has continued to be a critical health issue for women and men. The epidemic is also known to have undermined development efforts worldwide and mostly afflict people, whose immunity had already been destroyed by extreme poverty. It has particularly been noted too, that the disease affects the working population, and thus prevent women and men from making meaningful contributions to development efforts and general improvement of families. At the household level, the epidemic increases the burden of care and erodes savings. Among the reported cases of HIV/AIDS in the reference periods 2010-2015, Table 2 shows that 15.3 percent of males and 11.6 percent of females living with the disease died of the illness in 2010 whereas a lower percentage of men 4.2 percent and women 11.5 percent died of the disease in 2015.

## **Mortality**

## **Chapter 4**

*Mortality refers to deaths that occur within a population. The incidence of death can reveal much about a population's standard of living and health care delivery services in a country.*

### **4.1 Maternal Mortality**

Maternal mortality rate computed using the sisterhood or siblings approach was 800 in 2004, 545 in 2008 and 350 per 100,000 live births in 2012.

### **4.2 Infant and Under Five Mortality**

Infant and under-five mortality rate are indicators that have been witnessing steady decline since 2004. While such decline can be a positive sign of steady and significant progress in improving infant and under-five health, the trend over the years is definitely good for Nigeria. The infant mortality rates are 100 per 1,000 live births in 2004; 75 in 2008; and 61 in 2012. High infant and under-five mortality assumes rural phenomena.

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