

**FAMILY TYPE AND UNDER FIVE MORTALITY IN NIGERIA**

*BY*

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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF  
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**CERTIFICATION**

This is to certify that AGBABIAKA SAMUEL OLUWATOSIN of the Department of Demography and Social Statistics, Faculty of Humanities and Social Sciences, carried out a Research on FAMILY TYPE AND UNDER FIVE MORTALITY IN NIGERIA in partial fulfillment of the award of Bachelor of Science (B.Sc) in Federal University Oye-Ekiti, Nigeria under my Supervision.

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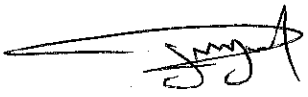
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Date

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EXTERNAL EXAMINER

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Date

## **DEDICATION**

The project is dedicated to God Almighty and all my family members who contributed to my success.

## ACKNOWLEDGEMENT

I give all the glory, honor and adoration to the Almighty God, the Alfa and Omega, the King of kings, the Lord of lords, my Help from ages past, who carried me through and made this a success. I cannot achieve anything without your help, all glory to God.

Also, I sincerely appreciate my supervisor, Dr E.K Odusina, who took time to scrutinize this report and guided my hands in the writting. Many thanks to you sir and may God bless you and your family beyond imaginations.I also recognize the effort of Mr shittu sarafa,in making this work reality.

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## **ABSTRACT**

The study examined the determinants of under-five mortality in Nigeria. Secondary data were generated from the 2013 Nigeria Demographic and Health Surveys. Analyses were carried out using frequency distribution, chi-square test and logistic regression model. On the basis of the result, it is recommended that appropriate health education programmes, particularly maternal education be provided to parents. Also adequate health facilities and appropriate environmental sanitation education at community level should also be provided. In addition, mothers and children should have access to the provision of health facilities and services delivery system in the country.

## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 BACKGROUND OF THE STUDY**

Under 5 mortality refers to the death of infants and children under the age of five or between the ages of one month to four years depending on the definition. A child's death is emotionally and physically hard on the parents. Many deaths in the majority of the world go unreported because of poor registration system in some regions of the world.

In recent years, social scientists have increasingly talked on the substantial impact of family type on children's health and it's implication on the children's health which leads to their death; that is child mortality (Brown, 2004; Heaton, Forste, Hoffman & Flake, 2005; Amato, 1993). In general, children in non-traditional families have been found to have poorer outcomes compared with those in intact families with both biological parents. A lot of different resources have been discovered as the main process through which family structure affects child outcomes (Ross, Mirowsky, & Goldsteen, 1990; White and Rogers, 2000). With respect to child health and survival in particular, the presence of a spouse is believed to increase a family's resources necessary for optimal child outcomes

Nigeria has one of the highest infant and child mortality rates in the world. This is besides the high rate of poverty especially among the rural dwellers of which women and children are the most affected. Over the years, Nigeria has witnessed a high trend of childhood mortality due mainly to infectious and parasitic but preventable diseases, with diarrhea, malaria, acute respiratory infections and measles taking the lead. It has been observed that national and international disease-oriented programs and policies were not



effective in solving the high rate of childhood mortality. However, maternal, environmental, behavioral and other biosocial/economic factors among other several individual- and household-level factors were also recognized as important determinants of infant survival. Maternal education and the pace of childbearing were also identified as key determinants of infant and child survival. Other studies also revealed the importance of environmental or geographic factors and urban residence in determining child survival. Furthermore, a correlation between poverty and poor health, malnutrition and reduced infant and child survival has also been confirmed.

About a decade ago many countries especially in developing regions experienced remarkable reductions in infant and under 5 mortality. In some countries, particularly in sub-Saharan Africa, these declines in mortality among children had slowed down and are now rising again. Internationally comparable data derived from survey programs, such as the Demographic and Health Surveys provide insight into some of the factors that may explain these trends in mortality.

The structure of the family is a matter of great importance not only for the country as a whole but also for the welfare and health of the child and the community. Family type has changed dramatically over the last 50 years, and several variations of families had been created. There are different types of family structures identified by societies today. These different types of family structures may not be unconnected with under five mortality most especially in developing countries of the world. Therefore, this study explore the association between family type and under five mortality.

## **1.2 STATEMENT OF THE PROBLEM**

Improving child's well-being is a key goal of development in Nigeria. This is because the well-being of a child will affect the health of the future generation and can promote or retard future national development. One of the health issues confronting the development of Nigeria is the high rate of under-five mortality. According to World Bank (2013), Nigeria has under five mortality rate of 157 deaths per 1 000 live birth and one of the highest in sub-Saharan Africa. Nigeria alone shares 11 percent of under 5 mortality in the world, after India which shares 24 per cent of the burden of the world's under 5 mortality (UNEF, 2012).

According to UNICEF 2006 report, every year nearly 10 million children under 5 die globally. About 4 million newborns (40% of under-five deaths) die in the first four weeks of life. Universally childbirth is an event that attracts celebration, but this is not so for many women who experience childbirth as suffering and tragedy that may end in death.

Various efforts have been put in place in order to reduce under 5 mortality in Nigeria. Despite these various initiatives and efforts, under 5 mortality in the Nigeria is still high. Family as a unit has a great role to play in the incidence of child mortality and if it is viewed in this perspective it may help in the reduction of under 5 mortality in Nigeria.

### **1.3. RESEARCH QUESTIONS**

- ✓ Does family type influence under mortality in Nigeria?
- ✓ Does the socio-economic status of parents influence under-five mortality rate in Nigeria?

### **1.4. GENERAL OBJECTIVE**

- ✓ To examine the influence of family type on under 5 mortality in Nigeria.

#### **SPECIFIC OBJECTIVES**

- ✓ To examine the relationship between family type and under 5 mortality in Nigeria.
- ✓ To determine the socio-economic factors that influence family type and under 5 mortality in Nigeria.

### **1.5. JUSTIFICATION FOR THE STUDY**

Most theories that relate under 5 mortality to family type assume that individual and societies have been powerless to prevent infant mortality and must produce rapidly in order to compensate for it. This research will identify factors in Nigerian societies that influence under 5 mortality. This study will provide data that will enhance a better understanding of some of the factors associated with under 5 mortality rate in Nigeria. This study will also help policy makers to design proper strategies and policies to improve the understanding on those factors that influential under 5 mortality and family type in the country.

## **1.6 DEFINITION OF TERMS**

### **Family type**

Family types are the different formation of household structure or household unit as created by different culture and societies.

### **Nuclear Family**

The nuclear family is the traditional type of family structure. This family type consists of two parents and children. The nuclear family was long held in esteem by society as being the ideal in which to raise children.

### **Single Parent Family**

The single parent family consists of one parent raising one or more children on his own. Often, a single parent family is a mother with her children, although there are single fathers as well. The single parent family is the biggest change society has seen in terms of the changes in family structures. One in four children is born to a single mother. Single parent families are generally close and find ways to work together to solve problems.

### **Extended Family**

The extended family structure consists of two or more adults who are related, either by blood or marriage, living in the same home. This family includes many relatives living together and working toward common goals, such as raising the children and keeping up with the household duties. Many extended families include cousins, aunts or uncles and grandparents living together. This type of family structure may form due to financial difficulties or because older relatives are unable to care for themselves alone.

### **Under 5 mortality rate**

Probability of a child to die between birth and exactly five years of age expressed per

1,000 live births.

### **Step Family**

Over half of all marriages end in divorce, and many of these individuals choose to re-marry. This creates the step family, which involves two separate families merging into one new unit. It consists of a new husband and wife and their children from previous marriages or relationships.

### **Monogamous Family:**

This refers to the type of family which consists of a father, mother, and the children only.

### **Polygamous Family:**

The practice or condition of having more than one spouse, especially wife, at one time. The polygamous family refers to a family type in which a man is married to two or more wives and it's sub-divided into two which are;

- (i) **Polyandry:** this is a family type in which a woman is married to more than a man
- (ii) **Polygyny:** this is a family type in which a man is married to two or more wives.

### **Socio-demographic:**

These are the variables such as age, sex, educational level etc.

**WHO:** World Health Organization

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0. INTRODUCTION

According to Park (1997), the child mortality rate is a more refined indicator of the social situation in a country. This is because it reflects the adverse environmental health hazards such as malnutrition, poor hygiene, infection and accidents as well as economic, educational, family type as well as the cultural characteristics of the family. It has been recognized that the infectious diseases of childhood which include measles, whooping cough, diphtheria, diarrhea and acute respiratory infection can lead to high case-fatality rate in malnourished children. However, infant mortality rate can be expressed as the probability of new born babies dying between birth and age of less than one year. The majority of deaths during birth or at infant result from infections, asphyxia and birth injuries and complication of premature birth (WHO. 2001). Low birth weight contributes to nearly 80 percent of infant mortality and low birth weight babies who survive have an increased risk of developing diseases and learning disabilities (Darmstadt at al 2003, and UNICEF 2001).

The health of new-born babies and survival through the first 28 days of life are closely linked to the health of the baby's mother before and during pregnancy, as well as during labor, childbirth and after birth. Therefore, the need of interventions for maintaining women's health during these times is important as intervention for improving the health and survival of the new born baby, UNICEF (2001).

## 2.1 GLOBAL PERCEPTION OF UNDER-FIVE MORTALITY

The average global under 5 mortality rate declined by 11 percent, from 93 deaths in the early 1990s to 83 deaths per 1000 live birth in the year 2000. However, only few or more than 60 countries achieved the targeted one-third reduction. A significant challenge remains in sub-Saharan African, South Asia and the Middle – East and North Africa regions where under 5 mortality rates are 175 per 1000, 100 per 1000, and 64 per 1000 respectively.

Infant and child mortality remains high in developing countries despite the significant decline in most parts of the developed world. The state of the world's children's health indicated that about 12.9 million children die every year in the developing world (UNICEF, 2003). The difference in the survival rates of children in developed and developing countries is a pointer to the third world's needs for preventive services. However, good health care system, breast feeding, adequate nutrition, clean water, immunization programmes, oral re-hydration therapy and birth spacing as well as revolution in child survival could be achieved. (Park, 2001).

In Africa according to the United Nations Economic Commission for Africa (ECA 2000), since 1980s, poverty and low socio-economic status have been major problems on which focus has been given. It is estimated that about 220 million Africans, which constitute a reasonable per cent of the population in the continent currently live in absolute poverty and are unable to meet most of their basic needs such as education, shelter, food, health care, sanitation, clothing, and potable water. In addition, there is massive unemployment problem which created situations like delinquency, crime and social insecurity.

Given the prevalent economic situation which has continued to deteriorate, it will not be easy to provide good health care to meet the needs of the children of under 5 years of age by their parents alone. Therefore, they need assistance from governments and other voluntary agencies. ECA 1994.

Nigeria Demographic and Health Survey (NDHS, 2003), reports that 87 of 1000 infants born in Nigeria die before their first birthday while 115 of 1000 children die before reaching the age of 5 years. In the five years after the 1999 to 2003 survey the infant mortality rate was 100 deaths per 1000 live births, National Population Census (NPC, 2004). Infant and child mortality rates in Nigeria have significantly improved than the average of 34 percent for the sub – Saharan African region (NDHS, 1990).

In spite of the reality that the main childhood killer diseases such as malaria, measles, diarrhea and acute respiratory infections (ARIS) have been discovered and modern technologies and resources put in place to fight them, children from Nigeria die in large figures from attacks of these endemic infectious diseases. The reasons may be traced back to the people's belief and attitudes concerning child care as well as behavioral practices towards health initiative programs.

### **2.1.1 DETERMINANTS OF MORTALITY AMONG UNDER FIVE CHILDREN**

The type of family unit, whether nuclear or extended, serves as primary source of socialization and institution for children. This is because the African culture describes the roles of parents for the child. A father is the head of the family and he provides basic needs like shelter, food, medical care as well as emotional and psychological support for the family while the mother is expected to provide physical or health care services like cleanliness, the much needed love and attention for the child's physiological, emotional



growth and development, (Mary and Don, 1994).

According to UNICEF (2000), no child should be deprived of his or her right to health care services in order to reduce infant and child mortality. As some parents or care givers make efforts to play their significant role to provide adequate quality health care for their children some parents or caretakers seem incapable either overtly or covertly to discharge this fundamental obligation due to certain situations they found themselves. Therefore, meeting the needs of these children is grossly inadequate and children who are relying on their parents for health care services will not enjoy good health care and survival (UNICEF, 2000).

Bassir, (1973) submits that medical practice has to do with life. For instance, curative and preventive medicine deals with the maintenance and preservation of life. It is unfortunate that our hospitals are grossly under staffed, laboratories and other modern technical services do not exist in the vast majority of hospitals in rural areas and drugs are in short supply. At times surgery is performed in non-sterile conditions in rural areas and recovery is invariably complicated by environmental factors. It is against this background which is complicated by corruption that the poor masses have to face the consequences of morbidity and mortality in our communities (UNICEF, 2000).

### **2.1.2 SOME HEALTH PROBLEMS THAT CAUSES CHILD MORTALITY**

Health problems are multifarious. The factors which influence health lie both within the individual and the environment in which we lives (Parks 2002). The health problems include diseases, poor hygiene, poverty, socio-economic circumstances, malnutrition, low-education and awareness, cultural characteristics, occupation and accident.

### **2.1.3 UNDER-FIVE MORTALITY CONTROL ACTIVITIES BY INTERNATIONAL AND NATIONAL AGENCIES**

Annually, out of 20 million children born in Africa, 4 million die before their fifth birthdays, majority of them as a result of preventable diseases. Therefore, various health programs are established in both developed and developing countries through the efforts of various national and international governmental and non-governmental bodies (NGOS) to address the health problems (Adetokumbo et al, 2003). The health programs include: child survival strategies, primary health care (PHC), expanded program on immunization (EPI), control of acute respiratory infection (ARI's) programme, baby friendly hospital initiative (BFHI) and so on.

### **2.1.4 THE CHILD SURVIVAL STRATEGIES**

The child survival strategies being part of UNICEF programme are believed to be affordable and available to nations, communities and individuals for the reduction of morbidity and mortality. The first four activities of the programmes include growth monitoring and promotion, oral rehydration therapy, breastfeeding and immunization (GOBI). Other components such as female education, family planning and food supplementation were added. The strategies were further expanded to include Primary Health Care (PHC) activities such as environmental protection and adequate sanitation, essential drugs programme, treatment of common diseases and health education. The joint components led to the acronyms (GOBIFFEETH) Mary Land (1990). From health demography (statistics of birth, deaths, and diseases), the implementation of these activities (components) is not yet satisfactory because, some of these activities have not reached most of the rural areas of Nigeria. Moreover this is only based on speculations

and opinions from media – houses in some urban and semi urban areas of the country. Adetokunbo etal (2003).

#### **2.1.5 HEALTH NEEDS OF CHILDREN UNDER – FIVE YEARS OF AGE AS SPECIAL POPULATION**

Historically, children were regarded as a special group. But according to the new development perspective, children are not another cause. They were part of every cause. Among the hungry, the sick, the ill-fed, the poorly clothed, the homeless, the jobless, the illiterate and the destitute there are always children. In view of this, children could never be treated in isolation from their parents and families and especially not from their mothers unless they were orphaned or abandoned. UNICEF Report (2005).

According to the Maternal and Child Health Policy (1978) declaration, children are the promise and future of every nation; investing in children's health and development means investing in the future of a nation. Moreover children are a vulnerable group whose needs and rights, including the right to health and development must be protected, Child health is a critical issue of concern to everyone whether at the level of the family, the community, the nation or the international community.

The international community and individual countries have repeatedly made efforts to improve child's health. Therefore, these efforts need to be intensified, if the silent tragedy of preventable death, illness, disability and impaired psychosocial development among children is to be avoided and if the quality of life of children is to be improved. The ideas about infant care vary widely and reflect a person's culture. The culture of a

community is reflected in infant care whereby mothers keep constant physical contact with their babies in whatever they do. For example they allow the babies to be nursed when they wish and encourage them to explore their surroundings. In a group that emphasizes on individuality a child is frequently encouraged to sleep alone and the child may be put in a place to interact with objects by him or herself. The basic things children need are serious attention from their parents, protection, shelter, nutrition, clothing, personal hygiene, health care services, Mary and Don (1994).

#### **2.1.6. DIFFERENCES BETWEEN MONOGAMOUS AND POLYGAMOUS FAMILY TYPE**

Some studies show that children of mothers in monogamous unions have better health outcomes compared to those in polygamous and single-parent families (Amey, 2002; Kuate-Defo, 1996; Sellen, Borgerhoff Mulder, & Sieff, 2000).

The advantage of monogamy is associated with availability of financial resources for healthy childrearing (Basu, 2000; White & Rogers, 2000). These resources are provided mostly by fathers, with the resources from mothers serving as a complement. Accordingly, the presence of other women in the conjugal unit combined with larger families is expected to dilute the resources available for healthy childrearing and obviate the expected advantages associated with marriage (Hames, 1996; Sellen, 1999; Sellen et al., 2000). With resources held constant, an additional wife and her children reduce the per capita amount of resources in families (Brabin, 1984). Consequently, children of mothers in polygamous unions are likely to face poorer health outcomes including malnutrition and death.

### **2.1.7. Disease / dirty Hygiene**

Poor hygiene is an enabling environment for the spread of infectious diseases. Ogunjuyigbe 2004. Mary 1990 maintains that the common causes of child mortality and morbidity in Nigeria include malaria, diarrhea, acute respiratory infections, measles, tuberculosis, and tetanus.

Infants and children who have lost the immunity transferred from their mothers stand the risk of serious malaria attack. Malaria is suspected to claim lives of children between 10 and 30 in every thousand infants and children. Moreover about 20 – 30% of infants' deaths in Garki of Nigeria are caused by malaria (Molineaux et al 1980). Diarrhea is a condition in which feces are watery and expelled frequently, it can occur as food moves rapidly through the intestine. Change in diet, food poisoning, over-eating, emotional turmoil, nutritional deficiencies, viral and bacterial infections are all causative factors for diarrhea, MCC (1985). Diarrhea which brings about dehydration is one of the commonest causes of severe mortality of children in developing countries. The highest risk of mortality is among the families of low socio – economic status, poor personal and domestic hygiene, low maternal education. Infants that are not breastfed, malnourished infants or those with low birth weights are equally at risk of mortality and morbidity, (Huttly et al 1987) and Shapiro et al (1980).

Acute respiratory infection (ARIS) has been identified as a leading cause of death in the developing countries. It has caused about 2.3 million deaths annually. The prevailing known causes of ARIS mortality are bacterial and viral pneumonia, measles and pertussis (Ngalikpima 1983). Measles which is highly infectious is transmitted by respiratory route while unprotected children in the developing countries can easily be affected as a result of

which about 1 – 5% will die of measles and its complications. The severity of measles leads to mortality or disability Bast et al (1990). Tuberculosis is caused by mycobacterium and it accounts for 3% of total infants / child mortality.

Tetanus is caused by anaerobic baculum clostridium tetanus due to poor hygiene, especially during delivery leading to tetanus neo natarum. It kills its victim before they are old enough to be registered. It kills about 750, 000 new born annually in the developing countries (Ogunjuyigbe, 2004).

### **2.1.8. Poverty / Socio-Economic Status**

Socio economic conditions refer to the income and background of an individual. This is a powerful recognized factor that influences human health. The health status of a person is primarily determined by his/her purchasing power, education, nutrition, employment, sanitation, housing and the political system of the country.

The economic status also determines the standard of living, quality of life, family size, pattern of disease and deviant behavior in the community. According to Park (2002) of the most important factors affecting mortality rates both directly and indirectly the socio-economic status of the individual is the most salient. The availability and quality of health care as well as the nature of the child's environment are closely related to socio economic status. Statistics revealed that infant mortality rates are highest in the slums and lowest in the richer residential localities. Major improvements in health status and a decrease in infant mortality require continuing socioeconomic development including provision of health services. Frank et al (2004) reported that in Mexico, socio economic factors are important forces in determining health risks which indirectly contribute to the incidence of low birth weight of an infant along with other more proximate factors, such

as behavioral or maternal lifestyle characteristics.

These behaviors are influenced by socio-economic background factors to the extent that social position affects the ability to control everyday life circumstances and influences major behaviors that influence birth weight which include: drug and alcohol use, cigarette smoking, diet and nutrition, exercise, stress levels, vitamin use and prenatal care. Maternal lifestyle choices affect health largely through biological pathways. For this reason maternal health should be given much attention, because low birth weight contributes to nearly eighty (80) percent of new born deaths. Even low birth weight babies who survive have an increased risk of developing diseases and learning disabilities (Darmstadt 2003 and UNICEF 2001).

#### **2.1.9. Low level of education / Illiteracy**

According to Park 2002 the world map of illiteracy closely coincides with the maps of poverty, malnutrition, ill health, high under-five mortality. However, to some extent, female education compensates the effects of poverty on health irrespective of the availability of health facilities.( Ofili et al 2005), on the basis of their study of the role of traditional birth attendants in maternal health care in Edo state argue that the status of education of parents is significantly related to the death of the children. They submit that illiteracy is the greatest barrier to any improvement in health condition. The untrained midwife or traditional birth attendant (TBA) is greatly responsible for high infant/child mortality. She is usually an illiterate person devoid of all knowledge of the rules of hygiene. Her unhygienic delivery practice is an important cause of high infant mortality. Adebayo etal 2005 argue that low literacy is a source of shame and constitute difficulty in attaining the complex task of health care.

The parents that have low-education found it not easy to understand instructions and administer appropriate treatment to their children or compliance to instruction from doctor. One third of the surveyed women were not able to recognize two or more signs of illness which are associated with fever, requiring prompt care seeking. Delays in treatment provide opportunity for simple illnesses to become severe (USAID 2001, BASIC II / FGN, 2002).

#### **2.1.10. PREVENTION AND CONTROL OF UNDER-FIVE MORTALITY IN NIGERIA**

In Nigeria despite the United States Agency for International Development / Nigeria's (USAID/NIGERIA) support efforts to improve maternal and child health practices through the Basic Support for Institutionalizing Child Survival (Basic II) project to eradicate polio and child survival which is focused on routine immunization, nutrition, and malaria treatment and prevention, the millions of children and women have yet to be protected against preventable causes of death particularly in rural areas. There still exists little or no healthcare for mothers during pregnancy, as well as inadequate birthing (labor) conditions for most mothers. It is important to bear in mind that closely spaced children will experience risk of mortality as there may be competition among them from their parents for health care, and nutrition. Furthermore, infants/child mortality risks will be aggravated with cultural and traditional practices of taking herbal concoction by children without appropriate dosage and hygiene.

So far various efforts made to control and eradicate some infectious diseases such as poliomyelitis, measles, tuberculosis and malaria in Nigeria, include the immunization programme against some infectious diseases which has been established in primary health



centres and maternity centres. In addition some ad hoc staff are employed to administer immunization to children from house to house. Furthermore, some of the mothers and caretakers attend maternity centres and primary health care centres for prenatal and post natal care at the beginning of every month. Also the control programme of sensitization and awareness campaigns for HIV/AIDS which serves as a threat to the survival of people in the universe, have commenced in the state.

Many people in Nigeria, especially rural areas, do not have easy access to hospital facilities or medical Centre as a result of which they travel long distances, usually by foot or on bike to seek medical attention when they fall sick. Many of the available clinics or health care centres are sub-standard. They do not have adequate and competent medical staff or enough quality drugs. Another serious problem is that even where hospitals and clinics exist many people cannot afford the high cost of medical treatment whereas the right to health requires taking deliberate steps to making health facilities and services more available, accessible and of better quality to people.

## 2.2 THEORETICAL FRAMEWORK

Studies have used a number of different conceptual frameworks to analyze the impact of different factors on child survival. In effect, Mosley and Chen (1984) and Schultz (1984), classified the determinants of infant and child mortality as exogenous (socioeconomic or extrinsic) such as cultural, socioeconomic, community and regional determinants and endogenous (bio-medical or intrinsic) such as maternal, environmental, nutrition, injuries and personal illness.

The theoretical framework for this paper is based on the Mosely –Chen model that motivated the idea that countries with the same income per capita will have differing mortality rate since the relationship is mediated in several ways. For example analysis of household data shows a very strong relationship between mortality and both preceding and succeeding birth interval. Hence, higher fertility, in turn is associated with income, but imperfectly so as both cultural factors and livelihood strategies (crucially the availability of alternative safety nets) play a role. So, policy to reduce fertility, either through promotion of productive health or through the provision of reliable safety nets, will bring down mortality.

Mosley and Chen (1984) set the framework of child survival based on the assumption of all socioeconomic factors of child mortality necessarily operate through a common set of intermediate factors, they identify clearly the proximate and socioeconomic determinants of infant and child mortality and they categorized fourteen proximate determinants of infant and child mortality into five general groups based on some reasons; in an optimal setting, over 97 percent of children born can be expected to survive until the fifth birthday, proximate determinants through the socioeconomic factors operate to

influence the infant and child mortality and socioeconomic, biological and environmental factors are the driving forces behind the reduction of infant and child mortality.

### **2.3 STATEMENTS OF HYPOTHESES**

The following hypotheses are formulated from the study objectives:

1. There is a significance relationship between family type and under five mortality in Nigeria.
2. There is a significance relationship between parent's socio-economic factors and under 5 mortality in Nigeria.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 INTRODUCTION**

This chapter focuses on the various techniques and procedures used in carrying out this research work. It provides relevant information on the following: description of the study area, targeted population, study design, sample size, sources of data, data processing and analysis and measurement of variables.

#### **3.1 DESCRIPTION OF THE STUDY AREA**

The study was carried out in Nigeria, officially the Federal Republic of Nigeria, is a federal constitutional republic comprising 36 states and its Federal Capital Territory, Abuja. The country is located in West Africa and shares land borders with the Republic of Benin in the west, Chad and Cameroon in the east, and Niger in the north. Its coast in the south lies on the Gulf of Guinea on the Atlantic Ocean. There are over 500 ethnic groups in Nigeria, of which the three largest are the Hausa, Igbo and Yoruba. There are also 774 constitutionally recognized Local Government Areas (LGAs) in the country.

The British colonization of the region from the late nineteenth to early twentieth century resulted in the emergence of Nigeria, an amalgamation of two neighboring British protectorates in western Africa (the south Nigeria protectorate and Northern Nigeria protectorate). Nigeria is roughly divided in half between Christians, who mostly live in the south and central parts of the country, and Muslims, concentrated mostly in the north. A minority of the population practice traditional and local religions, including the Igbo and Yoruba religions. Nigeria, known as “the Giant of Africa”, is the most populous

country in Africa, the first with the population figure of 274,507,539million (July 2013 estimates, UNFPA 2013). Nigeria has a very young population, 43.8% of the populations are under 5 years of age, and 19% are within 15-24 years. 30.1% are within 25-54 years, and 3.8% are within 55-64 years while only 3% are over 64 years. The total dependency ratio is 89% with a population growth rate of 2.54 (2013 estimates).

### **3.2 TARGET POPULATION**

The population of interest was drawn from NDHS 2013. Women of reproductive age (15-49) who recorded child's death in the last five years preceding the survey.

### **3.3 SAMPLE DESIGN AND SAMPLE SIZE**

The NDHS 2013, which served as the secondary data source was used in this study. With 38,948 women interviewed of the reproductive aged 15-49 years who recorded child's death in the last five years preceding the survey. . The 2013 NDHS data will be used for this study. Data to be obtained from the complete registration of births and deaths will provide the best basis for the direct estimation of under five mortality. This study uses health and demographic events data (that is; births, deaths, migration, and verbal autopsy on all deaths, pregnancy termination and marriage). Univariate, bivariate, and multivariate level of analysis will be used in determining the relationship that exists between family type and under five mortality in Nigeria and also to know the rate at which family type affects the physical, social and economic wellbeing of their children. Also in conjunction with the data gotten from the 2013 NDHS data

### 3.4 DATA COLLECTION METHOD

The population covered by the NDHS 2013 is defined as the universe of all women age 15-49 in Nigeria. A sample of households was selected and all women age 15-49 years identified in the households will be interviewed. Approximately half of the selected households for the women sample were used to interview the eligible men age 15-59 years, and estimates were computed for the same domains of study. Female and household questionnaire were used to collect data from respondents. The household Questionnaire was used to list all the usual members and visitors of selected household. Some basic information was collected on the characteristics of each person listed, including his or her age, sex, education, and relationship to the head of the household.

### 3.5 MEASUREMENT OF VARIABLES

The variables to be used are classified into independent and dependent variables, they are briefly discussed below:

#### INDEPENDENT VARIABLES

The Independent variables are measured as follows:

**Age:** This is a nominal variable, it will be measured from the NDHS using the grouped age of respondents in five year age group 15-19, 20-24, 25-29, 30-34, 35-39, 40-44 and 45-49.

**Place of Residence:** It is divided into two categories; Rural and Urban.

**Level of Education:** Is a categorical variable divided into four categories; No Education, Primary Education, Secondary Education and Higher Education.

**Religion:** Is measured in five categories; Catholic, other Christians, Islam, traditionalist

and others.

**Wealth Index:** Is a categorical variable divided into three categories; Poor, Middle, Rich.

**Employment Status:** Is measured using women current working status.

**Ethnicity:** Is measured in four categories; Yoruba, Igbo, Hausa and others

### **DEPENDENT VARIABLE**

Under five mortality (Child mortality)

### **3.6 DATA PROCESSING AND ANALYSIS**

This study employed the weighting factor in the dataset as provided by Measure NDHS to balance for oversampling. The dataset was analyzed in three levels; Univariate, Bivariate and Multivariate. The frequency and percentages distributions of all variables will be depicted under the Univariate analysis, while cross tabulations reporting chi-square values and significant figure will be used under the Bivariate analysis. Logistic regression model will be employed to test the variables at multivariate level using STATA statistical package. Content analysis was done to extract most critical information from the in-depth interview on the questions asked.

## CHAPTER FOUR

### DATA PRESENTATION AND ANALYSIS

#### 4.0 INTRODUCTION

This chapter focuses on the presentation and data analysis of research work on family type and under-five mortality in Nigeria. This study examined selected variables such as socio-economic characteristics of the mothers such as, age, religion, level of education, father's education, wealth index and occupation by ethnicity and fertility behaviour. The analysis of the study was done in line with the research questions and hypothesis raised for this project work. All the research questions were analysed using simple percentage while the hypotheses were tested at 0.05 level of significance. The Pearson Chi-square and logistic regression statistical techniques were employed for data analysis.

#### 4.1 Selected Characteristics of the respondents

From the table 1 below, the percentage distribution of the study population shows that 87.98% of the respondents had live children, while 12.02% of them experienced under 5 child mortality. Also, 60.86% of the respondents fell in the monogamous type of marriage, while 39.14% of them fell in the polygamous type of marriage. With regards to the age of the respondents, the majority (58.18%) of them were in the age group of 35+ years, while the least (8.21%) were in the age group of 15-24 years. Almost half of the respondents were from the other ethnic group (42.03%), while the least (10.88%) were from Yoruba ethnic group. The majority (47.90%) of the respondents fell in the poor quintile of wealth index, while 19.35% fell in the middle wealth quintile. The majority (61.76%) of the respondents were Muslims, while the least (1.31%) were traditionalist. The majority (77.26%) of the respondents were working, while 22.74% were not working. It was



revealed that slightly half of the respondents had no education (53.41%), while only 4.90% had higher education. Furthermore, greater percentages of the respondents were from the North Western region of the country (38.75%), while the least (9.20%) of them were from the South Southern region of the country. Conclusively, the majority (65.42%) of the respondents resided in the rural area, while 34.58% resided in the urban area

**Table 1. Selected Characteristics of the respondents**

Background Characteristics	Frequency	Percentage
<b>Under five mortality</b>		
No Death	103,609	87.98
Under five Death	14,153	12.02
Total	117,762	100.00
<b>Type of marriage</b>		
Monogamous	66,848	60.86
Polygamous	42,998	39.14
Total	109,846	100.00
<b>Age of respondents</b>		
15-24	9,663	8.21
25-34	39,590	33.62
35 +	68,509	58.18
Total	117,762	100.00
<b>Ethnicity</b>		
Others	49,497	42.03
Yoruba	12,811	10.88

Hausa	42,339	35.95
Igbo	13,116	11.14
Total	117,763	100.00
<b>Wealth index</b>		
Poor	56,406	47.90
Middle	22,785	19.35
Rich	38,570	32.75
<b>Total</b>	117,761	100.00
<b>Religion</b>		
Christians	43,495	36.93
Islam	72,724	61.76
Traditionalist	1,543	1.31
<b>Total</b>	117,762	100.00
<b>Occupational status</b>		
Not working	26,784	22.74
Working	90,979	77.26
Total	117,763	100.00
<b>Educational attainment</b>		
no education	62,901	53.41
Primary	25,933	22.02
Secondary	23,163	19.67
Higher	5,766	4.90
Total	117,763	100.00

<b>Region</b>		
North Central	14,851	12.61
North East	19,966	16.95
North West	45,630	38.75
South East	10,829	9.20
South South	11,273	9.57
South West	15,214	12.92
Total	117,763	100.00
<b>Type of place of residence</b>		
Urban	40,727	34.58
Rural	77,035	65.42
Total	117,762	100.00

Source; Author's 2016(Data from NDHS, 2013)

#### **4.2 Under-five mortality and socio-demographic characteristics of the respondents**

##### **Decision**

The chi-square test revealed that there was a significant relationship between the under-five mortality and all the selected background characteristics of the respondents. This implies that age, wealth index, occupation, ethnicity, region, religion, type of place of residence, educational attainment of the mother were significantly related to under five mortality. Therefore, the null hypothesis was rejected while alternative hypothesis was accepted.

### Test of hypothesis

**H0:** There will be no significant relationship between under five mortality and selected background characteristics of the respondents.

**H1:** There will be a significant relationship between under five mortality and selected background characteristics of the respondents.

Table 2 Percentage distribution of under-five mortality by socio-demographic characteristics of the respondents

CHARACTERISTICS	Under five mortality %		CHI-SQUARE P-VALUE
	No	Yes	
<b>Age</b>			
15-24	82.63	17.37	$\chi^2=1200$
25-34	84.58	15.42	P = 0.000
35 +	90.73	9.27	
<b>Ethnicity</b>			
Others	90.05	9.95	$\chi^2=2000$
Yoruba	94.26	5.74	P=0.000
Hausa	82.22	17.78	
Igbo	90.52	9.48	
<b>Wealth index</b>			
Poor	83.30	16.70	$\chi^2=2300$
Middle class	90.65	9.35	p=0.000
Rich	93.24	6.76	
<b>Religion</b>			
Christians	92.34	7.66	$\chi^2=1400$
Islam	85.00	15.00	p=0.000
Traditionalist	88.61	11.39	
<b>Occupation</b>			

Not working	86.23	13.77	$\chi^2= 105.2738$
Working	88.57	11.43	P=0.000
<b>Educational level</b>			
No education	84.79	15.21	$\chi^2=1400$
Primary	89.85	10.15	p=0.000
Secondary	92.00	8.00	
Higher	96.29	3.71	
<b>Region</b>			
North Central	92.07	7.93	
North East	85.85	14.15	$\chi^2=2200$
North West	82.95	17.05	p=0.000
South East	89.66	10.34	
South South	93.62	6.38	
South West	94.04	5.96	
<b>Place of Residence</b>			
Urban	92.37	7.63	$\chi^2=1000$
Rural	85.97	14.03	p=0.000
<b>Husbands/partners education</b>			
No education	84.80	15.20	
Primary	88.49	11.51	$\chi^2=1103$
Secondary	90.60	9.40	p=0.000
Higher	93.61	6.39	

#### 4.3 BINARY LOGISTIC REGRESSION PREDICTING UNDER 5 MORTALITY

The logistic regression showing the likelihood of under-five mortality among the children considering their parent types of marriage show a significant relationship of (OR=1.26, p=0.000) meaning that children in polygynous family are more likely to have 26% risk of having under-five mortality when compared with children in monogamous marriage when other factors are constant. More so, when controlling for other socio-demographic characteristics of the mothers it was also found that the odd of having under-five mortality is significantly associated with the types of marriage at (OR=1.06, p<0.01) meaning that the children in polygynous marriage have 6% risk of under-five

mortality than those in monogamous marriage. Other socio demographic characteristics that gave a significant relationship in the likelihood ratio were Hausa in the ethnicity categories which are 35% more likely to have under-five mortality than their Yoruba counterpart. The wealth index also shows a significant influence in likelihood of the under- five mortality as women in middle and rich classes are less likely to have under-five mortality at (OR=0.696,  $p<0.05$ ) and rich (OR=0.64, $p<0.001$ )

**Table3; BINARY LOGISTIC REGRESSION MODEL PREDICTING UNDER FIVE MORTALITY**

Under-Five Mortality	Odd Ratio	[95% Conf. Interval]
Monogamous	1.0 (RC)	
Polygyny	<b>1.262***</b>	1.017 - 1.091
<b>Age</b>		
15-24	<b>1.0 (RC)</b>	
25-34	0.895**	.840 - .954
35+	.517***	.485 - .552
<b>Ethnicity</b>	1.0(RC)	
Yoruba		
Hausa	1.354***	1.189 - 1.543
Igbo	.870	.711- 1.066
Others	.914	.811 - 1.031
<b>Wealth</b>	1.0(RC)	
Poor		
Middle	.696***	.658 - .737
Rich	.646***	.602- .693
<b>Occupation</b>	1.0(RC)	
Not Working		
Working	1.119 ***	1.070 - 1.170

<b>Mother's Education</b>	1.0 (RC)	
No Education		
Primary	1.001	.944 - 1.061
Secondary	.901**	.835- .972
Higher	.533***	.455 - 0.624
<b>Father's Education</b>	1.0(RC)	
No Education		
Primary	1.054	.997- 1.114
Secondary	1.051	.987 - 1.119
Higher	.865**	.792 - .946
<b>Region</b>	1.0(RC)	
North Central		
North East	1.493***	1.385-1.611
North West	1.397***	1.283- 1.520
South East	1.871***	1.535- 2.280
South South	1.007	.9164- 1.107
South West	.949	.843- 1.068
Urban	1.0(RC)	
Rural	1.318***	1.248 - 1.393

Source; Author's work, 2016(Data from NDHS, 2013)



## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

#### 5.0 INTRODUCTION

This chapter is devoted to the presentation of the summary of findings, conclusion and recommendations drawn from the analysis of the research study on family type and under-five mortality in Nigeria.

#### 5.1 SUMMARY OF FINDINGS

The major findings from the study shows that 87.98% of the respondents had live children, while 12.02% of them experienced under five child mortality. Also, more than half (60.86%) of the respondents fell in the monogamous type of marriage, while 39.14% of them fell in the polygynous type of marriage. With regards to the age of the mothers, the majority (58.18%) of them were in the age group of 35+ years, while the least (8.21%) were in the age group of 15-24 years. Almost half of the respondents were from the other ethnic group (42.03%), while the least (10.88%) were from Yoruba ethnic group. The majority (47.90%) of the respondents fell in the poor quintile of wealth index, while 19.35% fell in the middle wealth quintile. The majority (61.76%) of the respondents were Muslims, while the least (1.31%) were traditionalist. The majority (77.26%) of the respondents were working, while 22.74% were not working.

The chi-square test revealed that there was a significant relationship between the under- five mortality and marriage type as well as all the selected background characteristics of the respondents. This implies that the marriage type either monogamous or polygynous has significant relationship with under-five mortality. The logistic

regression also disclosed a significant likelihood relationship between under-five mortality among the children and their parent types of marriage, OR=1.26, p=0.000 meaning that children in polygynous family are more likely to have 26% risk of having under-five mortality when compared with children in monogamous marriage when other factor is held constant. More so, when controlling for other socio-demographic characteristics of the mothers it was also found that the odd of having under-five mortality is significantly associated with the types of marriage at (OR=1.06, p<0.01) meaning that the children in polygynous marriage have 6% risk of under-five mortality than those in monogamous marriage. More so, age, wealth index, occupation, ethnicity, region, religion, type of place of residence, educational attainment of the mother and the father were significantly related with under -five mortality.

## **5.2 CONCLUSION**

Under five mortality rate is a leading indicator of the level of child health and overall development in any country; also it is one of the Millennium Development Goals' (MDGs) indicators of developmental level, despite underreporting of death statistics in sub-Saharan Africa countries have witnessed some reductions in childhood mortality in the last three decades but the trend and the current rate is still not impressive. The state of under-five mortality in Nigeria was high among polygynous marriage as found in this study. Thus this study can conclude that marriage types were related to effect of the under- five mortality in Nigeria while other variables like age, wealth index, occupation, ethnicity, region, religion, type of place of residence, educational attainment of the also mother were significantly related to under five mortality.

### 5.3 RECOMMENDATION

From the analysis of under-five mortality and family type in this study, it is obvious that there is family type is part of the variables accounting for under-five mortality in Nigeria. It therefore means more education on this importance of togetherness and single partner should be intensified among people.

More education, campaigns rallies, programs, media jingles should be used to promote the use of antenatal, and postnatal care to save the children. Where necessary laws and regulations should be enacted to regulate antenatal teaching and preaching in religions centres. Women should be educated during pregnancy period in the on the benefit of antenatal use and its positive effects on the lives of the unborn baby and the mother.

The influence of modern education should be intensified too to help mothers to take some necessary precaution to under-five mortality and their child health. However, if the recommendations given in this study were implemented there should be an improvement in the level of under-five mortality in Nigeria as a whole

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