

**THE EFFECTS OF WOMEN'S EMPOWERMENT ON CHILD HEALTH STATUS IN  
NIGERIA**

**BY**

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## CERTIFICATION

This is to certify that **AKINMOYE OLUWAKEMI HANNAH** of the Department of Demography and Social Statistics, Faculty of Social Sciences with matriculation number **DSS/13/1169** carried out a research on the topic: "The Effects of Women's Empowerment On Child Health Status 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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## **DEDICATION**

The project is dedicated to the Almighty God who granted me wisdom, strength and has led me thus far. He has made this project work possible. All glory belongs to Him. I also dedicate this project work to my father Chief J. A. Akinmoye and Mrs Funmilayo Akinmoye for their love, care, affection, encouragement, financial and moral support. I pray that God supports you in your endeavors. Amen.

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## Abstract

The study examined the effect of women's empowerment on child health status in Nigeria. The study employed NDHS 2013 Kids recode datasets to measure child nutritional status (wasting) (sampled size was 6,888 for unpaid, and 17,556 paid). Analysis was done at three levels – univariate analysis using frequency table, bivariate analysis using chi-square and multivariate analysis using binary logistic regression. The bivariate analysis revealed that regions, religion and educational status had a significant relationship with family decisions on child health, purchase and income in the study area. The multivariate analysis disclosed that there were significant relationships between women empowerment and child health as children whose mothers were not empowered are 1.034 times likely to be wasted compared to those empowered to take the decision (OR=1.034,  $p<0.05$ ). Also children whose mothers are working were 0.96 times less likely to be wasted compared to those who were not working (OR=0.96,  $p<0.05$ ) but other socio-demographic characteristics that showed a significant relationship were Religion of parents as Islam is 1.34 times more likely to be wasted than Christianity with (OR=1.34,  $p<0.01$ ), educational attainment was found to influence nutritional status of children as higher educated parents were 22% less likely to have children with wasting nutritional status (OR=0.78,  $p<0.05$ ). The research concluded that women empowerment indeed had influence on child nutritional status (wasting) in the study area.



## CHAPTER ONE

### INTRODUCTION

#### 1.0 BACKGROUND TO THE STUDY

Globally, Human capital has been identified as a major factor that influences poverty aside from physical capital (Strauss & Thomas, 1998). Health is an important component of human capital in the sense that investment in health has important direct effects on productivity and thus on economic growth. On theoretical ground, they interact in important ways with health affecting economic growth and economic growth affecting health (Ajayi, 1992). Improved health status is expected to lead to enhanced welfare as well as economic growth. Access to health services consists of at least five components of service provision: availability, affordability, acceptability, appropriateness, and quality. Although government in many instances, both in the past and more recently, continues to invest in the health sector, incidence analysis suggests that public spending in health and education benefits the non-poor disproportionately. For example, a 2013 Nigeria Demographic and Health Survey (NDHS) reported that only 4.8 percent of children living in households in the poorest quintile are fully vaccinated, while 52.7 percent of children living in households in the richest quintile have received all recommended vaccinations (NPC & ICF international 2014). The national CWIQ survey carried out in 2006 revealed that 55.1 percent of the population sampled had access to health services and with marked difference in accessibility across rural and urban areas (NBS, 2006). Previous studies of the relationship of maternal labor force participation and child health status have used small and unrepresentative samples. These studies generally find decreased labor force participation of mothers when the family includes a child with a chronic health condition. A study of single mothers found poor child health status had a net association with maternal employment. One study that used nationally representative

but old (1972) data found a 10% decrease in maternal employment among white families with a chronically ill child. A second nationally representative study that used recent data found that children with conditions likely to require substantial parental care had increased odds of having fewer than 2 parents working (for 2-parent households) and no parent working (for single-parent households).

## **1.1 STATEMENT OF THE PROBLEM**

Child health is one of the basic problems in the society today, which is influenced by weak decision making autonomy of the mother. Women's status has received considerable attention as a significant factor affecting demographic behavior and outcomes in sub-Saharan Africa and in Nigeria particularly. Researchers and programmatic strategies examine and tend to modify the health of children and the status of their mother. Several factors influence the health of the child through women's empowerment status such as level of education, occupation, wealth, ability to participate in household decisions, age, residence etc. Duncan Thomas (1998).etc. Most research has concentrated on women's status and child health because organizations like WHO has women because of the historical interest on child mortality. 6.6 million Child deaths can be prevented each year if affordable health preventions are made available to the mothers and children who need them.

However, most of the empirical research in this area has concentrated on the influences of women's status on fertility. Much less research on women's status has been focused on using direct measures to assess the links between women and their behaviors once their children are born. In other words, the influence of women's status on demographic transitions has concentrated on the quality of children and has neglected, or taken for granted, investments in the quality of children with regard to their health.

Globally, 80% of all deaths to children who are under five are due to only a handful of causes such as pneumonia, diarrhea, malaria, measles, HIV/AIDS and explanations on the observed child health have centered on biological differences. Inaccessibility or inability to afford balanced diet, health care by men, may lead to complication in pregnancy, abortion, anemia, poor health, and consequently poor child health etc. Kishor, Sunita & Sulabha Parasuraman.(2003).

## **1.2 RESEARCH QUESTIONS:**

1. What is the extent of stunting and wasting among children by mother's status (decision making) in Nigeria?
2. Is there a relationship between women's status (decision making) and child health (wasting) in Nigeria?

## **1.3 OBJECTIVES OF THE STUDY**

The general objective of the study is to examine the effects of women empowerment on child health status in Nigeria

1. To examine the impact of women decision making power on child health outcomes in Nigeria.
2. To assess how socio-economic factors (sex, age, marital status, level of education, etc.) determines women decision making power.
3. To examine the relationship between women decision making power and child health status (wasting,) in Nigeria.

#### 1.4 JUSTIFICATION FOR THE STUDY

Child health can be determined or influenced by women's status either positively or negatively. Child health is very important in this our modern time because it can lead to child mortality and a stunted and wasted growth among other adverse outcomes. Children remain one of the major concerns of the government and the society as they are the future leaders of tomorrow. One has to take the health of children with seriousness.

In Nigeria, according to the National Demographic and Health Survey (NDHS) of 2013, more than one-third of children (3%), with symptoms of acute respiratory infections were taken for treatment in a health facility, 29% of children with diarrhea and 38% of children with diarrhea were treated with oral rehydration therapy (ORT), only 12-23 months old children had received the recommended course of immunization (NDHS 2013). Child health, being one of the most important resources of development and overall health within a nation, Poor child development compounds the physical effects of poor child health with consequences to produce future adults unable to meet their physical and intellectual potential (Gillepsie and Haddad 2001, WHO 2004). Status of women- characterized by limited mobility; weak decision making autonomy; and restricted access to resources, especially those that equip women to earn an income- significantly influences women's reproductive intentions and behaviours throughout the region ( Balk 2003, Schuler,Hashemi 2003;Moore 2001; Malhorta, Vanneman, Kishor 2003; Jejeebhoy 2002; Visara 2001; Morgan Niraula 2001; Sathar 1993; Smith et al. 1995; Sathar & Kazi 1996).This study aims to examine the effect of women's empowerment status (decision making power) on child health (wasting).

## **1.5 OPERATIONAL DEFINITION OF TERMS**

**WOMEN STATUS:** The position or rank of the woman in relation to others in the aspect of economic, social and physical aspect.

**MALNUTRITION:** Malnutrition is a condition that results from eating a diet in which nutrients are either not enough or are too much such that the diet causes health problems.

**CHILD:** A child is a human between the stages of birth and puberty.

**CHILD MORTALITY:** Child mortality refers to the death of infants and children under the age of five or between the ages of one month to four years.

**CHILD HEALTH:** Child health encompasses the physical, mental, emotional and social well-being of children from infancy through adolescence.

**WOMEN AUTONOMY:** Women autonomy is the freedom to act or function independently.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 INTRODUCTION

This chapter reviews relevant literature to the study.

#### 2.1 OVERVIEW OF CHILD HEALTH

Globally and especially in developing countries, a child dies from different complications of disease, malnutrition and other causes. Nearly all the death of a child occur in the developing countries, making child mortality the health statistics with the largest difference between developed and developing countries. Parents undergo this terrible fate, if the health of the child eventually dies, it affects the parent automatically. A child dies because parents lose to give them their primary care, communities are not encouraging and they don't realize the contributions of that child to economic and social development of that state and this represent a huge cost to the child's nation, community and the family.

Over the last decades, much research has been conducted on child health. The focus of previous research ranges from general findings of the effect of child health to more specific findings. Comparing different relationship statuses, previous research consistently shows the positive effects of child health on women. Much of this research focuses on women status on child health in urban areas which they consist of mothers living in urban cities, sub-urban areas with regard to their socio-economic status and environment (Amato and Zuo, Brown, Brody and Stoneman 2000, Dooley and Prause 2002). The status of a person health affects well-being, goal attainment, quality of life and longevity (WHO 2004). Research has observed that majority of child deaths in developing countries occur at home and it has been documented in sub-Saharan Africa countries

that factors such as lack of money, distance to health facility and perception of the illness not being serious were the major reason (NDHS 2013). The term women's status which has been defined by research as relative to women as well as important only when relative to men in terms of households, communities, nations in which they live (Smith et al 2003). Previous child health has focused on how child health is affected by maternal health.

Globally, women are always responsible for the primary care for young children; nevertheless, men also assume the responsibility of care giving for the children (Smith et al 2003). Men with little power always have poor mental health, low self esteem and low self confidence to men who has power (Smith et al 2003). Women who have lower quality of care typically have low energy levels and ability to complete child care tasks which can lead to less capability to breastfeed successful and this can be due to the men status and it will lead to or hinders the health of the child (Beard 2001). Furthermore, men living in communities where little importance is place on the health of a woman and the child, they generally find the reproductive health services minimal or if it is available at all (Smith et al 2003). The lack of resources of the man will hinder a woman's ability to undertake caring practices in the best interest of her children such as pre and antenatal care (Osmani and Sen 2003). A man's effective care of his children and wife will increase the control of the economic resources of his household (Smith et al 2003). When men are involved in household economic resources, the wife will follow through with recommended treatments for their children after discovering an illness and immunize their children more frequently than men with little control over the household economic resources and also men who have more economic control within their families will make the wife have better advantage of medical services available to them such as regular gynecological, prenatal and birthing care than men with little or no control over household resources (Engle, menon and Haddad 1999, Mason

1993, Caldwell 1993, Kishor 2000, Defo 1997 and Smith et al 2003). Household where men contribute to the income and assets have more control in the utilization of those resources, when men have more control over resources a much more significant proportion of these resources are allocated to expenditures that directly benefit children's education as well as clothes, food and health care. (Haddad et al 1997, Thomas 1997.) Previous research affirms the strong positive relationship between socio-economic status and better child health outcomes (Lynch and Kaplan 2000). Children from low socio-economic backgrounds are less likely to be immunized, they suffer from nutritional disturbance, have more accidents (Currie and Stabile 2003). Children from high socio-economic backgrounds they have higher chances to survive to adulthood (Ismail et al 1993). In the aspect of residence: the socio-economic differences between urban and rural areas have a strong impression, residents of urban areas are generally better off educationally, financially and physically. The advantage is largely due to improvements in public health and the readily available access to the information and resources necessary for preventative and curative care urban environment usually a trade centers have much wider areas of food to choose from (Timaeus 2004) and this gives better chances to have more balanced nutritional sources. Automatically, children living in urban areas have better health than those living in rural ones (Timaeus 2004).

### **2.1.2 WEALTH INDEX AND CHILD HEALTH**

Wealth has important inference for family and child health, the wealth index of the family's will reflect to the ability to respond to the social economic that can negatively have an impact on the child's health (Lynch and Kaplan 2000). Income depends on the resources that will be available to the family to fulfill their food, housing and health needs, income is positively and negatively associated with child health (Lynch and kaplin 2000). Wealth is a comprehensive measure of



access to financial resources, families with the same level of yearly income would be categorized as social economically equivalent even if there were large differences in the family's quantities of accumulated assets.

### **2.1.3 LEVEL OF EDUCATION AND CHILD HEALTH**

Maternal education has shown to have a stronger effect on child health than paternal education and paternal education also an effect. It has been considered a strong measure of social economic status (Lynch and Kaplin 2000). It predicts better job, higher incomes and better societies and the female education participation maybe low or less important than a man's education. Increased education has shown to reap increasing financial, professional and socio economic rewards for those that pursue it (Lynch and Kaplan 2000) and those rewards offer financial, behavioral, additional resources and strong impact on the health of their children. (Mensah 1985) said that paternal educational benefits were better in urban areas. Highly educated men are more likely than their non-educated counterparts to participate actually in attending to the needs of their infant and young children (Hoodfar 1984-1986).

### **2.1.4 FAMILY STRUCTURE AND CHILD HEALTH**

Family structure at large has significant changes when someone thinks of the definition of family; it involves a father, mother and children. Family structure consists of members in relationship to each other without respective of roles and function. There are seven types of family structure and they are;

1. Nuclear family
2. Single parent
3. Unmarried biological or adoptive families
4. Blended families

5. Cohabiting families
6. Extended families
7. Other families

Starting with the first type of family structure;

1. Nuclear family: A nuclear family consists of father, mother and children either biological or adoptive. This type of family structure is the most admired in which it foster the health of the child as long as there is love, time spent with children, emotional support, low stress, constant economic upbringing and financial support.
2. Single parent: Single parent involves only one parent either a man or woman. Children are most likely to live in a single parent structure for one reason or the other rather than death. A man that is a single parent in whom he is taking care of a child or children. The child might have a good health care. For example, a man that is divorced and he are taking care of a child. The child might either receive a good health care or not. The man may not have time for the child, he goes to work every day and won't care about the health of the child and also a man that goes to work and still look for a housemaid or a nanny to take care of the child and also go to look at the child when necessary, with that it foster the health of the child. Mostly, single parent or families frequently have less pressure compared to the pressure in families that are not divorced.
3. Unmarried biological or adoptive families: This involves two unmarried parents who are each biological or adoptive parents to all the family's children, the children's health will also either improve or not.

4. Blended families: This also consists of children living with one biological or adoptive parents and that parent's spouse. There can be also being a positive or negative effect on the health of the child.
5. Cohabiting families: It involves children living with one biological or adoptive parent and the parent's unmarried cohabiting partner. This type of family structure will also determine whether there will be an improvement in the health of the child or not.
6. Extended family: This involves children living with one or two parents and at least one related, non-parent adult such as grandparent or adult sibling. This type of family structure is also in two ways either positively or negatively in which it will affect the health of the child.
7. Other families: This consist children living with adults who are not their biological or adoptive parents. The health of children also improves or not that is positively or negatively.

Several researches has shown that children who are from nuclear family have a good health care and those with other forms like single parent in which the child might either receive or not receive the health care and also the unmarried biological or adoptive families, the blended families, cohabiting families, extended family and other families, they will determine whether the child will have a good health or not.

#### **2.1.5 RELIGION AND CHILD HEALTH**

Religions also do affect the health of a child positively or negatively. According to Child Development Supplements (CDS) to the Panel Study of Income Dynamics (PSID). They measured religion into three which are (1) Whether there is a religion affiliation and what kind,

(2) the importance of religion, (3) the frequency of church attendance. It appears that there was a positive association between the measures and child health that is it has a positive effect. According to them, it was observed that those that are religiously biased have a higher level of overall health. Religion can have positive effects on child health by influencing the child and also the parent's behavior by regulating their social and psychological way and also religion can discourage bad behavior in one way or the other. For example, alcohol consumption in which some religion does not allow that. It can also be in the negative level in which some religion does not allow the services of doctors and hospitals and it will affect the health of the child. They discourage vaccinations and many others. (Ellison et al 2001).

## **2.2 THEORETICAL FRAMEWORK:**

Using a Bio-logical theory which was propounded by (Urie Bronfenbrenner in 1986), the bio-ecological model of human development can be used by both children and maturing adults. He first propounded a theory by (Stephen J. Ceci in 1994) which is an extension of Bronfenbrenner's original theoretical model of human development which is called Ecological System Theory. Bronfenbrenner also developed the bio-ecological model after noticing that the individual was overlooked in other theories of human development, which were largely focused on the content of development by the environment.

The history of bio-ecological system theory is divided into two periods which are, firstly, The Ecology of Human Development in 1979 and the second was described as a time of criticism and evaluation of the original work of Bronfenbrenner. The first period came because Bronfenbrenner did not focus on the role of context in terms of development. He argued that the environment in which children live is important because development can be shaped by the children's interactions with that environment, he also said to his colleague that they should study

development in terms of ecological contexts that is the environments of children for example; schools, homes and daycares. Researchers took that advice and it flourished in the early 1980's which it focused on the context. Later on, Bronfenbrenner saw that research has focused more on the context not development, then in his theory, he emphasized on the development. This theory went through a series of transformations and elaborations until 2005 when Bronfenbrenner died.

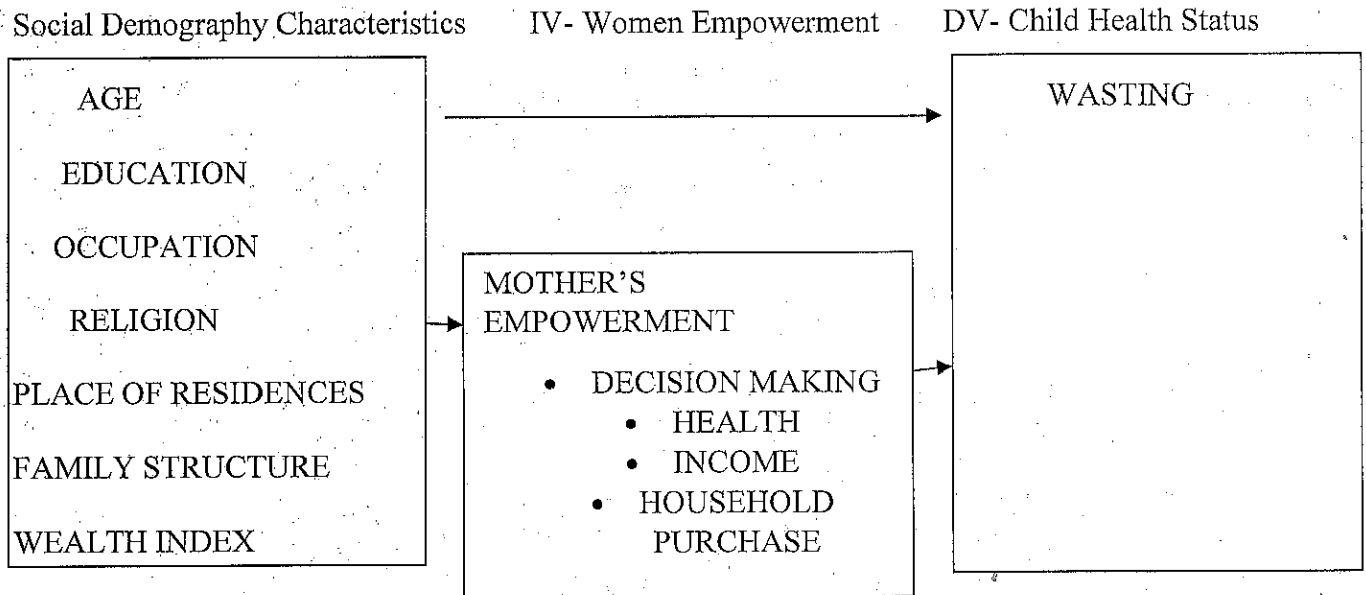
Bio-ecological systems theory focuses on the interactions and influences of the outside environment on the child's development; this theory differs from other major theories in that it emphasizes the influence of the outer world (community, school, and political systems). Urie Bronfenbrenner suggests that all settings need to be considered when explaining child development. This theory typically represent a ring in which there are different interactive system. The first layer of the ring suggest the most influence on the child's development and it consists of the family, school, child care providers, peers, and all experiences and influences that have a direct affect on the child's immediate environment. The second layer is the interaction that is parents are affected by child care and child care are affected by parents. The third layer in the bio-ecological system is depicts additional ecological system that affect the child development more directly. The ecological systems are legal services, social services, neighbors, extended family, work place, and they don't actually touch the child's life, they indirectly affect the child experience.

The last layer in the bio-ecological system contains law, customs, and values of a particular society or cultural system, even though these institutions don't directly affect the child and also have strong influence on the child. This theory has been viewed as culturally sensitive in that it focuses on all of the influences (socially, political and economic contexts) in which development occurs. In order words, positive child development occurs when all influence both.

### 2.3 CONCEPTUAL FRAMEWORK

Factors for women status: Residence, wealth index, level of education, age, occupation.

Factors for child health. Malnutrition and Wasting growth



Looking at the diagram above, we have the independent variable, dependent variable in which they are affected by each other. Independent variable affects the dependent variable taking the variables into consideration. Place of Residence will determine whether the child will have a better health or not, if a mother is residing in a rural area in which the environment is not conducive for the mother and also the family, with that it will affect the health of the child. The age of the mother also matters and shows if the health of the child will be positive or negative, if the mother is young and not well experienced about children, it can affect the health of the child whether positively or negatively. Better or good education predicts a better job, higher incomes and also good societies. When there is an increase in education it will promote the financial,

professional and socio-economic health status (Lynch and Kaplan 2000). Therefore, the level of education affects the health of the child positively or negatively. The wealth index of a family will affect the ability or have an impact on the health of the child either positively or negatively (Lynch and Kaplan 2000).

## **2.4 HYPOTHESIS**

There is no significant relationship between women's empowerment status (decision making) and child health (wasting) in Nigeria.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 INTRODUCTION**

This chapter focuses on the various methods, techniques and procedures used in conducting this research. It provides important information on the following data sources, variables and measurement, data analysis and study population.

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

##### **3.1.1 NIGERIA**

Nigeria as a Federal Republic, is a federal constitutional republic comprising of 36 states and its Federal Capital Territory, Abuja. These states are subdivided into 774 Local Government Areas (LGAs). Furthermore, the states are regrouped by geographical location to form six zones which are North Central, North -East, North-West, South-East, South-South, and South-West. Nigeria 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 in the Atlantic Ocean.

Nigeria is located in western Africa on the Gulf of Guinea and has a total area of 923,768 km<sup>2</sup> (356,669 sq. mi), making it the world's 32nd-largest country (after Tanzania). It is comparable in size to Venezuela, and is about twice the size of the U.S. state of California. It shares a 4,047-kilometer (2,515 mi) border with Benin (773 km), Niger (1497 km), Chad (87 km), Cameroon (1690 km), and has a coastline of at least 853 km. Nigeria lies between latitudes 4° and 14°N, and longitudes 2° and 15°E. The highest point in Nigeria is Chappal Waddi at 2,419 m (7,936 ft). The main rivers are the Niger and the Benue, which converge and empty into the Niger Delta.



This is one of the world's largest river deltas, and the location of a large area of Central African Mangroves.

Nigeria has a varied landscape. The far south is defined by its tropical rainforest climate, where annual rainfall is 60 to 80 inches (1,500 to 2,000 mm) a year. In the southeast stands the Obudu Plateau. Coastal plains are found in both the southwest and the southeast. This forest zone's most southerly portion is defined as "salt water swamp," also known as a mangrove swamp because of the large amount of mangroves in the area. North of this is fresh water swamp, containing different vegetation from the salt water swamp, and north of that is rain forest.

Present day Nigeria has been the site of numerous kingdoms and tribal states spanning over a millennium. The modern state has its origins in British colonization during the late 19th to early 20th centuries, with the merging of the Southern Nigeria Protectorate and Northern Nigeria Protectorate. During the colonial period, the British set up administrative and legal structures whilst retaining traditional chiefdoms. Nigeria achieved independence in 1960, but plunged into a two year civil war several years later. It has since alternated between democratically-elected civilian governments and military dictatorships, with its 2011 presidential elections being viewed as the first to be conducted reasonably freely and fairly.

Nigeria is often referred to as the "Giant of Africa", owing to its large population and economy. With approximately 174 million inhabitants, Nigeria is the most populous country in Africa and the seventh most populous country in the world. Nigeria has one of the largest populations of youth in the world. The country is inhabited by over 500 ethnic groups, of which the three largest are the Hausa, Igbo and Yoruba. Regarding religion, Nigeria is divided roughly in half between Christians, who live mostly in the southern and central parts of the country, and Muslims,

concentrated mostly in the northern and southwestern regions. A minority of the population practice religions indigenous to Nigeria, such as those native to Igbo and Yoruba peoples.

The president's power is checked by a Senate and a House of Representatives, which are combined in a bicameral body called the National Assembly. The Senate is a 109-seat body with three members from each state and one from the capital region of Abuja; members are elected by popular vote to four-year terms. The House contains 360 seats, with the number of seats per state is determined by population.

Nigeria has over 250 ethnic groups, and the basic major religions of Nigeria are Christian, Islam and Traditionalists. She has major tourist venues like Zuma rock, Ogbunike cave, Olumo Rock, and world recognized universities like Federal University OyeEkiti, Obafemi Awolowo University Ile-Ife, University of Nigeria Nsukka, University of Ibadan, and University of Lagos etc.

### **3.2 SAMPLE SIZE**

The sample size consists of 34,837 married women that have had at least one child or more in Nigeria.

### **3.4 SAMPLING TECHNIQUE**

The Sample for the 2013 NDHS was designed to provide population and health indicators at the National, Zonal and State levels. The NDHS sample was selected using a multi-stage sample design consisting of 9,673 men of child-bearing 888 clusters, with 286 urban and 602 rural areas but the final survey sample included 886 instead of 888 clusters. Representative samples of 17,827 households were selected with a maximum target of 950 completed interviews per state. In each state, a complete listing of households and a mapping exercise was carried out both in

urban and rural areas for each cluster from April to May 2008 with proportionate distribution of households, with the resulting lists of households serving as the sampling frame for the selection of households in the second stage. All private households were listed. In the second stage of selection, an average of 41 households was selected in each cluster, by equal probability systematic sampling which included men between ages 15-49.

### **3.5 DATA COLLECTION METHOD**

The sample for the 2013 NDHS was nationally representative and covered the entire population residing in non-institutional dwelling units in the country. The survey used as a sampling frame the list of enumeration areas prepared for the 2006 Population Census of the Federal Republic of Nigeria, provided by the National Population Commission. The sample was designed to provide population and health indicator estimates at the national, zonal, and state levels. The sample design allowed for specific indicators to be calculated for each of the six zones, 36 states, and the Federal Capital Territory, Abuja. Processing of the quantitative data used for this study was done by the National Demographic and Health Survey 2008. The data processing includes; Office editing, Coding of Open ended questions, data entry and editing computer-identified errors. Data entry and editing were accomplished using STATA 12.0 software.

### **3.6 METHODS OF DATA ANALYSIS**

According to Nigerian Demographic and Health Survey (NDHS 2013), women recode data set is used. Univariate analysis showing the frequency distribution of background variables is employed. Bivariate analysis: chi-square test showing the relationships between women status

and child health. Multivariate analysis was used to get the multiple regressions in order to explain the effect of women status on child health.

Further analysis of the quantitative data will be done using STATA 12.0 software and will be done at three levels;

**Univariate Analysis:** it will involve the percentage frequency distribution of the women's status (age, education, occupation, wealth, residence, decision making,) will be carried out.

**Bivariate Analysis:** it will involve cross tabulations of two or more variables. The Chi-Square test will be used to analyze some selected socio-demographic characteristics and the dependent variable child health (wasting).

**Multivariate Analysis:** Logistic Regression was used to analyze the effect of women's status on child health.

### 3.7 MEASUREMENT OF VARIABLES

This analysis focuses on the effect of men status on child health, while establishing the mediating effect of their status. The men's status includes independent variable education, occupation, wealth index, father's age, and rural-urban differences. The dependent variables are stunting, wasting and malnutrition. Child nutritional status information is collected for children preceding the 2013 NDHS. For the nutritional status analysis, the sample was restricted to children only at the time of the survey.

Nutritional status is measured by a child's height for age, were retained for analysis. Child height for age is a dividing variable, coded as (1) for children who are below negative two standard deviations of the median population and (0) otherwise (Heaton et al., 2005). Height for age is an

anthropometric index that shows the growth of a child during the pre- and post-natal period. It denotes the long term deficiencies and effects of malnutrition on health (Gillespie & Haddad, 2001). The National Centre for Health Statistics and the WHO growth reference classify children who are below two standard deviations on the height-for-age growth curve to be a stunted growth (Dibley, Goldsby, Strehling, & Trowbridge, 1987).

Men's education is the main predictor variable. The four education categories (no education, primary, and secondary and higher) were coded as (0) (1) and (2) respectively. Men's status also measured by the wealth index variable, which indicates the different levels of poverty level, Wealth index thus gives one consistent measure of their status. Wealth index has three categories and they are poor, middle, and rich coded as (0) (1) and (2) respectively.

### **3.8 VARIABLES DESCRIPTION AND MEASUREMENT**

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:

**Place of Residence:** It is divided into two (2) 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 three categories; Christians, Islam, Traditional.

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

**Respondent worked in last 12 months:** Is measured as in the past year, currently working, has a job, but on leave last 7 days.

## **DEPENDENT VARIABLE**

Child health (wasting) in this study was measured.

**CHAPTER FOUR**  
**PRESENTATION AND DATA ANALYSIS OF RESULT**

**4.0. INTRODUCTION**

This section presents the data analysis for the study on effect of women empowerment on child-health. It includes descriptive statistics of some selected variables of sampled respondents. Also, Chi-Square test was used to validate the relationship between women empowerment and nutritional status.

**4.1. DESCRIPTIVE STATISTICS OF SAMPLED RESPONDENTS**

**Table 1: Percentage Distribution of Sampled Respondents**

<b>VARIABLES/CATEGORIES</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>Wasting Status</b>		
No	20,436	83.4
Yes	4,069	16.6
<b>AGE</b>		
15-19	1095	4.48
20-24	4667	19.09
25-29	6890	28.19
30-34	5485	22.44
35-39	3894	15.93
40-44	1744	7.13
45-49	668	2.73
<b>Region</b>		
North-Central	3553	14.53
North-East	4044	16.54
North-West	8485	34.71
South-East	2277	9.32
South-South	2365	9.68
South-West	3720	15.22

**Source: Author Analysis, NDHS 2013.**

VARIABLES/CATEGORIES	FREQUENCY	PERCENTAGE
<b>Ethnicity</b>		
Yoruba	2974	12.17
Hausa	10072	41.2
Igbo	2911	11.91
Others	8487	34.72
<b>Religion</b>		
Christian	9445	38.87
Islam	14617	60.16
Traditional	236	0.97
<b>Marital Status</b>		
Divorced	939	3.84
Married	23505	96.16
<b>Education</b>		
No Education	11327	46.34
Primary	4917	20.12
Secondary	6709	27.44
Higher	1492	6.1
<b>Marriage Type</b>		
Monogamy	16035	68.22
Polygamy	7470	31.78
<b>Occupation</b>		
Unpaid	6888	28.18
Paid	17556	71.82
<b>Children Ever Born</b>		
1-2 children	7043	28.81
3+	17401	71.19
<b>Wealth Index</b>		
Poor	10716	43.84
Middle	4701	19.23
Rich	9028	36.93

Source: Author Analysis, NDHS 2013.



**Table 3: Distribution of Women Empowerment Status**

<b>Decision on Child's Health</b>		
Mother	1185	5.04
Father	14861	63.22
Both	7459	31.73
<b>Decision on Purchases</b>		
Mother	1089	4.63
Father	15156	64.48
Both	7260	30.89
<b>Decision on Income</b>		
Mother	823	3.52
Father	17368	74.22
Both	5209	22.26
<b>Empowerment Status</b>		
Yes	3,216	14.04
No	19,697	85.96
<b>Total</b>	<b>22913</b>	<b>100</b>

The empowerment status of mothers revealed a typical patriarchal society where the male counterpart control the female as it was found that most the decision on in the family were made by the father. Decision on healthcare of mother was mostly decided by father (63%) while only 5% of such decision is taken by mothers and both 31%. Decision on household purchase disclosed that they mostly taken by father (64%) while only 4.63% of such decision is taken by mothers and 30.89% shared the decision together. Furthermore, decision on who has final say on household income disclosed that the fathers (74%) took the decision while only 3.5% % of such decision is taken by mothers and 22.26% shared the decision together. The percentage distribution of sampled respondents shows the age of mothers in the reproductive age 15-49 years, it was revealed that majority were age 25- 29 years with 28.19% follow by age 30-34 years by 22.44%, age group 20-24 years by 19.09% and the least age group was 45-49 years by

2.73%. Women were mostly from the northern region by an aggregate percentage of 65.78% and those from the southern region by 34.22%. Ethnic background of sampled respondents showed that respondents they were predominantly Hausa (41.2%) while Yoruba (12.17) and Igbo (11%). Furthermore, most of the respondents were Muslim (60.16%) with a substantial proportion of Christianity (38.87%). Almost all the woman in the reproductive age were married by 96.16% and those who are divorced by 3.84%. Most Mothers were not educated ( 46.34%), followed by those with secondary education(27.44%) and primary (20.12%), those with higher education were 6.1%. More so, it was showed that women who were monogamous were 68.22% while those who were polygamous 31.78%. Those who were in a paid employment were 71.82% while those who were not in a paid employment were 28.18%. Women in the reproductive age that ever had three or more children were 71.19% to those who ever had either one or two child by 28.81%. The wealth status of women reveal that 43.84% were poor follow by 36.93% for women who are rich and 19.23% were within the middle wealth index. Men were more likely to made decisions on child's health, purchases and income by 63.22%, 64.48% and 74.22% respectively than women in the reproductive age.

#### **4.2 THE BIVARIATE ANALYSIS OF WOMEN EMPOWERMENT ON CHILD NUTRITIONAL STATUS**

It was found that there is a significance relationship between women empowerment and child nutritional status as majority of children who were wasted 71.3% of their father took decision on health care of mother and the least were mother (4.2%) this revealed a significance relationship with Chi-Square ( $X^2$ )=150.42, p-value=0.000. Also majority of children who were wasted 73% of their father took decision on household purchases and few mothers (3.4%) took such decision,

this revealed a significance relationship with Chi-Square ( $X^2$ )=166.02, p-value=0.000. Also majority of children who were wasted 79% of their father took decision on household income and few mothers (3.1%) took such decision, this revealed a significance relationship with Chi-Square ( $X^2$ ) =70.37, p-value=0.000.Details in table 2 below.

**Table 2: Bivariate Analysis of Socio-Demographic Characteristics and Child Nutritional Status (Wasting Status)**

<b>Background Characteristics</b>	<b>Percentage Wasted</b>	<b>Percentage no Wasted</b>	<b>Statistics</b>
<b>Age</b>			
15-19	5.7	4.21	$X^2(6) = 37.94$ Pr = 0.0008
20-24	20.6	18.8	
25-29	27.2	28.4	
30-34	21.3	22.7	
35-39	16.4	15.8	
40-44	6.1	7.4	
45-49	2.6	2.8	
<b>Region</b>			
North-Central	9.8	15.6	$X^2(5) = 838.99$ Pr = 0.0000
North-East	17.8	16.3	
North-West	51.7	30.9	
South-East	6.2	10.0	
South-South	6.1	10.5	
South-West	8.5	16.7	
<b>Ethnicity</b>			
Yoruba	6.9	13.4	$X^2(3) = 581.83$ Pr = 0.0000
Hausa	56.7	37.7	
Igbo	7.8	12.8	

Others	28.7	36.1	
<b>Religion</b>			
Christian	25.1	42.0	$X^2(2) = 457.57$ Pr = 0.0000
Islam	74.3	57.0	
Traditional	0.6	1.1	
<b>Marital Status</b>			
Divorced	3.2	4.0	$X^2(1) = 6.4$ Pr = 0.0337
Married	96.8	96.0	
<b>Education</b>			
No Education	57.4	43.8	$X^2(3) = 290.91$ Pr = 0.0000
Primary	17.5	20.7	
Secondary	21.3	28.8	
Higher	3.7	6.7	
<b>Marriage Type</b>			
Monogamy	64.9	69.0	$X^2(1) = 26.76$ Pr = 0.0001
Polygamy	35.1	31.0	
<b>Occupation</b>			
Unpaid	32.0	27.3	$X^2(1) = 39.34$ Pr = 0.0000
Paid	68.0	72.7	
<b>Children Ever Born</b>			
1-2	29.3	28.7	$X^2(1) = 0.68$ Pr = 0.5273
3+	70.7	71.3	
<b>Wealth Index</b>			
Poor	50.6	42.3	$X^2(2) = 107.04$ Pr = 0.0000
Middle	18.0	19.5	
Rich	31.4	38.2	
<b>Decision on Child's health</b>			
Mother	4.2	5.2	$X^2(2) = 150.42$ Pr = 0.0000
Father	71.3	61.4	
Both	24.5	33.4	
<b>Decision on purchases</b>			

Mother	3.4	4.9	$X^2(2) = 166.02$
Father	73.0	62.7	Pr = 0.0000
Both	23.6	32.5	
<b>Decision on Income</b>			
Mother	3.1	3.6	$X^2(2) = 70.37$
Father	79.2	73.1	Pr = 0.0000
Both	17.7	23.3	

**Source: Author Analysis, NDHS 2013.**

The table above showing Pearson Chi-square ( $X^2(6) = 37.94$ , Pr = 0.0008) for women in the reproductive age 15-49 years and their child nutritional status (wasting), it was revealed that there is association between the age of women 15-49 years and their child nutritional status. Also, the table above showing Pearson Chi-square ( $X^2(5) = 838.99$ , Pr = 0.0000) shows that there is significant relationship between the regions where women are located and their child's nutritional status (wasting). In testing the level of significant among other socio-demographic characteristics and the child nutritional status it was found that Ethnicity, Religion, Marital status, level of education, Marriage type, Occupation and wealth index of sampled women in the reproductive age 15-49 years with the following Pearson Chi-square ( $X^2(3) = 581.83$ , Pr = 0.0000,  $X^2(2) = 457.57$ , Pr = 0.0000,  $X^2(1) = 6.4$ , Pr = 0.0337,  $X^2(3) = 290.91$ , Pr = 0.0000,  $X^2(1) = 26.76$ , Pr = 0.0001,  $X^2(1) = 39.34$ , Pr = 0.0000,  $X^2(2) = 107.04$ , Pr = 0.0000) respectively reveals that they were all have influenced on the nutritional status of children (wasting) of children. Furthermore, to reveal the level of association between the empowerment of women and the nutritional status of children (wasting), from the table above it was shown that there is significant relationship between whom made decisions on child's health, purchases and income.

## Logistic Regression, Showing Model 2 on Odd Ratio Of Child Nutritional Status

### Multivariate Analysis

Nutritional status of child (wasting)	Model 2 (Odd Ratio)	[95% Conf. Lower	Interval] Upper
<b>Empowerment Status</b>			
Empower	1.0 (RC)		
Not-empower	1.034	0.58	.91
<b>Occupation</b>	<b>1.0(RC)</b>		
Not Working			
Working	0.971	0.61	.903
<b>Religion</b>	<b>1.0(RC)</b>		
Christian			
Islam	1.347***	1.19	1.53
Others	.814	.54	1.24
<b>Education</b>	<b>1.0(RC)</b>		
Not Educated			
Primary	1.013	.91	1.13
Secondary	.972	.87	1.09
Higher	.782*	.65	.95
<b>North Central</b>	<b>1.0(RC)</b>		
North East	1.521***	1.33	1.74
North West	2.265***	1.99	2.58
South East	1.194	0.99	1.43
South South	1.149	.97	1.36
South West	.956	.24	1.12
<b>15-19</b>	<b>1.0(RC)</b>		
20-24	.942	.79	1.13
25-29	.889	.71	1.06
30-34	.896	.74	1.08
35-39	.906	.76	1.09

40-44	.726*	.59	.899
45-49	.744*	.57	.975
Monogamous	<b>1.0(RC)</b>		
Polygamous	.921*	.86	.998

\*P<0.05, \*\*p<0.01, \*\*\*p<0.000

**Source: Authors Analysis NDHS 2013.**

The multivariate analysis disclosed that there are significance relationship between women empowerment and child health as children whose mother were not empowered are 1.034 times likely to be wasted compared to those empowered to take the decision (OR=1.034, p>0.05) although not significance at 5% level of confidence. Also children whose mothers are working were 0.96 times less likely to be wasting as in having poor nutritional status compare to those who were not working (OR=.96, p<0.05). Furthermore, other socio-demographic characteristics that showed a significance relationship were Religion of parents as respondent affiliated with Islamic religion were 1.34 times more likely to be wasted (poor child health) than Christianity with (OR=1.34, p<0.01), educational attainment was found to influence nutritional status of children as higher educated parents were 22% less likely to have children with wasting nutritional status (OR=0.78 p<0.05). Another socio-demographic characteristic, that showed a significance relationship as those in North-West were 2.27 times more likely to be wasted compared to North Central. South East were 19% more likely to be wasted compared to North Central even South South was 15% more likely to be wasted while South West were 4% less likely to be wasted compared to North Central. Haven taken 15-19 as reference category, only those children from mothers in ages 40-44. were 27% and 45-49 were 25% less likely to be wasted compared to women ages of 15-19 yrs respectively. (OR=0.78 P< 0.05) have a significant

Odd ratio  $p < 0.05$ , but those children from mothers ages 20-24 were 6% less likely to be wasted compared to women ages 15-19 yrs.. 25- 29 were 11% less likely to be wasted than the reference category-19 Also those children from mothers 30-34 were 10% less likely to be wasted compared to women ages 15-19 yrs, while, children from mothers 35-39 were 9% were less likely to be wasted compared to the ages between 15-19 yrs.. Type of family also showed a significant relationship ( $p < 0.05$ ) but those in polygamous family were 8% Less likely to be wasted compared to those in monogamous family.



## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1. SUMMARY OF FINDINGS

The empowerment status of mothers revealed a typical patriarchal society where the male counterpart control the female as it was found that most the decision on in the family were made by the father. Decisions on health care of mother were mostly decided by father (63%) while only 5% of such decision is taken by mothers and both 31%. Decision on household purchase disclosed that they mostly taken by father (64%) while only 4.63% of such decision is taken by mothers and 30.89% shared the decision together. Furthermore, decision on who has final say household income disclosed that the fathers (74%) took the decision while only 3.5% % of such decision is taken by mothers and 22.26% shared the decision together. The percentage distribution of sampled respondents shows the age of mothers in the reproductive age 15-49 years, it was revealed that majority were age 25- 29 years with 28.19% follow by age 30-34 years by 22.44%, age group 20-24 years by 19.09% and the least age group was 45-49 years by 2.73%. Women were mostly from the northern region by an aggregate percentage of 65.78% and those from the southern region by 34.22%. Ethnic background of sampled respondents showed that respondents they were predominantly Hausa (41.2%) while Yoruba (12.17) and Igbo (11%). Furthermore, most of the respondents were Muslim (60.16%) with a substantial proportion of Christianity (38.87%). Almost all the woman in the reproductive age were married by 96.16% and those who are divorced by 3.84%.

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The multivariate analysis disclosed that there are significance relationship between women empowerment and child health as children whose mother were not empowered are 1.034 times likely to be wasted compared to those empowered to take the decision (OR=1.034,  $p<0.57$ ). Also children whose mothers are working were 0.96 times less likely to be wasted compare to those who were not working (OR=.96,  $p<0.05$ ) but other socio-demographic characteristics that showed a significance relationship were Religion of parents as Islam is 1.34 times more likely to be wasted than Christianity with (OR=1.34,  $p<0.01$ ), educational attainment was found to influence nutritional status of children as higher educated parents were 22% less likely to have children with wasting nutritional status(OR=0.78,  $p<0.05$ ).

## **5.2. CONCLUSION**

This study examined the effects of women empowerment on child health status in Nigeria and found that women empowerment has greater influence on child nutritional status (wasting). This should be looked into by other policy maker and stakeholders in the nutritionist sector.

## **5.3 RECOMMENDATION.**

From the findings of this study, the following was suggested that some key area in women empowerment is very crucial to nutritional status of children despite how patriarchal the society is, women should be encourage to take some decision at home, they should be allowed to involved in economic activities so as to take care of themselves and most especially their children. Other recommendations are:

- Right to basic education should be upheld by parents especially mothers from the northern part of Nigeria.
- Since occupational status of mother increased child's nutritional status, women should be discouraged from marrying a liability and be encouraged to seek for jobs.

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## APPENDIX – Do file in STATA Statistical Software : command lines

```
//////Women Empowerment and Child Health (Wasting) Amongst Mothers in Nigeria  
///Nutritional Status////
```

```
*****Stunted children*****height-for-age*****
```

```
drop if hw70>=9996
```

```
drop if hw71>=9996
```

```
drop if hw72>=9996
```

```
drop if v717==99
```

```
drop if v743a>6
```

```
drop if v743b>6
```

```
drop if v743d>6
```

```
drop if v743f>6
```

```
*****Wasted children*****weight-for-height
```

```
recode hw72 (-200/499=0 "No")(-500/-201=1 "Yes"), gen (wasting)
```

```
ta wasting [iw=wt]
```

```
ta v025 [iw=wt]
```

```
recode v190 (1/2=1 "Poor")(3=2 "Middle")(4/5=3 "Rich"), gen (Wealth)
```

```
recode v131 (298/298=0 "Yoruba") (109 130=2 "Hausa")(138/138=3 "Igbo")(1/129=9  
"others")(131/137=9 "others")(139/max=9 "others"), gen (Ethnicity)
```

```
recode v201 (0/0=. )(1/2=1 "1-2")(3/max=2 "3+"), gen (ceb)
```

```
recode v501 (0=0 "Single Parent")(1/2=2 "Married")(3/5=0 "divorced"), gen (family)
```

```
recode v505 (0=0 "Monogamy")(1/99=1 "Polygamy"), gen (Marriage)
```

```
recode v743a (1/1=0 "mothers empowered")(4/6=1 "Father")(2=2 "Both"), gen (dhealth)
```

```
recode v743b (1/1=0 "mothers empowered")(4/6=1 "Father")(2=2 "Both"), gen (dpurs)
```

```
recode v743d (1/1=0 "mothers empowered")(4/6=1 "Father")(2=2 "Both"), gen (dvist)
```

```
recode v743f (1/1=0 "mothers empowered")(4/6=1 "Father")(2=2 "Both"), gen (dincom)
```

```
tab1 dhealth dpurs dvist dincom
```

```
gen empower1=.
```

```
replace empower1=0 if dhealth==0 | dpurs==0 | dvist==0 | dincom==0
```

```
replace empower1=1 if dhealth!=0 & dpurs!=0 & dvist!=0 & dincom!=0
```

```
la def empower1 0 "empowered" 1 "unempowered"
```

```
lab val empower1 empower1
```

```
recode v717 (0/0=0 "unpaid")(1/9=1 "paid")(96=0 "unpaid"),gen (occup)
```

```
recode v130 (1 2=1 "christian") (3=2 "islam") (4 96=3 "traditional") (99=.), gen(religion)
```

```
//////Univariate Analysis
```

```
gen wt=v005/1000000
```

```
ta empower1 [iw=wt]
```

```
ta occup [iw=wt]
```

```
ta Wealth [iw=wt]
```

```
ta religion[iw=wt]
```

```
ta v106 [iw=wt]
```

ta family [iw=wt]

ta v013 [iw=wt]

ta Marriage[iw=wt]

ta v024 [iw=wt]

ta ceb [iw=wt]

ta Ethnicity [iw=wt]

**///Bivariate Analysis**

svyset [pw=wt], psu (v021) strata (v022)singleunit(centered)

svy: ta empower1 wasting, col

svy: ta occup wasting, col

svy: ta Wealth wasting, col

svy: ta religion wasting, col

svy: ta v106 wasting, col

svy: ta family wasting, col

svy: ta v013 wasting, col

svy: ta Marriage wasting, col

svy: ta v024 wasting, col

svy: ta ceb wasting, col

svy: ta Ethnicity wasting, col

**///Multivariate Analysis**

xi: logistic i.wasting i.empower1

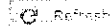
xi: logistic i.wasting i.empower1 i.occup i.religion i.v106 i.v024 i.v013 i.Marriage



Akunwoye Komolafe



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Igbo (11%).

Furthermore, most of the respondents were Muslim (60.16%) with a substantial proportion of Christianity (38.87%).

Almost all the woman in the reproductive age were married by 96.16% and those who are divorced by 3.84%.

The multivariate analysis disclosed that there are significance relationship between women empowerment and child health as seen in model 1, children whose father took sole decision on respondents health are 1.27 times likely to be wasted than those whose mother took the decision (OR1.27, p0.001).

Also children whose father took sole decision on household income 1.57 times less likely to be wasted compare to those whose mother took the decision with (OR1.57, p0.001).

Also children whose mothers are working were 0.87 times less likely to be wasted compare to those who were not working (OR.87, p001).

5.2 CONCLUSION This study has thus did justice to the objectives of the research and clearly conclude that women empowerment indeed has greater influence on child nutritional status (wasting).

This should be looked into by other policy maker and stakeholders in the nutritionist sector.

5.3 RECOMMENDATION From the findings of this study, the following was suggested that some key area in women empowerment is very crucial to nutritional status of children despite how patriarchal the society is, women should be encourage to take some decision at home, they should be allowed to involved in economic activities so as to take care of themselves and most especially their children.

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