CORRELATES OF CHILD MORTALITY AMONG MARRIED WOMEN IN

OYE-EKITI, NIGERIA

BY

AMINAT DAMILOLA, AKINTOLA

DSS/14/1802

A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF

DEMOGRAPHY AND SOCIAL STATIATICS, FACULTY OF SOCIAL SCIENCES,

FEDERAL UNIVERSITY, OYE-EKITI, NIGERIA.

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF

BACHELOR OF SCIENCE (B. Sc.) HONS IN DEMOGRAPHY AND SOCIAL

STATISTICS.

DECEMBER 2018

CERTIFICATION

This is to certify that AKINTOLA AMINAT DAMILOLA of the Department of Demography and Social Statistics, Faculty of Social Sciences, carried out a research on the topic "Correlates of Child Mortality among Married Women in Oye-Ekiti, Nigeria" in partial fulfillment of the requirements for the award of Bachelor of Science (B. Sc.) in Federal University, Oye-Ekiti, Nigeria under my supervision.

....   16/4/2019
DR. E.K ODUSINA   DATE
PROJECT SUPERVISOR

....   15/4/19.
DR. S.B SHITTU   DATE
PROJECT SUPERVISOR

....   11/4/19
DR L.F.C NTOIMO   DATE
HEAD OF DEPARTMENT

....
EXTERNAL EXAMINER   DATE

2

DEDICATION

This project is dedicated to the Almighty God for the grace and strength He accorded me, and for letting me find favor since I started this project. All the glory and honor belongs to Him, and to my parents, Mr and Mrs Akintola and also to my amazing brother, Usman Akintola whom I love so much for their support morally and financially.

ACKNOWLEDGEMENTS

Table of Contents

ABSTRACT

The study aimed to ascertain the correlates of child mortality among married women in Oye-Ekiti, Nigeria using primary data collected through self-administered questionnaire. The univariate analysis showed that 25% of women had experienced child mortality in the last five years with causes of death ranging from birth complications (34.8%), sexual transmitted disease (23.9%), premature birth (17.4%), low birth weight (6.5%), malnutrition (4.4%) to birth injuries (4.4%). Multivariate analyses showed that time of antenatal service initiation (O.R=3.5, P<0.005, C.I=1.45-8.36) and duration of child breastfeeding (O.R=0.09, P<0.008, C.I=0.02-0.54) significantly associated with child death. Hence, the study concluded that these are factors for consideration in designing policy and program to influence child death in the study area.

CHAPTER ONE

1.0   INTRODUCTION

Child mortality also known as child death refers to the death of children under the age of 14 and encompasses neonatal mortality, under-5 mortality and mortality of children aged 5–14. Many child deaths go unreported for a variety of reasons, including lack of death registration and lack of data on child migrants.

Nearly 9 million children under the age of five die every year, according to 2007 figures(UNICEF, 2015) Around 70% of these early child deaths are due to conditions that could be prevented or treated with access to simple, affordable interventions. Leading causes of death in under-five children are pneumonia, diarrhoea and health problems during the first month of life. Over one third of all child deaths are linked to malnutrition. Children in developing countries are ten times more likely to die before the age of five than children in developed countries. Latest figures show that 9.2 million children under-five are dying every year, down from over 12 million in 1990. Most of these children are dying in developing countries from preventable causes for which there are known and cost-effective interventions.

Unless efforts are increased there will be little hope of averting the additional 5.4 million child deaths per year, or a reduction of two-thirds. Six conditions account for about 70% of all child deaths which are acute lower respiratory infections, mostly pneumonia, diarrhoea, malaria, measles, HIV/AIDS, and neonatal conditions, mainly pre-term birth, birth asphyxia, and infections. The relative contribution of HIV/AIDS to the total mortality of children under-five, especially in sub-Saharan Africa, has also been increasing steadily. Malnutrition is a factor in more than half of the children who die after the first month of life. Poor families are often unable to obtain even the most basic health care for their children. Poor or delayed care-seeking contributes to up to 70% of all under-five child deaths. Of the 12 countries where more than 20% of children die before their fifth birthday, nine have

suffered a major armed conflict in recently. Countries with weak and fragile health systems have not been able to provide effective child survival strategies that are crucial to reduce under-five child deaths, and especially neonatal deaths. Basic health services have been lacking as well as nutrition, water supplies and sanitation facilities. Almost half a million deaths each year due to malaria in children under-five in sub-Saharan Africa could have been prevented with the use of insecticide-treated bed nets. More than 60% of all under-five child deaths can be avoided with proven, low-cost preventive care and treatment. Preventive care includes: continuous breast-feeding, vaccination, adequate nutrition and, in Africa, the use of insecticide treated bed nets.

The major causes of under-five deaths need to be treated rapidly: for example, with salt solutions for diarrhoea or simple antibiotics for pneumonia and other infections. To reach the majority of children who today do not have access to this care, we need more and better trained and equipped health workers. Families and communities need to know how best to bring up their children healthily and deal with sickness when it occurs.

Political awareness, commitment and leadership are needed to ensure that child health receives the attention and resources needed. Better information on the number and causes of under-five child deaths will help leaders to decide on the best course of action.

1.2   Statement of the problem

This research topic is important because so many children in the world are suffering or dying due to the negligence of their parents before their birth, during their birth, and after the birth. Ekiti state has tried to build more health infrastructures to reduce the rate of child and maternal mortality in the past. Although it worked a little but we need more incentives and ideas on how to really reduce child mortality. This study will be discussing the causes of the child mortality and how to prevent it.

The UNICEF programs purpose is to reduce mortality rate in children under the age of five, through vaccination programs nutrition programs and other health care. There is still a lot of work to do. Distribution of impregnated mosquito nets has been contributed to the drop of child mortality, as well as vaccinations, even though the program still doesn't reach all children. The study of child mortality is important in any given society as child mortality is recognized as a general health indicator of a population.

This report summarizes trends in reducing child mortality in Oye-Ekiti, factors contributing to these trends, challenges in reducing infant mortality, and provides suggestions for public health action.

1.3   Research Questions

- What is the prevalence level of child mortality among married women in Oye-Ekiti, Nigeria?

- What is the relationship between family type and child mortality?

- What is the other factors influencing child mortality among married women in Oye-Ekiti?

1.4   Objectives of the study

The main objective of this study is to examine the correlates of child mortality among married women in Oye-Ekiti, Ekiti State, Nigeria.

Specific objectives

- To ascertain the prevalence level of child mortality among married women in Oye-Ekiti, Nigeria.

- To know the association between family type and child mortality.

- To examine other factors influencing child mortality among married women in Oye-Ekiti, Nigeria.

1.5 Significance of the study

The study is of greats importance and benefit to parents, families, institutions, the entire people of Oye-Ekiti, Ekiti state and the country at large. This study will serve as a reference material or data bank to students and researchers who wish to carry out related studies in future. The study determines factors in child mortality among women of childbearing age. Its findings will be beneficial to the ministry of health, WHO, government, and other stakeholders.

The findings will also be useful to the government in developing strategies and ways that will help enlighten women of childbearing ages and those well on their way to childbearing years. Research on the child mortality in Oye-Ekiti is very scarce therefore this research will provide data on child mortality among married women in Oye-Ekiti, Nigeria.

DEFINITION OF TERMS

- **Child**: is an unborn or recently born person. Is a young person especially between infancy and youth.

- **Infant:** an infant is a very young child, a child who is in his or her first period of life. A person who is not yet of full age.

- **Mortality:** the quality or state of being a person or thing that is alive and therefore certain to die. It is the quality or state of being mortal. It also means the number of deaths that occur in a particular time or place. It means the death of a person.

- **Child Mortality:** this is the death of a child under the age of 14.

- **Under-five Mortality:** this is the death of a child before the fifth birthday.

- **Neonatal Mortality:** this is the death of a child within the first 28 days of life.

- **Disease:** is an illness that affects a person which prevents the body or mind from working normally. It impairs normal functioning and is typically manifested by distinguishing signs and symptoms.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This literature review discusses what child mortality entails, the causes of child mortality and the preventions of child mortality. It discusses the trends of child mortality around the world and how it has been tried to be curbed and reduced. It is necessary for the old and the young people out there to be informed and educated on child mortality especially women because they are the ones that are easily affected seeing as they are the ones that carry the pregnancy and also gives birth to the child.

2.1 CONCEPT OF CHILD MORTALITY

Many child deaths go unreported for a variety of reasons, including lack of death registration and lack of data on child migrants (UNICEF, 2012). Without accurate data on child deaths, we cannot fully discover and combat the greatest risks to a child's life (UNICEF, 2017).

More than one billion children are severely deprived of at least one of the essential goods and services they require to survive, grow and develop—these include nutrition, water, sanitation facilities, and access to basic health-care services, adequate shelter, education and information. As a result, almost 9.2 million children under-five die every year. A further 3.3 million babies are stillborn.

Most of the 25,000 children under five that die each day are concentrated in the world's poorest countries in sub-Saharan Africa and South Asia. There, the child mortality rate is 29 times greater than in industrialized countries: 175 deaths per 1000 children compared with 6 per 1000 in industrialized countries.

The world made remarkable progress in child survival in the past few decades, and millions of children have better survival chances than in 1990. 1 in 26 children died before

reaching age 5 in 2017, compared to 1 in 11 in 1990. Moreover, progress in reducing child mortality has been accelerated in the 2000–2017 period compared with the 1990s, with the annual rate of reduction in the global under-five mortality rate increasing from 1.9 per cent in 1990–2000 to 4.0 per cent in 2000–2017. Despite the global progress in reducing child mortality over the past few decades, an estimated 5.4 million children under age 5 died in 2017—roughly half of those deaths occurred in sub-Saharan Africa. Mortality rates among older children and young adolescents (aged 5-14) also dropped by more than 50 per cent since 1990, yet almost one million children died in this age group in 2017 alone. The global burden of child deaths is a call for urgent and concerted action to further improve the survival chances of the world's children.

2.1.2 Measurement of Child Mortality

Child mortality could be simplified into more specific terms such as prenatal, perinatal, Neonatal, infancy and under-five mortality. Prenatal: child death before the birth, Perinatal: child death before one week of birth, Neonatal: child death before 28 days of birth, Infancy: child death before 1st birthday, and child mortality under 5 refer to any deaths from birth to the 5th birthday. [John Robert, 1944].

i. Perinatal mortality rate: Number of child deaths within first week of birth/ total number of birth.

ii. Neonatal mortality rate: number of child deaths within first 28 days of life/ total number of birth.

iii. Infancy mortality rate: number of child deaths within first 12 months of life/ total number of birth.

iv. Under 5 mortality rates: number of child deaths within 5th birthday/ total number of birth.

2.1.3 Causes of Child Mortality

Child mortality is high in countries where women have many children (high fertility rates). Wealthy countries have lower child mortality rates than poor ones.

The leading causes of death of children under five include:

    i.   Preterm birth complications

    ii.   Pneumonia

    iii.   Inter partum-related events

    iv.   Neonatal sepsis

    v.   Diarrhea

    vi.   Malaria

Countries that are in the second or third stage of the Demographic Transition Mode (DTM) have higher rates of child mortality than countries in the fourth or fifth state of the DTM. Child infant mortality is about 96 per 1,000 live births. And developed country such as Japan infant mortality is about 2.2 per 1,000 live births. In 2010, there were estimated to 7.6 million child deaths around the world and most of it occurred in less developed countries and 4.7[Global, regional and national causes of child mortality] million died from infection and disorder. Child mortality isn't only caused by infection and disorder, It is also caused by premature birth, birth defect, new born infection, birth complication, and disease like malaria, sepsis, and diarrhea. In less developed countries, malnutrition is the main source of child mortality. Pneumonia, diarrhea and malaria together are the cause of 1 out of every 3 child deaths before the age of 5 and nearly half of under-five deaths globally are attributable to under nutrition.

2.1.4 Prevention of Child Mortality

Child survival is a field of public health concerned with reducing child mortality. Child survival interventions are designed to address the most common causes of child deaths

that occur, which include diarrhea, pneumonia, malaria, and neonatal conditions. Of the portion of children under the age of 5 alone, an estimated 5.6 million children die each year mostly from such preventable causes (UNICEF 2012).

The child survival strategies and interventions are in line with the fourth Millennium Development Goals (MDGs) which focused on reducing child mortality by 2/3 of children under five before the year 2015. In 2015, the MDGs were replaced with the Sustainable Development Goals (SDGs), which aim to end these deaths by 2030. In order to achieve SDG targets, progress must be accelerated in more than 1/4 of all countries (most of which are in sub-Saharan Africa) in order to achieve targets for under-five mortality, and in 60 countries (many in sub-Saharan Africa and South Asia) to achieve targets for neonatal mortality (UNICEF 2012). Without accelerated progress, 60 million children under age 5 will die between 2017 and 2030, about half of which would be newborns.

- **Low-cost interventions**

Two-thirds of child deaths are preventable. Most of the children who die each year could be saved by low-tech, evidence-based, cost-effective measures such as vaccines, antibiotics, micronutrient supplementation, insecticide-treated bed nets, improved family care and breastfeeding practice (UNICEF, 2015), and oral rehydration therapy (WHO, 2015) Empowering women, removing financial and social barriers to accessing basic services, developing innovations that make the supply of critical services more available to the poor and increasing local accountability of health systems are policy interventions that have allowed health systems to improve equity and reduce mortality(UNICEF, 2016).

In developing countries, child mortality rates related to respiratory and diarrheal diseases can be reduced by introducing simple behavioral changes, such as hand washing with soap. This simple action can reduce the rate of mortality from these diseases by almost 50 per cent (Curtis & Cairncross, 2003). Proven, cost-effective interventions can save the lives of

millions of children per year. The UN Vaccine division as of 2014 supported 36% of the world's children in order to best improve their survival chances, yet still, low-cost immunization interventions do not reach 30 million children despite success in reducing polio, tetanus, and measles (Jadhav S. *et al*, 2014) Measles and tetanus still kill more than 1 million children under 5 each year. Vitamin A supplementation costs only $0.02 for each capsule and given 2-3 times a year will prevent blindness and death. Although vitamin A supplementation has been shown to reduce all-cause mortality by 12 to 24 per cent, only 70 per cent of targeted children were reached in 2015 (UNICEF 2012). Between 250,000 and 500,000 children become blind every year, with 70 percent of them dying within 12 months. Oral rehydration therapy (ORT) is an effective treatment for lost liquids through diarrhea; yet only 4 in 10 (44 per cent) of children ill with diarrhea are treated with ORT (UNICEF 2012).

- **Essential newborn care**

Including immunizing mothers against tetanus, ensuring clean delivery practices in a hygienic birthing environment, drying and wrapping the baby immediately after birth, providing necessary warmth, and promoting immediate and continued breastfeeding, immunization, and treatment of infections with antibiotics - could save the lives of 3 million newborns annually. Improved sanitation and access to clean drinking water can reduce childhood infections and diarrhea. Over 30% of the world's population does not have access to basic sanitation, and 844 million people use unsafe sources of drinking water (UNICEF, 2017).

2.1.5 Efforts

Agencies promoting and implementing child survival activities worldwide include UNICEF and non-governmental organizations; major child survival donors worldwide include the World Bank, the British Government's Department for International

India are three times more likely to die before their fifth birthday than those from the richest households (STC 2011).

The child survival rate of nations varies with factors such as fertility rate and income distribution; the change in distribution shows a strong correlation between child survival and income distribution as well as fertility rate, where increasing child survival allows the average income to increase as well as the average fertility rate to decrease(Hans, R., 2006).

2.1.8   Infant Mortality

Infant mortality is the death of young children under the age of 1.This death toll is measured by the infant mortality rate (IMR), which is the number of deaths of children under one year of age per 1000 live births. The under-five mortality rate is also an important statistic, considering the infant mortality rate focuses only on children under one year of age. The decline in infant mortality is unparalleled by other mortality reduction this century. If turn-of-the-century infant death rates had continued, then an estimated 500,000 live-born infants during 1997 would have died before age 1 year; instead, 28,045 infants died.

Although improvements in medical care were the main force for declines in infant mortality during the second half of the century, public health actions played a role. During the 1990s, a greater than 50% decline in SIDS rates (attributed to the recommendation that infants be placed to sleep on their backs) has helped to reduce the overall infant mortality rate. The reduction in vaccine-preventable diseases (e.g., diphtheria, tetanus, measles, poliomyelitis, and Haemophilusinfluenzae type b meningitis) has reduced infant morbidity and has had a modest effect on infant mortality. Advances in prenatal diagnosis of severe central nervous system defects, selective termination of affected pregnancies, and improved surgical treatment and management of other structural anomalies have helped reduce infant mortality attributed to these birth defects. National efforts to encourage reproductive-aged

women to consume foods or supplements containing folic acid could reduce the incidence of neural tube defects by half.

2.1.9 Causes of Infant Mortality

Causes of infant mortality directly lead to the death (Eunice K.S.*et al*,2016). Environmental and social barriers prevent access to basic medical resources and thus contribute to an increasing infant mortality rate; 99% of infant deaths occur in developing countries, and 86% of these deaths are due to infections, premature births, complications during delivery, and perinatal asphyxia and birth injuries (Andrews KM. *et al*, 2008).

- **Medical:**

Causes of infant mortality that are related to medical conditions include: low birth weight, sudden infant death syndrome, malnutrition, congenial malformations, and infectious diseases, including neglected tropical diseases.

- **Congenial Malformations:**

Congenial malformation is a birth defect that babies are born with such as cleft lip and palate, down syndrome, and heart defects. Often times, this occurs when the mother consumes alcohol, but it can also be a cause of genetics or have an unknown cause. Congenial malformations have had significant impact on infant mortality. Malnutrition and infections diseases were the main cause of death in more undeveloped countries.

Getting Preconception and Prenatal Care during pregnancy, the mother's health, environment, and experiences affect how her fetus develops and the course of the pregnancy. By taking good care of her own health before and during pregnancy, a mother can reduce her baby's risk of many of the leading causes of infant mortality in the United States, including birth defects, preterm birth, low birth weight, Sudden Infant Death Syndrome (SIDS), and certain pregnancy complications.

- **Low Birth Weight:**

Low birth weight makes up 60–80% of the infant mortality rate in developing countries. The New England Journal of Medicine stated that "The lowest mortality rates occur among infants weighing 3,000 to 3,500 g (6.6 to 7.7 lb). For infants born weighing 2,500 g (5.5 lb) or less, the mortality rate rapidly increases with decreasing weight, and most of the infants weighing 1,000 g (2.2 lb) or less die. As compared with normal-birth-weight infants, those with low weight at birth are almost 40 times more likely to die in the neonatal period; for infants with very low weight at birth the relative risk of neonatal death is almost 200 times greater." Infant mortality due to low birth weight is usually a direct cause stemming from other medical complications such as preterm birth, poor maternal nutritional status, lack of prenatal care, maternal sickness during pregnancy, and an unhygienic home environment Along with birth weight, period of gestation makes up the two most important predictors of an infant's chances of survival and their overall health (MacDorman MF. *et al*, 2009).

- **Sudden Infant Death Syndrome:**

Sudden infant death syndrome (SIDS) is a syndrome where an infant dies in their sleep with no reasoning behind it. Even with a complete autopsy, no one has been able to figure out what causes this disease. This disease is more common in Western countries (Duncan JR. *et al*, 2018). Even though researchers are not sure what causes this disease, they have discovered that it is healthier for babies to sleep on their backs instead of their stomachs (Willinger M, HJ. *et al*, 1994). This discovery saved many families from the tragedy that this disease causes.

Although there is no definite way to prevent SIDS, there are ways to reduce the risk of SIDS and other sleep-related causes of infant death. For example, always placing a baby on his or her back to sleep and keeping baby's sleep area free of soft objects, toys, crib bumpers, and loose bedding are important ways to reduce a baby's risk.8 The NICHD-led Safe to

Sleep® campaign (formerly the Back to Sleep campaign) describes many ways that parents and caregivers can reduce the risk of SIDS and other sleep-related causes of infant death.

- **Malnutrition:**

Malnutrition or under nutrition is defined as inadequate intake of nourishment, such as proteins and vitamins, which adversely affects the growth, energy and development of people all over the world (de Onis M. 1993). It is especially prevalent in women and infants under 5 who live in developing countries within the poorer regions of Africa, Asia, and Latin America (World Vision 2012) Children are most vulnerable as they are yet to fully develop a strong immune system, as well as being dependent upon parents to provide the necessary food and nutritional intake. It is estimated that about 3.5 million children die each year as a result of childhood or maternal malnutrition, with stunted growth, low body weight and low birth weight accounting for about 2.2 million associated deaths (Martins VJ. *et al.* 2011).Factors which contribute to malnutrition are socioeconomic, environmental, gender status, regional location, and breastfeeding cultural practice (Mahgoud SE. *et al,* 2006). It is difficult to assess the most pressing factor as they can intertwine and vary among regions.

- **Adverse Effects of Malnutrition:**

Children suffering from malnutrition face adverse physical effects such as stunting, wasting, or being overweight (Topy JM. *et al,* 2004). Such characteristics entail difference in weight-and-height ratios for age in comparison to adequate standards. In Africa the number of stunted children has risen, while Asia holds the most children under 5 suffering from wasting (WHO 2015). The amount of overweight children has increased among all regions of the globe. Inadequate nutrients adversely affect physical and cognitive developments, increasing susceptibility to severe health problems.

- **Infectious Diseases:**

Babies born in low to middle income countries in sub-Saharan Africa and southern Asia are at the highest risk of neonatal death. Bacterial infections of the bloodstream, lungs, and the brain's covering (meningitis) are responsible for 25% of neonatal deaths. Newborns can acquire infections during birth from bacteria that are present in their mother's reproductive tract. The mother may not be aware of the infection, or she may have an untreated pelvic inflammatory disease or sexually transmitted disease. These bacteria can move up the vaginal canal into the amniotic sac surrounding the baby. Maternal blood-borne infection is another route of bacterial infection from mother to baby.

Diarrhea is the second-largest cause of childhood mortality in the world, while malaria causes 11% of childhood deaths. Measles is the fifth-largest cause of childhood mortality. Folic acid for mothers is one way to combat iron deficiency (Nussbaum M. *et al*, 2011). A few public health measures used to lower levels of iron deficiency anemia include iodize salt or drinking water, and include vitamin A and multivitamin supplements into a mother's diet. A deficiency of this vitamin causes certain types of anemia (low red blood cell count).

- **Environmental:**

Infant mortality rate can be a measure of a nation's health and social condition. It is a composite of a number of component rates which have their separate relationship with various social factors and can often be seen as an indicator to measure the level of socioeconomic disparity within a country (Gortmaker SL. *et al*, 1997). Organic water pollution is a better indicator of infant mortality than health expenditures per capita. Water contaminated with various pathogens houses a host of parasitic and microbial infections. Infectious disease and parasites are carried via water pollution from animal wastes (Jorgenson AK. *et al*, 2004). Areas of low socioeconomic status are more prone to inadequate plumbing infrastructure, and poorly maintained facilities. Climate and geography often play a role in

sanitation conditions. For example, the inaccessibility of clean water exacerbates poor sanitation conditions (Jorgenson AK. *et al.* 2004) Air pollution is consistently associated with post neonatal mortality due to respiratory effects and sudden infant death syndrome.

- **Early Childhood Trauma:**

Early childhood trauma includes physical, sexual, and psychological abuse of a child ages zero to five years-old. Trauma in early development has extreme impact over the course of a lifetime and is a significant contributor to infant mortality. Developing organs are fragile. When an infant is shaken, beaten, strangled, or raped the impact is exponentially more destructive than when the same abuse occurs in a fully developed body. In particular, correctly identifying deaths due to neglect is problematic and children with sudden unexpected death or those with what appear to be unintentional causes on the surface often have preventable risk factors which are substantially similar to those in families with maltreatment. There is a direct relationship between age of maltreatment/injury and risk for death. The younger an infant is, the more dangerous the maltreatment.

Family configuration (Smith-Greenaway. E. *et al,*2014) child gender, social isolation, lack of support, maternal youth, marital status, poverty, parental ACES, and parenting practices (Leventhal JM. *et al,* 1989) are thought to contribute to increased risk.

- **Socio-Economic Factors:**

Social class is a major factor in infant mortality, both historically and today. Differences between races were also apparent. African-American mothers experience infant mortality at a rate 44% higher than average; however, research indicates that socio-economic factors do not totally account for the racial disparities in infant mortality. Social class dictates which medical services are available to an individual. Disparities due to socioeconomic factors have been exacerbated by advances in medical technology. Developed countries, most notably the

United States, have seen a divergence between those living in poverty who cannot afford medical advanced resources, leading to an increased chance of infant mortality, and others.

- **War:**

In policy, there is a lag time between realization of a problem's possible solution and actual implementation of policy solutions (Farahani M. *et al*, 2009). Infant mortality rates correlate with war, political unrest, and government corruption. In most cases, war-affected areas will experience a significant increase in infant mortality rates. Having a war taking place where a woman is planning on having a baby is not only stressful on the mother and foetus, but also has several detrimental effects.

Expecting mothers are affected even more by lack of access to food and water. There have been several instances in recent years of systematic rape as a weapon of war. Women who become pregnant as a result of war rape face even more significant challenges in bearing a healthy child. Studies suggest that women who experience sexual violence before or during pregnancy are more likely to experience infant death in their children. Causes of infant mortality in abused women range from physical side effects of the initial trauma to psychological effects that lead to poor adjustment to society. Many women who became pregnant by rape in Bosnia were isolated from their hometowns making life after childbirth exponentially more difficult (Fisher SK. *et al*, 1996).

- **Medicine and Biology:**

Developing countries have a lack of access to affordable and professional health care resources, and skilled personnel during deliveries. Countries with histories of extreme poverty also have a pattern of epidemics, endemic infectious diseases, and low levels of access to maternal and child healthcare (Shandra JM. *et al*, 2004).

Research was conducted by the Institute of Medicine's Immunization Safety Review Committee concluded that there is no relationship between these vaccines and risk of SIDS in

infants. This tells us that not only is it extremely necessary for every child to get these vaccines to prevent serious diseases, but there is no reason to believe that if your child does receive an immunization that it will have any effect on their risk of SIDS.

- **Economics:**

Political modernization perspective, the neo-classical economic theory that scarce goods are most effectively distributed to the market say that the level of political democracy influences the rate of infant mortality. Developing nations with democratic governments tend to be more responsive to public opinion, social movements, and special interest groups for issues like infant mortality. In contrast, non-democratic governments are more interested in corporate issues and less so in health issues. Democratic status affects the dependency a nation has towards its economic state via export, investments from multinational corporations and international lending institutions. Levels of socioeconomic development and global integration are inversely related to a nation's infant mortality rate. Dependency perspective occurs in a global capital system.

A nation's internal impact is highly influenced by its position in the global economy and has adverse effects on the survival of children in developing countries. Countries can experience disproportionate effects from its trade and stratification within the global system (Moore S. *et al*, 2006). It aids in the global division of labor, distorting the domestic economy of developing nations. The dependency of developing nations can lead to a reduce rate of economic growth, increase income inequality inter- and intra- national, and adversely affects the wellbeing of a nation's population. A collective cooperation between economic countries plays a role in development policies in the poorer, peripheral, countries of the world.

- **Cultural:**

High rates of infant mortality occur in developing countries where financial and material resources are scarce and there is a high tolerance to high number of infant deaths. There are

circumstances where a number of developing countries to breed a culture where situations of infant mortality such as favoring male babies over female babies are the norm.

Another cultural reason for infant mortality, such as what is happening in Ghana, is that "besides the obvious, like rutted roads, there are prejudices against wives or newborns leaving the house." Because of this it is making it even more difficult for the women and newborns to get the treatment that are available to them and that is needed.

Cultural influences and lifestyle habits in the United States can account for some deaths in infants throughout the years. All are possible causes of premature births, which constitute the second highest cause of infant mortality. Ethnic differences experienced in the United States are accompanied by higher prevalence of behavioral risk factors and socio-demographic challenges that each ethnic group faces.

- **Gender favouritism:**

Historically, males have had higher infant mortality rates than females. The difference between male and female infant mortality rates have been dependent on environmental, social, and economic conditions.

More specifically, males are biologically more vulnerable to infections and conditions associated with prematurity and development. Before 1970, the reasons for male infant mortality were due to infections, and chronic degenerative diseases. However, since 1970, certain cultures emphasize males has led to a decrease in the infant mortality gap between males and females. Genetic components results in newborn females being biologically advantaged when it comes to surviving their first birthday. Males, biologically, have lower chances of surviving infancy in comparison to female babies. As infant mortality rates saw a decrease on a global scale, the gender most affected by infant mortality changed from males experiences a biological disadvantage, to females facing a societal disadvantage (Drevenstedt GL. *et al*, 2008).

- **Birth spacing:**

Birth spacing is the time between births. Births spaced at least three years apart from one another are associated with the lowest rate of mortality. The longer the interval between births, the lower the risk for having any birthing complications, and infant, childhood and maternal mortality. Higher rates of pre-term births, and low birth weight are associated with birth to conception intervals of less than six months and abortion to pregnancy interval of less than six months (Rustein SO. *et al*, 2005). Only 20% of post-partum women report wanting another birth within two years; however, only 40% are taking necessary steps such as family planning to achieve the birth intervals they want. Unplanned pregnancies and birth intervals of less than twenty-four months are known to correlate with low birth weights and delivery complications. Also, women who are already small in stature tend to deliver smaller than average babies, perpetuating a cycle of being underweight.

2.2.2 Prevention and Outcomes

To reduce infant mortality rates across the world health practitioners, governments, and non-governmental organizations have worked to create institutions, programs and policies to generate better health outcomes. Improvements such as better sanitation practices have proven to be effective in reducing public heath outbreaks and rates of disease among mothers and children. Efforts to increase a households' income through direct assistance or economic opportunities decreases mortality rates, as families possess some means for more food and access to healthcare. Education campaigns, disseminating knowledge among urban and rural regions, and better access to education attainment prove to be an effective strategy to reduce infant and mother mortality rates.

Current efforts from NGOs and governments are focused developing human resources, strengthening health information systems, health services delivery, etc. Improvements in such areas have increased regional health systems and aided in efforts to reduce mortality rates.

- **Public health:**

Reductions in mortality rates can be reduced by addressing the combined need for education (such as universal primary education), nutrition, and access to basic maternal and infant health services. Improving hygiene can prevent infant mortality. Home-based technology to chlorinate, filter, and solar disinfection for organic water pollution could reduce cases of diarrhea in children.

Technological advances in medicine would decrease the infant mortality rate and an increased access to such technologies could decrease racial and ethnic disparities. It has been shown that technological determinants are influenced by social determinants. Those who cannot afford to utilize advances in medicine tend to show higher rates of infant mortality. Technological advances have, in a way, contributed to the social disparities observed today. Providing equal access has the potential to decrease socioeconomic disparities in infant mortality.

Specifically, Advancements in the Neonatal Intensive Care Unit can be related to the decline in infant mortality in addition to the advancement of surfactants. However, the importance of the advancement of technology remains unclear as the number of high-risk births increases in the United States.

- **Education:**

It has been well documented that increased education among mothers, communities, and local health workers results in better family planning, improvement on children's health, and lower rates of children's deaths. High-risk areas, such as Sub-Saharan Africa, have demonstrated that an increase in women's education attainment leads to a reduction in infant mortality by about 35% (Shapiro D. *et al,* 2017). Similarly, coordinated efforts to train community health workers in diagnosis, treatment, malnutrition prevention, reporting and

referral services has reduced infant mortality in children under 5 as much as 38% (Mugeni C. *et al*, 2014).

Increased intake of nutrients and better sanitation habits has a positive impact on health, especially developing children. Educational attainment and public health campaigns provide the knowledge and means to practice better habits and leads to better outcomes against infant mortality rates.

- **Income:**

Awareness of health services, education, and economic opportunities provide means to sustain and increase chance of development and survival. A decrease on GPD, for example, results in increased rates of infant mortality (Baird S. *et al*, 2011).

Negative effects on household income reduces amount being spent on food and healthcare, affecting the quality of life and access to medical services to ensure full development and survival. On the contrary, increased household income translates to more access to nutrients and healthcare, reducing the risks associated with malnutrition and infant mortality (Haddad L. *et al*, 2003). Moreover, increased aggregate household incomes will produce better health facilities, water and sewer infrastructures for the entire community.

- **Policies:**

Granting women employment raises their status and autonomy. Having a gainful employment can raise the perceived worth of females. This can lead to an increase in the number of women getting an education and a decrease in the number of female infanticide (Fuse K. *et al*, 2006). In the social modernization perspective, education leads to development. Higher number of skilled workers means more earning and further economic growth. According to the economic modernization perspective, this is one type economic growth viewed as the driving force behind the increase in development and standard of living in a country. This is further explained by the modernization theory- economic development

29

promotes physical wellbeing. As economy rises, so do technological advances and thus, medical advances in access to clean water, health care facilities, education, and diet. These changes may decrease infant mortality.

Economically, governments could reduce infant mortality by building and strengthening capacity in human resources. Increasing human resources such as physicians, nurses, and other health professionals will increase the number of skilled attendants and the number of people able to give out immunized against diseases such as measles. Increasing the number of skilled professionals is negatively correlated with maternal, infant, and childhood mortality. Between 1960 and 2000, the infant mortality rate decreased by half as the number of physicians increased by four folds. With the addition of one physician to every 1000 persons in a population, infant mortality will reduce by 30%.

- **Using Newborn Screening to Detect Hidden Conditions**

Newborn screening can detect certain conditions that are not noticeable at the time of birth, but that can cause serious disability or even death if not treated quickly. Infants with these conditions may seem perfectly healthy and frequently come from families with no previous history of a condition.

To perform this screening, health care providers take a few drops of blood from an infant's heel and apply them to special paper. The blood spots are then analyzed. If any conditions are detected, treatment can begin immediately.

Most states screen for at least 29 conditions, but some test for 50 or more conditions. Infants who are at increased or high risk for a condition because of their family history can undergo additional screening beyond what states offer automatically through a health care specialist.

Since this public health program was initiated 50 years ago, it has saved countless lives by providing early detection and intervention and by improving the quality of life for children and their family.

2.2   THEORETICAL FRAMEWORK

A theory is a set of principles, assumptions, or explanations designed to make sense of observations of the world. It can also be defined as a set of perspectives and worldviews. A theory can be used to predict a response under a particular condition, which could be with research if desired.

A growing number of children live in single-parent families, which seems to be associated with negative effects on a child's health. Little is known about the health of children in cohabiting two-parent families that are also increasingly common, and more susceptible to family break-up than married two-parent families. This study seeks to determine if family type is associated with child mortality and whether any association remains after controlling for socio-economic factors (Remes, 2011).

Compared with children of married parents, children of single parents carried an excess risk in mortality in ages 1-4 years and in ages 5-9 years. The relationship between single parenthood and mortality was largely, but not entirely, explained by associated low parental education and lower household income. Mortality among children in cohabiting-parent families showed no difference from children of married parents.

Mainly due to accidental and violent causes of death, the largest excess mortality risks concentrated among children of single, less-educated and less-earning parents. The most vulnerable age period in this respect was early childhood (ages 1-4 years), whereas no association between mortality and family type was found among children aged 10-14 years.

2.3   CONCEPTUAL FRAMEWORK

```
INDEPENDENT VARIABLE

CHILD MORTALITY


DEPENDENT VARIABLE

FAMILY TYPE

    ➤  Are you the only wife of your

       husband?


```

2.4.1   HYPOTHESIS

Is there a significant relationship between family type and child mortality?

CHAPTER 3

Methodology

3.0 INTRODUCTION

This chapter is concerned with the manner in which the research is conducted. It is perhaps the crux of this study because it is the background against which the findings and conclusions are evaluated. Therefore, the chapter will highlight procedures involved in the research exercise as well as general methods and processes of data collection. Again, the chapter highlights the sampling techniques and subjects used for the study through questionnaire methods. This involves research design, description of study area, study population, sample and sampling techniques, validity of study instrument, reliability of instrument, procedure for data analysis.

3.1 Background of the Study Area

The study area, Oye-Ekiti, is one of the 16 kingdoms of Ekiti land. Oye-Ekiti people are a group of the south-western Yoruba, inhabiting the administrative headquarters of the present Oye Local Government Area of Ekiti State. The Oye kingdom comprise of five villages namely Oye, Ire, Egosi, Eshetta, (Egosi and Eshetta came together as Ilupeju) and covers an area of about 64 square miles (National Archive, Ibadan). The population of Oye-Ekiti according to the 1952 national census was 13,696, (National Archive,Ibadan), 57,196 in 1963 and in 2006 the population was 168,251 (National Population Commission, 2006). Oye-Ekiti is located at a general altitude around 1500 feet with hills and granite outcrops rising to about 200 feet. It is covered by thick forest with very small patches of high forest and is surrounded by hills which provide her protection in times of war. Infact, the hills were blessing to the people especially during the Benin invasion in the 19th century (Akintoye 1921). The ekiti people are one of the largest historical subgroups of the larger Yoruba people

of West Africa, located in Nigeria. They are classified as a Central Yoruba group, alongside the Ijesha, Igbomina, Yagba and Ifes. Ekiti state is populated exclusively by Ekiti people.

However, it is but a segment of the historic territorial domain of Ekiti-speaking groups. Which historically includes towns in Ondo and Kwara state, including Akure (the current capital and largest of Ondo state). There are two hospitals in Oye- Ekiti. One of the hospitals is a private hospital and the other is a government general hospital. One of the reasons Oye-Ekiti is special is also because there is a Federal University in the town. The institution was established in 2011. It is a non-profit public higher education institution located in the rural setting of the medium-sized town of Oye-Ekiti. This institution also has a branch campus at Ikole-Ekiti.

3.2   Sample size and sampling technique

Sample size refers to the number of respondents included in the research. In this study, the sample two hundred (200) respondents and in which a simple random sampling technique was employed. Every respondent has equal chance of been selected or been part of the sample.

3.3   Research Instrument

The instrument for study is a semi-structured questionnaire which has question items. The questionnaire is divided into two (2) sections as follows:

Section A: Socio-economic and Demographic data

Section B: Fertility and mortality data

The questionnaire was self-administered to all respondents to ensure uniformity.

3.4   Validity of the Instrument

Steps were taken to ensure validity of the questionnaire. First, the questionnaire was drafted based on relevant information in the literature and the questionnaire was presented to my supervisor for correction.

3.5 Data Collection

Questionnaire was administered at the study area to know the socio-economic status of the respondent, attitude, knowledge and fertility history. A well structured questionnaire was used for the collection of data in the study area as Two hundred (200) copies of questionnaires will be effectively administered to the subject (respondents). The researcher made sure that respondents clearly understood what was required of them. All the two hundred questionnaires (200) distributed were collected.

3.6 Data Analysis and Techniques

The researcher consulted various textbooks, internet materials, journals and the work of previous researchers on the related topic to decide on appropriate techniques.

Descriptive test was employed to analyze demographic characteristics of the respondents. Data obtained through the questionnaire administered to the respondents were keyed into computer system using STATA 12.0 application software. The analysis of this study was in three levels, the univariate, bivariate and multivariate. The univariate examined the frequency count of all variables while the bivariate analysis explained the relationship between two variables, the chi-square test was employed to test for significance relationship between variables. The multivariate analysis adopted was Binary Logistics was used to ascertain the relationship of independent variables.

3.7 Ethical Consideration

The purpose of the study was explained to the participants and informed verbal consent was obtained before proceeding with the interview. Participation was made voluntary and no form of coercion was adopted. There was no undue influence on the participants. Participants were assured of confidentiality of all information obtained from them and respondents name was not written in order to ensure confidentiality.

3.8   Measurements of Variables

The Variables with their corresponding measurements are as follows

Variable	Measurement/definition
Age	15 years- 24 years 25 years- 34 years 35 years- 44 years 45 years above
Age at first marriage	15 years- 19 years 20 years- 24 years 25 years- 29 years 30 years and above
Husband/Partners Age	20 years – 29 years 30 years – 39 years 40 years – 49 years 50 years and above
Income	N5000- N14000 N15000- N24000 N25000- N34000 N35000- N44000 N45000 and above
Other wives	Yes No
Husband/Partners level of education	Primary Secondary Post- Sec Others
Husbands/Partners Employment status	Working Not Working
Place of residence	Rural Urban
Religion	Christianity Islamic Traditional/others
Education	No education Primary Secondary Post-secondary

Occupation		Not working Working
Marital status		Single Married Widower/ Divorced/Separated

3.9   Limitations of the study

Difficulty in getting respondents for qualitative data collection is the foremost limitation. Also. part of the limitation is the issue of time constraint/limited period of time to carry out the study. Another limitation is the problem of translating the questions which were written in English to local language of the respondent which is Yoruba language. But good care was taken to see that the questions were well translated without losing their meanings. Also, part of the limitation is the refusal of the respondent to corporate.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND RESULTS

4.0   INTRODUCTION

This chapter focuses on data presentation and statistical analysis on the correlates of child mortality among women in Oye-Ekiti, Ekiti State. The univariate analysis shows the percentage distribution of respondent characteristics and information about women. The statistical techniques used were chi-square test to examine the effect of socio-demographic characteristics and correlates factors of child mortality and binary logistics were used to ascertain the likelihood relationship between correlates factors and child mortality in the study area.

4.1   Distribution of Respondents by Socio-Demographic Characteristics

Results in Table 4.1.1 below showed the distribution of women by socio-demographic characteristics. Women age group 35 -44 years were mostly reported by 41.5%, age 25-34 years by 33%, age 15-24 years by 13.5% and the least were age 45 years above by 12%. Women reported mostly were Christian by 71% and muslim by 29%. Women attained secondary education by 36%, post-secondary by 30.5%, primary and no formal education by 10.5% and 3.5% respectively. Women reported to be working by 94.5% and those reported not working by 5.5%. Women mostly earned N45, 000 and above by 33%, N15, 000-N24, 000 by 26%, N5, 000-14, 000 by 22%, N35, 000-N44, 000 by 11.5% and the least earned N25, 000-N34, 000 by 7.5%. Women reported to be the only wife by 77% and those that said no were 23%. Age at first marriage at 20 years -24 years by 62%, 15 years-19 years by 17%, 30 years and above by 16% and the least were age 25 years -29 years by 5%. Women reported their husband age from 40 years to 49 years by 35%, age group 50 years and above by 27%, age group 30-39 years by 25% and lastly were age group 20-29 years by 13%. Women reported their partner's employment status to be working by 95% and those reported

not working by 4.5%. Women reported husband educational status to be post-secondary by 40.5%, secondary education by 37.5%, and primary education were reported by 5%.

Table 4.1.1 Distribution of Respondents by Socio-demographic Characteristics.

Background Characteristics	Frequency	Percent (%)
Age		
15 years – 24 years	27	13.5
25 years- 34 years	66	33.0
35 years- 44 years	83	41.5
45 years above	24	12.0
Religion		
Christianity	142	71.0
Islam	58	29.0
Level of Education		
No formal education	7	3.5
Primary	21	10.5
Secondary	72	36.0
Post-Secondary	61	30.5
Others	39	19.5
Employment Status		
Working	189	94.5
Not working	11	5.5
Income		
N5,000 –N14,000	44	22.0
N15,000-N24,000	52	26.0
N25,000-N34,000	15	7.5
N35,000-N44,000	23	11.5
N45,000 and above	66	33.0
Are you the only wife of your husband?		
yes	154	77.0
no	46	23.0
How old are you when you first married?		
15 years-19 years	34	17.0
20 years-24 years	124	62.0
25 years-29 years	10	5.0
30 years and above	32	16.0
What is your husband or partner's age?		
20 years-29 years	26	13.0
30 years-39 years	50	25.0
40 years-49 years	70	35.0
50 years and above	54	27.0
What is your partner's employment status?		
Working	190	95.0
Not Work	10	5.0
What is your partner's level of education?		
Primary	10	5.0
Secondary	75	37.5

Post-Sec	81	40.5
Others	34	17.0
Total	**200**	**100.0**

Source: Damilola's work, 2019.

4.1.2 Distribution of Respondents by Fertility and Mortality History

Results in Table 4.1.2 below showed the distribution of women by fertility and mortality history. Women reported to have children by 95.5% and those reported no by 4.5%. The number of children that were reported for 4 children and above by 30%, 2 children and 3 children by 28% and 27.5%, one child by 13.5% and women reported no children by 1%. Women go for antenatal care service during last pregnancy by 86.9% and those reported no were 13.1%. Month of start attending antenatal care service during pregnancy were reported for four months to six months by 59.8%, one month to three months were reported by 34.3% and seven months and above were reported by 9.9%. Duration of attending antenatal care visit were reported by four times to six times by 59.8%, women reported to attend once or thrice by 25.9% and women reported to attend more than seven times and above were 14.4%. Women reported no complications during last pregnancy by 75% and those reported to have complication by 25%. Women deliver their last child in hospital by 90.3% and those reported no by 9.7%. More so, those reported that nurse helped in delivery by 54.1%, doctors by 35.2%, midwives and others were reported by 7.1% and 3.6% respectively. Women reported to breastfeed last child by 93.9% and those that said no by 6.1%. Duration of breastfeed last child were reported for less than 12 months by 56.2%, two years by 34.5%, three years by 2.1% and those reported four years and above by 7.2%. The birth space between the last and second to the last child were reported for two years and four years and above by 35.9% and 30.9% respectively, less than twelve months by 24.5% and the least were those reported for three years by 8.7%. Women reported to have child death by 25% and those that reported no were 75%. Women that experienced one child death were 19% and two children by 6%. The recent last child death experienced for one to three years by 28%, four years to five years by

42% and those reported by five years and above were 30%. The causes of child death were reported for complication by 34.8%, sexual transmitted disease by 23.9%, premature birth by 17.4%, low birth weight by 6.5% and lastly were malnutrition and birth injuries by 4.4% respectively.

Table 4.1.2 Distribution of Respondents by Fertility and Mortality History

Background Characteristics	Frequency	Percent (%)
Do you have any children?		
Yes	191	95.5
No	9	4.5
Total	**200**	**100.0**
If Yes, how many children do you have?		
No children	2	1.0
1 child	27	13.5
2 children	56	28.0
3 children	55	27.5
4 children and above	60	30.0
Total	**200**	**100.0**
Did you undergo antenatal care service during your last pregnancy?		
Yes	172	86.9
No	26	13.1
Total	**198**	**100.0**
If yes, what month of pregnancy did you start going for antenatal service?		
1 month- 3 months	59	34.3
4 months-6 months	96	55.8
7 months and above	17	9.9
Total	**172**	**100.0**
How many times did you go for antenatal service?		
Once – 3 times	45	25.9
4 times- 6 times	104	59.8
7 times and above	25	14.4
Total	**174**	**100.0**
Were any complications detected during your last pregnancy?		
Yes	49	25.0
No	147	75.0
Total	**196**	**100.0**
Did you deliver your last child in the hospital?		
yes	177	90.3
no	19	9.7
Total	**196**	**100.0**

Who helped in the delivery?		
Doctors	69	35.2
Nurse	106	54.1
Midwives	14	7.1
Others	7	3.6
Total	**196**	**100.0**
Did you breastfeed your last child?		
Yes	184	93.9
No	12	6.1
Total	**196**	**100.0**
If yes, how long did you breastfeed the child?		
Less than 12 months	109	56.2
2 years	67	34.5
3 years	4	2.1
4 years and above	14	7.2
Total	**194**	**100.0**
What is the birth space between your last and second to the last child?		
Less than 12 months	45	24.5
2 years	66	35.9
3 years	16	8.7
4 years and above	57	30.9
Total	**184**	**100.0**
Do you have any child that is dead?		
Yes	50	25.0
No	150	75.0
Total	**200**	**100.0**
If yes, how many are dead?		
No	150	75.0
1	38	19.0
2	12	6.0
Total	**200**	**100.0**
How recent was the death of the last child experienced?		
1 - 3 years	14	28.0
4 - 5 years	21	42.0
5 years and above	15	30.0
Total	**50**	**100.0**
What was the cause of death?		
Premature birth	8	17.4
Complications	16	34.8
Birth injuries	2	4.4
Low birth weight	3	6.5
SIDS	11	23.9
Malnutrition	2	4.4
Others	4	8.7
Total	**46**	**100.0**

Source: Damilola's work, 2019.

WHO HELPED IN THE DELIVERY?

Doctors
69
35%

Nurse
106
54%

%

■ Doctors   ■ Nurse   ■ Midwives   ■ Others

WHAT WAS THE CAUSE OF DEATH?

Frequency

8   16   11   4

What was the cause   Premature Birth   Complications   Birth Injuries   Low Birth Weight   SIDS   Malnutrition   Others
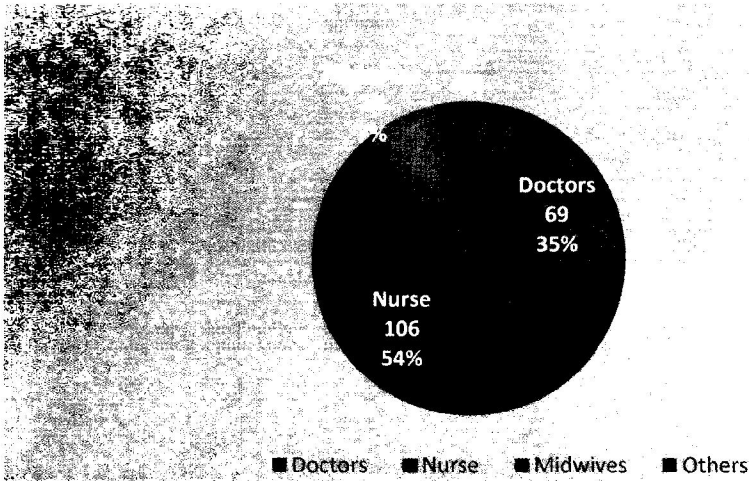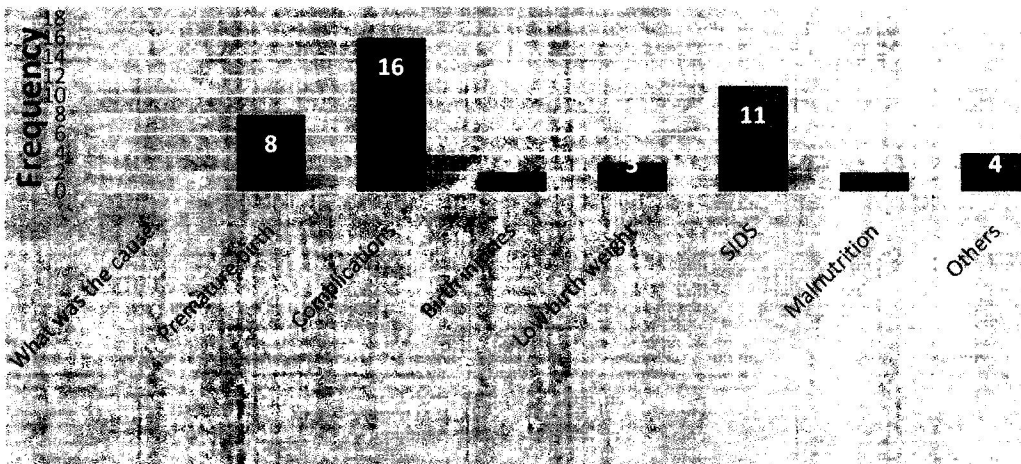
THE EFFECT OF CHILD SPACING ON CHILD DEATH

FREQUENCY			
60			51
50	39		
40	31		
30	23		
20	14	11	
10		5	6
0			

Less than 12 months   2 years   3 years   4 years and above

CHILD DEATH

Yes   No
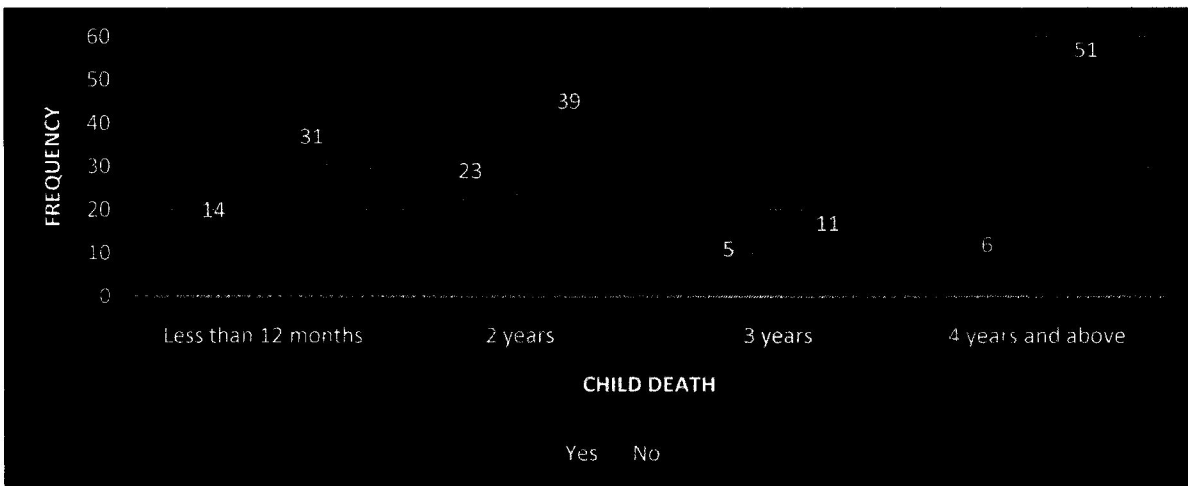
4.2: Distribution of Respondents by Socio-Economic Characteristics and Child Death.

Table 4.2.1 below revealed the level of significant association of respondent socio-demographic characteristics and child death (P<0.05). There is significant association between women age and child death (X^2 =14.47, P =0.002), women age group 35-44 years had child death by 54%, age group 25-34 years by 26%, age group 45 years above by 20% and age group 15-24 years had no child death. Also, muslim women reported to had child death by 52% and Christian women by 48% with a significant level (X^2 =17.06, P =0.000). Employed women had no child's death by 92.3% and those reported not working by 7.7% with a significant level (X^2 =4.11, P =0.043). Also, it was examined that there is a significant association between husband/partner's age and child death (X^2 =13.76, P =0.003) whereby women reported husband age for 40-49 years by 44% to had child death, age group 50 years and above by 38%, age group 30 -39 years by 18% and lastly were age group 20-29 years with no child's death.

Table 4.2.1: Distribution of Respondents by Socio-economic Characteristics and Child Death.

Background Characteristics	Had Child Death		Total	Statistics
	Yes	No		
Age				
15 – 24 years	0 (0.0)	23 (16.2)	**23 (12.0)**	
25 – 34 years	13 (26.0)	51 (35.9)	**64 (33.3)**	X^2=14.47
35 – 44 years	27 (54.0)	54 (38.0)	**81 (42.2)**	Pr=0.002
45 years above	10 (20.0)	14 (9.9)	**24 (12.5)**	
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	
Religion				
Christianity	24 (48.0)	112 (78.9)	**136 (70.8)**	
Islam	26 (52.0)	30 (21.1)	**56 (29.2)**	X^2=17.06
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	Pr=0.000
Level of Education				
No formal education	3 (6.0)	4 (2.8)	**7 (3.7)**	
Primary	6 (12.0)	14 (9.9)	**20 (10.4)**	
Secondary	17 (34.0)	50 (35.2)	**67 (34.9)**	X^2=8.14
Post-Secondary	20 (40.0)	39 (27.5)	**59 (30.7)**	Pr=0.086
Others	4 (8.0)	35 (24.7)	**39 (20.3)**	
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	
Employment Status				

Working	50 (100.0)	131 (92.3)	**181 (94.3)**	X^2= 4.11
Not working	0 (0.0)	11 (7.7)	**11 (5.7)**	Pr=0.043
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	
Income				
N5,000 –N14,000	8 (16.0)	33 (23.2)	**41 (21.4)**	
N15,000-N24,000	13 (26.0)	37 (26.1)	**50 (26.0)**	
N25,000-N34,000	3 (6.0)	10 (7.0)	**13 (6.8)**	X^2=8.56
N35,000-N44,000	2 (4.0)	21 (14.8)	**23 (12.0)**	Pr=0.073
N45,000 and above	24 (48.0)	41 (28.9)	**65 (33.9)**	
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	
Are you the only wife of your husband?				
Yes	42 (84.0)	105 (73.9)	**147 (76.6)**	
No	8 (16.0)	37 (26.1)	**45 (23.4)**	X^2=2.08
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	Pr=0.149
How old are you when you first married?				
15 years-19 years	4 (8.0)	27 (19.0)	**31 (16.2)**	
20 years-24 years	38 (76.0)	81 (57.0)	**119 (62.0)**	X^2= 5.99
25 years-29 years	2 (4.0)	8 (5.6)	**10 (5.2)**	Pr=0.112
30 years and above	6 (12.0)	26 (18.3)	**32 (16.7)**	
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	
What is your husband or partner's age?				
20 years-29 years	0 (0.0)	23 (16.2)	**23 (12.0)**	
30 years-39 years	9 (18.0)	40 (28.2)	**49 (25.5)**	X^2=13.76
40 years-49 years	22 (44.0)	44 (31.0)	**66 (34.4)**	Pr=0.003
50 years and above	19 (38.0)	35 (24.7)	**54 (28.1)**	
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	
What is your partner's employment status?				
Working	48 (96.0)	135 (95.1)	**183 (95.3)**	X^2=0.07
Not Work	2 (4.0)	7 (4.9)	**9 (4.7)**	Pr=0.789
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	
What is your partner's level of education?				
Primary	4 (8.0)	6 (4.2)	**10 (5.2)**	
Secondary	18 (36.0)	53 (37.3)	**71 (37.0)**	X^2=5.68
Post-Sec	24 (48.0)	53 (37.3)	**77 (40.1)**	Pr=0.128
Others	4 (8.0)	30 (21.1)	**34 (17.7)**	
Total	**50 (100.0)**	**142 (100.0)**	**192 (100.0)**	

Source: Damilola's work, 2019

4.2.2: Distribution of Respondents by Fertility and Mortality History and Child Death.

Table 4.2.2 below revealed the level of significant association of respondent fertility and mortality history and child death (P<0.05). There is significant association between month of pregnancy start going for antenatal service and child death (X^2 =13.11, P =0.001),

women that started antenatal visit at 4-6 months of pregnancy were 61.1% not to had child death. women that started antenatal visit at the early months of pregnancy from 1-3 months by 27% and those that delay antenatal visit to 7 months and above by 11.9%. There is significant association between complications detected during last pregnancy and child death (X^2 =8.81, P =0.003), women that had complications were 60% likelihood ratio to had child death and those that said no by 40%. Also, there is significant association between women breastfeed last child and child death (X^2 =21.81, P =0.000), women that breastfeed their last child were 98.6% not to had child death and those that did not breastfeed had no child death by 1.4%. There is association between duration of child breastfeed and child death (X^2 =10.16, P =0.017), women that breastfeed child for less than 12 months were 60.6% chances of not experiencing child death, 2 years by 32.4%, 3 years by 2.8% and 4 years and above were reported by 4.2%. There is association between child spacing and child death (X^2 =11.67, P =0.009), women that space child for less than 12 months were 23.5% not to had child death, those that space birth for 2 years by 29.6%, 3 years by 8.3% and lastly were those that space child for 4 years and above by 38.6%.

Table 4.2.2: Distribution of Respondents by Fertility and Mortality History and Child Death.

Background Characteristics	Had Child Death		Total	Statistics
	Yes	No		
Did you undergo antenatal care service during your last pregnancy?				
Yes	44 (88.0)	126 (88.7)	170 (88.5)	X^2= 0.02
No	6 (12.0)	16 (11.3)	22 (11.5)	Pr=0.889
Total	50 (100.0)	142 (100.0)	192 (100.0)	
If yes, what month of pregnancy did you start going for antenatal service?				
1 month- 3 months	25 (56.8)	34 (27.0)	59 (34.7)	
4 months-6 months	17 (38.6)	77 (61.1)	94 (55.3)	X^2=13.11
7 months and above	2 (4.6)	15 (11.9)	17 (10.0)	Pr=0.001
Total	44 (100.0)	126 (100.0)	170 (100.0)	
How many times did you go for				

antenatal service?				
Once – 3 times	9 (20.5)	36 (28.6)	45 (26.5)	
4 times- 6 times	31 (70.5)	69 (54.8)	100 (58.8)	X^2=3.45
7 times and above	4 (9.0)	21 (16.7)	25 (14.7)	Pr=0.178
Total	44 (100.0)	126 (100.0)	170 (100.0)	
Were any complications detected during your last pregnancy?				
Yes	30 (60.0)	27 (19.0)	47 (24.5)	
No	20 (40.0)	115 (81.0)	145 (75.5)	X^2=8.81
Total	50 (100.0)	142 (100.0)	192 (100.0)	Pr=0.003
Did you deliver your last child in the hospital?				
yes	46 (92.0)	127 (89.4)	173 (90.1)	X^2= 0.27
no	4 (8.0)	15 (10.6)	19 (9.9)	Pr=0.602
Total	50 (100.0)	142 (100.0)	192 (100.0)	
Who helped in the delivery?				
Doctors	20 (40.0)	45 (31.7)	65 (33.9)	
Nurse	24 (48.0)	82 (57.8)	106 (55.2)	X^2= 1.46
Midwives	4 (8.0)	10 (7.0)	14 (7.3)	Pr=0.691
Others	2 (4.0)	5 (3.5)	7 (3.7)	
Total	50 (100.0)	142 (100.0)	192 (100.0)	
Did you breastfeed your last child?				
Yes	40 (80.0)	140 (98.6)	180 (93.8)	X^2=21.81
No	10 (20.0)	2 (1.4)	12 (6.2)	Pr=0.000
Total	50 (100.0)	142 (100.0)	192 (100.0)	
If yes, how long did you breastfeed the child?				
Less than 12 months	23 (46.0)	86 (60.6)	109 (56.8)	
2 years	19 (38.0)	46 (32.4)	65 (33.9)	X^2= 10.16
3 years	0 (0.0)	4 (2.8)	4 (2.1)	Pr=0.017
4 years and above	8 (16.0)	6 (4.2)	14 (7.3)	
Total	50 (100.0)	142 (100.0)	192 (100.0)	
What is the birth space between your last and second to the last child?				
Less than 12 months	14 (29.2)	31 (23.5)	45 (25.0)	
2 years	23 (47.9)	39 (29.6)	62 (34.4)	X^2=11.67
3 years	5 (10.4)	11 (8.3)	16 (8.9)	Pr=0.009
4 years and above	6 (12.5)	51 (38.6)	57 (31.7)	
Total	48 (100.0)	132 (100.0)	180 (100.0)	

Source: Damilola's work, 2019

4.3:   Odds Ratio Based on Binary Logistic Regression Analysis.

Table 4.3 below showed the result of binary logistic regression of the effect of contextual factors on child mortality. Result from Model below revealed that women that went for antenatal care visit at 4-6 months were 3.48 more likely to had no child death to women that attended antenatal visit at 1-3 months (RC). Women that said no to child breastfeeding were 0.09 less likely to had no child death to those that reported yes to breastfeeding (RC).

Table 4.3:   Odds Ratio Based on Binary Logistic Regression Analysis.

Background Characteristics	Odds Ratio	P-value >z	Lower confidenc e interval	Upper confidence interval
If yes, what month of pregnancy did you start going for antenatal service?				
1 month- 3 months (RC)	**1.00**			
4 month-6 months	3.48**	0.005	1.45	8.36
7 months and above	2.51	0.3	0.44	14.25
Were any complications detected during your last pregnancy?				
Yes (RC)	**1.00**			
No	1.41	0.535	0.47	4.22
Did you breastfeed your last child?				
Yes (RC)	**1.00**			
No	0.09**	0.008	0.02	0.54
If yes, how long did you breastfeed the child?				
Less than 12 months (RC)	**1.00**			
2 years	0.87	0.772	0.34	2.23
3 years	1.00		0.00	0.00
4 years and above	0.49	0.366	0.11	2.29
What is the birth space between your last and second to the last child?				
Less than 12 months (RC)	**1.00**			
2 years	0.44	0.167	0.14	1.41
3 years .	0.64	0.625	0.11	3.80
4 years and above	1.97	0.356	0.47	8.33

Source: Damilola's work, 2019

RC means the reference categories *P<0.05 **p<0.01 ***p<0.001

4.4   DISCUSSION OF FINDINGS

The study showed the level of association between women socio-demographic characteristics in terms of the age, religion, employment status and husband/partner's age significantly affect the level of child mortality in Oye-Ekiti. Also the fertility and mortality history (month of pregnancy start going for antenatal service, complications detected during last pregnancy, women breastfeed last child, duration of child breastfeed, child spacing) of women showed a significant association with child death. The influencing factors were antenatal care visit and child breastfeeding on child death.

According to Bailey 2016, maternal education is significant and negatively related to child mortality. The evidence suggests that infants born to women with some education are subject to higher survival chances than those born to women with no education. As education increases beyond 7 years of schooling, the effect of increased education on reduced mortality becomes pronounced. This is consistent with findings of other studies (Bailey, 2016). A mother's educational level can affect child survival by influencing her choices and increasing her skills in health care practices related to contraception, nutrition, hygiene, preventive care, and disease treatment. The total number of children a woman bears in her lifetime, and the timing and spacing of her pregnancies have major impact on each of her children's survival chances. Higher parity is often associated with shorter birth intervals and little or no contraception. Thus, with weakened body system coupled with malnutrition, prevalent in rural areas, higher parity women are more likely to experience maternal and child mortality (Bailey, 2016).

Lastly, Breast feeding duration can affect child survival through its role in nutrition intake and its influence on fertility through sexual abstinence. This phenomenon may be explained in terms of the volume of mother's milk, which after a certain period of time, does not provide all the required nutrients for the infants who at the same time become vulnerable

to the infected food, contaminated water and unhygienic environment in general (Bailey, 2016).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECCOMENDATIONS

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. The overall objective of this study is to explore the correlates of child mortality among women in Oye-Ekiti, Ekiti State. The study was based on the sample size of 200 women of reproductive ages in the study area.

5.1 SUMMARY OF THE FINDINGS

With respect to socio-demographic characteristics of reproductive women in the study area, It was reported that women age group 35 -44 years were mostly reported, followed by age 25-34 years, age 15-24 years and the least were age 45 years above. Women reported mostly were Christian and the least were Muslim. Married women were mostly reported, followed by widower and divorced, the least were those reported to be single women. Women attained secondary education were reported more than those that attained post-secondary, followed by primary and no formal education. Women reported to be working were higher and those reported not working were lower. Women mostly earned N45, 000 and above by 33%, N15, 000-N24, 000 by 26%, N5, 000-14, 000 by 22%, N35, 000-N44, 000 by 11.5% and the least earned N25, 000-N34, 000 by 7.5%. Women reported to be the only wife were higher than those that were in a polygamous family. Age at first marriage at 20 years - 24 years were more reported than age 15 years-19 years, followed by age 30 years and above and the least were age 25 years -29 years. Women reported their husband age from 40 years to 49 years were higher, followed by age group 50 years and above, age group 30-39 years and lastly were age group 20-29 years. Women reported their partner's employment status to be working more than those reported not working. Women reported husband educational

status to be post-secondary were higher, followed by secondary education, and primary education.

Furthermore, women reported to have children by 95.5% and those reported no children by 4.5%. The number of children that were reported for 4 children and above were higher than those that reported 2 children and 3 children, one child and women reported no children were the least. Women who went for antenatal care service during last pregnancy were higher than those reported no. Month of start attending antenatal care service during pregnancy were highly reported for four months to six months followed by one month to three months and the least were seven months and above. Duration of attending antenatal care visit were reported by four times to six times by 59.8%, women reported to attend once or thrice by 25.9% and women reported to attend more than seven times and above were 14.4%. Women reported no complications during last pregnancy were higher than those reported to have complication. Women deliver their last child in hospital were higher than those reported no. More so, those reported that nurse helped in delivery were higher followed by doctors, midwives and others. Women reported to breastfeed last child were higher than those that said no. Duration of breastfeed last child were highly reported for less than 12 months, followed by two years, three years and the least were those reported four years and above. Women reported to have child death by 25% and those that reported no child death were 75%. Women that experienced one child death were 19% and two children by 6%.

Furthermore, the research showed the level of significant association of respondent socio-demographic characteristics and child death (P<0.05). There is significant association between the following socio-demographic characteristics (women age, religion, employment status, husband/partner's age) and child death by the significant level (X^2 =14.47, P =0.002, X^2 =17.06, P =0.000, X^2 =4.11, P =0.043, X^2 =13.76, P =0.003) respectively. More so, the level of significant association of respondent fertility and mortality history and child death

(P<0.05). There is significant association between the following fertility and mortality history (month of pregnancy start going for antenatal service, complications detected during last pregnancy, women breastfeed last child, duration of child breastfeed, child spacing) and child death by the significant level (X^2 =13.11, P =0.001, X^2 =8.81, P =0.003, X^2 =21.81, P =0.000, X^2 =10.16, P =0.017, X^2 =11.67, P =0.009) respectively.

In conjunction, the multivariate analysis showed the result of binary logistic regression of the effect of contextual factors on child mortality. Women that went for antenatal care visit at 4-6 months were 3.48 more likely to had no child death to women that attended antenatal visit at 1-3 months (RC). Women that said no to child breastfeeding were 0.09 less likely to had no child death to those that reported yes to breastfeeding (RC).

5.2   CONCLUSION

Through differential patterns it can be observed that women age, religion, employment status, husband/partner's age, month of pregnancy start going for antenatal service, complications detected during last pregnancy, women breastfeed last child, duration of child breastfeed, child spacing are significantly associated with child death where p-value less than five percent level of significant.

5.3   RECOMMENDATION

The policy implications and recommendations in this study are given below:

i) For reducing infant and child mortality, different correlated sectors, e.g., health, women education and development, housing, environment, poverty alleviation in slum areas have to be consistently improved.

ii) Provide information and services including counseling services aimed at delaying age at first marriage of women; improved access to reproductive health education that help in reducing infant and child mortality.

iii) Breast-feeding combats with various infectious diseases and strengthen essential antibody system of the child. So, it is necessary to encourage the women to breast feed their child and it will reduce infant and child mortality.

REFERENCES

"A Child is a Child: Protecting children on the move from violence, abuse and exploitation". UNICEF. Retrieved 4 April 2018.

"A Snapshot of Civil Registration in Sub-Saharan Africa". UNICEF. Retrieved 4 April 2018.

"Global, regional, and national causes of child mortality: an updated systematic analysis for 2010 with time trends since 2000".

Andrews KM, Brouilette DB, Brouilette RT., (2008). "Mortality, Infant". *Encyclopedia of infant and early childhood development.* Elsevier. p 343-358.

Baird S, Freidman J, Scadady N (2011).:AGGREGATE INCOME SHOCKS AND INFANT MORTALITY IN THE DEVELOPING WORLD". *The Review of Economics and Statistics.* 93(3):847-856.

Chris, H. (2016). "Child mortality: top causes, best solutions". *World vision.*

Curtis, V., Cairncross, S. (2003). "Effect of washing hands with soap on diarrhea risk in the community: a systematic review". *The lancet infectious diseases.* 3 (5):275-281.

de Onis M, Monterio C, Akre J, Glugson G(1993). "The worldwide magnitude of protein-energy malnutrition: an overview from the WHO Global Database on Child Growth". *Bulletin of the World Health Organization.*71(6):703-12.

Drevenstedt GL, Crimmins EM, Vasunilashorn S, Finch CE (2008).

Eunice Kennedy., S. (2016). "What causes infant mortality?" www.nichd.nih.gov.

Farahani M, Subramanian SV, Canning D (2009). "The effect of health sector resources on infant mortality in the short run and the long run: a longitudinal econometric analysis". *Social Science and Medicine.* 68(11):1918-25.

Fisher SK (1996). "Occupation of the Womb: Forced Impregnation as Genocide". *Duke Law Journal.*46(1):91-133.

Gortmaker SL, Wise PH (1997). "The first injustice: socioeconomic disparities, health services technology, and infant mortality". *Annual Review of Sociology*.**23**:147-70.

Haddad L, Alderman H, Appleton S, Song L, Yohannes Y (2003). "Reducing Child Malnutrition: How Far Does Income Growth Take Us?*The World Bank Economic Review*. **17**(1):107-131.

Hans. R. (2006). "Hans Rowsling shows the best stats you've ever seen". TED *talks.*TED Conferences.

Jadhav, S., Gautam, M., & Gairola, S. (2014). "Role of vaccines manufacturers in developing countries towards global health care by providing quality vaccines at affordable prices". *Clinical microbiology and infection*. **20**:37-44.

John Robert. (1944)."Population: an introduction to concepts and issues" (Twelfth ed.). Boston, MA.

Jorgenson AK (2004). "Global inequity, water pollution, and infant mortality". *The Social Science Journal*.**41** (2): 274-288.

Leventhal JM, Garber RB, Brady CA (1989). "Identification during the postpartum period of infants who are at high risk of child maltreatment". *The Journal of Pediatrics*. **114**(3):481-7.

MacDorman MF, Matthew TJ (2009). "The challenge of infant mortality:have reached a plateau?*Public Health Reports.*.**124**(5):670-80.

Margoud SE(2006). "Factors Affecting Prevalence of Malnutrition Among Children Under Three Years of Age in Botswana". *African Journal of Food Agriculture Nutrition and Development*. **6.**

Martins VJ, Toledo TM, Grillo LP, Carmo P, Franco M, Martins PA, Clement AP, Santos CD. de Fatima A, Vieira M, Sawaya AL (2003). "Longlasting effects of undernurition". *International Journal of Environmental Research and Public Health*.**8**(6):1817-46.

Moore S. Teixiera AC. Shiell A (2006). "The health of nations in a global context:trade. global stratification. and infant mortality rates". *Social Science and Medicine.***63**(1):165-78.

Mugeni C. Levine AC, Munyaneza RM, Mulindahabi E, Cockrell HC, Glavis-Bloom J, Nutt CT. Wagner CM, Gaju E (2014).

Nussbaum M (2011). *Creating Capabilities*. The Belknap Press of Harvard University Press.

Remes. (2011). Family type is associated with child mortality.

Rustein SO (2005). "Effects of preceding birth intervals on neonatal, infant, and under five year mortality and nutritional status in developing countries: evidence from the demographic and health surveys". *International Journal of Gynecology and Obstetrics*. p 89.

Shandra JM, Nobles J, London B, Wiliamson JB (2004). "Dependency, democracy, an infant mortality: a quantitative, cross-national analysis of less developed countries". *Social Science and Medicine.***59**(2):321-33.

Smith-Greenaway E, Trinitapoli J (2014). "Polygynous contexts. family structure, and infant mortality in sub-saharan Africa". *Demography.***51**(2):341-66.

Torpy JM, Lynm C, Glass RM (2004). "JAMA patient page. Malnurition in children". *JAMA.***292**(5):648

UNICEF (2012). "United Nations Inter-Agency Group for Child Mortality Estimation, Levels and Trend in Child Mortality." *Report*. Page 46.

UNICEF (2015). "Goal-reduce child mortality". Report.

UNICEF (2016). Surveys-UNICEF-MICS. www.childinfo.org.

UNICEF (2017). "UNICEF Child Mortality Statistics". UNICEF. p 131.

UNICEF (2017). "Protecting children on the move from violence, abuse and exploitation." A Child is a Child.

UNICEF. (2017). "Water and sanitation overview". http://data.unicef.org/topic/water-and-sanitation overview/

WHO (2002). "New formula for oral rehydration salts will save millions of lives". Report

WHO(2015). "Levels and trends in child malnutrition". *UNICEF-WHO-World Bank Group joint child,malnutrition.*

Willinger M, Hoffman HJ, Hartford RB(1994). "Infant sleep position and risk for sudden infant death syndrome: report of meeting held January 13 and 14, 1994, National Institutes of Health, Bethesda, MD." *Pediatrics.* **93**(5):814-9.

World Vision (2012). "Top 9 countries fighting malnutrition"

APPENDIX

QUESTIONNAIRE

DEPARTMENT OF DEMOGRAPHY AND SOCIAL STATISTICS

FACULTY OF SOCIAL SCIENCES

FEDERAL UNIVERSITY, OYE-EKITI, NIGERIA

CORRELATES OF CHILD MORTALITY AMONG MARRIED WOMEN IN OYE-EKITI, NIGERIA

To Whom It May Concern

Dear Ma,

This is a student's research project aimed at studying the above topic. It is purely an academic exercise for the award of a degree and it has nothing to do with you as a person. As such, information given by you will be treated confidentially.

I plead that you respond to these questions honestly as much as you can. Your cooperation is highly needed.

The research student.

(Please answer the questions as appropriate)

SECTION A: SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

1. What is your age?..

2. What is your religion? Christian.........1 Islam.........2 Traditionalist..........3 others (specify).........4

3. What is the highest level of school you attended? No formal education........1 Primary......2 Secondary......3 Post secondary.......4 Other (specify)..................5

4. What is your employment status? Working......1 Not working......2

5. What is your total income? ....

6. What is your marital status? Single......1 Married.......2 Widower........3

   Divorced/Separated.......4 Others(specify).........................5

7. Are you the only wife of your husband? Yes................ 1 No...........2

8. How old were you when you first married?..

9. What is your husband's/partner's age?..

10. What is your husband's/partner's employment status? Working.........1 Not

    working......2

11. What is your husband's/partner's level of education? No formal education.......1

    Primary.........2 Secondary.......3 Post secondary..........4 Others(Specify)......5

SECTION B: FERTILITY AND MORTALITY HISTORY

12. Do you have any children? Yes....... No...... if no, move to question 14

13. If yes, how many children do you have? ....

14. Did you undergo antenatal care services during your last pregnancy? Yes........

    No......... If no, move to question 17

15. If yes, what month of pregnancy did you start going for antenatal services?

    ....

16. How many times did you go for antenatal service? ....

17. Were any complications detected during your last pregnancy? Yes...... No.......

18. Did you deliver your last child in the hospital? Yes....... No......

19. Who helped in the delivery? Doctors........ Nurse........ Midwives......... Others

    (specify)..................

20. Did you breastfeed your last child? Yes....... No....... if no, move to question 22

21. If yes, how long did you breastfeed the child? ....

60

22. **What is the birth** space between your last and second to the last child?

    ....

23. **Do you have** any child that is dead? Yes........ No........ if no, drop the questionnaire

24. **If yes,** how many are dead? ....

25. How recent was the death of the last child experienced? 6 months........ 1-3 years........

    4-5 years............. 5years plus.........

26. What was the **cause of death? Infections**....... **Premature birth**...... Complications........

    Birth injuries....... **Low birth weight**....... SIDS......... Malnutrition........ Childhood

    Trauma......... Others (specify).....................