ASSESSMENT OF THE EFFORT OF BAUCHI STATE GOVERNMENT IN THE IMPLEMENTATION OF THE MILLENNIUM DEVELOPMENT GOAL 4

BY

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DECLARATION

I declare that this dissertation entitled “Implementation of MDG 4 and Child mortality in Bauchi State” has been written by me under the supervision of Dr. Haruna Yerima and Dr. Lawal Saleh. All Information derived from available literature consulted and cited were duly acknowledged and a list of references was provided and it is a record of my research work submitted to the Department of Public Administration.

_____ _____

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CERTIFICATION

This dissertation entitled “Implementation of MDG 4 and Child mortality in Bauchi State” by Bala Umar meets the requirement for the award of Master of Science (M.Sc) Degree in Public Administration of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This dissertation is dedicated to the blessed memories of my beloved father Alhaji Baba Samanja late, May his gentle soul rest in perfect peace, Ameen and my Mum A'isha Umar, my Brothers, Sisters, my Wife and my beloved Daughter A'isha Bala Umar, for their love, support and prayers towards success in my life.

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Abstract

Child mortality is a tragedy that is prevalent in developing countries of the world and has been described as one of the major public health challenges in Nigeria. The persistent high rate of child and infant mortality has attracted the global attention, in which its reduction has specifically become a part of the Millennium Development Goals, Nigeria being a member of UN has adopted MDGs with a view to tackle all the identified problems. In order to facilitate and fast-track the implementation of MDGs, Bauchi state Government established MDGs projects support unit and PHCDA, yet the high rate of child mortality in Bauchi State persists. This study focuses on the roles played by Bauchi State Government in the implementation of MDG 4, specifically it examines the adequacy of PHC Personnel, infrastructural facilities, sufficiency of funding and measures put in place by the Government of Bauchi State in enlightening the women of child bearing age on prenatal, antenatal and postnatal healthcare. The study used both the primary and secondary methods of data collection in gathering valid information. The instruments used in sourcing primary data include questionnaire, interview and observation, while secondary sources comprise of official documents from MDGs Project Support Unit and other information from PHCDA Bauchi. The qualitative data from interview backed by observation were descriptively analyzed while Chi-square statistical tool was used in testing the formulated hypotheses. The study discovered that the PHC personnel and the infrastructural facilities provided by Bauchi State Government in an attempt to reduce child mortality rate in the State were inadequate. Therefore, it was recommended amongst others that, the Government of Bauchi State should employ more PHC personnel and provide adequate infrastructural facilities in order to drastically reduce the rate of child mortality in the State.

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LIST OF ABBRIVIATION

ANC: Ante Natal Care
BACATMA: Bauchi state Agency for Control of AIDS, Turbaclosis and Malaria
BRC: Bauchi Radio Corporation
BATV: Bauchi Television
CGS: Conditional Grand Scheme
CHEW: Community Health Extension Worker
EPI: Expanded Programme on Immunization
FM: Frequency Modulation
FMOH: Federal Ministry of Health
HIV/AIDS: Human Immune Virus/Acquired Immune Deficiency Syndrome
JCHEW: Junior Community Health Extension Worker
LGA: Local Government Area
MDG 4: Millennium Development Goal 4
MDGs: Millennium Development Goals
MDGs PSU: Millennium Development Goals Projects Support Unit
MICS: Multiple Indicator Closter Survey
MDAs: Ministries, Departments and Agencies
NDHS: National Demographic and Health Survey
NGOs: Non Governmental Organizations
NHIS: National Health Insurance Scheme
NHP: National Health Policy
NPHCDA: National Primary Health Care Development Agency
NPI: National Programme on Immunization
NTA: National Television Authority
OSSAP-MDGs: Office of the Senior Special Assistant to the President on MDGs
PCAM-MDGs: The Presidential Committee on the Assessment and Monitoring of MDGs
PHC: Primary Health Care
PHCDA: Primary Health Care Development Agency
SPHCDA: State Primary Health Care Development Agency
SPSS: Statistical Package for Social Science
SUBEB: State Universal Basic Education Board
UN: United Nations
UNDP: United Nations Development Programme
UNICEF: United Nations International Children's Emergency Fund
WHO: World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

It is widely acknowledged that healthcare is an important component of human life, it is in relation to this that, so many conventions, declarations and initiatives have been undertaken at different times in different places at various levels with a view to foster cooperation, improve socio-economic situations and resolve emerging problems such as poverty, child and maternal mortality among others, at National, Regional or Global level at large. For instance, the Kyoto Declaration of 1997 for the control of atmospheric pollution, Alma-Ata declaration of 1978 for achieving health for all by the year 2000, Bamako initiative of 1987 for revitalization of primary health care. Furthermore, a Millennium Declaration popularly known as Millennium Development Goals (MDGs) was made by 189 member states of the United Nations in September 2000 at New York. MDGs are series of eight time-bound development goals, and 18 targets that seek to address issues of child and maternal mortality, HIV/AIDS, Malaria and other diseases, environmental sustainability, poverty among others, agreed by the international community to be achieved by the year 2015. The MDGs give governments a common framework for structuring policies and programmes which facilitates speed and efficiency in achieving the MDGs through effective planning, budgeting and monitoring at the implementation level.

The provision of accessible and affordable healthcare services on a sustainable basis in any country including Nigeria is an important obligation of government and is part of the rights of the citizens. The health care service delivery in Nigeria is a concurrent responsibility of the three ties of Government and is divided among the Federal, States and Local Governments. Provision of adequate funds, infrastructural facilities and personnel that provide primary health care services, which involve prenatal, antenatal and postnatal

as well creating public awareness are the responsibilities of the Local Government Councils. The State Governments on the other hand provide secondary healthcare services, while the Federal Government is providing the tertiary health care services.

In an attempt to tackle the problem of child mortality in Nigeria, all the three tiers of Governments have adopted various policies ranging from Expanded Programme on Immunization (EPI), which was launched by WHO in 1974 with the goal of immunizing the world's children against six killer diseases; these include Diphtheria, tetanus, whooping cough/pertussis, poliomyelitis, measles, and tuberculosis. This programme was later changed to National Programme on Immunization (NPI); the immunization programme with the same objectives of controlling the six-killer and other vaccine-preventable diseases. The programme assisted in reducing child deaths in the country where people are fully aware and participate in the immunization programme successfully (Park, 2002).

Federal Government of Nigeria has been directly participating in health care delivery system and good legislations on healthcare service delivery through the Federal Ministry of Health and National Primary Health Care Development Agency. The Federal Government introduced National Health Insurance Scheme (NHIS) in 2004, with a view to reduce the level of diseases and mortality rate in the country. A National Health Policy targeted at achieving health for all Nigerians was also promulgated in 1988; National Health Policy (NHP) was designed based on Primary Health Care (PHC), which was conceived at Alma-Ata conference of 1978. The development of Primary Health Care stemmed from the realization that the existing health care system then has failed to provide, improve and extend services to a vast majority of people particularly in the rural areas in developing countries (WHO, 2009).

In September 2004, the new policy, referred to as the Revised National Health Policy was also launched, which describes the goals, structure, strategy, and policy direction of the health care delivery system in Nigeria (NPC, 2004). Roles and responsibilities of different tiers of government, including non-governmental organizations were outlined. The policy's long-term goal is to provide adequate access to primary, secondary, and tertiary health care services for the entire Nigerian population through a functional referral system. Moreover, both the Federal and State Governments have also implemented MDGs with a view to reduce poverty and health related challenges across the country. The Federal Government also established the National Primary Healthcare Development Agency in order to facilitate access to primary healthcare services in the country.

Bauchi State Government has being over the years making various efforts aimed at reducing maternal and child mortality rate in the state, ranging from adoption of National Health Insurance Scheme to its workers with a view to ensure healthy citizens. It further embarked on so many immunization programmes against child related diseases such Measles. The State Government has also commits itself in the provision of secondary health care infrastructural facilities, healthcare practitioners, equipment and other health related organizations/institutions such as Hospitals Management Board, which was established to manage the healthcare organizations/institutions across the state. Bauchi State Agency for Control of AIDS, Turbaclosis and Malaria (BACATMA) was created for controlling HIV/AIDS, Turbaclosis and Malaria in the state, Bauchi State Environmental Protection Agency (BASEPA), for environmental sanitation. More so, the State Government has further established School of Nurse/Midwifery and College of Health Technology in order to provide sufficient healthcare practitioners. The Millennium Development Goals (MDGs) were also implemented in order to reduce the level of poverty

and Primary Healthcare related challenges the across the state. All the aforementioned efforts were made by the State Government with a view to reduce child and maternal mortality in the state, but with abysmal result since the rate of child mortality in the state is on the high side.

Child mortality is one of the major problems faced by many countries of the world. Infant and child mortality remains alarmingly high in developing countries despite the momentous decline in most parts of the developed world. UNICEF (1987), in a report titled the state of the world's children indicated that about 12.9 million children die every year in developing countries. This problem persists despite commitment made to tackle the menace of child mortality globally. More so, in 2006, UNICEF reported that every year nearly 10 million children of under-five years old die globally, of the 4 million newborns (40% of under-five) die in the first four weeks of life.

Available evidence indicates that Africa accounts for the highest burden of mortality among women and children in the world. Africa accounts for only 22% of births globally, but half of the 10 million child deaths annually occur in the continent. Africa is the only continent that has seen rising number of deaths among children since 1970s. It is estimated that about 4.6 million (46%) under-five deaths is in Africa (Okonofua, 2008).

The Nigeria Demographic and Health Survey (NDHS) (1990) reported that 87 of 1000 infants born in Nigeria died before their first birthday while 115 of 1000 children died before reaching the age of five. In the same vein, the report of NDHS (1999), shows that the child mortality rate in Nigeria was very high in which an infant mortality rate of 75 deaths per 1000 live births and under-five mortality rate of 140 deaths per 1000 live births for the 1995 to 1999 period. Furthermore, UNCEF (2004) reveals that for five years immediately preceding the 1999-2003 survey, the infant mortality rate was 100 deaths per

1000 live births, while the overall under-five mortality rate was 201 deaths per 1000 live births.

In the speech of UNICEF Executive Director, Ann Veneman, "on midway to 2015 deadline for MDGs, Nigeria continues to record unacceptably high maternal, newborn and child mortality". Nigeria ranks as one of the 13 countries in the world with the highest child and maternal mortality rate and is still not listed among the 10 countries seen to have made rapid progress to meet the MDGs. Under-five mortality rate in Nigeria has been escalating rather than reducing.

The Multiple Indicator Cluster Survey (MICS) report (2012) indicates that Child mortality in Nigeria increased from 138 per 1,000 live births in 2007 to 158 per 1,000 live births in 2011. While in 2012, Nigeria ranks high in the list of countries with high maternal and infant mortality rates with a ratio of 545 per 100,000 live births on the maternal mortality index and 75 per 1000 live births on the infant mortality index. The UNICEF Country Representative, Mrs. Jean Gough in 2013, raised the alarm that Nigeria has failed to make significant progress in checking the rising mortality rate of children. She further said that, 20 per cent of child deaths in sub-Saharan Africa occur in Nigeria, this has increasingly made Nigeria the cynosure of all eyes during global discussions on child mortality issues. Nigeria constitutes just 1% of the world's population, but accounts for 10% of the world's maternal and Child mortality rates.

An estimated 250,000 newborns die annually in Nigeria, the neonatal mortality rate is 48 per 1000 live births (FMOH and NPHCDA, 2009). Even within Nigeria, there exist a wide geographical disparity of child mortality rates, the highest rates are seen in the Northeast and Northwest Zones of the country, while in the Southwest and Southeast, the rate is very low. According to the survey conducted in February 2010, the record stands at

between 165 per 100,000 live births in the South West and 1549 per 100,000 live births in the North East (Onumere, 2010).

It is in relation to child mortality and other problems, the United Nation signed MDGs in September 2000 to reduce the rate of poverty and health related issues, which include reduction of child mortality and improvement in maternal health as well as combating HIV/AIDS. Eight interrelated goals were identified and fifteen years target set for their attainment. At the beginning of this millennium, countries of the world agreed to reduce by two-third of the under-five mortality rate by the year 2015. In spite of all the efforts put in place by both the Federal and Bauchi State Government towards the attainment of MDG 4, why is it that the level of infant and child mortality is still high in Nigeria and Bauchi State in particular?

1.2 Statement of the Research Problem

Child mortality is a phenomenon that is prevalent in developing countries of the world, it is a tragedy that carries a huge burden of grief and hurt, which has been described as a major public health problem in developing countries. Infant and child mortality remains alarmingly high in developing countries of the world despite the momentous decline in most parts of the developed countries. The persistent high rate of child and infant mortality has attracted the global attention in which its reduction has specifically become a part of the Millennium Development Goals.

In response to the challenges of poverty, illiteracy, child and maternal mortality, among others globally, the Millennium Development Goals (MDGs) were set by the United Nations (UN) to forestall these challenges across the countries of the world. Nigeria as a member of the United Nations (UN) has adopted the MDGs scheme in which the successive Governments continued to ensure the implementation of the MDGs projects

at the centre, while at the same time encouraging the state governments to partake and continue to play their roles.

Bauchi State Government has been allocating resources over the years on provision of health care services across the State. Several efforts were made by the State Government in this regard, which include establishment of School of Nursing and Midwifery Bauchi and the College of Health Technology Ningi with a view to provide adequate Primary Healthcare practitioners such as Nurses/Midwives, Community Health Extension Workers and Junior Community Health Extension Workers for effective Primary Healthcare service delivery in the state. In complementing the effort of the Federal Government towards accomplishment of MDG 4, the Government of Bauchi State has also established MDGs projects support unit in 2007, and Primary Health Care Development Agency to ensure and facilitate the implementation of MDGs programmes in the State. These include provision of Primary Healthcare infrastructural facilities like Health Centres, Maternities, Dispensaries, Clinics and Ambulances, as well as other tools needed for effective healthcare service delivery in the state. The Primary Healthcare Development Agency is also saddled with the responsibility of creating public awareness on primary healthcare related issues. However, the expenditures made in the provision of health care services have not translated to qualitative access to health care services, especially in the rural areas. The state has one of the lowest antenatal attendance and hospital deliveries compared to national and global indices.

The issue of child mortality is increasing which is seen as one of the major health challenges in the state, despite the implementation of MDGs by the state government; the rate of child mortality is very high. For example, in 2009, when T-ship began to work in the two northern states of Nigeria, Bauchi and Sokoto, the under-5 mortality rate of

Bauchi State was 260 per 1000 live birth while in Sokoto it was 269 per 1000 live birth respectively (T-ship, 2012).

The healthcare system of Bauchi State is in comatose, few maternities, clinics and dispensaries with few drugs and inadequate infrastructural support, including electricity, equipment and trained primary healthcare workers. Delivery of primary health care becomes a personal affair and dependent on ability to pay for basic laboratory and physician services; these have exacerbated the level of infant/child mortality in the State. The persistent high rate of child mortality in the country negates the accomplishment of the fourth goal of MDGs in Nigeria and Bauchi State in particular.

In spite of the proclaimed commitment by the Bauchi State Government towards attainment of MDG 4 by reducing the infant and child mortality by two-third between the year 2000 to 2015, health indicators are showing that the state is unlikely to meet the set target come 2015.

1.3 Research Questions

In view of the problems identified above, this study seeks to provide answers to the following research questions;

i. Does Bauchi State Government employ adequate healthcare practitioners for the implementation of MDG 4 in the State?
ii. Has Bauchi State Government provided adequate healthcare infrastructural facilities for the implementation of MDG 4 in the State?
iii. Does Bauchi State Government provide sufficient funds needed for effective implementation of MDG 4 in the State?

iv. What are the measures put in place by the Government of Bauchi State in promoting public enlightenment 4 in the state?

1.4 Objective of the study

The broad objective of this study is to examine the efforts made by the Bauchi State Government in the implementation of MDGs, specifically on reduction by two-third of child mortality rate in the State, specific objectives are to:

i. Examine whether Bauchi State Government has employ adequate healthcare practitioners for the implementation of MDG 4 in the State.
ii. Ascertain whether Bauchi State Government has adequately provided healthcare infrastructural facilities for the implementation of MDG 4 in the State.
iii. Assess whether, Bauchi State Government provides adequate funds needed for the effective implementation of MDG 4.
iv. Determine the measures put in place by the Government of Bauchi State in the promotion of public enlightenment on the reduction of child mortality rate in the state.

1.5 Hypotheses

In order to achieve the set objectives of this study, the following null hypotheses were formulated.

$H0_1$: There is no relationship between the adequacy of healthcare practitioners and the implementation of MDG 4 in Bauchi State.

$H0_2$: There is no relationship between the adequacy of healthcare infrastructural facilities and the implementation of MDG 4 in Bauchi State.

$H0_3$: There is no relationship between adequacy of funding and the effective implementation of MDG 4 in Bauchi State.

$H0_4$: The level of public enlightenment by Bauchi State Government is not a constraint to the implementation of MDG 4 in the State.

1.6 Significance of the Study:

This study is prompted by high level of child mortality rate in Bauchi State; the study is significant because of the immense contributions it would make to the body of knowledge. Researchers have tried to explore the various aspects of infant/child mortality in Nigeria but the gap still exists upon which this study sought to fill. However, Audi (2007) conducted an empirical research on the Determinants of Mortality Rate Among Under-five Children in Nasarawa State. In the same vein, Bello and Joseph (2014) studied the Determinants of Child Mortality in Oyo State; their studies focused only on the causes of child mortality but failed to capture the role played by Government in reducing child mortality.

Furthermore, Jumare (2012) assesses Maternal and Child Healthcare Policy and the Attainment of MDGs in some selected Local Governments of Kaduna State using secondary data, his research focuses on policy achievement dwelling on secondary data only, this did not allow him to get insight input from the target beneficiaries. The success of such kind of Government policy is determined by the satisfaction of the target beneficiaries while this research employ both the primary and secondary sources of data in getting qualitative information. This study sought to fill other gaps that exist through the following;

Of all the literature reviewed, there was no work of this nature written specifically on Bauchi State. Most of the researches on MDGs focus on either poverty reduction or

basic education, which are not the only goals of MDGs, while this work is set to examine the role played by Bauchi State Government in the effective implementation of MDGs on reducing Child Mortality in the State.

The findings of this research are expected to contribute immensely to knowledge that will lead to further research to develop upon it, thereby solving the problem of Child mortality in Nigeria. The government of Bauchi State would find this work resourceful in formulating policies that are related to Child mortality in the State. Meanwhile by revealing the efforts made by the Government of Bauchi State towards implementation of MDGs in reducing child mortality rate in the State, it would determine the journey made so far by Bauchi State Government in this regard.

This research covered a period that is more recent compared to other researches that were conducted which are related to his research, because it has covered the period from 2009-2013.

1.7 Scope and Limitations of the Study

This study focuses on the implementation of MDG 4 in Bauchi State, with a view to examine the role played by the Government of Bauchi State in the implementation of Millennium Development Goal 4 (reduction of Child mortality rate). The study covers a period of 5 years (2009-2013), out of the fifteen years set for the attainment of MDGs, in order to ascertain why the child mortality rate of Bauchi State was still high in that period despite the implementation of MDG 4. More so, the choice of the study period is due to the fact that, the MDGs are to be achieved within 15 years and the period set for accomplishment of MDGs which serves as its life span has elapsed but the problem of child mortality persists. The choice of the area is base on the availability of data to be used in the course of the study and it will also enable the researcher to ascertain whether Bauchi

State Government gives more priority to semi-urban or the urban centres at the expense of the rural areas.

Limitations; It is believed that a number of limitations may affect the quality of work of this nature. Identifying such limitations will serve as a means of solving the problems. Thus, the following are limitations of the study.

The major limitation of this study is however, that of administering questionnaires, because of the fact that most of the respondents are women with low level of education and the research of this nature relied largely on the opinions and views of the target population. This in one way or the other may affect the outcome of the study. More so, there is a problem of Purdah, which restricts inter-mingling between men and the married women, while the married women are the targeted respondents. Moreover, there is a tendency of respondents to conceal the facts, due to the apathy that the masses created against government. Furthermore, the inadequacy of literatures that examine the efforts of Government on the attainment of MDGs specifically on reduction of child mortality in Nigerian is another limitation.

Furthermore, estimates of infant and child mortality rate are base on retrospective birth and deaths history and are subject to possible reporting errors that may adversely affect the quality of the data. These estimates may be affected by the insufficient record keeping with which births and deaths are reported and recorded, as well as the accuracy of information on children who died. Another potential data quality problem is the information about funding this is because most often than not Government officials tend to concealed information related to finance.

For some of the aforementioned problems that are necessary to be overcome, however, efforts were made by the researcher to simplify the statement in the questionnaires to enable the respondents answer the questions in a successful manner.

Where the respondents are uneducated, the researcher translated the questions in a language that they could understand. So also, proper effort was made by the researcher to guide the respondents on how to fill the questionnaires correctly thereby making sure that the proper documentation of data is available for analysis. More so, with regard to the issue of Purdah, the researcher employed a graduate female research assistant who used to meet women of reproductive age during wedding and naming ceremonies and obtained information. Furthermore, the researcher went to maternities and liaised with the Nurses/Midwives heading maternities and obtained information from pregnant and nursing women on the days fixed for prenatal and postnatal visits.

1.8 Operational Definition of the concepts

Reduction of Child Mortality rate: refers to Reducing child killer diseases to a minimum level, Improvement in pre-natal health condition of women, Increase in Antenatal Healthcare Services. Promoting Post-natal Healthcare Services of children, Reducing by two-third the under five-mortality rate.

Millennium Development Goals (MDGs): is a set of eight goals designed by United Nations for all the member countries to strive towards achieving them. These include eradicating extreme poverty and hunger, to achieve universal primary education, to promote gender equality and empower woman, to reduce child mortality, to improve maternal health, to combat HIV/AIDS, malaria and other diseases, to ensure environmental sustainability, to develop a global partnership for development.

Healthcare practitioners: connotes Nurses, Midwives, Community Health Extension workers and well-trained Junior Community Health Extension workers.

Adequate Healthcare practitioners: involves Sufficient Nurses; Sufficient Midwives, Adequate Community Health Extension workers, Suffice Trained Junior Community Health Extension workers.

Adequate Healthcare Infrastructural Facilities; refers to Adequate Health Centres, Sufficient Maternities, Adequate Clinics, Sufficient Dispensaries, Adequate Ambulances at the Maternities and Health Centres to facilitate referral system, Sufficient equipments and other instruments for diagnosis, Adequate power supply to Maternities, Health Centres, Dispensaries and Clinics, Good access roads to healthcare services providing centres.

Adequate funding; is defined as Provision of all the needed funds on the improvement of prenatal healthcare services. Adequately financing antenatal healthcare services, Sufficient allocation of money towards the improvement of post-natal healthcare services. Sufficient funding on provision of Primary healthcare infrastructural facilities, Timely release of funds on Primary healthcare services, Proper utilization of the released funds on Primary healthcare services.

Public enlightenment; means the use of Television to disseminate information on prenatal, antenatal and postnatal healthcare issues, the use of Radio in creating awareness on prenatal, antenatal and postnatal healthcare issues, the use of town criers in informing people about healthcare related issues.

Other variables such as prenatal, antenatal and postnatal healthcare services can further be explained in a more observable manner.

Improvement in Pre-natal Healthcare Services: means Encouragement of pregnant women to be going for medical check up, adequate supply of trained primary healthcare workers. Increase in the number of Clinics, Dispensaries, Maternities and Health Centres, Provision of adequate equipments for diagnosis to the PHC workers, Increase in the level of awareness/enlightenment in child health related issues, Increase in the provision of portable drinking water.

Increase in Antenatal/neonatal HealthCare Services; connote Provision of adequate medication to women under labour, free immunization to newly born babies, Provision of Ambulances to enhance and facilitate referral system for complicated labour, Free surgery to pregnant women with highly complicated labour when necessary.

Increase in Post-natal HealthCare Services: means free immunization to children between 0-5 years old, Provision of regular vaccination to infants and children, Provision of adequate drugs to the children and nursing mothers, Enlightenment campaign against drugs abuses, Enlightening people to leave their wives to go to hospital when the need arises.

1.9 Organisation of Chapters

This dissertation consists of six (6) chapters, covering all aspects of the study, from the introduction to the summary, conclusion and recommendations.

Chapter one captures the General Introduction and background to the study, which highlights Child mortality globally and MDGs. The chapter further discusses the statement of problem, the objectives of the study, hypotheses to be tested, and significance of the study, as well as the scope and limitations of the study.

Chapter two consists of the literature review and the theoretical framework for this study. The overview of MDGs and Child mortality was given in detail, the researcher also reviewed literatures related to causes of child mortality in Nigeria and the evaluation theory was adopted as the theoretical framework for the study.

Chapter three covers the discussion of research methodology. This includes the research design adopted for the study, the methods and sources of data collection, the population of study, sample size and sampling technique and finally the methods used in data presentation and analysis.

Chapter Four discusses the study area and a brief historical origin and the goals as well as the targets of the MDGs.

Chapter Five focuses on presentation and analysis of the data to be collected from the field in order to test the hypotheses earlier postulated in this work.

Chapter Six is the concluding chapter. It contains the brief summary of the entire work; the conclusion drawn from the analysis of data and some recommendations to be proffered based on our research findings.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter deals with literature review and theoretical framework for the study. In order to have a more insight on issues relating to child mortality and MDGs, a review of related literature carried out in this section was in two perspectives involving the perspective of Millennium Development Goals and child mortality. In order to achieve this, the chapter is further classified into five sections. Section two deals with MDGs, in section three conceptual Issues were surveyed, the concepts of Child Mortality, Pre-natal, Antenatal and Post-natal healthcare services were reviewed. Section four, reviewed the empirical literatures on healthcare infrastructure, PHC personnel, healthcare financing public enlightenment and section five theoretical literatures and finally, Section five deals with the theory that fit the study, which can serves as a theoretical framework.

2.2.1 The Millennium Development Goals (MDGs)

The Millennium Development Goals (MDGs) are a set of eight cardinal objectives collectively put together and adopted initially by the representatives of 189 member states of the United Nations at its landmark convention held in New York between September 6 and 8. At the event, after reviewing the state of human development in the world at the turn of the century and recognizing that one of the major hindrances to fair and equitable world growth lie in the disproportionate availability of resources and levels of development among regions and nations. A declaration was adopted to, not only identify the basic developmental benchmarks that state, national and multi-lateral partners could jointly work towards, but to also put in place a mechanism for the effective sourcing of funds, sharing of responsibilities and progressive monitoring of the outcomes and the impact being made.

As a result, Bello (2007) posits that, it was increasingly been recognized by the United Nations, governments and concerned citizens alike, as the year when the world has an unprecedented opportunity to put in place the policies and resources needed to fight global Poverty, Child mortality and achieve the Millennium Development Goals (MDGs). In similar view, Shela and David (2005) opined that MDGs represent a new attempt to increase the effectiveness of development assistance in reducing poverty and health related challenges, with a time bound targets and strong commitment to monitor progress.

A 2015 timeline was put as target date for the implementation of the agreed goals and respective state actors then return to their territories to ensure compliance. As noted by Yansane (2005) and Alimba (2008), the Millennium Development Goals put the world community on a time when 189 member states of the United Nations adopted. The Millennium Declaration in September 2000; they looked backwards to 1990 and ahead to 2015 and gave themselves 15 years, to produce substantial improvement in the lives of people.

2.2.2 The Nigerian Effort at Meeting the MDGs

The Federal Government of Nigeria being a signatory to MDGs declaration seemed to have taken both policy and institutional steps towards implementing and achieving the MDGs. The government of Nigeria under the leadership of former president Olusegun Obasanjo, launched the National Economic Empowerment Strategy (NEEDS), at the national level, which was replicated at the state levels as; State Economic Empowerment and Development strategy (SEEDS), and the Local Economic empowerment and Development Strategy (LEEDS) at the Local Government level, as a comprehensive socio-economic reform compact that incorporates MDGs. The aim of the NEEDS is to eradicate poverty through Job creation and enhanced growth of small and medium enterprises (SMES).

For proper implementation and coordination of MDGs, the Nigerian Government created a Presidential Committee on the assessment and monitoring of MDGs and established the office of the Senior Special Assistant to the President on MDGs, this office of the MDGs serves as the secretariat for the Presidential Committee on MDGs (Jafaru, 2005). During the last quarter of 2005, the then government secured a debt relief of $18 billion after paying $12 billion to the Paris club of creditors. In consolidating on the debt relief gains, government established a virtual poverty Fund (VPF) where funds were channelled into MDGs related projects. The major activities to be supported by this fund are those that have direct impact on the poor segments of the population which include immunization, HIV/AIDS treatment and prevention, supply of teachers, rural electrification, youths empowerment programmes, gender mainstreaming, rural water supply, road infrastructure, slum upgrading, environmental issues (Anthony, 2009). Successive federal administrations have continued with MDGs programmes at the centre, while at the same time encouraging state governments to key in and continue to play their roles.

2.2.3 The MDGs the Situation in Nigeria

The situation of MDG in Nigeria is best described from two main sources; the Nigeria MDG report 2004 and the Nigeria MDG report 2005. We can also assess the situation from MDGs office especially the Debt Relief Gains as provided in the 2006 annual budget. The 2004 which was Nigeria's first report on the MDGS states that "based on available information it is unlikely that the country will be able to meet most of the goals by 2015 especially the goals related to eradicating extreme poverty and hunger reducing child and maternal mortality and combating HIV/AIDS, Malaria and other diseases. It further states that "for most of the other goals if the trend continues, it will be difficult for the country to achieve the MDG targets by 2015". In the same vein, Falade (2008) observes that Nigeria

can hardly meet the MDGs; he also states that most African countries are backward when it comes to implementation and execution of the MDGs, when compared with other regions of the world. This, he explains is due to poor technical capacity in formulating, implementing and monitoring the operational MDGs based projects and Poverty Reduction Strategy.

The Nigeria Millennium Development Goals 2005 report is the second in the series of annual reports on the MDGs in Nigeria. The report which addressed the eight MDGs highlights on the then status and trends of each of the MDGs, the challenges and opportunities in attaining the goal, the promising initiatives that are creating a supportive environment and priories for development assistance. It can be deduce therefore, that there is no optimism of achieving a 100% in any of the goals, which by implication is a wakeup call to governments to step-up more effort toward attaining the millennium development goals. In a similar view, Mistry (2005) observes that MDGs are laudable projects aimed at poverty reduction. He points out that ever since independence, most Africa states have been faced with developmental failure, and he observed that aid to Africa has not worked because human, social and institutional capability, not financial capital poses as binding constraint.

2.2.4 Review of empirical Literature on the Millennium Development Goals

Various researches were conducted on MDGs. Olayode (2006) argues that for MDGs to be realized there is need for establishment of an appropriate political and institutional framework to guide state intervention, market reform and poverty alleviation. He observes that MDGs being benefits accrued from globalization, requires Africa repositioning through appropriate policy measure. He posits that with appropriate policy measure, Africa in general and Nigeria in particular can attract more capital flows and benefit immensely from full integration into the world economy, which will culminate into speedy realization

of the MDGs objectives. Furthermore, Vandemooretele (2009) is of the opinion that MDGs are the finest set of goals or promises to the third world especially African countries; however there is need to blend MDGs with economic growth. He identifies four major reasons for Africa's slow growth: low capital accumulation; high price of investment goods for African investors; low productivity of investment; and geographical disadvantages. He further, advocate for aggressive investment in infrastructure as key to economic growth that will complement MDGs achievements and improved social outcomes. More so, he emphasizes on the importance of regional cooperation and integration, which will facilitates growth and infrastructural development, which in turn will brings a lasting effect on MDGs beyond 2015. In the same vein, Agbu (2006) observes that for Nigeria to achieve MDGs, it is imperative for the country to adopt a practical approach by collaborating with other countries of the South and multilateral groups in negotiating for better terms of engagement in investment. He cited the membership of Nigeria in the Developing Eight (D-8), consisting of Nigeria, Iran, Indonesia, Turkey, Egypt, Bangladesh, Pakistan and Malaysia who unanimously agreed to promote trade among themselves through reforming their custom services and other policies that hinders the free flow of goods and services across their borders. This he believes to be crucial to the fulfillment of MDGs objectives and targets. He further, advocates for attraction of Foreign Direct Investment (FDI) in the agriculture and manufacturing sectors as crucial to MDGs goals achievements as it has the capacity to increase job creation and reduce poverty knowing that about 70% of the rural populace engage in agriculture and there is a strong relationship between agriculture and manufacturing.

Going by the submission of Olayode, Agbu and Vandemooretele MDGs can only be achieved through strengthen the relationship among countries to enable them acquire more wealth through investment in various sectors of the economy, this will go a long way

in tackling the problem of poverty only through employment generation as such their view is narrowed on poverty as one goal, but other goals of MDGs such as reduction of child and maternal mortality, combating HIV/AIDS and other diseases, environmental sustainability as well achieving universal basic education required not only adequate funds but also commitment by Governments to efficiently and effectively implement the MDGs projects/programmes and by extension create public awareness on the importance of these programmes to the targeted beneficiaries and the need for them to cooperate.

Afolabi (2009) studied the institutional constraints to achieving the MDGs in Africa, using the example of Akure Millennium City and Ikaram/Ibaram Millennium Villages both in Ondo states, and observes that although both the Millennium City and Millennium Village projects have taken off as programmed, the impact of the programme has not been widespread especially in Akure, though the effect of the programme seems visible in the millennium village. He discovered that the problems which programmes are design to solve are still widespread and lack adequate conceptualization of the project and militates against full implementation of the project. He indentifies lack of conceptualization and understanding both by the implementers and the beneficiaries, lack of interest from the part of targeted beneficiaries and inadequate funding and capacity under utilization as the major problems militating against the success of the project. He recommends collective participation that will carry the community along in project design, and implementation as crucial to achievement of the MDGs and complete removal of civil service bureaucracy. In the same vein, Ajayi (2008) studies the success of MDGs in Millennium Village project and finds out that Nigeria is at present off track and very slow when it comes to MDGs implementation and execution. He therefore calls for a better understanding between the policy formulators and executors.

From the Afolabi and Ajayi studies, we can infer that proper coordination by the Government being the formulators and implementers of MDGs projects/programmes will guarantee the achievement of MDGs, this view neglects the roles played by the targeted beneficiaries in the area of cooperation and maintenance of the projects been completed. Maximum cooperation is required from the side of the beneficiaries, this is because issues like increase in pupils' enrolment, accessing prenatal, antenatal and post-natal healthcare services, combating HIV/AIDS and other diseases as well as environmental sustainability required cooperation of people and this could be achieved through proper social mobilization and awareness.

2.3.1 The Concept of Child mortality

Abimbola and Akanni, (2012) defined child mortality as the likelihood for a child born alive to die between his first and fifth birthday. Desta (2011) described infant mortality as the probability of dying between birth and the first birth day, while, Child mortality is the probability of dying between the first and the fifth birth day. According to Park (1997), the child mortality rate is a more refined indicator of the social situation in a country. This is because it reflects the adverse environmental health hazards such as malnutrition, poor hygiene, infection and accidents as well as economic, educational and cultural features of the family. It has been recognised that the infectious diseases of childhood, which include measles, whooping cough, diphtheria, diarrhoea and acute respiratory infection can lead to high case fatality rate in malnourished children.

Child mortality rate: Child mortality rate is the probability of dying between the exact ages of one and five, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000. However, infant mortality rate can be expressed as the probability of newborn babies dying between birth and age of less than one year. UNICEF,

(1996), and Augustus, (2005) define child mortality rate as the probability of children dying between birth and five (5) years of age, and this definition is in line with the focus of the study. The Augustus definition has single indicator of child mortality as compared to Park's (1997) which reflects income, nutrition, health care, basic education and so on.

2.3.2 Neonatal Care Practices in Nigeria

Newborn care is essential in reducing neonatal health challenges and death. The vulnerability of newborns requires specific interventions to improve their chances of survival as well as normal growth and development. To identify, manage, and prevent complications, it is recommended that the mothers and the newborn babies suppose to have at least three check-ups within seven days after delivery (WHO and UNICEF, 2009), which is considered as critical period for neonates and mothers. As is the case for mothers, the timing of the first postnatal check-up for the newborn is crucial for early detection of complications after delivery. The earlier the problem is discovered and managed, the better the health condition of both the mother and her baby. These interventions are in line with Millennium Development Goal 4. The Federal government of Nigeria, through the Federal Ministry of Health, has developed newborn care programmes that focus on the areas outlined below (FMOH, 2007).

Essential Newborn Care: This is an integrated package of newborn care at the primary health care level mainly focusing on skilled health workers. In addition to the essential care component, the intervention consists of the following programmes: Emergency Newborn Care, Helping Babies Breathe (for birth asphyxia), and Kangaroo Mothers' Care (for low birth weight babies; to be initiated at the health facility and then continued at home).

Community-based newborn care: In this programme, Community Health Extension Workers are been trained to provide home-based newborn care and equipped with a kit for this assignment.

2.3.3 Prenatal care

Prenatal care is a type of preventive healthcare services with the goal of providing regular check-ups that allow doctors or midwives to treat and prevent potential health problem throughout the course of the pregnancy, while promoting healthy lifestyles that benefit both mother and child. During check-ups, women will receive medical information over maternal physiological changes in pregnancy, biological changes, and prenatal nutrition, including prenatal vitamins. Recommendations on management and healthy lifestyle changes are also made during regular check-ups. The availability of routine prenatal care will play a vital role in reducing maternal and child death rates and miscarriages as well as birth defects, low birth weight, and other preventable health problems. Prenatal care generally consists of:

i. Monthly visits during the first two trimesters (from week 1–28)
ii. Fortnightly visits from 28th week to 36th week of pregnancy.
iii. Weekly visits after 36th week until delivery (delivery at week 38–42)
iv. Assessment of parental needs and family dynamic.

2.3.4 Antenatal Care

The major objective of antenatal care is to ensure optimal health outcomes for the mother and her baby. Antenatal care from a trained provider is important to monitor the pregnancy and reduce morbidity and mortality risks for both the mother and the child during pregnancy and delivery. Antenatal care provided by a skilled health worker enables;

a. Early detection of complications and prompt treatment (e.g. detection and treatment of sexually transmitted infections),
b. Prevention of diseases through immunisation and micronutrient supplementation,
c. Birth preparedness and complication readiness and
d. Health promotion and disease prevention through health messages and counselling for pregnant women,

The antenatal care policy in Nigeria follows the WHO approach to promoting safe pregnancies, recommending at least four Antenatal care visits for women without complications. This approach is called focused antenatal care, emphasises quality of care during each visit instead of focusing on the number of visits. The recommended schedule of visits is as follows:

i. the first visit should occur by the end of 16 weeks of pregnancy,
ii. the second visit should be between 24 and 28 weeks of pregnancy,
iii. the third visit should occur at 32 weeks, and
iv. The fourth visit should occur at 36 weeks. However, women with complications, special needs, or conditions beyond the scope of basic care may require additional visits. Early detection of problems during pregnancy leads to more timely treatment and referrals in the case of complications. This is particularly important in Nigeria, a large country where physical barriers are a challenge to accessing care within the health system.

The content of antenatal care is an essential component of the quality of services. Focused antenatal care hinges on the principle that every pregnancy is at risk of complications. Therefore, apart from receiving basic care, every pregnant woman should be monitored for complications. For that reason, ensuring that pregnant women receive information on the

symptoms of complications or the danger signs of pregnancy, along with screening for complications, should be a routine part of all antenatal care visits.

2.3.5 Postnatal Care

The postnatal period; refers to the first six weeks after birth. It is very critical to the health and survival of a mother and her newborn baby; this is because during this period they may develop serious life-threatening complications, especially in the interval immediately after delivery. The most vulnerable time for both is during the hours and days after birth. Lack of care in this period may result in death or disability as well as missed opportunities to promote healthy behaviours, affecting women, newborns, and children.

There is evidence that a large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Postnatal care visits provide an ideal opportunity to educate a new mother on how to care for herself and her newborn baby. The type of provider for the mother's first postnatal check-up is a crucial determinant of the quality of the check-up. The ability to detect early warning signs in the mother and newborn and take appropriate actions (e.g., referral to a higher level of care) depends on the knowledge and skills of the provider. The Federal government of Nigeria, through the Federal Ministry of Health, and State Governments are providing training for skilled birth attendants on emergency obstetric and neonatal care and lifesaving skills to improve results for mothers and their babies during and after delivery.

2.3.6 Causes of Infant/Child Mortality

Child mortality is a worldwide problem; several researchers such as Sofoluwe (1996), Molineaux et al (1980) and Augustus (2005) have indicated that most children die between birth and five years of age because of infectious diseases such as malaria, anaemia,

diarrhoea, and poor sanitary condition. This is so because looking at the prevalent of malaria caused by Mosquito bites would certainly increase the rate of child morality.

Mosley and Chen (1981), viewed morbidity and mortality of the children as being influenced by underlying factors of both biological and socio-economic, operating through proximate causes. It has been observed that child mortality have many triggers, which include; culturally inappropriate healthcare services, malnutrition and lack of hygiene are direct causes of mortality of children. Parks (2002) posits that, the factors that influence health lie both within the individual and externally in the environment/society in which he/she lives. Other factors include the following;

Illiteracy/Low Education: Adebayo, et al (2005), argues that low level of literacy is a source of shame and constitutes difficulty in attaining the complex task of health care. The parents that have low education level sometimes found it difficult to understand instructions and administer appropriate treatment to their children or compliance to instruction from doctor. One third of the surveyed conducted shows that some women were not able to recognise two or more signs of illness, which are associated with fever, requiring prompt care seeking and delays in treatment provide opportunity for simple illnesses to become severe (USAID 2001, BASIC II/FGN, 2002). Data from the NDHS (2008), revealed that educational levels among females were related to higher infant and under-five mortality. According to Zakir, et al (2011) a well informed mother has the ability to take precautions against factors that will pose greater risk to her infant. Among other issues, she will remember to keep appointments with her doctor, attend ante and post-natal clinics as at when scheduled and maintain good hygienic conditions necessary for the good health of her baby. They further added that a population with diseases and unhealthy infants has the danger of decreasing enrolment of children, particularly where mothers are illiterate. The position of Hao (1990) was not different from these, as he agreed that the higher the educational level of the parents, particularly the mother, the lower the child mortality level. He concluded that of all the variables studied by him, mother's education had the greatest impact on reducing child mortality.

Poverty: Poverty plays a part as many families faced with challenges of meeting their basic needs such as lack adequate resources for taking care of their health challenges. The health status of a person is primarily determined by his/her purchasing power. Olusegun, et al (2012), examined the unacceptably high maternal and child mortality in Africa using

Nigeria as a case study. The study closely linked maternal and child mortality with poverty and malnutrition, as an underlying contributor. In the same vein Park (2002), posits that, the factors increasing mortality rates, both directly and indirectly is the socio-economic status of the individual.

Malnutrition: Malnutrition implies a condition resulting from a relative or absolute deficiency or excess of one or more essential nutrients. This consists of four forms such as under nutrition, over nutrition, imbalance and specific deficiency. Under nutrition is a condition in which insufficient food is eaten over an extended period, whereas overfeeding is a situation whereby an individual takes more than the required quantity of food over a long period. Imbalance is the disproportion among essential nutrients with or without absolute deficiency of any nutrient and specific deficiency results from relative or absolute lack of an individual nutrient. Park (2002) argues that, the cultivation of poor nutritional habits in early infancy has serious impact on the growth of children and presents added risk factors for non-communicable and cardiovascular diseases later in life.

Diarrhoea is a condition in which faeces are watery and expelled frequently, it can occur as food moves rapidly through the intestine. Change in diet, food poisoning, over-eating, emotional turmoil, nutritional deficiencies, viral and bacterial infections are all causative factors for diarrhoea, (MCC 1985). Diarrhoea, which brings about dehydration, is one of the commonest causes of high mortality of children in developing countries including Nigeria.

Acute respiratory infection has been identified as one of leading causes of child deaths in the developing countries. The prevailing known causes of acute respiratory infection mortality are bacterial and viral pneumonia, measles and pertussis (Ngalikpima 1983). Measles is a disease that is highly infectious which is transmitted by respiratory route while unprotected children in the developing countries can easily be affected as a result of which die of measles and its complications.

2.3.7 Effects of Child Mortality

Child mortality has many consequences, which include:

Reduction of the life expectancy of the children in their early and significant age, this is because the children's life is cut short at a birth or younger age. Such children do

not live up to their old age to take care of their parent when they are aging and to give their contribution toward the development of the country as well.

Child death itself is a risk factor with multiplier effects in the sense that when a mother loses a child at birth, she would want to get pregnant almost immediately not weighing the risk involved in which some time leads to her death. Maternal mortality leads to communal loss; "When a mother dies, other children lose their primary caregiver, communities are denied her paid and unpaid labour, and countries forgo her contributions to economic and social development' (John, 2010). A woman's death is more than a personal tragedy; it represents an enormous cost to her nation, her community, and her family. All social and economic investments that have been made in her life, either by Government or her family is lost. Her family loses her love, her nurturing, and her productivity, both inside and outside the home (www.safemotherhood.org, 2008). The death of a mother also means a reduction in the husband income as well as a loss for the economy, as many women in developing countries contribute a substantial share of labour in agriculture and trade.

Child Mortality affects Fertility of couple: A widely accepted hypothesis holds that high childhood mortality contributes to parental desires to have many children. Empirical investigation of the interrelationship of reproductive behaviour and childhood mortality has focused on two specific domains of fertility responses to childhood mortality: an insurance effect that arises from the tendency of couples in high-mortality settings to anticipate mortality risks and a replacement effect in which parents experiencing the death of a child adjust their subsequent reproductive preferences and behaviour. Replacement, in turn, has two components: a biological component associated with the death of breastfeeding infants that arises from the truncation of lactation and a volitional component that arises from parental decisions to try to have an additional child to replace the lost child. Testing the

insurance and replacement hypotheses involves clarifying the relationship between the death of a child and the mechanisms of fertility decision-making (LeGrand et al. 2003; and Sandberg 2005).

Research has determined that the death of a child reduces the probability that parents will subsequently adopt a contraceptive method, thereby increasing the likelihood of additional pregnancies. Qualitative research conducted in Bangladesh and India by Amin and Basu (2004) posit that if more children are expected to survive to maturity, parents can afford to have fewer children.

2.3.8 The Child Survival Strategies in Nigeria

The child survival strategies being part of UNICEF programmes, which are believe to be affordable and available to nations, communities and individuals for the reduction of morbidity and mortality of child. The first four activities of the programmes include growth monitoring and promotion, oral rehydration therapy, breastfeeding and immunization (GOBI). Other components such as female education, family planning and food supplementation were added. The strategies were further expanded to include Primary Health Care (PHC) activities such as environmental protection and adequate sanitation, essential drugs programme, treatment of common diseases and health education. From health demography (statistics of birth, deaths, and diseases), the implementation of these activities (components) is not yet satisfactory because, some of these activities have not reached most of the rural areas of Nigeria. The World Health Summit for Children 1990, the problem of under-five mortality has attracted both international and national attention. A total of 159 government representatives committed themselves to the joint declaration and plan of action of the World Health Summit on behalf of the world's children health and life expectancy. As cited by executive director of UNICEF James P. Grant (2000) on

September 30th 1990, about 71 presidents and prime ministers met in New York USA. For the first world summit to find solution to the death of children from malnutrition and also to provide protection for the physical and mental development of children in the world, in addition to reducing the ratio of mortality, diseases and illiteracy.

UNICEF (2001) stresses that the ideals of these international conventions on the right and welfare of the child were reinforced and complimented by African countries in 1990 with the declaration of the rights and welfare of the child. The purpose of these world declarations was for the survival, protection and development of children, with a plan of action, a global goal for children by the year 2000.

The Primary Health Care (PHC); at the 1978 Alma-Ata international conference in the USSR, participants declared the aim to achieve health for all by the year 2000 in all the countries. Nigeria launched her own version of the declaration in 1986 with 10 components, namely:

1. Promotion of effective nutrition
2. Adequate supply of safe water
3. Basic sanitation
4. Maternal and child health care and family planning
5. Immunization against major infectious diseases
6. Health education
7. Appropriate treatment of common diseases and injuries
8. Provision of essential drugs
9. Mental health
10. Dental health

PHC is the first level of contact of individuals, family and community with the national system of bringing health care services close to where people live and work. The provision of PHC centres in many communities in Nigeria has not completely solved the health problems since many of the communities in Nigeria are lacking health facilities and where PHC exists there are no adequate staff, drugs, or equipment because of financial constraints, (Sofoluwe etal 1996).

Expanded Programme on Immunization (EPI) and National Programme on Immunization (NPI): The immunization programme is aimed at controlling the six-killer, vaccine-preventable diseases such as measles, tetanus, tuberculosis, diphtheria, pertusis and poliomyelitis. The programme has only assisted to reduce several thousands of deaths in developing countries where people are fully aware and participate in the immunization programme successfully (Park, 2002). In the same vein Sofoluwe, et al (1996), posit that the implementation of this control programme and the management of the six killer diseases by the federal government of Nigeria in collaboration with international agencies like UNICEF, WHO has helped to identify areas with health problems like epidemic and endemic diseases as well as promotion of welfare of human resources. It has also improved on the life expectancy of Nigerian children.

2.4 Healthcare Infrastructure

Primary Healthcare Infrastructure has been described as the basic support for the delivery of public healthcare services; it is an important indicator for understanding the health care policy and welfare mechanism in a country. It signifies the investment priority with regards to the provision of health care services. Health infrastructure means the quality of physical, technological and human resources available at a given period (Erinosho, 2006; Ademiluyi and Aluko-Arowolo, 2009).

Erinosho (2006) viewed healthcare infrastructures to include the buildings and other fixed structures like pipe borne water, good access roads, electricity etc within the healthcare environments, and technology equipment meant specifically for hospital use including surgeries, computer equipment and consumables. In the view of Erinosho healthcare infrastructures encompasses other basic amenities of life such as portable drinking water, power supply and other equipment, this view is too broad and vague.

Turnock (2002) described public health infrastructure as "the nerve centre of public health." He viewed health infrastructure in a broader perspective by dividing it in to three components, which include;

a) Workforce capacity and competency,

b) Organizational capacity: the consortium of local and State health organizations and laboratories, and

c) Information and data systems: up-to-date guidelines, recommendations, health alerts, modern standards-based information and communication systems that monitor disease and enable efficient communication among public organizations through media publicity. These components are interrelated; deficiencies in one area or in one jurisdiction have a ripple effect throughout the entire public health system. Therefore, the goal of strengthening public health's infrastructure is to achieve improvements in all the three areas indicated by Turnock (2002). Viewing health care infrastructures from this angle however, he seems to neglect other vital facilities like equipment for diagnosis and other basic apparatus, which are also important components of health care infrastructures.

According to Kumar and Gupta (2012) health infrastructure can be broadly classified into five components, which include; skilled workforce, integrated electronic information systems, healthcare organizations, resources and research. From this point of

view, health infrastructure implies material capacity building in the arena of public health delivery mechanisms. In a study conducted by Kumar (2012) revealed the condition of Health infrastructure in India in terms of; a) Insufficiency of Hospital Beds, b) Dismal Number of Healthcare Centres and c) Insufficient Number of Blood Banks.

UNICEF (2000) and Bassir, (1973), submit that medical practice, curative and preventive medicine deals with the maintenance and preservation of life. Inadequate maternities/poor access to health care services is a contributing factor to high maternal and child mortality in Nigeria. Most often than not, pregnant women have to travel great distances to the closest centre that offers quality maternal health services, especially when they live in rural and remote areas, this is because setting of health care structures is often based on political expediency rather than perceived need.

An insufficient rural infrastructure and undependable public transport or emergency transportation impedes on access to care as well. Consequently, many women have to depend on local healthcare services from providers who often do not have the skills or the equipment to treat obstetric complications, such as relatives or traditional birth attendants (Lule et al, 2005). Moreover, it is unfortunate that the few maternities/hospitals available are grossly under-staffed, laboratories and other modern technical services are inadequate in the vast majority of hospitals in rural areas and drugs are in short supply. At times surgery is performed in non-sterile conditions in rural areas and recovery is invariably complicated by environmental factors, consequently resulted to morbidity and high child mortality in Nigeria.

The drug system is plagued with ‘out-of-stock syndrome’. Fake, substandard, adulterated and unaffordable drugs are prevalent across the country. Therefore, whenever health systems cannot deliver, people turn elsewhere. This has contributed greatly to poor client satisfaction, which makes clients to turn to private sector and unqualified health

workers. Some researchers had also identified distance to health facilities as a determinant of demand for health services. Distances to the nearest health facility has mainly an effect for the treatment of rural rich Tanzanians since the rich have higher education and higher wages (Frederick, 1998).

Appleton (1995), Dercon (1996), Lavy and Germain (1994) also found out that distance to health facilities affect the take-up of the ill and the choice of health facilities in Kenya, Ethiopia and Ghana. Turner (1991) found out that in Nicaragua better access to health care facilities was the strongest determinant of health care spending by household. Household that live or trek longer distances to receive health services are bound to develop evasion strategies which include patronizing quack medical stores, traditional native medical attendants and self medication. However, Collier and Mackinnon (1997) found out that household usage of health facilities is far more sensitive to quality than distance.

Looking at the various cognitive submissions of the scholars above, it implies that infrastructural facilities such as beds, mobility, structures, equipment, water supply, roads etc are critical in the health services and paramount in the struggle for reduction of maternal and child mortality in every society including Nigeria and Bauchi State in particular. Once these are not adequately put in place, it is very dangerous to the struggle in the reduction of maternal and child mortality.

2.5 Primary Healthcare personnel

The most significant component of any health care system is its personnel. Without skilled human resources, healthcare systems cannot function adequately or effectively, particularly in the public sector and at the primary level of care. In Nigeria, many communities have since their creation developed various traditional medical systems using locally available resources for alleviation of their health problems. The British colonial

powers introduced orthodox medicine in Nigeria, and up to-today, both systems of healthcare core-exist in the country.

Jaja and Nwakaego (2003) defined a health worker as "a person well informed in the art and science of sustaining, maintaining, creating and energizing sound state of human health. Ewhrudjakpor and Ojile (2005) classified health practitioners into Doctors, Nurses, Pharmacists and other health care workers. Reiterating from Ewhrudjakpor and Ojile above therefore, a health practitioner is someone who by nature of his training is able to diagnose and treat diseases and also educate individuals, groups or, communities on maintenance of good health. Health personnel comprises the health professionals such as doctors, pharmacists, nurses, midwives, laboratory technologists, administrators, accountants and other sundry workers. All these put together form the structure upon which the healthcare delivery is anchored in any society and the determinants of its infrastructure (Erinosho, 2005, 2006; Ademiluyi and Aluko-Arowolo, 2009).

Therefore, Primary Health care personnel refers to a person whose primary employment role is to diagnose physical and mental illness, disorders, injuries and prescribe medications and treatment that promote health of individual, at prenatal, antenatal and post natal particularly in an attempt to prevent maternal and child mortality.

The core actors involved in the provision of Primary Health Care services are registered Nurses who are specialists in PHC, who provide accessible, comprehensive and effective care to clients of all ages. They are experienced nurses, some with additional nursing education, which enables them to provide individuals, families, groups and communities with health services in health promotion, disease and injury prevention, cure rehabilitation and support. In a view of Sirkorski and Peter (2009), the function of Nurses is to promote health, prevent illness, restore health and alleviate suffering. There are also variety of other PHC practitioners who provide support services to the Nurses; they include

Community Health Extension Workers (CHEW), Junior Community Health Extension Workers (JCHEW) and other health attendants in the health centres, maternities, dispensaries and clinics.

Researches from other countries have shown a correlation between quality of care, healthcare outcomes and the availability of health personnel. In a research conducted by Padarath et'al (2003), revealed that Brain drain and misdistribution of health personnel has significantly affected health care delivery system in South Africa. Grubaugh and Santerre (1994) in their study found a strong positive correlation between certain health inputs, number of doctors, hospital beds, number of qualified health personnel's and health outcome.

Human resource is one of the important factors that determine the success or otherwise of health care service delivery in Nigeria, no health intervention can be successful without an effective workforce. There is inadequate and inequitable distribution of health personnel at various levels in Nigeria, especially in the rural and hard-to-reach areas, in which Bauchi State is not different. Inadequate incentives and compensation for health workers and structures are worsening the brain drain syndrome and refusal of health workers to accept posting to rural areas. Over the years, poor remuneration and motivation of health workers has been adversely affecting the morale of health care personnel which led to brain drain and frequent strike by healthcare workers in Nigeria and Bauchi in Particular. Doctors complaints of 'brain waste' and seek better opportunities for professional development in countries with better remuneration and health infrastructure like USA and UK. Lambo (2006) argued that, Nigeria is one of the major health workers exporting countries in Africa. His study revealed that about 432 Nurses legally migrated to work in Britain and other European countries between April 2001 and March 2005, out of a total of about 2000 legally emigrating African nurses, this situation is unhealthy for the

Nigerian health system sustainability, particularly in the area of maternal and child health care delivery.

2.6 Health Care Financing

Health financing is fundamental to the ability of health systems to maintain and improve human condition. At the extreme, without the necessary funds no health workers would be employed, no medicines would be available and no health promotion or prevention would take place. Fund is a prerequisite of health care management all over the world including Nigeria, and Bauchi State in particular. The objectives of health financing are to make funds available to ensure adequate structures, adequate beds, roads and mobility, appropriate choice, give appropriate financial incentives to providers and ensure that all individuals have access to effective health services, among others.

According to WHO (2000), Health financing refers to the "function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system. The purpose of health financing is to make funds available, as well as to set the right financial incentives to service providers, to ensure that all individuals have access to effective public health and personal health care".

Health care financing therefore does not only involve how to raise sufficient resources to finance health care needs of countries, but also on how to ensure affordability and accessibility of healthcare services, equity in access to medical services as well as guarantee financial risk protection.

The level of healthcare financing is closely and indivisibly linked to the provisioning of services and helps define the outer boundaries of the system's capability to

achieve the overall goal of enhancing a nation's healthcare system (Rao, Selvaraju, Nagpal and Sakthivel, 2009). Carrin, Evans, and Xu (2007) documented that how health systems are financed largely determines whether people can obtain needed health care services and whether they suffer financial hardship at the instance of obtaining care.

Despite the healthcare financing options identified in Nigeria, there still exist disproportions in health system financing. For instance, Olaniyan and Lawanson (2010) observed severe budgetary constraints and uneven distribution of resources among the urban and rural areas with the rural areas mostly affected by inequitable budgetary health expenditure allocation. Ichoku and Fonta (2009) had also noticed a catastrophic healthcare financing in Nigeria, which eventually led to further impoverishment of the poor by excessive reliance on the ability to pay through Out-Of-Pocket payment reduces health care consumption in the rural areas and exacerbates the already inequitable access to qualitative healthcare. According to Ichoku and Fonta (2009) Nigeria's health financial arrangement has shifted from health provisioning by government as a normal public goods towards a competitive market where greater proportion of health services are provided by ability to pay through out of pocket expenses (often referred to as user fee).

From the views of the scholars above therefore, Health care financing does not only involve how to raise sufficient resources to finance health care needs of countries, but also on how to ensure affordability and accessibility of healthcare services, equity in access to medical services.

2.7 Public enlightenment

Health care information is the lifeblood of health services delivery; it has always been used extensively in the provision of health care services, Information is valuable in the prevention of diseases and promotion of good health. "Both the public health and the

personal care interventions have contributed to reversing the urban – rural differences in health status; better health among urban populations is due more to the application of improved knowledge" (WHO, 2000). It therefore argues that people in rural areas could enjoy better health if they accessed health care information to enhance their knowledge. Unfortunately, inadequate health care information in Nigerian localities in various States including Bauchi State always contributes in placing child mortality on the increasing side. Factors that negate access to public enlightenment on primary healthcare information in rural areas are drawback to health care system in Bauchi State.

In the view of Musoke (2005), Primary healthcare information is disseminated through various means, which include traditional method and modern method by using technology such as enlightenment via Television, Radio and Newspapers among others. Similarly Poon, et al (2006) posit that information technology has significant potential to improve patient's safety, organizational efficiency and patient satisfaction

Due to ignorance and fear of stigmatization, many rural people especially women are not willing to go for voluntary medical laboratory test neither do they really want to know their status. Therefore, creation of awareness on prenatal, antenatal and post natal health care prevention and necessary care to women of reproductive age is required. It is in realization of the importance of awareness to health care service that Nakojimo (1997) remarked that "information and communication are at the very heart of World Health Organization". The quality of health care depends to a large extent on the knowledge and skills of its personnel who are engaged in enlightening people. To ensure a high level of current awareness and research, PHC services and activities require the support of constant flow of information (WHO, 2008).

The study by Pakenham, Walsh and Priestly (1997), have shown that people in the rural areas do not have access to basic information they need, since majority of the

population live in rural areas. Most of the primary health care centers that are in remote areas lack facilities like internet services; they lack adequate power supply, poor road networks and most of the social amenities of life.

It is in relation to the importance of healthcare information, the World Health Organization (WHO) (2010) designed an information outreach which is community based as part of the strategy to ensure that health care information in all forms gets to the people with HIV. In support of this, Mihlanga (2013) in his contribution to eradication of HIV/AIDS project in South Africa revealed that information dissemination is a very important factor in the process of eradicating HIV/AIDS scourge in the society.

Public enlightenment is the key ingredient to effective primary healthcare delivery; it is in realization of this that Health education programmes were been designed and introduced as programmes of study in the Nigerian Universities. Ademuwagun (1974) opined that health education is a process of disseminating scientific knowledge of promoting positive health attitude and motivating desirable health practices. Turner (1971), Bucher (1979), and Fejiwonyomi (1993) hold similar view that health education is an instrument of value transmission and behaviour modification that could lead to students' understanding, acceptance and adjustment to healthful living standard. From the foregoing, health education is actually a process that could be used in improving the health status of women by enlightening on the issues of prenatal, antenatal and postnatal healthcare. Lucas and Gilles (1990) cited in Moronkola (1999) agreed that health education encourages people to value health as a worthwhile asset and to make people know how they can take actions to promote their health as individuals and that of their communities.

Lack of good public enlightenment on healthcare related issues; the majority of people are ignorant or unaware of certain available healthcare services and their rights regarding healthcare service delivery, mainly due to inadequacy of good public

enlightenment on primary healthcare service delivery. Absence of integrated system for disease prevention, surveillance and treatment has manifested in the lack of targeted efforts at outreach, health promotion and disease prevention activities designed to reach the people where in the areas, hence resulted in low immunization coverage, prenatal care, antenatal and postnatal.

We can infer that the quality of healthcare delivery is intricately intertwines with the adequacy of health infrastructural facilities, health personnel, sufficient financing and public enlightenment on primary healthcare. An equally crucial factor is a willingness of government in active support of and participation in the health system for the overall benefit of the society.

On a general note, the variables discussed above and the literatures elucidated them is in accordance with Edwin Locke (1960s') goal setting theory. The theory is a set of related ideas that provide an explanation for a given phenomenon. The goal setting theory stipulates that specific and difficult goals lead to higher level of performance than the generalized goals. This is base on the fact that, harder goals tend to make people to think deeply on how to achieve them; thereby resulting in greater efficiency, which at the end will increase performance. Edwin Locke propounded this idea in the (1960s). He argued that intentions to work towards a goal are the major source of work motivation (personnel). That is, goals direct an employee what needs to be done and how much effort will be expended. Therefore, goals that are specific and difficult in nature will motivate workers to work harder in order to achieve them. This action will in turn induce increase in performance (reduction of maternal and child mortality). According to Edwin Locke however, goals must possess the following features:

i. **Goal – specificity:** Goals must be quantifiable, well understood, specific and quantitative in nature to be attainable.

ii. **Goal-acceptance:** It measures the degree to which individuals can accept goals and put in their best to ensure that the goals are achieved. And

iii. **Goal-difficulty:** The complicated nature of goals should create a demanding and interesting motivational stimulation on workers. To this extent, goals should not be so difficult that they will be wearisome and discouraging in nature.

In view of the articulations of the Goal setting theory, it is certain that the Millennium Development Goals are goal-oriented and capable of reinforcing the desired motivational inspiration on the part of the Government of Bauchi State for their implementation. It is a programme, which is set forth to achieve certain goals, which demonstrate the basic characteristics of goal-setting theory; these characteristics are goal-specificity, goal-acceptance and goal-difficulty. Millennium Goals are difficult, challenging, and achievable. Hence, they are specific, clear, measurable and quantitative in nature. In this regard therefore, the attainment of MDG 4 required efficient personnel to transform the conditions of the people (women of reproductive age in Bauchi State), via eradication of health care illiteracy, create health care awareness, and improved infrastructures, and adequate funding on the side of the Bauchi State government.

2.8 Theoretical Framework

The theoretical framework used in the study is evaluation theory, propounded by Edward Suchman in 1967, the theory was first used by Edward Suchman in Columbia to evaluate public health programmes in 1967. Suchman considered that evaluation must be approached with the logic of scientific method. His work and writings during the 1960s, however, emphasized the need to assess programmes in relation to their practical setting.

He suggested specific criteria for assessing programme success in relation to design, implementation and impacts. The earliest recognizably modern form of evaluation theorists include Greenbarg (1968), Scriven, (1991) and Shadish, Cook and Laviton (1991). Hatry (2002; 352) asserts that "it certainly desirable that institutions at any level of government periodically undertake a comprehensive review of what they are doing and how they are doing it".

The justification for the use of the theory hinged on the fact that it is capable of explaining the programme implementation, performance efficiency and impact of the programme, thus it is found fit to explain MDGs (goal 4) programme. It can also be justified on the ground that it provides a good analytical framework for the analysis of the topic under study.

The elements of the Suchmans' evaluation theory include the following;

1. Design- deals with how the policy is been structured in pursuit of the set goal.

2. Performance efficiency-this is refers to the degree of accomplishment of the tasks that make up individual's or organisation's job. It is a reflection of how an individual or organisation is fulfilling the requirement of the tasks.

3. Implementation- this refers to the translation of policy programme or design in to concrete reality.

4. Impact of the policy programme- it measures the results of efforts rather than the effort itself.

Relevance of evaluation theory to the study

The relevance of evaluation theory to this study will be viewed from the fact that the implementation of MDG 4 (reduction of child mortality) begins by the design as the first element of this theory where policy for the pursuit of reduction of child mortality is structured, and strategies to achieve this objective were designed and spelt out. In order to

execute this design, performance efficiency as the second element of the theory is very paramount, where individuals (in this case, the PHC personnel) or organisation (Bauchi State government) need to be committed to the efficient performance in the fulfilment of the requirement of the tasks, that is the task of the reduction of child mortality in Bauchi State. Implementation is the third element of this theory which implies the translation of the strategies set for achievement of MDG 4 into concrete action, in this study, where adequate PHC infrastructural facilities, adequate PHC personnel, proper primary health care awareness and adequate funding are to be provided by the Bauchi State government. By so doing, better impact of the policy/programme as the fourth element of this theory will be achieved or realised, that means a reduction of child mortality in Bauchi State.

Evaluation theory is not without criticisms. It has been criticized on the ground that most techniques used in evaluation are borrowed from others fields. The theory is therefore faulty because of its heterogeneous mix of borrowed techniques. Guba and Stufflebeam, (1970) cited in Weiss, (1972) also observes that the theory is useful only for making decisions after a project or programme has run full cycle and not during its planning and implementation. Finally, by trying to control too many conditions, the theory makes the programs so aseptic i.e. ungeneralizable to the real world. In spite of these shortcomings, the evaluation theory will help in assessing the performance of the effort made by the Government of Bauchi State in the implementation of MDG 4.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

For the purpose of this study, it is paramount to appreciate the understanding of the subject matter (research methodology). Osuala (1987), defined research methodology as the overall strategy used by the researcher in collecting and analyzing data for the purpose of investigation of problems, this chapter explains the methods, techniques and instruments used in this research. It also explains the method to be used in collecting and analyzing data. Other items explained here include the research design, population of the study, sample size and sampling technique, administration of data collection instruments, procedures for processing collected data. However, the method to be used by any researcher depends on the purpose of the study, the nature of problem to be investigated.

3.2 Research Design

In this study, we use research design to serve as a scheme or a blueprint for data collection, and to help us in appreciating how the variables will be observed and generate necessary primary data for the research. This study adopted the survey method of research; the survey method studies both large and smaller groups of a population by selecting and studying samples chosen from the population to discover the relative incidence, distribution and interrelationship of the independent and dependent variables. This research was designed to be both descriptive and empirical, for the purpose of obtaining data to enable the researcher test the research stated hypotheses. This method explores the relationship between variables in the population by selecting an unbiased sample and generalizing the findings on the entire population. The method is quite suitable for our study, because the

study sought to assess the roles played by the Government of Bauchi State in the implementation of MDG on reduction of child mortality rate.

Stratified sampling technique was used in the study in which Bauchi State was divided in to three strata comprising Bauchi North, Bauchi Central and Bauchi south. This is done with a view to ensure that the sample estimate is as accurately as possible and to ensure an unbiased sample, every subject of the population was given an equal and independent chance of being selected in the sample. The justification for the selection of stratified sampling is that, the elements comprising the population varies in terms of location and level of education as well as to ensure that every part is given an equal chance of been selected in the sample size. Using purposive sampling technique, Shira Local Government was selected from Bauchi North Senatorial district, while Ningi Local Government represents Bauchi Central and Bauchi Local Government was selected from Bauchi south Senatorial district. Furthermore, Judgemental sample was employed in administering the questionnaire with a view to cater for the differences among the respondents.

3.3 Population and Sample Size of the Study

This research has as its population of study, which constitutes the people of three Local Government Areas in Bauchi State, which includes Bauchi, Ningi and Shira Local Governments. According to 2006 census Figures, these three Local Government Areas have the total population of 1,113,726 while the target population of this research is 545,890, which is the entire women of the three Local governments under study, the MDGs staff, which comprise of 26 people and the workers of Primary Health Care Development Agency (PHCDA) which consists of 487 people. These constitute the population of the study from which the sample was drawn.

The purpose of selecting women as the target population of the study is due to the fact that, they are the direct beneficiaries of prenatal, antenatal and postnatal healthcare services which are targeted in reduction of child and maternal mortality. For the MDGs staff, being the implementers of the programme under study, they have insight knowledge of MDGs in Bauchi State and the researcher believed that he would get valid information from them. The justification for incorporating PHCDA staff as part of the population of the study is due to the fact that, it is the agency that recruits the trained PHC workers in Bauchi State and it is also shouldered with the responsibility of public enlightenment campaign on PHC related issues in Bauchi State.

In determining of the sample size, the researcher used Yamani`s formulae (1967).

$$n = \frac{N}{1+N(e)^2}$$

N =Sample Size

n = Population

e = Level of Significance

$$n = \frac{546{,}403}{1+ 546{,}403(0.05)^2}$$

$$= \frac{546{,}403}{136601.00}$$

= 399.9 (400 approximately)

Therefore, the sample size used for analysing and subsequently generalised the findings was four hundred (400). The sample size was distributed proportionally as shown in the table below:

Table 3.1; Population and Sample Size of the Study

Study Area	Population	Sample Size	Percentage
Bauchi Local Government	241,310	171	(42.8%)
Ningi Local Government	189,469	134	(33.5%)
Shira Local Government	115,111	83	(20.7%)
PHCDA workers	487	11	2.7%
MDGs Staff	26	1	0.3%
Total	546,403	400	100

Source: Field Survey, 2015

The above table indicates that, 171 respondents were drawn from the population of Bauchi Local Government, which represents 42.8 percent of the sample size, whereas 134 respondents representing 33.5 percent of the sample size were drown from the population of Ningi Local Government, while in Shira Local Government, 83 respondents constituting 20.7 percent of the sample size were drown. More so, 2.7 percent were drawn from PHCDA workers and 0.3 percent was drawn from MDGs staff.

3.4 Instrument of Data Collection

This study employed both the primary and secondary sources of data for the purpose of analysis and consequently testing of the formulated hypotheses. The choice of these two sources hinged on the fact that Yin (2003) suggests "Multiple sources of evidence as the way to ensure construct validity".

Primary Sources of Data

The primary sources of data to be used in this study include questionnaire, face-to-face interview and personal observation in order to get facts or firsthand information.

Questionnaire

The structured questionnaires were administered in this study. The closed-ended questionnaire was designed using the Likert five point Scale format (Strongly agree, agree, undecided, disagree and strongly disagree). The choice of the Likert scale assisted in determining how strongly respondents agree or disagree to a particular statement of the subject matter under study. Furthermore, the choice of the closed-ended format would ease preliminary analysis and the calculation of statistical data and percentages, as the answers set are known.

Interview

Interview was conducted in order to get facts (qualitative information), the researcher interviewed two workers of Primary Healthcare Development Agency, which include; the information officer of the agency and the head of Health Education Unit. Interview sessions were also conducted with Nurses/Midwives that are working in Maternities and Primary Health centres, three from each Local Government under study. Furthermore, the researcher interviewed the information officer of MDGs office. Interview becomes imminent because getting first hand information from the beneficiaries and officials with adequate knowledge about maternal health and child mortality would certainly enhance the quality of this study. This is because, face-to-face interview represents excellent media for close interaction and rapport between the researcher and the respondents, which enabled the former to elicit more pertinent information and data, which the questionnaire neither captured nor provided for. The structured interview questions were contained in an interview schedule so as, to ensure adherence to the guide. However, unstructured interview was also used due to the prevailing circumstances during the interview session.

Observation

Non-participant observation was employed by the researcher with a view to determine whether the infrastructural facilities provided by the Government of Bauchi State are adequate or otherwise.

Secondary Sources of Data

Secondary data used for the purpose of this study include; Government publications from the National Bureau of Statistics, Gazette published by MDGs office, Bauchi State and other records from Bauchi State Ministry of Health, Primary Health Care Development Agency Bauchi and the like. The use of internet for online materials such as published articles and journals, unpublished materials, Bulletins on MDGs and child mortality in Nigeria, research works etc. They represent data that have been processed into information from various sources.

The secondary data generated helped immensely in the literature review by retaining relevant information and discarding irrelevant ones in the context of this research. Meanwhile, the secondary data utilized serves as a basis for comparison with the primary data and to further establish the relationship between implementation of MDGs by the Government Bauchi State and reduction of child mortality rate.

3.5 Methods of Data Presentation and Analysis

There are various forms of data analysis that can be used or employed by a researcher. The method of data analysis adopted in this study includes simple percentage and tabular presentation of the collected data. Thus, data generated, from the field were analysed using both descriptive and inferential statistical tool. Data generated, through interview were analysed qualitatively using content analysis, the third hypothesis of this

study which deals with adequacy of funding was analysed qualitatively, this due to the fact that, the researcher used only secondary data and interview in getting the information.

However, for the purpose, of testing the hypotheses, inferential statistical tool was adopted. Chi-square was used by the researcher in testing the hypotheses earlier postulated in chapter one. The choice of Chi-square helped in measuring the relationship between variables of interest. Thus, it was used in measuring the level of discrepancies between the observed frequencies and the expected or theoretical frequencies. The formula for calculating the chi-square is:

$$X^2 = \frac{\sum(Fo-Fe)^2}{Fe}$$

Where:

X^2 = chi-square

Fo = Observed frequency

Fe = Expected frequency

$\sum$= Summation

To calculate the expected frequency, the column total is to be multiplied by the row total and divide the result by the grand total for each cell.

$$FE = \frac{CT \times RT}{GT}$$

The degree of freedom is the number of freely varying scores within the sample. The difference is always one, less than the sample size and is given as:

$Df = N - 1$

The level of significance refers to the maximum probability with which we could be willing to risk. It could equally be referred to as probability of making type one error designated as alpha. That is rejecting a false hypothesis that is in fact true. For the study, the level of significance to be used is 0.05. Based on the statistical analysis the decision rule for the study will be as follows:

3.6 Decision Rule

The decision rule for this test is that, if the calculated x2 value is less or equal to critical x2 (i.e. from chi-square table) value for (r-1)(c-1) degrees of freedom at 0.05 level of significance, then the null hypothesis (H0) shall be accepted while the alternative hypothesis (Ha) will be rejected. Conversely, if the calculatedx2 value is greater than x2 critical value for (r-1) 1)(c-1) degrees of freedom at 0.05level of significance, the study will reject the null hypothesis (H0), while the alternative hypothesis (Ha) will be accepted.

CHAPTER FOUR

AN OVERVIEW OF MDGs AND THEIR IMPLEMENTATION IN BAUCHI STATE

4.1 Introduction

This chapter contains a brief history of Bauchi State, overview of MDGs in Nigeria, implementation of MDGs in Bauchi State. It also involves Organogram of MDGs Projects Support Unit and it further discussed achievements and challenges faced by MDGs Projects Support Unit Bauchi.

4.2 Brief History of Bauchi State

Brief History of Bauchi State; Bauchi State was created on the 3rd of February, 1976 out of the defunct North-East region by Late Murtala Ramat Muhammad. It is one of the states in the North – East geo- political zone of Nigeria. The State covers a total land area of 49,259.01sq km, which is about 5.3% of Nigeria's total land mass. It has a population of 4,676,465 people based on 2006 population census. The population consists of 2,369,266 males and 2,283,800 females.

Bauchi State lies between latitude 9.3^{o} and 12.3^{o}North of the Equator and longitude 8.5^{o} and 11^{o} East of the Greenwich Meridian. The State is bordered by seven states, Kano, Jigawa and Plateau to the West, Borno, Adamawa, Taraba, Yobe and Gombe to the east and Kaduna to the North-west.

4.3 The Millennium Development Goals (MDGs) and Targets

The Millennium Development Goals (MDGs) are the world's time-bound and quantified targets for addressing child mortality, extreme poverty among others. They embodied the deep aspirations and commitment of the global community for significant

improvements in the quality of human life (UNDP, 2009). Under each goal of the MDGs, there are specific quantified targets set to be achieved within the life span of the MDGs, these targets help in measuring the level of achievement on each goal of the MDGs. These goals are geared towards the reduction of Maternal and Child Mortality rate globally and encouragement of rapid progress in the development of the world. The eight Millennium Development Goals and their targets are shown in the table below;

Table 4.1: The Eight Millennium Development Goals and Targets

S/N	MILLENNIUM DEVELOPMENT GOALS (MDGs)	TARGETS
1	To eradicate extreme poverty and hunger	**Target 1:** To halve between 1990 and 2015 the proportion of people whose incomes is less than $1 a day. **Target 2:** The Proportion of people who suffer from hunger are to be halved by 2015.
2	To achieve universal primary education	**Target 3:** To ensure that, by 2015, children everywhere, boys and girls alike will be able to complete a full course of primary school.
3	To promote gender equality and empower woman	**Target 4:** To eliminate gender disparity to primary and secondary education, preferably by 2005 and in all levels of education not later than 2015.
4	To reduce child mortality	**Target 5:** To reduce by two-thirds, between 1990 and 2015, the under five morality rate.
5	To improve maternal health	**Target 6:** Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.
6	To combat HIV/AIDS, malaria and other diseases	**Target 7:** To halt by 2015 and to begin the reverse the spread of HIV/AIDS, malaria and other disease.
7	To ensure environmental sustainability.	**Target 8:** To integrate the principle of sustainable development into country policies and programmes and reverse loss of environmental resources. **Target 9:** To halve by 2015 the proportion of people without sustainable access to safe drinking water. **Target 10:** To achieve by 2020 a significant improvement in the lives of a least 100 million slum dwellers
8	To develop a global partnership for	**Target 11-18:** Entail reduction and cancellation of bilateral debt among countries, avoid

	development	discriminatory trade and financial system among countries, address the special needs of landlocked countries, enhance the productivity of youth in developing countries and provides affordable essential drugs for developing countries and to make information and communication technologies available to developing countries.

Source: United Nations Development Report, 2011

4.4 Structure of MDGs in Nigeria

Under the Federal Government structure, three sets of offices work harmoniously to ensure effective management of the MDGs activities in Nigeria. These offices are as follows;

1. The Presidential Committee on the Assessment and Monitoring of MDGs (PCAM-MDGs). The PCAM- MDGs is chaired by Mr. President. Membership of the committee is drawn from public and private sectors, civil society and the International Development Partners. It assesses and monitors progress towards the achievement of the MDGs set targets in Nigeria, (Jumare, 2015).
2. The National Committee on Conditional Grand Scheme (NCCGS), this committee is chaired by the Minister of Finance, its membership composed of;
    a. The Chairmen of the National Planning Commission
    b. The Ministers of the key MDGs line Ministries which include Health, Education and Environment.
    c. The Director General of the Budget Office of the Federation.
    d. Accountant General of the Federation and
    e. The Senior Special Assistant to the President on MDGs.

The National Committee on Conditional Grand Scheme is responsible for;

i. Taking financial decision on Conditional Grand Scheme projects areas for each year.

ii. Setting States and Local Governments application limits for the year.

iii. Reviewing technical reports from the Secretariat of NCCGS on the evaluation of all applications received from States.

iv. Proposing selected projects to Federal Executive Council for final approval.

v. Reviewing progress on implementation and

vi. Determining the financial allocation of CGS funds to States (FRN, 2012).

3. The Office of the Senior Special Assistant to the President on MDGs. The OSSAP-MDGs serves as the Secretariat to the PCAM-MDGs and NCCGs. The responsibility of this office include the following;

i. Reviewing the guidelines base on due consultation with the relevant stakeholders,

ii. Communicating the proposed timetable, projects areas, total available funds as well as limits for Conditional Grand Scheme to States and Local Governments.

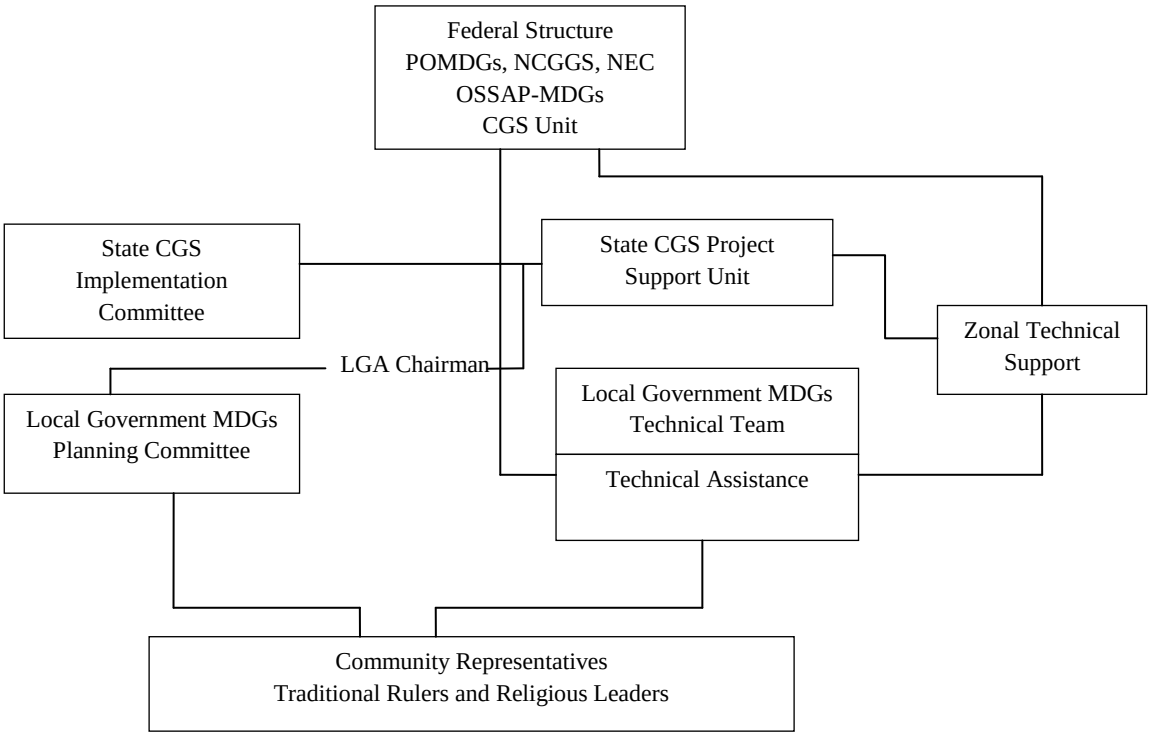
iii. Calling for Conditional Grand Scheme fund application from State Governments, receiving and evaluating all Grand applications from the States and issuing no objections for Local Government exclusive projects.

iv. Consulting relevant Federal MDAs for any queries, technicalities, assistance pertaining to the CGS applications submitted by the States and Local Governments and ensures that all projects are in line with the national policy framework and standards, and

v. Communicating the final outcomes of the evaluation process and other operational issues of Conditional Grand Scheme to the States and or Local Governments, (FRN, 2012).

However, to ensure that these functions and responsibilities are discharged accordingly, the Secretariat of the National Committee on Conditional Grand Scheme can engage the services of consultant(s) to provide technical support and to collaborate with the Secretariat in the areas of policy and Sector analysis, Training/Capacity Building, Information Technology, Data Management and Reporting. The Secretariat will also collaborate with relevant Federal MDAs, the UNDP, DFID, Private Sector and Civil Society Organizations to ensure policy coherence, coordination, initiatives and also provide technical support, delivery of infrastructure and human resources, and feedback on monitoring and evaluation, (Jumare, 2015).

Fig 4.2: The diagram below shows the hierarchical structure of MDGs implementation in Nigeria



Source: OSSAP-MDGs, 2011

4.5.1 Funding of MDGs Programme in Nigeria

In Nigeria, the MDGs programme is partly funded by the Debt Relief Gain (DRG) negotiated with the Paris Club of Creditor in September 2005. The DRG resulted in the

saving of about one billion US Dollar per annum to Nigeria. The Nigerian Government has pledged before the Paris Club of Debtors on the 23th of June 2005 to spend the gains on pro-poor projects and programmes in support of national effort towards the achievement of the MDGs targets, (Jumare, 2015). Two of the policy paths that have been used over the years are the Conditional Grand Scheme and the Conditional Cash Transfer.

4.5.2 Conditional Grand Scheme (CGS)

Within this policy framework, focus is placed on a shared responsibility format where the Federal and State Governments mutually contribute 50 percent each budgetary funds that would be needed to implement identified physical infrastructural projects within a given year. States and Local Governments are availed the opportunity to access the fund annually from the Federal Government's share of the Debt Relief Gain. The CGS is seen as an opportunity to maximize the use of information and expertise at every level of government and share the burden of expenditure responsibility among different level of governments (Khor, 2012). The scheme also seeks to poster genuine commitment among the Federal, States and Local Governments, communities and civil society, this will engender sustainability. Furthermore, the scheme offers a unique opportunity to build a platform on which States and Local Governments harmonize their budgets fully with the nation's Medium Term Fiscal Framework. Indeed it is an opportunity to leverage spending towards supporting States and Local Governments programmes that are fully aligned with national policy objectives and the MDGs. It is also seen as an instrument for capacity building of States and LGAs in order to improve governance, service delivery, financial management, transparency and accountability as well as the attainment of MDGs (Dele et-al, 2011; FMOE, 2011; UNDP, 2012). The CGS is therefore one of the Federal Government way of intensifying its efforts at achieving MDGs at all levels of government

in the country. The scheme was clearly designed as a means of funding MDGs related projects/programmes at State and Local Government levels.

4.5.3 Conditional Cash Transfer (CCT)

This scheme also involves the shared contribution of 50 percent each of required budgetary funds by the Federal and State Governments. However, rather than the funds being used to execute physical infrastructural projects, it is disbursed as poverty alleviating Cash Transfer Grand to the poorer and more vulnerable members of the society with a caveat that they spend it exclusively on building assets by investing in human capital. The main purpose of the programme is to address intergenerational transfer of poverty and to foster social inclusion by targeting the poorest of the poor families. This would be implemented by giving them monthly grants with a view of achieving improved healthcare delivery and school enrolment.

4.6 Conditionalities and Procedures of Accessing the Funds for Implementation of MDGs Projects/Programmes in Nigeria

Every State and Local Government implementing CGS-funded projects must have in place Financial Management System that will:

i. Facilitate State PSU in deploying projects resources to produce the required out puts and with attention to economy, efficiency and effectiveness.
ii. Be capable of producing timely, understandable, relevant and reliable financial information that will enable the PSU to plan, coordinate, monitor and appraise the projects' overall progress towards the achievement of its objectives as well as ensuring that costs are under control and projects funds are used for the purposes intended effectively and efficiently.
iii. Be capable of tracking financial disbursement vis-à-vis physical performance.

iv. Assist in guiding resources use and serves as a check to ensure effective financial management (FRN, 2012).

For the implementation of the CGS projects, the following Bank Account shall be maintained;

i. State CGS to State Special Project Account; in this account, the State's 50% Cash Counterpart Contribution and the Federal Government CGS fund will be deposited (State should open an account for each round (year) of CGS to accommodate audit procedures and oversight requirements).
ii. State Project Support Unit (SPU) operational cost account.
iii. CGS to Local Government Special Projects Account. In this account, the local Government's 20% and the State's 30% Cash Counterpart Contribution and the Federal Government CGS fund will be deposited. (Each Local Government is expected to have an account for each round of CGS to accommodate audit procedures and oversight requirements).
iv. Local Government operational cost account (FRN 2011).

The various operational cost accounts shall contain 5% of each tier's contribution to the CGS and will form part of their counterpart contributions. These operational costs shall cover projects management and sustainability, fees, staff incentives and other incidental expenses. Also, signatories to the State and Local Governments' Account will be in line with the requirements of the State's Financial Instructions and Local Government Financial Memoranda. The manual further maintained that the CGS to State Special Projects Accounts and Local Government Special Projects Account will be reconciled with Bank Statements on a monthly basis by the PSU and Local Government Treasurers

respectively. Thus, the State and Local Governments should be in line with Government practice, maintained the following financial books:

i. Cash Book to account for all expenditures by type.
ii. General Ledger Book
iii. Bank Reconciliation Statement
iv. Fixed Assets Register and
v. Contract Register (FRN 2011).

The PHC programmes were identified as the best strategy for the attainment of health related MDGs which include reduction of child mortality, improve in maternal health, environmental sustainability and some aspects of goal 6 (combating Malaria and other diseases). It is imperative to note at this juncture that, the PHC related programmes are the major interventions that can guarantee the attainment of MDG 4, 5, 6 and 7 in Nigeria. Thus, Bauchi State Government has design its healthcare policy agenda and programmes in line with the PHC delivery with the aim of realizing MDGs, vis-à-vis other States and Local Governments of the federation. It should be noted however that, the CGS to states started in 2007 and the grants were focus on Health, Water, Power and Public Private Partnership. 28 States applied out of which 19 of them were able to access the funds including Bauchi State, the value of the accessed projects by these states including counterpart funding stand at 18.4 billion naira (MDGs.2010).

4.7: Capacity Requirements for the Implementation of Health related MDGs Programs in Nigeria

The National Primary Health Care Development Agency has set out Standards in the areas of health infrastructures, human and financial resources and provision of essential drugs as

well as commodities for primary healthcare facilities in Nigeria. NPHCDA sees the Minimum Standards as a robust system that is fundamental to the effective functioning of any health facility and therefore an essential element for the delivery of quality health care. The policy document defines a set of Minimum Standards in the following areas:

i. Health Infrastructures; Types/Levels of PHC facilities including recommended infrastructure dimensions, furniture and equipment.

ii. Human Resources for health; Minimum recommended staff number and cadre for each type of health facility.

iii. Service Provision; Recommended minimum PHC services for each facility type including the minimum requirements of medical equipment and essential drugs (From the National Essential Drugs List) required to achieve these services (NPHCDA, 2013).

The overall goal of the manual is to set uniform standard for the various levels of healthcare facilities and the Minimum Standards for PHC structures, systems, staffing and equipment as basic capacity requirement for PHC service delivery at Local Government Level. In order to improve access and quality of services, the minimum standard focuses on PHC infrastructures and management; human resources, service provision and essential drugs. Health Facilities are either static or mobile in structures. These Health Facilities are in different groups and have different nomenclature depending on the structure (building), staffing, equipment, services rendered. Many terminologies have been used over the years including Dispensaries, Health Clinics, Health Centres, Primary Health Centres, Maternities, Health Posts and Comprehensive Health Centres. However, based on the

Ward Health System, approved by the NPHCDA, the three recognized primary health facility types are as follows;

1. Health Post: The Health Post are supposed to provide healthcare services at neighbourhood village level, serving an estimated population of not more than 500 people. The infrastructural requirements of the Health Post include among other thing; Building and Premises requirements such as; two rooms with cross ventilation, functional doors and netted windows and the walls and roof must be in good condition; Functional separate male and female toilet facilities with water supply within the premises, Availability of a clean water source; Be connected to the national grid and other regular alternative power source, Have a sanitary waste collection point and a waste disposal site, Be clearly signposted visible from both entry and exit points, Be fenced with gate and generator houses (NPHCDA, 2013).

Furnishing requirement include among others 2 Benches, 2 Chairs, 2Cupboards, 1 Examination couch, 1 Screen, 1 Stove, 1 Wash hand basin and 1 writing table. Medical equipment requirements are; 2 Dressing forceps, 1 Fetoscope, 2 Geo Style Vaccine Carrier (GSVC), Ice Packs, 4 per GSVC, 1 Injection safety box, 2 Kidney dish, 1 set of ORT Demonstration Equipment (Cup, jug, wash basin, towel, bucket, standard beer or/and son drink bottles), 2 Scissors, 1 Solar Refrigerator, 2 Sphygrnomanometer, 2 Stethoscope, 1 Tape rule, 1 Thermometer and 1 Weighing scale (NPHCDA, 2013: P12).

Personnel Requirements: The minimum standard manual recognized the following category of health staff, these are; Community Health Officer (CHO), Nurse/Midwife, Community Health Extension Worker CHEW), and Junior Community Health Extension Worker (JCHEW). The manual proposed that a Health Post should be headed by at least a JCHEW, who supervises Community Resource Persons (CORPs) working within the

community. CORPs is a trained Community Volunteers including, TBA. VHW and other community based service providers that have been duly trained and are recognized by the LGA.

Service requirements: The types of recommended services to be provided by the Health Post are as follows:

i. Health Education and Promotion services on prevailing health issues and problems of the local community.

ii. Collect data in respect to Health Management Information System and sent to Monitoring and Evaluation unit of the PHC department.

iii. Routine home visit and community outreach to identify health issues affecting the community.

iv. Provide maternal, newborn and child care (routine pre, ante and post natal care to pregnant women).

v. Family Planning counselling services and dispensing of condoms to prevent unwanted pregnancy.

vi. Promotion of proper nutrition and food education through health education.

vii. Participating in immunization campaigns and immunization trend follow up.

viii. Participate in mobilizing the local community on the prevention and misconception of HI V/AIDS.

ix. Sensitize the community on the contact tracing, prevention and misconception of tuberculosis.

x. Prevention and treatment of malaria particularly among women and children.

xi. Provide curative care services on minor diseases and injuries.

xii. Maintain the Essential Drugs Funding System within the community.

xiii. Promotion of personal and community hygiene.

xiv. Advice and counsel community on mental health, prevention of drugs and substance abuse (NPHCDA, 2013: P.25-27).

2. Primary Health Clinic: Personnel requirement for the Primary Health Clinic include 2 Midwife or Nurse Midwife, 2 CHEW, 4 JCHEW (they must work with the standing order), other supporting gaff includes 2 Health Attendant/Assistant and 2 Security personnel. These personnel are to provide all the services provided by the Health Post in a more in-depth manner and even attend to some cases of referral from the Health Post. The facility should run 24 hours services and a complete Essential Drugs list is to be utilized at this level.

3. Primary Health Care Centres: The Primary Health Care Centre is supposed to be located in every political ward to service an estimated population of 10,000 to 20,000 people. The building and premises, infrastructural requirements include in addition to all the requirements for Primary Health Clinic, a detached building of at least 13 rooms. The building should have sufficient rooms and space to accommodate; Waiting/Reception areas for Child Welfare ANC, Health Education and ORT Corner, Staff Station, 2 Consulting Rooms, Adolescent Health Service Room, Pharmacy and Dispensing Unit, 2 Delivery Rooms, Maternity/Lying-in Section, In-Patient Section, Laboratory, Medical Records Area, Injection/Dressing Area, Minor Procedures Room, Food Demonstration Area; Kitchen, Store, Toilet facilities (Male and Female). Again, the premises should be fenced

and have a waste disposal site with staff quarters or accommodation within the community provided. The premises should be connected to the national grid and provided with alternate power sources.

The centre should be well furnished with all the basic equipment that will make the place look like a PHC centre. In terms of medical requirements the centre should have the sections; Female Ward, Male Ward, Infant and Child Welfare Unit, First Stage Room, Labour Room, Antenatal/Interview Room, Laboratory, Dressing and Injection Room, Staff Room, Family Planning Section, Consulting Cubicle, Nutrition and Sterilization Section, cleaning and utilization facilities. In these sections/units the manual have descried basic items required in each of these sections/units ranging from 14 items to 61 items depending on the section/unit in question.

Personnel and service requirements: The minimum standard manual recommends the following number and category of health staff for a PHC Centre. These are; 1 Medical Officer if available, 1 CHO (must work with standing order), 4 Nurses/midwives, 3 CHEW (must work with standing order), 1 Pharmacy Technician, 6 JCHEW (must work with standing order), 1 Environmental Officer, 1 Medical Records Officer and 1 Laboratory Technician. Other support staffing includes 2 Health Attendants/Assistants, 2 Security Personnel and 1 General Maintenance Staff (NPHCDA, 2013). These health personnel are to provide the following PHC services:

i. Health education and promotion services.

ii. Health management information system services.

iii. Routine home visit and community outreach.

iv. Family planning services.

v. Promotion of proper nutrition and food education services.

vi. Immunization services.

vii. HIVIAIDs counselling, testing and treatment services.

viii. Tuberculosis diagnosis, tracing and management services.

ix. Malaria treatment services.

x. Curative care services.

xi. Maintaining the essential drugs management system.

xii. Promotion of water and sanitation services.

xiii. Advice and treatment of oral health services.

xiv. Identification, counselling, management and prevention of community mental health.

xv. Effective referrals for all cases above the other two levels (health Post and PHC Clinic).

xvi. Provide basic laboratory services.

xvii. Provide counselling and support to Adolescent Health.

xviii. Monitor and Supervise Health Clinic and Health Post under their jurisdiction (NPHCDA, 20l 3: P 48-51).

Other requirements include; an Ambulance Vehicle, a bicycle, communication facility (1 Mobile phone or Communication Radio), 2 sets of computers, access to internet services, 1

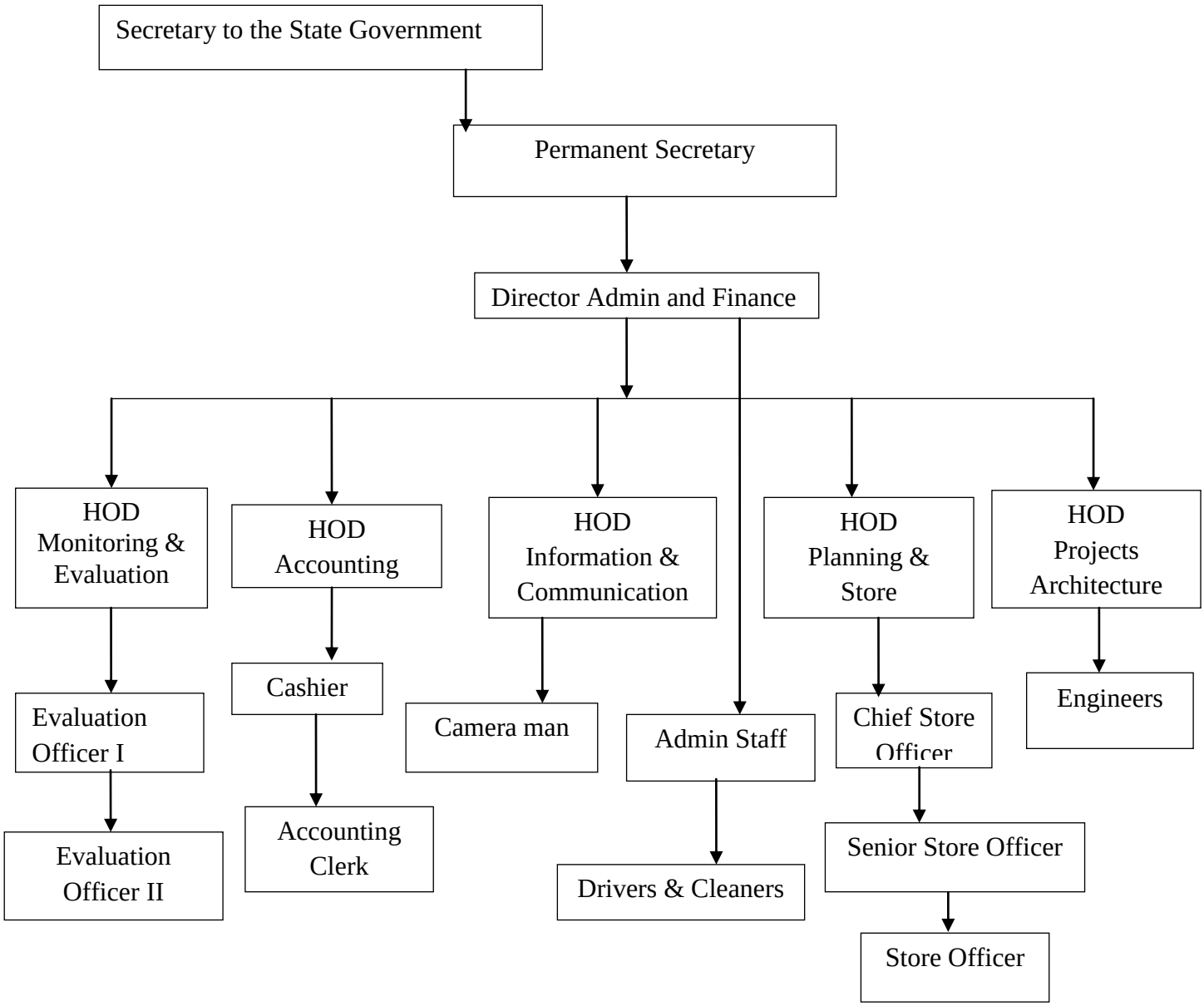
motorcycle or small motor boat for riverine area. In addition, the centre shall be open for services 24 hours.

4.7 Implementation of MDGs in Bauchi State

Implementation of the MDGs scheme composed of both the Federal and State Governments, at the apex level, the Federal Government drives the policy and co-ordinate the implementation processes through a number of policy systems, which were put in place and reviewed from time to time, to ensure effectiveness and efficient projects implementation.

At the State level there is MDGs Project Support Unit headed by a Permanent Secretary, the workers therein are controlled staff sourced from various Ministries of the State Government. The MDGs PSU is responsible for implementing of the six goals of MDGs and determining the MDGs projects to be executed across the state and prepare its budget accordingly. In each Local Government, there is MDGs Desk officer who is an employee of the Local Government, his role is to monitor the MDGs projects under construction and serve the MDGs PSU with feedback. There is also a committee in each Local Government across the state chaired by a Chairman of the Local Government and the Director Budget and Planning as the Secretary to the Committee. The members of the committee include Director Work, Director Education and Social Welfare Department, Divisional Police Officer (DPO), Director SSS, and MDGs Desk Officer. This committee is responsible of identifying the areas of needs (Where the projects are to be located in the Local Government).

Fig 4.3: The Organogram of MDGs Projects Support Unit, Bauchi



4.6 Achievements of MDGs Projects Support Unit, Bauchi from 2009 - 2013

One hundred and fifteen (115) primary health care facilities were constructed and equipped across the state.

1. One hundred and thirteen (113) existing primary healthcare centres were renovated and equipped.

2. Two (2) cottage hospitals were constructed and equipped in two local Government Areas of the state.
3. Two cold stores were constructed in two local Government Areas of the state.
4. Sixty five (65) Ambulances were supplied to health facilities across the state.
5. Twenty three (23) Tricycles were supplied to primary healthcare centres across the state.
6. Two hundred and twenty five (225) Motor cycles were provided to health facilities across the state.

4.7 Challenges faced by MDGs PSU Bauchi

1. The MDGs goals are too broad
2. High expectation by the local communities
3. Delay in the release of fund
4. Shortage of Staff
5. Poor accessibility to projects site

CHAPTER FIVE

DATA PRESENTATION AND ANALYSIS

5.1 Introduction

In this chapter, data collected through primary and secondary sources were presented and analysed. Data collected through the questionnaire were presented in tables and analysed using frequency counts and percentages. The data from the questionnaire were measured on a five-point Likert scale and further interpreted using descriptive statistics. Based on the presentation, analysis and interpretation of data, the hypotheses postulated were tested using chi-square. The data collected through the interview conducted and secondary data were analysed using the content analysis to complement the response from the questionnaire. Inferences were also made on our observations. These data were used to further substantiate the hypotheses tested. Also in this chapter, the major findings of the study were summarily highlighted.

5.2 Administration of Questionnaire

A total of 388 copies of questionnaire were administered for the study. 176 copies of questionnaire for the respondents of Bauchi Local Government, 140 and 84 copies for the Ningi and Shira Local Governments respectively while 45 copies of the questionnaire were administered to PHC workers of Bauchi State. 20 copies out of the 45 questionnaire administered to PHC workers of Bauchi Local Government, where as 15 questionnaires were administered to PHC workers of Ningi Local Government and the remaining 10 were administered to PHC workers of Shira Local Government respectively. A total of 379 were found to be filled and returned and used for the purpose of analysis. This represents 94.75% of the total number of questionnaire administered. The rate of return of the questionnaires by each category of respondents was presented in table 5.1

Table 5.1; the Rate of Questionnaire Return

S/N	Study Area	Total No. Of Questionnaires Administered	Total No. Of Questionnaires Returned	Percentage of Questionnaires Returned
1	Bauchi LGA	152	148	94.9%
2	Ningi LGA	119	116	92.8%
3	Shira LGA	73	72	97.3%
4	PHC Workers	44	43	95.6%
	Total	**388**	**379**	

Source: Field Survey, 2015

As indicated in the above table, out of 152 questionnaires administered to the respondents of Bauchi Local Government 148 copies were filled and returned representing 94.9% of the return rate. The return rate of Ningi LGA is put at 92.8%, while that of Shira LGA and the PHC workers is represented by 97.3% and 95.6% respectively. Thus, the number of returned questionnaire was used for analysis.

5.3 Responses on the Adequacy of PHC Personnel

Table 5.2; Responses of PHC workers on Adequacy of PHC personnel in Bauchi, Ningi and Shira Local Governments

Adequacy of capable PHC workers for the attainment of MDG 4	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Sufficient trained Nurses were employed	5	11.6	18	41.9	1	2.3	18	41.9	1	2.3	43	100
Sufficient trained Midwives were employed	8	18.6	14	32.6	3	7.0	16	37.2	2	4.7	43	100
Adequate and Trained Community Health workers were employed	9	20.9	16	37.2	2	4.7	13	30.2	3	7.0	43	100
Suffice Trained Junior Community Health workers were employed	12	27.9	8	18.6	3	7.0	17	39.5	3	7.0	43	100
Adequate Health attainders were employed	1	2.3	11	25.6	4	9.3	23	53.5	4	9.3	43	100
Adequate Training is regularly given to all PHC workers	10	23.3	17	39.5	3	7.0	12	27.9	1	2.3	43	100

Source: Field Survey, 2015

In the table above, we can deduce from the responses on the assertion that sufficient trained Nurses were employed, 51.2% of the respondents disagreed which indicates that majority of the respondents disagreed with the assertion that adequate Nurses were employed, also 2.3% of the respondents strongly disagreed. While, 33.3% of the respondents agreed, they are those who believed that adequate trained Nurses were employed, in similar vein, 11.6% strongly agreed, whereas, 2.3% of the respondents were undecided.

On the issue of sufficient trained Midwives employed, 37.2% of respondents representing the majority disagreed with this assertion, more so, 4.7% of the respondents strongly disagreed. While 32.6% of the respondents were of the opinion that adequate trained midwives were employed and 18.6% of the respondents strongly agreed, whereas 7.0% of the respondents were indecisive.

In relation to adequacy of trained Community Health workers 37.2% of the respondents constituting the majority disagreed, in addition to that, 7.0% of the respondents strongly disagreed. While 30.2% of the respondents agreed and 20.9% strongly agreed with the assertion, however, the remaining 4.7% of the respondents were indecisive.

On the issue of adequacy of Trained Junior Community Health workers, 39.5% of respondents which constitutes the majority disagreed with this view, in similar view, 7.0% of the respondents strongly disagreed. On the other hand, only 18.6% of respondents agreed with the claims that there are adequate trained Junior Community Health workers in Bauchi State, more so, 27.9% of the respondents strongly agreed and 7.0% were however undecided.

Furthermore, for adequacy of Health attendants, 53.5% representing the majority of the sampled respondents were disagreed with the stated postulation, in the same vein, 9.3% of the respondents substantiated to the majority. Contrary to this view, 25.6% and 2.3% of the respondents agreed and strongly agreed respectively, moreover, the remaining 9.3% were indecisive on adequacy Health attendants.

In terms of adequate Training to all PHC workers, 39.5% and 23.3% of the respondents, which constitutes the majority overwhelmingly agreed and strongly agreed respectively on the adequacy of Training to all PHC workers. On the other side, 27.9% of respondents disagreed with the premise that there is adequate Training to all PHC workers with a view to reduce the level of child mortality in Bauchi State, while 7.0% of respondents were undecided.

Table 5.3; Adequacy of PHC Personnel in Bauchi Local Government

Adequacy of capable PHC workers for the attainment of MDG 4	**Strongly Agree (SA)**		**Agree (A)**		**Undecided (UD)**		**Disagree (D)**		**Strongly Disagree (SD)**		**Total**	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**
Primary Healthcare workers are adequate	7	4.2	50	36.5	12	7.2	61	29.9	37	22.2	167	100

Source: Field Survey, 2015

From the table above, the respondents in Bauchi LGA were asked whether PHC personnel employed by Bauchi State Government are adequate. 36.5% of the total sampled respondents been the majority agreed. In the same vein, another 4.2% also strongly agreed with the view of the majority. However, 29.9% disagreed and 22.2% strongly disagreed with the adequacy of PHC personnel, whereas 7.2% were undecided.

Table 5.4; Adequacy of PHC Personnel in Ningi Local Government

Adequacy of capable PHC workers for the attainment of MDG 4	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Primary Healthcare workers are adequate	7	5.3	47	38.9	6	4.6	60	42.7	11	8.4	131	100

Source: Field Survey, 2015

The table above represents the perceptions of respondents in Ningi on the adequacy of PHC personnel employed by Bauchi State. 42.7% of the respondents constituting the majority of the total sampled respondents disagreed with assertion and 8.4% of the respondents conceded with the majority. However, 38.9% of the respondents agreed with the adequacy of PHC personnel. Furthermore, 5.3% of the respondents were with same view by strongly agreeing, while 4.6% were undecided.

Table 5.5; Adequacy of PHC Personnel in Shira Local Government

Adequacy of capable PHC workers for the attainment of MDG 4	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Primary Healthcare workers are adequate	2	2.5	36	44.4	-	-	42	51.9	1	1.2	81	100

Source: Field Survey, 2015

The table above shows the opinion of the sampled respondents in Shira LGA on whether the PHC personnel employed by Bauchi State Government are adequate, 51.9% of the total respondents disagreed with the opinion that the PHC workers employed are adequate, in the same vein, 1.2% of the respondents strongly disagreed. While in contrast, 44.4% of the respondents agreed and only 2.5% strongly agreed.

Table 5.6; Adequacy of PHC Personnel in Bauchi, Ningi and Shira Local Governments

Adequacy of capable PHC workers for the attainment of MDG 4	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Primary Healthcare workers are adequate	16	4.2	133	35.1	18	4.7	163	43.0	49	12.9	379	100

Source: Field Survey, 2015

The responses of the total sampled respondents from the three Local Governments namely, Bauchi, Ningi &Shira. The respondents were asked, whether PHC personnel employed by the Government of Bauchi State for the implementation of MDGs are adequate. 43.0% respondents of the total sampled respondents constituting the majority disagreed that the PHC personnel are adequate. More so, 12.9% of the respondents who strongly disagreed conceded to the same opinion. However, 35.1% agreed and 4.2% strongly agreed, whereas the remaining 4.7% of the respondents were indecisive.

5.4 Adequacy of PHC Infrastructural Facilities provided by Bauchi State Government for effective Implementation of MDG 4

Table 5.7; Responses of PHC workers on the level of PHC facilities provided in Bauchi, Ningi & Shira Local Governments

Adequacy of infrastructural facilities provided	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
The number of Clinics, Dispensaries, Maternities and Health Centres provided are adequate.	5	11.6	9	20.9	2	4.7	16	37.2	11	25.6	43	100
There are adequate equipment for diagnosis in Maternities and Health Centres.	11	25.6	15	34.9	1	2.3	15	34.9	1	2.3	43	100
Provision of medication to women under labour is free.	5	11.6	10	23.3	2	4.7	21	48.8	5	11.6	43	100
Ambulances for enhancement and facilitating referral system for complicated labour are adequate.	3	7.0	9	20.9	-	-	29	67.4	2	4.7	43	100
Free vaccination are given to infants and children is adequate and regularly provided	19	44.2	17	39.5	-	-	6	14.0	1	2.3	43	100
Adequate drugs are given to the children and nursing mothers and is regularly provided	5	11.6	7	16.3	3	7.0	25	58.2	3	7.0	43	100

Source: Field Survey, 2015

Looking at the infrastructural facilities as one of the most significant factor in the effective implementation of MDG on reduction of child mortality, Primary Healthcare Personnel were asked whether the number of Clinics, Dispensaries, Maternities and Health Centres provided are adequate. 37.2% of the respondents representing the majority were of the opinion that they are inadequate, in similar vein, 25.6% of the respondents strongly

agreed. While on the other hand 20.9% and 11.6% of the respondents agreed and strongly agreed respectively, where as 4.7% were undecided.

With regard to adequacy of equipment for diagnosis in Maternities and Health Centres provided by Bauchi State Government in an attempt to reduce child mortality rate in the State, 34.9% of the total respondents disagreed with the assertion that there is adequate equipment and 2.3% of the respondents were strongly disagreed. Contrary to this view, 34.9% of the respondents agreed and 25.6% of the respondents also strongly agreed, 2.3% were undecided on the issue.

In line with Provision of free medication to women under labour, majority of respondents representing 48.8% disagreed with the assertion that free medication were being provided; more so, this view is supported by 11.6% of the respondents who strongly disagreed. Conversely, 23.3% and 11.6% of respondents agreed and strongly agreed to this view. However, the remaining 4.7% of respondents were indecisive.

In relation to the issue of Ambulances for enhancement and facilitating referral system for women with complicated labour as a means of reducing of child mortality, 67.4% of the respondents constituting the majority disagreed, likewise, 4.7% of the respondents opted for the view of the majority by strongly disagreeing with that assertion. Contrary to this view, 20.9% of the respondents agreed with this position and 7.0% of the respondents strongly agreed.

For provision of free and adequate vaccination to infants/children in order to reduce child mortality, 44.2% of respondents representing the majority strongly agreed with the opinion that there is adequate provision of vaccination to children and 39.5% of the respondents agreed. While 14.0% and 2.3% of the respondents disagreed and strongly disagreed respectively.

On the issue of provision of adequate drugs to the children and nursing mothers as a means of reducing child mortality in Bauchi State, 58.2% contended with the postulation, in similar vein, 7.0% of the respondents substantiated to this opinion. Contrary to this view, 16.3% of respondents disagreed with the view that adequate drugs were provided to the children and nursing mothers and 11.6% of the respondents strongly agreed, whereas 7.0% of the respondents were indecisive.

Table 5.8; Level of Infrastructural Facilities in Ningi Local Government

Adequacy of PHC infrastructural facilities provided	**Strongly Agree (SA)**		**Agree (A)**		**Undecided (UD)**		**Disagree (D)**		**Strongly Disagree (SD)**		**Total**	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**
The number of Clinics, Dispensaries, Maternities and Health Centres are sufficient	-	-	45	38.8	6	5.2	56	48.3	9	7.8	116	100
Adequate equipment for diagnosis are available in the Maternities and Health Centres.	1	0.9	18	15.5	16	13.8	78	67.2	3	2.6	116	100
Ambulances to enhance and facilitate referral system for complicated labour are provided	-	-	17	14.7	5	4.3	87	75.0	7	6.0	116	100

Source: Field Survey, 2015

From the above table, 48.3% as the majority of the total sampled respondents disagreed with the position that adequate Clinics, Dispensaries, Maternities and Health Centres were provided. Similarly, 7.8% of the respondents conceded to this assertion by strongly agreeing, while 38.8% of respondents opted out to this view by agreeing that the number of Clinics, Dispensaries, Maternities and Health Centres in Ningi are adequate and the remaining 5.2% of respondents were indecisive.

In addition, 67.2% representing the majority of total sampled respondents disagreed with adequacy equipment for diagnosis provided to the Maternities and Health Centres, more so, 2.6% of the respondents strongly disagreed with this view. While only 15.5% and 0.9% of respondents agreed and strongly agreed respectively to the assertion that equipment provided were adequate, where as the remaining 13.8% of respondents were undecided.

Furthermore, with regard to adequacy Ambulances to enhance and facilitate referral system for complicated labour, 75.0% of the total sampled respondents in Ningi which stood for the majority of respondents disagreed with this postulation, in the same vein, 6.0% of the respondents supported the majority have strongly agreed. While on the other hand, 14.7% of respondents were of the opinion that adequate Ambulances were provided, where as 4.3% of the respondents were indecisive.

Table 5.9; Level of Infrastructural Facilities in Bauchi Local Government

Adequacy of PHC infrastructural facilities provided	**Strongly Agree (SA)**		**Agree (A)**		**Undecided (UD)**		**Disagree (D)**		**Strongly Disagree (SD)**		**Total**	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**
The number of Clinics, Dispensaries, Maternities and Health Centres are sufficient	21	14.2	37	25.0	2	1.4	82	55.4	6	4.1	148	100
Adequate equipment for diagnosis are available in the Maternities and Health Centres.	11	7.4	21	14.2	3	2.0	92	62.2	21	14.2	148	100
Ambulances to enhance and facilitate referral	7	4.7	11	7.4	6	4.1	96	64.9	28	18.9	148	100

system for complicated labour are provided.												

Source: Field Survey, 2015

To ascertain the efforts made by the Bauchi state government in the implementation of MDG 4 with a view to ensure and facilitate reduction of child mortality in the State, respondents were asked whether the level of infrastructural facilities provided are adequate or not, base on this, 55.4% of the respondents representing the majority disagreed with the assertion that the number of Clinics, Dispensaries, Maternities and Health Centres are sufficient, in the same vein 4.1% of the respondents strongly disagreed with this view. On the other hand, 25.0% and 14.2% of the respondents agreed and strongly agreed respectively are of the opinion that the number of Clinics, Dispensaries, Maternities and Health Centres were adequate, while 1.4% of respondents remained undecided.

Similarly, in relation to adequacy of equipment for diagnosis provided by the Government of Bauchi State to the Maternities and Health Centres, for the effective implementation of MDG on reduction of child mortality, 62.2% of the respondents which constitutes the majority disagreed with this position, more so, 14.2% of the respondents strongly disagreed with this view. While contrary to this view, only 14.2% of the sampled respondents in Bauchi LGA agreed upon the premise that Maternities and Health Centres provided are adequate and 7.4% of the respondents strongly disagreed, while the remaining 2.0% were undecided.

Meanwhile, on the issue of adequate provision of Ambulances to enhance and facilitate referral system for complicated labour, 64.9% of the respondents representing the majority disagreed with the position that Ambulances were adequately provided, 18.9% respondents strongly disagreed. While on the other hand, 7.4% and 4.7% of the sampled respondents agreed and strongly agreed respectively with the assertion that Ambulances

were adequately provided by the Bauchi state Government and 4.1% of the respondents were undecided.

Table 5.10; Level of Infrastructural Facilities in Shira Local Government

Adequacy of PHC infrastructural facilities provided	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
The number of Clinics, Dispensaries, Maternities and Health Centres are sufficient	2	2.8	58	80.6	-	-	11	15.3	1	1.4	72	100
Adequate equipment for diagnosis are available in the Maternities and Health Centres.	18	25.0	11	15.3	8	11.1	31	43.1	4	5.6	72	100
Ambulances to enhance and facilitate referral system for complicated labour are provided	-	-	2	2.8	1	1.4	67	93.1	2	2.8	72	100

Source: Field Survey, 2015

From the table above, we shall see that 80.6%% of the respondents were of the view that the number of Clinics, Dispensaries, Maternities and Health Centres provided in Shira LGA were sufficient and 2.8% of the respondents conceded with the majority strongly agreed. While 15.3% of the respondents disagreed are those who perceived that the Clinics, Dispensaries, Maternities and Health Centres provided were inadequate, similarly, 1.4% of respondents strongly disagreed.

However, it is evident that the majority of the respondents were of the view that equipment provided for the reduction of child mortality is inadequate. The table shows that 43.1% disagreed, in addition to this, 5.6% of the respondents strongly disagreed, while in contrast 25.0% of the respondents strongly agreed that equipment provided were adequate, this position is supported by 15.3% of the respondents who agreed with the adequacy of equipment provided, where as 11.1% of the respondents remained indecisive.

Furthermore, on the issue of adequate provision of Ambulances to the Maternities and Health Centres for effective and efficient referral system for complicated labour in Shira LGA, about 93.1% and 2.8% of the respondents Disagreed and Strongly Agreed respectively on the assertion that sufficient Ambulances were provided. This indicates that majority of the respondents did not accept the effectiveness of the referral system. While conversely, only 2.8% of the respondents agreed with the adequacy of Ambulances provided, where as the remaining 1.4% were undecided.

Table 5.11; Level of Infrastructural Facilities in Bauchi, Ningi and Shira Local Governments

Adequacy of PHC infrastructural facilities provided	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
The number of Clinics, Dispensaries, Maternities and Health Centres are sufficient	35	9.2	109	28.8	14	3.7	200	52.8	21	5.5	379	100
Adequate equipment for diagnoses are available in the Maternities and Health Centres.	41	10.8	67	17.7	28	7.4	214	56.5	29	7.7	379	100
Ambulances to enhance and facilitate referral system for complicated labour are provided	10	2.6	39	10.3	12	3.2	279	73.6	39	10.3	379	100

Source: Field Survey, 2015

From the table above, we shall see that 52.8% of the respondents which constitutes the majority argued that the number of Clinics, Dispensaries, Maternities and Health Centres provided by the Government of Bauchi State in order to reduce the level of child mortality in the state were insufficient, this view is however conceded by 5.5% of the

respondents who have strongly agreed. On the other hand, only 28.8% and 9.2% of the respondents agreed and strongly agreed respectively were of the opinion that the number of Clinics, Dispensaries, Maternities and Health Centres provided are adequate, while 3.7% of the respondents remained indecisive.

Similarly, with regard to Adequacy of equipment for diagnosis in the Maternities and Health Centres provided by Bauchi State Government for reduction of child mortality about 56.5% of the respondents disagreed, which constitutes the majority of the entire sampled respondents representing the state were in opposition to the assertion that equipment provided were adequate. 7.7% of the respondents strongly disagreed opted for this view, while 17.7% and 10.8% of the respondents agreed and strongly agreed were of the contending opinion that equipment provided were adequate, whereas the remaining 7.4% of the respondents were undecided.

Considering the important of Ambulances in enhancing and facilitating referral system for complicated labour, the opinions of the respondents across the three local governments under study were sought whether Ambulances provided are sufficient. Majority of the respondents representing 73.6% disagreed of the view that the Ambulances provided were adequate, moreover, 10.3% of the respondents who strongly disagreed conceded with this position. While in contrast, we shall see that only 10.3% and 2.6% of the entire sampled respondents agreed and strongly agreed respectively felt that Ambulances provided are adequate and the remaining 3.2% of the respondents were undecided.

Table 5.12; the number of Health Centres, Maternities, Dispensaries and Clinics provided

Year	Health Centres	Maternities	Dispensaries	Clinics	Renovated Facilities / Up-graded Health Facilities	Total
2009	-	20	-	-	7 (maternities)	27
2010	-	-	-	-	-	-
2011	-	20	-	-	7 (Up-grade to Maternities)	27
2012	2	2	20	7	-	31
2013	2	20	7	-	6	35

Source: Field Survey 2015

5.5 Interview Report on Adequacy of Personnel and Infrastructural Facilities

The researcher interviewed three PHC workers from each Local Government under study with a view to have valid information on adequacy or otherwise of personnel and infrastructural facilities in the study areas. Three nurses/midwives heading maternities in Ningi LGA were interviewed; their Maternities and their responses are presented as in the table below;

Table 5.13; Responses of the Interviewees on the Adequacy of PHC Workers in Ningi LGA

S/N	Location	Responses (Number of personnel)
1	Gadar maiwa	3
2	Burra	3
3	Township Maternity Ningi	5

Source: Field Survey, 2015

From the table above, we can infer that two village maternities were having three staff each, while the Township maternity situated in Ningi is having five workers. These responses have conceded with the responses on the questionnaires which clearly vindicate that the PHC workers in Ningi are not adequate.

With regard to equipment for diagnosis and other facilities, according the interviewees only one maternity is adequately equipped which is the Township Maternity

Ningi, where as the remaining two respondents complained about insufficiency of equipment for diagnosis and other facilities required.

On the issue of training, all of them argued that, Bauchi state Government do organized seminars and workshops but the NGOs like WHO and UNICEF do organized more than the State Government, furthermore, there is provision for in-service training but they don't normally apply, it is only the male workers are using this opportunity to go for the in-service training.

Likewise, in Shira, three Nurses/Midwives heading different maternities were interviewed their maternities and their responses are presented in the table below;

Table 5.14; Responses of the Interviewees on the Adequacy of PHC Workers in Shira LGA

S/N	Location	responses (Number of personnel)
1	Yana Maternity	4
2	Shira Maternity	3
3	Health Centre Disina	4

Source: Field Survey, 2015

As seen in the above table, according to the interviewees, one maternity is having only three workers; however, the remaining two are having four staff respectively. This clearly indicated that there is inadequacy of PHC workers in Shira LGA. This has further substantiated to the views of those respondents who filled the questionnaires.

With regard to training, all of them posit that there is provision for in-service training by the Local Government but none of them has ever applied because they are all homemakers and their husbands would not allow them to further their studies in the Universities. However, they are being allowed to attend such training programmes as seminars, workshops etc, organized by the Government of Bauchi State and that of NGOs.

In relation to facilities, they replied that all of them were not equipped with facilities and equipment needed for diagnosis but however, there are free drugs for prenatal attendants which are inadequate.

An interview session was conducted with the PHC staff of Bauchi LGAs on the adequacy of personnel and infrastructural facilities. Three PHC workers of different Maternities were interviewed on adequacy of personnel and their responses were presented in the table below;

Table 5.15; Responses of the Interviewees on the Adequacy of PHC Workers in Bauchi LGA

S/N	Location	Number of staff
1	Nasarawa-Jahun Maternity, Bauchi	7
2	Urban Maternity, Bauchi	7
3	Federal low cost Maternity, Bauchi	6

Source: Field Survey, 2015

The table above shows that, two maternities have six PHC workers each and the other one is having seven staff, considering the level of the population of Bauchi LGA, six or seven staff is not sufficient; they cannot be able to provide adequate services. In relation to equipment for diagnosis and other facilities, all of the respondents argued that they don't have the required tools for diagnosis to examine patients, hence, make them to resort to referring patients to either specialist Hospital or private clinics for X-ray and come back to the maternity for prescription.

5.6 Level of Child Healthcare Services provided

Table 5.16; Level of Child Healthcare Services in Bauchi Local Government

CHILD HEALTH	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Medication and treatment for women under labour is free	47	31	82	55.4	-	-	17	11.5	2	1.4	148	100
Surgery to pregnant women with highly complicated labour when necessary is free.	-	-	17	11.5	9	6.1	99	66.9	23	15.5	148	100
Immunization to children between 0-5 years old is free.	59	39.9	63	42.6	4	2.7	19	12.8	3	2.0	148	100
Provision of free, adequate drugs and vaccination to children and nursing mothers	9	6.1	39	26.3	5	3.4	81	54.7	14	9.5	148	100
Provision of free Prenatal healthcare services	49	33.1	83	56.1	3	2.0	11	7.4	2	1.4	148	100

Source: Field Survey, 2015

The table above shows that 55.4% which the majority of the respondents of Bauchi LGA agreed that Medication and treatment to women under labour is free, in the same vein, 31% of the respondents strongly agreed with the assertion. While conversely, only 11.5% of the respondents disagreed and 1.4% of the total respondents strongly disagreed.

However, on free Surgery to pregnant women with highly complicated labour when necessary. It is clear that the majority of the respondents representing 66.9% disagreed to this postulation and 15.5% share similar perception to the majority. While on the other hand, only 11.5% of the respondents were of the opinion that Surgery is free, whereas, the remaining 6.1% of the respondents were indecisive.

Furthermore, for free Immunization to under-five children, 42.6% representing the majority of the respondents of Bauchi LGA agreed with the assertion that immunization to children is free, more so, 39.9% of the respondents opted for this position. Conversely, only 12.8% and 2.0% of the respondents disagreed and strongly disagreed respectively with this view, while 2.7% of the respondents were undecided.

In relation to Provision of free, adequate drugs and vaccination to children and nursing mothers as a means of reducing child mortality, 54.7% of the respondents representing the majority disagreed with the postulation, similarly, 9.5% of the respondents strongly disagreed with this assertion. While on the other hand, 26.3% of the respondents contended with the majority by agreeing that Provision of free, adequate drugs were provided and 6.1% of the respondents strongly agreed, the remaining 3.4% of the respondents were undecided.

In terms of Provision of free prenatal healthcare services, 33.1% of the respondents strongly agreed that the provision of prenatal care services is free, those that agreed with such assertion were 56.1% which constitutes the majority and in contrast only 7.4% of the respondents who have contrary view disagreed, more so, 1.4% of the respondents strongly disagreed. The remaining 2.0% of the respondents are those that were indecisive with such assertion. Thus, we can accept that free prenatal healthcare services have being provided in the study area.

Table 5.17; Level of Child Healthcare Services in Ningi Local Government

CHILD HEALTH	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Medication and treatment for women under labour is free.	-	-	23	19.8	10	8.6	61	52.6	22	19.0	116	100

Surgery to pregnant women with highly complicated labour when necessary is free.	1	0.9	3	2.6	15	12.9	71	61.2	26	22.4	116	100
Immunization to children between 0-5 years old is free.	64	55.2	49	42.2	2	1.7	1	0.9	-	-	116	100
Provision of free, adequate drugs and vaccination to children and nursing mothers	-	-	35	30.2	9	7.8	69	59.5	3	2.6	116	100
Provision of free Prenatal healthcare services	1	0.9	53	45.7	5	4.3	56	48.3	1	0.9	116	100

Source: Field Survey, 2015

From the table above, it is clear that 19.8% of the respondents argued that Medication and treatment to women under labour is free, conversely, another set of 52.6% of the respondents representing the majority disagreed with the assertion, in the similar vein 19.0% of the respondents strongly disagreed. The remaining 8.6% of the respondents were indecisive with regard such assertion.

However, for free Surgery to pregnant women with highly complicated labour when necessary, 61.2% of the respondents which constitutes the majority disagreed with this opinion and 22.4% of the respondents strongly disagreed conceded with the majority. While only 2.6% and 0.9% of the respondents have contrary view, they agreed and strongly agreed respectively that Surgery to pregnant women with highly complicated labour is free, where as those were undecided in their views stood at 12.9%.

In respect of free Immunization to children between 0-5 years old as a strategy adopted for reduction of child mortality, about 55.2% of the respondents representing the majority strongly agreed that Immunization to children is free, similarly, 42.2% of the respondents that are beneficiaries of argued for the assertion that free Immunization to children is adequately provided. However, there are those with contrary opinion who

constitutes only 0.9% and 1.7% of the respondents disagreed and undecided respectively with the stated postulation.

Furthermore, from the table above, we shall see that 59.5% of the respondents representing the majority disagreed with the position that, free drugs and vaccination to children and nursing mothers were provided. Being the beneficiaries of the healthcare services they argued that free drugs and vaccination to children and nursing mothers were not provided, more so, 2.6% respondents substantiated to the majority view. Whereas 30.2% of the respondents agreed with this assertion, while the remaining 7.8% of the respondents were indecisive on the issue.

Moreover, on Provision of free prenatal healthcare services with a view to reduce child mortality, 45.7% of the respondents argued that free prenatal healthcare services were provided and 0.9% of the respondents strongly agreed conceded with this opinion. On the other hand, 48.3% constituting the majority and 0.9% of the respondents disagreed and strongly disagreed respectively contended with this assertion. However, the remaining 4.3% of the respondents were undecided.

Table 5.18; Level of Child Healthcare Services in Shira Local Government

CHILD HEALTH	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Medication and treatment for women under labour is free.	1	1.4	5	6.9	2	2.8	64	90.3	-	-	72	100
Surgery to pregnant women with highly complicated labour when necessary is free.	-	-	3	4.2	7	9.7	59	81.9	3	4.2	72	100
Immunization to children between 0-5 years old is free.	42	58.3	22	30.6	2	2.8	5	6.9	1	1.4	72	100
Provision of free, adequate drugs and vaccination to	9	12.5	31	43.1	3	4.2	18	25.0	11	15.3	72	100

children and nursing mothers												
Provision of free Prenatal healthcare services	12	16.7	47	65.3	4	5.6	7	9.7	2	2.8	72	100

Source: Field Survey, 2015

The above table represents the divergent views of the sampled respondents of Shira LGA on free and adequate child healthcare services provided by the Bauchi State Government. In relation to free Medication and treatment for women under labour 90.3% of the respondents representing the majority disagreed with the assertion. While only 6.9% of the respondents were of the opinion that the free Medication and treatment to women under labour were provided, more so, 1.4% of the respondents strongly agreed with this opinion and the remaining 2.8% of the respondents were indecisive.

On free Surgery to pregnant women with highly complicated labour, 81.9% of the respondents constituting the majority disagreed with this postulation, in the same vein, 4.2% of the respondents opted for the view of the majority. Conversely, only 4.2% and 9.7% of the respondents agreed and undecided respectively on the assertion.

As indicated in the above table, 58.3% of total respondents, representing the majority strongly agreed that there is free Immunization to under-five children in Shira LGA, in addition to that 30.6% of the respondents who agreed conceded with the majority. While only 6.9% and 1.4% of the respondents disagreed and strongly disagreed respectively, and 2.8% were undecided.

With regard to Provision of free and adequate drugs as well as vaccination to children and nursing mothers, 43.1% as the majority of the total sampled respondents agreed, similarly, 12.5% of the respondents also strongly agreed with the postulation. However, 4.2% of the respondents were indecisive.

For provision of free prenatal healthcare services, 65.3% of the respondents representing the majority of total sampled respondents agreed, similarly, 16.7% of the respondents strongly agreed substantiated to the view of the majority. While only 9.7% of the respondents contended with the assertion that free prenatal healthcare services were being provided in a quest to reduce the level of child mortality in the state, in addition to that 2.8% of the respondents strongly disagreed, where as 5.6% of the respondents were undecided.

Table 5.19; Level of Child Healthcare Services in Bauchi, Ningi and Shira Local Governments

CHILD HEALTH	Strongly Agree (SA)		Agree (A)		Undecided (UD)		Disagree (D)		Strongly Disagree (SD)		Total	
	F	P	F	P	F	P	F	P	F	P	F	P
Medication and treatment for women under labour is free.	53	14.0	120	31.7	14	3.7	163	43.0	29	7.7	379	100
Surgery to pregnant women with highly complicated labour when necessary is free.	1	0.3	24	6.3	31	8.2	249	65.7	74	19.5	379	100
Immunization to children between 0-5 years old is free.	184	48.5	151	39.8	8	2.1	31	8.2	5	1.3	379	100
Provision of free, adequate drugs and vaccination to children and nursing mothers	23	6.1	112	29.6	20	5.3	193	50.9	31	8.2	379	100
Provision of free Prenatal healthcare services	70	18.5	191	50.5	20	5.3	84	22.2	14	3.7	379	100

Source: Field Survey, 2015

However, 43.0% of the sampled respondents of the three Local Governments under study representing the majority disagreed with the affirmation that there is free Medication and treatment for women under labour and 7.7% of the respondents strongly agreed thereby supporting the majority. While, to those with contrary view, 31.7% of the

respondents agreed and 14.0% of the respondents opted for those who agreed with this opinion, whereas 3.7% of the respondents remained indecisive.

On the issue of free Surgery to pregnant women with highly complicated labour when necessary, 65.7% of the respondents constituting the majority disagreed. In similar vein, 19.5% of respondents strongly disagreed with this declaration too. Only 6.3% and 0.3% of the respondents strongly agreed and also agreed respectively to the claim that Surgery to pregnant women with highly complicated labour is free, 8.2% of the respondents were however undecided.

Furthermore, in respect of free Immunization to children between 0-5 years old 48.5 of the respondents representing the majority strongly agreed, in addition to that, 39.8% of the respondents conceded with this opinion. Conversely, only 8.2% and 1.3% of the respondents disagreed and strongly disagreed respectively with the assertion that, free Immunization to children are being provided, whereas 2.1% of the respondents were undecided on this view.

For the Provision of free and adequate drugs and vaccination to children and nursing mothers, the responses from the table above shows that 50.9 % of respondents constituting the majority disagreed with this position, similarly, 8.2% of the respondents strongly disagreed. While to those with different position, 29.6% respondents agreed and 6.1% of the respondents strongly agreed, the remaining 5.3% of the respondents were undecided.

In relation to Provision of free prenatal healthcare services, 18.5% and 50.5% of respondents representing the majority agreed and strongly agreed respectively with the assertion that the Provision of Prenatal healthcare services is free. While in contrast, 22.2% of the total respondents disagreed with this opinion, more so, 3.7% of the respondents strongly disagreed and 5.3% of the respondents were undecided.

5.7 Adequacy of Funding for the Effective Implementation of MDG 4

Table 5.20; Budgetary Allocation from 2009-2013

Year	Budgetary allocation
2009	1,657,840,031.00
2010	The fund was not released from both the State and federal Governments
2011	1,135,028,523.60
2012	572,000,000.00
2013	1,200,000,000.00

Source: MDGs Projects Support Unit, Bauchi

From the table above, we can infer that the budgetary allocation of the MDGs projects Support Unit of 2009, 2011 and 2013 were relatively adequate, while that of 2012 seems to be inadequate, where as in 2010 there was no any allocation from both the State and federal Governments, according to the informant, the federal Government did not release any fund for execution of MDGs programmes to any state in the country and hence Bauchi State Government also did not allocate anything. The information in the above table conceded with the response of the interviewee on the adequacy of funding.

5.8 Interview Report on the Activities of MDGs Projects Support Unit and the Level of Funding

The researcher interviewed one staff of the MDGs Projects Support Unit Bauchi, with a view to have valid information on MDGs activities in Bauchi State. A question was raised by the researcher on the activities of MDGs in relation provision of Primary Healthcare services, specifically in the area of; Provision of infrastructural facilities, personnel, public enlightenment and adequacy of funds that are being allocated to the MDGs office over a period of five years from 2009-2013.

In respect to provision of infrastructural facilities, the respondent said that they do build Health Centres, Maternities, Dispensaries and Clinics across the state; they also provide other facilities like Beds, Equipment and Drugs to both newly constructed health

centres, maternities and dispensaries as well as the existing ones. He further stated that they do renovate the existing infrastructures, sometimes; they even up-grade maternities to health centres or dispensaries to maternities where necessary. More so, he said that they also provide Ambulances and Tricycles to village maternities and health centres to facilitate emergency cases.

In relation to employment of PHC workers, the respondent replied by saying that they are not providing personnel to newly constructed structures. They interrelate with ministries concern to their scope of activities, after construction of maternities and the like, they do handover them to SPHCDA, it is the responsibility of the agency to employ the workers and continue managing the primary healthcare structures provided. If it is a block of classrooms after completion they do handover them to SUBEB. In respect to public enlightenment, the informant said MDGs office is not organizing any public enlightenment campaign; it is the responsibility of PHCDA to do so.

Finally the researcher further asked him about adequacy of funds been allocated to the MDGs Project Support Unit for a period of five years by the State Government. He said that financing of MDGs projects is counter funding between the State Government and the Federal Government base on Conditional Grand Scheme (CGS), which means 50%:50%, the state must first pay half of the total amount budgeted, then the Federal Government pays its 50%. Therefore, base on this arrangement they don't experience shortage of funds. Once they make their annual budget, they will submit it to the secretary to the State Government, and then he will meet the Governor for approval. After approval of the annual state budget by the State House of Assembly, then State Government will pay its 50% of the amount they budgeted in to account of MDGs Project support unit, haven seen the 50% given by the state government, then the Federal Government usually pays its 50% too.

According to him their major challenge is issue of delay, since after submission they must wait until the state budget is deliberated and approved by the state house of assembly before they get the 50% of the state and even that of Federal Government sometimes they had wait for a while before the fund is released.

5.9 The Level of Public Enlightenment on Reduction of Child Mortality

Public enlightenment is very imperative in the process of healthcare delivery, this is because, providing adequate personnel, equipment and infrastructural facilities without adequate enlightenment to the women of childbearing age to be regularly attending prenatal, antenatal and postnatal visits, child mortality can hardly be reduced. The state and local governments are responsible for raising public awareness on primary health care related issues through seminar/workshops, print and electronic media, such as Radio, Television and traditional methods like the use of Town criers and house-to-house.

The opinion of the respondents across Bauchi, Ningi and Shira Local governments of Bauchi state were sought to ascertain the adequacy of public enlightenment campaign on child healthcare related issues with the view of assessing the implementation of MDG 4. The responses of respondents from Bauchi Local Government on the level of public enlightenment are contained in table 5.21.

Table 5.21; Level of Public Enlightenment in Bauchi Local Government Area

Means of Public Enlightenment	**Strongly Agree (SA)**		**Agree (A)**		**Undecided (UD)**		**Disagree (D)**		**Strongly Disagree (SD)**		**Total**	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**
Newspaper publicity has been adequate.	2	1.2	11	6.6	3	1.8	146	87.4	5	3.0	167	100
Radio publicity has been adequate.	26	15.6	99	59.3	-	-	38	22.8	4	2.4	167	100
Television publicity has been adequate.	8	4.8	58	34.7	4	2.4	89	53.3	8	4.8	167	100
Seminar/Conference/ Workshop has been adequate.	-	-	8	4.8	7	4.2	113	67.7	39	23.4	167	100
Use Town Criers publicity has been	-	-	-	-	3	1.8	131	78.4	33	19.8	167	100

adequate.												
House-to-House publicity has been adequate.	-	-	-	-	2	1.2	109	65.3	56	33.5	167	100

Source: Field Survey, 2015

A detailed analysis of table 5.21 indicates the responses of the respondents on the adequacy of public enlightenment on reduction of child mortality through the means stated above. Majority of respondents were of the view that there is no adequate newspaper publicity on reduction of child mortality in Bauchi Local Government, 87.4% which constitutes the majority disagreed with the level of adequacy. 3.0% of respondents also strongly disagreed with this claim. While, 6.6% of respondents agree that there is adequate newspaper publicity in Bauchi LGA. Only 1.2% strongly agreed with this, while 1.8% of respondents were undecided on the adequacy of newspaper publicity on reduction of child mortality.

However, majority of respondents, which constitutes 59.3% agreed with the assertion that there is adequate publicity made through the radio. The table also indicates that 15.6% of respondents strongly agreed with this view too. Only 22.8% and 2.4% of the respondents disagreed and strongly disagreed respectively on the view that there is adequate publicity on reduction of child mortality through the radio in Bauchi LGA.

In terms of television, only 4.8% of the respondents strongly agreed that there is adequate publicity on child healthcare related issues through the television. 34.7% of the respondents also agreed with this claim. While 53.3% and 4.8% of the respondents which constitutes the majority disagreed and strongly disagreed respectively to the claim that there is adequate public enlightenment through television. More so, 2.4% of respondents remained undecided.

Meanwhile, the opinion of respondents was also sought on whether seminars, conferences and workshops were been organized to enlighten the public on child mortality

issues. Their responses indicated that, majority of the respondents disagreed with the assertion that the conduct of seminars, conferences and workshops were adequate. 67.7% of the respondents disagreed with this postulation. Another 23.4% strongly disagreed with this assertion too. While 4.8% of respondents agreed with the adequacy of seminars, conferences and workshops organized to enlighten the public. The remaining 4.2% of respondents were undecided on the matter.

Furthermore, Majority of respondents representing 65.3% strongly disagreed that there is adequate house-to-house visitation carried out by PHC workers to enlighten the women of reproductive age on the need to be regularly attending prenatal, antenatal and post natal visits. This position was supported by 33.5% of respondents who also strongly disagreed with the claim. While, none of the respondents strongly agreed and agreed respectively that there is adequate house-to-house public enlightenment campaign carried out in Bauchi LGA. The remaining 1.2% of respondents were however undecided.

Table 5.22; Level of Public Enlightenment in Ningi Local Government

Means of Public Enlightenment	**Strongly Agree (SA)**		**Agree (A)**		**Undecided (UD)**		**Disagree (D)**		**Strongly Disagree (SD)**		**Total**	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**
Newspaper	-	-	8	6.1	9	6.9	85	64.9	29	22.1	131	100
Radio	14	10.7	81	61.8	-	-	27	20.6	9	6.9	131	100
Television	4	3.1	9	6.9	4	3.1	76	58.0	38	29.0	131	100
Seminar/Conference/ Workshop	-	-	1	0.8	4	3.1	95	72.5	31	23.7	131	100
Town criers	26	19.8	71	54.2	2	1.5	26	19.4	6	4.6	131	100
House-to-House	13	9.9	83	63.4	1	0.8	29	22.1	5	3.8	131	100

Source: Field Survey, 2015

Table 5.22 indicates that majority of the respondents representing 64.9% disagreed with the assertion that there is adequate newspaper publicity on reduction of child mortality in the state while 22.1% of respondents also strongly disagreed with this view. On the other hand, only 6.1% of respondents agreed with the claims that there is adequate

newspaper publicity on child healthcare issues in Ningi LGA and none of respondents strongly agreed, while 6.9% of respondents remained undecided.

Contrary to the views on newspaper, majority of the respondents overwhelmingly agreed that there is public enlightenment through the radio. This is visible in the 61.8% response rate representing the majority. 10.7% also strongly agreed with this claim. On the other side, 20.6% of respondents disagreed with the premise that there is adequate publicity through the radio on child mortality, while 6.9% of respondents were strongly disagreed with this point of view.

Looking at television as a means of public enlightenment on issues related to child mortality in Ningi, majority of respondents representing 58.0% disagreed that there is adequate publicity through the television. 29.0% of respondents also strongly disagreed with this claim. 3.1% were undecided on the issue. While, 6.9% of respondents agreed with this view, 3.1% strongly agreed with it.

In line with organizing of seminars, conferences or workshops to enlighten the public, majority of the respondents representing 72.5% disagreed with the adequacy; this is supported by 23.7% of respondents who strongly disagreed with this view. However, only 0.8% of respondents agreed that seminars, conferences and workshops are being organized to enlighten the public on reduction of child mortality; while 3.1% of respondents remained undecided on it.

Responding to house-to-house as a means of public enlightenment on reduction of child mortality in Ningi LGA, 63.4% of respondents representing the majority agreed with the opinion that there is adequate house-to-house visitation as a medium of public awareness campaign. 9.9% of the respondents strongly agreed too. On the contrary, 22.1% of respondents disagreed with the views that there is adequate house-to-house

enlightenment campaign. 3.8% strongly disagreed with this view and the remaining 0.8% of the respondents was undecided on the matter.

Table 5.23; Level of Public Enlightenment in Shira Local Government

Means of Public Enlightenment	**Strongly Agree (SA)**		**Agree (A)**		**Undecided (UD)**		**Disagree (D)**		**Strongly Disagree (SD)**		**Total**	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**
Newspaper	1	1.2	-	-	2	2.5	72	88.9	6	7.4	81	100
Radio	15	18.5	18	22.2	1	1.2	41	50.6	6	7.4	81	100
Television	-	-	1	1.2	2	2.5	63	77.8	15	18.5	81	100
Seminar/Conference / Workshop	-	-	-	-	-	-	72	88.9	9	11.1	81	100
Town criers	12	14.8	54	66.7	4	4.9	7	8.6	4	4.9	81	100
House-to-House	4	4.9	23	28.4	-	-	51	63.0	3	3.7	81	100

Source: Field Survey, 2015

In the table 5.23 above, it is evidently clear that majority of the sampled respondents in Shira LGA representing 88.9% disagreed with the assertion that there is adequate newspaper publicity on reduction of child mortality in Bauchi State. On the other hand, 1.2% and 6.4% of respondents strongly disagreed and 2.5% remained undecided to the premise that there is adequate newspaper publicity respectively.

On radio, 50.6% of the sampled respondents disagreed that there is adequate radio publicity in Shira LGA which represents the majority, where as 7.4% of respondents also strongly disagreed with those claiming that there is adequate public enlightenment on the radio. In contrary view 22.2% of respondents agreed with the postulation that there is adequacy of public awareness through Radio, in the same vein 18.5% strongly agreed with this view, while 1.2% remained undecided.

The responses also show that only 1.2% of the respondents assert that television has been a viable means of public enlightenment on reduction of child mortality in Bauchi State, while 77.8% of respondents representing the majority disagreed with this position. Meanwhile, 18.5% of respondents strongly disagreed with the assertion that television publicity has been adequate, while 2.5% were undecided.

Similarly, majority of respondents strongly disagreed with the assertion that seminars, conferences and workshops were being organized to enlighten the public on reduction of child mortality Shira LGA. 88.9% of respondents disagreed with this position, 11.1% of respondents strongly agreed with the claim that there is adequate conduct of seminars, conferences and workshops, where as none of the respondents agreed with the stated premise.

However, 63.0% of respondents representing the majority disagreed with the affirmation that there is adequate house-to-house visitation to enlighten women of child bearing age on child healthcare related issues. 3.7% of the respondents strongly disagreed with this view too. Only 28.4% and 4.9% of respondents agreed and also strongly agreed respectively to the claim that there is adequate house-to-house enlightenment campaign in Shira LGA.

Table 5.24; Level of Public Enlightenment in Bauchi, Ningi and Shira Local Governments

Means of Public Enlightenment	**Strongly Agree (SA)**		**Agree (A)**		**Undecided (UD)**		**Disagree (D)**		**Strongly Disagree (SD)**		**Total**	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**	**F**	**P**
Newspaper	3	0.8	19	5.0	14	3.7	303	79.9	40	10.6	379	100
Radio	55	14.5	198	52.2	1	0.3	106	28.0	19	5.0	379	100
Television	12	3.2	68	17.9	10	2.6	228	60.2	61	16.1	379	100
Seminar/Conference/ Workshop	-	-	9	2.4	11	2.9	280	73.9	79	20.8	379	100
Town criers	38	10.0	125	33.0	9	2.4	164	43.3	43	11.3	379	100
House-to-House	17	4.5	106	28.0	3	0.8	189	49.9	64	16.9	379	100

Source: Field Survey, 2015

This table represents a summation of the responses on the adequacy of public enlightenment of the three Local Governments under study. With regard to the adequacy of newspaper publicity on reduction of child mortality, 79.9% of respondents representing the majority disagreed with the assertion that the level of newspaper publicity is adequate, similarly, 10.6% of the respondents strongly disagree with this view. In the contrary view,

only 5.0% and 0.8% agreed and strongly agreed on the adequacy of newspaper publicity on reduction of child mortality, while the remaining 3.7% were undecided.

As indicated in the table above, 52.2% of the total respondents, which represented the majority agreed with the assertion that enlightenment on reduction of child mortality through Radio is adequate, in addition to that, 14.5% also strongly agreed. Only 28.0% and 5.0% respectively that disagreed and strongly disagreed, while 0.3% was undecided.

In relation to the Television, 60.2% of the total sampled respondents representing the majority disagreed to the position that there is adequate publicity on television on reduction of child mortality, in the same vein 16.1% of the respondents strongly disagreed. On the other hand, only 17.9% were of the view that television publicity has been adequate, while 2.6% remained undecided.

However, only 2.4% of the respondents agreed that conference, seminar and workshop on reduction of child mortality are being adequately conducted, where as in contrary view, 73.9% of the sampled respondents representing the majority view disagreed with his opinion and 20.8% of the respondents strongly disagreed with this postulation, while the remaining 2.9% were undecided.

The responses on House-to-House as a viable means of public enlightenment on reduction of child mortality in Bauchi State have clearly indicated that an overwhelming majority representing 49.9% disagreed with this premise and 16.9% of respondents strongly disagreed which share the same opinion with the majority. However, only 28.0% and 4.5% of respondents agreed and strongly agreed respectively that House-to-House visitation for enlightenment campaign to the women of reproductive age has been adequate, while the remaining 0.8% were undecided.

5.10 Interview Report on Public Enlightenment Campaign in Bauchi, Ningi and Shira Governments

To ascertain the efforts made by the state government in order to ensure adequate public enlightenment campaign on reduction of child mortality in the state, an interview session was conducted with two staff of Bauchi State Primary Health Care Development Agency (PHCDA). It was revealed that two units exist concerning information in the agency, they include Health Education Unit and the Information Unit, the researcher was able interviewed the one officer from each unit and both of them cooperated. According the informant, Bauchi State Government has not been able to dedicate resources to newspaper publicity over the years and likewise to organizing seminars, conferences and workshops to enlighten women of child bearing age on prenatal, antenatal and postnatal issues. However, several strides have been made in the area of media publicity through radio and television. According to the respondent, the major problem they are facing is that, the State Government is not giving them money to sponsor media publicity on Radio or Television on the importance of health related issues on programmes that attract the attention of the audience like midterm jangle. This makes them to resort to only existing health programmes on Radio and the Television, which are inadequate. On Radio they have only three health programmes in a week, while they have two programmes on the Television, in a situation where there is urgent information to be announce, they must either wait until during the existing programmes or if the issue is pressing they have to beg and lobby before such announcement is made.

Another challenge according to the respondent is that of coverage, with regard to the issue of Television, the coverage is not wide; it is only the people of Bauchi metropolis and some few Local Governments that are neighbouring to Bauchi LGA can be able to watch BATV and NTA Bauchi. Whereas the remaining two senatorial districts (Bauchi

Central and Bauchi North) are not accessing. For Radio, according him, also there is a problem of coverage; many rural Local Governments especially those in Bauchi North are not receiving any information or announcement from BRC and the Glob FM Bauchi, the respondent said.

On the issue of house-to-house visitation to enlighten women, he said they are not doing that due to Purdah and inadequacy of staff. Although, house-to-house enlightenment is obtainable in Ningi Local Government, according to the respondent in Ningi who is a PHC staff, in spite of inadequacy of staff, they take advantage of Polio Vaccine period to enlighten women. Since the Polio Vaccination is house-to-house when they see pregnant or nursing mothers, they used to enlighten them on the importance of attending to prenatal, antenatal and postnatal visit.

In relation to the use of Town criers as a means of disseminating vital information and enlightenment on primary healthcare related issues, the respondent said that they don't adopt it in the urban centres, but it is obtainable in some of the rural areas. The researcher observed that the PHC workers in rural areas of some Local Governments are using Town-criers and it is effective means of disseminating of vital health care information, for example in Shira Local Government which is one of the sampled Local Governments under study.

The researcher asked the respondent in Shira LGA on the roles played by Town-criers in the enlightenment campaign on primary healthcare related issues. She further replied by saying that the Town-criers aid them in disseminating vital information, such as informing the people on the date fixed for Polio Vaccine, vaccination against Measles and immunization as well as enlighten the people of the remote areas and Villages on health related issues like personal hygiene, prenatal, antenatal and postnatal visitation to Hospital.

On the other hand, the researcher further interviewed the Head of Health Education Unit of PHCDA; according him, they are using existing Health programmes on the Radio and Television. When there is vital information related to health or there is suppressing issue they are using a VAN, they are also using Health Education Units of the entire Local Governments of Bauchi State in disseminating vital information related to primary healthcare. They are also using media/volunteer mobilizers in the villages and remote areas. However, he further identified some problems that perceived as constrains to their success, these include; problem of fund: Funding of the primary healthcare programmes on Radio and Television, he said it the NGOs that are sponsoring some of their programmes.

The issue of facilities is another factor; he said that they are in shortage of facilities like VAN, microphone and other communication facilities or tools. They have only one VAN for the entire state, to him at least they suppose to have 20 VANs one for each Local Government and adequate funds for the maintenance and the drivers that can manage them. More so, there is problem of Radio and Television coverage as well as language barrier as the same to information unit of the agency.

Observation Report

In order to ascertain whether the Government of Bauchi State has really provided adequate healthcare infrastructural facilities for the effective implementation of MDG 4, in the course of administering questionnaires, the researcher observed that there are a lot of structures like maternities, health centres, dispensaries and other facilities such beds and other tools were provided.

5.11.1 Descriptive Statistical Analysis

Descriptive statistics was employed to determine the mean and the standard deviation of the responses of respondents on the Sufficiency of PHC personnel, Adequacy of infrastructural facilities and level of public enlightenment, to achieve this, the Likert-

type scale was adopted and it has five levels namely; Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D) and Strongly Disagree (SD). Each level is assigned a number ranging from 5 (SA) to 1 (SD). The mean was computed, thus:

$$\text{Mean} = \frac{5+4+3+2+1}{5} = \frac{15}{5} = 3$$

With 3 as the computed mean, it means that any factor or indicator with a mean 3 or above is regarded positive and hereby accepted while a mean below 3 is regarded negative and so rejected.

Table 5.25; Descriptive Statistics for Adequacy of personnel

Adequate of Personnel	No. of Sampled Respondents	Mean	Standard Deviation	Remarks
Adequacy of Health Personnel	379	2.7203	1.18674	Reject

Source: Field Survey, 2015.

Table 5.25 shows that the average score of Adequacy of Primary Healthcare Personnel is below the computed mean of the Likert-type scale (3.00).Therefore, the claim that there is adequate of PHC Personnel above is hereby rejected. The standard deviation also shows that the variability of the scores is less.

Table 5.26; Descriptive Statistics for Adequacy of Infrastructural Facilities

Adequacy infrastructural facilities	No. of Sampled Respondents	Mean	Standard Deviation	Remarks
Adequacy of Clinics, Dispensaries, Maternities and Health Centres	379	2.8338	1.17573	Reject
Adequacy of Equipment	379	2.6755	1.17411	Reject
Free Medication and Treatment	379	3.0660	1.26966	Accept
Ambulances to enhance and facilitate referral system for complicated labour	379	1.9499	1.02359	Reject

Source: Field Survey, 2015.

Table 5.26 has further illustrates that the adequacy of infrastructural facilities such as Clinics, Dispensaries, Maternities and Health Centres, Adequacy of Equipment, Ambulances to enhance and facilitate referral system for complicated labour provided is below the computed mean of the Likert-type scale (3.00).Therefore, the claim that there is adequacy of

infrastructural facilities above is hereby rejected. The standard deviation also shows that the variability of the scores is less. While on the other hand Free Medication and Treatment is above the computed mean of the Likert-type scale (3.00) and thereby accepted.

Table 5.27; Descriptive Statistics for Public Enlightenment

Means of Public Enlightenment	No. of Sampled Respondents	Mean	Standard Deviation	Remarks
Newspaper	379	2.0554	.64208	Reject
Radio	379	3.4327	1.18303	Accept
Television	379	2.3193	1.04447	Reject
Seminar/Conference/Workshop	379	1.8681	.56203	Reject
Town criers	379	2.8707	1.26686	Reject
House-to-house	379	2.5330	1.19117	Reject

Source: Field Survey, 2015

Table 5.27 indicates that the mean score of Radio is equal to or above the computed mean of the Likert scale (3.00). This means that radio as a means of public enlightenment on primary healthcare services have been relatively adequate and hereby accepted. On the contrary, Newspaper, Television, seminar/conference/workshop, Town criers and house-to-house visitation have average scores below the computed mean of Likert scale (3.00) and therefore rejected on the grounds that they have not been adequate in creating public awareness on Primary Healthcare issues in the state.

However, the standard deviation has shown high level of variation from the mean scores of newspaper and the conduct of seminar, conference and workshop as against radio, house-to-house visitation, town criers and television as means of public enlightenment on reduction of child mortality.

Table 5.27 indicates that the mean scores of Newspaper, Television, Seminar, conference and workshop, town criers and House-to-house are less than (3.00), and hence, rejected on the grounds that they have not been adequate in creating public enlightenment on reduction of child mortality in the state. Conversely, for Radio is above the computed

mean of the Likert scale (3.00). This means that radio have been relatively adequate and hereby accepted.

However, the standard deviation has shown high level of variation from the mean scores of Radio as against Television, organizing Seminar, conference and workshop, use of Town criers and house-to-house, as means of public enlightenment on reduction of child mortality.

5.11.2 Frequencies (Chi-square)

In the tables titled computed Statistical Package for Social Sciences (SPSS) products, the observed frequency (N) simply means the average number of respondents who responded on a particular indicator. The expected frequency (N) is the sum of the observed frequency divided by the number of rows in the table. Chi-square means squaring the residual for each indicator divided by its expected value and summing across all indicators. df is the number of expected values that can vary before the rest are completely determined. Asymp. Sig. is the estimated probability of obtaining a chi-square value greater than or equal to the chi-square, while the residual is equal to the observed frequency minus the expected value.

Test of Hypotheses

Data for testing the validity or otherwise of the null hypotheses earlier postulated in chapter one were tested using chi-square statistical tool.

5.11.3 Test of Hypothesis one

$H0_1$: There is no relationship between the adequacy of healthcare practitioners and the implementation of MDG 4 in Bauchi State.

To test the hypothesis, data and responses to questions in tables were used.

Table 5.28; Adequacy of Primary Health Care Practitioners

	Observed N	Expected N	Residual
1.00	54	75.8	-21.8
2.00	158	75.8	82.2
3.00	21	75.8	-54.8
4.00	132	75.8	56.2
5.00	14	75.8	-61.8
Total	379		

Source: Computed SPSS Product V20

Table 5.28 indicates the observed and expected frequency of Adequacy of Primary Healthcare Personnel in Bauchi State while residual is the difference between observed and expected frequency.

Table 5.29; Test of Hypothesis 1

			Adequacy of Health Personnel
Chi-Square			227.082[a]
Df			4
Asymp. Sig.			.000
Monte Carlo Sig.	Sig.		.000[b]
	95% Confidence Interval	Lower Bound	.000
		Upper Bound	.008

Source: Computed SPSS Product V20

The calculated chi-square value in table 5.29 is 227.082 while the critical value is 9.488; therefore, the calculated Chi-square value is greater than the critical or table value.

Decision Rule; Reject the Null Hypothesis (H0) if calculated value is greater than the critical value and accept the hypothesis if the calculated value is less than the critical value. Hence, in this case, the H0 which states that "There is no relationship between the adequacy of healthcare practitioners and the implementation of MDG on reduction of child mortality rate in Bauchi State" is rejected. Conversely, the level of primary health care personnel employed by Bauchi State Government, which has been reported to be insufficient, is a constraint to the reduction of child mortality in Bauchi State.

5.11.4 Test of Hypothesis two

$H0_2$: There is no relationship between the adequacy of healthcare infrastructural facilities and the implementation of MDG 4 in Bauchi State.

Table 5.30; Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Adequacy of Clinics, Dispensaries, Maternities and Health Centres	379	2.8338	1.17573	1.00	5.00
Adequacy of Equipment	379	2.6755	1.17411	1.00	5.00
Free Medication and Treatment	379	3.0660	1.26966	1.00	5.00
Ambulances to enhance and facilitate referral system for complicated labour	379	1.9499	1.02359	1.00	5.00

Source: Computed SPSS Product V20

Table 5.31; Adequacy of Clinics, Dispensaries, Maternities and Health Centres

	Observed N	Expected N	Residual
1.00	21	75.8	-54.8
2.00	200	75.8	124.2
3.00	14	75.8	-61.8
4.00	109	75.8	33.2
5.00	35	75.8	-40.8
Total	379		

Source: Computed SPSS Product V20

Table 5.31 indicates the observed and expected frequency of Adequacy of Clinics, Dispensaries, Maternities and Health Centres in Bauchi State while residual is the difference between observed and expected frequency.

Table 5.32; Adequacy of Equipment

	Observed N	Expected N	Residual
1.00	29	75.8	-46.8
2.00	214	75.8	138.2
3.00	28	75.8	-47.8
4.00	67	75.8	-8.8
5.00	41	75.8	-34.8
Total	379		

Source: Computed SPSS Product V20

Table 5.32 indicates the observed and expected frequency of Adequacy of Equipment in health centres, Maternities, Dispensaries and Clinics in Bauchi State, while residual is the difference between observed and expected frequency.

Table 5.33; Free Medication and Treatment

	Observed N	Expected N	Residual
1.00	29	75.8	-46.8
2.00	153	75.8	77.2
3.00	14	75.8	-61.8
4.00	130	75.8	54.2
5.00	53	75.8	-22.8
Total	379		

Source: Computed SPSS Product V20

Table 5.33 indicates the observed and expected frequency of Free Medication and Treatment of children and nursing mothers in Bauchi State while residual is the difference between observed and expected frequency.

Table 5.34; Adequacy of Ambulances to enhance and facilitate referral system for complicated labour

	Observed N	Expected N	Residual
1.00	139	75.8	63.2
2.00	179	75.8	103.2
3.00	12	75.8	-63.8
4.00	39	75.8	-36.8
5.00	10	75.8	-65.8
Total	379		

Source: Computed SPSS Product V20

Table 5.34 indicates the observed and expected frequency of adequacy Ambulances to enhance and facilitate referral system for complicated labour while residual is the difference between observed and expected frequency.

Table 5.35; Test of Hypothesis 2

			Adequacy of Clinics, Dispensaries, Maternities and Health Centres	Adequacy of Equipment	Free Medication and Treatment	Ambulances to enhance and facilitate referral system for complicated labour
Chi-Square			330.011[a]	328.005[a]	203.520[a]	321.884[a]
Df			4	4	4	4
Asymp. Sig.			.000	.000	.000	.000
Monte Carlo Sig.	Sig.		.000[b]	.000[b]	.000[b]	.000[b]
	95% Confidence Interval	Lower Bound	.000	.000	.000	.000
		Upper Bound	.008	.008	.008	.008

Source: Computed SPSS Product V20

The level of significance used in testing the hypothesis is 0.05% as indicated in table 5.35 above. The degree of freedom is 16 as also shown in table 5.35. The calculated chi-square value in table 5.35 is 1183.42, while the critical value is 26.296. Therefore, the calculated Chi-square value is greater than the critical or table value.

Decision Rule; Reject the Null Hypothesis (H0) if calculated value is greater than the critical value and accept the hypothesis if the calculated value is less than the critical value. Hence, in this case, the H0 which states that "There is no relationship between the adequacy of healthcare infrastructural facilities and the implementation of MDG 4 in Bauchi State" is rejected. Equally, it implies that the infrastructural facilities provided by Bauchi State Government, which has been reported to be inadequate, is a constraint to the reduction of child mortality in Bauchi State.

5.11.5 Test of Hypothesis four

$H0_4$: The level of public enlightenment by Bauchi State Government is not a constraint to the implementation of MDGs on reduction of Child mortality rate in State.

Table 5.36; Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Newspaper	379	2.0554	.64208	1.00	5.00
Radio	379	3.4327	1.18303	1.00	5.00
Television	379	2.3193	1.04447	1.00	5.00
Seminar/Conference/Workshop	379	1.8681	.56203	1.00	4.00
Town Criers	379	2.8707	1.26686	1.00	5.00
House-to-House	379	2.5330	1.19117	1.00	5.00

Source: Computed SPSS Product V20

Table 5.37; Newspaper

	Observed N	Expected N	Residual
1.00	40	75.8	-35.8
2.00	303	75.8	227.2
3.00	14	75.8	-61.8
4.00	19	75.8	-56.8
5.00	3	75.8	-72.8
Total	379		

Source: Computed SPSS Product V20

Table 5.37 indicates the observed and expected frequency of Newspapers while residual is the difference between observed and expected frequency.

Table 5.38; Radio

	Observed N	Expected N	Residual
1.00	19	75.8	-56.8
2.00	106	75.8	30.2
3.00	1	75.8	-74.8
4.00	198	75.8	122.2
5.00	55	75.8	-20.8
Total	379		

Source: Computed SPSS Product V20

Table 5.38 indicates the observed and expected frequency of Radio while residual is the difference between observed and expected frequency.

Table 5.39; Television

	Observed N	Expected N	Residual
1.00	61	75.8	-14.8
2.00	228	75.8	152.2
3.00	10	75.8	-65.8
4.00	68	75.8	-7.8
5.00	12	75.8	-63.8
Total	379		

Source: Computed SPSS Product V20

Table 5.39 indicates the observed and expected frequency of Television while residual is the difference between observed and expected frequency.

Table 5.40; Seminars/Conferences/Workshops

	Observed N	Expected N	Residual
1.00	79	94.8	-15.8
2.00	280	94.8	185.3
3.00	11	94.8	-83.8
4.00	9	94.8	-85.8
Total	379		

Source: Computed SPSS Product V20

Table 5.40 indicates the observed and expected frequency of Seminars /Conferences/ Workshops while residual is the difference between observed and expected frequency.

Table 5.41; Town Criers

	Observed N	Expected N	Residual
1.00	43	75.8	-32.8
2.00	164	75.8	88.2
3.00	9	75.8	-66.8
4.00	125	75.8	49.2
5.00	38	75.8	-37.8
Total	379		

Source: Computed SPSS Product V20

Table 5.41 indicates the observed and expected frequency of Town Criers while residual is the difference between observed and expected frequency.

Table 5.42; House-to-House

	Observed N	Expected N	Residual
1.00	64	75.8	-11.8
2.00	189	75.8	113.2
3.00	3	75.8	-72.8
4.00	106	75.8	30.2
5.00	17	75.8	-58.8
Total	379		

Computed SPSS Product V20

Table 5.42 indicates the observed and expected frequency of House-to-House while residual is the difference between observed and expected frequency.

Table 5.43; Test of Hypothesis 4

			Newspaper	Radio	Television	Seminar/Conference/ Workshop	Town Criers	House-to-House
Chi-Square			860.776[a]	331.119[a]	420.116[a]	516.441[c]	226.475[a]	298.454[a]
Df			4	4	4	3	4	4
Asymp. Sig.			.000	.000	.000	.000	.000	.000
Monte Carlo Sig.	Sig.		.000[b]	.000[b]	.000[b]	.000[b]	.000[b]	.000[b]
	95% Confidence Interval	Lower Bound	.000	.000	.000	.000	.000	.000
		Upper Bound	.008	.008	.008	.008	.008	.008

Source: Computed SPSS Product V20

The calculated chi-square value in table 5.43 above is 2653.381, while the critical value is 35.172. In this case, the calculated Chi-square value is greater than the critical or table value.

Decision Rule; Reject the Null Hypothesis (H0) if calculated value is greater than the critical value and accept the hypothesis if the calculated value is less than the critical value. Hence, the H0 which states that "The level of public enlightenment by Bauchi State Government is not a constraint to the implementation of MDG 4 in the State." is rejected. Conversely, it implies that the level of public enlightenment which has been reported to be inadequate is a constraint to the reduction of child mortality in Bauchi State.

5.12 Discussion

The result obtained from the analyses base on the responses presented on the roles played by Government of Bauchi State in the implementation of MDG 4 with a view to reduce child mortality and the test of the hypotheses for this study discovered that there is inadequate PHC personnel. The infrastructural facilities provided are sufficient, in adequate funding and low level of public enlightenment campaign.

This study revealed that the measures of public enlightenment put in place by the Bauchi State Government in the quest to enlighten the public on primary healthcare with a view to reduce child mortality are Radio publicity and television which was reported to be in adequate. In some parts of the state, especially the Northern part of the State, with little or no publicity through the use of newspaper, town criers, house-to-house, seminars, conferences or workshops which are also vital means of public enlightenment. This shows that the level of public enlightenment is very low. This view was further substantiated by the report of the interview conducted with the two officers of PHCDA which revealed that Bauchi state is not sponsoring the Radio and Television programmes other than two existing health programmes in a week, the interviewees further unveiled to us that the facilities needed for public enlightenment are in adequate.

With regard to personnel, we can infer from responses of respondents expressed in tables above. The PHC workers employed by Government of Bauchi State are inadequate, where as the attainment of MDG 4 is depend largely on the adequacy of trained personnel. This conceded with responses of the PHC workers interviewed from the three Local Governments under study. They revealed that they are overworked and three personnel to manage a maternity or Health Centre would not yield the desired result.

Furthermore, the responses revealed that infrastructural facilities provided by Bauchi State Government are inadequate. The interview report has further corroborated

with the responses from questionnaires, whereby the village maternities are seriously in short supply of equipment, drugs and basic apparatus and other facilities like Ambulance are lacking in rural areas. Secondary sources have confirmed that from 2009-2013 the health infrastructural facilities provided by the Government of Bauchi State in a quest to reduce by two-third the rate of child mortality in the State are inadequate.

5.13 Major Findings

Based on the hypotheses tested and data presented and analysed, this study has come up with the following major findings.

i. The Primary Healthcare personnel employed by the Government of Bauchi State for the effective implementation of MDG 4 were inadequate.
ii. The infrastructural facilities provided by Bauchi Sate Government such as maternity and health centres, equipment for diagnosis, drugs, Ambulances, dispensaries and clinics across the state for the attainment of MDG 4 were inadequate.
iii. The study revealed that there is adequacy of funding, but it takes long time before the funds meant for execution of MDGs projects is released by the Bauchi State Government.
iv. The study unveiled that the measures of public enlightenment employed by Bauchi State Government is Television and Radio publicity which were found to be inadequate in some rural areas, especially the Northern part of the State.

CHAPTER SIX

A Summery, Conclusion and Recommendations

6.1 Introduction

This chapter summarized the entire work from chapter one to six. It includes conclusion reached based on the hypotheses tested and the recommendation proffered in accordance with the findings of this study.

6.2 Summery

Infant and child mortality is a tragedy that is prevalent in developing countries of the world and has been described as a major public health challenge in Nigeria. The persistent high rate of child and infant mortality has attracted the global attention, in which its reduction has specifically become a part of the Millennium Development Goals, Nigeria being a member of UN has adopted MDGs in order tackle all the identified problems. In order to facilitate and fast-track the implementation of MDGs, Bauchi state Government established MDGs projects support unit and PHCDA but yet the high rate of child mortality in Bauchi State persists.

Four hypotheses were formulated in null forms. The hypotheses were postulated to ascertain the adequacy of PHC personnel, infrastructural facilities, sufficiency of budgetary allocation and the measures of public enlightenment campaign adopted by the Government of Bauchi State. The study focuses on the roles played by Bauchi State Government in the implementation of MDG 4 and covers the period between 2009 -2013. The limitation of the study has also been acknowledged. Literatures related to the study were critically reviewed. The evaluation theory by Suchman was adopted as the theoretical framework of the study.

The research design for the study was mainly survey research; the questionnaires were administered to the PHC personnel and women of reproductive age of Bauchi, Ningi and Shira local government areas of Bauchi State. Staff of MDGs Project Support Unit and PHCDA were interviewed, few Nurses/midwives heading Maternities in the three local governments under study were also interviewed. The researcher also observed health infrastructural facilities constructed/provided these were complemented with content analysis of secondary data obtained from MDGs office Bauchi.

The total population for the study was 546,393. The sample size for the study was 400. Stratified and purposive sampling techniques were employed. Both primary and secondary sources of data were explored. These were presented in tables and frequencies while descriptive and inferential statistics were used to analyse and test the validity of the hypotheses.

The historical background of Bauchi state was captured. The MDGs Project Support Unit was critically explained, issues like financial provisions, powers and functions as well as organizational structure of the MDGs PSU identified and discussed.

The data obtained from the field representing the views of the respondents were presented in tables and analysed using frequencies and percentages. The data centred on the questions on the bio-data of the sample respondents and the variables used in the study. The views of the respondents were also complemented with secondary data. From the data presented and analysed, the study revealed that there is inadequacy of PHC personnel, infrastructural facilities, delay in the release of funds to the MDGs PSU and low level of public enlightenment on primary healthcare.

6.3 Conclusion

From the data presented and analyzed as well as the hypotheses tested, the study concludes that the impediments to reduction of child mortality in Bauchi State are in adequacy of PHC personnel and infrastructural facilities as well as low level of public enlightenment.

However, the hypotheses tested have indicated that the PHC personnel employed by Bauchi State Government for implementation of MDG 4 were inadequate and have become a constraint to the reduction of child mortality rate in the state. From the test of the second hypothesis, the study also concluded that the infrastructural facilities provided are inadequate and has become a limitation to reduction of child mortality. From the data obtained on the third hypothesis, the study also concluded that there is adequate funding but the delay in the release of the funds impedes to a large extent on provision of primary healthcare infrastructural facilities thereby affecting the effort of Bauchi State Government on reduction of child mortality. Finally, for the fourth hypothesis tested, the study concluded that the measures of public enlightenment adopted by Bauchi State Government are Television and Radio publicity, which reported to be inadequate and that has affected the reduction of child mortality rate in the state.

Therefore, by employing adequate PHC personnel, providing adequate infrastructural facilities, timely release of funds and adequate public enlightenment on primary healthcare would certainly lead to drastic reduction of child mortality rate in Bauchi State.

6.4 Recommendations

Bauchi State Government should add more efforts on the provision of qualitative primary healthcare services through the following ways:

i. The state Government should employ adequate primary Healthcare personnel such as Nurses, Midwives, Community Health Workers and Junior Community Health Workers so as to provide qualitative health care which will go a long way in talking the problem child mortality in the state.

ii. The Government of Bauchi State should also intensify its efforts in the provision of adequate infrastructural facilities such as construction of maternities and health centres, dispensaries, adequate equipment for diagnosis, free drugs should adequately provided to all health centres, maternities, dispensaries and clinics across the state, Ambulances should be provided to each Maternity and health centre across the state.

iii. More so, State government should be more committed to the timely release of funds meant for the execution of MDG 4 projects in State.

iv. Furthermore, Bauchi state Government should introduce other means of public healthcare enlightenment such as seminars, workshops and House-to-house campaign to supplement the Television and Radio publicity, especially in the rural areas of the northern part of the state. The existing primary health care programmes on Radio and Television should be increased to at least twice in a day. Furthermore, sub-stations of BATV should be established in the Central zone and the Northern part of the state to enable the people of the areas to watch primary healthcare programmes on Television. More so, At least one VAN should be provided to each local Government area across the state in order to enhance public enlightenment campaign on PHC related issues.

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APPENDIX I

QUESTIONNAIRE

Introduction

I am a postgraduate student of the Department of Public Administration, Ahmadu Bello University, Zaria, carrying out a research titled “Assessment of the Effort of Bauchi State Government in the Implementation of the Millennium Development Goal 4” with the aim of assessing the roles played by the Government of Bauchi State in reduction of child mortality rate in the state. The research forms an essential part of my work towards the award of Masters Degree in Public Administration (M.Sc). This questionnaire is therefore, only meant to test the stated hypotheses to obtain result for analysis of the research topic. Information given would be used solely for the purpose of this research and will be treated confidentially.

I therefore solicit your cooperation to please kindly tick the appropriately options in the attached questionnaire and comment where applicable.

Thank you for the anticipated cooperation.

Yours faithfully,

Bala Umar

SECTION A

PERSONAL DATA OF RESPONDENTS

(PHC WORKERS OF BAUCHI, NINGI & SHIRA LGAs)

Instructions

Please you are required to kindly tick [√] as appropriate.

(1) Rank/Designation; Please specify ……

(2) Age [ ]

(3) Sex: Male [ ] Female [ ]

(4) Highest educational qualification

(a) Primary [ ]

(b) Secondary [ ]

(c) Post Secondary [ ]

(d) Degree/HND [ ]

(e) Postgraduate [ ]

(5) Number of Years in Service [ ]

1. Adequate and capable Primary Healthcare practitioners were employed bythe Government of Bauchi state. Pls. tick as appropriate in each of the boxes below:

	Adequacy of trained PHC workers for the attainment of MDG 4	**Strongly Agree**	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
1	Sufficient trained Nurses were employed					
2	Sufficient trained Midwives were employed					
3	Adequate Health attainders were employed					
4	Adequate and Trained Community					

	Health workers were employed					
5	Suffice Trained Junior Community Health workers were employed					
6	Adequate Training is regularly given to all PHC workers					

2 Primary healthcare infrastructural facilities provided by MDGs project support unit Bauchi and Bauchi state Primary Health Care Development Agency are adequate. Pls. tick as appropriate in each of the boxes below

	Adequacy of infrastructural facilities provided	**Strongly Agree**	**Strongly Disagree**	**Undecided**	**Disagree**	**Strongly Disagree**
1	The number of Clinics, Dispensaries, Maternities and Health Centres provided are adequate.					
2	There are adequate equipments for diagnosis in Maternities and Health Centres.					
3	Provision of medication to women under labour is free.					
4	Ambulances for enhancement and facilitating referral system for complicated labour are adequate.					
5	Free vaccination are given to infants and children is adequate and regularly provided					
6	Adequate drugs are given to the children and nursing mothers and is regularly provided					

SECTION A

PERSONAL DATA OF RESPONDENTS

(WOMEN OFREPRODUCTIVE AGE OF BAUCHI, NINGI AND SHIRA LGAs)

Instructions

Please you are required to kindly tick [√] as appropriate.

(1) Age [ ]

(2) Highest educational qualification

(a) Primary [ ]

(b) Secondary [ ]

(c) Post Secondary [ ]

(d) Degree [ ]

(e) Postgraduate [ ]

(4) Occupation if any, specify…….

Section B: For Hypotheses Testing

1. Have you ever been enlightened on the need to regularly to attend prenatal, antenatal & postnatal visit through the following means of public enlightenment? Pls. tick as appropriate in each of the boxes below.

	Means of Enlightenment on the need to attend prenatal, antenatal & post natal visit	**Strongly Agree**	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
1.	Newspaper					
2	Radio					
3	Television					

4	Seminar/conference/ Workshop					
5	Town criers					
6	House-to-house					

2 Primary healthcare infrastructural facilities provided by Bauchi state are adequate. Pls. tick as appropriate in each of the boxes below:

	Adequacy of PHC infrastructural facilities provided	**Strongly Agree**	**Strongly Disagree**	**Undecided**	**Disagree**	**Strongly Disagree**
1	Primary Healthcare workers are adequate					
2	The number of Clinics, Dispensaries, Maternities and Health Centres are sufficient					
3	Adequate equipments for diagnosis are available in the Maternities and Health Centres.					
4	Medication and treatment for women under labour is free.					
5	Ambulances to enhance and facilitate referral system for complicated labour are provided					
6	Surgery to pregnant women with highly complicated labour when necessary is free.					
7	Immunization to children between 0-5 years old is free.					
8	Provision of free, adequate drugs and vaccination to children and nursing mothers					

9	Provision of free Prenatal healthcare services					

APPENDIX II

INTERVIEW GUIDE FOR OF OFFICIALS OF PHCDA BAUCHI STATE

(1) What are the public enlightenment strategies put in place by your Agency in order to reduce child mortality in Bauchi State?

(2) How have these strategies helped the Agency in creating public awareness on the need to be regularly attending prenatal, antenatal and postnatal services?

(3) Is there any significant impact of these public enlightenment strategies on reduction of child mortality rate in Bauchi State?

(4) Who are the stakeholders that the Agency partner with in the area of public enlightenment campaign on reduction of child mortality in Bauchi State?

(5) How would you describe their level of participation in the reduction of child mortality rate in Bauchi State?

(6) How would you describe the adequacy of annual budgetary provisions in the primary healthcare service delivery?

(7) Are budgetary allocations released on time?

(8) Are budgetary allocations properly utilized?

(9) If the state government is to increase its budgetary allocation to the primary healthcare service delivery, do you think that the level of child mortality in Bauchi State would be drastically reduced?

INTERVIEW GUIDE FOR THE NURSES/MIDWIVES HEADING MATERNITIES/HEALTH CENTRES IN BAUCHI, NINGI & SHIRA LGAs

(1) How many PHC workers are under you?

(2) Are they well trained and adequate?

(1) Does Government provide a Conducive atmosphere for PHC workers to go for further training?

(2) What strategies adopted by Government in retraining PHC workers?

(3) Is Government providing free drugs and other vaccine to children?

(4) If yes, are they adequate?

(5) Are the structures like offices and other facilities needed by PHC workers to perform well, adequate?

(6) Does Government provide adequate equipments and other tools needed for diagnosis?

(7) What strategies of Public enlightenment put in place by you in order to encourage women to be regularly attending prenatal and postnatal visit?

(8) How have these strategies helped in creating public awareness on the need to be regularly attending prenatal, antenatal and postnatal visit?

(9) Is there any significant impact of these public enlightenment strategies on level of attendance of pregnant women and nursing mothers to the hospital?

(10) If the state government is to employ well trained PHC workers, provide adequate infrastructural facilities and invest more in creating public awareness, do you think the problem of child mortality would be drastically reduced?