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FACTORS THAT MILITATED AGAINST THE ATTAINMENT OF THE

MILLENNIUM DEVELOPMENT GOALS 4 AND 5 IN RURAL GHANA: A CASE

OF THE MAMPRUGU MOAGDURI DISTRICT IN THE NORTHERN REGION

GEORGE ODURO SARPONG

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MILLENNIUM DEVELOPMENT GOALS 4 AND 5 IN RURAL GHANA: A CASE

OF THE MAMPRUGU MOAGDURI DISTRICT IN THE NORTHERN REGION

BY

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DECLARATION

STUDENT'S DECLARATION

I, George Oduro Sarpong hereby declare that with the exception of references to other peoples' work which have been duly acknowledged, this dissertation is the result of my own work and it has neither in whole nor partially been presented at this University or elsewhere for the award of any degree.

Sign: ……………………………   Date: …………………………..

George Oduro Sarpong (Student)

SUPERVISOR'S DECLARATION

I, hereby declare that the presentation of this dissertation was supervised in accordance with the guidelines of dissertation laid down by the University for Development Studies.

Sign: ……………………………   Date: …………………………..

Adadow Yidana, (PhD)

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ABSTRACT

In spite of the implementation of the free maternal health policy to ensure the achievement of the MDGs 4 and 5, maternal and child mortality rates are still on the ascendency in the Northern Region with worse incidences in the deprived districts such as the Mamprugu Moaduri district. This study therefore sought to examine the factors that militated against achieving these goals in the Mamprugu Moaduri District. The study used a multi-stage sampling technique to select 180 mothers and 18 health personnel and 6 key informants. The study was a cross-sectional survey and therefore, used the semi-structured questionnaire as a primary data collection instrument. Given the nature of the objectives of the study, both inferential and descriptive statistical tools were used in the data analyses. It was found out from the study that utilization of child and maternal healthcare services is adversely affected by socio-economic factors such as income, educational level, and distance from a health facility, among others. It was also found out that mothers or women in the Mamprugu Moaduri district are fully aware of the dynamics of maternal and child mortality and how utilization of skilled antenatal and postnatal health services can help mitigate the menace. However, access to quality healthcare in the district was found to be below average since there was inadequate availability of health facilities, professionals, and logistics. Finally, the study revealed that the Millennium Development Goals four and five were far from being achieved in the Mamprugu Moaduri district of the Northern region of Ghana. And that the factors which account for the non-achievement of the MDGs are the socio-economic factors that adversely affect utilization of maternal and child health services as well as poor access to quality healthcare in the district. Also, the free maternal health policy was found to be quite useful and averagely effective but should be improved upon. A critical look at reduction in delay to reach care and good access to quality of care by the Government and major stake holders will go a long way in achieving the new sustainability development Goal 3 (SDG 3) (Sub-goal 3.1 – 3.2) by 2030.

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DEDICATION

I dedicate this work to my beautiful and lovely wife, Mrs. Ama Sey Oduro Sarpong, my

Lovely Children, Francis, Denise and Michelle Oduro Sarpong and all Family Members.

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LIST OF ACRONYMES

AIDS .... – Acquired Immune Deficiency Syndrome

CBR.. – Crude Birth rate

CHAG .... – Christian Health Service Association of Ghana

DHMIS .... – District Health Management Information System

FBO.. – Faith Based Health Organisation

GHS.. – Ghana Health Service

GSS .... – Ghana Statistical Service

GMTHS.. – Ghana Medium Term Health Strategy

HIV .... – Human Immune Virus

ICT ....– Information Communication and Technology

IICD .... – International Institute for Communication and Development

JHS .... – Junior High School

LI.. – Legislative Instrument

MCH .... – Maternal Child Health

MDGs ....– Millennium Development Goals

MMR.. – Maternal Mortality Rate

MoH ....– Ministry of Health

NGO .... – Non – Governmental Organisation

NHIA .... – National Health Insurance Authority

NHIS .... – National Health Insurance Scheme

OPD .... – Out Patients Department

PHSAG .... – Private Health Sector Alliance of Ghana

PPME .... – Policy Planning, Monitoring and Evaluation

PSU .... – Private Health Sector Unit

RET .... - Rural Emergency Transport

SHS .... – Senior High School

SHOW .... - Strengthening Health Outcomes for Women

TBAs .... – Traditional Birth Attendants

U5MR .... – Under Five Mortality Rate

U.N .... – United Nations

UNICEF .... – United Nations Children Fund

WFFC .... – World Fit For Children

WHO .... – World Health Organisation

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The need to bridge the survival gap between mothers and newborns was one of the major international goals and a major priority to health achievements. Focusing on maternal and child health (MCH), the MDGs 4 and 5 have been considered most important in the Africa and the world at large (Lomazzi, et al., 2014). Infant and child mortality rates have become the basic indicators of a country's socioeconomic situation and quality of life as well as specific measures of health status (Yeboah, 2014). Improving maternal, newborns and child survival across many countries depends on the ability of the country to reach women, newborns, and children with effective interventions along the continuum of care. Reproductive, maternal, newborn and child health are inextricably interconnected: improving maternal health and intensive child care will reduce newborn and young child deaths. This will ensure reduced mother and child mortality which are the two issues of concern that the MDGs 4 and 5 sought to address, and to which Ghana is committed (WHO, 2012).

Health and development are inextricably linked and this makes it necessary for governments and various development partners to invest resources in the health sector. In the year 2010, 12.1% of the total expenditure for the Ghanaian government was invested in the health and as high as 5.1% of Gross Domestic Product was for the same sector (WHO, 2013).

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The proportion of child deaths that occurs in the neonatal period which is 38% in 2000 increased, and the Millennium Development Goal for child survival was not met because there were no substantial reductions in neonatal mortality. Every year an estimated 4 million babies die in the first 4 weeks of life (the neonatal period). A similar number are stillborn and 0·5 million mothers die from pregnancy-related causes. Three-quarters of neonatal deaths happen in the first week—the highest risk of death is on the first day of life. Almost all (99%) neonatal deaths arise in low-income and middle-income countries, yet most epidemiological and other research focuses on the 1% of deaths in rich countries. (Lawn et al., 2005).

Every year, more than half a million women die as a result of pregnancy or childbirth complications, including about 70,000 girls and young women aged 15 to 19.

Globally, about 10 million women have died since 1990 due to complications arising from pregnancy and childbirth (an average of 1,500 each day), while about 4 million newborns die each year within 28 days of their birth—a rate 14 times higher than those of industrialized countries (UNICEF, 2009).

Across all developing countries for every 100,000 live births, 450 women died during pregnancy, childbirth, or the postpartum period. By comparison, the figure for the developed world was 30. This enormous discrepancy highlights one of the most striking aspects of maternal mortality: its hugely disproportionate burden on poor countries (WHO, 2012).

In 2000, the 193 U.N member state agreed on the eight international development goals called Millennium Development Goals (MDGs). MDG four (4) Sought to reduce by two-thirds, between 1990 and 2015, under-five mortality rate. MDG 5 was also to reduce

maternal mortality globally by three-quarters, thus, 75% by the year 2015 and achieve universal access to reproductive health care by 2015, with much of this to be achieved in the sub-Saharan Africa countries (UN, 2000).

In Ghana, infant mortality rates reduced from 76 per 1000 live births in 1990 to 52 per 1000 live births in 2011. The under-five mortality rates have also fallen from 121 per 1000 live births in 1990 to 72 per 1000 live births in 2012. Currently, 72 children per 1000 live births do not make it past age five in Ghana (UNICEF, 2013).

Among the overarching objectives of both MDGs and the World Fit for Children (WFFC) is the need to reduce maternal and childhood mortality. Specifically, MDG 4 calls for a two-thirds reduction in the child mortality rate for under-fives between 1990 and 2015 and three-fourth reduction in maternal mortality (MDG5). Monitoring progress towards this goal was an important but difficult objective. Ghana seemed unlikely to meet the Millennium Development Goal (MDG) 4 and 5 targets for reducing under-five mortality rate (U5MR) by two-thirds and maternal mortality by three – fourth by 2015. The 2011 Multiple Indicator Cluster Survey (MICS) estimates the under - five mortality rate (U5MR) at 82 deaths per 1,000 live births, which was still far from the target of 43 per 1,000 live births. Neonatal mortality represents 60 % of infant mortality in Ghana, with half of the deaths occurring at home. An important barrier to reducing child mortality remains limited human resource capacity in the health facilities. Maternal mortality stands at 350 deaths per 100,000 live births (Global Inter-agency Maternal Mortality Estimation Group, 2015), meaning the MDG5 target of 185 deaths per 100,000 live births was unlikely to be met. Although 87 % of pregnant women attends the recommended four antenatal visits, only 68 % use a skilled birth attendant (MICS 2011).

The 2013 study on free maternal healthcare showed that the provision of free care was effective in increasing the utilization of health facilities for deliveries, estimating that the initiative saved more than 3,000 lives between 2008 and 2011(UNICEF, 2013).

Since 1990, the child mortality rate has dropped by 41 %; 14,000 fewer children are dying each day. Still, 6.9 million children under age five died in 2011 mostly from preventable diseases. In sub-Saharan Africa, one in nine children die before age five, more than 16 times the average for developed regions. Worldwide, the mortality rate for children under five dropped by 41 % from 87 deaths per 1,000 live births in 1990 to 51 in 2011. Despite this enormous accomplishment, more rapid progress is needed to meet the 2015 target of a two-thirds reduction in child deaths. In 2011, an estimated 6.9 million children, 19,000 a day died from mostly preventable diseases, with the majority of these deaths occurring in the poorest regions and countries of the world, and in the most underprivileged areas within countries (U.N. MDG's Report, 2012).

The share of under-five deaths occurring in the first month of life (neonatal period) has increased from 37% to 44% between 1990 and 2012. Despite undergoing a fast decline between 1990 and 2012, sub-Saharan Africa still has the highest rate of under-five mortality with 98 deaths per 1,000 live births in 2012 (U.N, 2013). Even though evidence shows that there has been significant reduction in child (under-5) mortality (111 per 1,000 live births in 2003 to 72 per 1,000 live births in 2012) and maternal mortality (740 per 100,000 live births in 1990 to 350 per 100,000 live births in 2010) (UN, 2013).

The risk of a child dying before completing five years of age is still highest in the WHO African Region (about 90 per 1000 live births), which is about 7 times higher than that in the WHO European Region (12 per 1000 live births). Many countries still have very high

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under-five mortality – particularly those in WHO Africa Region, home to 11 of the 12 countries with an under-five mortality rate of 100 deaths per 1000 live births (Kirigia et al., 2015).

In addition, inequities in child mortality between high-income and low-income countries remain large. In 2013, the under-five mortality rate in low-income countries was 76 deaths per 1000 live births – almost 13 times the average rate in high-income countries (6 deaths per 1000 live births).

According to World Health Organisation, the estimated death per pregnant women or complications resulting from childbirth is 1,500 each day in 2000. In the same year, 536 000 maternal deaths were estimated worldwide (Mckee, 2000). Most of these deaths are occurring in developing countries partly because; the number of women becoming pregnant is many as compared to that of developed countries. Whiles 450 maternal deaths per 100,000 live births occur in developing countries, a relatively low number of 9 maternal deaths per 100,000 live births occur in developed countries (Mckee, 2000).

Despite the prominence of international targets for maternal neonatal and child mortality reduction, around a third of a million women continue to die annually from complications of pregnancy or childbirth and much more suffer prolonged or permanent post-partum ill health or disability (Gething et al., 2012). Globally, an estimated 225,000 maternal deaths, 904,000 neonatal deaths, and 1.02 million stillbirths annually are intrapartum-related (Lawn, et al 2009).

The greatest share of this burden, around 90%, is borne by developing nations of sub-Saharan Africa and South Asia (WHO, 2010)

In 2005, the maternal mortality ratio in sub-Saharan Africa, estimated at 900 maternal deaths per 100 000 live births, was by far the highest in the world (WHO, 2007).

Unlike other regions, sub-Saharan Africa has not seen improvements in indicators linked to maternal mortality, leading to fears that the Millennium Development targets will not be met (Abouzahr and Wardlaw, 2001).In similar argument, Kinney et al. (2010) asserted that maternal and perinatal mortality rates are still alarmingly high, especially in sub-Saharan Africa, where little progress has been made over recent decades

In Ghana, maternal mortality is estimated at 451 deaths per 100,000 live births. Ghana's infant mortality at the national level is 50 deaths per 1,000 live births and under-five mortality is 80 deaths per 1,000 live births**.** Over the past 15 years, Ghana's maternal mortality rate decreased from 570 deaths per 100,000 live births in 2000 to 380 deaths per 100,000 live births in 2013. The under-five mortality rate decreased from 103 deaths per 1,000 live births in 2000 to 72 deaths per 1,000 live births in 2012 (Bliss and Streifel, 2015)**.**

1.2 Problem Statement

In Ghana, Maternal Mortality Rate (MMR) has declined by 49 % between 1990 and 2013. That is according to a new report on "Trends in maternal mortality: 1990 to 2013" released on May 6, 2014, by the Maternal Mortality Estimation Inter-Agency Group (MMEIG) trends, 2014 of the United Nations (WHO and UN, 2015).

The global MDG 5 target for maternal health was to reduce the number of women who die in pregnancy and childbirth by three-quarters between 1990 and 2015. When applying this target to Ghana, maternal mortality should fall to 145 cases per 100,000 live births. In the period 2007-12 Ghana had a reported maternal mortality ratio of 450 deaths per

100,000 live births (UN Report, 2010). As Ghana's maternal mortality rate was about three times higher than the given target, Ghana was unlikely to achieve MDG 5 by 2015**.**

The Northern Regional health directorate reported that in 2009, 96 women died during delivery. Two years later, 88 women died, while 130 died in 2012. From January to June 2013, 70 women died during delivery (RHD, 2013).Maternal Mortality rates are on the ascendency in the Northern Region with worse incidences in the deprived districts and conflict communities. Pregnant women in this districts and communities continue to suffer terribly from their health conditions, which aggravates the trauma women go through in childbearing and sometimes leads to loss of life both women and babies.

In 2009, statistics from the Northern Regional Health Directorate indicate that 96 women died during delivery. Two years later, 88 women died, while 130 died in 2012. From January to June 2013, 70 women died during delivery (RHD Report, 2009, 2011, 2012, and 2013).

According to the World Health Organization, childbirth-related deaths among women in Ghana between the beginning of 2011 and the end of 2012 were 2,700. It also reported that the Northern Region of Ghana recorded the highest maternal mortality rates within the same period (MICS, 2011).

This was in no doubt, issues which painted a disturbing picture with regards to the attainment of the objectives set out in the MDGs 4 and 5. To address this, a multifaceted approach is needed to ensure that precious lives are saved and to ensure that the Sustainable Development Goals 3 (SDG 3) which seeks to " Ensure Healthy lives and to promote well-being for all at all ages, Sub goals 3.1:By 2030, reduce the global maternal

mortality ratio to less than 70 per 100,000 live birthsand3.2:By 2030", end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births,(http// Sustainable development goal.un.org, 2016), more especially in the deprived areas of the country. Besides, there are no studies that have explored the various factors that undermined the achievements of MDGs 4 and 5 in the remote parts of the Northern Region. This study, therefore, sought to explore the MDGs 4 and 5 and examine the factors that militated against the achievement of these goals in the Mamprugu Moaduri district, one of the typically remote districts in the Northern Region. The concern, therefore has to do with addressing the question about, "factors that accounted for the inability to achieving the most sensitive Millennium Development Goals, MDGs 4 and 5 in the Northern Region and the Mamprugu Moaduri District in particular"?

1.3 Research Questions

In order to address the general question above, the study sought to find answers to the following specific questions:

- How do socio - economic factors affect utilization of antenatal and postnatal healthcare services in the Mamprugu Moaduri district?

- What is the understanding of the people of the Mamprugu Moaduri District about maternal and child mortality in the district?

- To what extent do the people of the district have access to quality healthcare?

- How effective is the free maternal health policy in the district?

1.4 Objectives of the Study

Generally, the study sought to investigate the factors that militated against the achievement of the Millennium Development Goals 5 and 4 in the Mamprugu Moaduri District of the Northern Region.

Specifically, therefore, the study seeks to:

- Assess the socio-economic factors that affect the utilization of antenatal and postnatal healthcare services in the district;
- Describe the understanding of the people of the Mamprugu Moaduri district about maternal and child mortality in the district
- Assess the extent to which the people of the district have access to quality healthcare; and
- Ascertain the effectiveness of the free maternal health policy in the district.

1.5 Conceptual Framework

- AWARENESS /KNOWLEDGE/BELIEFS ACCEPTABILITY AND SOCIAL CAPITAL ACCESS,HOUSEHOLD BEHAVIOUR,ETC. TO GO FOR IMMUNISATION ANTENATAL

DELAY IN SEEKING FOR CARE

DELAY IN REACHING CARE

- DUE TO BAD ROAD, LACK OF AMBULANCE SERVICES,NO MEANS OF TRANSPORTATION,DISTANCE TO REACH CARE ,ETC

EXAMINATION OF MATERNAL, NEONATAL AND CHILD HEALTH (MNCH)

i.e. MDGs 4 & 5

- HEALTH PLANNING POLICIES,RESOURCE MOBILSATION,DECISION TAKEN AND RESOURCE MANGEMENT

DISTRICT COORDINATION

DELAY IN ASSESSING CARE

- HEALTH WORKERS PERFOMANCE,REFERRAL SYSTEMS,PHYSICAL INFRASTRUCTURE,ETC

Source: UNICEF, Innovations conceptual framework and research approach

(Innovations for Maternal, Newborn and Child Health), January 2011

The success of the MDGs 4 & 5 may greatly be possible if these indicators are looked at critically. When these delays as indicators are overlooked may also go a long way to affect the as the various link illustrated above are interconnected. Attitudes to delays to seek for care in and responses to health educations on breastfeeding, appropriate complimentary feeding for infants and young children, appropriate nutrition, particularly for pregnant women and children needed to be addressed to be looked at and addressed.

Thaddeus and Maine (1994) explanatory model of the three delays to safe motherhood can be used to explain the effect it has on maternal and child mortality as shown from the conceptual framework above.

1.6 Justification of the Study

Explaining or describing the extent to which the people, specifically the women of the district understand the dynamics of the maternal and child health mortality will inform the policymakers in the health sector regarding the level of education and sensitization that the people need to be taken through. This will eventually make the process of attaining the MDGS 4 and 5 in the district in particular and similar areas much easier.

Similarly, recommendation on the assessment of the factors which influence maternal and child health in the district will inform the people themselves about the measures they can put in place locally and traditionally to curb maternal and child mortality in the district. Besides, such a recommendation will add to the areas where more education or sensitization is required in order to make the SDG 3 (Sub-goal 3.1 – 3.2). Sustainable Development Goals 3 (SDG 3) which seeks to " Ensure Healthy lives and to promote well-being for all at all ages, Sub goals 3.1:By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births and 3.2:By 2030", end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births,(http// Sustainable development goal.un.org, 2016)which covers the MDGs 4 and 5 easily achievable.

Recommendations on access to quality healthcare will also inform policy makers on the state of infrastructure, personnel and other logistics in the district and similar areas. This will then enable the government and the stakeholders in the health sector to determine the way forward.

Finally, the findings of this study will undoubtedly enrich the available literature on health issues in the country and beyond, especially, the state of maternal and child health or mortality in rural settings of Ghana in particular.

1.7 Organization of the Study

The work is organized into six main chapters, that is, chapter one to six. Chapter one contains the background to the study, problem statement, objectives, and justification of the study. Chapter two deals with the review of relevant literature, while Chapter three contains the methodology used to carry out the study. Chapter four is where the results of the study are presented; chapter five contains discussions of the findings, whilst chapter six contains the summary, conclusions, and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews earlier studies carried out on child mortality and maternal reproductive health to provide some relevant information that would guide the conduct of this study.

2.1 Overview of the Ghana Health Sector

There are four main categories of health care delivery systems in Ghana. These include the public, privatenot-for-profit, private-for-profit, and traditional systems (Ghana Medium Term Health Strategy [GMTHS]: 1995). The health system is centered on the Ministry of Health which is the highest policy-making body and all stakeholders in the health sector are ultimately responsible for it. The Ghana Health Service (GHS), established by the Ghana Health Service and Teaching Hospitals Act 525, 1996, is responsible for the administration and management of state ownedhospitals and other health facilities but excluding teaching hospitals and quasi-state institutions such as the universities and security services (Arhinful, 2009).

The health sector in Ghana is a complex web of many actors. The Ministry of Health (MoH) has 16 agencies which operate in service delivery and regulatory functions, in financing, and in research and training. These agencies respond to the policies formulated and coordinated by the MoH. With its policies, the Ministry aims to safeguard the quality of and equity of access to health-care services. Besides the public actors, there is growing private sector involvement in health-care services in Ghana. This private segment fills

gaps in public services. The business case for offering private health services in Ghana rests on the preparedness and willingness of the emerging middle class to pay for convenient health services that they can trust (IICD, 2014).

2.2 Organization of the Health-Care System of Ghana

The health-care sector in Ghana is organized in various levels, from sub-district to national. The figure next page shows the main actors involved. At the sub-district level, there are health centers, health posts, and clinics. Their activities are coordinated from the district level, which normally has a hospital that functions as the first referral point. The second referral point is a regional hospital, which then refers to one of Ghana's three teaching hospitals (Korle Bu, Komfo Anokye, and Tamale), a psychiatric hospital or a national-level military and police hospital. At the local level are community-based health planning and service facilities. These combine public health and basic clinical care activities and have been set up to improve local-level access to health services. The chart below represents how the health system of Ghana is organized: (RVO.nl | April 2015)

Source: International Institute for Communication and Development (2014)

2.3 Actors in the Health Sector

The actors in the health system are both public and private (IICD, 2014). All public facilities are under the umbrella of the Ghana Health Services (GHS). The private health sector includes faith-based and commercial facilities. The faith-based facilities are united in the Christian Health Services of Ghana (CHAG). The commercial facilities collaborate – amongst others – in the Private Health Sector Alliance of Ghana (PHSAG).

The share of each type of facility in service delivery is contested. The IICD team estimated the shares as follows: CHAG provides about 25% of care, GHS 30% and PHSAG 45%. These figures are indicative only, as further research is needed for definitive proportions. Furthermore, splitting out-patient and in-patient healthcare would

result in different figures. A 2009 government report lists 153 district hospitals; 62% of which are public facilities under the GHS, with the rest falling under CHAG.

2.3.1 Ghana Health Services

The Ghana Health Services (GHS) provides public health and clinical services at the primary and secondary levels. GHS is responsible for all public health and operates in accordance with a de-concentration model. This is unlike the overall structure of government, which is centralized. This means that some of the responsibility and authority has been shifted from the MOH to the local government at the district level (Saleh, 2013). GHS has more than 800 sites to administrate. Health service interviewees mentioned a number of needs related to ICT, such as automating reimbursements to expedite the payments process. Services are paid for in part through the National Health Insurance System (NHIS), so timely reimbursement is important. The software has been developed for this purpose and rolled out in some health facilities.

Improved information would enable better management of service delivery. Adequate information is not yet sufficiently available. General health monitoring and evaluation (M&E) data are generated nationwide through the district health management information system (called "DHMIS2"), which is based on the International Statistical Classification of Diseases and Related Health Problems (ICD10). Although the coverage and acceptance of this system are wide, its reliability and completeness still pose major challenges (IICD, 2014).

2.3.2 Christian Health Services of Ghana (CHAG)

Christian missions have a long and distinguished history in Ghana. Public health and preventive services are commonly offered by mission institutions, often in the form of outreach services and satellite clinics. As indicated, this sector operates nearly 25% of hospitals and clinics in Ghana.

CHAG currently has 182 members, comprised of 59 hospitals, 79 clinics, 22 health centers, 13 primary health centers and 9 training institutions. CHAG acts as a branch of the faith-based health facilities (FBO). FBO provides some information services (e.g., assessments of the quality of care in CHAG member facilities). It also negotiates with the National Health Insurance Authority (NHIA) on reimbursement levels and conducts general lobbying activities. Ownership of the health facilities is in the hands of the respective church institutions, which are organized in dioceses or synods. CHAG members and constituents are located in all ten regions of Ghana. Member institutions are directly involved in the provision of health-care services to clients.

CHAG members are financed by government contributions, internally generated funds, grants, and donations, with direct support also provided by development partners via projects. Virtually the entire government contribution (99%) goes directly to pay salaries, with the remaining 1% supporting capital investments. Government support accounts for 35% of the income of CHAG member institutions collectively. Internally generated funds come mostly from insurance claims paid by the NHIA. These account for an estimated 60% of income, which goes to support service delivery. Grants, donations and direct funding from development partners make up an estimated 5% of CHAG members' income, primarily going towards capital investments and some service delivery (CHAG,

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undated, cited in IICD, 2014). CHAG follows the same service delivery path as the GHS. Its human resources, district-wide programs and expected outputs are all similar to those of the GHS. Data collection and reporting are also based on the GHS structure.

2.3.3 The Private Health Sector Alliance of Ghana (PHSAG)

Private (non-faith-based) facilities are the main provider of healthcare in Ghana, providing an estimated 45% of services. The Private Health Sector Alliance of Ghana (PHSAG) was formed to coordinate private health sector efforts and to engage with the MOH on private health sector issues.

The main concern of the private health-care services is to provide care services with sufficient financial returns. Much of their income comes from direct payments by patients, with a small part made up of reimbursements from health insurers. The MOH established the Private Sector Unit (PSU) within the Policy Planning, Monitoring and Evaluation (PPME) Directorate to facilitate private-sector involvement. The objectives of the PSU are to engender linkages and to facilitate collaboration between the private and public health sectors in order to increase access and coverage of quality health-care. It views eHealth as helpful for achieving that goal, especially for expediting insurance claims processing, eLearning and teleconferencing and telemedicine. Public policy supports healthcare provision by the private sector. The 2012 Private Health Sector Policy envisions "facilitating the transformation of the private health sector into a viable industry by harnessing its unique competencies and comparative advantage in producing and providing health-care products, infrastructure, and services that benefit the public at prices that the public can afford."

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The private for-profit sector comprises a variety of providers ranging from the formal hospitals, clinics, and diagnostic facilities to the informal drug peddlers. Traditional practitioners are also prevalent and span a multitude of provider types and treatment regimens. These range from traditional birth attendants, herbalists and bone setters to homeopaths and spiritual healers.

2.3.4 Teaching Hospitals

Separate from the GHS, CHAG and PHSAG are the teaching hospitals (Tamale, KomfoAnokye and Korle Bu). They are important actors in the health sector, as they are the main referral centers in the country. They provide tertiary and specialist services. Within the teaching hospitals, ICT is a key enabler for improving processes, for example, through the use of electronic patient records, telemedicine, and eLearning. The teaching hospitals also function as a role model. Each teaching hospital has a number of "centers of excellence", which provide services to patients from Ghana and other countries (IICD, 2014).

2.3.5 Regulatory Bodies

Health-sector regulatory bodies focus mainly on client protection, service delivery measurement quality and availability of services and products. Some of the regulatory bodies include: The Food and Drugs Board, the Pharmacy Council, the Nurses and Midwives Council, the Medical and Dental Council, the Private Hospitals and Maternity Homes Board, the Health Institutions and Facilities Regulatory Authority, the Traditional and Alternative Medicines Council and the Centre for Research into Plant Medicine (WHO collaborating Centre for Research and Development of Traditional Medicine) (IICD, 2014).

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Better coordination and regulation of services is needed at all levels. According to Schieber (2013), poor coordination by regulatory agencies has resulted, for example, in high prices for medicines and substandard drugs. MOH regulatory agencies, for their part, need sufficient resources to conduct ongoing supervision and monitoring of the private sector.

2.3.6 Health Training and Research Institutions

The MOH has 71 training institutions which together offer 30 health-related programs. The institutes are spread throughout the country, and there is a need to increase coordination among them. As a result, the MOH has established a task force to perform preparatory work towards regulating training and activities of allied health professionals, whose core mandate is to "standardization of allied health training, accreditation of qualified training institutions and registration of qualified allied health professionals and regulation of the practice of allied health professions (IICD, 2014).

2.4 Health Care Delivery in Ghana

According to Apoya (2012), the Health Status of Ghanaians has been improving since independence, but the rate of change is slow and current health service indicators are still far from desirable. Maternal Mortality Rates, Child mortality and morbidity rates remain high; Malaria and other communicable diseases including HIV/AIDS are persistent. Between 1957 and 1988 the Ghanaian Child and Infant Mortality Rates had declined from 154 to 110 and 133 to 57 per 1000 live births, respectively. These declines however stagnated for the next 10 years, until marginal progress started to be recorded again in 2008 when Child mortality dropped to 76 per 1000 live births, whilst infant mortality dropped to 51 per 1000 live births. Maternal Mortality Ratio (MMR) also dropped from

750 per 100,000 live births in 1990 to 350 per 100,000 live births in 2008. There has been a remarkable increase in ANC coverage from 60% in the mid-1990s to 95% in 2011, with 77% achieving at least 4 Antenatal visits. Supervised deliveries also increased from 40% in the 1990s to 59% in 2011. The lifetime risk of dying from childbirth in Ghana is 1 in 66, compared to 1 in 100 for South Africa. Family planning uptake was 24% in 2011. Communicable diseases still constitute the major causes of morbidity and mortality. Poor environmental sanitation accounted for 70% of OPD attendances in 20081 and has contributed to the high incidence of diarrhea morbidity in children, which accounts for 25% of under-five mortality. Malaria accounts for 40% of outpatient attendances and has a high mortality rate (13%) in general, and for 22% of mortality in children. Other diseases featuring in the top 10 most common causes of morbidity and mortality include upper respiratory tract infections, skin disease, and ulcers, diarrhea diseases, anemia and hypertension. Pregnancy and related complications also feature among the top ten causes, and along with yellow fever and meningococcal meningitis, are major public health concerns (GHS, 2008).

2.5 Free Maternal Health Policy

In resource-poor countries, the high cost of user fees for deliveries limits access to skilled attendance and contributes to maternal and neonatal mortality and the impoverishment of vulnerable households. This has led to a growing number of countries experimenting with different approaches to tackling financial barriers to maternal health care (Witter et al, 2007).

The Government of Ghana introduced exemptions from delivery fees in September 2003 in the four most deprived regions of the country. In April 2005 this was extended (without formal evaluation) to the remaining six regions (Witter et al 2009). The aim was to reduce financial barriers to using maternity services to help reduce maternal and prenatal mortality and contribute to poverty reduction (Witter et al 2009).

2.5.1 Challenges facing the free maternal health policy

Although evidence of the positive sides of the free maternal care (an example of which is experience of Ghana's) suggest that delivery exemptions can be effective and cost-effective, and that despite being universal in application, they can benefit the poor, there are also certain 'negative' lessons (challenges) drawn from case studies, particularly on the need for adequate funding, and also for strong institutional ownership (Witter et al, 2009). The potential for the success of free maternal healthcare to translate into reduced mortality for mothers and babies will fundamentally depend on the effectiveness of its implementation and also the significance of monitoring the financial transfers which reach households, to ensure that providers are passing on benefits in full, while being adequately reimbursed themselves for their loss of revenue (Witter et al, 2009). Careful consideration is also to be given to staff motivation and the role of different providers, as well as the quality of care constraints when designing the exemptions policy. All of this should be supported by a proactive approach to monitoring and evaluation (Witter et al, 2009).

2.6 Maternal Health and Mortality Problems in Ghana

In every Ghanaian society, the death of a woman from pregnancy or childbirth related complications is considered a tragic event, sometimes requiring elaborate ritual

purification of the whole society (Senah, 2003). To further avoid maternal deaths or its occurrence all Ghanaian societies put across elaborate dietary and behavioral codes for expectant women in order to ensure not only safe delivery but also the delivery of normal children (Senah, 2003). Some of the codes include what a woman must wear not to expose her stomach or navel; a woman should not buy food from outside or eat in public. Although all these measures are put in place to avoid maternal deaths, the WHO/UNICEF estimate Ghana's rate of pregnancy-related complications to be 740 per 100,000 live births while Ghana's Ministry of Health calculates this to be 214 per 1,000 live births (Senah, 2003). Witter et al (2009) also affirmed the persistently high maternal mortality ratios of Ghana, estimating the range from 214 to 800 per 100,000 live births.

Although this figure points to the total maternal related deaths of Ghana, there are regional variations (Sarah, 2003). There are growing social inequalities, with rates of skilled attendance either stagnant or declining for poorer women. The three northern regions of the country have the highest levels of poverty and maternal mortality and the lowest levels of supervised deliveries (Witter et al 2009). While deliveries with health professionals rose from 85% to 90% from 1993 to 2003 for the richest quintile, according to Demographic and Health Survey data, deliveries with health professionals for the poorest quintile dropped from 25% to 19%. Nationally, 45% of births were attended by a medical practitioner (79% in urban areas, 33% in rural); 31% by traditional birth attendants (TBAs) and 25% were unsupervised.

In Ghana's health system, basic obstetric and antenatal care is provided by health centers, health posts, mission clinics and private midwifery homes. Each health center or post serves a population of approximately 20,000 (Witter et al, 2009). In the rural areas, TBAs

continue to carry out deliveries, though they are trained to refer more complex cases. Comprehensive emergency obstetric care is available from district hospitals and regional hospitals, as well as national referral hospitals. Most are run by the Ghana Health Services, though the mission sector plays a significant role, especially in more remote regions. All care is paid for unless the service is exempt or the person has private or public health insurance, though user fees are subsidized by public inputs into the services (Witter et al, 2009).

2.7 Factors That Hinder Access to Quality Health

United Nations report in 2013 indicated that if the MDG4: Target 4.a (Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate) is to be met, efforts must concentrate on those countries and regions where child death rates are highest. Such places were identified as the developing regions and rural areas (UN, 2013). Also, access to health services is inadequate and poor in deprived and rural areas consequently, the poor suffer from the appalling cost of ill health from two perspectives: from the cost of accessing services and from productive days lost (Ministry of Health, 2007). Achieving a decent health status among the populace and realising the MDGs requires that access to good quality healthcare is improved significantly in the countryside (Sulemana and Dinye, 2014)

Lu et al (2010) identified inadequate health facilities, long distances to health facilities, lack of effective and efficient transportation systems, inadequate health personnel and inability to afford the cost of health services as major hurdles constraining rural people from accessing health services. In a study by Adam et al., (2004), similar factors were

identified as hindering child health among the poor especially rural dwellers and these consequently had effects on the gap in mortality rates between rural and urban areas. This is more pronounced and significant among rural dwellers that live along water bodies that access health services from district capitals as transportation is a critical issue to accessing health services.

2.8 Socioeconomic Factors that Affect Maternal and Child Health

The utilisation of maternal and child health services could be determined broadly by demand side and supply side. The reviewed literature in this section is therefore, based on these two broad categories.

2.8.1 Demand side factors

Demand side includes the variables suchas education, income, occupation, women decision-making power, women's status, knowledge about health centre/MCH, the chance of exposure, the age of women, parity/order of birth, family size, ethnicity, culture/tradition, health beliefs and need among others.

2.8.1.1 Education

It has been concluded in a number of studies that a woman's education is positively associated with the utilization level of maternal and child health services. It is argued that better-educated women are more aware of health problems. They are also aware of the availability ofhealth care servicesand use this information more effectively to maintain or achieve good health status.

Chowdhury et al. (2005) found that educated women weremore likely to seek treatment from doctors/nurses than women who were not educated in Bangladesh. The results of their multivariate analysis showed that women with secondary or higher education were almost 1.8 times more likely to seektreatment from doctors/nurses to treat their antepartummorbidities than the women who lack such level of education. Closely related studies were by Dhungel (2002) and Sharma (2004) who found out that education of women had asignificant positive impact on use ofantenatal care in Nepal. According to Dhungel's findings, the odds of antenatal use were about 7 times higher among literatewomen in comparison to illiterate women, while Sharma's findings were 6 times higher for women whose educational level was secondary and high thanthe women who were uneducated.

Similarly, a study using data from Ghana Demographic and Health Survey1993 in Ghana, the result ofmultivariate analysis showed that women with no education and primary/junior school education were less likely to consult a doctor for prenatal care. Also, the odds ofseeking antenatal check-upswere also lower among women with no education compared with their counterparts with secondary/higher education (Addai, 2000).

Mishra (2000), in astudy from rural areas ofRajasthan in India, also found out that educational level of women and husband education had a positive and significant effect on the utilization of maternal and childhealth services. Sunil et al. (2006) also observed the relative effect of women and their husbands' education on the use of maternal care services in rural India using data obtained from National Family Health Survey II. Besides finding out that there is positivesignificant relative effect ofspousal education

on use ofmaternal care services, they also found the impact of women education was higher in comparison to their husbands' education.

2.8.1.2 Income/Living standard

Economic factor such as income and wealth are said to be important indicators determining the women's capability to access antenatal care. For instance, the odds ratio ofadequate antenatalcare was found to be 4 times higher for those womenwhose economic statuswas higher than thewomen whose economic status was lower in aresearch done in Nepal (Sharma, 2004). Mishra (2000) also found that husband with higher income preferred to take their wives to the private clinic for the maternity care in Rajasthan.

The result of a recent study in India based on National Family Health Survey II data showed the positive and significant effects of the standard living index in the utilization of maternal health care services in rural India. For example, the percentage of odds of excellent utilization of maternal care serviceswas found to be about 20 percent of women who belonged to high standard living index as compared to 10 percent for women who belonged to low standard living index (Sunil et al., 2006).

Chowdhury et al. (2005) also found out in rural Bangladesh that women from families with the good economic condition were more likely to receive treatment from a doctor or nurse. However, the positive impact of higher economic status on health care use was not found to be statistically significant. Type of housing and occupation can also be considered a proxy for socio-economic status of the household and may have a similar impact on the utilization of health care. The results indicate that women who belong to

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families with houses made of cement or tin were more likely to seek treatment from qualified medical personnel. They also found that women's involvement in gainful employment was one of the important factors positively affecting the use of quality medical care to treat complications. They argued that gainful employment may also empower women to take part in decision-making processes about health care in the family. In fact, results from their study indicated that women who were involved in gainful employment were more likely to use modern health care services to treat complications during their pregnancy. About 35% of women who worked for cash went to some qualified medical personnel for treatment, compared with only 25% of those who did not work.

Another research also found higher income (as measured by per capita consumption in the household) to be associated with a higher probability ofvisiting each kind of provider, but especially doctors. Unmarried respondents (who were primarily single or divorced) were much more likely than those who were married or in a consensual union to consult a pharmacist or doctor for their sick child in rural Guatemala (Glei et al., 2002).

2.8.1.3 Chance of exposure

Many researchers emphasized the positive role of any kind of exposure such as exposure to external institutions either through direct or indirect contact or through media. They argued that any kind of exposure, particular media may enable women to be aware about availability of health services, its benefit and even to information regarding providers, and in some cases even financial and material assistance, which increases their use of modem medicine during pregnancy. According to Glei et al, (2003), social contacts

outside their community in Guatemala (e.g. in larger urban areas or abroad) increase the likelyhood that women hold biomedical beliefs about illness causation. Also, Such as Sugathan et al (2001) found that mother's exposure to media had a positive effect on the odds of institutional delivery in Rajasthan.

Similarly, Shariff and Singh (2002) also emphasized the important role of women's exposure to media on maternal health services. According to them, the utilization level of maternal health services was significantly higher for those women who were listening to the radio and watching TV in India even if controlling their education and. their husbands.

2.8.1.4 Women's age and the parity of birth

The findings of some studies revealed that women's age is negatively associated with the use of maternal and child health services. However, some other studies reveal a positive association. For instance, Shanna (2004) found out that younger women were more likely to receive antenatal check-up than the older women in Nepal. Contrary to it, Heidi et al (2006) found that women aged 18 or younger were less likely than women aged 19-23 to use either antenatal care or delivery care or both. That is, Younger mothers wereless likely than older mothers to have their infants immunized, particularly for diphtheria, pertussis, and tetanus and for measles.

2.8.1.5 Family size

Mishra observed large family size as a negative factor influencing the utilization of maternal and child health services in rural Rajasthan. According to the researcher, the probability of receiving TT Injection by pregnant women decreases by 33% when family

size increases. Similarly, the effect of family size was found negative and significant on child immunization, which decreases by 22% when there are one unit increases in family size (Mishra, 2000). Like large family size, joint family was found as anegative factor on use of maternal care services in another study in rural India. Also, the excellent utilization of maternal care services was 12% for women who belonged to the joint family whereas the same was 13% for women who belonged to the nuclear family (Sunil et al., 2005). World Bank also revealed that in Nepal, women from nuclear families were more likely to use antenatal care and postnatal care services than women who belonged to the joint family (World Bank, 2001).

2.8.2 Supply side factors

The supply sides factors include accessibility and availability of service outlets from any sources and in any form and quality services.

2.8.2.1 Availability of health institutions in the community

In a study by Sugathan and et al. (2001), availability of a hospital within 5 km by the residence was found to have positive and statistically significant effect in Rajasthan for institutional delivery as the odd of that was 2 times higher for mothers who were within a distance of 5 km from a hospital than for mothers who were not.

According to Glei (2002), the availability ofhealth care was found to have a significant effect on the likelihood of consulting specific providers for child treatment in rural Guatemala. In his study, parents were found to be more likely to take sick children to health posts and centers when there was a post or center in the community. Similarly, parents were much more likely to consult a private doctor if there was one in the

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community. Specifically, availability of physicians was associated with a decreased likelihood that families consult a cure. In addition, the presence of a private physician was associated with a reduced probability of visiting a health post or center,and vice versa.

Sharma (2004) also drew the same conclusion that access to the health service is a positive factor on the use of antenatal care in Nepal. According to him, the expected odds of attending adequate antenatal care visit was increased by 89% in comparison to those women who had no access to health services.

2.8.2.2 Role of a health worker

Acharya and Cleland (2000) indicated that health workers play a vital role in Nepal to make services available to the community in the neighbourhood. Because of such kind of provision, people need not travel to health center for the treatment and this consequently increases utilization of health services. According to Acharya and Cleland, the effect of outreach workers on up take of antenatal services was so pronounced in Nepal that it made pregnant women to receive four to five times more antenatal care than in their absence. But for child immunization, the relationship between outreach activities and coverage was less strong. Acharya and Cleland's study had appreciated the contribution of village health workers for making maternal and child health services accessible particularly for women. By contrast, the influence of community health volunteers on health service use was found to be minimal.

Dhungel (2002) also found that the presence of trained TBA in the society is a positive factor on use of antenatal care visit in Nepal. According to him, the

proportion of antenatal check-up was increased to 23% from 19% among women who were in the community with TBAs than the women who were in the community without TBAs.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology used in addressing the objectives of the study. As part of the methodology, the chapter contains the study area because of the research design adopted for the study.

3.1 Study Area

Mamprugu Moagduri district is where the study is carried out. Mamprugu Moagduri District with its capital Yagaba was carved from the West Mamprusi district and forms part of the new districts and municipalities created in the year 2012 and were inaugurated at their various locations simultaneously on the 28th June, 2012. The District was established by Legislative Instrument (L.I) 2063.The District is located within longitudes 0°35'W and 1°45'W and Latitude 9°55'N and 10°35'N. It shares boundaries with North Gonja District to the West, Kumbungu District to the south, Sisala East in the Upper West Region, Builsa South in the Upper East Region and West Mamprusi District in the Northern Region.

The population of the district according to 2010 population and housing census stands at 46,894 with 23,439 males and 23,455 females. (www.ghana.districts .com)

Figure 3.1: map of the Mamprugu Moagduri District

Source: MMD Ghana Health Service Annual Report 2013

Population of the Mamprugu Moagduri District, according to the 2010 Population and Housing Census, is 46,894 representing 1.9% of the region's total population. Males constitute nearly 50% and females represent   just a little above 50 % (GSS, 2014). In terms of rural-urban distribution, the district has all of its inhabitants living in rural localities. This implies that the district is completely rural one.

General Fertility Rate of the district is 100.1 births per 1000 women aged 15-49 years. The Crude Birth Rate (CBR) is 22.8 per 1000 population. The crude death rate for the district is 7.7 per 1000. The death rate for males is highest for   age 70 and above

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representing 47 deaths per 1000 population while for the females, the highest death rate of 29 deaths per 1000 population is for age 70 years and older (GSS, 2014).

According to the 2010 population and housing census, the district has a population of 45,160 with a total number of 5,214 households. The average household size in the district is 9 per household. Children constitute the largest proportion of the household members accounting for 53.9% of the population. Extended households (head, spouse(s), children, and head's relative) constitute 67.9% of the total number of households in the district. About six in ten (59.9%) of the population aged 12 years and older are married, 34.3% have never married, 0.4 % are in consensual unions, 4.1%are widowed, 0.7% are divorced and 0.6% are separated. Among the married, 90.1% have no education while about56.1% of the unmarried have never been to school. Over 80% of the married population (82.5%) is employed, 0.7% is unemployed and 16.8% are economically not active. About 41.9% of those who have never married) are economically not active with 0.7% unemployed (GSS, 2012). Of the employed population, about 94% are engaged as skilled agricultural, forestry and fishery workers, 2.8% in craft and related trade, and 1.7% are engaged in services and sales (GSS, 2012).

3.2 Research Design

This is a descriptive study with cross-sectional design using both Qualitative and Quantitative methods to answer the research questions in examining "the factors that Militated against the attainment of the MDGs 4 and 5 in the Mamprugu Moaduri District". The qualitative method included key informant interviews and observations. The quantitative method was a cross sectional survey with a structured questionnaire.

This included the use of descriptive and exploratory forms of research. Descriptive method of research is a type of research method used to acquire data relating to the existing status of a phenomenon in order to define the status quo. This helps us to obtain information concerning the existing situation of the phenomena to describe "what is happening" with respect to certain variables or conditions in a situation. The methods involved range from the survey which describes the status quo, the correlation study which investigates the relationship between variables, to developmental studies which seek to determine changes over time. (James Key, 1997).

Descriptive research is beneficial for researchers due to its flexibility. It employs the use of both qualitative and quantitative data. In addition, the researcher will further concentrate on the use of surveys. Survey research is an important area of measurement in applied social research which encompasses any measurement procedures that involves of questions of respondents. Surveys assist researchers to obtain data about practices, status quo or opinions through the use of questionnaires or interviews. (William Trochim, et al, 2016) On the other hand, exploratory research is habitually used to acquire data in order to explain problems which are unclearly defined. The research study is an investigative which collected information regarding the factors which militate against the attainment of the MDGs 4 and 5 (that is, reducing child mortality and improving maternal reproductive health respectively).

3.2.1 Study population

The Mamprugu Moaduri District is mainly made up of 99% rural settlement and 1% urban settlements. The targeted Population for this study was all women of reproductive

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ages between 16- 49 years in the district. The sampling frame was women of reproductive ages between 16- 49 years selected from three out of the four sub-districts in the district. It also included major stake holders and Key informants interviewed by purposive sampling in the district (e.g. opinion leaders, chiefs and health workers e.g. midwives who conducted deliveries and have in-depth knowledge of skilled delivery care and services), families who have lost relatives or women as a result of pregnancy related complications, women who have just delivered within the past two year. Health facilities records of maternal mortality cases were reviewed from the major referral hospitals in nearby districts including Builsa North District Hospital in Sandema and the West Mamprusi District Hospital in Walewale

In this study, the population the population therefore involved all women in the Mamprugu Moagduri district who have ever given birth as well staff of all Health centers in the district and major referral hospitals.

3.2.2 Sampling procedure and size

In practice, the study population is too large to contact each individual of the population. For most researches, however, collecting data from an entire population is almost impossible because of the number of people, places, or things within the population (Lotham, 2007). Therefore, a sample is obtained through a well-defined and articulated procedure. The author further argued that the appropriate sampling method should be used since it leads to a more efficient research in terms of cost and speed, having greater flexibility and providing accurate result that can best represent the population. Therefore, the study adopted a multistage sampling procedure.

Multi-stage sampling (also known as multi-stage cluster sampling) is a more complex form of cluster sampling which contains two or more stages in sample selection. In simple terms, in multi-stage sampling large clusters of population are divided into smaller clusters in several stages in order to make primary data collection more manageable. (http://research-methodology.net)

This sampling procedure or technique was chosen to answer the research questions and objectives of the study: generating theories and concepts rather than generalising the findings to a wider population (Patton, 2002; Bowling 2003 as cited from Saunders et al, 2009; p. 233). Therefore, a multistage cluster sampling method stating with a non-probability sampling method, starting with purposive selection of the Mamprugu Moaduri District was deliberately used. Purposive sampling is used when researchers "seek out groups, settings and individuals where … the processes being studied are most likely to occur" (Denzin and Lincoln 1994; p. 202). Thus, purposive sampling allowed the selection of characteristics which provided the required information in line with the objectives of the study. The district consists of 46 Communities and four sub districts (Source: primary data from the Mamprugu Moaduri DHMT).

The first stage was selecting the sub-district. Mamprugu Moaduri District consists of four (4) sub-districts (Yagaba Sub-district, Kubori sub- district, Kunkwa Sub-district and Yikpobongu sub-district), three (3) out of the four (4) sub districts was selected by using the Non Probability Sample Technique (Lucas, 2012) for the Quantitative Study. This Technique was chosen because of the relative case of access to those three sub districts. The second stage would involve selection of communities for the survey.

In each of the three sub districts, all the communities were written on pieces of papers and thrown into basket, 5 communities were picked from each of the three sub districts.

At the third stage of selecting the sample for mothers, 15 communities are randomly selected from the list of communities in the district. Averages of 12 mothers were then randomly selected from each of the 15 communities. Eventually, a total of 180 mothers constituted the sample size for that category. The Sample size required for the qualitative study, 180 respondents, was were equally distributed to all the three Sub Districts and recruited by convenience selecting in all the communities, 12 respondent were selected through convenience sampling this was down by moving for the Centre of the town and choosing a path by spinning a bottle and where ever the top of the bottle faced, there was the starting point.

The researcher then moved to every often house to interview men and women 16 to 49 years with a child two years or below who is available at the time of the visit until the required respondent were interviewed.

For the health facilities, 6 facilities were randomly selected from the list of health facilities in the district. From each health center, 3 staffs made up of Midwives, facility in-charges and Community Health Nurses were then randomly selected. In all, 18 health staffs were selected as respondents for that category. 6 key informants interview was also conduct based on purposive sampling method in the various communities.

In each sampled household two respondents selected will be interviewed. Households will not be segregated into socioeconomic or cultural strata. Community Leaders, Traditional Leaders, the district assembly, staff of the District Health Management Team

(DHMT), and Health staff in the district will be selected by purposive/ convenient sampling., Families who have lost at least a relative as a result of pregnancy related complications and women who have just delivered in the past one year will be selected through snowball sampling method.

One major advantage of using simple random sampling in selecting the final respondents is that, it is a probability method and as such, generalization and inferential conclusions can be drawn based on the sample.

3.2.3 Data type and data collection instrument

The study involved the use of primary and secondary data. Primary data is data collected at first hand by the researcher and used directly for the research. One major reason for choosing a primary data for the study is that it allows the researcher to obtain only relevant information from the respondents that meets the objectives of the study. On the other hand secondary data is a type of data that has been collected by someone else for a different purpose. Once secondary data relates with a current study it can be used by the researcher of the current study. In this study, published papers on the major theme were reviewed and analysed to complement the findings of the study. (At Work, Issue 82, Fall 2015).

The primary data were collected using questionnaire. The administration of the questionnaire was guided by face-to-face interviews. The questionnaire included both closed ended and open ended questions. In the closed ended questions, the respondents is asked to choose a response to a question from a list of alternatives while in the case of the open ended questions, the respondents provided their own answers to the questions asked.

The use of both question formats was to minimize the error and difficulty associated with each one of them. It was designed by giving attention to the conventional format of a standard questionnaire. The questionnaire was chosen because it offers an efficient means of collecting statistically quantifiable data. Besides, it gives attention to the ethics of research and makes data collection process as bias-free as possible (Sarantakos, 1997).

3.2.4 Quality Control

The data collectors were given orientation on the content and how to administer the questionnaires which lead to the restructuring of some of the questions. Having done this the questionnaires were piloted in two communities using the local language; "Mampruli". This is to ascertain the suitability of the questionnaire to garner useful information to answer the research questions. The pilot exercise led to the deletion of some questions and restructuring of others due to the repetitive nature of some of them. The data was coded, entered and analysed by the researcher using SPSS version 20. In order to clear every error the initial data entry was revised.

3.2.5 Data analysis

To a larger extent, the study employed qualitative method of research given the nature of the aim and objectives. As a result, descriptive statistics was used largely in the analysis and presentation of the data. However, the chi-square statistic was generated and interpreted when necessary to indicate whether or not some significant differences exist between some responses and/or characteristics of the respondents and the phenomena. These analyses were done using the SPSS version 20.

3.3 Research ethics

Ethical clearance from the Ethics Committee of the University for Development Studies was obtained. This study was not invasive and harmful. The dataset was secured for this study and used for the purposes of this study only and it was handled with extreme care. Permission was also sought from the DHMT and all organisations involved in the study before any interview is conducted.

3.4 Limitation of the study

Because the district is a new district without District Hospital and a well-equipped facility, it affected out secondary data collection, since as most data was not properly managed. And Maternal and Child Mortality cases registered for the district had to be taken from the Sandema Hospital in the Builsa South District or the Walewale Hospital in the West Mamprusi District. Due to language barrier, the researcher employed the services of natives as data collectors to administer all the questionnaires. Unfortunately, the data collection period coincided with the raining season which made it very difficult to reach out to some of the communities in good time. The findings of this study are based on the experiences of the respondents in only in the Mamprugu Moaduri District, and hence, the information provided refers to these participants and therefore generalization could only be made to theory but not the larger population of the Northern Region.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents results of the study. Specific areas contained under the chapter include results on the socio-economic and demographic characteristics of the respondents; the factors which influence patronage of child and maternal reproductive health services; perception of the people about maternal and child mortality; access to quality healthcare in the district; and assessment of the measures put in place to curb maternal and child mortality in the Mamprugu Moaduri district.

4.1 Socio-Economic and Demographic Characteristics of the Respondents

This section contains results and discussion of the sex, age, educational level, marital status and occupation of the respondents. These variables like those in all other sections of this chapter are presented on the two categories of respondents (health personnel and mothers) when necessary.

4.1.1 Sex of the health personnel interviewed

Table 4.1 Indicates that 44.4% of the health personnel were males whilst 55.6% were females. It also presents the chi-square test on the level of significant difference between the two categories. The test statistic of 0.22 indicates that there is a significant difference between the male and female respondent.

Table 4.1: Sex distribution of the health personnel

Sex	Frequency	Percentage
Male	8	44.4
Female	10	55.6
Total	18	100
Chi-Square	0.22	
Df	1	
Asymptotic Sig.	0.64	

Source: Field data, 2017

4.1.2 Ages of the respondents

Table 4.2 presents the ages of both mothers and health personnel interviewed during the survey. From the table majority (37.8%) of the mothers interviewed were of the ages between 21 to 25 years. On the average, the youngest mother interviewed was about 20 years old whilst the oldest was about 50 years. For the health personnel, majority (77.8%) of them were between the ages of 25 and 34 years.

Table 4.2 Age distribution of respondents

Mothers			Health personnel		
Age category	Frequency	Percentage	Age category	Frequency	Percentage
≤ 20	13	7.2	18 to 24	4	22.2
21 – 25	68	37.8	25 to 34	14	77.8
26 – 30	33	18.3			
31 – 35	24	13.3			
36 – 40	26	14.4			
41 – 45	5	2.8			
46 – 50	8	4.4			
≥ 50	3	1.7			
Total	180	100	Total	18	100

Source: Field data, 2017

4.1.3 Educational status of the respondents

Educational background of the respondents (both mothers and health personnel) is presented in Table 4.3 below. From the table, most (70.6%) of the mothers had no formal education. Besides, the educational level of the highly educated mother was Senior High School. For the health personnel, 83.3% were graduates of the Post-Secondary.

Table 4.3 Distribution of respondents' educational status

Educational level	Mothers		Health personnel	
	Frequency	Percentage	Frequency	Percentage
No formal education	127	70.6	0	0
Primary	25	13.9	0	0
JHS/Middle school	8	4.4	0	0
SHS	20	11.1	0	0
Post-secondary	0	0	15	83.3
University degree	0	0	3	16.7
Total	180	100	18	100

Source: Field data, 2017

4.1.4 Marital status of Respondents

The marital statuses of both categories of respondents are represented in Table 4.4 below. The table indicates that all the mothers were married. With the health personnel, majority (66.7) had never married, whilst 33.3% were married. This might be one of the reasons why they are relatively comfortable with the posting to that remote district of the Northern region. With the chi-square statistic of 2, however, there is no significant difference between the two categories (married and never married) of health personnel.

Table 4.4 Distribution of Respondents' Marital Statuses

	Mothers		Health personnel	
Marital status	Frequency	Percentage	Frequency	Percentage
Never married	0	0	12	66.7
Married	180	100	6	33.3
Total	180	100	18	100
			$x^2 = 2$, Df = 1 Assymp. Sig. (0.16)	

Source: Field data, 2017

4.1.5 Type of marriage of the respondent mothers

Figure 4.1 presents distribution of the type of marriages that the interviewed were into. The figure indicates that 67% of the mothers were monogamous marriage. This indicates that, the number of children to for a particular family will be small in size compared to a polygamous marriage which gives more children for the family to support labour in their farms.

Figure 4.1: Distribution of mothers' type of marriage

Source: Field data, 2017

4.1.6 Occupation of the respondents

The specific types of occupation of both mothers and health personnel interviewed are presented in Table 4.5 below. From the table, 72.8% of the mothers were farmers with the least proportion (5%) of them being teachers. For the health personnel, the general occupation was nursing with majority (44.4%) of them being community health nurses. It should be noted that most of the health personnel interviewed complained of less or lack of midwifes and other health professionals whose services are crucial in the delivery of maternal reproductive healthcare.

Table 4.5: Distribution of respondents' occupation

Mothers			Health personnel		
Occupation	Frequency	Percentage	Occupation	Frequency	Percentage
Teacher	9	5	Community Health Nurse	8	44.4
Trader	40	22.2	Enrolled Nurse	4	22.2
Farmer	131	72.8	Registered General Nurse	6	33.3
Total	180	100.0	Total	18	100.0

Source: Field data, 2017

4.2 Constraints to the Patronage of Child and Maternal Reproductive Health Services

This section of the chapter presents the results and discussion on the factors which hinder patronage of maternal and child health services by the mothers in the Mamprugu Moaduri district. Factors such as distance from health facility, income level of the respondent, educational status, among others are discussed.

4.2.1.1 Proximity of the community to health facility and its association with antenatal visits

Table 4.6 presents the distribution on distances that the mothers had to cover in order to get the nearest health facility and the frequency of their antenatal visits. From the table, majority (64%) of the respondents indicated that they had at least an average frequency of antenatal visits to the health facility for their immediate past pregnancies. The average distance covered by a pregnant woman from her community to the health facility however, was 7.5km. The chi-square test statistic also indicates that there was a

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statistically significant difference between the distance covered by a pregnant woman and

her frequency of visiting the health facility for antenatal checkup.

Table 4.6: Nearness of the community to a health facility and frequency of antenatal visits

| Distance (Km) | Frequency of antenatal visits during immediate past pregnancy | | | | | | χ^2 |
	Very Much	Much	Average	Not Much	Not at all	Total	
0.5	0	5	0	0	0	5	
1	6	29	8	0	0	43	
2	6	10	0	13	0	29	
3	19	0	0	0	0	19	
5	0	0	10	0	0	10	χ^2 = 375.147***
8	0	0	4	0	0	4	
10	0	0	4	0	8	12	Df = 40
11	0	4	0	5	0	9	Sig. (P = 0.000)
12	5	0	5	0	0	10	
14	0	0	0	0	5	5	
16	0	0	0	24	10	34	
Total	36	48	31	42	23	180	
Mean frequency	2.8						
Mean distance	7.5 km						

Source: Field data, 2017

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4.2.1.2 Proximity of the community to health facility and its influence on postnatal visits

Table 4.7 shows the distribution on distances that the mothers had to cover in order to get the nearest health facility and the frequency of their postnatal visits. Results in the table indicate that majority of the respondents had at least an average frequency of antenatal visits to the health facility after their immediate past delivery. Like the antenatal case, the average distance covered by a pregnant woman from her community to the health facility was 7.5km. The chi-square test statistic in this case also indicates that there was a statistically significant difference between the distance covered by a mother and her frequency of visiting the health facility for postnatal checkup.

Table 4.7: Nearness of the community to a health facility and frequency of antenatal visits

Distance (Km)	Frequency of postnatal visits after immediate past delivery					Total	χ^2
	Very Much	Much	Average	Not Much	Not at all		
0.5	0	5	0	0	0	5	
1	14	25	4	0	0	43	
2	3	13	0	13	0	29	
3	0	10	0	0	9	19	
5	0	0	0	10	0	10	χ^2 = 249.368***
8	0	0	4	0	0	4	
10	0	0	4	4	4	12	Df = 40
11	4	0	0	5	0	9	
12	5	0	5	0	0	10	Sig. (P = 0.000)
14	0	0	0	0	5	5	
16	0	5	14	5	10	34	
Total	26	58	31	37	28	180	
Mean frequency	2.9						
Mean distance	7.5km						

Source: Field data, 2017

4.2.2.1 Educational level and its association with antenatal visits

Table 4.8 presents the results on relationship between level of education and frequency of antenatal visits to health facility by the mothers during their immediate past pregnancies. The table indicates that the mean frequency of antenatal visits based on the five-point

likert scale was 2.8, which implies that on the average the mothers visited the health facilities quite frequently. The chi-square statistic of 69.745 which is significant at the 1% level indicates that there is a significant difference between a mother's level of education and her frequency of antenatal visits.

Table 4.8: Distribution of educational level and frequency of antenatal visits

| Educational level | Frequency of antenatal visits during immediate past pregnancy | | | | | Total | χ^2 |
	Very much	Much	Average	Not much	Not at all		
no formal education	12	39	31	32	13	127	χ^2 = 69.745*** Df = 12 Sig. (P = 0.000)
Primary	15	5	0	5	0	25	
JHS/Middle school	3	0	0	0	5	8	
SHS	6	4	0	5	5	20	
Total	36	48	31	42	23	180	
Mean frequency	2.8						

Source: Field data, 2017

4.2.2.2 Educational level and its association with postnatal visits

The results on relationship between level of education and frequency of postnatal visits to health facility by the mothers after their immediate past deliveries are shown in Table 4.9. The table indicates that the mean frequency of postnatal visits based on the five-point Likert scale was 2.9, which shows that on the average the mothers visited the health

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facilities quite frequently for postnatal healthcare for their babies. The chi-square statistic indicates that there is a significant difference between a mother's level of education and her frequency of postnatal visits to the health facility.

Table 4.9: Distribution of educational level and frequency of postnatal visits

| Educational level | Frequency of postnatal visits after immediate past delivery | | | | | Total | χ^2 |
	Very much	Much	Average	Not much	Not at all		
No Formal Education	11	40	26	32	18	127	χ^2 = 53.24*** Df = 12 Sig. (P = 0.000)
Primary	5	15	5	0	0	25	
JHS/Middle School	3	0	0	0	5	8	
SHS	7	3	0	5	5	20	
Total	26	58	31	37	28	180	

Source: Field data, 2017

4.2.3.1 Occupation of mothers and its relationship with antenatal visits

Table 4.10 presents the relationship between the mothers' occupations and how it relates with their frequency of antenatal visits. Results in the table show that most of the respondents were farmers who indicated that their frequency of visiting the health facilities for antenatal care was moderately high. The table also shows the chi-square

statistic of the association between the two variables which is statistically significant at the 1% level.

Table 4.10: Distribution occupation and its relationship with frequency of antenatal visits

| Occupation | Frequency of antenatal visits during immediate past pregnancy | | | | | Total | χ^2 |
	Very much	Much	Average	Not much	Not at all		χ^2 =
Teacher	0	4	0	5	0	9	74.337***
Trader	6	29	0	0	5	40	Df = 8
Farmer	30	15	31	37	18	1Z MZA31	Sig. (P = 0.000)
Total	36	48	31	42	23	180	

Source: Field data, 2017

4.2.3.2 Occupation of mothers and its relationship with postnatal visits

The relationship between the mothers' occupations and how it relates with their frequency of antenatal visits is presented in table 4.11. Results in the table show that most of the respondents made moderately high visits to the health facilities for postnatal care. Also the chi-square statistic of association between the two variables, which is statistically significant at the 1% level, implies that there is a significant difference between a mothers' occupation and her frequency of visit to the health facility for postnatal care.

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Table 4.11: Distribution of occupation and its relationship with frequency of

postnatal visits

	Frequency of postnatal visits after immediate past delivery					Total	χ^2
Occupation	Very much	Much	Average	Not much	not at all		$\chi^2 = 55.83***$
Teacher	4	0	0	5	0	9	Df = 8
Trader	11	24	0	0	5	40	Sig. (P =
Farmer	11	34	31	32	23	131	0.000)
Total	26	58	31	37	28	180	

Source: Field data, 2017

4.2.4 Possession of a means of transport and its relationship with antenatal visits

Table 4.12 below shows the responses of the mothers on whether or not they have a means of transport in their household; and how frequently they visited a health facility for purposes of antenatal healthcare. The table shows that over 50% of them did not have a means of transport in their households. A chi-square statistic of association between possession of a means of transport and frequency antenatal visits indicates there is a significant difference between the two variables. This implies that the availability of a means of transport in a mothers' household had an influence on the frequency of antenatal visits by the mother.

Table 4.12: Possession of a means of Transport and frequency of antenatal visits

	Frequency of antenatal visits during immediate past pregnancy					Total	χ^2
Possession of motorbike	Very much	Much	Average	Not much	Not at all		$\chi^2 = 41.348$*** Df = 4 Sig. (P = 0.000)
Yes	6	21	27	10	10	74	
No	30	27	4	32	13	106	
Total	36	48	31	42	23	180	

Source: Field data, 2017

4.2.4 Mothers' agreement on some factors that influence the utilization of child and maternal healthcare services

Table 4.13 shows some factors which according to existing literature affect child and maternal healthcare patronage negatively by mothers; and the respondents' levels of agreement on the factors.

Table 4.13: Distribution of agreement on factors that influence child and maternal healthcare services utilization

Variable	Strongly agree		Agree		Undecided		Disagree		Strongly disagree		Mean
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
w Income	47	26	75	42	4	2	54	30	0	0	2
cess To Health Worker At me	45	25	79	44	5	3	42	23	9	5	2
ck Of Transportation Or gh Cost Of Transportation	70	39	48	27	5	3	28	16	29	16	2
availability Of Health titution In The Community	51	28	65	36	9	5	27	15	28	16	3
teracy/Less Education	54	30	42	23	4	2	53	29	27	15	3
d Interpersonal lationship And Attitude Of alth Personnel	36	20	63	35	9	5	28	16	44	24	3
norance Or Less Exposure	26	14	57	32	20	11	47	26	30	17	3
ss Power To Make cision In The House	8	4	80	44	19	11	49	27	24	13	3
favourable Pregnancy And ild Survival History	19	11	63	35	14	8	47	26	37	21	3
latively Old Age Or Higher Experience In Childbirth	10	6	63	35	20	11	45	25	42	23	3
Large Family Size			75	42	18	10	52	29	35	19	3
Culture And Tradition	5	3	34	19	14	8	85	47	42	23	5

Source: Field data, 2017

4.3 Status and perception of child mortality and maternal reproductive health in the Mamprugu Moaduri district

This section presents results and discussion on the status of child mortality and maternal reproductive health problems in the district and the general perception of people about those phenomena. In this section, views on the phenomena from both mothers and health personnel interviewed are presented and discussed.

4.3.1 Mothers' frequency of sickness during pregnancy and after delivery

Table 4.14 presents the distribution of the association between the frequency of sickness of the mothers during pregnancy and whether they fall sick after delivery. The table shows that less than 50% of the mothers indicated that they fall sick after delivery. However, majority of the mothers indicated that the rate at which they fall sick during pregnancy is at least moderate or average. The chi-square statistic of 34.644 however, indicates that there is a significant difference between frequency of sickness during pregnancy and sickness after delivery. This implies that if a mother frequently falls sick during pregnancy then there is a higher likelihood that she will be falling sick after delivery. This means that on the average mothers in the district are faced with the problem of inadequate maternal reproductive health.

Table 4.14: Distribution of mothers' frequency of sickness during pregnancy and its association with whether mothers fall sick after delivery

Frequency of sickness during pregnancy	Fall sick after delivery		Total		χ^2
	yes	No	Freq.	%	χ^2 =
Very much	22	15	37	20.6	34.644***
Much	18	28	46	25.6	Df = 4
Average	4	13	17	9.4	Sig. (P = 0.000)
Not much	8	58	66	36.7	
Not at all	10	4	14	7.8	
Total	62	118	180	100.0	

Source: Field data, 2017

4.3.2 Measures taken when sick during and after pregnancy

On the measures that the mothers resort to during the time they are sick, most (76.1%) of them indicated they try to visit the health facility for treatment. However, 17.5% of them indicated that they buy drugs from the drug sellers in the communities. These results are shown in Table 4.15.

Table 4.15: Distribution of measures taken by mothers when they are sick

Measure	Frequency	Percentage
Buy drug at the drug seller	32	17.8
I always suffer because there is no close health facility	5	2.8
Nothing	6	3.3
Visit health facility	137	76.1
Total	180	100

Source: Field data, 2017

4.3.3.1 Response on whether mothers ever lost children less than 5 years

Figure 4.2 presents the responses of mothers on whether or not they ever lost children under-five years. The Figures show that 83.3% of the mothers never experienced that undesirable phenomenon. However, 16.7% of them indicated that they never experienced under-five child death.

Figure 4.2: Distribution of whether mothers ever lost children less than five years

Source: Field data, 2017

4.3.3.2 Frequency of under-five child deaths in the health facilities in the district

Table 4.16 presents the responses of the interviewed health personnel on how frequent they record under-five child deaths in the health facilities they work. The results showed that majority of them indicated that they have not recorded much of such incident. Also, 22.2% indicated that they have never recorded under-five child death in their health facilities.

Table 4.16: distribution of frequency of under-five child deaths in the health facilities

Response	Frequency	Percentage
Average	5	27.8
Not much	9	50
Not at all	4	22.2
Total	18	100
Mean	3.9	

Source: Field data, 2017

4.3.3.3 Frequency of child mortality in the communities

On seeking the mothers' perception on the general status of child mortality in the community, much of them indicated that on the average the phenomenon is quite frequent in their communities. These results are presented in Table 4.17.

Table 4.17: Frequency of child mortality in the communities

Response	Frequency	Percentage
Very much	40	22.2
Much	51	28.3
Average	35	19.4
Not much	49	27.2
Not at all	5	2.8
Total	180	100
Mean	2.8	

Source: Field data, 2017

4.3.4 Frequency of maternal mortality in the communities

Table 4.18 presents the mothers' general perception on maternal mortality in the communities of the district. The table indicates that over 50% of the mothers indicated that maternal mortality is at least normal in their communities.

Table 4.18: Frequency of maternal mortality in the communities

Response	Frequency	Percentage
Very much	27	15
Much	63	35
Average	37	20.6
Not much	45	25
Not at all	8	4.4
Total	180	100
Mean response	2.7	

Source: Field data, 2017

4.3.5 Rating mothers' seriousness in antenatal and postnatal attendance by health personnel

Table 4.19 indicates that the rating of mothers' seriousness towards seeking child and maternal healthcare services is moderately high. That is on the average more than 70% of the health personnel indicated that mothers in the communities are at least normally serious about visiting the health facilities for antenatal or postnatal healthcare. Nonetheless, 16.7% of the health personnel indicated that the mothers are not much serious about the antenatal and postnatal attendance.

Table 4.19: distribution of health personnel's rating of mothers' level of seriousness about antenatal and postnatal attendance

Response	Frequency	Percentage
Very much	1	5.6
Much	6	33.3
Average	8	44.4
Not much	3	16.7
Total	18	100
Mean	2.7	

Source: Field data, 2017

4.4 Access to quality health care in the Mamprugu Moaduri district

In this section, variables that explain the level of access to quality healthcare in the Mamprugu Moaduri district are presented and discussed. Quality of care is recognized as a critical aspect of the unfinished maternal and newborn health agenda, especially care

during and around labour and delivery and in the immediate postnatal period (United Nation, 2010).

For this, the World Health Organization (WHO) has elaborated a vision where "every pregnant woman and newborn receives quality care throughout pregnancy, childbirth and the postnatal period" *(Tunçalp Ö et al 2015)*, which is supported by a Quality of Care framework and Standards for improving quality of maternal and newborn care in health facilities. The provision and experience of care are at the core of the WHO framework for improving the quality of care for mothers and newborns around the time of childbirth (WHO 2016).

Some of the variables discussed include the availability of the required health professionals, availability of logistics, conditions of service of the health personnel among others.

4.4.1 Number of mothers who delivered at home and reasons for the home delivery

Table 4.20 presents the number of children that mothers ever delivered at home and the reasons for which they were not delivered of at health facilities. From the table, more than 80% of the mothers interviewed indicated that they had ever given birth at home.

Table 4.20: Distribution of home deliveries and the reasons

| Number of children delivered at home | reason for delivering at home | | | Total |
	There were health personnel at work	No health facility in this community	There is traditional birth attendant at home	
1	10	15	0	25
2	3	24	10	37
3	0	9	0	9
	0	8	0	8
	3	5	9	17
	2	5	10	17
	0	3	0	3
	18	69	29	116

Source: Field data, 2017

4.4.2 Staff requirements of the health facilities

The interviewed health personnel indicated the various health professional that are lacking in the health facilities. Table 4.21 presents the results of the responses.

Table 4.21 Distribution of staff requirements of the health facilities

	Frequency	Percentage
Clinical and Community Health Nurses	2	11.1
Medical Assistants and Community Health Nurses	3	16.7
Mid-wife, Pharmacy, Accounts Officer, Laboratory Technician	3	16.7
Mid-wife, Physician, Community Health Nurse and Enrolled Nurse	7	38.9
Pharmacy, Records, Physician Assistant, and Doctor	3	16.7
Total	18	100

Source: Field data, 2017

4.4.3 Health personnel's satisfaction about their conditions of service

Table 4.22 presents the distribution of ratings by the interviewed health personnel about their satisfaction with regard to the conditions of services they enjoy for accepting posting to the remote district of the Northern region.

Table 4.22: Rating health personnel's conditions of service of respondents' health facilities

Rate	Frequency	Percentage
Excellent	2	11.1
Very good	3	16.7
Good	9	50
Poor	3	16.7
Very poor	1	5.6
Total	18	100
Mean	3.11	

Source: Field data, 2017

4.4.4 Challenges faced by facilities in delivering maternal and child health services

Table 4.23 presents some challenges that are faced by the health personnel in the various health facilities in Mamprugu Moaduri district in the course of delivering child and maternal health services. Most of the interviewed health personnel mentioned illiteracy rate on the part of the community members, inadequate logistics and staff as the major challenges.

Table 4.23: Challenges faced by facilities in maternal and child health services delivery

Challenge	Frequency	Percentage
Illiteracy rate on the part of the community members, inadequate logistics and staff	4	22.2
Inadequate disinfectants, baby warmer, delivery kits, and low attendance of pregnant women during durbars	3	16.7
Inadequate midwifes, inadequate delivery equipment, lack of means of transport	2	11.1
Inadequate Midwifes, Inadequate Delivery Equipment, Negative Attitude Of Nurses Towards Clients, Poor Road Network	3	16.7
No Communication Network, Inadequate Motivation By GHS, Poor Road Network, Inadequate Logistics	3	16.7
No Skilled Mid-Wife, Inadequate Labour Room, Lack Of Vaccine Fridge, Traditional Believes And Poor Road Network	3	16.7
Total	18	100

Source: Field data, 2017

4.4.5 Frequency of support from stakeholders to the health facilities

Given the challenges identified in the immediate past sections above, the situation would be moderately promising if these health facilities are receiving support quite frequently from the stakeholders in the health sector of the country. Table 4.24 presents responses of

the interviewed health personnel on the frequency of receipt of support from stakeholders.

Table 4.24: Distribution of frequency of support to the health facilities

Response	Frequency	Percentage
Much	3	16.7
Average	5	27.8
Not much	10	55.6
Total	18	100
Mean	3.4	

Source: Field data, 2017

4.5 Measures put in place by the stakeholders in the Ghana health sector to curb child mortality and maternal reproductive health problems

In this section, an assessment of the measures that are put in place to curb child mortality and maternal reproductive health problems are presented and discussed. Basically, the free maternal health policy of the Ghana Health Service is assessed as far as its implementation in the Mamprugu Moaduri district is concerned.

4.5.1 Use of the free maternal healthcare service by mothers in the Mamprugu Moaduri district

Figure 4.3 presents distribution of the response of the mothers on whether or not they have ever used the maternal healthcare service under the free maternal healthcare policy of Ghana. The figure indicates that 86% of the interviewed mothers ever used the service.

Figure 4.3: Response on the free maternal healthcare service by mothers in the district

Source: Field data, 2017

4.5.2 Services ever paid for by users of free maternal healthcare service

From Table 4.25, services that were paid for by the mothers included OPD cards, some drugs, X-ray services and lab services. According to the interviewed mothers who ever paid for drug, the reasons that they were given by the health facilities were that NHIS did not cover the drug, the drug was not in the facility or the drug was out of stock at that moment.

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Table 4.25: services that were paid for users of the free maternal healthcare service

Service	Ever paid money during antenatal/postnatal	
	Frequency	Percentage
OPD card	15	12.2
Drug	30	24.4
Laboratory service	9	7.3
X-ray service	9	7.3
OPD card and drug	60	48.8
Total	123	100.0

Source: Field data, 2017

4.5.3 Extent to which NHI lessened the financial burden in accessing healthcare

Table 4.26 presents the distribution of how the mothers rated the financial liberation the National Health Insurance usage offered them in accessing healthcare. Majority (32.2%) of them rated it 'very much'.

Table 4.26: Rating the extent to which NHI help financially in accessing healthcare

Rating	Frequency	Percentage
Very much	58	32.2
Much	47	26.1
Average	48	26.6
Not much	27	15
Total	180	100
Mean rate	2.12	

Source: Field data, 2017

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4.5.4 Attitude of free maternal health service providers

Effectiveness of the free maternal health policy is also subject to the attitude of service providers towards the clients. Table 4.27 presents the distribution of how the mothers rated the attitude of the service providers, specifically, the NHI service providers at the point of registration and in the health facilities.

Table 4.27: Rating the attitude of NHI service providers

Rate	Frequency	Percentage
Very good	28	15.6
Good	93	51.7
Satisfactory	59	32.8
Total	180	100.0

Source: Field data, 2017

4.5.5 Efficacy of the drugs dispensed through the free maternal health delivery process

From table 4.28, the mothers on the average, rated efficacy of the drugs dispensed to them through the free maternal health policy as quite satisfactory (mean of 2.26). This was measure on a Likert scale of 1 to 4, 1 being Very good and 4 being Not Good.

Table 4.28: Rating the efficacy of drugs dispensed through the free maternal health delivery process

Rate of satisfaction drugs supply through maternal health policy	Frequency	Percentage
Very good	39	21.7
Good	80	44.4
Satisfactory	53	29.4
Not good	8	4.4
Total	180	100.0
Mean rate of response	2.26	

Source: Field data, 2017

4.5.6 Problems of the policy and reasons why the free maternal health policy should be maintained or improved

Table 4.19 presents the distribution about the reasons given by the health personnel for which the policy should be maintained or improved. In their view the policy makes healthcare accessible to the poor; has so far reduced maternal deaths considerably; and also ensures equity in healthcare delivery since poor and rich as well as urban and rural dwellers do have the chance of accessing healthcare. Beside the free maternal health policy implemented by the Government of Ghana, the respondents, especially, the health personnel also indicated that some Nongovernmental Organizations have also shown interest in improving maternal and child health. Some of the NGO intervention programs the respondents mentioned were the Rural Emergency Transport (RET) by Catholic

Relief Service and Strengthening Health Outcomes for Women (SHOW) by Plan Ghana International.

Table 4.29 Reasons why the free maternal health policy should improved

Reason	Frequency	Percentage
	3	16.7
It has helped reduced maternal deaths	3	16.7
It makes access to healthcare better	3	16.7
It makes healthcare accessible to the poor people	8	44.4
It ensures equity in healthcare delivery	1	5.6
Total	18	100.0

Source: Field data, 2017

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter presents discussion of the study. It concentrates specifically on the socio-economic and demographic characteristics of the respondents; the factors which influence patronage of child and maternal reproductive health services; perception of the people about maternal and child mortality; access to quality healthcare in the district; and assessment of the measures put in place to curb maternal and child mortality in the Mamprugu Moaduri district.

5.1 Socio-Economic and Demographic Characteristics of the Respondents

Results on the sex indicated that majority of the respondents were males. However, there was no statistically significant difference between the gender categories. Implication of the finding is that on the average there is no gender bias among employees in the health facilities of the Mamprugu Moaduri district. This may be attributable to random posting of health personnel, especially, nurse by the Ghana Health Service. On the ages of the respondents, the results indicated that majority of the mothers as well as the health personnel were youth. This means that in spite of their youthful age, the health personnel had passion for the service and quest for equality of healthcare delivery, and have therefore, accepted postings to such rural areas of the country. All of the mothers were found to be married. This means that they were all likely to have some knowledge about maternal reproductive health. It also means that they have person(s) around them with whom they can share their health problems and from whom they get useful advices.

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With the educational levels of the mothers, the results indicated that most of the mothers were illiterates and are likely to have insufficient knowledge about the relevance of seeking institutionalised healthcare service regularly. This was saddening as Chowdhury et al. (2005) found that educated women were more likely to seek treatment from doctors/nurses than women who were not educated in Bangladesh. Results on the health personnel however, indicate that the respondents had only two educational qualifications including the post-secondary (Nurses training institutions) and the university degree. Thus, by virtue of their qualifications, they stand the chance of delivery quality healthcare to their clients. These findings corroborates with GSS (2012) which confirms low levels of education among the indigenes of northern Ghana that include people from the district.

Though all the mothers interviewed were married, majority of them had no rivals. That is over 60% of the mothers were into monogamous marriage. This suggests that on the average majority of the mothers interviewed might have significant influence in terms of decision making in their marital homes. This in turn might have a positive effect on the possibility that they patronise maternal and child health services since they can easily convince or persuade their husbands to support them in that regard.

The results on mothers' occupation indicate that over 70% of the mothers were farmers. This corroborates with GSS (2012) who found that majority of the labour force in the Mamprugu Moagduri district are farmers. The dominance of farming as an occupation of the mothers is attributable to the rural nature of the district. It also indicates that farming is the major source of livelihood for a greater proportion of rural dwellers in the Northern region of Ghana. However, the farming that these people engage in is largely subsistence

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which justifies the more reason why healthcare delivery to people of such communities should be easily accessible and affordable, especially to the poor pregnant and nursing mothers as well as their children.

5.2 Constraints to the Patronage of Child and Maternal Reproductive Health Services

The results on the distance between a community and the nearest health center indicated that distance to cover had a significant influence on the frequency of antenatal visits. Specifically, pregnant women who had to cover longer distances did not visit the health facilities for antenatal checkups as much as those who had cover shorter distances. The finding conforms to that of by Sugathan and et al. (2001) who reported that availability of a hospital within 5 km was found to have positive and statistically significant effect in Rajasthan for institutional delivery. Similarly, distance to cover had a significant influence on the frequency of postnatal visits.

Level of education of an average mother was another variable which was assessed with regard to its association with usage of maternal and child health services. That is, a mother's level of education was found to have an influence on the frequency of her antenatal attendance. This means that relatively educated mothers were more likely to patronize the antenatal healthcare services. Also, a mother's level of education can influence the rate of her postnatal visits. Similar to this finding is the finding by Sharma (2004) who found out that education of women had a significant positive impact on use of antenatal care in Nepal.

Results on the association between occupation and usage of maternal/child health services implied that there is a significant difference between a mothers' occupation and her frequency of visiting the health facility for antenatal and postnatal care. Perhaps, the occupation of a mother elevates her economic status, which in turn enable her to address the minor challenges that are associated with accessing the healthcare facilities. Some of the challenges associated with accessing the healthcare services in the rural areas are means and cost of transportation as well as other minor payments such as paying for folder, buying certain item during labour and buying medicines that are not covered by health insurance. Similar to the result is the finding by Sharma (2004) who reported that women whose economic status was higher had positive attitude towards antenatal healthcare than the women whose economic status was lower.

Rating some factors that negatively affect usage of maternal and child healthcare services, the factor which was rated most on the bases of the agreements was low income, followed by access to health worker at home; lack of transportation; unavailability of health institution in the community; illiteracy/less education; bad interpersonal relationship and attitude of health personnel; ignorance or less exposure; among others. This finding agrees with those of Sunil et al. (2006); Sugathan and et al. (2001); and Shariff and Singh (2002), who found income, availability of health facility and exposure respectively to have positive effects on mothers patronage of antenatal and postnatal healthcare services. The least rated factor was culture and tradition. Contrary to this view by the mothers, the health personnel who were interviewed indicated that some of the mothers do not come to the health facility for antenatal and postnatal healthcare due to traditional and cultural reasons.

5.3 Status and perception of child mortality and maternal reproductive health

Results on the rate at which the mothers fall sick indicated that there is a relatively higher frequency of sickness by the mothers during and after pregnancy. However, majority of the mothers indicated that they visit the health centre during sickness. Others also indicted that they buy drugs from the drug sellers in the communities, when the sickness is not severe since they stay far away from a health facility. It is however, highly inappropriate for either a pregnant woman or a nursing mother to take drugs that are not prescribed by health professional since it may not only affect the mother negatively, but also the unborn or newly born child. Similarly the study revealed that mothers frequently die in the communities due to poor reproductive healthcare. The study also revealed that the respondents rarely experience loss of under-five deaths. That is the phenomenon is relatively lower among the mothers of the Mamprugu Moaduri district. The response by the mothers was confirmed by the health personnel interviewed who indicated that under-five mortality is rarely recorded in their health facilities. This conforms to the report by Bliss and Streifel (2015) that the under-five mortality rate decreased from 103 deaths per 1,000 live births in 2000 to 72 deaths per 1,000 live births in 2012. Contrary to the suggested implication of under-five mortality as experienced by the respondents, the general views of the mothers imply that child mortality is relatively and moderately high. Perhaps it was the sampled respondents who did not experience child mortality quite much. Besides the concept of under-five child death is a limited case of child mortality. The health personnel, however, indicated that on the average the women in the communities of the district are less serious about antenatal and postnatal attendances. This suggests that there is still room for more education and sensitization.

5.4 Access to quality Health Care in the Mamprugu Moaduri District

The study indicated that on the average, four children were born at home by the mothers. Majority of them however indicated that the reason for the home delivery was because there was no health facility in the community. This implies that availability of health facilities in the district is below the satisfactory level. That is, one challenging factor in terms of access to healthcare in the district is inadequate health facilities. United Nations report in 2013 indicated that if the MDG4: Target 4.a (Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate) is to be met, efforts must concentrate on those countries and regions where child death rates are highest. Such places were identified as the developing regions and rural areas such as Mamprugu Moagduri (UN, 2013). Achieving a decent health status among the populace and realising the MDGs requires that access to good quality healthcare is improved significantly in the countryside (Sulemana and Dinye, 2014).

Also, the results indicate that there is staff deficiency in the few health facilities, which cuts across a number of units in an average health facility. That is, most of the interviewed health personnel indicated that they lack or have inadequate midwifes, lab technicians, pharmacists, nurses, records staff, physician assistants as well as doctors. This suggests that even the few health facilities that are available in the district are staff deficient. Lu et al (2010), identified inadequate health facilities, long distances to health facilities, lack of effective and efficient transportation systems, inadequate health personnel and inability to afford the cost of health services as major hurdles constraining rural people from accessing health services. In a study by Adam et al. (2004), similar factors were identified as hindering child health among the poor especially rural dwellers

and these consequently had effects on the gap in mortality rates between rural and urban areas. Another variable that has direct implication on access to quality healthcare is the conditions of service of the health personnel. That is, if the health personnel are well motivated in terms of better conditions of services, they will give off their best in the health delivery process. The results indicate that on the average the conditions of service were moderately good but very far from excellent or even very good. This means some of the health personnel were not quite satisfied with their conditions of services.

Besides, inadequate disinfectants, baby warmer, delivery kits, low attendance of pregnant women during durbars, inadequate labour room, lack of vaccine fridge among others were challenges that hinder effective delivery of quality healthcare to the mothers and children as well the general populace of the area. The results also indicate that on the average the health facilities receive support less frequently. This means that if the situation is not improved then the people of the Mamprugu Moaduri district will continue to lag behind.

5.5 Measures put in place by the stakeholders in the Ghana health sector to curb child mortality and maternal reproductive health problems

Though 14% of the respondents indicated that they never used the free maternal healthcare service, it was clearly proven that the patronage is relatively significant. The finding on the use of the free maternal healthcare service conforms to the assertion by Ameyaw (2011) that introduction of the free maternal policy there has been an increment in the use of both antenatal services deliveries in public health facilities. However, the

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respondents (mothers) who indicated that they ever used the service also indicated that they paid some amount of money in the processes of accessing using the service. This contrary to the assertion that the free maternal health policy was implemented through the National Health Insurance Service to make women bear only the costs of reaching facilities (Witter et al 2009).

Despite the minor payment reported by the interviewed mothers, on the average, the mothers were much relieved financially in the course of accessing healthcare thanks to the NHI through the free maternal health policy. This implies that the aim of the free maternal health policy which was to reduce financial barriers to using maternity services to help reduce maternal and prenatal mortality and contribute to poverty reduction (Witter et al 2009) is not far from being achieved.

The study also revealed that most of the mothers rated the service providers' attitude as satisfactory and better. This implies that the confidence of clients in patronizing the service is not threatened. This conforms to the findings of Ameyaw (2011) that majority of his respondents were satisfied with the attitude of free maternal health service providers.

Also, the mothers on the average, rated efficacy of the drugs dispensed to them through the free maternal health policy as quite satisfactory. This reiterates the argument that the mothers who patronized the free maternal health service have significant confidence in the policy and are more likely to encourage their fellow women to patronize. This occurrence will make the policy more successful with regards serving its intended purpose to latter.

Similar to the satisfactory rating of the attitude and efficacy of the service providers and drugs respectively, the respondents also rated the general effectiveness of the free maternal health policy as quite satisfactory. According to the health personnel interviewed, however, the policy is deficient in terms of low awareness of community members about the policy; less coverage; no proper monitoring; poor staff motivation, especially in rural areas; provision of logistics in rural areas; some medicines not being covered by NHIS, among others. Nevertheless, the health personnel felt that the policy was second to none in the sense that it makes healthcare accessible to the poor; has so far reduced maternal deaths considerably; and also ensures equity in healthcare delivery since poor and rich as well as urban and rural dwellers do have the chance of accessing healthcare. According to the health personnel, some Non-Governmental Organizations have also shown interest in improving maternal and child health. Some of the NGO intervention programs they mentioned were Rural Emergency Transport (RET) by Catholic Relief Service, and Strengthening Health Outcomes for Women (SHOW) by Plan Ghana International.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the summary of the study, conclusion and recommendations based on the findings.

6.1 Summary

The study examined the factors that militate against the achievement of the Millennium Development Goals 5 and 4 in the Mamprugu Moaduri District of the Northern Region, which have to do with curbing child mortality and improving maternal reproductive health. Specifically, the study aassessed the socio-economic factors that affect utilization of antenatal and postnatal healthcare services in the district; described the perception of the people of the Mamprugu Moaduri district about maternal and child mortality in the district; describe the extent to which the people of the district have delays in access to quality healthcare; and assessed the effectiveness of the free maternal health policy in the district.

To address the objectives above, the study used both inferential and descriptive statistical methods. Data for the study were obtained using the questionnaire to solicit primary data from two samples of mothers and health personnel.

The study identified distance from health facility, educational level of a mother, occupation of a mother and possession of a motor bike by the household of a mother to have significant implications on the rate at which an average mother visits the health

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facility for antenatal and postnatal checkups. In rating the some factors which according to existing literature, affect the utilization of maternal and child health services negatively, the most rated factor was low income, followed by access to health worker at home; lack of transportation; unavailability of health institution in the community; illiteracy/less education; bad interpersonal relationship and attitude of health personnel; ignorance or less exposure; among others.

On the status and perception of the people in the district about child mortality and maternal reproductive health, the study revealed that on the average mothers in the district are faced with the problem of inadequate maternal reproductive health. Results of the study also indicated that most of the mothers identified visiting a health facility as the most appropriate measure to take in the event of sickness during pregnancy or after delivery. This implied that mothers frequently die in the district due to poor reproductive healthcare. It was also found out that generally child mortality is relatively and moderately high in the Mamprugu Moaduri district. Moreover, interviewed health personnel in the district indicated that on the average mothers in the communities are moderately serious about visiting the health facilities for antenatal or postnatal healthcare.

With the access to quality healthcare in the district, findings of the study indicated that most of the mothers ever delivered at home. However the main reason for the home delivery was that there was no health facility in their respective communities. It was also indicated by findings of the study that most of the health facilities in the district lack or have inadequate health professionals such as midwifes, lab technicians, pharmacists, nurses, records staff, physician assistants as well as doctors. The results also indicate that

on the average the conditions of service of health workers in the district were moderately good but very far from excellent. Also, the health personnel indicated that challenges such as inadequate disinfectants, baby warmers, delivery kits, low attendance of pregnant women during durbars, inadequate labour rooms, and lack of vaccine fridges among others adversely affect the effective delivery of quality healthcare to the mothers and children as well as the general populace of the district.

On the effectiveness of free maternal health policy, 86% of the interviewed mothers indicated that they have ever used the service. However, they indicated that in the process of accessing the facility they paid for service such as OPD cards, some drugs, X-ray services and lab services, with reasons for paid on drugs being non- availability or the drug not being covered by health insurance. The mothers however, rated efficacy of the drugs dispensed to them through the free maternal health policy as quite satisfactory. Also, on the average, the study indicated that the mothers were much relieved financially in the course of accessing healthcare thanks to the National Health Insurance through the free maternal health policy. The results also indicate that majority of mothers rated the service providers' attitude and free maternal health policy itself as satisfactory and better. However, according to the health personnel interviewed the policy is deficient in terms of low awareness of community members about the policy; less coverage; no proper monitoring; poor staff motivation, especially in rural areas; provision of logistics in rural areas; some medicines not being covered by NHIS, among others.

6.2 Conclusion

Considering the major findings of the study, it is concluded that the utilization of child and maternal healthcare services is adversely affected by a lot of socio-economic factors including income, educational level, and distance among others. It is also concluded that mothers or women in the Mamprugu Moaduri district are fully aware of the dynamics of maternal and child mortality and how utilization of skilled antenatal and postnatal health services can help mitigate the cancer. However, access to quality healthcare in the district is below average given the inadequate availability of health facilities, professionals and logistics. Also, the free maternal health policy is quite useful and averagely effective but should be improved upon. Finally, it is concluded that like most other areas of Ghana and the West African sub-region, the Millennium Development Goals four and five are far from being achieved in the Mamprugu Moaduri district of the Northern region of Ghana. And that the factors which account for the non-achievement of the MDGs are socio-economic factors that adversely affect utilization of maternal health services and poor access to quality healthcare in the district.

6.3 Recommendations

Given the objectives and the major findings of the study, the following recommendations are given:

Firstly, the government of Ghana should ensure that a district Hospital is provided for the Mamprugu Moaduri District to ensure rapid attendance to emergency Maternal Health case in the district. Also, the stakeholders in the health sector of Ghana should ensure that more health facilities such as clinics and maternity homes are put up in most of the rural communities to ensure equity in the access of healthcare. The newly constructed as well as existing health facilities should adequately be staffed. By this, the government should ensure that more health professionals are trained and motivated to accept postings to the remote areas. In addition, the needed logistics for effective delivery of quality healthcare services should be provided across all health facilities at the right time.

Secondly, the Government is to ensure that the free maternal health policy is sustained or improved. This will ensure that there is increased healthcare accessibility to the poor; further reduce maternal and child deaths considerably; and also ensures equity in healthcare delivery since poor and rich as well as urban and rural dwellers will have the chance of accessing healthcare. That is, in setting the specific targets to achieve the Sustainable Development Goals especially, on child mortality and maternal reproductive health, particular attention should be paid to improving the free maternal policy.

Thirdly, in the course of improving upon the policy, government and other stakeholders should ensure that more sensitization programs are organized about the policy across all areas of the country. Measures should also be put in place to ensure that there is regular

and proper monitoring carried out to evaluate the successes of the policy and to identify areas that should be reviewed.

Finally, the government through the National health Insurance Authority should ensure that the more relevant drugs are covered by facility to make the service absolutely free, especially for pregnant women and nursing mothers in the rural areas.

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APPENDIX I

QUESTIONNAIRE FOR MOTHERS

The questionnaire is solely for academic research purpose and respondents are requested to respond as naturally as possible. Your anonymity is assured. Please be as specific as possible.

Section A: Socio-economic and demographic characteristics of respondents

1) Name of community ……………………………………………….

2) Age....................................

3) What is your educational level? a. None [ ]   b. Primary [ ]   c. JHS/Middle school [ ]

   d. Second cycle Tertiary [ ]

4) What is your occupation? a. No occupation [ ] b. Teacher [ ]   c. Trader [ ] d. Artisan [ ]   e. Other (specify) ……………………………………..

5) What is your marital status? a. Never married [ ] b. Married [ ] c. Separated [ ] d.

   Divorced [ ] e. Widowed [ ]

6) What type of marriage are you in?   a. Monogamy [ ]   b. Polygamy [ ]

Section B: Other constraints to child and maternal reproductive health

7) How many children have you delivered?

   ....

8) How many of them did you deliver at home……………..health

   /facility………………..?

9) If you ever delivered at home why was it not at a health center?

   ………………………… ……………………………………………………………..

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10) Where did you deliver your latest bay? a. Hospital [ ] b. Health Centre [ ] c. Clinic [ ]
    d. Maternity Home [ ] e. TBA [ ] f. Others specify……………………

11) How frequent did you visit the health center for antenatal checkup during your
    immediate past pregnancy? a. Very much [ ] b. Much [ ]   c. Normal/Average [ ] d.
    Not much [ ] e. Not at all [ ]

12) How frequent did you visit the health center for postnatal checkups after your
    delivering immediate past baby? a. Very much [ ] b. Much [ ]   c. Normal/Average [
    ] d. Not much [ ] e. Not at all [ ]

13) To what extent do you agree that the following factors negatively affect the frequency
    at which a woman goes for antenatal and postnatal checkups?

Item	Response				
	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Illiteracy/less educational level					
Low income					
Less power to make decision in the house					
Ignorance or less exposure to the institutions					
Relatively old age or					

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higher experience in

giving birth

Large family size

Culture and tradition

Unfavourable

pregnancy and child

survival history

unavailability of

health institution in

the community

bad interpersonal

relationship and

attitude of health

personnel

Access health worker

at home

Lack of

transportation or

high cost of

transportation

14) How much do you earn in a month? a. Less than GH₵100 [ ] b. 100 – 250 [ ]

   c. 25001 – 500.00 [ ] d. 500.01 – 750.00 [ ] e. 750.01 – 1000.00 [ ] f. 1000.00 –

   1000.00 [ ]

15) Do you have motor bike in your household? a. Yes b. No

16) How many minutes will it take you to ride to the health center ……………………

Section C: perception of the people about maternal and child mortality in the district

17) How often do you fall sick during pregnancy? a. Very much [ ] b. Much [ ]

   c. Normal/Average [ ] d. Not much [ ] e. Not at all [ ]

18) What do you do when you are sick?

   …………………………………....................................

19) Do you also fall sick after delivery? a. Yes [ ] b. No [ ]

20) Have you ever had a still-birth? a. Yes [ ] b. No [ ]

21) If yes, how many times? ………………………......

22) Have ever lost your baby below 5 years after delivery? a. Yes [ ] b. No [ ]

23) How would you describe the frequency of maternal mortality in this community? a.

   Very much [   ] b. Much [ ]   c. Normal/Average [ ] d. Not much [ ] e. Not at all [ ]

24) How would you describe the frequency of child mortality in this community?

   a. Very much [ ]   b. Much [ ]   c. Normal/Average [ ] d. Not much [ ] e. Not at all [ ]

Section D: Measures put in place by the health sector of Ghana to curb child and maternal mortality and improve access to quality healthcare.

25) Did you use (or are using) the free maternal service? a. Yes [ ] b. No [ ]

26) Did you pay (have you paid) for anything during your antenatal and postnatal

processes?   a. Yes [ ] b. No [ ]

27) If yes, what kind of service(s) did you pay out-of-pocket? a. OPD Card [ ] b. Drug [ ]

c. Laboratory Service [ ] d. X-ray Service [   ]   e. Labour Ward [ ]   f.

Other.....................

28) If it is Drug, what were you told?   a. NHIS don't cover [ ] b. Don't have such drug

at the facility [ ] c. Drug is out of stock [ ] d. Other...................

29) How did you access healthcare? a. Health Insurance [ ] b. Private Insurance [ ]

c. Co-payment [ ]   d. Others specify…………………

30) If health insurance, where did you register? a. Scheme office [ ] b. Hospital   [ ] c.

Clinic [ ] d. Maternity home [ ] e. Others specify……………………

31) Was it for free? a. Yes [ ] b. No   [ ]

32) To what extent has the health insurance scheme given you easy financial access to go

for modern treatment any time you fall sick?   a. Very much [ ]   b. Much [ ]

c. Normal/Average [ ] d. Not much [ ] e. Not at all [ ]

33) In your opinion, how would you rate the overall performance of the free maternal

care policy? a. Excellent [ ] b. Very good [ ]   c. Good [ ] d. Satisfactory [ ] e. Poor [ ]

f. Very poor [ ]

34) On a whole, how did you find the attitude of Health professionals at each service

point?   a. Very good [ ] b. Good [ ] c. Satisfactory/Average [ ] d. Not good [ ]

35) How much confidence did you have in the drug(s) dispensed to you? a. Very much [

]   b. Much [ ]   c. Normal/Average [ ] d. Not much [ ] e. Not at all [ ]

36) Were you a victim of discrimination at any of the service point? a. Yes   [ ] b. No   [

]

37) In your opinion, do you think the insured drugs are different from that of non-insured

clients?   a. Yes [   ] b. No   [   ]

38) How would you rate the efficacy of the NHIS medicine given to you? a. Very good [

]   b. Good [ ]   c. Satisfactory/Average [ ]   d. Not good [ ]

39) On a whole, how satisfied were you with the service providers? a. Very satisfied [ ]

b. Satisfied [ ] c. somehow satisfied [ ] d. Dissatisfied [ ]

40) On a whole, how satisfied were you with the drugs dispensed to you? a. Very

satisfied [ ]   b. Satisfied [ ] c. Somehow satisfied [ ] d. Dissatisfied [ ]

THANK YOU FOR YOUR PATIENCE

APPENDIX II

QUESTIONNAIRE FOR HEALTH PERSONNEL

The questionnaire is solely for academic research purpose and respondents are requested to respond as naturally as possible. Your anonymity is assured. Please be as specific as possible.

Section A: Socio-economic and demographic characteristics of respondents

41) Name of community ………………………………………….

42) What is your age?...............................

43) Gender   a. male [ ] b. female [ ]

44) What is your marital status? a. Never married [ ] b. Married [ ] c. Separated [ ] d. Divorced [ ] e. Widowed [ ]

45) What is your highest level of education attained? a. None [ ]   b. Primary [ ]   c. JHS/Middle school [ ]   d. Second cycle [ ] e. Tertiary [ ]

46) What is your occupation? a. professional [ ] please specify…………………………………   b. self-employed [ ] please specify ……………………………………..

Section B: Access to healthcare in the district

47) What is the staff membership of your facility? ....

48) Do you have all the needed logistics to effectively perform your duties? a. Yes [ ] b. No [ ]

49) How often do you receive support from stakeholders in the health sector? a. Very

    much [ ]   b. Much [ ]   c. Normal/Average [ ] d. Not much [ ] e. Not at all   [

    ]

50) Is your facility under staffed? a. Yes [ ] b. No [ ]

51) If yes, which positions or units are lacking staff?

    ……………………………………………

    ……………………………………………………………………………………………

52) How would rate your satisfaction about the conditions of service of your facility?

    a. Excellent [ ] b. Very good [ ]   c. Good [ ] d. Satisfactory [ ] e. Poor [ ]   f. Very

    poor [ ]

53) Do other staff members of facility complain about living in this community?

    a. Yes [ ] b. No [ ]

Section C: Maternal health and child mortality cases

54) In your opinion, how serious do the pregnant women and nursing mothers take their

    antenatal and postnatal visits? a. Very much [ ] b. Much [ ]   c. Normal/Average [ ]

    d. Not much [ ]   e. Not at all   [ ]

55) How often do you record maternal deaths in your facility? a. Very much [ ] b. Much

    [ ]   c. Normal/Average [ ] d. Not much [ ] e. Not at all   [ ]

56) How often do you record under-five child deaths in your facility? a. Very much [ ]

    b. Much [ ]   c. Normal/Average [ ] d. Not much [ ] e. Not at all   [ ]

57) What is your general observation about maternal and child mortality in your facility?

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58) In your opinion, what is the general perception or confidence level of the people in this community about maternal and child healthcare provision?

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Prospects and challenges of the free maternal health policy

59) In your opinion, how would you rate the overall performance of the free maternal care policy? a. Excellent [ ] b. Very good [ ] c. Good [ ] d. Satisfactory [ ] e. Poor [ ] f. Very poor [ ]

60) What are the challenges with the policy?

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61) What do you think can / should be done about it?

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62) Do you think the free maternal policy should be maintained and Why?

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63) Do you know about any other policies that seek to promote maternal health and

prevent child mortality? a. Yes [ ] b. No [ ]

64) If yes, specify

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THANK YOU FOR YOUR PATIENCE