

**AN ASSESSMENT OF THE EFFECT OF THE FREE  
MATERNAL CARE POLICY ON THE UTILISATION OF  
MATERNAL CARE SERVICES IN THE NEW JUABEN  
MUNICIPALITY**

**KNUST**

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## DECLARATION

I hereby declare that this submission is my own work towards the CEMBA and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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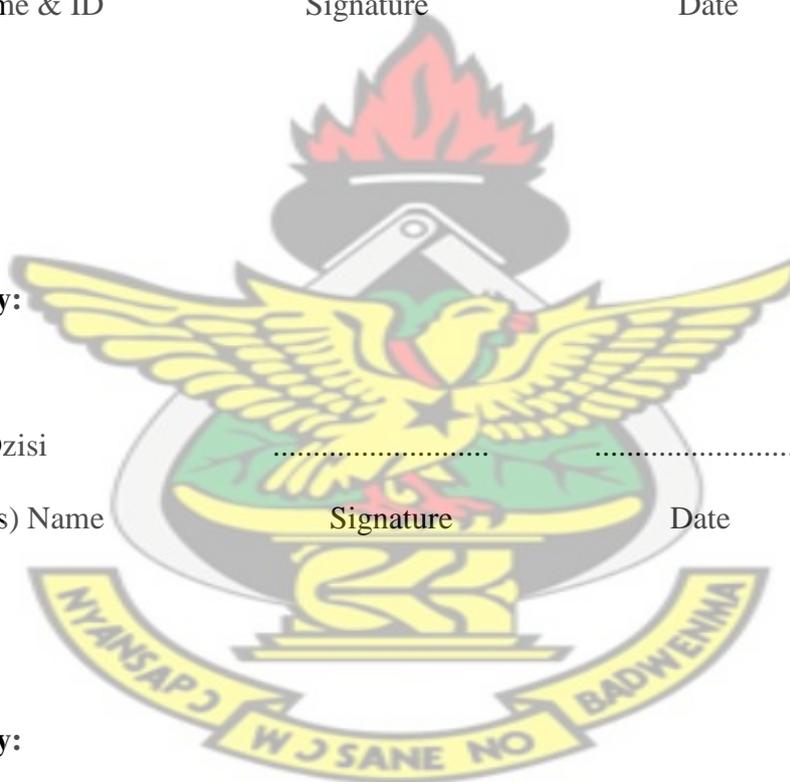
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## ABSTRACT

This is a descriptive survey study carried out to assess the effect of the free maternal care policy on utilisation of care services in the New Juaben municipality. There have been little studies carried out to evaluate the effect of this policy on the access to and utilization of health care facilities, maternal health and deaths. This study was carried out to investigate into this policy. The main objective of the study was to verify the effect of the free maternal care policy on the utilisation of maternal care services in the New Juaben Municipality. The population for the study encompassed women of child bearing age (10-49) in the New Juaben Municipality. Both primary and secondary sources of data were employed for this study. The purposive and accidental sampling procedures were used to select the respondents. The sample size is six hundred (600). This study used trend analysis as its main approach of analysing the available data. The findings show a slight decline in maternal mortality as compared with the number of death in 2007. The finding also shows that antenatal attendance has been increasing over the years. This is attributed to the introduction of the free maternal healthcare policy. However, quality of care still remains a problem due to the enormous attendance. Findings show that there is still a great need to introduce other measures to reduce maternal mortality in the municipality. It was recommended that quality of care must be addressed to improve maternal health survival and steady and secure funding must be in place to ensure that the policy is sustainable, so that the policy can be strengthened.

## DEDICATION

This work is dedicated to my parents, Mr. and Mrs. Ameyaw, who knew very well the difference between consumption and savings and sacrificed their previous consumption for my education which they know to be an investment.

Also, dedicate to my brother Simon Osei Ameyaw and my grandmother Madam Elizabeth Amoako for their unflinching support and prayers.

Finally, dedicate to my precious baby boy, George Perez Asante Ameyaw, and his mother Diana Guribie for their best wishes.



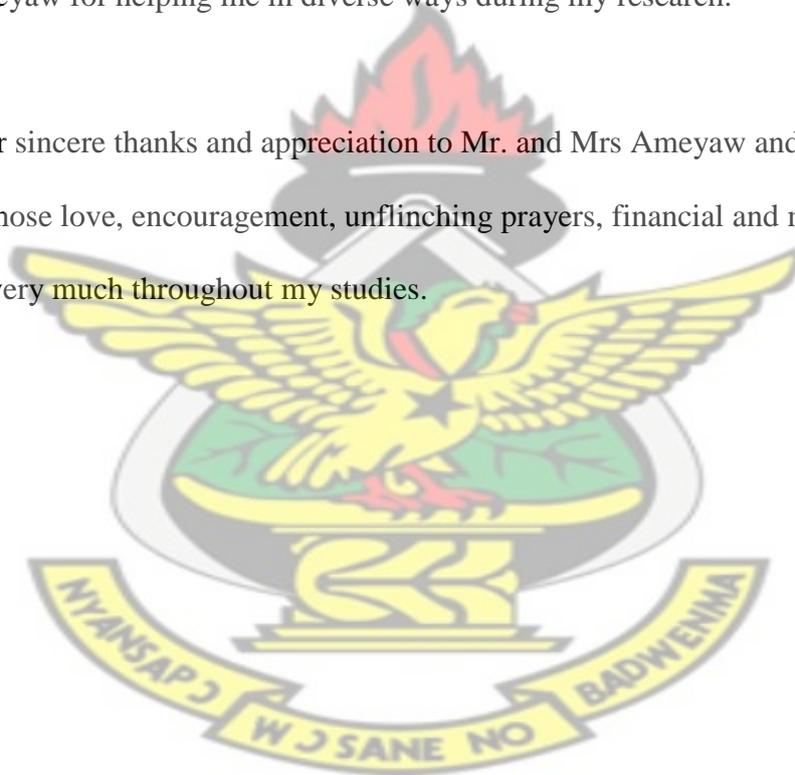
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## CHAPTER ONE

### 1.1 INTRODUCTION

This chapter focuses its attention on the background of the study, the statement of the problem, objectives of the study, research questions, significance of the study and lastly the organisation of the study.

### 1.2 BACKGROUND TO THE STUDY

The concept of maternal mortality has become an everyday phenomenon of the contemporary world. Women of childbearing age all over the world irrespective of race, education, occupation or marital status are faced with the agony of pregnancy's possibility of leading to the death of the mother. Not until two decades ago women died from pregnancies in silence and pain. Families mourned their dead while husbands hoped for another wife to bear them children. The concentration before this era was argued on the ability to bear children and thus people though sad, were happy should the children survive. Global attention however began to focus more seriously on maternal deaths in the 1980's precisely 1985 when, Rosenfield and Maine published a thought-provoking article in the *Lancet* (Senah, 2003). In the article titled 'Maternal Mortality—a neglected tragedy—where is the M in MCH?' Rosenfield and Maine warned the world of the fact that many countries were neglecting this important problem and that existing programs were unlikely to reduce the high maternal mortality rates (Senah, 2003).

Immediately after, many authors went out to find out more. Harrison's (1985) analysis of 22,774 consecutive hospital births in Zaria (Northern Nigeria) showed the appalling mortality associated with childbirth. This was followed by another significant input to the campaign against maternal deaths by the World Health Organisation's (1986) publication,

'Maternal Mortality: helping women off the road to death.' These further led to the Safe Motherhood Conference in Nairobi, Kenya in 1987 where speakers presented global statistics on death and complications resulting from pregnancy. The conference concluded with strong recommendations about maternal health and the need to address them. Improving maternal health and reducing maternal mortality since then have been key concerns of global conferences and forums convened during the last two decades, including the 1994 Cairo ICPD and the 2000 Millennium Summit (Farah & Rasheed, 2009; United Nations General Assembly, 2000; UN, 1994). Many developing organizations have been implementing various programmes related to reproductive and maternal health most of which have been implemented in partnership with government line ministry (United Nations Economic and Social Commission for Asia and the Pacific, 2008).

At the turn of the millennium summit in 2000, 189 countries endorsed the Millennium Declaration and signed up to meeting eight goals; the Millennium Development Goals (MDGs) and one of these (MDG 5) is to “improve maternal health” and maternal mortality by 75% between 1990 and 2015 (United Nations Economic and Social Commission for Asia and The Pacific, 2008; Lancet, 2005). Maternal death was, however, chosen as the outcome with which to judge progress towards this goal, thus bringing renewed attention to what is a 21st century problem essentially only for the poor, and one virtually eliminated for people with the means and status to access health care. To Ronsmans & Graham (2006) such a marker of global inequity is shocking and is an indication of wider development issues targeted in some of the other MDGs, especially on poverty, education and gender. The Millennium Declaration is, however, the first time that maternal mortality has featured so prominently in the high ranks of a global

pronouncement, providing an opportunity to galvanize action and also to ensure that the risk of maternal death is minimized for all women (Ronsmans & Graham, 2006).

Regardless of continued high-level political and organizational commitments, maternal mortality remains as one of the greatest challenges facing the developing world, as well as a tragedy that has often been neglected or compromised. Farah & Rasheed, (2009) conceived that the progress on the maternal mortality reduction target has been far too slow to reach the set goal, a sad reality that many view as one of most embarrassing manifestation of health and social systems failure. Even in instances where there are progress reports on maternal mortality, mirror image huge global differences and inequalities. Each year it is estimated that about 529,000 maternal deaths occur (Ronsmans & Graham, 2006). The WHO/UNICEF (1996) report indicate some 585,000 women globally die yearly from pregnancy - related complications. Of this figure an estimated 99 percent (99%) of such women are reported to come from the developing world, especially sub-Saharan Africa. One of the most recent WHO (2005) report estimate a total of 536,000 maternal deaths worldwide in 2005, with 533,000 of these deaths coming from developing countries.

Of these figure from the developing world, more than half of the maternal deaths (270,000) representing eighty-six percent (86%) of all global maternal deaths occurred in the sub-Saharan Africa region alone, followed by South Asia (188,000) showing highest obstetric risks in sub-Saharan Africa (Farah and Rasheed (2009); World Health Organization, 2005). Sub-Saharan Africa was estimated to be nearly 1000 per 100,000 live births: almost twice that of south Asia, four times as high as in Latin America and the Caribbean, and nearly 50 times higher than in industrialized countries (Ronsmans &

Graham, 2006). This disproportion in countries is also made eminent in the UNICEF et al report which asserts that the average lifetime risk of maternal death of 1 in 76 in the developing world, there is 1 in 8000 in the industrialized countries. Farah and Rasheed (2009) indicate this disparity becomes even more frightening when cross-country comparisons of the lifetime risks are taken into account. For instance, in out of 1 in 47,600 in Ireland there is 1 in 7 in Niger. Ronsmans & Graham (2006) report sub-Saharan Africa to have a staggering lifetime risk of 1 in 16 maternal deaths, and south Asia with a lifetime risk of 1 in 43.

The World Health Organization, (2005) estimate that the Maternal Mortality Rate of Ghana in 2005 to be 560 per 100,000 live births. The institutional Maternal Mortality Rate is around 210 per 100,000 live births. Translating MDG 5 for Ghana, a national target to reduce the (MMR) from 214 in 1990 to 54 by 2015 (MMR = maternal deaths per 100,000 live births) was set (MOH, 2008). In 2008 Aide Memoire, the Hon. Minister of Health declared the high maternal mortality in the country as a national emergency highlighting the need to accord greater priority to reproductive health services (Immpact, PRB, 2007).

### **1.3 STATEMENT OF THE PROBLEM**

The Eastern Regional Hospital in Koforidua recorded a total of 41 maternal deaths in 2010, as against 36 recorded in 2009. According to Dr Anim Boamah, head of the Department of Obstetrics and Gynaecology of the Regional Hospital, the high rate of maternal deaths can be attributed to high abortion related deaths (9), primary post partum haemorrhage (6), hypertensive diseases in pregnancy(4) and ruptured uterus (4), HIV related deaths (3) and pre-natal infections (4). The others included placental abruption

(2), cardiac failure (2) and Sickle cell disease (2) with anaesthetic death, ectopic pregnancy, pulmonary embolism, obstructed labour and hypoglycaemia recording (1) death each. (GNA, 2010). Reasons attributed to these deaths were late referrals (adding that documents of most of those referrals were either incomplete or had some vital information on them being omitted). Dr. Anim Boamah indicated the 2010 had 27 out of 37 maternal mortality cases resulting from late referrals. Five (5) of these pregnant women were already brought in dead.

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However in 2003, in an effort to improve maternal health and survival, the government of Ghana implemented a new policy that removed delivery fees in Health facilities in the four most-deprived regions of the country. Less than two years later, the government extended the policy to the rest of Ghana, removing delivery fees in all public, private and mission facilities (Impact, PRB, 2007). On July 1st, 2008 the president of Ghana announced that the government is providing free maternal care for pregnant women to improve the attainment of MDG 4 and 5. The decision was to implement this through NHIS (National Health insurance scheme) to give all mothers full package access to antenatal, prenatal and postnatal care (NHIS, 2008). The reducing of maternal mortality and reaching the MDG5 target by 2015 is however proving a serious challenge for Ghana. The question therefore is with all these mechanisms in place why is there still a challenge in reducing maternal mortality? What is causing this challenge? Is it financial barrier to accessing healthcare which this policy deals with, or the reason for non accessibility of the health facility? How accessible and effective is this free maternal health policy to these women? And more especially for the Eastern region what is the reason for the late reporting and referrals of pregnant women to health facilities resulting in maternal deaths though accessing this service is free?

This study thus seeks to assess the effect of the utilisation of maternal care services after the implementation of the free maternal care policy in the New Juaben municipality in the eastern region of Ghana

#### **1.4 OBJECTIVES OF THE STUDY**

The main objective of the study is to assess the effect of the free maternal care policy on utilisation of maternal care services in the New Juaben Municipality.

##### *Specific Objectives*

More specifically the study aimed to;

1. assess whether there is a relationship between free maternal health care policy and decline maternal mortality rate;
2. examine the trends in the antenatal attendance in the health care facilities after the implementation of the free maternal health care policy;
3. assess the effect of the policy on the quality of care in the health facilities;
4. examine the prospects and challenges of the policy

#### **1.5 RESEARCH QUESTIONS**

To achieve the above objectives, this study will focus on addressing the following questions;

1. What is the relationship between free maternal health care policy and maternal mortality rate in the New Juaben Municipality?
2. What are the trends in the utilization of the antenatal attendance in the health care facilities in the New Juaben Municipality since the implementation of the policy?

3. What form of improvement has this policy brought in the quality of health care provision in the New Juaben Municipality?
4. What are the prospects and challenges facing the free maternal health care policy?

### **1.6 SIGNIFICANCE OF THE STUDY**

There have been several and widespread studies carried out on maternal mortality the world over, in Africa and even Ghana. Several reasons were identified as the possible causes of deaths in pregnant women. Some of these are abortion, hypertension, poverty and so on. Identifying these issues especially the feminisation of poverty leading to poor nutrition, lack of access to proper health as leading to their deaths has led to policies being put in place to ensure these are dealt with. An example of this is the introduction of the free maternal health policy by the government of Ghana in 2003 to aid pregnant women in the country and also to meet the Millennium Development Goal five (MDG5) of reducing maternal mortality by 2015.

Although this has been in existence for the past eight (8) years the incidence of maternal mortality still exist. There has also been little or no studies carried out to evaluate the effect and impact of this policy on the access to and utilization of health care facilities, maternal health and deaths. This study thus seeks to carry out an investigation into this policy. The study hopes at the end to make inform and make recommendations to policy makers on the possible effects or progress of the free maternal health care policy. It will add to the reflection/evaluation papers that take a look at what exists, what can be done and what needs to be taken into consideration to achieve the desired goal. One part of public health's policy is to make health care accessible to all people. A concentrated effort is needed to reach out to those who are currently excluded from maternal care.

## 1.7 ORGANISATION OF THE STUDY

This study will be composed of five chapters. Chapter one (1) introduced the topic and provided the background to the study. It covers the statement of the problem, the study's objective and research questions which guided the study. It ended with importance, purpose, and organisation of the research study. Chapter two (2) concentrated on the review of literature on maternal health mortality from the global context, Ghana, policies put in place to reduce maternal mortality in Ghana, causes of maternal mortality in the world, and the theoretical framework underpinning the study.

Chapter three (3) looked at the research methodology that was applied to achieve the studies objectives and analysis of the findings. This looked at the research design, source of data, target group, sampling procedure, sample size, data collection instrument, data collection procedure and the method of analysis. The study design for this research was descriptive design to help explain the trends occurring in the utilization of the free maternal health service. The sources of data were both primary and secondary. The secondary data contain the data for the analysis while responses from the primary data were used to validate findings from the secondary data. Purposive and accidental sampling procedures will be used to select respondents for the study. The sample size for the study is 600 and the triangulation method will be employed as a data collection instrument. The method of analysis will be a trend analysis.

Chapter four (4) was devoted to data presentation, interpretation and analysis, and discussion of the main findings. Finally, chapter five (5) concentrate on the summary and conclusion of the study results of the study and recommendations. The last section of this chapter focused on the limitations of the study and areas for future research.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 INTRODUCTION

The chapter discussed the state of maternal health and maternal mortality in the global context, maternal mortality in Ghana, policies targeted at reducing maternal mortality in Ghana, Causes of Maternal Mortality, and the theoretical framework guiding this study.

#### 2.1 MATERNAL HEALTH AND MATERNAL MORTALITY IN GLOBAL CONTEXT

WHO (2008) report defines maternal health as the health of women during pregnancy, childbirth and the postpartum period. However, Sari (2009) argues that increasing attention given to maternal health internationally has been concentrated in reducing maternal mortality. However, global attention on the phenomenon of maternal mortality had been given little or no place until two decades ago. Awareness on maternal mortality began to be more serious in the 1980's but more precisely 1985 when, Rosenfield and Maine published a thought-provoking article in the *Lancet* (Senah, 2003). In their article titled 'Maternal Mortality—a neglected tragedy—where is the M in MCH?' Rosenfield and Maine warned the world of the fact that many countries were neglecting this important problem and that existing programs were unlikely to reduce the high maternal mortality rates (Senah, 2003). Immediately after this awareness, many authors went out to find out more. Harrison's (1985) analysis of 22,774 consecutive hospital births in Zaria (Northern Nigeria) also gave way to the appalling mortality associated with childbirth. This was followed by another significant input to the campaign against maternal deaths by the World Health Organisation's (1986) publication, 'Maternal Mortality: helping women off the road to death'.

This continuous campaign further led to the Safe Motherhood Conference in Nairobi, Kenya in 1987 where speakers presented global statistics on death and complications resulting from pregnancy. The conference concluded with strong recommendations about maternal health and the need to address them. Improving maternal health and reducing maternal mortality since then have been key concerns of global conferences and forums convened during the last two decades, including the 1994 Cairo ICPD and the 2000 Millennium Summit (Farah & Rasheed, 2009; United Nations General Assembly, 2000; UN, 1994). Many development organizations have been implementing various programmes related to reproductive and maternal health most of which have been implemented in partnership with government line ministry (United Nations Economic and Social Commission for Asia and the Pacific, 2008). One of the Goals which guided the ICPD was

*"to promote women's health and safe motherhood; to achieve a rapid and substantial reduction in maternal morbidity and mortality and reduce the differences observed between developing and developed countries and within countries. On the basis of a commitment to women's health and well-being, to reduce greatly the number of deaths and morbidity from unsafe abortion; to improve the health and nutritional status of women, especially of pregnant and nursing women"* (Farah & Rasheed, 2009).

It was subsequently recommended that "Countries should strive to effect significant reductions in maternal mortality by the year 2015; a reduction in maternal mortality by one half of the 1990 levels by the year 2000 and a further one half by 2015" (Farah & Rasheed, 2009).

In this contemporary world, maternal mortality is regarded as a violation of the rights of women. The rate of occurrence or prevalence of the phenomenon is thus perceived as a critical index of the level of development of a country. Accordingly to meet this critical level of development, nations in the world over have instituted programs and policies within their available resources to combat this menace (Senah, 2003). There have been high government (political) and organizational commitments to halt this widely recognised women's right violation. Farah & Rasheed (2009) assert regardless of continued high-level political and organizational commitments, maternal mortality remains as one of the greatest challenges facing the developing world, as well as a tragedy that has often been neglected or compromised. To them the progress on the maternal mortality reduction target has been far too slow to reach the set goal, a sad reality that many view as one of most embarrassing manifestation of health and social systems failure.

Authors however argue this is due to the notoriously difficult means of measuring accurately the maternal levels in developing countries (Farah and Rasheed 2009; the United Nations Economic and Social Commission for Asia and the Pacific 2008; Senah 2003). A country, measurements of the maternal mortality ratio (MMR) is further suffered from under reporting and variance in methodologies. The United Nations Economic and Social Commission for Asia and The Pacific (2008) indicate although comprehensive and accurate estimate of MMR requires systematic vital registration, longitudinal studies of pregnant women and household surveys, the vital registration system in Nepal has a limited coverage while national level survey especially focusing on estimating maternal mortality does not exist. Major and important reports, such as MDG Progress Report and Human Development Report are accused of using various sources of

data having different sample size and methodologies to compare MMR data over a period of time (The United Nations Economic and Social Commission for Asia and the Pacific 2008).

Farah and Rasheed (2009) posit these are due to the inefficiencies within the civil registration systems, lack of knowledge of the pregnancy status of the deceased, in addition to inaccurate medical certification of the cause of death (Farah & Rasheed, 2009). Senah (2003) corroborates this stating maternal mortality figures globally are fraught with a number of problems due to the fact that: all deaths of women of reproductive age (15-46 years) and the cause of deaths are not known, few countries count birth and death and even fewer register the cause of death, and it cannot be determined whether or not the woman was pregnant at the time of death or had recently been so. To Farah and Rasheed (2009) even in developed countries, the information on maternal death may be missing, misclassified (direct or indirect causes; accidental or incidental) or underreported.

Reports indicate about 500,000 and over women the world over die yearly from pregnancy related complications. The WHO/UNICEF (1996) state some 585,000 women globally die yearly from pregnancy - related problems. A more recent report by the WHO (2007) also posit an estimated total of 536,000 maternal deaths the world over. Of these figures an estimated 99 percent of such women are reported to come from the developing world, especially sub-Saharan Africa (Farah & Rasheed, 2009; WHO, 2007; Senah, 2003) revealing huge global differences and inequalities. Sub-Saharan Africa and Asia accounted for 86 percent of this figure (Farah & Rasheed, 2009; UN, 2008). This disproportion in countries is also made eminent in the UNICEF et al report which asserts

of the average lifetime risk of maternal death of 1 in 76 in the developing world, there is a 1 in 8000 in the industrialized countries. This is affirmed by Filippi et al (2006) who assert in sub-Saharan Africa, 1 in 16 women dies in pregnancy or from childbirth a risk 175 times higher than that in developed countries (1 in 2,800). To Sari (2009), maternal health has emerged as global priority because of a great gap in the status of mother's well being between the rich and the poor countries.

Farah and Rasheed (2009) indicate this disparity becomes even more frightening when cross-country comparisons of the lifetime risk are taken into account. For instance, in out of 1 in 47,600 in Ireland, there is 1 in 7 in Niger women dying in pregnancy or from childbirth. Filippi et al (2006) further pointed out that the world's stipulated 500, 000 and over maternal deaths but that is just the tip of the iceberg, as many more women are estimated to suffer pregnancy-related illnesses (9.5 million), near-miss events (1.4 million), and other potentially devastating consequences after birth (Filippi et al, 2006).

Global development assistance to maternal and neonatal health in 2003 was estimated at more than US\$663 million. An estimated extra US\$1 billion was assigned three years later in 2006, while an increasing US\$6.1 billion estimated in 2015, is needed to increase coverage to desired levels of curbing pregnancy related complications and deaths. However, low financial commitment has also been blamed for the difficulty in halting maternal related problems and deaths. Filipi et al (2006) claim despite the commitment expressed with the Millennium initiative, maternal, newborn, and child health have not been given financial priority internationally. They mention competition for funds is so fierce that advocates for well funded disease initiatives even feel the need to compete for the meager resources of maternal health. Safe motherhood programs implemented to deal

with maternal related complications tend to compete for funding with other priorities such as tuberculosis (2.4 million yearly deaths), malaria (1 million), and HIV/AIDS (3 million).

Consequently, the World Health Organisation has provided a summary of three critical factors underlying maternal deaths (Sari, 2009; Kunst & Houweling 2001). The first of these vital causes of maternal death in the world is lack of access and utilization of essential obstetric services. According to the WHO, there is a negative association between maternal mortality rates and maternal health care utilization. Its estimates suggest that 88 to 98 percent of all pregnancy-related deaths are avoidable if all women would have access to effective reproductive health care services (Kunst & Houweling 2001). Second to be identified is the low social status of women in developing countries. The report indicate low status of women can limit their access to economic resources and basic education, the impact is that they have limited ability to make decisions, including a decision related to their health and nutrition. And the third and final point to be discussed is too much physical work together with poor diet. This is believed to also contribute to poor maternal health outcomes (Kunst & Houweling 2001).

## **2.2 MATERNAL HEALTH AND MORTALITY PROBLEMS IN GHANA**

In every Ghanaian society, the death of a woman from pregnancy or child birth related complications is considered a tragic event, sometimes requiring elaborate ritual purification of the whole society (Senah, 2003). Such deaths are considered to be resulting from evil spirits or uncleanness. For instance, in Osu, a suburb of Accra in the Greater Accra region of Ghana in the event of such deaths, all other pregnant women alive are traditionally required to have a ritual bath in the sea soon after the burial of their colleague. Also in some communities in the Volta Region, the bodies of women who die

in pregnancy are quickly buried, often at midnight to avoid this transfer of evil spirits (Senah, 2003).

To further avoid maternal deaths or its occurrence all Ghanaian societies put across elaborate dietary and behavioural 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, Ghana persistently high maternal mortality ratios, estimating the range from 214 to 800 per 100,000 live births.

Although these figure points to the total maternal related deaths of Ghana, there are regional variations (senah, 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 centre 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).

Financial barriers are believed to be one of the most important constraints to seeking skilled care during delivery in Ghana. A study costing maternal health care in one district in 1999 found cost recovery rates of between 152% for deliveries and 211% for caesareans in mission hospitals, but did not shed light on affordability relative to women's income (Witter et al, 2009). Problems such as under-funding of exemptions from user fees in general have also been found, which have meant that exemptions are available in theory but not always in practice if the provider is not reimbursed for lost income (Witter, Arhinful, Kusi, & Zakariah-Akoto, 2007).

In Ghana, as in many developing countries, deaths during pregnancy and childbirth are often linked to the three delays: Delays in the home, delays in accessing the health facility and delays at the health facility (GHS, 2006).

According to GHS (2006) report, the first delay is deciding whether to seek care. The report indicates lack of information and inadequate knowledge are responsible for the delay in responding to initial warning signs of complications of pregnancy and danger signals during labour. Certain traditions and cultures in the country maintain that women must wait for approvals from male relatives before seeking help (GHS, 2006). The second delay is linked to the constraints that women face in accessing health facilities. Weak referral linkages as pointed out exist between community, health centres and district hospitals making it difficult for women in emergency situations to get the care they need (GHS, 2006).

The situation as is mentioned is made worse by poor road and communication networks, distant health facilities, and a lack of transportation and inadequate community support (GHS, 2006). The third delay, the GHS (2006) identified occurs between the time the woman arrives at the health facility and the facilities response in providing appropriate care. The findings state health centres, preparedness to respond to obstetric emergencies is generally inadequate in terms of skilled attendants, equipment, supplies and drugs, and motivated staff (GHS, 2006).

### **2.3 MATERNAL MORTALITY IN THE EASTERN REGION**

Maternal deaths in the Eastern Region were up in 2010 to 192 per 100,000 live births, as compared to 135.5 per 100,000 live births in 2009.

In a statement to the Ghana News Agency, the Eastern Regional Hospital's Head of the Department of Obstetrics and Gynaecology attributed the maternal deaths to abortion complications, pre-natal infections, post-partum haemorrhage, hypertensive disorders and

ruptured uterus. HIV/AIDS is also responsible for some of the deaths. HIV prevalence in the region stands at 4.2% according to an HIV survey from two years ago (GNA, 2010).

It must be mentioned that the listed causes of the maternal deaths were the underlying cause of death nevertheless there were other contributory factors resulting in the deaths for example poor ANC attendance, Grand multiplicity, extremely low haemoglobin level, herbal medical usage, unexplained post partum haemorrhage, poor patronage of adolescent friendly facilities, late onset of iv antibiotics, no blood to transfuse, poor patronage of comprehensive abortion care, no functioning intensive care unit in the Hospital, poor awareness of availability of safe abortion care, DIC, poor post management, no chest tubes, home delivery, late referral, self medication poor management of 3<sup>rd</sup> stage, in experienced decision making, refusal to accept transfusion due to religious reasons and delayed intervention. There will be health education to antenatal mothers on the contributory factors, (NJMHA, 2006).

#### **2.4 CAUSES OF MATERNAL DEATHS/ KEY FACTORS AFFECTING MATERNAL MORTALITY**

According to the WHO (2008) the major causes of newborn deaths include bleeding, hypertension, anaemia, unsafe abortions, infections and obstructed labour. A majority of which indicates can be prevented with adequate care. Although these are the easily and most identifiable of maternal deaths by the WHO, there are several other reasons associated with maternal deaths. This section therefore looks at key factors affecting maternal health and or mortality. These factors for the purpose of this work will be grouped into three: Health Care Delivery explanations, Biological (Medical) explanations and Socio-economic explanations.

## 2.4.1 Health Care Delivery Explanations

### 2.4.1.1 Antenatal Care

The WHO recommends at least four ANC visits for effective antenatal care. In Ghana, ANC visits are supposed to be six (6) visits (NHIS, 2010). To affirm this, number of studies has indicated the existence of an association between the use of antenatal care and positive maternal outcome. The United Nations Economic and Social Commission for Asia and the Pacific (2008) states antenatal care which does not only help women identify complication and potential risks during pregnancy but also gives direction to plan for safe delivery, is a significant component of maternal health. The main impact has been a reduction in severe anaemia, cases of obstructed labour, and treatment of medical conditions (McDonagh 1996). A study by Swenson et. al (1993) in Vietnam, found that antenatal care reduced maternal mortality by improved nutrition and screening for high risk pregnancies. In Zaire, antenatal care was found to reduce maternal mortality by 17-fold.

Other studies also found that inadequate number of ANC visits is associated with unidentification of higher risk factors. This is affirmed by Coria-Soto et al (1996) as cited in Magadi et. al (2000) which asserts inadequate ANC visits has a 63% higher risk of intra uterine growth retardation. Although antenatal care alone cannot prevent all obstetric emergencies, the information provided by antenatal service provider goes a long way to support for the successful management of pregnancies and the subsequent wellbeing of the child. To the United Nations Economic and Social Commission for Asia and the Pacific (2008) the significance of ANC visits goes beyond pregnancy period because as women who seek ANC generally also tend to seek assistance from a health professional during childbirth.

### 2.4.1.2 Place of Delivery

Thaddeus & Maine (1994) stated that the place of delivery has consistently been found to be associated with reduction in maternal mortality. The United Nations Economic and Social Commission for Asia and the Pacific (2008) also state complication during childbirth accounts for a large proportion of maternal mortality and the risk of complications and infections causing death of both the mother and the child can be reduced by appropriate attention and hygienic conditions during delivery. Hence, deliveries in a safe environment with assistance of health professionals are one of the key factors to reduce MMR. Access to health centres, therefore, is a key issue in the reduction of maternal mortality.

Lack of access to health facility is the situation many women especially those found in rural areas face (The United Nations Economic and Social Commission for Asia and the Pacific, 2008). An NDHS finding of place of delivery of women in Nepal found only 13.5 per cent of childbirths took place in health facility in rural areas as against 47.8 per cent in urban area (The United Nations Economic and Social Commission for Asia and the Pacific 2008). Similarly in these findings only 6.3 per cent childbirths took place in health facility in mountain region, in comparison to 17 per cent and 20.9 per cent in the plains and hill region respectively. Likewise, the far western development region had the lowest proportion of mothers having access to health facilities during childbirth (8.5 per cent) while women in the central development regions were also found to have more access to health facilities as 24.4 per cent of them delivered their child in health facilities. This is because many remote areas of hilly and mountain regions, where travel time has to be measured in hours or even days rather than minutes because of the topography where most people travel on foot. Griffiths & Stephenson (2001) argue there need to be

transport system in place to get women to the facility quickly in order for the service to be effective.

Economic status of these women also appeared to be most influential in the choice of delivery by women. Women in the higher wealth quintile delivered their children in health facilities as mothers in the lowest wealth quintile were 13 times less likely to go to health facility to deliver (The United Nations Economic and Social Commission for Asia and the Pacific, 2008).

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#### **2.4.1.3 Assistance during Delivery**

Poor assistance during delivery resulting in the maternal deaths or the death of the children has become the blame game for most maternal deaths by families who have lost daughters through delivery. To Thaddeus & Maine (1994), the conditions for facilities at birth delivery to be effective, first, delivery should be assisted by trained health workers who are able to identify the signs of complications and act appropriately when a problem occurs and second, referral facilities should be available to deal with obstetric emergencies once they have been identified, and on arrival at the referral facility patients should be observed promptly and appropriate decisions made to avoid further complications or even death.

Sari (2009) assert the majority of maternal deaths occur due to unexpected complications, which would require the availability of emergency obstetric care thus the presence of skilled birth attendant for all births is the only way to ensure all those with pregnancy complication to be referred to emergency obstetric care. The presence or availability of skilled birth attendants during labour, delivery and early post partum period could reduce

an estimated 16 to 33 percent of deaths due to obstructed labour, haemorrhage, sepsis and eclampsia (UNFPA 2004). However in developing countries, many women are still assisted in delivery either by traditional births attendants, relatives or delivered by themselves. A 2004 report by UNFPA stated that only slightly more than half of all deliveries (56%) are assisted by skilled personnel (AbouZahr & Wardlaw, 2001). In Ghana a well-respected village elder, who on the traditional medical lore associated with childbearing and rearing, traditional modes of family planning and treatment of infertility and lactational deficiencies is considered an authority on child delivery and sometimes even called a midwife.

Although some 6,000 traditional midwives, already highly regarded by members of the community in Ghana have been given medical and paramedical training and have proven to be valuable adjuncts to the national health care system. The large majority of them, however, are untrained (Senah, 2003). The lowest levels skilled birth attendants at delivery in developing countries are said to be in South Asia (29%) and sub-Saharan Africa (37%) while the highest levels of use of skilled birth attendance are in Latin America and the Caribbean (83%) and the Central and Eastern Europe/ Commonwealth of Independent States Regions (94%) (AbouZahr & Wardlaw 2001).

#### **2.4.1.4 Infrastructure**

For women to be able to have quality place of delivery, access family planning, antenatal care, postnatal and abortion care just to mention a few, a functioning health system is required. This consists not only of critical human resources (such as midwives, doctors, obstetricians, and paediatricians) but also personnel to effectively manage, remunerate, train, deploy and regulate them (United Nations Economic and Social Commission for

Asia and the Pacific, 2008). Furthermore, this also requires an effective infrastructure (including drugs, supplies, health facility buildings, power supply, clean water, transportation, and communication). No clear data exist on availability of electricity and drinking water facility in the health institution; however it is not available in all health institutions (United Nations Economic and Social Commission for Asia and the Pacific, 2008).

Presence and quality of care imparted by the health service providers, availability of equipment and medical supplies in the health service facility determines the decision of the needy women to visit the facility (United Nations Economic and Social Commission for Asia and the Pacific, 2008). However, this is still one of the major problems of facilities in the rural areas of developing countries. A Samanata (2001) study reveals that 74% of the respondents were able to receive the services at the facility they visited. However, out of this only 35.6% reported full satisfaction from the services they received. Respondents who expressed dissatisfaction with the level of services pointed out lack of diagnosis of diseases as the prime reason. This is followed by those reporting lack of free medicines, lack of quality services, lack of capable and trained personnel as other reasons for being dissatisfied. Hence, an overwhelming majority (82%) of women either did not have access or they do not utilize delivery services in health facilities (Samanata, 2001).

#### **2.4.2 Biological (Medical) Explanations**

In developed countries, the most important cause of maternal death is "other direct causes" (21%), which includes largely complications during interventions such as those related to caesarean section and anaesthesia, followed by hypertensive disorders and embolism (WHO, 2006). Some of the direct medical causes of maternal mortality include

haemorrhage or bleeding, infection, unsafe abortion, hypertensive disorders, and obstructed labour. Other causes include ectopic pregnancy, embolism, renal failure, cardiac disorders and anaesthesia-related risks (Senah, 2003; WHO, 2001). Conditions such as anaemia, diabetes, malaria, sexually transmitted infections (STIs), and others can also increase a woman's risk for complications during pregnancy and childbirth, and, thus, are indirect causes of maternal mortality and morbidity (Website: <http://www.futuresgroup.com>).

## **2.4.3 Socio-Economic Explanations**

### **2.4.3.1 Level of Education**

Women's education has been found to be the strongest association with the use of maternal health care services. Studies by Samanata (2001) reveal that knowledge and education are factors that determine the behaviour of women in seeking for care. Findings from a cross-sectional and fixed-effects model, controlling for service availability and the socioeconomic status of the household, confirmed the importance of maternal education on the utilization of both prenatal care and delivery assistance in Peru confirm formal education of women influences the use of maternal health care services (Elo, 1992). A similar analysis in Thailand showed that maternal education exerts a significant influence on the use of maternal health care services; the odds of using prenatal care and formal delivery assistance is much greater for women with primary schooling, compared to women with zero years of schooling (Raghupathy 1996).

Educated mothers are also considered to have a greater awareness of the existence of maternal health care services and benefited in using such services and are likely to have better knowledge and information on modern medical treatment and have greater capacity to recognize specific illnesses (Sari, 2009). As education empowers women, they have

greater confidence and capability to make decision to use modern health care services for themselves and for the children (Caldwell 1979, Schultz 1984). The United Nations Economic and Social Commission for Asia and the Pacific (2008) point out across all ages and ethnic groups families sought for help from traditional faith healers first before ultimately the sick were taken for treatment to health care providers such as doctors and nurses when the cases became serious a pattern which exist no matter the background. However, educated women are better motivated for seeking health care in comparison to women who are not (United Nations Economic and Social Commission for Asia and the Pacific, 2008).

Aside the formal education exposing women to the ability and knowledge to access health care services, existing research on health outcomes in developing countries shows women's exposure to media provides them information on health related issues (Sari, 2009). Women's exposure to information through the radio, television and newspaper in India has been identified as significantly increasing the utilization rates for all services (Shariff & Singh, 2002). A study by Obermeyer (1993) in Morocco and Tunisia indicated that watching television weekly is associated with an increase in the likelihood of both prenatal care and hospital delivery.

In addition to women's educational level or exposure to information influencing their accessing health care service to reduce maternal mortality, women with educated husbands have been identified to have better chances of receiving health care services. Husband's education also reflects tastes and preferences for health-care utilization and Caldwell (1990) suggests that men with higher educational attainment may play a more important role in child-care decisions than men with less schooling. A Samanata studies

reveal that this is apparent in the case of ANC where women who had better education and women whose husband had better education were found more likely to be using ANC services (United Nations Economic and Social Commission for Asia and the Pacific, 2008).

#### **2.4.3.2 Financial Background or Employment Status**

Poverty is a major factor which can inhibit one's access to health care and feminisation of poverty is seen to be one of the most hindering factors of women the world over especially in developing countries. It inhibits women in their decision making processes and other vital areas of their lives of which maternal health cannot be isolated. To be able to have quality health service there is the need for a sound financial backing. Even how to be able to take the decision on which service to access depends on your status as an important part of any health system is the mechanism by which health costs are financed and pooled (The United Nations Economic and Social Commission for Asia and the Pacific, 2008). Women's economic dependence on men for survival however has been a principal barrier to women's control over their reproductive behaviour in developing countries. Women who in income generating activities have been identified to be able to or more likely to access health care services. This Samantana (1999) asserts can be attributed to the fact of enhanced role in decision making power and control over the resources earned of self employed women. Empowering women with more economic participation and control in their households and communities might be the key to their achieving control over their own reproductive health.

Employment can increase women's economic autonomy and reproductive health status because it raises awareness and provides new ideas, behaviour and opportunities through

interaction with other people outside the home and community (Sharma et.al 2007, p.674). A study in Kenya (Magadi et. al 2000) reported that the antenatal care visits tend to start earlier for women in paid employment as they are likely to have greater knowledge about pregnancy and childbirth due to freedom of movement outside household. They also tend to seek information on services available for pregnancy care during work. However, employment may not necessarily be associated with greater use of maternal health care, like in Nepal (sharma et.al 2007), because non-working women may be better off than working women. In the context of developing countries, women's work is largely poverty induced and is likely to have a negative impact on utilization of maternal health services.

A husband's occupation can also represent family income as well as social status, and it is well established that increased income has a positive effect on the utilization of modern health care services (Elo 1992). Differential utilization of health services by different occupational groups also depicts occupation as one of predisposing factors. An empirical research by Paul & Rumsey (2002) in rural Bangladesh showed result that fathers employed in non-farm occupations chose trained personnel for delivery more frequently than fathers who were farmers or members of other occupations. Furthermore, another study in Bangladesh reported that women whose husbands work in business or services are most likely to be the users of professional healthcare services to treat their complications (Chakraborty et.al 2002).

## **2.5 EXISTING POLICIES, PLANS AND PROGRAMMES TARGETED AT REDUCING MATERNAL MORTALITY IN GHANA**

Enshrined in the 1992 Constitution, the Government of Ghana is mandated to ensure fair treatment of men and women. Ghana has also made commitments towards gender by ratifying a number of international instruments and guidelines to promote gender equality which also has implications on the development and promotion of health for all its citizenry (MOH, 2009; Fenrich & Higgins, 2002). These include the United Nation's Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Safe Motherhood Conference in Nairobi (1987) the Cairo-Population Conference (1994), and the International Conference on Population and Development (ICPD) (MOH, 2009; Stafford, 2008; Senah, 2003; Fenrich & Higgins, 2002).

Significantly, Ghana has ratified the Beijing Platform of Action, which urges all governments and other development actors to actively promote a visible policy of mainstreaming gender perspectives in all policies and programmes. As evidence of its commitment to the international treaties and conventions, the Government of Ghana has initiated an Affirmative Action Programme (AAP) as well as established a Ministry of Women and Children's Affairs (MOWAC) (MOH, 2009). The ministry has developed a National Gender and Children's Policy Framework which has set a national agenda to mainstream gender concerns in the development process in order to improve the social, legal/civic, political, economic and cultural conditions of the people of Ghana, particularly women and children, which is an integral part of the national development policy (MOH, 2009).

With this continuous commitment of the government of Ghana on gender parity on policies health providers of the country have put in place gender policies to help provide quality health care for all especially on maternal health.

### **2.5.1 Health Care Provision**

The government makes several efforts to ensure complete health for its citizens. To achieve this, it uses the services of the Ministry of Health and the Ghana Service. The Ministry of Health (MOH) is a critical sector of Ghana's economy which seeks to improve the health status of all people living in Ghana. It contributes to the Ghana government's vision of transforming the country into a middle income country by 2015.

The Ministry working in partnership with its agencies and stakeholders aim at improving the human capital thus "creating wealth through health" through the development and implementation of proactive policies that will ensure improved health and vitality among Ghanaians ([www.moh-ghana.org](http://www.moh-ghana.org)). These policies and strategies are human centred aim at contributing to the socio economic development of the country by ensuring access to quality health, population and nutrition services for all people living in Ghana and promoting the development of the local health industry. It also ensures that all health services are delivered in a humane, efficient and effective manner by well-trained, friendly, highly motivated, and client-oriented personnel ([www.moh-ghana.org](http://www.moh-ghana.org)).

The Ministry of Health prior to the enactment of the ACT 525 of Ghana had the responsibility of direct provision of public health services delivery in the country. These services were the provision of promotion, preventive, curative and rehabilitative care, to the Ghanaian public. However with the enactment of ACT 525, this function has been ceded to the Ghana Health Service and Teaching Hospitals ([www.moh-ghana.org](http://www.moh-ghana.org)). The

Ministry is, therefore, left with the responsibility for policy formulation, monitoring and evaluation, resource mobilization and regulation of the health services delivery ([www.moh-ghana.org](http://www.moh-ghana.org)). Although the Act was promulgated in 1996, there has not been any substantial separation of the functions of the Ghana Health Service and the Teaching Hospitals from the Ministry ([www.moh-ghana.org](http://www.moh-ghana.org)).

### **2.5.2 The Role and Functions of the Ministry Of Health**

The role of the MOH in Ghana is to provide an overall policy direction for all stakeholders (players) in the health delivery, provide a strong and effective advocacy role in inter-sectoral action in the health delivery, mobilize and allocate resources to all providers in the health delivery services, provide relevant and adequate information for co-ordination and management of health services, provide regulatory framework for all providers of health services, monitor and evaluate health services in Ghana and finally to coordinate activities of the agencies, providers and partners in the health sector ([www.moh-ghana.org](http://www.moh-ghana.org)).

It also has the functions of formulating health policies, set standards for the delivery of health care in the country, provide strategic direction for health delivery services, monitor and evaluate the health service delivery by the Ghana Health Service (GHS) and the teaching hospitals, other agencies, development partners and the private sector, develop policies for the practice of Traditional and Alternate Medicine in the country, source funding for service delivery through GOG, health insurance and international community and allocate resources to all health care delivery agencies under the ministry ([www.moh-ghana.org](http://www.moh-ghana.org)). It is also to provide framework for the development and management of the human resources for health, provide a framework for the effective and efficient

procurement, distribution, management and use of health sector goods, works and services, make proposals for the review and enactment of health legislation and provide framework for the regulation of food, drugs and health service delivery and practice ([www.moh-ghana.org](http://www.moh-ghana.org)).

### **2.5.3 Ghana Health Service (GHS)**

The Ghana Health Service (GHS) is a public service body established under Act 525 of 1996 as required by the 1992 constitution. It is an autonomous Executive Agency responsible for implementation of national policies under the control of the Minister for Health through its governing Council - the Ghana Health Service Council. The GHS receives public funds and remain within the public sector nonetheless; its employees are not part of the civil service, while managers of GHS are not required to follow all civil service rules and procedures ([www.ghs-ghana.org](http://www.ghs-ghana.org)). The independence of the GHS is designed primarily to ensure that staffs have a greater degree of managerial flexibility to carry out their responsibilities, than would be possible if they remained wholly within the civil service ([www.ghs-ghana.org](http://www.ghs-ghana.org)).

The establishment of the Ghana Health Service is an essential part of the key strategies identified in the Health Sector Reform process, as outlined in the Medium Term Health Strategy (MTHS), which are necessary steps in establishing a more equitable, efficient, accessible and responsive health care system ([www.ghs-ghana.org](http://www.ghs-ghana.org)). The reforms build on the reorganization of the MOH that began in 1993, which was explicitly designed to set the scene for the establishment of the Ghana Health Service. The reforms also provide a sound organizational framework for the growing degree of managerial responsibility that has already been delegated to districts and hospitals ([www.ghs-ghana.org](http://www.ghs-ghana.org)). The

GHS has the mandate and objectives of providing and prudently managing comprehensive and accessible health service with special emphasis on primary health care at regional, district and sub-district levels in accordance with approved national policies, implementing approved national policies for health delivery in the country, increasing access to good quality health services, and managing prudently resources available for the provision of the health services ([www.ghs-ghana.org](http://www.ghs-ghana.org)).

Administratively, the GHS runs on three levels namely; national, regional and district level. At the national level it runs on the Ghana Health Service Council, the Office of the Director General and Deputy Director General and Eight National Divisional Directors. The Regions are headed by 10 Regional Directors of Health Services supported by Regional Health Management Teams and Regional Health Committees. All 110 districts are headed by District Directors of Health Services with support from the District Health Management Teams, District Health Committees and Sub District Health Management Teams ([www.ghs-ghana.org](http://www.ghs-ghana.org)).

At the regional level, curative services are delivered at the regional hospitals and public health services by the District Health Management Team (DHMT) as well as the Public Health division of the regional hospital. The Regional Health Administration or Directorate (RHA) provides supervision and management support to the districts and sub-districts within each region ([www.ghs-ghana.org](http://www.ghs-ghana.org)). Curative services at the district level are however provided by district hospitals many of which are mission or faith based. Public health services are provided by the DHMT and the Public Health unit of the district hospitals. The District Health Administration (DHA) provides supervision and management support to their sub-districts ([www.ghs-ghana.org](http://www.ghs-ghana.org)). At the sub-district level both preventive and curative services are provided by the health centres as well as out-

reach services to the communities within their catchment areas. Basic preventive and curative services for minor ailments are being addressed at the community and household level with the introduction of the Community-based Health Planning and Services (CHPS). The role played by the traditional birth attendants (TBAs) and the traditional healers is also receiving national recognition ([www.ghs-ghana.org](http://www.ghs-ghana.org)).

The Ghana Health Service is for all people living in Ghana irrespective of age, sex, ethnic background and religion. The service requires collaboration between health workers, patients/clients and society. Thus the attainment of optimal health care is dependent on Team Work. To achieve these there is a patient's charter which looks at patients' rights and responsibilities. In all GHS has a stated fourteen (14) patient's right and nine (9) expected responsibilities ([www.ghs-ghana.org](http://www.ghs-ghana.org)). Some of which are;

#### **2.5.3.1 The Patient's Rights**

1. The patient has the right to quality basic health care irrespective of his/her geographical location.
2. The patient is entitled to full information on his/her condition and management and the possible risks involved except in emergency situations when the patient is unable to make a decision and the need for treatment is urgent.
3. The patient is entitled to know of alternative treatment(s) and other health care providers within the Service if these may contribute to improved outcomes.
4. The patient has the right to know the identity of all his/her caregivers and other persons who may handle him/her including students, trainees and ancillary workers.
5. The patient is entitled to all relevant information regarding policies and regulation of the health facilities that he/she attends.
6. Procedures for complaints, disputes and conflict resolution shall be explained to patients or their accredited representatives.

7. Hospital charges, mode of payments and all forms of anticipated expenditure shall be explained to the patient prior to treatment.
8. Exemption facilities, if any, shall be made known to the patient.

### **2.5.3.2 The Patient's Responsibilities**

The patient is responsible for:

1. Providing full and accurate medical history for his/her diagnosis, treatment, counseling and rehabilitation purposes.
2. Requesting additional information and or clarification regarding his/her health or treatment that may not have been well understood.
3. Complying with prescribed treatment, reporting adverse effects and adhering, to follow up requests.
4. Informing his/her healthcare providers of any anticipated problems in following prescribed treatment or advice.
5. Obtaining all necessary information, which have a bearing on his/her management and treatment including all financial implications.

To make health care accessible and affordable to the citizens of Ghana, several health care provision attempts have been made and are being made to achieve; the most recent of this being the National Health Insurance Scheme (NHIS) and the Free Maternal Health Care Service to reduce maternal mortality.

### **2.5.4 National Health Insurance Scheme (NHIS)**

In 1985 the Hospital Fees Regulations (LI 1313) mandated fees to be charged for health services (Asante & Aikins, 2007). The introduction of this user fees resulted in a decline in utilization of health services in Ghana (Asante & Aikins, 2007). To offset the negative effects of the “Cash and Carry” system and especially its consequences on the poor, the

Government in turn commissioned various studies into alternatives- principally insurance-based (Asante & Aikins, 2007). This came out with a policy on national health named the National Health Insurance Scheme at a cost moderate and affordable to all citizens to reduce the burden of health care. Initially, a lot of efforts were vested into investigating the feasibility of a national health insurance scheme.

The enactment of the National Health Insurance Scheme (NHIS) Act (Act 650), in 2003 provided the basis for setting up health insurance schemes at the district level in Ghana. This was to provide financial access to quality basic health care services to all residents in Ghana. The NHIS came into full operation in Sep. 2005 with 128 schemes. At present, cumulatively about 16,828,709 have been registered under the NHIS (NHIS, 2010). The NHIS operates with three categories of registrants; *registrants*, who have registered with NHIS but have not necessarily paid the full premium for the current year; *members*, who have registered and paid the full premium, and who are eligible to hold a membership card; and *card holders*, who hold a valid membership card, providing access to health services under the scheme (Asante & Aikins, 2007).

Currently, the NHIS has been established in 145 districts in Ghana. The proportion of NHIS active members increased from 15 percent of the Ghanaian population in 2005 to 62 percent in December, 2010, approximately 3.2 million and 12.2 million people respectively (NHIS, 2010).

In the year 2008 under the directive of the president the decision to implement the free maternal care policy was initiated and a package was put together by the NHIS to give mothers coverage for antenatal, prenatal and postnatal care. On the 1<sup>st</sup> of July, 2008, the

Free Maternal Care Policy was introduced as one of the tools in addressing maternal and infant mortality. Free maternal care is available to all women who are pregnant. By the policy, pregnant woman who has never registered – register for free; access care for free. Also, woman who has already registered and gets pregnant when her membership has expired – renew for free; access healthcare for free. Moreover, pregnant woman who is already registered and who is still an active member can access care for free (NHIS, 2010). The Maternal Benefit Package includes the following: No premium is charged for fresh registration or renewal of membership; also, no processing fee is charged for registration or renewal as well as no waiting period.

The pregnant women have six antenatal visits and all other medically necessary visits are captured as OPD visits. In addition all deliveries including Caesarean and all other emergencies arising from the delivery are catered for free. Pregnant women have two post-natal visits within 6 weeks, and benefit from all other NHIS covered benefits. Further, full year cover no matter when pregnant woman register. In addition, there is free care for the baby on mother's NHIS ticket for 90 days: alternatively, the baby can be treated free on the ticket of the father or other designated guardian. After 90 days child can be registered as individual under 18 (no premium but processing fee) (NHIS, 2010). The registration of women occurs at the Scheme offices or NHIS desks at healthcare facilities. For a pregnant woman to be registered under the Free Maternal Care policy, she has to provide any one of the following as evidence of pregnancy:

1. Current antenatal card
2. A signed, stamped and dated 'certificate' from a duly registered medical officer or midwife certifying pregnancy

3. Positive pregnancy test from a reputable medical laboratory, endorsed by a registered medical officer or midwife
4. Ultrasound scan report from a reputable diagnostic centre, endorsed by a registered medical officer or midwife (NHIS, 2010).

The waiting period was waived so as to ensure that the women can start using their benefits under the NHIS plan immediately. Normal NHIS insured persons would have the waiting period because they would need to be issued an ID card for reimbursement processing, for the pregnant women who would not have a card a slip would be attached to the claim form (NHIS, 2010).

Some of the few implementation challenges are as follows:

1. Some pregnant women access full health care under Free Maternal Care Policy without registering and non-registration means incomplete data
2. Paying Free Maternal Care Policy claims without evidence of pregnancy at scheme
3. Inappropriate interpretation of the six antenatal visits
4. General Out Patient Department (OPD) services to pregnant women treated as antenatal care, with repeated claims for antenatal, OR
5. Pregnant women are charged extra fees from out of pocket

Some pregnant women also do not take full advantage of Free Maternal Care Policy.

Factors: because they are able to afford, education, extra expenses and unfortunate experiences

## Results

1. Supervised institutional delivery versus antenatal Care (ANC) uptake
2. Poor outcomes for mother and baby (NHIS, 2010).

After the announcement was made by the President to the people of Ghana about the free maternal care policy, the NHIS tracked the progress of the registration of pregnant women. In 2008, the national number of pregnant registrants was 421,234 representing 3.4% of the total registered, in 2009 it was 804,450 representing 5.5% of the total registered and in 2010 the number of pregnant registrants was 1,277,819 representing 7.6% of the total registered (NHIS, 2010)

### 2.5.5 Free Maternal Care 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).

The policy was funded through Highly Indebted Poor Country (HIPC) debt relief funds, which were channelled to the districts to reimburse public, mission and private facilities according to the number and type of deliveries they attended monthly (Witter et al 2007). A tariff was approved by the Ministry of Health, which set reimbursement rates according to type of delivery (e.g. normal, assisted or caesarean section) and type of facility.

Mission and private facilities were reimbursed at a higher rate, because they did not receive public subsidies. Women would then only have to bear the costs of reaching facilities (Witter et al 2009). In 2005, an evaluation by IMMPACT of the free delivery policy was initiated. The first stage was based on a series of key informant interviews to establish the state of implementation of the exemption policy and seek the views of stakeholders (Witter et al 2007). These findings fed into the overall evaluation, which included tracking of finance flows, a household survey, a survey of health workers and TBAs, qualitative investigations in communities and among providers, and quality of care assessments. These were completed in 2006 (Witter et al 2009).

The policy of user fee exemptions is now to some extent being superseded by a new National Health Insurance system, which has reached effective coverage of just under 20% of the population (Witter et al 2007). This provides protection against user fee costs for a wide range of health services, including maternal health care, for formal sector workers, those in the informal sector who take up voluntary coverage, children of members, pensioners and a small category of “indigents” (Witter et al 2009). The decision was made to implement this through NHIS (National Health insurance scheme) so that mothers have the full package of antenatal, prenatal and postnatal care (NHIS, 2008).

### **2.5.6 Challenges Facing Free Maternal Health Policy**

The health care provision policies put in place by Ghana discussed above is not a phenomenon associated to this country alone but a growing movement in recent times, globally and particularly in the sub-Saharan Africa region, to reduce financial barriers to health care generally with special emphasis on high priority services and vulnerable groups (Witter et al, 2009; *Mc Donagh & Goodburn, 2001*). Although countries target

groups may differ, almost all these countries have provision for maternal health. In 2006 Burundi also introduced a free maternal and under-five health care services, (Batungwanayo & Reyntjens, 2006). This was also Burkina Faso's launch of 80% subsidy policy for deliveries in 2006 (Direction de la Sante de la Famille; 2006) and Kenya's 2007, announcement of its intention to carry out free deliveries for pregnant women, though there is no evidence yet of its implementation or impact (Witter et al, 2009).

To Witter et al (2009) this recent movement towards making delivery care free and available to all women is a bold and timely action which is supported by evidence from within and beyond. An evaluation results from IMMPACT established the universal exemption of maternal health care reduces inequalities in access to health care. It identified in the 18 months after fee exemption (in Ghana) was introduced; the largest increase in health facility utilisation was amongst the poorest (first quintile) in the Volta region and the poor (second quintile) in the Central Region (Witter et al, 2009). Using the poverty head count, it was discovered the proportion of households falling into extreme poverty as a result of their delivery payments reduced from 2.5% before the policy to 1.3% after although the proportionate decrease in OOP payments was greater for the richest households (22%), compared to the poorest (13%) (Witter et al, 2009).

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). Witter et al (2009) assert for the potential of the success of free maternal health

care 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 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).

#### **2.5.6.1 The exemption policy**

The free maternal care evaluation carried out by IMMPACT found that the exemptions on maternal health were effective in raising utilisation significantly, with some modest equity gains (Witter et al, 2009; Harrison, Bell & Fitzmaurice, 2007). To Witter et al (2008) the overall public expenditure on the policy was \$22 per delivery (of all types), or \$62 per additional delivery which indicates the marginal benefits of the policy by dividing the total cost of the policy by the increase in delivery numbers over the period, making the assumption that these are attributable to the policy. However, future costs of exemptions is expected to be higher if a more integrated package (including other pregnancy-related and non-pregnancy related care) is offered through the NHIS as these exemptions do not address non-facility costs (Witter et al, 2009). This exemptions to Witter et al (2009) is reasonable in areas which have easy access to services, but will be inadequate in areas with substantial distance barriers.

#### **2.5.6.2 Human Resource**

According to Witter et al (2009) the costing of free maternal health care policy has to assess whether salary costs are likely to be affected and whether existing staff can cope

with the projected increase in workload. Omaswa (2008) assert there is an ever growing demand for health workers worldwide but how can we give people the care they need if we don't have enough health workers? The WHO (2006) reports that there are currently 57 countries with critical shortages of health care workers, amounting to a global deficit of more than 4 million health-care workers. Dussault and Dubois (2003) argued that policies and other multifaceted factors are responsible for chronic imbalances in human resources for health. Palestinian's Ministry of Health (MOH, 2006) reports approximately 24% of health care providers in the public sector were nurses, 17% were doctors and only 1.8% was midwives. However more than half of Palestinian births (55%) occur in public hospitals free of charge with midwives attending almost all vaginal births, except for instrumental deliveries and nurses are the main staff in the postpartum wards.

A study by Hassan-Bitar and Narrainen (2009) in Palestine reported a nurse who affirmed the MOH (2006) report. According to the nurse, 'They give us loads that are extremely exceeding our abilities as individuals and humans. It's insane!' Witter et al (2009) also assert Ghana's, staff reported working long hours (79 hours per week for public midwives, 109 for doctors, and 129 for medical assistants, who are in sole charge of health centres around the clock) although the increase in workload over the period of policy introduction (which was largest for public midwives – an increase of 27% in terms of working hours) was indirectly compensated by a rising general health worker pay level. The IMMPACT evaluation findings thus recommend future insurance-based approach to be successful, increased numbers of core health staff and increased pay levels may be required and will have to be taken into account in planning national budgets as these costs have to be born now by the MOH (Witter et al, 2009).

### 2.5.6.3 Quality of Care

The main objective of the free maternal health care is to improve the quality of care for pregnant women and the evaluation found out that quality of care – before and after – should be an area of concern (Bosu, Bell, Armar-Klemesu & Tornui, 2007). The evaluation clearly showed that quality of clinical care was consistently poor and was not affected by the implementation of the exemption policy (Ofori-Adjei, 2007). A look at scores obtained for five care components of labour and delivery care at health centre level revealed that when compared with their respective maximum expected scores, the lowest scores were obtained for management of the first stage of labour, use of the partograph and for immediate post partum monitoring of mother and baby (Deganus & Tornui, 2006).

Confidential enquiry techniques also found that women received poor quality care in hospitals, resulting in many potentially avoidable deaths (Tornui, Armar-Klemesu, Arhinful, Penfold, & Hussein, 2007). However, health systems factors, such as availability of consumables and basic equipment for providing comprehensive emergency obstetric care, were generally found to be adequate. Qualitative investigations found very variable relationships between health workers and clients, ranging from positive to antagonistic. Other barriers to skilled delivery care identified included costs of transportation, medicines and other supplies, long distances to health facilities, cultural and social barriers and preference for services of Traditional Birth Attendant (TBA) (Ofori-Adjei, 2007). Ofori-Adjei, (2007) assert if fee exemptions are to be effective in improving health, these quality issues have to be addressed.

Ensuring adequate flow of funding

Witter (2007) state the underfunding of the previous exemption scheme caused debts at facility levels and intermittent implementation of the scheme. This was exacerbated by the rapid scaling up of the exemptions policy, which was extended from four poorer regions in 2004 to the whole country in 2005, before an evaluation of early results could be conducted (Witter et al, 2009). The inadequate funding flows created friction between communities and health staff and between facility managers and higher levels of the health system and failure of prompt and adequate reimbursement to the clinical facilities led to near failure of the policy. Many facilities at one point reverted to collection of user fees (Offei-Adjei, 2007). Witter et al (2009) argue there is a risk of this scenario being repeated under the new insurance-based approach (NHIS).

Also in Ghana, as in many countries, user fees fund much of the recurrent non-salary costs of care. Witter et al (2009) indicate if this revenue stream is not adequately replaced, it is not realistic to expect providers to implement an exemptions policy effectively. Analysis of funding flows found that while funding was available from the national level, facilities benefited from the exemption scheme, gaining a more reliable stream of funding (Witter, Aikins, & Kusi, 2006).

#### **2.5.6.4 Monitoring and Evaluation Components**

With all the countries putting in efforts to exempt maternal health care payments one of the major identifiable challenges facing them is the monitoring and evaluation of their policies. Thus to be able to know the impact of this health policy and its impact there is the need for a strong monitoring and evaluation component to address problems early and market successes. Witter et al (2009) argue this should be established from the beginning, involving Ministries of Health in partnership with independent evaluation institutions.

Witter et al from the IMMPACT evaluation found out there was not enough rigorous system of monitoring and auditing in place for reimbursement of staff costs and this would be needed in the longer term for cost control.

## 2.6 THEORITICAL FRAMEWORK

This research will be looked at from the lens of the incrementalism as a public policy model. Bullock and Stallybrass (1971) define a model in its simplest terms as “a representation of something else, designed for specific purpose.” A public policy in general can refer to governmental decisions designed to deal with various social issues such as those related to foreign policy, environmental affairs, crime, unemployment, and numerous societal issues (such as for this study free maternal health care) (Fox, Bayat & Ferreira, 2006).

Hannekom (1987) as cited in Fox et al, (2006) identifies two main forms of policy models namely; the descriptive and normative (or prescriptive) models. To Hannekom, some models are descriptive in nature while others are of prescriptive nature. Descriptive models describe and analyse actual process of policy making taking into account the questions why, who and how? Some of these models are the functional process model, the group model, systems model and the institutional model (Fox et al, 2006). The normative or the prescriptive model identified by Hannekom (1987) considers models such as the incrementalism model which this study is using as it underpinning theory, the comprehensive rationality model and the mixed scanning model which takes into consideration both the incrementalism and comprehensive rationality model.

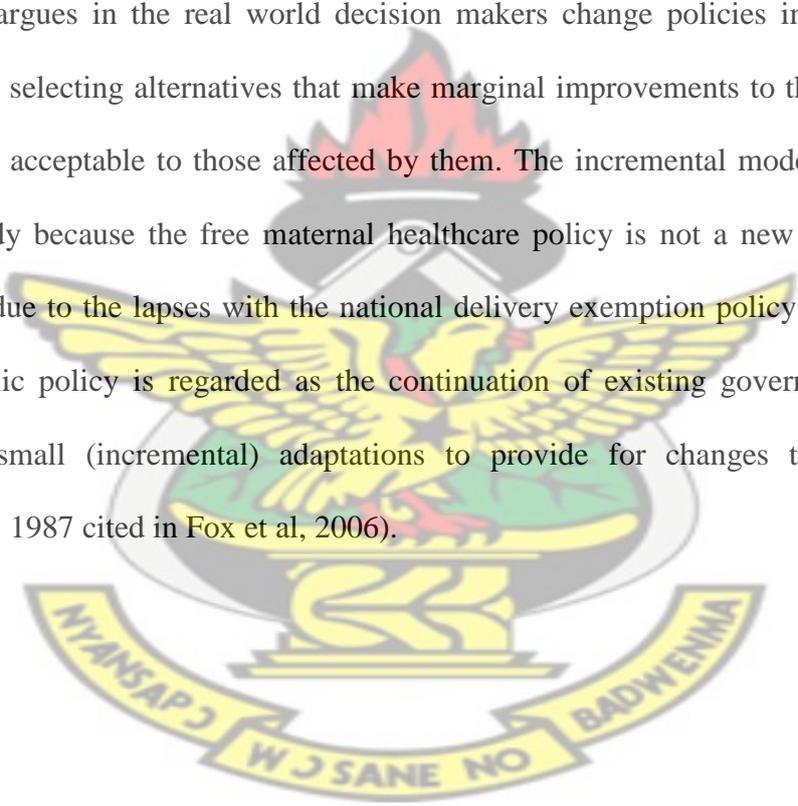
Incrementalism as an approach to policy making is associated with Lindblom (1959) who used the term in his criticism of the rational comprehensive decision making model to describe an approach usually followed in decision making (Fox et al, 2006). It is a method of working by adding to a project using many small (often unplanned), incremental changes instead of a few (extensively planned) large jumps. In public policy, incrementalism refers to the method of change by which many small policy changes are enacted over time in order to create a larger broad based policy change. Programmes that can be “introduced to some segments of a target population on a staggered basis, is acknowledged to be more desirable than introducing the program to the entire population at the same time as such an approach enables evaluators to make multiple comparisons of the same **group and others** overtime, in order to determine the success of the programme” (Posavac and Carey (1992).

The rational comprehensive model critiqued by Lindblom (1959) implies that the policy maker has a full range of options from which to choose thereby assuming policy makers know all the preferences of society, know as many policy alternatives as possible, know as many results and consequences of each alternative as possible, know the ratio of achieved and abandoned aims and then select the policy alternative that will make the greatest contribution to the common good in terms of the available resources (Hannekom, 1987 cited in Fox et al, 2006). The incremental model on the other hand postulates that a limited number of alternatives, differing marginally from the status quo and from which the policy maker has to make a selection is available. Thus, the need to take each policy incrementally to achieve expected results.

Lindblom (1959) argues not only is the model of incrementalism descriptively accurate but also normative. This is based on his belief that policy changes must first be accepted by existing organisations and client groups in order to take hold and be implemented. To Lindblom (1959) the test for the worth of a policy is its acceptance by the most relevant players and not its objectives as proposed by the rational model. Thus to him not only is the comprehensive rationality model impossible to achieve but also policies are rarely changed radically as a result of even extensive reviews.

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He further argues in the real world decision makers change policies incrementally by successfully selecting alternatives that make marginal improvements to the status quo as this is more acceptable to those affected by them. The incremental model is being used for this study because the free maternal healthcare policy is not a new policy but was introduced due to the lapses with the national delivery exemption policy. In incremental model, public policy is regarded as the continuation of existing government activities with only small (incremental) adaptations to provide for changes that may occur (Hannekom, 1987 cited in Fox et al, 2006).



## CHAPTER THREE

### METHODOLOGY

#### 3.1 INTRODUCTION

This chapter focuses its attention on the procedures that was used in the collection of data to achieve the studies objectives. It comprises the study design, target population, sampling procedure, sample size, sources of data, data collection instruments and data analysis techniques.

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#### 3.2 OVERVIEW OF THE NEW JUABEN MUNICIPALITY

##### 3.2.1 Location

New Juaben Municipality can be viewed as being essentially the Koforidua Township as about half of the municipality is made up of the Koforidua Township. The New Juaben is the regional capital of the Eastern Region, and has an estimated population of 152,858. It covers a land size of 110.0 square kilometres with a population density of 1,483. The Municipality shares boundary on the North with East Akim district, on the South with Akwapim North, Yilo Krobo on the East and Suhum Kraboa Coaltar on the West. It lies between latitude 60 degree North and 70 degree North (New Juaben Municipal Health Directorate, 2009).

##### 3.2.2 Health Facilities

The inhabitants seek health services through the following network of health facilities;

**Table 3.2.2 Type of Facilities**

<b>TYPE OF FACILITY</b>	<b>QUANTITY</b>
Regional Hospital	1
Mission Hospital	1
Health Centres	2
Private Clinics	11
Private Maternity Homes	3
RCH Centres	10
Trained Traditional Birth Attendants (TBAs)	80
CHPS Centres	5
Pharmacy/ Chemical Shops	70
Total	204

**Source:** New Juaben Municipal Health Directorate-Disease and Preventive Unit-2009 Annual Report

### 3.2.3 Morbidity Returns

The yearly trend of disease prevalence in the municipality is as shown below;

**Table 3.2.3 Top Ten (10) Causes of OPD Attendance**

<b>NO.</b>	<b>CASE</b>	<b>OPD ATTENDANCE</b>
1	Malaria	<b>115,348</b>
2	Hypertension	<b>26,705</b>
3	Acute Renal Failure (ARI)	<b>18,246</b>
4	Diarrhoea Diseases	<b>11,360</b>
5	Skin Diseases and Ulcers	<b>11,360</b>
6	Rheumatism and Joint Pains	<b>9,591</b>
7	Diabetes Mellitus	<b>9,206</b>
8	Acute Eye Infection	<b>6,687</b>
9	Acute Ear Infection	<b>6,032</b>
10	Gynaecological Condition	<b>5,489</b>

**Source:** New Juaben Municipal Health Directorate-Disease and Preventive Unit-2009 Annual Report.

### 3.3 TARGET POPULATION AND SAMPLING TECHNIQUES

The population for the study encompass women of child bearing age (10-49) in the New Juaben Municipality as prescribed by the New Juaben Municipal Health Directorate. Pregnant women who are using and have ever used the free maternal health care was chosen for this study because they are viewed to be much more informed of the pros and cons of the policy and can reflect better to the interview. The Municipality Health Directorate has divided the municipality into sub-municipalities comprising Oyoko/Jumapo, Effiduase/Asokore/Akwadum, Koforidua/Zongo, Regional Hospital, Medical Village, Private Maternity, Traditional Birth Attendants and SDA Hospital. Secondary data from all these facilities was used in the analysis.

However out of these health facilities, five (5) health facilities that admit and deliver pregnant women were chosen as the target health facilities from which respondents to be used for the primary data were picked. They are the Eastern Regional Hospital, Zongo Health Centre, Akwadum RCH, Jumapo Health Centre and Pat Maternity Home.

The study requires a focus on a targeted sample of women in the New Juaben municipality who have used and are using the free maternal health services in the last five years. Two sampling techniques namely the purposive sampling and accidental sampling techniques were employed to select respondents to participate in the study.

After purposively selecting those beneficiaries who have used these services in the stated years, the accidental sampling technique were used to gather information from six hundred (600) women who are using the free maternal health policy from the five selected facilities that admit and deliver pregnant women in the New Juaben municipality.

Rosenberg (1997) pointed out that it is critical to understand the nature of the dataset being analyzed in a research trend analysis. She asserts in public health, trend analysis is typically carried out at the ecologic level. In other words, the observations, or units of analysis, are time periods (years, months, days) and not individuals and thus differ a bit in terms of the selection of traditional approach in selecting a sample size for a study. In this regard, it is the number of observations (time periods) that matter and not the size of the population denominators. Taking this into consideration, the sample size to be looked at here will be in two parts; the number of time periods being examined and the sample size for the primary data collection. In all a sample size of 600 was selected for the study. The secondary data on the utilization of the free maternal health care service was used.

Six hundred (600) respondents were used because the expected pregnancy is 6,287 which is 4% of the population, (NJMHD, 2009). Of this, two hundred (200) respondents were selected from the Regional Hospital, hundred (100) from Zongo Health Centre, hundred (100) from Akwadum RCH, hundred (100) from Jumapo Health Centre and hundred (100) from Pat Maternity Home. The assigning of this quota of respondents to these health facilities is in response to the number of attendance to these facilities.

### **3.4 DATA COLLECTION PROCEDURE**

The researcher carried out a pre-test on the primary data to authenticate the validity and reliability of his interview guide before the start of his actual field work. Pretesting is the process of carrying out an initial survey to test the validity and reliability of a survey to obtain quality data. This Perelman & Curran (2006) is carried to translate and retranslate the questions until the desired responses intended by the researcher are obtained. Perelman & Curran (2006) point out although it takes a long period of time and quite a few iterations to design an effective questions, the quality of the data is no better than the

questionnaire, and many serious problems can arise if one does not do adequate pretesting in multiple survey sites. Thus, there is a need to carry out a pre-test before every actual field work.

The pretesting of the interview guide will be done mainly by the researcher. This is to enable him get firsthand information on the trends in the difficulty of questions expressed by respondents. A total of ten (5) questionnaires and two (2) interviews will be carried out during the period of pre-test. The questions will then be restructured and the necessary corrections made before the actual field is carried out. To avoid false information during the actual field study women used for the pre-test will be different from those used for the actual study.

#### **Actual Data Collection**

Data was collected by the researcher with the help of eight (8) field assistants. The discussions were carried out at places convenient and conducive for respondents. Language (mainly Akan) favourable to the respondents was used for their convenience. However, English was used for respondents who cannot understand or speak the local language. A period of two weeks was used for the entire exercise. As the attendance for maternity in the mentioned facilities are once a week on every Thursday, a period of two weeks (two visits) were assigned to the five health facilities for the data collection. The interview for the women was carried out by the field assistants. Two field assistants were assigned to each of the health facilities except the regional hospital in the first week to collect the data while all eight went to the regional hospital to collect the remaining information. A minimum of fifty (50) interviews were collected per day from the health facilities. Each assistant collected at least fifty (50) data per day.

Field assistants used for this study are students from the SHS and university. This is informed by the view that they are in the best position to read, understand the questions and also translate it to the women and due to their background in research. A period of two days was used to brief them and go through all the questions to enable them do the work with ease.

### **3.5 RESEARCH INSTRUMENTS**

Denzin (1989) points out by combining multiple observers, theories, methods and data resources, researchers can hope to overcome the intrinsic bias that comes from single-methods, single-observer and single-theory studies.

To do this, the secondary data (quantitative) supported by a structured interview (qualitative) will be used as the main instruments to gather the data from the women from the five health facilities. The first section of the interview for the women solicits information on the background beneficiaries. They constituted questions about age, education, marital status, occupation while the questions in the second section tackled their utilization and accessibility of the health care service and challenges faced.

### **3.6 RESEARCH DESIGN**

The research design chosen for this work is the descriptive survey design. A descriptive research design asks who, what, where, how. It is designed to provide further insight into the research problem by describing the variables of interest and can be used for profiling, defining, segmentation, estimating, predicting, and examining associative relationships. This type of design is also called observational studies because using this approach observes the subjects without otherwise intervening (Monette, Sullivan & Dejong, 2002; Hopkins, 2000). In a descriptive study, no attempt is made to change behavior or

conditions--you measure things as they are. It seeks to describes fact or reality and establish associations between variables (Monette et al, 2002; Hopkins, 2000).

There are five types or characteristics of descriptive research namely case, case series, cross-sectional, cohort or prospective or longitudinal and case-control or retrospective (Hopkins, 2000) but the two main types are the Cross-Sectional Study and Longitudinal study. A cross-sectional study is considered the most common type of this sort of research. It involves the conducting of a survey of a sample of population elements at one point in time (Monette et al, 2002; Sarantakos, 1998). This type of a descriptive research was considered useful because it provides a quick snapshot of what's going on with the variables of interest for our research problem. Longitudinal Study on the other hand is an investigation that involves taking routine measures over time and is useful for tracking changes in behaviour over time, monitoring long-term effects of activities conducting trend analysis (Monette et al, 2002; Sarantakos, 1998).

This study also used trend analysis as its main approach of analysing the available data. Monette et al (2002) points out some descriptive studies are extensive and are carried out by health institutions to describe health status of a place such as the trend analysis. Trend analysis focuses on five different approaches namely, looking at the overall pattern of change in an indicator over time, comparing one time period to another time period, comparing one geographic area to another, comparing one population to another and making future projections (Rosenberg, 1997).

Out of these five areas of trend analysis, four looks at comparison which is not the aim of this study thus the area of trend analysis the study used is the overall pattern of change indicator overtime. This looks at how health services, policies or system indicators have

increased or decreased overtime and at what rate. Rosenberg (1997) assert the most general goal of trend analysis for public health surveillance is to discern whether the level of a health status, service, programs, or systems indicator has increased or decreased over time, and if it has, how quickly or slowly the increase or decrease has occurred.

### **3.7 SOURCES OF DATA**

Both primary and secondary sources of data were employed for this study. The secondary data consists of information in the form of literature review (from annual reports, presentations at key conferences, annual statistics, half year reports, policy documents, books and other documents pertaining to maternal care in the New Juaben Municipality) to buttress points on the free maternal care and utilization rate and to complement the field data. It also gave direction to the study by providing the researcher with fair knowledge about the impact of the free maternal care policy on maternal care services. Data from the secondary source on trends of the free maternal care policy was used to present the trends of the utilization of the free maternal health in the municipality.

The primary data on the other hand was obtained from respondents in New Juaben Municipality through interviews with the help of a semi-structured interview guide. The use of this technique gave the researcher the chance to appraise the validity and reliability of the respondents' answers. It also gives the investigator access to vital information which the secondary data could not provide.

### **3.8 DATA ANALYSIS**

The study used the trend analysis as its source of data analysis. This arises out of the type of study being carried out. Rosenberg (1997) states the selection of a strategy for analyzing trend data depends in part on the purpose of the analysis by the researcher. She

indicates once there is a sound conceptual framework, tables, graphs and statistical analysis are tools for examining and analyzing trend data; graphs, in particular, are an effective tool for presenting the pattern of change over time.

Under trend analysis regardless of whether statistical techniques will be used for analyzing data over time, the most straightforward and intuitive first step in assessing a trend is to plot the actual observed numbers or rates of interest by year (or some other time period deemed appropriate). In addition, the numbers or rates should be examined in tabular form (Rosenberg, 1997). These steps are essential for understanding the general shape of the trend, for identifying any outliers in the data, and for becoming familiar with both the absolute and relative levels of the numbers and rates being studied.

Visual inspection of the data may indicate that use of statistical procedures is inappropriate. Visual inspection also permits a preliminary assessment of the overall direction and shape of the trend. If the trend appears to be different during distinct time periods, either in shape or direction, then an analytic method must be selected that will preserve and not obscure this important information (Rosenberg, 1997). This study therefore used no statistical procedure but studied the general shape and trend in the data. The data from the primary source (the women) was used to validate the findings from the analysis from the data.

## CHAPTER FOUR

### DATA ANALYSIS AND DISCUSSION OF RESULTS

#### 4.1 INTRODUCTION

This section is based primarily on data analyzed from the 2004 to 2009 Annual Statistics data from Reproductive and Child Health (RCH). These datasets provided information on what has happened in the four sub municipalities in the New Juaben Municipality. Percentages were calculated from the original data sets in order to compare the various situations occurring in the New Juaben Municipality.

#### 4.2 SOCIO –ECONOMIC BACKGROUND OF WOMEN RESPONDENTS

##### 4.2.1 Age of Respondents

A total number of six hundred (600) women were interviewed. From the table, it could be seen that 20-24 age group has the highest representation of 50%. The 10-14, 35-39 and 40+ age groups have the least representation of 1.7%. It could be informed that most of the respondents are youth between the ages of 20-24 years. The distribution by age is shown below in table 2.1.

**Table 4. 2.1 Ages of Respondents**

Ages	Frequency	Percent	Valid Percent	Cumulative Percent
10-14	10	1.7	1.7	1.7
15-19	60	10.0	10.0	11.7
20-24	300	50.0	50.0	61.7
25-29	150	25.0	25.0	86.7
30-34	60	10.0	10.0	96.7
35-39	10	1.7	1.7	98.3
40+	10	1.7	1.7	100.0
Total	600	100.0	100.0	

Source: Field/primary data

#### 4.2.2 Occupation of Respondents

Table 2.2 shows distribution by occupation of respondents. The table shows that out of the six hundred (600) respondents, 43.3% of the respondents were traders, 20% of the respondents were Teachers, and 16.7% of the respondents were Artisans. Also, 10% of the respondents were unemployed and others.

**Table 4. 2.2 Occupation of Respondents**

Occupation	Frequency	Percent	Valid Percent	Cumulative Percent
No occupation	60	10.0	10.0	10.0
Teacher	120	20.0	20.0	30.0
Trader	260	43.3	43.3	73.3
Artisan	100	16.7	16.7	90.0
Other specify	60	10.0	10.0	100.0
Total	600	100.0	100.0	

Source: Field/ primary data

#### 4.2.3 Marital status of respondents

Table 2.3 below throws light on the distribution of the respondents by marital status. It could be seen from the table that out of six hundred (600) respondents, most of them that is 70% were married and 23.3% were single. The least of 6.7% were separated.

**Table 4. 2.3 Marital status of respondents**

Marital status	Frequency	Percent	Valid Percent	Cumulative Percent
Single	140	23.3	23.3	23.3
Married	420	70.0	70.0	93.3
Separated	40	6.7	6.7	100.0
Total	600	100.0	100.0	

Source: Field/ primary data

#### 4.2.4 Population of WIFA (Women of Fertile Age)

The focus of Table 2.4 is on the percentage of the population that was of fertile age. The data in table one shows the distribution of WIFA (women of fertile age). The Adweso township contains the largest population (35,583) and the Koforidua township contains the second largest population (34,194). The data in table one shows that the distribution of WIFA (women in fertile age) is even. The entire municipality has a 23.1% of the women in fertile age and 4% expected pregnancy out of the population.

**Table 4.2.4: Population of WIFA (Women of Fertile Age)**

Sub municipal	Population		(WIFA) women of fertile age	Percentage % Fertile	Expected pregnancy	Percentage % Expected pregnancy
	2009					
Jumapo	10,515	2,463	2,463	23.1%	426	4%
Oyoko	10,048	2,354	2,354	23.1%	408	4%
Effiduase	13,124	3,074	3,074	23.1%	533	4%
Asokore/Akwadum	16,861	3,949	3,949	23.1%	684	4%
Koforidua	33,722	7,899	7,899	23.1%	1,368	4%
Zongo	15,246	3,571	3,571	23.1%	618	4%
Adweso	35,092	8,220	8,220	23.1%	1,423	4%
Old Estate	20,390	4,776	4,776	23.1%	827	4%
<b>Total</b>	<b>154,998</b>	<b>36,306</b>	<b>36,306</b>	<b>23.1%</b>	<b>6,287</b>	<b>4%</b>

*Source: New Juaben Municipal Health Directorate-Reproductive and Child Health*

### 4.3.0 ASSESSMENT OF THE RELATIONSHIP BETWEEN FREE MATERNAL HEALTH CARE POLICY AND THE DECLINE IN MATERNAL MORTALITY RATE IN NEW JUABEN

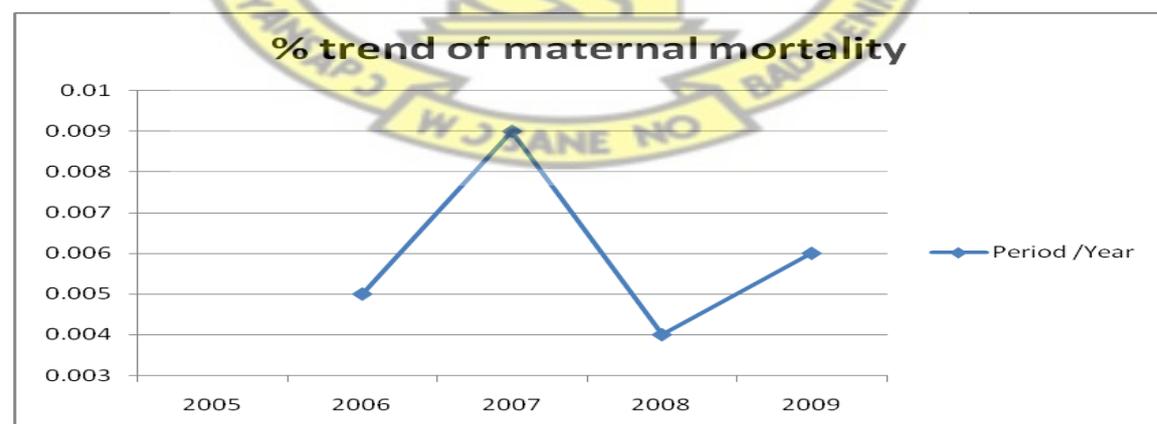
#### 4.3.1 Maternal Mortality

Table 3.1 shows the past five years trend of maternal mortality. The trend for maternal mortality showed a downward trend for the years even though it short up in 2007. The total deliveries show an upward trend. Details on Maternal Mortality for 2005-2009 are shown below:

**Table 4.3.1 Maternal Mortality 2005 – 2009**

Period /Year	Total Deliveries	Supervised Deliveries	Maternal Mortalities (10+)	% of Maternal Mortalities as against Total Delivery
2005			40	
2006	4103	3578	24	0.5%
2007	4984	4036	46	0.9%
2008	5403	4679	20	0.4%
2009	5707	5143	36	0.6%

Source: New Juaben Municipal Health Directorate-Reproductive and Child Health



**Figure 1 % Trend of Maternal Mortality**

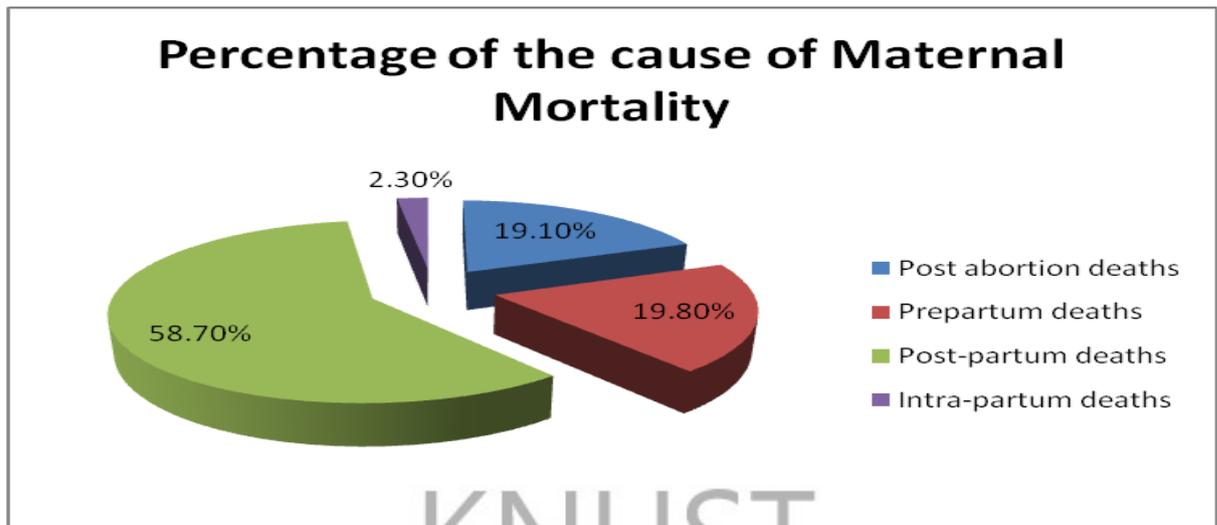
### 4.3.2 Causes of Maternal Mortality in New Juaben

Table 3.2 shows the past four (4) years trend of maternal mortality. It could be seen from the table that out of one hundred and twenty-six (126) women that died for the four (4) year trend, most of them that is 58.7% died from post partum cases, followed by 19.8% dying from pre-partum cases and 19.1% dying from post abortion cases. The least of 2.3% died from intra partum cases. The implication is that 58.7% died just after giving birth.

**Table 4.3.2: Causes of Maternal Mortality**

Causes	Year 2006	Year 2007	Year 2008	Year 2009	Total	Percentage of the cause
Post abortion deaths	3	12	4	5	24	19.1%
Prepartum deaths	4	9	4	8	25	19.8%
Post-partum deaths	15	25	12	22	74	58.7%
Intra-partum deaths	2	0	0	1	3	2.3%
<b>Total</b>	<b>24</b>	<b>46</b>	<b>20</b>	<b>36</b>	<b>126</b>	<b>100%</b>

*Source: New Juaben Municipal Health Directorate-Reproductive and Child Health*



**Figure 2 Percentage of the cause of Maternal Mortality**

#### **4.4.0 THE TRENDS IN THE ANTENATAL ATTENDANCE IN THE HEALTH CARE FACILITIES AFTER THE IMPLEMENTATION OF THE FREE MATERNAL HEALTH CARE POLICY**

##### **4.4.1 Antenatal coverage**

Registered antenatal totalled 4884 for the year 2004, and kept on increasing in the subsequent years up to 5570 in year 2009. The total number of antenatal who registered their pregnancies has picked up over the years. Similarly, the average number of visits per client has improved over the past years, from 3.0 in 2004 to 4.1 in 2009.

Over all, the proportion of antenatal that received care has also been increasing and decreasing since year 2004 to 2009. However, the proportion of antenatal that received care has been hovering above 80% which is encouraging.

**Table 4.4.1: Antenatal coverage (2004 -2009)**

<b>Period/Year</b>	<b>Antenatal Registrants</b>	<b>Average No. of Visits Per client</b>	<b>% of antenatal mothers that received care</b>
<b>2004</b>	4884	3.0	160.8
<b>2005</b>	5463	4.0	93.1%
<b>2006</b>	5027	4.1	84.5%
<b>2007</b>	5190	4.6	86.1%
<b>2008</b>	5,599	4.8	92.0%
<b>2009</b>	5570	4.1	89.9%

*Source: New Juaben Municipal Health Directorate-Reproductive and Child Health*

#### **4.4.2 Antenatal clinic attendance by Institutions**

A picture of the four year trend of antenatal clinic attendance by institutions is tabulated in Table 4.4.2. On the whole the public institutions received the highest attendances, followed by Trained Traditional Birth attendant and the private institutions. The highest number of antenatal mothers (20.6%) that attended clinic at the Trained Traditional Birth attendant was in 2004. The number of antenatal mothers that attended the Trained Traditional Birth attendant has been reducing over the years whilst those that attended the Public facilities have been increasing. Most women attended the Trained Traditional Birth attendant due to the fact that the sub municipal has one or in some cases no facility and in most cases antenatal may want to receive antenatal services at the same place they plan to receive delivery care.

**Table 4.4.2 Antenatal clinic attendance by Institutions 2004 - 2007**

<b>Period/Year</b>	<b>Antenatal Clinic Attendance by Trained TBA</b>	<b>Antenatal clinic attendance by Private Midwife</b>	<b>Antenatal Clinic attendance by Public Inst.</b>
<b>2004</b>	3754 (20.6%)	1121(5.9%)	13896 (74%)
<b>2005</b>	3435(16.2%)	934(4.4%)	16762(79.3)
<b>2006</b>	2027(9.7%)	885(4.2%)	17917(86%)
<b>2007</b>	<b>1474 (6.2%)</b>	<b>1054 (4.5%)</b>	<b>21072 (89.3%)</b>

Source: New Juaben Municipal Health Directorate-Reproductive and Child Health

#### **4.4.3 Duration of Pregnancy at Registration**

Table 4.4.3 shows that majority of pregnant mothers registered their pregnancies in the 2<sup>nd</sup> trimester from year 2004 to year 2007. However, for year 2008 and 2009, majority of pregnant mothers registered their pregnancies in the 1st trimester. This is encouraging because the trend for the past two years indicated that majority of antenatal registered their pregnancies in the 1st trimester.

Registration of pregnancies in the 3<sup>rd</sup> trimester remains an issue to battle with. From 12.3% in 2007 it slightly dropped to 11.6% in 2008 and further decreased to 9.4% in 2009. Even so, it still remains a problem.

**Table 4.4.3 Duration of Pregnancy at Registration 2004 – 2009**

<b>Period/Year</b>	<b>1<sup>st</sup> Trimester</b>	<b>2nd Trimester</b>	<b>3rd Trimester</b>
<b>2004</b>	1674(34%)	2227(46%)	983(20%)
<b>2005</b>	2033 (37%)	2747 (50%)	683 (13%)
<b>2006</b>	1866 (37%)	2603 (51%)	558 (11%)
<b>2007</b>	2,073 (39.9%)	2478 (47.7%)	639 (12.3%)
<b>2008</b>	2504 (44.7%)	2448 (43.7%)	647 (11.6%)
<b>2009</b>	2976 (53.4%)	2068 (37.1%)	526 (9.4%)

Source: New Juaben Municipal Health Directorate-Reproductive and Child Health

#### 4.4.4 Age of Pregnant Mothers at Registration

Table 4.4.4 shows a six (6) year trend of age groups with higher risks among pregnant mothers who registered their pregnancies. The trend so far, shows pregnancies in the age group 10 – 14 years has been reducing over the years. Though the number of pregnancies in this age group is not so significant it is a worrying issue because of the risks associated with pregnancies in this age group (early teen pregnancy).

The number of pregnancies in the age group 15-19 years that is (late teen) pregnancy has been decreasing over the years. However, the six year trend of late teen Pregnancy has not seen any tremendous change in the indicator. For instance, in year 2007, it was 8.8%, year 2008 was 8.9% and in 2009 was 8.4%.

Pregnancies in the 35 years and above age group increases and decreases as the years go on. Pregnancies in the 35 years and above age group slightly reduced to 11.6% for 2008 and increased again in 2009 to 12.5%. In 2006, it was 14.1%.

**Table 4.4.4 Age of Pregnant mothers at Registration 2004 - 2009**

Period/Year	10 – 14 years	15 – 19 years	35 years & above
2004	3(0.06%)	511(10.4%)	419(8.5%)
2005	4(0.07%)	487(8.9%)	732(13.3%)
2006	5 (0.9%)	482 (9.5%)	713 (14.1%)
2007	13(0.3%)	456 (8.8%)	66 (12.7%)
2008	12 (0.2%)	503 (8.9%)	(650 (11.6%)
2009	5 (0.08%)	468 (8.4%)	699 (12.5%)

*Source: New Juaben Municipal Health Directorate-Reproductive and Child Health*

#### 4.4.5 Parity of Pregnant women at registration 2006 – 2009

Table 4.4.5 looks at the percentage parity of the mothers at registration. A picture of the four year trend of the parity of antenatal registrants, shows that over the years over 40% of the antenatal registrants were of Parity 1-2 followed by over 30% in parity zero. The least which ranges between 4% and 3% were of parity 5+ plus. However, the percentage that falls within the parity 5+ has been reducing slightly which is encouraging.

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**Table 4.4.5 Parity of Pregnant women at registration 2006 - 2009**

Period/Year	0	1 -2	3 -4	5+
2006	799(32.7%)	1086(44.7%)	422(17.3)	131(5.3)
2007	1703 (32.8%)	2347(45.2%)	918 (17.6%)	222 (4.3%)
2008	1887 (33.7%)	2595 (46.3%)	878 (15.7%)	239 (4.3%)
2009	1912 (33.7%)	2586 (45.6%)	885 (15.6%)	187 (3.4%)

Source: New Juaben Municipal Health Directorate-Reproductive and Child Health

#### 4.5.0 ASSESSMENT OF THE EFFECT OF THE POLICY ON THE QUALITY OF CARE IN THE HEALTH FACILITIES

##### 4.5.1 Haemoglobin levels of Pregnant Mothers

Table 4.5.1 shows a six year trend of haemoglobin levels less than 11g/dl at registration of pregnancy and at 36 weeks gestation of pregnant mothers. There has been a reduction in the Haemoglobin level less than 11g/dl since 2005. For instance, in year 2005 had 25.6% haemoglobin level less than 11g/dl reducing to 16.4% for the year 2009. This is

encouraging. Similarly there is a decrease in the haemoglobin level less than 11g/dl at 36 weeks gestation of pregnancy from 15.5% in year 2007 to 14.1% in year 2009.

**Table 4.5.1 Haemoglobin levels of Pregnant Mothers at Registration and at 36 weeks**

**2004 – 2009**

Period/Year	Hb less than 11g/dl at Registration	Hb less than 11g/dl at 36 weeks registration
<b>2004</b>	1143 (23.4)	282 (5.7%)
<b>2005</b>	1403 (25.6%)	220 (4%)
<b>2006</b>	1234 (24.5%)	172 (10.2%)
<b>2007</b>	1223 (23.6%)	158 (15.5%)
<b>2008</b>	1083 (19.3%)	84 (9.9%)
<b>2009</b>	915 (16.4%)	130 (14.1%)

*Source: New Juaben Municipal Health Directorate-Reproductive and Child Health*

#### **4.5.2 Intermittent Preventive Treatment (IPT)**

Table 4.5.2 shows that the coverage for IPT had an upward trend. The coverage for IPT has been increasing over the years. The number of antenatal with reactions on IPT remains high comparatively.

**Table 4.5.2 Intermittent Preventive Treatment (IPT) 2005 – 2009**

Indicator	2005	2006	2007	2008	2009
No. of ANC registrants	5,463	5,027	5,190	5599	5570
Total No. of Visits	21,131	20,829	23,600	26189	22853
IPT I	3215(15.2%)	3261(15.7%)	4218(17.8%)	3730 (14.2%)	3385 (54.6%)
IPT 2	1859 (8.8%)	2476 (11.9%)	3050 (12.9%)	2962 (11.3%)	2807 (45.3%)
IPT 3	1244 (5.9%)	1487 (7.1%)	2291 (9.7%)	2027 (7.7%)	2000 (35.9%)
No. of reactions	18 (0.08%)	83 (0.4%)	81 (0.3%)	81 (0.3%)	77 (1.2%)

*Source: New Juaben Municipal Health Directorate-Reproductive and Child Health*

#### 4.5.3 Registrants with Tetanol 2+

Table 4.5.3 shows the percentage trend of registrants that were given Tetanol 2+. The percentage of antenatal mothers that received Tetanol 2<sup>+</sup> (plus) immunization (TT 2 plus) has been increasing and decreasing a little since 2004 to 2009. For instance, in year 2007 it was 65.4%, in year 2008 it was 70.9% and year 2009 it came down to 68.6%.

**Table 4.5.3 Registrant with Tetanol 2+**

Period/Year	% of Registrant with Tetanol 2+
2004	112.4%
2005	63.0%
2006	67.0%
2007	65.4%
2008	70.9%
2009	68.6%

Source: New Juaben Municipal Health Directorate-Reproductive and Child Health

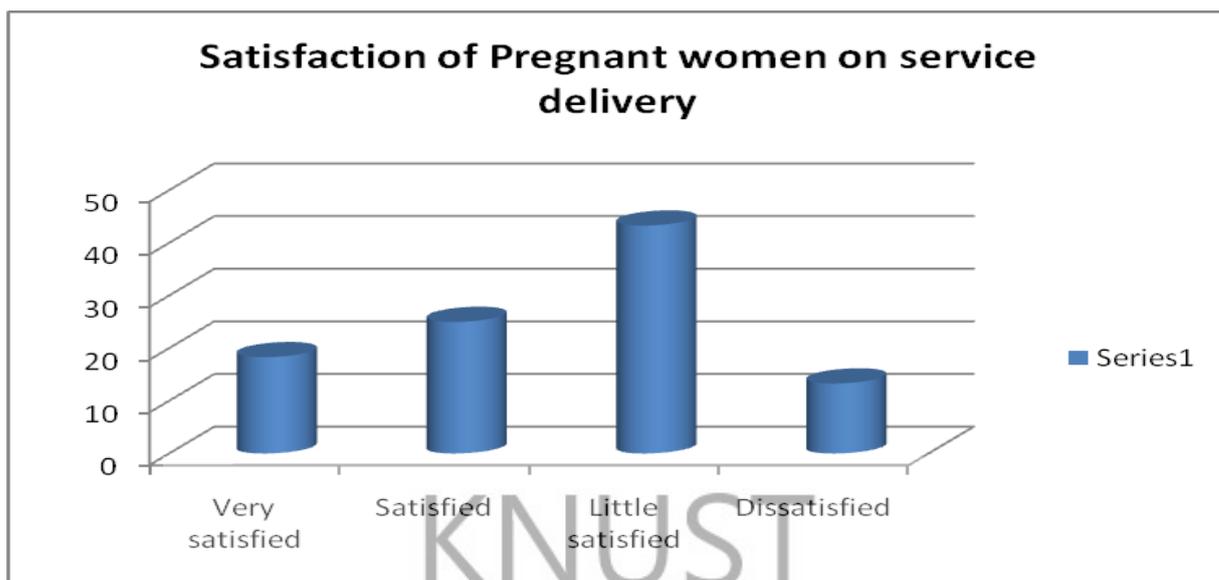
#### 4.5.4 Satisfaction of Pregnant Women on Service Delivery

Table 4.5.4 below indicates the responses on how satisfied respondents were with the service delivery. From the table 4.4, 43.3% had little satisfaction for the service delivery, followed by 25% been satisfied with the service delivery and 18.3% were very satisfied with the service delivery. The least of 13% were dissatisfied with the service delivery.

**Table 4.5.4 Satisfaction of Pregnant Women on Service Delivery**

Response	Frequency	Percent	Valid Percent	Cumulative Percent
Very satisfied	110	18.3	18.3	18.3
Satisfied	150	25.0	25.0	43.3
Little satisfied	260	43.3	43.3	86.7
Dissatisfied	80	13.3	13.3	100.0
Total	600	100.0	100.0	

Source: Field/Primary data



**Figure 3 Satisfaction of Pregnant women on Service Delivery**

#### 4.5.5 Satisfaction on Drugs Dispensed

Table 4.5.5 below indicates the responses on how satisfied respondents were with the drugs dispensed. From the table 4.5, 35% had dissatisfaction with the drugs dispensed, followed by 26.7% been satisfied with the drugs dispensed and 23.3% were little satisfied with the drugs dispensed. The least of 15% were very satisfied with the drugs dispensed.

**Table 4.5.5 Satisfaction on Drugs Dispensed**

Response	Frequency	Percent	Valid Percent	Cumulative Percent
Very satisfied	90	15.0	15.0	15.0
Satisfied	160	26.7	26.7	41.7
Little satisfied	140	23.3	23.3	65.0
Dissatisfied	210	35.0	35.0	100.0
Total	600	100.0	100.0	

Source: Field/Primary data

#### 4.5.6 The Attitude of Health Professional

Table 4.5.6 below indicates the responses on the attitude of health professionals at the service points. From the table 4.6, 36.7% were satisfied with the attitude of the health professional, followed by 33.3% who said attitude of health professionals was good and 23.3% said attitude of health professionals was very good. The least of 6.7% said attitude of health professionals was not good.

**Table 4.5.6 The Attitude of Health professionals at each Service Point**

Attitude of Health Professionals	Frequency	Percent	Cumulative Percent
Very good	140	23.3	23.3
Good	200	33.3	56.7
Satisfactory/ Average	220	36.7	93.3
Not good	40	6.7	100.0
Total	600	100.0	

Source: Field/Primary data

#### 4.6.0 THE PROSPECTS AND CHALLENGES FACING THE FREE MATERNAL HEALTH CARE POLICY

##### 4.6.1 The Challenges with the Policy

Table 4.6.1 below indicates the responses on the challenges with the policy. From the table 5.1, 38.3% said the challenge with the policy is the delay at the service points, followed by 31.7% who said the challenge with the policy has to do with the drugs not been comprehensive and 18.3% said the drugs were not of good quality. The least of 11.7% said the challenge is with the card acquisition.

**Table 4.6.1 The Challenges with the Policy**

Response	Frequency	Percent	Valid Percent	Cumulative Percent
Drugs are not comprehensive	190	31.7	31.7	31.7
Drugs are not of good quality	110	18.3	18.3	50.0
Delay at service points	230	38.3	38.3	88.3
Card acquisition problems	70	11.7	11.7	100.0
Total	600	100.0	100.0	

Source: Field/Primary data

#### 4.6.2 The Recommended Solutions

Table 4.6.2 below indicates the responses on the recommended solutions to the challenges with the policy. From the table 4.6.2, 38.3% said the time spent at the facility should be reduced, followed by 31.7% who said the drugs list should be comprehensive and 18.3% said more quality drugs should be added. The least of 11.7% said the bottlenecks with the card production and distribution should be removed.

**Table 4.6.2 The Recommended Solutions**

Recommendation	Frequency	Percent	Cumulative Percent
More drugs should be added	190	31.7	31.7
More quality drugs should be added	110	18.3	50.0
Time spent at the facility should be reduced	230	38.3	88.3
Bottlenecks with card production and distribution should be cleared	70	11.7	100.0
Total	600	100.0	

Source: Field/Primary data

### 4.6.3 The Reasons to Maintain the Policy

Table 4.5.3 below indicates the responses on the reason to maintain the policy. From the table 5.3, 36.7% said the policy should be maintain because it helps those who cannot afford healthcare to access healthcare, followed by 31.7% who said the policy should be maintained because it is free and 31.7% said the policy should be maintained because it is good.

**Table 4.6.3 The Reasons to Maintain the Policy**

Response	Frequency	Percent	Cumulative Percent
It is good because it encourages pregnant women to go for regular treatment	190	31.7	31.7
Because it is free	190	31.7	63.3
Because it helps those who cannot afford health to access health care	220	36.7	100.0
Total	600	100.0	

Source: Field/Primary data

## 4.7.0 DISCUSSION

### 4.7.1 Relationship between Free Maternal Health Care Policy and the Decline in Maternal Mortality Rate in New Juaben

Table 4. 3.1 shows the past five years trend of mortalities for women in child bearing age aged 10-35 years. The trend for maternal mortality showed a downward trend for the years even though it short up in 2007. A total of 126 women out of 20,197 representing 0.6% have been lost through delivery. It remains a serious problem just as Dr. Elias Sory,

Director-General of the Ghana Health Service asserted that *“you must wake up to the realization that one maternal death is a calamity”* (GNA, 2010).

The secondary data shows that although there are increments in the number of people utilising the free maternal health policy, there is however successful impact of these policy on maternal mortality in the municipality. The questions that must be asked now is if the non- utilization of the maternal health service is not the main challenge of maternal mortality then what are strategies that must be employed to curb this problem, to achieve the Millennium 5 Goal (reducing maternal mortality) by year 2015? One can attest to the fact that the age of a mother during pregnancy is an important risk factor as it influences pregnancy and birth outcomes. It exerts its influence anthropometrically, medically and sociologically (Ghana Health Services, 2006). Pregnancies in women below 19 years and above 35 years have been identified to carry a greater risk (NJMHD, 2009).

The data analyzed however showed that pregnancy in women even starts as early as ten (10) though it is in the least group and declining and ends very late as above 35 years. The age 35 and above group of women when pregnant, carry a higher risk of delivering through caesarian section. The WHO (2006) pointed out that the most important cause of maternal death in developed countries is "other direct causes" (21%), which includes largely complications during interventions such as those related to caesarean section and anaesthesia.

As a result of their age especially those below 19 and the norms of our societies where sex is condoned in marriages only, pregnancies within this age groups stand the tendency of unsafe abortion (as abortion is a crime in the country) and where pregnancies are kept, a caesarean section just as the 35 and above year group.

Some causes of maternal mortality identified include post abortion, pre partum, post partum and intra partum. Table 4.3.2 shows the past four (4) years trend of maternal mortality. It could be seen from the table that out of one hundred and twenty-six (126) women that died for the four (4) year trend, most of them that is 58.7% died from post partum cases, followed by 19.8% dying from pre-partum cases and 19.1% dying from post abortion cases. The least of 2.3% died from intra partum cases. The implication is that 58.7% died just after giving birth. Even though the listed causes were the underlying cause of deaths, there are other contributory factors to the death, for example, late referrals, poor post operation/post anaesthesia monitoring, delay in reporting after referrals, poor attendance to antenatal care and home delivery to mention a few, (NJMHD, 2009).

#### **4.7.2 Antenatal Attendance in the Health Care Facilities after the Implementation of the Free Maternal Health Care Policy**

The Ghana, Health insurance (under which the free maternal care policy falls) allows (6) ANC visits (NHIS, 2010). As shown in table 4.4.1, registered antenatal totalled 4884 for the year 2004, and kept on increasing in the subsequent years up to 5570 in year 2009. The total number of antenatal out of the expected pregnancies, who registered their pregnancies, has been increasing over the years. Similarly, the average number of visits per client has also improved over the past years, from 3.0 in 2004 to 4.1 in 2009. This antenatal increases in the municipality, can be attributed to the coming into being of the free maternal healthcare policy.

During antenatal, various forms of education aside the provision of other medical services in the facility is given to these women. There should be education on nutrition, as to what to eat and what not to eat. The nutrition of the mother before and during pregnancy is an

important factor not only in the wellbeing of the mother but also of the child. Low birth weight is one of the main outcomes due to poor nutrition of the mother. One of the best ways to check the mothers for poor nutrition is to look at their hemoglobin levels to find out if there is an issue with anemia. Table 5.1 shows with the utilization of the health care policy health facilities have identified a haemoglobin levels less than 11g/dl at registration of pregnancy and at 36 weeks gestation of pregnant mothers. Although this is encouraging it still remains a problem.

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The municipal data on the hemoglobin levels is alarming because one would hope that as many women who go for their antenatal visit, there should be a greater reduction in anemia levels during the pregnancy. Hemoglobin is still not checked at term routinely as is done at registration (NJMHD, 2009). There is low capacity in assessing hemoglobin levels (lack of trained staff, unavailability of Hemoglobin meters and lack of reagents).

Thaddeus & Maine (1994) stated that the place of delivery has consistently been found to be associated with reduction in maternal mortality. Deliveries in a safe environment with assistance of health professionals are one of the key factors to reduce MMR. Access to health centres, therefore, is a key issue in the reduction of maternal mortality. Lack of access to health facility is the situation many women especially those found in rural areas face (The United Nations Economic and Social Commission for Asia and the Pacific, 2008). Due to the free maternal healthcare majority of the attendance were recorded in the health facilities which are encouraging.

Table 4.4.2 shows that the inception of the free maternal policy public institutions receives the highest number of attendances compared with the private institutions thereby

changing the existing trends over the years. It is worthy to note that with the exception of the TBAs, the private maternity homes and the SDA hospital are accredited with the NHIS services. Some pregnant women however attended the TBA's due to proximity, (NJMHD, 2009)

Poor assistance during delivery resulting in the maternal deaths or the death of the children has become the blame game for most maternal deaths by families who have lost daughters through delivery. To Thaddeus & Maine (1994), the conditions for facilities at birth delivery to be effective, first, delivery should be assisted by trained health workers who are able to identify the signs of complications and act appropriately when a problem occurs and second, referral facilities should be available to deal with obstetric emergencies once they have been identified, and on arrival at the referral facility patients should be observed promptly and appropriate decisions made to avoid further complications or even death. This is the problem in New Juaben because some of the death of the women was caused by poor assistance before, during and after delivery, (NJMHD, 2009)

Sari (2009) asserts that the majority of maternal deaths occur due to unexpected complications, which would require the availability of emergency obstetric care. Thus, the presence of skilled birth attendant for all births is the only way to ensure all those with pregnancy complication are referred to emergency obstetric care. The presence or availability of skilled birth attendants during labour, delivery and early post partum period could reduce an estimated 16 to 33 percent of deaths due to obstructed labour, haemorrhage, sepsis and eclampsia (UNFPA 2004).

The data so far shows that with introduction of the free maternal policy there has been an increment not only in the use of antenatal service but also deliveries in public health services. Table 4.4.1 shows, that percentage of supervised deliveries over the years have been above 80% and even in year 2009, it was 90.1%. This means that although all these people seek care from the health facilities, only a few of the expected pregnancies that did not receive healthcare from qualified persons. However, Witter et al (2007) pointed out that the increment in hospital attendance without increment in the health personnel due to the free maternal health policy poses a challenge to quality of care delivery in the country.

#### **4.7.3 The Effect of the Policy on the Quality of Care in the Health Facilities**

Presence and quality of care imparted by the health service providers, availability of equipment and medical supplies in the health service facility determines the decision of the needy women to visit the facility (United Nations Economic and Social Commission for Asia and the Pacific, 2008). Some mortality cases in the municipality arises out of shortage of blood/ non availability of fresh frozen plasma, lack of adequate intravenous fluids and other supplies, (NJMHD, 2009).

From table 4.5.4, 43.3% of the respondents had little satisfaction for the service delivered, followed by 25% been satisfied with the service delivery and 18.3% were very satisfied with the service delivery. The least of 13% were dissatisfied with the service delivery. The implication is that close 50% of the respondents were not treated with care. This could be due to the large number of attendances and the subsequent pressure on the service providers. 38.3% of the respondents asserted that they spent too much time at the facility.

From table 4.5.5, 35% had dissatisfaction with the drugs dispensed, followed by 26.7% been satisfied with the drugs dispensed and 23.3% were little satisfied with the drugs dispensed. The least of 15% were very satisfied with the drugs dispensed. The stakeholders in the provision of healthcare must intensify their education on efficacy of drugs.

From table 4.5.6, 36.7% of the respondents were satisfied with the attitude of the health professional, followed by 33.3% who said attitude of health professionals was good and 23.3% said attitude of health professionals was very good. The least of 6.7% said attitude of health professionals was not good.

The aim of the Intermittent Prevention Treatment is to prevent malaria. Table 4.5.2 shows that the coverage for Intermittent Prevention Treatment had an upward trend. The coverage for Intermittent Prevention Treatment has been increasing over the years. The number of antenatal with reactions on Intermittent Prevention Treatment remains high comparatively. From table above it can be seen that there are differences in the three (3) doses of IPT given. These differences may be due to the gestational age of the pregnancy at the start of it. Those who start the doses late do not finish the three (3) doses before they deliver. Service providers should intensify the education.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.0 INTRODUCTION

This chapter summarises the entire study; the findings of the study, recommendations by the researcher, limitations encountered and direction for future research.

#### 5.1 SUMMARY OF FINDINGS

The research brought out so many findings. Firstly, the trend for maternal mortality showed a downward trend for the years even though it shot up in 2009. A total of 126 women out of 20,197 representing 0.6% have been lost through delivery. The total deliveries show an upward trend.

Also, out of one hundred and twenty-six (126) women that died for the four (4) year trend, most of them that is 58.7% died from post partum cases, followed by 19.8% dying from pre-partum cases and 19.1% dying from post abortion cases. The least of 2.3% died from intra partum cases.

Further, registered antenatal totalled 4884 for the year 2004, kept on increasing in the subsequent years up to 5570 in year 2009. The total number of antenatal out of the expected pregnancies, who registered their pregnancies, has been increasing over the years. Similarly, the average number of visits per client has also improved over the past years, from 3.0 in 2004 to 4.1 in 2009. This antenatal increases in the municipality, can be attributed to the coming into being of the free maternal healthcare policy.

There is also, increase in the percentage of supervised deliveries over the years has been above 80% and even in year 2009, it was 90.1%. This means that although all these people seek care from the health facilities, only a few of the expected pregnancies that did not receive healthcare from qualified persons.

Moreover, 43.3% of the respondents had little satisfaction for the service delivered, followed by 25% been satisfied with the service delivery and 18.3% were very satisfied with the service delivery. The least of 13% were dissatisfied with the service delivery.

Also, 35% had dissatisfaction with the drugs dispensed, followed by 26.7% been satisfied with the drugs dispensed and 23.3% were little satisfied with the drugs dispensed. The least of 15% were very satisfied with the drugs dispensed. The stakeholders in the provision of healthcare must intensify their education on efficacy of drugs.

In addition, 36.7% of the respondents were satisfied with the attitude of the health professional, followed by 33.3% who said attitude of health professionals was good and 23.3% said attitude of health professionals was very good. The least of 6.7% said attitude of health professionals was not good.

Furthermore, the coverage for Intermittent Prevention Treatment had an upward trend. The coverage for Intermittent Prevention Treatment has been increasing over the years, (table 4.5.2). There has been a reduction in the Haemoglobin level less than 11g/dl since 2005. For instance, in year 2005 had 25.6% haemoglobin level less than 11g/dl reducing to 16.4% for the year 2009. This is encouraging. Similarly there is a decrease in the haemoglobin level less than 11g/dl at 36 weeks gestation of pregnancy from 15.5% in year 2007 to 14.1% in year 2009, (table 4.5.1).

Also, the responses on the challenges with the policy (table 4.6.1) shows that 38.3% said the challenge with the policy is the delay at the service points, followed by 31.7% who said the challenge with the policy has to do with the drugs not been comprehensive and 18.3% said the drugs were not of good quality. The least of 11.7% said the challenge is with the card acquisition.

Besides, the responses on the recommended solutions to the challenges with the policy (table 6.2) shows that 38.3% said the time spent at the facility should be reduced, followed by 31.7% who said the drugs list should be comprehensive and 18.3% said more quality drugs should be added. The least of 11.7% said the bottlenecks with the card production and distribution should be removed.

Lastly, the responses on the reason to maintain the policy (table 4.6.3) shows that 36.7% said the policy should be maintain because it helps those who cannot afford healthcare to access healthcare, followed by 31.7% who said the policy should be maintained because it is free and 31.7% said the policy should be maintained because it is good.

## 5.2 CONCLUSION

Based on the problem posed by maternal mortality and its effect on achieving the target set by the millennium development goals, the following objectives which have been elaborated below were formulated for the investigation:

First, at the beginning of the work, the research aimed at establishing the fact that there is a relationship between free maternal health care policy and decline in maternal mortality rate. Maternal mortality even though has been reducing slightly over the years, still remains a problem which needs to be seriously tackled. A total of 126 women out of

20,197 representing 0.6% have been lost through delivery. It remains a serious problem just as Dr. Elias Sory, Director-General of the Ghana Health Service asserted that “*you must wake up to the realization that one maternal death is a calamity*” (GNA, 2010).

Secondly, the research aimed at establishing the trends in the antenatal attendance in the health care facilities after the implementation of the free maternal health care policy. The total number of antenatal out of the expected pregnancies, who registered their pregnancies, has been increasing over the years. Similarly, the average number of visits per client has also improved over the past years, from 3.0 in 2004 to 4.1 in 2009. This antenatal increases in the municipality, can be attributed to the coming into being of the free maternal healthcare policy. Hence, the policy has directly affected antenatal attendance.

Thirdly, the research aimed at establishing the effect of the policy on the quality of care in the health facilities. Skilled care needs to be scaled up which would mean better usage of the human power that is available. Some mortality cases in the municipality arises out of shortage of blood/ non availability of fresh frozen plasma, lack of adequate intravenous fluids and other supplies, (NJMDA, 2009). Therefore, even though the policy has had effect on quality of care, it has not been remarkable. Meaning more work needs to be done.

Lastly, research aimed at establishing the prospects and challenges of the policy. Even though the policy has lots of challenges, it can be concluded that the policy should be maintained and strengthened as well as introduce other measures to reduce maternal mortality.

### 5.3 RECOMMENDATIONS

The issue of Maternal Mortality in Ghana is of concern and will continue to be of concern if certain parts of the problem are not addressed well. Ghana needs to focus on several key areas to help reduce maternal mortality. The ultimate goal for MDG 5 is to reduce maternal mortality by three quarters by the year 2015. The country will be able to make some strong reductions in specific areas of trouble they are currently facing with the high rate of maternal, if other strategies apart from free healthcare are employed. Ghana is heading in the right direction with their sense of urgency to come up with solutions to the problem and the willingness to draw from various expertises. The study therefore makes these recommendations;

1. Anemia levels needs to be checked on a higher percentage of the pregnant women when they register so that nutritional plans can be discussed with the women.
2. Educate women on contraception use starting from primary schools
3. Educate women on the need to report pregnancies as early as the first trimester
4. Facilities need to be fully equipped and have strong referral systems needed to treat the women who come in with more complex situations.
5. Parity levels are of concern, education of the women in the community would help lessen the high percentages of women with more than five children.
6. Quality of care must be addressed to improve maternal health survival.
7. Steady and secure funding must be in place to ensure that the policy is sustainable, so that the policy can be strengthened.

### 5.4 LIMITATIONS

The study was constraint because the issue of Maternal Mortality and the collection of data in regards to the issue have not been consistent. Therefore the data retrieved is a

mixture of annual statistics, half year reports and annual reports. One did not have access to complete data for all the years but fragments of what has been done in order to understand the issue in New Juaben Municipality.

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## APPENDIX

### Definition of Terms

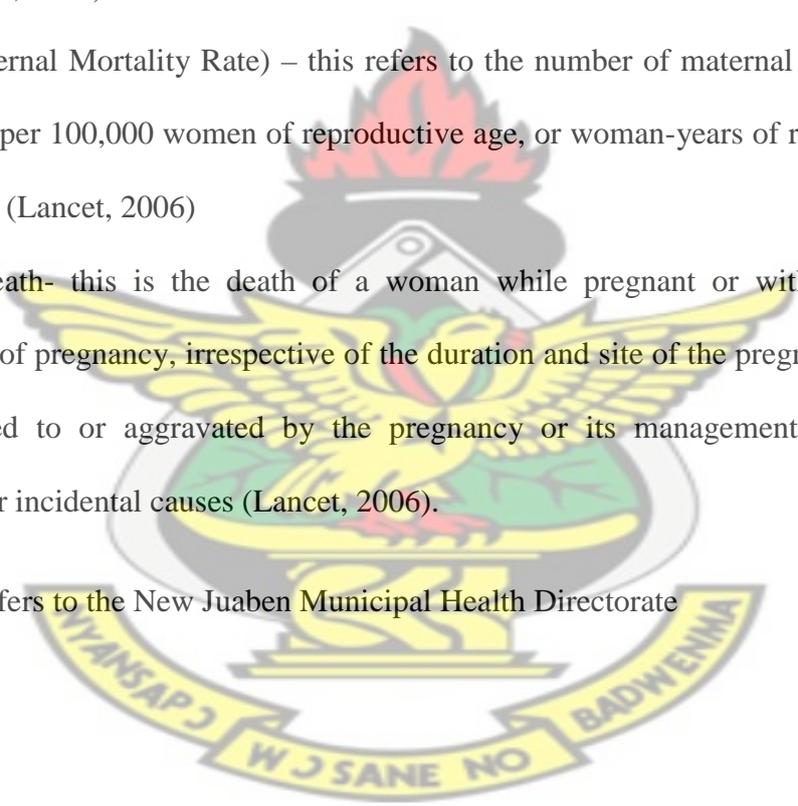
TBA (Traditional Birth Attendant) - this refers to traditional, independent (of the health system), non-formally trained and community-based providers of care during pregnancy, childbirth and the postnatal period (USAID, 2008)

Millennium Development Goal (MDGs) – these are eight goals adopted in 2000 from the millennium summit to improved the development challenges and well-being of nations by 2015 (UNDP, 2006)

MMR (Maternal Mortality Rate) – this refers to the number of maternal deaths in given time period per 100,000 women of reproductive age, or woman-years of risk exposure, in same period (Lancet, 2006)

Maternal death- this is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, form any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes (Lancet, 2006).

NJMHD- refers to the New Juaben Municipal Health Directorate



## QUESTIONNAIRE

### QUESTIONNAIRE AND SCHEDULE INTERVIEW – NEW JUABEN MUNICIPALITY

Dear Sir/Madam,

#### Letter of introduction

I am a **Commonwealth Executive Master of Business Administration** student of the Institute of **Distance Learning, Kwame Nkrumah University of Science and Technology** and conducting a research into effect of the **free maternal care policy on the utilisation of maternal care services in the New Juaben Municipality**. You happened to be one of the **sampled respondents** in the municipality to help carry a successful survey. Your views will be of very much importance to the study and I would be grateful if you could use a few minutes of your time to answer the attached questions on the topic. The survey aims at assessing the effect of the free maternal care policy on the utilisation of maternal care services in the New Juaben Municipality.

Your acceptance to participate will help to determine the effect of the free maternal care policy on the utilisation of maternal care services in the New Juaben Municipality.

However, participation in this survey is not compulsory and you may decide to withdraw at anytime. I would like to assure you that your response to the questions or the information you provide will be treated **confidentially** and **anonymously** and will be used solely for the purpose of this research.

Thank you for your assistance.

**Emmanuel Asante Ameyaw**

**(Researcher), Contact: 0244721139/0264721139: E-**

***mail:Emmanuel.ameyaw@gmail.com***

**INTERVIEW GUIDE FOR WOMEN RESPONDENTS**

These questionnaires are for research purpose and respondents are requested to respond as naturally as possible. Your anonymity is assured. Please be specific as possible. Thank you.

**Section 1-Personal data**

- 1. Age.....
- 2. Occupation
  - a. No occupation
  - b. Teacher
  - c. Trader
  - d. Artisan
  - e. Other (specify).....
- 3. Marital status
  - a. Single
  - b. Married
  - c. Separated
  - d. Divorced
  - e. Widowed

**Section 2- Antenatal and Post-Natal Attendance in the Health Care Facilities after the Implementation of the Free Maternal Health Care Policy**

- 4. Have you delivered before?
  - a. Yes
  - b. No
- 5. If yes, where did you deliver?
  - a. Hospital
  - b. Health Centre
  - c. Clinic
  - d. Maternity Home
  - e. TBA
  - f. Others specify.....
- 6. How many times have you given birth?  
.....
- 7. Why did you use (or are using) the free maternal service?  
.....  
.....  
.....  
.....  
.....
- 8. Did you pay for the services?
  - a. Yes

b. No

9. 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.....

10. 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.....

11. How did you access healthcare?

- a. Health Insurance
- b. Private Insurance
- c. Co-payment
- d. Others specify.....

12. If health insurance, where did you register?

- a. Scheme office
- b. Hospital
- c. Clinic
- d. Maternity home
- e. Others specify.....

13. Was it for free?

- a. Yes
- b. No

14. If No, how much did you pay and for what?

.....  
.....

15. Did you get any waiting period?

- a. Yes
- b. No

16. If yes, how long did you wait before accessing healthcare?

- a. One month
- b. Two month
- c. Three month
- d. Others specify.....

17. Did you get your antenatal, prenatal and postnatal care at a health facility?

- a. Yes [ ]
  - b. No [ ]
18. Did you make any co-payment?
- a. Yes [ ]
  - b. No [ ]
19. 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 [ ]

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### Section 3- Quality of Care

20. From 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 [ ]
21. 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 [ ]
22. 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 [ ]
23. Were you a victim of discrimination at any of the service point?
- a. Yes [ ]
  - b. No [ ]
24. In your opinion, do you think the insured drugs are different from that of non-insured clients?
- a. Yes [ ]
  - b. No [ ]

25. How would you rate the efficacy of the NHIS medicine given to you?
- a. Very good [ ]
  - b. Good [ ]
  - c. Satisfactory/Average [ ]
  - d. Not good [ ]
26. On a whole, how satisfied were you with the service providers?
- a. Very satisfied [ ]
  - b. Satisfied [ ]
  - c. Little satisfied [ ]
  - d. Dissatisfied [ ]
27. On a whole, how satisfied were you with the drugs dispensed to you?
- a. Very satisfied [ ]
  - b. Satisfied [ ]
  - c. Little satisfied [ ]
  - d. Dissatisfied [ ]

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**Section 4- Prospects and challenges of the policy**

28. What are the challenges with the policy?
- .....
- .....
- .....
29. What do you think can be/ should be done about it?
- .....
- .....
- .....
30. Do you think the free maternal policy should be maintained and Why?
- .....
- .....
- .....

