

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF HEALTH POLICY, MANAGEMENT AND ECONOMICS

**FACTORS INFLUENCING THE UTILISATION OF ANTENATAL CARE
SERVICES IN THE MANHYIA SUB-METRO, KUMASI**

BY

AFIA SEIWAA YEGBE

(PG9908013)

A THESIS SUBMITTED TO THE DEPARTMENT OF HEALTH POLICY,
MANAGEMENT AND ECONOMICS

COLLEGE OF HEALTH SCIENCE, SCHOOL OF PUBLIC HEALTH, IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF
PUBLIC HEALTH IN HEALTH SERVICES PLANNING AND MANAGEMENT

SEPTEMBER, 2015

DECLARATION

I, Afia Seiwaa Yegbe, the author of this dissertation, do hereby declare that with the exception of references made to the literature and works of other researchers which have been duly acknowledged, the content of this dissertation is the result of my original work.

SIGNATURE.....DATE.....
Afia Seiwaa Yegbe

SIGNATURE.....DATE.....
DR. SAM NEWTON
ACADEMIC SUPERVISOR

SIGNATURE.....DATE.....
DR PETER AGYEI-BAFFOUR
HEAD OF DEPARTMENT

DEDICATION

I dedicate this long essay which represents the hard work and outcome of my entire studies to the memory of my late mother.

ACKNOWLEDGEMENT

My grateful appreciation goes to God for his protection and how far He has brought me most importantly towards the completion of my studies.

My thesis supervisor Dr. Sam Newton, I do acknowledge for his consistent motivation, insightful knowledge and guidance throughout the duration of my studies and critique of this work.

Finally, my warm appreciation goes to my Husband, Dr. Bona Yegbe, brothers, sisters and friends for their constant spiritual and moral support which gave me the strength and motivation to strive.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	x
ABSTRACT	xi
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the Study	1
1.2 Statement of Research Problem	4
1.3 Purpose of the study	6
1.4 Conceptual Framework.....	6
1.5 Research Questions	7
1.6 Research Objectives	8
CHAPTER TWO	9
LITERATURE REVIEW	9
2.1 Introduction.....	9
2.2 Antenatal Care Services.....	9
2.3 Knowledge of women on ANC.....	13
2.4 Women's Perceptions of ANC and Reasons for Attending.....	14
2.5 Care delivery at the Ante-natal care (ANC) and Post-natal care (PNC) clinics.	17
2.6 Reproductive Concerns and Uncertainties.....	19
2.7 Attendance of health facilities during pregnancy	20
2.8 The Direct and Indirect Costs of ANC	22
2.9 Access to Ante Natal Care	22

CHAPTER THREE.....	25
METHODOLOGY.....	25
3.1 Study Design.....	25
3.2 Study Population	25
3.3 Sample size and sampling method	25
3.4 Data Collection Techniques and Tools.....	28
3.5 Pretesting	29
3.6 Data Analysis	29
3.7 Ethical Consideration	29
3.8 Limitations of the Study	30
3.9 Assumptions.....	30
 CHAPTER FOUR.....	 31
PRESENTATION OF RESULTS	31
4.1 Introduction.....	31
4.2 Demographic characteristics of respondents	31
4.3 Knowledge of respondents on ANC.....	33
4.4 Quality of care and service delivery at facility	38
4.5 Factors that help women to access Antenatal Care services or prevent them	44
 CHAPTER FIVE.....	 48
DISCUSSION OF FINDINGS	48
5.1 Introduction.....	48
5.2 Knowledge on ANC	48
5.3 Quality of care and service delivery	50
5.4 Factors influencing and inhibiting ANC attendance	51
 CHAPTER SIX	 54
CONCLUSION AND RECOMMENDATIONS	54
6.1 Conclusions.....	54
6.2 Recommendations	55

6.3	Recommendation for further Research.....	56
REFERENCE	.....	57
APPENDICES	.....	67

LIST OF TABLES

Table 1:	Background of Respondents	30
Table 2:	How Respondents heard about ANC * Appropriate Time to Access ANC Services (Crosstabulation)	33
Table 3:	How Respondents heard about ANC and Number of visits needed (Crosstabulation)	34
Table 4:	How Respondents heard about ANC and How often respondents access ANC services (Crosstabulation)	35
Table 5:	Average number of staff at facility... ..	36
Table 6:	How often respondents visits the facility and Reception at the facility (Crosstabulation)	37
Table 7:	How often respondents visits the facility and Services rendered at ANC center (Crosstabulation)	38
Table 8:	How often respondents visits the facility and Average time spent at the ANC center (Crosstabulation)... ..	39
Table 9:	How often respondents visits the facility and General attitude of staff (Crosstabulation)	40
Table 10:	How often respondents visits the facility and Overall services provided at ANC center (Crosstabulation)... ..	41
Table 11:	Descriptive Statistics of cost of transportation and distance from residence to facility	42
Table 12:	Permission before attending facility and Influence of permission on quest for health care (crosstabulation)... ..	43
Table 13:	Person permission sought from and Influence of permission on quest for health care (Crosstabulation	44

Table 14:	Means of Transportation to the Facility * Distance Motivating Attendance	
(Crosstabulation ...	... ..	45

LIST OF FIGURES

Figure 1:	Conceptual Framework...	...	...	...	...	...	7
Figure 2:	Respondent's view on ANC	...	...	...	...	...	32

ABSTRACT

Antenatal care allows for the management of pregnancy, detection and treatment of complications, and promotion of good health. The objective of the study was to investigate the factors that influenced the utilization of antenatal care services, factors preventing pregnant women from accessing Antenatal Care Services as well as the quality of care rendered to women who access Antenatal Care facilities. Health institutions for the study were clustered into three; public health facilities, private hospitals and private maternity homes. A simple random technique was used to select the respondents for the study. 79% of the respondents asserted that ANC services was the care given to women before birth with 16.9% indicating they heard about ANC from friends and visited the centre for services in the late first trimester. 34.6% heard about ANC upon a visit to a health institution. 28.9% of the respondents visited the facility very often but said they were not given a pleasant reception at the facility. 23.4% of the respondents attended the facility very often and described the overall services provided as fair. However some of them were of the opinion that attitudes of some care givers was cold and this could serve as a potential de-motivating factor for utilising ANC services. The study recommended that staff of the health facilities should improve their interpersonal skills with their clients and receive them warmly since it forms part of maximizing their satisfaction.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the targets of the Millennium Development Goals (MDGs) is to reduce by three quarters, between 1990 and 2015, the maternal mortality ratio in all countries. Maternal mortality is the most important indicator of maternal health and well-being in any country. As a result, it has been central to government health sector policies aimed at improving the overall health of the Ghanaian population especially that of women. The World Health Organization has defined maternal mortality as “the death of a woman while pregnant or within 42 days of a termination of a pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental and incidental causes.” (WHO, 2004)

The World Health Organization (WHO) estimated that more than 500,000 mothers die each year because of pregnancy and related complications. It has been found that about 88 to 98 percent of all maternal deaths could be avoided by proper handling during pregnancy and labor (Brugada, 2011).

Maternal mortality is one of the most sensitive indicator of the health disparity between richer and poorer nations. The lifetime risk of dying due to maternal causes is about one in six in the poorest countries, compared with about one in 30,000 in Northern Europe (Ronsmans, and Graham 2006). In 2005, 536,000 women died of maternal causes worldwide. Africa, recorded nearly half (270,000) of the world’s pregnancy related deaths, though it has only 12% of the world’s population and only 17% of global annual births

(WHO,2003). Ghana, like many African countries, is off-track with respect to MDG 5. The national target was to reduce the 1990 maternal mortality rate of 214 per 100,000 live births (national) by three quarters to 54 per 100,000 live births by 2015 but this target has not been achieved (MOH, 2008).

Antenatal care allows for the management of pregnancy, detection and treatment of complications, and promotion of good health. However, women rarely perceive childbearing as problematic and therefore do not seek care which affects the utilization of maternal services including ANC services (Chandhiok *et al.* , 2006).

Proper care during pregnancy and childbirth is important to the health of mother and child. Antenatal care is a major component of comprehensive maternal health care. Antenatal care facilitates the detection and treatment of problems during pregnancy and provides an opportunity to inform women, and their families, about their health and the danger signs associated with a pregnancy. In addition, early and regular contact with a formal health care system during pregnancy can contribute to timely and effective use of services during and after delivery or in the event of an obstetric complication. It is during an antenatal care visit that screening for complications and advice on a range of maternity-related issues take place.

The World Health Organization now recommends a 4-visit ANC schedule for low risk pregnancies (WHO, 2007). Other interventions shown to be beneficial to mother and child include routine iron and folate supplementation in areas with a high prevalence of anemia, serologic screening for and treatment of syphilis, routine measurement of fundal height, malaria prevention, and tetanus immunization (Lumbiganon, 1998).

Antenatal care according to WHO's standard for mother–baby package (WHO-MBP) consists of: at least four visits of at least 20 min each starting before the last trimester of pregnancy. Diagnostic tests include: hemoglobin, blood group, urine analysis and RPR syphilis test. Treatment entails: iron and folate supplements (60 mg three times a day for 90 days; two tetanus vaccinations; treatment of malaria and hookworm. Antenatal cost in a health center is US\$ 6.70. Normal delivery under the standard practice includes: haemoglobin, blood group and urine test before delivery; active management of third stage of labor (Ergometrine); Tetracycline eye ointment for the newborn; iron supplements 3×/day for 14 days after delivery while a routine postpartum check-up cost in a health center is US\$12.70 (Prata *et al.* 2010).

Complications of pregnancy and childbirth are major causes of death and disability among women of reproductive age in developing countries (World Bank, 1993 and World Health Organization; 1994.). It is estimated that 18% of the total burden of disease for women of childbearing age in low-income countries resulted from these problems (World Bank, 1993). An estimated 40% of pregnant women in developing countries develop complications that require the assistance of a trained provider, and 15% require medical care to avoid death or disability (Dayaratna *et al.* 2000). Thus, maternal morbidity and mortality are highly associated with access and quality of obstetric care (Maine *et al.*, 1999). The consequences of inadequate maternal health care are maternal death or disability and/or infant death or disability.

One of the principal objectives of achieving the primary health care programmes in developing countries including Ghana is to improve reproductive and child health services. There is therefore the need to identify and improve those services that are critical to health

of women and girls. These services include antenatal care, delivery, postnatal care and family planning. Therefore affordable, available and accessible antenatal care services will enhance and improve utilization.

1.2 Statement of Research Problem

Despite progress in some countries, the global number of maternal deaths per year estimated at 529,000 or one every minute during the year 2000 has not changed significantly since the International Conference on Population and Development (ICPD), according to recent estimates by WHO, UNICEF, UNFPA (2003). Millions more women survive but suffer from illness and disability related to pregnancy and childbirth (Safe Motherhood Initiative, 2003).

The average woman in sub Saharan Africa faces a 1:16 life risk of dying in pregnancy and childbirth, compared with a 1 in 2800 chances for a woman in a developed country. Of the 520,000 estimated deaths each year, over 99% of these occur in developing countries such as Ghana and nearly half occurs in Africa (WHO 2003). Another 300 million women in developing countries suffer a long term illness as a result of pregnancy and childbirth (Safe Mother 2006).

Ghana's maternal mortality and maternal morbidity rates hover at an unacceptably high level. While maternal mortality figures vary widely by source and are highly controversial, the best estimates for Ghana suggest that roughly between 1,400 and 3,900 women and girls die each year due to pregnancy-related complications. (Maternal and Neonatal Programme Effort Index, 2002). Additionally, another 28,000 to 117,000 women and girls will suffer from disabilities caused by complications during pregnancy and childbirth each

year (Maternal and Neonatal Programme Effort Index, 2006) and this made Dr. Elias Sory, the Director-General of Ghana Health service tasked health workers in the country by saying *"You must wake up to the realization that one maternal death is a calamity and allow the system and standards to work so we can achieve heights countries such as Sweden and Sri Lanka have reached recording no maternal death."* He said this when he was delivering a speech at 9th Annual General Conference of Medical Superintendents' Group (MSG) at Ho on October 20th 2010.

Although the global maternal mortality decreased in 2008 by 34%, the rate in Ghana increased for 3 consecutive years using 2005 as the base year (2005, 2006, 2007 and 2008 with 196, 187, 230, 200 per 100000 live births) prior to the release of the statistics for the year 2009 by the Ghana Health Service (GHS) and the Ministry of Health (MoH) which put the maternal mortality ratio at 170 per 100000 live births. (Ghana Health Service Facts and Figures, 2007; 2009). It can be noted that in the year 2006 there was a decrease of 4.81% but there was a sharp increase in the mortality by 22.94% in 2007 (Ghana Health service Facts and Figures, 2007; 2009). This increase has not declined fully since there were minimal reductions of 13.04% and 15% in 2008 and 2009 respectively. This situation of maternal health instead of improving towards the achievement of the MDG 5 in the year 2015 is rather deteriorating although the Government of Ghana has made a provision for the care of expectant mothers in the country through the Free Maternal Delivery Care policy.

1.3 Purpose of the study

The policy of the Government of Ghana is to increase the utilization of the antenatal care and post natal care services but there are still a lot of reports of deteriorating maternal health and the maternal mortality ratio in the country is also on the rise since there is no significant reduction in the trend. This puts every potential mother at risk in the country and as such there is a need for more efforts to be made in order to clear this menace and to also reach the heights where Ghana can record no maternal deaths in the country.

By studying and bringing out how the host factors influence antenatal service attendance to the fore, this study will be beneficial as it will contribute to a better understanding of the level to which these factors influence the neglect which in turn increases the dropout rate. It is also hoped that this study's outcome will contribute to the growing body of scientific knowledge on infant feeding practices.

Finally, the study will help in the realization and achievement of MDG#5 and also to help in the policy planning processes in order not to bring out policies that will still compromise on the antenatal care coverage. The research is also intended to serve as a basis for future research works on similar health issues where guidance could be sought from the basic documented facts of its content.

1.4 Conceptual Framework

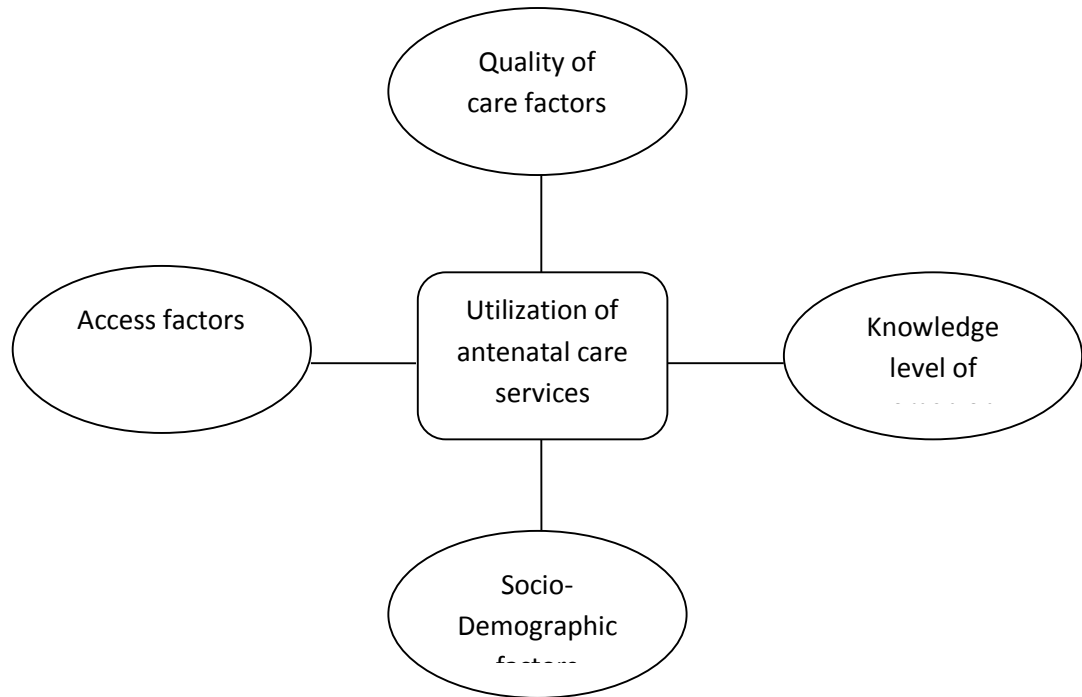
In this framework four major factors are presented as the main factors that contribute to utilization and satisfaction with Antenatal Care Services (ANC). These are

- (a) Socio-economic and demographic factors
- (b) Knowledge of the women on Antenatal Care

(c) Access factors

(d) Quality factors

All these four factors were interrelated in a way and determined whether a woman could utilize and be satisfied with Antenatal Care Services.



Source: Researcher's own concept

Fig. 1 conceptual frame work for factors influencing utilisation of Antenatal Care Services

1.5 Research Questions

The study sought to answer the following questions:

1. What is the knowledge level of women on Antenatal Care Services?

2. What are some of the factors that help or prevent people from accessing antenatal Care Services?
3. Does Quality of care rendered to women during Antenatal Care visits motivate their attendance?

1.6 Research Objectives

1.6.1 General Objective

To determine the factors influencing the utilisation of Antenatal Care Services in the Manhyia Sub-Metro

1.6.2 Specific Objectives

Specifically, the study sought to achieve these objectives;

- To determine the knowledge level of women about Antenatal Care Services
- To identify the factors that help women to access or prevents them from accessing Antenatal Care Services.
- To assess the quality of care rendered to women who access Antenatal Care.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Maternal Health is one of the most significant public health problems in resource poor settings and reduction in maternal mortality has been identified as essential component of the United Nation's Millennium Development Goals and this has caused people to write about the same topic. This chapter reviews the relevant existing literature about the topic on what has been done and published by other authors to serve as a yardstick to assess the outcome of the study.

2.2 Antenatal Care Services

The World Health Organization estimates that 515,000 women die each year from pregnancy related causes and almost all of these deaths occur in developing countries. Less than one percent of these deaths occur in developed countries indicating that the deaths could be avoided if resources and services were available (WHO, 2007)

Antenatal Care (ANC) is a type of care given for women during pregnancy and it is one of the pillars of maternal health service. The goal of ANC is to prevent health problems of pregnant women and to ensure that each newborn child has a good start (Banta, 2007). Preventing problems for mothers and babies depends on an operational continuum of care with accessible, high quality care before and during pregnancy, childbirth, and the postnatal period. It also depends on the support available to help pregnant women reach services, particularly when complications occur (Lincetto et al., 2014). An important element in this

continuum of care, they postulated was effective ANC. The goal of the ANC package is to prepare for birth and parenthood as well as prevent, detect, alleviate, or manage the three types of health problems during pregnancy that affect mothers and babies: complications of pregnancy itself, pre-existing conditions that worsen during pregnancy, effects of unhealthy lifestyles

The WHO antenatal care model recommends that first ANC visit should occur within the first trimester of pregnancy. The first visit offers an opportunity to establish baseline information on the general wellbeing of the mother and the pregnancy. It also helps the expectant mothers assess personally the services provided in the facility and build up their impression about the establishment (Villar and Bergsjø, 2002). However, while there are potential benefits to be gained from some of the elements of ANC, with these benefits significant in developing countries where maternal morbidity and mortality levels are high, most pregnant women presenting for ANC in Sub-Saharan Africa countries are most likely to wait until the second and third trimesters (Carla et al., 2003). Antenatal care (ANC), along with family planning, skilled delivery care and emergency obstetric care, is a key element of the package of services aimed at improving maternal and newborn health (WHO, 2010). Based on 'reduced but goal-orientated clinic visits', WHO (2011) developed the 'focused' ANC, which consists of (at least) four visits to a health facility during an uncomplicated pregnancy.

In Ghana, antenatal coverage has seen a steady rise over the years. From 86.4% in 1999, 96.7% in 2000 to 98.4% in 2001. However, the rate of increase is gradually declining from

the year 2002. In year 2002, ANC coverage declined from 93.3% to 91.2% in 2003, to 89.2% in 2004, to 88.7% in 2005 and 88.4% in 2006. (GHS/RCH, 2006)

WHO/UNICEF/UNFPA (2004) in a document indicated that, globally, an estimated 211 million pregnancies and 136 million births occur every year. While they are natural and usual processes, pregnancy and childbirth put every woman at risk of complications. Most maternal, foetal and neonatal deaths occur during late pregnancy and the first month of the child's life. Complications of pregnancy and childbirth are the leading causes of disability and death among women in the reproductive age in developing countries. The World Health Organization (WHO) estimates that about 529,000 women die worldwide every year in connection with pregnancy and childbirth. Nearly all (99 %) maternal, newborn, and child deaths occur in low and middle income countries. Moreover, acute morbidity may affect over 50 million pregnancies/deliveries each year, and severe chronic and long-term disabilities like fistulas and prolapse affect an estimated 10 million women each year.

Antenatal care (ANC) for pregnant women by health professionals maintains women's health during pregnancy and improves pregnancy outcomes by identifying and managing pregnancy related complications (Raatikainen et al., 2007). ANC visits are a platform for delivery of evidence-based clinical interventions, counseling on maternal health, birth and emergency preparedness. The World Health Organization (2009) recommends all women with uncomplicated pregnancies to attend four ANC visits during the course of the pregnancy. During ANC, the WHO recommends that women should receive tetanus toxoid immunization, intermittent preventive treatment of malaria, deworming, iron and folic acid, and insecticide treated bed nets. The document further postulated that pregnant

women can also be screened for signs associated with high probability of complications and subsequent specialized care can be arranged. For example, in HIV-endemic countries, antenatal care includes HIV testing and is an entry point for prevention of mother-to-child transmission services. Chakraborty et al., (2002) indicated also that antenatal care attendance is also associated with an increase in facility based deliveries and use of postnatal services. Although ANC is considered an important intervention for reducing maternal and newborn mortality, and the achievement of Millennium Development Goals 4 and 5, ANC services tend to be under-utilized in low-income settings (Pallikadavath et al., 2004). In the light of all these, Requejo et al. (2012) indicated that among the 69 countries tracked by the countdown to 2015, the median coverage rate of at least one ANC visit is 88% and four or more ANC visits was rather 55%.

For many of the essential interventions in ANC, it is crucial to have early identification of underlying conditions – for example, prevention of congenital syphilis, control of anaemia, and prevention of malaria complications. Hence the first ANC visit should be as early as possible in pregnancy, preferably in the first trimester. The last visit should be at around 37 weeks or near the expected date of birth to ensure that appropriate advice and care have been provided to prevent and manage problems such as multiple births (e.g. twins), postmaturity (e.g. birth after 42 weeks of pregnancy, which carries an increased risk of fetal death), and abnormal positions of the baby (e.g. breech, where the baby's head is not the presenting part at birth).

2.3 Knowledge of women on ANC

Health education programmes during ANC services should inform the women about reproductive health, knowledge related to sexuality, pregnancy, nutrition, family planning, malaria, S.T.I's, HIV/AIDS etc. (Barnet et al 2003). Information should indicate where these services are offered, including the requirements for attending ANC. In Ghana, ANC including family planning services is provided by both public and private health facilities.

AbouZhar (2003) in her article to the British Medical bulleting stated that “Sound information is the prerequisite for health action: without data on the dimensions, impact and significance of a health problem it is neither possible to create an advocacy case nor to establish strong programmes for addressing it. The absence of good information on the extent of the burden of maternal ill-health resulted in its relative neglect by the international health community for many years. Lack of knowledge about the ANC services could be a major barrier to women's utilization of ANC services. Due to lack of knowledge pregnant women are likely to have limited knowledge and experiences in seeking health care. Matua (2004) and Jewkes et al (2001) cited lack of adequate knowledge and information about pregnancy, laboratory tests results and dangers of late bookings or not attending ANC at all, as contributors to the poor utilization of ANC services.

The recommended minimum number of visits for an uncomplicated pregnancy is four. According to the report of GHS/RCH 2006, achievement for 2006 was 3.3 as compared to that of 2005 which was 3.4. No region achieved the recommended minimum of four visits. Ashanti and Central regions each recorded the highest figure of 3.6 visits and the lowest figure was recorded by Volta, Upper East and Greater Accra as 3.0 visits (GHS/RCH, 2006)

Increasing utilization of antenatal services however has not led to the expected commensurate reduction in maternal mortality rate. A feat which is an indication that there is an improper or inappropriate utilization of these services. People may attend antenatal clinics alright but may delay till complications of pregnancy have set in or when they are about to deliver. In developing countries, most attendance at antenatal clinics takes place in the 7th and 8 months and women usually averaged only one visit per pregnancy. Patients may also report to antenatal clinics only when they are ill (Ledward, 1982).

Some factors have been associated with delayed antenatal care. Among them is the study which stated that pregnancy and delivery in grand multiparas are at higher risk due to poorer antenatal care and advancing maternal age. found that irrespective of age and social class, unmarried women were less likely to have planned pregnancy and to attend antenatal care. They were also likely to miss antenatal care appointments, but there was no significant effect of marital status on pregnancy outcome as well as associated poor antenatal care attendance with young age (Blondel et al., 1993).

In New Zealand, Essex et al (1992) also observed that late antenatal care attendance was associated with single marital status, grand multiparity and young age as well as low socio economic status, and low education level.

2.4 Women's Perceptions of ANC and Reasons for Attending

Magoma et al. (2011) in their study concluded that although women's descriptions of ANC varied across and within the sites, on the whole, many do not recall receiving all WHO-recommended procedures. The descriptions were also often vague and focused on the

experience of procedures, such as receiving injections or tablets, rather than their aim or purpose.

Kenyan women focused on palpation, receiving ‘blood booster’ tablets and injections and were generally less familiar with other procedures or their purpose (such as IPT). Ghanaian and Malawian women emphasized being weighed and also commonly recalled checking the position of the baby, and the provision of medicines and injections. In Malawi, women distinguished ‘blood pills’ from malaria drugs, and recalled being given ITNs. Women in Ghana reported having their arms ‘tied’, but did not explicitly link this with blood pressure measurement (National Statistical Office (NSO), ICF Macro (2011)).

Pell et al. (2011) in their study “Social and Cultural Factors Affecting Uptake of Interventions for Malaria in Pregnancy in Africa” postulated that women described being injected and tested, but specific mentions of HIV testing were only made frequently in Malawi, and references to syphilis tests and haemoglobin analysis were rare overall. They further asserted that, interviews with health workers and observations indicated that, often as a result of shortages or infrastructure problems, not all the recommended ANC procedures were carried out for every woman or at every healthcare facility. Lack of delivery of specific procedures, such as syphilis testing and haemoglobin analysis, therefore influenced women’s descriptions of ANC.

Pell et al. (2013) in their work “Factors Affecting Antenatal Care Attendance: Results from Qualitative Studies in Ghana, Kenya and Malawi” indicated that at all the sites, women stated that they attended ANC to monitor the progress of their pregnancy or to check the position of the unborn child. In Upper East Region, women attended ANC to identify

problems during pregnancy, whereas, in the Ashanti Region, women also highlighted the importance of taking the medicines provided during ANC to ensure the health of the pregnancy and the development of the baby. Furthermore, Ghanaian respondents, particularly in the Ashanti Region, viewed ANC as a normal part of pregnancy: attending the clinic was simply what women did. In Upper East Region, ANC was often considered compulsory: a result of the authority of health staff or the vague idea of it being the ‘law’. The cards, completed by health staff, contain details of ANC attendance and Kenyan respondents suggested that without the cards, they would encounter problems if they attended a health facility to deliver: women feared being reprimanded by healthcare staff, or refused care. Although this played a lesser role in Ghana and Malawi, reference was also made to ANC cards’ importance for avoiding conflicts with health staff.

Efforts to reduce maternal mortality and morbidity must also address societal and cultural factors that impact women’s health and their access to services. Women’s low status in society, lack of access to and control over resources, limited educational opportunities, poor nutrition, and lack of decision-making power contribute significantly to adverse pregnancy outcomes. Laws and policies, such as those that require a woman to first obtain permission from her husband or parents, may also discourage women and girls from seeking needed health care services – particularly if they are of a sensitive nature, such as family planning, abortion services, or treatment of STIs. (MNPI)

The study of Prata *et al.* (2004) indicate that poverty and lack of education cause women to underutilize maternal health services. Witter *et al.* (2007) cited in Bhutta *et al.* (2010, p.20) gathered and concluded that financial barrier is one of the most important constrain in Ghana, that is preventing women to seek skilled care during delivery and the introduction

of the fee exemption policy proved to be manageable and workable even within the relatively constrained human resources environment of countries like Ghana.

2.5 Care delivery at the Ante-natal care (ANC) and Post-natal care (PNC) clinics.

The World Health Organization (WHO) defines service delivery as the way inputs are combined to allow the delivery of a series of interventions or health actions (WHO 2010). As noted in the World Health Report 2010, “the service provision function of the health system is the most familiar; the entire health system is often identified with just service delivery.”

Massoud *et al.* (2001) represented health service delivery in a system’s perspective, with inputs, processes, outputs, and outcomes. Some of the core inputs that are deemed necessary for health care delivery from the systematic point of view are financial resources, competent health care staff, adequate physical facilities and equipment, essential medicines and supplies, current clinical guidelines, and operational policies. These inputs must be available and accessible to have an impact and they also must be used to properly carry out the system processes to produce desired health outcomes.

Disease prevention priorities project in their article “a preventable tragedy: maternal and newborn deaths in West Africa” (2007) reiterated that preventing complications through primary prevention involves maintaining a normal pregnancy and managing mild complications in essence, good quality of care through routine prenatal care, family and

community education, and postpartum care at the primary health care level. Primary-level care is widely regarded as the crucial entry point to maternity services, and to care before and after pregnancy. Primary-care health facilities should provide prenatal, delivery (including managing abortion complications), and postpartum care (including family planning and post-abortion counseling), as well as care of the newborn. It stated among other things that the essential elements of routine prenatal care include: screening and treatment for syphilis, immunization with tetanus toxoid, prevention and treatment of anemia, and prevention and treatment of malaria with prophylaxis and bed nets. Strong evidence supports the cost effectiveness of a four visit prenatal schedule that includes educating women and birth attendants about danger signs and the need for skilled attendants at delivery. The postnatal period is also the most important time to address complications that affect the newborn. Effective interventions for the newborn exist and can be delivered at low cost. Up to 40 percent of neonatal deaths could be averted with home- and community-based solutions, such as keeping a newborn warm and clean, breastfeeding regularly, protecting against infection through proper hygiene, and treating infections with antibiotics in a timely manner. Access to skilled and emergency prenatal and postnatal care can save many more newborn lives.

Ansong-Tornuiet *al.* (2007) observed through their research in the Volta and Central Regions of Ghana that clinical care provided before and after the introduction of the fee exemption policy did not change, though women with complications were arriving in hospital earlier after the introduction of the policy. On admission, however, they received very poor care and this, the clinical panel deduced could have resulted in many avoidable deaths; as was the case before the implementation of the policy.

Houweling *et al.* (2007) in their work huge poor-rich inequalities in maternity care: an international comparative study of maternity and child care in developing countries observed that the poor–rich inequalities in professional delivery care are much larger than those in the other forms of care. Reducing poor–rich inequalities in professional delivery care is essential to achieving the MDGs for maternal health. Very few of the poorest mothers get professional delivery care irrespective of where they live, although some get antenatal care.

2.6 Reproductive Concerns and Uncertainties

Previous or ongoing health problems – pregnancy-related or otherwise – prompted women to seek care at a health facility in early pregnancy (the first or early second trimester). Through this, Jimon, (2003) in his study asserted that in Ghana, generally, women initiated ANC in early pregnancy and, from the first visit; ANC was conducted in a problem-focused manner where health workers reportedly paid attention to women’s complaints and possible remedies. On the contrary, Malawian and Kenyan women who complained of ill health during early pregnancy would however generally not attend ANC but rather seek care at a health facility, without disclosing their pregnancy to staff. Yet, at all the sites, experiences of previous pregnancy complications motivated women to seek ANC in early pregnancy. But Kinney (2010) concluded that in Ghana pregnancies were not confirmed with a test, except in district hospitals, where pregnancy tests were used in cases of uncertainty with this uncertainty widely experienced in the first trimester, prior to palpation, extended to both the woman and the health staff. However, as indicated by Jimmon (2003) earlier, in Malawi and Kenya, this had implications for ANC attendance as

there had been reports of health workers instructing women to return when they were able to confirm a pregnancy (or the pregnancy was confirmed elsewhere) and perform ANC procedures.

Given the central role that reproduction often plays in the women's lives and the stigma that surrounds infertility in a society, including the implications that childlessness have for a woman's relations with a woman's husband and in-laws, for these women, confirming a pregnancy was particularly important. Lubbock (2008) posited that any uncertainty around pregnancy status was pronounced for women who had previously had difficulties conceiving or bringing a pregnancy to term.

In Malawi, and to a lesser extent in Ghana, there was also the use of traditional and modern methods of contraception also creates uncertainty about pregnancy linked to confusion about amenorrhea associated with injectable contraceptives resulted in women being unclear about their pregnancy status and in some instances led to delay ANC. From this Magoma, et al. (2010) posited that in Ghana, health professionals linked irregular menstruation and uncertainties regarding pregnancy to sexually transmitted infections. The uncertainty and ambiguity surrounding pregnancy, particularly in the first trimester also had implications for pregnancy disclosure.

2.7 Attendance of health facilities during pregnancy

AbouZhar (2003) in her article to the British Medical bulletin stated that "Sound information is the prerequisite for health action: without data on the dimensions, impact and significance of a health problem it is neither possible to create an advocacy case nor to establish strong programmes for addressing it. The absence of good information on the

extent of the burden of maternal ill-health resulted in its relative neglect by the international health community for many years. Maternal deaths are too often solitary and hidden events that go uncounted. The difficulty arises not because of lack of clarity regarding the definition of a maternal death, but because of the weakness of health information systems and consequent absence of the systematic identification and recording of maternal deaths”.

Efforts to reduce maternal mortality and morbidity must also address societal and cultural factors that impact women’s health and their access to services. Women’s low status in society, lack of access to and control over resources, limited educational opportunities, poor nutrition, and lack of decision-making power contribute significantly to adverse pregnancy outcomes. Laws and policies, such as those that require a woman to first obtain permission from her husband or parents, may also discourage women and girls from seeking needed health care services – particularly if they are of a sensitive nature, such as family planning, abortion services, or treatment of STIs. Prata *et al.* (2004)

Witter *et al.* (2007) gathered and concluded that financial barrier is one of the most important constrain in Ghana, that is preventing women to seek skilled care during delivery and the introduction of this fee exemption policy proved to be manageable and workable even within the relatively constrained human resources environment of countries like Ghana.

Among the knowledge base on why maternal deaths occur and how to avert them, access to maternal health services is a primary intervention for achieving better maternal health outcomes (Bour, 2003). Notwithstanding this, the organization of maternal service and how

maternal health service is financed have also been seen to play a part in the health-seeking behavior in general and outcomes. (Witter et al., 2008).

2.8 The Direct and Indirect Costs of ANC

Attending ANC also entailed indirect costs. Travel costs varied amongst the sites and the respondents at each site. Dowswell (2010) however, indicated there are also nonmonetary costs: pregnancy, combined with women's continued labour demands (that continue up to delivery and recommenced shortly after), was often an exhausting experience for women and the journey to health facilities represented a physical burden.

According to Gross et al., (2011), delays in ANC initiation are not however solely due to the associated indirect and direct costs. The nature of ANC appointment scheduling by health staff, and women's understanding of appointments as compulsory also contributes to delayed initiation.

2.9 Access to Ante Natal Care

Access to ANC is important in helping to modify women's risk behaviours and promote positive health practices for adolescents of risk of future unplanned pregnancies and STI and as such should be accessible to all pregnant women irrespective of social status, age, race or level of education and HIV status, and whilst simultaneously providing an environment of trust and confidentiality (Kluge, 2006).

According to Llongo (2004), if adolescents were more knowledgeable about the benefits of prenatal services, they might make better use of these services. To buttress his point, midwives in his study area also concurred that certain barriers could prevent adolescents

from utilizing prenatal services, similar to utilisation barriers reported by other researchers. He further suggested that following factors contributed to the perceived inaccessibility of ANC services

- Stigma and beliefs about social rejection
- Lack of confidentiality
- Cultural beliefs and perceptions about ANC
- Expensive health care services
- Previous health care experiences.

The majority of pregnant women might not be able to afford the maternity fees that are charged because most of them have financial limitations. Pregnant women in Zimbabwe pay about (US\$25.00) at the PHC clinics. The perceived high fees might influence some pregnant women to resort to the services of traditional birth attendants (TBAs) which are cheaper and can be paid in kind (Ikamari 2004). Reynolds et al in (2006) cited socio-economic factors contributing to poor ANC attendance and thus also to poor maternal and neonatal outcomes.

Health financing in Ghana has relied heavily on user fees to cover recurrent costs at health facility level (salaries and investment costs are financed from the public budget, along with small subsidies towards administrative and services delivery costs). User fees constitute 12% of total health sector funding (public sector), but the proportion is much more significant at facility level (Dubbledam *et al.* 2007). However, there is a long history of exempting certain categories of users or services. Typically, these exemption categories have been poorly funded and implemented (Garshong *et al.* 2001; Nyongator and Kutzin, 1999).

The Government of Ghana (GoG) developed a policy which was implemented in Ghana that aimed to improve access to health services for the poor and the vulnerable, by putting into place universal exemption from payment of user fees for all delivery care. It was expected that the policy would remove financial barriers to accessing these services, allow an increase in professionally attended deliveries and thus a reduction in maternal and perinatal mortality. The policy was implemented firstly in the four most disadvantaged regions in 2003 and then extended to cover all regions in the country in 2008.

The exemptions policy was funded through Highly Indebted Poor Country (HIPC) debt relief funds, which were channeled to the districts to reimburse both private and public facilities according to the number of deliveries performed each month. A tariff was approved by the Ministry of Health which set reimbursement rates according to the type of delivery (such as 'normal', 'assisted delivery', or 'caesarean section') and the facility type, with mission and private facilities being reimbursed at a higher rate, in recognition of the fact that they received fewer public subsidies (Ministry of Health 2004).

Despite all these reservations, ANC in developing countries is important especially to pregnant women. Efficacy of ANC should also ensure dissemination of information on maintaining good health of pregnancy, danger signs and when and where to go for help should these appear (Matua, 2004). The goal-oriented ANC guidelines using need-focused care have been designed to address aspect of quality, adequacy and effectiveness.

CHAPER THREE

METHODOLOGY

3.1 Study Design

The study was a cross sectional descriptive study. Cross-sectional studies are carried out at one time point or over a short period and they are usually conducted to estimate the prevalence of the outcome of interest for a given population, commonly for the purposes of public health planning. The study used this design because there was the need to gather data on the situation over the period of conducting the study. The study was conducted within a period of four weeks, from September 2014 to October 2014.

3.2 Study Population

The study population was pregnant women and mothers in the post partum period who resided in the Manhyia Sub-metro. This was calculated using the Ghana Health Service's target of Population less than 1 year and expected pregnancy which forms 4% of a defined population.

$$\frac{4}{100} \times 310927 = 12437$$

3.3 Sample size and sampling method

3.3.1 Sample Size

Stat Calc (Epi info version 7.0.8.3) was used to calculate for the sample size from the population of 12437, at a confidence level of 95% and confidence interval of 5%. A sample size of 373 was derived but this study used a sample size of 350.

3.3.2 Sampling Methods

A simple random sampling technique was employed in this study.

For the purpose of data collection the facilities were clustered into Government facilities, private hospitals and private maternity homes. The names of the facilities were written on pieces of papers and placed in three bowls, bowl 'A' representing government facilities, bowl 'B' representing private hospitals and bowl 'C' for private maternity homes. The papers in the bowls were shuffled and two pieces of papers drawn from every bowl. The names on the pieces drawn were included in the study.

With the government facilities being the majority of service providers in the sub-metro the simple random sampling method was used to select the subjects for the study. This was done by writing "yes" on a specified number of pieces of papers and "no" on the same specified number of pieces of papers and mixed in a bowl, anybody who picked a "yes" sheet was included in the study whilst the one who picked "no" was excluded from the study. However, a paper drawn from the bowl was not replaced in order to provide equal opportunities for subjects.

From the private hospitals, the simple random sampling method was used to select the subjects for the study. This was done by writing "yes" on a specified number of pieces of papers and "no" on the same specified number of pieces of papers and mixed in a bowl, anybody who picked a "yes" sheet was included in the study whilst the one who picked "no" was excluded from the study. However, a paper drawn from the bowl was not replaced in order to provide equal opportunities for subjects.

From the private maternity homes, a convenient or purposive sampling method was used to select respondents for the study.

3.4 Data Collection Techniques and Tools

Quantitative data collection method was used. The questionnaires administered during the survey used the Likert scale.

There were primary and secondary sources of the data collected for this research. Primary data consisted of all the data personally gathered throughout the study and were related directly to the study purpose. The methods used to collect the primary data in this study consisted of surveys and interviews. The primary data was collected through an empirical study which included a questionnaire which was administered

The entire questionnaire was built in four sections. The first section was made of up of questions relating to the socio-demographic characteristics of the respondent, the second section comprised questions relating to the knowledge or respondents on ANC, the third part contained questions relating to service delivery at the facilities and the fourth part was made up of questions relating to questions on reasons that motivate pregnant women to attend ANC. Data collection was facility based and were collected by trained Research Assistants. An information sheet as well as a consent form were issued out to respondents for their consideration before taking part in the study. Respondents who were reluctant to participate in the study were excluded and the anonymity and confidentiality of all participants duly ensured. The language used was also simple so as to make it easy for the participants to understand and native language was used to explain the questions to those who could read and allowed to answer the questionnaire

The secondary data was however collected through a theoretical study on the knowledge of respondents on ANC, factors influencing it and the service delivery at the facilities. Secondary data involved data that was relevant and had already been collected with a different purpose but whose conclusions are valuable to the study.

3.5 Pretesting

The study instrument (questionnaire) was pre-tested on a sample of 50 respondents in 2 facilities in Krofofrom, a community of similar characteristics with the study community. Problems such as ambiguity associated with the questionnaire were modified after the pretesting.

3.6 Data Analysis

Data from the questionnaires were sorted out and coded accordingly, prior to analysis by SPSS for windows version 16.0 (SPSS Inc. version 16.1, Chicago, Illinois). Descriptive statistics were used to generate simple descriptive information such as proportion and frequencies which were useful in evaluating and making comparisons between the different variables of the study

3.7 Ethical Consideration

Ethical clearance for this study was obtained from the Human Research Ethics Committee of Komfo Anokye Teaching Hospital and the Department of Community Health-KNUST, stakeholders of health and opinion leaders of the community. In addition, consent was obtained from the various authorities and managements of the facilities to be used as well

as individuals who agreed to be part of the study with their privacy and confidentiality fully assured.

3.8 Limitations of the Study

The limitations of the study are those characteristics of design or methodology that had an impact or influence on the application or interpretation of the results of this study. Lack of data or reliable data limited the scope of analysis, the size of the sample, which was a significant obstacle in finding a trend and a meaningful relationship.

3.9 Assumptions

It was anticipated that the study was going to promote antenatal care attendance by pregnant mothers and communicate a behavior change which when voluntarily adapted is going to improve maternal health.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1 Introduction

This section of the study details the results analyzed from responses from the respondents. It is presented largely descriptively and analytically in the form of tables, graphs and charts and organized according to the objectives of the study.

4.2 Demographic characteristics of respondents

Table 1: Background of Respondents

Variable	Frequency (N=350)	Percentage (%)
Age		
less than 25	64	18.3
25-29	148	42.3
30 and above	138	39.4
Marital Status		
Single	200	57.1
Married	126	36
Divorced	24	6.9
Number of Births		
0	141	40.3
1	79	22.6
2	130	37.1

Educational Level		
Basic Education	40	11.4
SSS/Tech/Vocational	196	56
Tertiary	97	27.7
No education	17	4.9
Occupation		
Self Employed	38	10.9
Public/Civil Servant	98	28
Trader	40	11.4
Unemployed	94	26.9
Other	80	22.9
Income Level		
Low	142	40.6
Medium	135	38.6
High	73	20.9
Religion		
Christian	153	43.7
Muslim	97	27.7
Traditional	57	16.3
Other	43	12.3

Majority (42.3%) of the respondents were between the ages of 25 – 29 years. Their occupations were farming, 35.1%, trading, 36.5% and some were Artisan, 14.9%. 28% of the respondents were Public/Civil servants with 26.9%, 11.4% and 10.9% being

unemployed, traders and self-employed respectively. Over 90% of the respondents had formal education. Among those with formal education, 56% attended SHS/Vocational school, 27.7% having experienced a form of tertiary education and 11.4% having basic education. Christians formed 43.71% of the respondents with about 57.1% were single, 36.9% married and 6.9% divorced. However, 40.57% were low income earners, 38.57% were medium income earners and 20.86% being high income earners.

4.3 Knowledge of respondents on ANC

On the view of respondents on what ANC was, 79% of the respondents responded that ANC services was the care given to women before birth, 16% said it was a service that promoted healthy pregnancy with 5% indicating that it was care given to pregnant women from conception to delivery.

Respondents view of ANC Frequency

- Care given to pregnant women before birth
- Services that promote healthy pregnancy
- Care given to pregnant women from conception to delivery

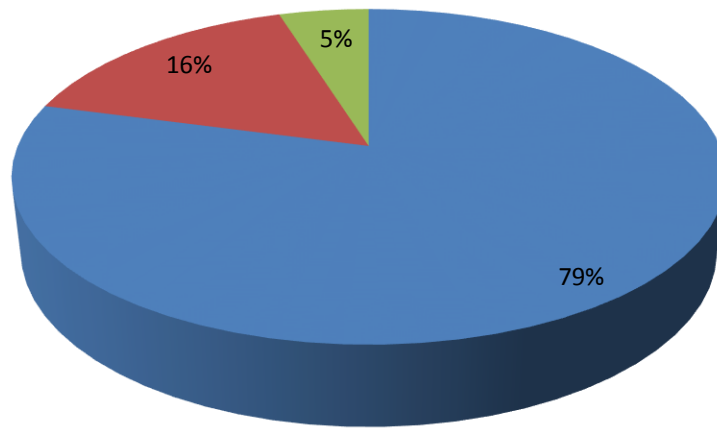


Figure 2: Respondent's view on ANC

Source: Field study, 2014

Table 2: How Respondents heard about ANC * Appropriate Time to Access ANC Services Cross tabulation

			Appropriate Time to Access ANC Services				
			Immediately pregnancy is detected	First Trimester	Second Trimester	Third Trimester		Total
How Respondents heard about ANC	From Friends	Count	56	59	19	33	167
		% of Total	16.0%	16.9%	5.4%	9.4%	47.7%
	From Relatives	Count	38	0	24	0	62
		% of Total	10.9%	.0%	6.9%	.0%	17.7%
	During a visit to a health institution	Count	42	39	40	0	121
		% of Total	12.0%	11.1%	11.4%	.0%	34.6%
TOTAL		Count	136	98	83	33	350
		% of Total	38.9%	28.0%	23.7%	9.4%	100.0%

Source: Field study, 2014

From the table, 16.9% (n=59) heard about ANC from friends and visited the centre for services in the late first trimester but 16% (n=56) heard from friends but visited the facility immediately pregnancy was detected. 11.4% (n=40) heard about ANC during a visit to a health institution but visited the facility in the second trimester.

Table 3: How Respondents heard about ANC * Number of visits needed?
Crosstabulation

			Number of visits needed?			Total
			One	Two	Three	
How Respondents heard about ANC	From Friends	Count	32	36	99	167
		% of Total	9.1%	10.3%	28.3%	47.7%
	From Relatives	Count	38	24	0	62
		% of Total	10.9%	6.9%	.0%	17.7%
	During a visit to a health institution	Count	0	0	121	121
		% of Total	.0%	.0%	34.6%	34.6%
TOTAL		Count	70	60	220	350
		% of Total	20.0%	17.1%	62.9%	100.0%

Source: Field study, 2014

From the table, 34.6% (n=121) heard about ANC upon a visit to a health institution and the stipulated number of visits they indicated to be 3 visits. 28.3% (n=99) of the respondents heard of ANC from friends and indicated that the number of stipulated visits was 3 times. However, 10.9% (n=38) of the respondents heard of ANC from relatives and indicated that the stipulated number of visits was once.

Table 4: How Respondents heard about ANC * How often respondents access ANC services Cross tabulation

			How often respondents access ANC services				Total
			Once	Twice	Thrice	Four times	
How Respondents heard about ANC	From Friends	Count	19	75	56	17	167
		% of Total	5.40%	21.40%	16.00%	4.90%	47.70%
	From Relatives	Count	0	0	62	0	62
		% of Total	0.00%	0.00%	17.70%	0.00%	17.70%
	During a visit to a health institution	Count	39	0	42	40	121
		% of Total	11.10%	0.00%	12.00%	11.40%	34.60%
TOTAL	Count	58	75	160	57	350	
	% of Total	16.60%	21.40%	45.70%	16.30%	100.00%	

Source: Field study, 2014

From the table, 17.7% (n=62) heard about ANC from friends and had visited the ANC center thrice, whilst 11.4% (n=40) heard of ANC upon a visit to a health institution and had visited the ANC centre four times. However, 11.1% (n=39) had visited the facility once but also heard of ANC upon a visit to a health institution.

4.4 Quality of care and service delivery at facility

Table 2: Average number of staff at facility

	Frequency	Percent
1	102	29.1
2	74	21.1
3	75	21.4
4	99	28.3
TOTAL	350	100

Source: Field survey, 2014

The mean was **2.49** and the standard Deviation was **1.184**

From the table above, 29.1% of the respondents reported that usually met a health worker at the facility to attend to them, with 28.3% reported that they met up to four health workers in the facility who attended to them.

Table 3: How often respondents visits the facility * Reception at the facility
(Crosstabulation)

			Reception at the facility			Total
			Cordially	Cold heartedly	other	
How often respondents visits the facility	Not Regularly	Count	0	17	39	56
		% of Total	.0%	4.9%	11.1%	16.0%
	Regularly	Count	75	0	64	139
		% of Total	21.4%	.0%	18.3%	39.7%
	Very often	Count	16	101	38	155
		% of Total	4.6%	28.9%	10.9%	44.3%
TOTAL		Count	91	118	141	350
		% of Total	26.0%	33.7%	40.3%	100.0%

Source: Field survey, 2014

From the table, 28.9% (n=101) of the respondents visited the facility very often but indicated that they were cold heartedly received at the facility. 21.4% (n=75) often visited the facility and were always cordially received. However, 11.1% (n=39) were not regular at the facility and could however not describe the reception at the facility.

Table 4: How often respondents visits the facility * Services rendered at ANC center

(Cross tabulation)

			Screening	Management of minor ailments	Immuniz ation	Health education	Total
How often respondents visits the facility	Not	Count	56	0	0	0	56
		% of Total	16.0%	.0%	.0%	.0%	16.0%
	Regularly	Count	0	104	0	35	139
		% of Total	.0%	29.7%	.0%	10.0%	39.7%
	Very often	Count	42	0	75	38	155
		% of Total	12.0%	.0%	21.4%	10.9%	44.3%
TOTAL		Count	98	104	75	73	350
		% of Total	28.0%	29.7%	21.4%	20.9%	100.0%

Source: Field survey, 2014

From the table, 29.7% (n=104) of the respondents regularly attended the facility and asserted that the major service rendered was the management of minor ailments. 16% (n=56) were not regular attendants but indicated that the major services rendered were screening in line with the WHO recommendations. 10.9% (n=38) were often attendants and indicated that the major service rendered was health education.

Table 5: How often respondents visits the facility * Average time spent at the ANC center (Cross tabulation)

			Average time spent at the ANC center				Total
			Less than 30 minutes	1 hour	1 hour 30 minutes	Above 2 hours	
How often respondents visits the facility	Not	Count	0	39	0	17	56
	Regularly	% of Total	.0%	11.1%	.0%	4.9%	16.0%
		Regularly	Count	64	0	75	0	139
	Regularly	% of Total	18.3%	.0%	21.4%	.0%	39.7%
		Very often	Count	38	35	0	82	155
	Very often	% of Total	10.9%	10.0%	.0%	23.4%	44.3%
TOTAL		Count	102	74	75	99	350
		% of Total	29.1%	21.1%	21.4%	28.3%	100.0%

Source: Field survey, 2014

From the table, 23.4% (n=82) of the respondents attended the facility very often and spent more than 2 hours. 21.4% (n=75) were regular attendants who waited for about an hour and a half. 11.1% (n=39) were not regular attendants and indicated that they waited for an hour. However, 18.3% (n=64) were regular attendants who waited for less than 30 minutes.

Table 6: How often respondents visits the facility * General attitude of staff (Cross tabulation)

			General attitude of staff				Total	
			Poor	Fair	Good	Excellent		
How often respondents visits the facility	Not Regularly	Count	39	0	17	0	56	
		% of Total	11.1%	.0%	4.9%	.0%	16.0%	
	Regularly	Count	0	35	0	104	139	
		% of Total	.0%	10.0%	.0%	29.7%	39.7%	
	Very often	Count	35	38	82	0	155	
		% of Total	10.0%	10.9%	23.4%	.0%	44.3%	
	TOTAL		Count	74	73	99	104	350
			% of Total	21.1%	20.9%	28.3%	29.7%	100.0%

Source: Field survey, 2014

From the table, 29.7% (n=104) of the respondents regularly attended the facility and asserted that the general attitude of the staff they met was excellent. 23.4% (n=82) were oft attendants and indicated that the general attitude of the staff they met was good, 10% (n=35) were regular attendants who said the attitude of staff was fair. 11.1% (n=31) were not regular attendants and indicated that the attitude of staff were poor.

Table 7:How often respondents visits the facility * Overall services provided at ANC center (Crosstabulation)

			Overall services provided at ANC center				
			Poor	Fair	Good	Excellent	Total
How often respondents visits the facility	Not Regularly	Count	0	17	0	39	56
		% of Total	.0%	4.9%	.0%	11.1%	16.0%
	Regularly	Count	75	0	64	0	139
		% of Total	21.4%	.0%	18.3%	.0%	39.7%
	Very often	Count	0	82	38	35	155
		% of Total	.0%	23.4%	10.9%	10.0%	44.3%
	TOTAL		Count	75	99	102	74	350
		% of Total	21.4%	28.3%	29.1%	21.1%	100.0%

Source: Field survey, 2014

From the table, 23.4% (n=82) of the respondents attended the facility very often and described the overall services provided as fair. 21.4% (n=75) were regular attendants and described the overall services provided as poor. 11.1% (n=39) were not regular attendants

but indicated that the services provided at the ANC was excellent. However, 18.3% (n=64) were regular attendants and described the services as good.

4.5 Factors that help women to access Antenatal Care services or prevent them from doing so

Table 8: Descriptive Statistics of cost of transportation and distance from residence to facility

	N	Minimum	Maximum	Mean	Std. Deviation
How far respondents live from facility (In Kilometers)	350	1	12	4.21	3.045
Cost of transportation to and from Facility (in GHC)	350	1	12	6.80	3.383
Valid N (listwise)	350				

Source: Field survey, 2014

From the table, the average distance a client lived from the study facility was 4.2 kilometers whilst the average cost of transportation was GHC 6.80.

Table 9: **Permission before attending facility *Influence of permission on quest for health care (cross tabulation)**

			Influence of permission on quest for health care		Total
			Yes	No	
Permission before attending facility	Yes	Count	96	59	155
		% of Total	27.4%	16.9%	44.3%
	No	Count	116	79	195
		% of Total	33.1%	22.6%	55.7%
TOTAL		Count	212	138	350
		% of Total	60.6%	39.4%	100.0%

Source: Field survey, 2014

From the table, 33.1% (n=116) did not seek attendance from anybody before attending the ANC services but indicated that it could have an effect on their quest for health care. 27.4% (n=96) sought permission before attendance and indicated that the permission did have an influence on their quest to seek health care.

Table 10: Person permission sought from * Influence of permission on quest for health care (Crosstabulation)

Health care (Cross-tabulation)					
			Influence of permission on quest for health care		
			Yes	No	Total
Person permission sought from	Father	Count	131	0	131
		% of Total	37.4%	.0%	37.4%
	Mother	Count	57	59	116
		% of Total	16.3%	16.9%	33.1%
	Husband	Count	24	39	63
		% of Total	6.9%	11.1%	18.0%
	Religious Head	Count	0	40	40
		% of Total	.0%	11.4%	11.4%
TOTAL		Count	212	138	350
		% of Total	60.6%	39.4%	100.0%

Source: Field survey, 2014

From the table, 37.4% (n=131) of the respondents sought permission from their father and admitted that this permission had an influence on their quest to seek care. 16.9% (n=59) admitted they sought permission from their mothers but this had no influence on their quest to seek care. However, 6.9% (n=24) sought permission from their husbands and this they admitted had an influence on whether or not to seek care.

Table 11: Means of Transportation to the Facility * Distance Motivating Attendance (Crosstabulation)

Cross-tabulation)

			Distance Motivating Attendance		
			Yes	No	Total
Means of Transportation to the Facility	Walk	Count	39	81	120
		% of Total	11.1%	23.1%	34.3%
	Public Transport	Count	90	47	137
		% of Total	25.7%	13.4%	39.1%
	Private car	Count	3	17	20
		% of Total	.9%	4.9%	5.7%
	Other	Count	47	26	73
		% of Total	13.4%	7.4%	20.9%
TOTAL		Count	179	171	350
		% of Total	51.1%	48.9%	100.0%

Source: Field survey, 2014

From the table above, 25.7% (n=90) of the respondents used the public transport system to attend the facility and asserted that the distance was not a barrier in their quest to access care. 23.1% (n=81) walked to the facility from their residence and asserted that it was a major barrier in their quest to seek care. 0.9% (n=3) used their private cars with the distance to be covered motivating their attendance, however, 4.9% (n=17) used their own car but asserted that the distance to be covered does not encourage them to attend the facility.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter discusses the result of the study, the literature review and key variables of the research.

5.2 Knowledge on ANC

Banta (2007) described ANC as a type of care given to women during pregnancy and it is one of the pillars of maternal health service an ultimate goal of ANC to prevent health problems of pregnant women and to ensure that each newborn child has a good start. It could be noted from this study that the respondents had an idea of what ANC was, since all the responses agreed with the view of Banta.

Matua (2004), cited that a lack of knowledge about the ANC services could be a major barrier to women's utilization of ANC services since they are likely to have limited knowledge and experiences in seeking health care. This study actually confirmed this assertion, since all the respondents had heard about ANC. However the disparity arose from knowledge of the number of visits to be made, the appropriate time to initiate ANC services as well as the number of visits that had been made as at the time of the study. It could be noted that the response of the source of the information had a partial effect on the recommended number of times needed in the period of pregnancy as well as the appropriate time to initiate the ANC attendance.

Also contrary to the assertion by Carla et al. (2002), that while there were potential benefits to be gained from some of the elements of ANC, most pregnant women presenting for ANC in Sub-Saharan Africa countries are most likely to wait until the second and third trimesters. The study found out that an overwhelming 38.9% of the respondents agreed that the most appropriate time to initiate ANC was immediately the pregnancy was detected.

Again, the findings of this study was in disparity of the WHO (2011) focused ANC. The focused ANC through the reduced but goal oriented clinic indicated that ANC consists of at least four visits to a health facility during an uncomplicated pregnancy but this study found out that the knowledge of women on the required number of visits were postulated by majority of the respondents to be three times.

On the perceived benefits of ANC, Raatikenen et al. (2007) indicated that Antenatal care (ANC) for pregnant women by health professionals maintains women's health during pregnancy and improves pregnancy outcomes by identifying and managing pregnancy related complications and Pell et al. (2013) in their study indicated that women stated that they attended ANC to monitor the progress of their pregnancy or to check the position of the unborn child. However, whilst majority of the respondents gave responses related to this assertion, a whopping 29.7% indicated that ANC advocates on healthy diet, which can possibly hinder further attendance by that sect of people. No respondent in one way or the other gave any response in line with or closer to the literature of Chakraborty et al., (2002) which indicated that antenatal care attendance is also associated with an increase in facility based deliveries and use of postnatal services.

5.3 Quality of care and service delivery

Massoud *et al.* (2001) was of the opinion that some of the core inputs necessary for health care delivery from the systematic point of view are financial resources, competent health care staff, adequate physical facilities and equipment, essential medicines and supplies, current clinical guidelines, and operational policies. These inputs they indicated must be available and accessible to have an impact and they also must be used to properly carry out the system processes to produce desired health outcomes. This study looked at care delivery the average number of staff met at the facility, reception at the facility, services rendered at the ANC center, the average time spent at the facility and the general attitude of staff.

The WHO antenatal care model recommends that first ANC visit should occur within the first trimester of pregnancy with the first visit offering an opportunity to establish baseline information on the general wellbeing of the mother and the pregnancy but Villar and Bergsjø (2002) indicated that it also helps the impression the expectant mothers assess personally the services provided in the facility and build up their about the establishment. By this, the attitude of the staff, the reception at the facility and the average time spent at the facility plays a very important role in determining the satisfaction and recall of instructions at the facility. From this study, it was noted that majority of the respondents couldn't complain about the reception at the facility although a greater percentage very often visited the health facility. It can also be noted upon a careful scrutiny that majority of the respondents did spend more than 2 hours at the facility with 29.7% confirming an excellent attitude of the staff they meet at the facility.

Based on these findings, it can be deduced that these variables have a potency of affecting the rating of the overall services rendered at the facility since 21.4% and 23.4% rated the overall services delivery as poor and fair respectively and as indicated by Ansong-Tornui et al. (2007) may result in complications and avoidable deaths.

On the services provided at the facility, Magoma et al. (2011) in their study concluded that although women's descriptions of ANC varied across and within the sites, on the whole, many do not recall receiving all WHO-recommended procedures. The descriptions were also often vague and focused on the experience of procedures, such as receiving injections or tablets, rather than their aim or purpose. This study confirmed the conclusion drawn by the team since the respondents gave vague answers and could not describe the screening that are conducted on them at the facility or the minor ailments they claim are managed, there was also no description off the types of vaccines being given them at the facility with others indicating they were given health education without a vivid description of what they were educated on.

5.4 Factors influencing and inhibiting ANC attendance

In as much as preventing problems for mothers and babies depends on an operational continuum of care with accessible, high quality care before and during pregnancy, childbirth, and the postnatal period. Lincetto et al. (2014) asserted that it also depended on the support available to help pregnant women reach services, particularly when complications occur. The study indicated that respondents who sought permission before attending the facility admitted the influence of the permission on their attendance therefore affirming the assertion of Lincetto et al. (2004) that there is the need for social support which in itself serves as a major determinant of health.

Also Witter et al. (2007) concluded that financial barrier is one of the most important constraints in Ghana, that is preventing women to seek skilled care during delivery and the introduction of the fee exemption policy proved to be manageable and workable even within the relatively constrained human resources environment of countries like Ghana. In Ghana before 2006, pregnant women were charged maternity fees which differ with each health institution. From 2006, with the advent of National Health Insurance Scheme (NHIS), any pregnant woman who has registered with the scheme is exempted from paying. However on 1 July, 2008, the Government of Ghana in order to reduce the maternal mortality which was high made antenatal and delivery free of charge. With the advent of this policy, it was projected to remove all the barriers but it couldn't address the travel and indirect cost which varied amongst the sites and the respondents at each site. This study revealed that there were associated costs which came as a result of the distance that clients had to cover in order to access an ANC facility. This further affirmed the assertion by Gross et al. (2001) that delays in ANC initiations are partly due to some indirect costs.

All respondents utilised Antenatal Care services contrary to the GHS/RCH (2005) report of a decline in ANC coverage. However, this can be as a result of the urban nature of the sub-metro under study and efforts that are being made on the part of major stakeholders of maternal health to achieve MDG 5.

This study confirmed the study by Ikamari (2004), that majority of pregnant women might not be able to afford the maternity fees that are charged because most of them have financial limitations. It is very evident in this study that whilst majority of the respondents were income earners per their occupation on the occupational hierarchy, 40.57% were low

income earners, further confirming the assertion of Reynolds et al in (2006) that socio-economic factors contributed to poor ANC attendance.

Also, the study disapproved of Blonde et al (1993) found that irrespective of age and social class, unmarried women were less likely to have planned pregnancy and to attend antenatal care hence they were also likely to miss antenatal care appointments. It was noted that a vast majority of the respondents (57.1%) of the respondents were single but attended ANC. And this further disproves the conclusion by Chaibva C.N (2008) that unmarried pregnant women are less likely to seek antenatal care services due to a lack of economic social support from parents, guardians or spouses, an assertion which Chaibva cited WHO (2003).

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 Knowledge of respondents on ANC

This segment sought to assess the respondents' view and knowledge on ANC. It was found that:

- Majority of the respondents (79%) admitted ANC was the care given to women before delivery with 16% indicating they heard of ANC from friends and visited the facility immediately pregnancy was detected.
- Also, on the stipulated number of visits needed, 34.6% of the respondents were of the opinion that the stipulated minimum number of visits were 3, an answer which was derived upon a visit to a facility and interaction with care givers with 17.7% indicating they had visited the facility thrice.

6.1.2 Quality of care and service delivery at facility

This part of the study sought to assess if the services rendered to the subjects at the facility.

It was found that:

- Customer reception by the staff of ANC by the care givers was cold and could serve as a potential de-motivating factor in utilising ANC services.
- The time spent at the facility by the subjects increased which meant subjects waited for long before going through the system for care delivery.
- The general attitude of staff improved after the introduction of the policy.

- It was also found that subjects felt the overall services provided to them in the facilities had improved for the better.

6.1.3 Factors influencing or militating against Antenatal Care attendance

This part of the study wanted to identify the alternate reasons why pregnant women do not attend facilities. It was found that:

- The average cost of transportation to and from the facility was GHC 6.80 (\$1.8), a cost which could possibly be a militating factor against attending the facility.
- The quest to seek health care was not dependent on the permission before attendance meaning if the permission was not granted or not it could not in any way affect the quest of the subject to seek care. However an overwhelming 34.7% notified their fathers before attending the facility.
- 51.1% of the respondents indicated that, the distance covered to and from the facility did not deter them from attending for services.

6.2 Recommendations

Having assessed the gaps (on the basis of the study findings) on the factors influencing the utilisation of Antenatal Care Services in the Manhyia Sub-metro, the following recommendations are suggested:

Facilities offering ANC services:

- Staff of the facilities should improve their interpersonal skills with their clients and receive them warmly since it forms part of maximizing their satisfaction.

- There should be a look at increasing the number of staff at the facilities and the possibility of applying the LEAN technique to reduce the waste of time in the facility.
- Continuous disseminating of information on antenatal care, delivery and postnatal care services to enhance accessibility by every pregnant woman.
- Encourage focused antenatal care in line with the stipulations by JHPIEGO

Women attending ANC Clinic:

- Pregnant women should be extensively educated in order to be empowered to have control over their health and prevent the non-economic barriers that prevent them from seeking care.

6.3 Recommendation for further Research

The Millennium Challenge Goal 5 is almost due, to be able to achieve this goal there should be an intensive exploration of the subject area. It is recommended that there should be a study into the role of the health staff in improving maternal health in the Manhyia Sub-Metro.

REFERENCE

- Abouzhar, C. (2003). Reducing Maternal Death and Disability. *British Medical Bulletin*, 67(1), 1-11.
- Allen, D., Ammann, A. and Bailey H. (2001). Revised Recommendation for HIV screening of Pregnant women prenatal counseling and guidelines consultation.;50 (RR19):59-86. Available from; URL: <http://www.mmwrq@cdc.gov> accessed on 14 september 2014
- Ansong-Tornui, J., Armar-Klemesu, M., Arhinful, D., Penfold, S., and Hussein, J. (2007). Hospital Based Maternity Care in Ghana-Findings of a Confidential Enquiry into Maternal Deaths. *Ghana Medical Journal*, 41(3), 125-132.
- Banta D. What is the efficacy/effectiveness of antenatal care and the financial and organizational implications? WHO Regional Office for Europe, Copenhagen. Health Evidence Network report 2003
- Barnet B, Duggan AK and Devoe M (2003) Reduced low birth weight for teenagers receiving prenatal care at a school-based health center: effect of access and comprehensive care. *Journal of Adolescent Health*, Vol. 33, pp. 349-358.
- Bour, D. (2003). Analysing the Primacy of Distance in the Utilization of Health Services in the Ahafo-Ano South District, Ghana, *The International Journal of Health and Management*, 18(4), 293-311.

- Bhutta, Z.A., Lassi, Z. S. and Mansoor, N (2010). Systematic Review on Human Resources for Health Interventions to Improve Maternal Health Outcomes: Evidence from Developing Countries. *BMC Pregnancy and Childbirth*, 9(Suppl 1): S7.
- Bloom, S. S., Lippeveld, T. and Wypij, D. (1999) Does antenatal care make a difference to safe delivery? A study in urban Uttar Pradesh, India. *Health policy and planning* 14: 38–48.
- Blondel, B., Pusch, D. and Schmidt, E. (1993). Some characteristics of antenatal care in 13 European countries. *British Journal of Obstetrics and Gynecology*. 100:727–32.
- Brugada AB. (2011).Delivery of Prenatal Health Education and Pregnancy Outcomes in Selected Aeta Tribes in Bataan. *International Journal of Public Health Research Special Issue* 2011, 11-19.
- Campbell OMR, Graham WJ (2006) Strategies for reducing maternal mortality: getting on with what works. *The Lancet* 368: 1284–1299.
- Carla A, Tessa W, Blanc A, Van P, et al. ANC in developing countries, promises, achievements and missed opportunities; an analysis of trends, levels and differentials, 1990-2001. WHO Geneva, 2003.
- Carroli G, Villar J, Piaggio G, Khan-Neelofur D, Gu' lmezoglu M, et al. (2001) WHO systematic review of randomised controlled trials of routine antenatalcare. *The Lancet* 357: 1565–1570.

- Chaibra, C.N.M. 2008. Factors influencing adolescents' utilization of Antenatal care services in Bulawayo, Zimbabwe.
- Chakraborty N, Islam MA, Chowdhury RI, Bari W (2002) Utilisation of postnatal care in Bangladesh: evidence from a longitudinal study. *Health & social care in the community* 10: 492–502.
- Chandhiok N, Dhillon BS, Kambo I, Saxena NC. Determinants of antenatal care utilization in rural areas of India: A cross-sectional study from 28 districts (An ICMR task force study). *The Journal of Obstetrics and Gynecology*. January/February 2006; 56 (1): 47-52.
- Chapman RR (2003) Endangering safe motherhood in Mozambique: Prenatal care as pregnancy risk. *Social Science & Medicine* 57: 355–374. doi: 10.1016/s0277-9536(02)00363-5
- Dayaratna V, Winfrey W, McGreevey W, Hardee K, Smith J, Mumford E.(2000). Reproductive health interventions: which one works and what do they cost? Washington, DC: The Futures Group International; The POLICY Project\
- Dowswell T, Carroli G, Duley L, Gates S, Gülmezoglu AM, et al. (2010). Alternative versus standard packages of antenatal care for low-risk pregnancy. *The Cochrane Database of Systematic Reviews* 10
- Dubbedam, R., Witter, S., Silimperi, D., Hussein, J., Toonen, J., Dovlo, D., Agble, R., Christian, P. & Oppong, R. (2007). Independent review of Plan of Work 2006. Ministry of Health, Accra.

- Essex C, Counsell A, Geddis DC. The demographic characteristics of early and late attenders for antenatal care. *Aust N Z J Obstet Gynaecol.* 1992; 32:306–8.
- Garshong B., Ansah, E., Dakpallah, G., Huijts, I. & Adjei, S (2001). ‘We are still paying’: a study on factors affecting the implementation of the exemptions policy in Ghana. Health Research Unit, Ministry of Health, Accra
- Ghana Health Service, Facts and Figures (Annual Report) 2007; 2009
- Ghana Statistical Service (GSS), Ghana Health Service (GHS), ICF Macro (2009) Ghana Demographic and Health Survey 2008. Accra, Ghana: GSS, GHS, and ICF Macro.
- Gross K, Schellenberg JA, Kessy F, Pfeiffer C, Obrist B (2011) Antenatal care in practice: an exploratory study in antenatal care clinics in the Kilombero Valley, south-eastern Tanzania. *BMC Pregnancy and Childbirth* 11: 36.
- Houweling, T.A.J, Ronsmans C., Campbell, O.M.R. & Kunst A. E. (2007). Huge poor-rich inequalities in maternity care: an international comparative study of maternity and child care in developing countries. *Bulletin of the World Health Organization*, 85:745-754.
- Ikamari, LDE. (2004). ‘Maternal Care Utilisation in Teso District’. *African Journal of Health Sciences*. Volume 11(1 & 2):9-20.: ISCTRC
- Initiative for Maternal Mortality Programme Assessment (IMMPACT): Implementation of free delivery policy in Ghana. University of Aberdeen; 2005.
- <http://www.immpact-international.org>.

- Jewkes, R., Vundule, C., Matorah, f., Jordan, L. 2001. Risk Factors for teenage pregnancy among sexually black adolescents in Cape Town: a case control study. *South African Medical Journal* 91 (1): 73-80.
- Kinney MV, Kerber KJ, Black RE, Cohen B, Nkrumah F, et al. (2010) Sub - Saharan Africa's Mothers, Newborns, and Children: Where and Why Do They Die? *PLoS Medicine* 7: e1000294.
- Kluge, J. (2006). Sex education in adolescents: an opportunity for HIV and pregnancy prevention. *Professional Nursing Today* 10(1): 24-26..
- Lee H, Ernst E. Acupuncture for labor pain management: A systematic review. *Am J Obstet Gynecol.* 2004;191:1573–1579.
- Lincetto O, Mothebesoane-Anoh S, Gomez P, Munjanja S. Antenatal Care. Available from: http://www.who.int/pmnch/media/publications/aonsectionIII_2.pdf. Accessed August 14, 2014.
- Llongo, I., 2004. Tuberculosis health belief gaps of tuberculosis and suspected tuberculosis cases in New York. *International Journal of Clinical and Health Psychology* 4, 69–90
- Lubbock, L.A, Stephenson, R.B. Utilization of Maternal health care services in the department of Malagalpa, Nicaragua. *Rev. Pnam Salud Publica.* 2008: 24(2):75-84
- Lumbiganon P.(1998). Appropriate technology: antenatal care. *International Journal of Gynaecology and Obstetrics.* 63(1): 91-95.

- Magadi M. A., Madise, N. J. and Rodrigues, R. N. (2000) Frequency and timing of antenatal care in Kenya: explaining the variations between women of different communities. *Social science & medicine* 51: 551–561.
- Magoma M, Requejo J, Campbell OMR, Cousens S, Filippi V. High ANC coverage and low skilled attendance in a rural Tanzanian district: a case for implementing a birth plan intervention. *BMC Pregnancy Childbirth*. 2010;10:13. doi: 10.1186/1471-2393-10-13.
- Maine D. & Rosenfield A. (1999). The Safe Motherhood Initiative: why has it stalled? *American Journal of Public Health*, 89(4):480–2.
- Manongi, R. N., Marchant, T. C. and Bygbjerg IC. (2006) Improving motivation among primary health care workers in Tanzania: a health worker perspective. *Human Resource for Health*. 4:6.
- Massoud, R., Askov, K., Reinke, J., Franco, L.M., Bornstein, T., Knebel, E. and Macaulay, C. (2001). A Modern Paradigm for Improving Healthcare Quality. QA Monograph Series 1(1). Bethesda, MD: Published for the United States Agency for International Development (USAID) by the Quality Assurance Project.
- Maternal and Neonatal Programme Effort Index (2000,2002, 2004, 2006 & 2008)
- Matua, A.G., 2004. Determinants of maternal choices for place of delivery in Ayiru county, Uganda. *Africa Journal of Nursing and Midwifery* 6 (1): 33-38.
- McDonald T, Coburn A. Predictors of prenatal care utilization. *Soc Sci Med*. 1988;27:167–72.

- Ministry of Health, Ghana (2008) National Consultative Meeting On The Reduction Of Maternal Mortality In Ghana: *Partnership For Action*. Accra: Ministry of Health.
- Myer L, Harrison A (2003) Why do women seek antenatal care late? Perspectives from rural South Africa. *Journal of midwifery & women's health*, 48: 268–272.
- National Population Commission (NPC) [Nigeria] and ICF Macro (2009) Nigeria Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ICF Macro.
- National Statistical Office (NSO), ICF Macro (2011) Malawi Demographic and Health Survey 2010. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.
- Nyonator FK and Kutzin J. Health For Some? The Effects of User Fees in the Volta Region of Ghana. *Health Policy and Planning*; 14(4): Pp. 329-341. Oxford University Press, 1999.
- Pallikadavath S, Foss M, Stones RW (2004) Antenatal care: provision and inequality in rural north India. *Social science & medicine* 59: 1147–1158.
- Pell C, Straus L, Andrew EVW, Menaca A, Pool R (2011) Social and Cultural Factors Affecting Uptake of Interventions for Malaria in Pregnancy in Africa: A Systematic Review of the Qualitative Research. *PloS ONE* 6: e22452. doi: 10.1371/journal.pone.0022452

- Pell, C., Were, F., Meñaca, A., Afrah, N.A., Chatio, S., Manda-Taylor, L., Hamel, M. J., Hodgson, A., Tagbor, H., Kalilani, L., Ouma, P. and Pool, R. (2013). Factors Affecting Antenatal Care Attendance: Results from Qualitative Studies in Ghana, Kenya and Malawi. Featured in PLOS Collections: DOI: 10.1371/journal.pone.0053747
- Population Reference Bureau. The Wealth Gap in Health. (2004). Washington, DC: Population Reference Bureau
- Prata, N., Passano, P., Rowen, T., Bell, S., Walsh, J., Potts, M. (2011). Where there are (few) skilled birth attendants, *J Health Popul Nutr*, 29 (2), pp.81-91.
- Prata, N., Passano, P., Sreenivas, A., Gerdt, C. E. (2010). Maternal mortality in developing countries: challenges in scaling-up priority interventions, *Women's Health*, 6 (2), pp.311-327.
- Raatikainen K, Heiskanen N, Heinonen S (2007) Under-attending free antenatal care is associated with adverse pregnancy outcomes. *BMC Public Health* 7: 268.
- Requejo J, Bryce J, Victora C, Gatctwt (2012) Building a Future for Women and Children: The 2012 Report. Washington DC: UNICEF; WHO.
- Reynolds, H., Wong, E. and Tucker, H. (2006). Adolescents' use of maternal and child health services in developing countries. *International Family Planning Perspectives*, 32(1), 6-16.
- Ronsmans, C., and W. Graham. 2006. Maternal mortality: Who, when, where, and why. *The Lancet* 368: 1189-1200

Safe Motherhood Initiatives. (2003). [22 June 2014]. Web site: <http://www.safemotherhood.org>.

Villar J, Bergsjø P. New WHO antenatal care model: Randomized trial. World Health Organization. Geneva: WHO; 2002

Witter, S., Armar-Klemesu, M. & Dieng, T. (2008). National fee exemption schemes for deliveries: comparing the recent experiences of Ghana and Senegal. *Studies in HSO&P*, 24: 167-198

Witter, S., Kusi, A. & Aikins, M. (2007). 'Working practices and incomes of health workers: evidence from an evaluation of a delivery fee exemption scheme in Ghana', *Human Resources for Health* 5:2.

WHO (2002) WHO antenatal care randomized trial: manual for the implementation of the new model. Geneva: World Health Organization.

WHO (2003). Advancing Safe Motherhood through Human Rights. Available at <http://www.who.int/reproductive health/publications>

WHO (2003). ANC in Developing Countries. Promises, Achievements and missed opportunities

WHO (2004). Lifetime Risk of Maternal Deaths. Geneva: World Health Organisation.

WHO (2006). Provision of Focused Antenatal Care for Pregnant Women, Geneva: World Health Organisation.

WHO (2007). Integrated Management of pregnancy and Child birth: Standard of Maternal and Neonatal Care. Geneva: Department of Making Pregnancy Safer; 2007.

WHO (2007). *Maternal mortality in 2005: estimates developed by WHO, UNICEF, UNFPA, and the World Bank* Geneva.

WHO (2009) Pregnancy, childbirth, postpartum and newborn care: A guide for essential practice. Geneva: World Health Organization.

WHO (2010) IMPAC Integrated Management of Pregnancy and Childbirth WHO Recommended Interventions for Improving Maternal and Newborn Health. Geneva: World Health Organization.

WHO (2011) WHO statement on antenatal care. Geneva: World Health Organization.

WHO (2010) IMPAC Integrated Management of Pregnancy and Childbirth WHO Recommended Interventions for Improving Maternal and Newborn Health. Geneva: World Health Organization.

WHO (2011) WHO statement on antenatal care. Geneva: World Health Organisation

WHO/UNICEF (2003) Antenatal care in developing countries: Promises, Achievements and Missed opportunities: An analysis of trends, levels, and differentials: 1990–2001. Geneva, New York: WHO & UNICEF.

WHO, UNICEF, and UNFPA, (2003). Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF, and UNFPA. Geneva:WHO..

WHO, UNICEF, UNFPA, World Bank. (2007). Maternal mortality in 2005. Geneva: WHO.

World Bank (2007). Disease Control Priorities Project. Page 6. Washington D.C.:World Bank

APPENDICES

APPENDIX I

INFORMATION SHEET

Information Sheet for study participants

You are being invited to take part in a research study, aimed at assessing the factors influencing the utilisation of antenatal care services in the Manhyia sub-Metro, Kumasi.

Before you decide to take part, it is important for you to understand why the research is being done and what it will involve. Please take some time to read the following information carefully and discuss it with others if you wish. Ask the researcher if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

Who is conducting the study?

The study is being conducted by Afia Seiwa Yegbe, a student being supervised by Dr Sam Newton of the Kwame Nkrumah University of Science and Technology, Department of Community Health, Kumasi.

What is the purpose of the study?

The study is about assessing the factors influencing the utilisation of antenatal care services in the Manhyia sub-Metro, Kumasi in the realization of the Millennium Development Goal 5. We will use questionnaires and observations checklist. The field work for this study begins in September 2014 and will continue until October, 2014.

Why have I been asked to take part?

You have been chosen to present your personal views on antenatal care services in the sub-metro

What would be involved?

The interview will take place at the facility where you attend your child welfare clinic, or a place of your convenience if this would make you feel more comfortable. The interviewer will take you through a semi-structured interview. The interviewer will complete an interview sheet and take additional notes where necessary. The interview will be relaxed and informal and it should last not more than 20 minutes. The questions will be asked about the knowledge on antenatal care services, factors facilitating or inhibiting accessing antenatal care services and the quality of care provided at the antenatal care center.

What happens next?

If you are interested in taking part in this study then consent form will be given to you to sign or thumb print to affirm your willingness to take part in the study.

Do I have part?

It is up to you decide whether or not to be part. If you do decide to take part you will be given this information sheet to keep and asked to sign a consent form. If you decide not to take part you are still free to withdraw at any time and without giving reason.

What are the benefits of taking part?

There may be no direct interview. However, you will be providing useful and important information, which will contribute to the improvement of maternal health and the quest to reduce maternal mortality as well as the achievement of the millennium development goal 5 in Ghana generally.

What are the disadvantages of taking part?

You will be asked to provide information on the quality of care provided at the facility as well as attitude of service providers in the discharge of their duties. You can choose not to answer a particular question if you wish to do so.

Will my taking part in the study be kept confidential?

All information which is collected about you during the course of the study will be kept strictly confidential. You will be identified by a given code number and no names will be recorded. This cannot be linked to you in anyway and your name or any identifier will not be used in any publication or report of this study. However, your participation in this study is entirely voluntary.

What will happen to the results of the Research study?

The study is for a Masters in Public Health and the results will be presented at scientific meetings, and published in academic journals. If you wish, you can obtain a copy of the published results by contacting Afia Seiwa Yegbe.

You will of course not be identified in any report or publication.

Who is organising and funding this research?

The research is being undertaken by Afia Seiwa Yegbe, a student at the Kwame Nkrumah University of science and Technology under the supervision from an academic lecturer. The student is funding this research.

APPENDIX II
CONSENT FORM
FACTORS INFLUENCING THE UTILISATION OF ANTENATAL CARE
SERVICES IN THE MANHYIA SUB-METRO, KUMASI

Information Sheet for study participants

You are being invited to take part in a research study, aimed at assessing the factors influencing the utilisation of antenatal care services in the Manhyia sub-Metro, Kumasi.

Before you decide to take part, it is important for you to understand why the research is being done and what it will involve. Please take some time to read the following information carefully and discuss it with others if you wish. Ask the researcher if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

Who is conducting the study?

The study is being conducted by Afia Seiwa Yegbe, a student being supervised by Dr Sam Newton of the Kwame Nkrumah University of Science and Technology, Department of Community Health, Kumasi.

What is the purpose of the study?

The study is about assessing the factors influencing the utilisation of antenatal care services in the Manhyia sub-Metro, Kumasi in the realization of the Millennium Development Goal 5. We will use questionnaires and observations checklist. The field work for this study begins in September 2014 and will continue until October, 2014.

Why have I been asked to take part?

You have been chosen to present your personal views on antenatal care services in the sub-metro

What would be involved?

The interview will take place at the facility where you attend your child welfare clinic, or a place of your convenience if this would make you feel more comfortable. The interviewer will take you through a semi-structured interview. The interviewer will complete an interview sheet and take additional notes where necessary. The interview will be relaxed and informal and it should last not more than 20 minutes. The questions will be asked about the knowledge on antenatal care services, factors facilitating or inhibiting accessing antenatal care services and the quality of care provided at the antenatal care center.

What happens next?

If you are interested in taking part in this study then consent form will be given to you to sign or thumb print to affirm your willingness to take part in the study.

Do I have part?

It is up to you decide whether or not to be part. If you do decide to take part you will be given this information sheet to keep and asked to sign a consent form. If you decide not to take part you are still free to withdraw at any time and without giving reason.

What are the benefits of taking part?

There may be no direct interview. However, you will be providing useful and important information, which will contribute to the improvement of maternal health and the quest to reduce maternal mortality as well as the achievement of the millennium development goal 5 in Ghana generally.

What are the disadvantages of taking part?

You will be asked to provide information on the quality of care provided at the facility as well as attitude of service providers in the discharge of their duties. You can choose not to answer a particular question if you wish to do so.

Will my taking part in the study be kept confidential?

All information which is collected about you during the course of the study will be kept strictly confidential. You will be identified by a given code number and no names will be recorded. This cannot be linked to you in anyway and your name or any identifier will not be used in any publication or report of this study. However, your participation in this study is entirely voluntary.

What will happen to the results of the Research study?

The study is for a Masters in Public Health and the results will be presented at scientific meetings, and published in academic journals. If you wish, you can obtain a copy of the published results by contacting Afia Seiwaa Yegbe.

You will of course not be identified in any report or publication.

Who is organising and funding this research?

The research is being undertaken by Afia Seiwaa Yegbe, a student at the Kwame Nkrumah University of science and Technology under the supervision from an academic lecturer. The student is funding this research.

APPENDIX II
CONSENT FORM

Title of project: Factors Influencing the Utilisation of Antenatal Care Services in the Manhyia Sub-Metro, Kumasi

Name of Researcher: Afia Seiwaa Yegbe

Please cross box or thumbprint where necessary

1) I confirm that I have read and understand the information
Dated..... (vision) for the above study and have had the
opportunity to ask questions.

☐

2) I understand that my participation is voluntary and that I am free to withdraw at
any time, without giving any reason, without my legal rights being affected.

☐

3) I agree to take part in the above study

☐

Name of subject

Date

Signature/ thumbprint

Name of person taking the consent

Date

Signature

(if different from researcher)

Researcher: Afia Seiwaa Yegbe

Date

Signature

1 for subject; 2 for researcher

APPENDIX III
QUESTIONNAIRE

SECTION A: SOCIO-DEMOGRAPHIC DATA

1. Age (in completed years)
2. Name of Residential Community
3. Marital Status: Single ☐ Married ☐ Divorced ☐ Widowed ☐
other(specify).....
4. Number of Births;

a. Number alive:
5. Educational Level: Basic Education ☐ SSS/TECH ☐ Tertiary ☐
other (specify) ☐
6. Occupation: Farmer ☐ Public Servant ☐ Civil Servant ☐ Unemployed ☐
☐ Trader ☐ other (specify).....
7. Level of income (*please indicate amount per month:* < GH¢300 at low;
>GH¢300 but < GH¢700 at medium and > GH¢700 at high Low ☐
Medium ☐ High ☐
8. Religion: Christian ☐ Muslim ☐ Traditionalist ☐ others (specify)
.....

SECTION B: KNOWLEDGE ON ANTENATAL CARE

9. What in your view is Antenatal Care Services?

.....
.....

10. How did you hear about Antenatal Care Services?

Through friends [] Through relatives [] During a visit to health institution []

Through the media (print and electronic) [] other (specify).....

11. When is it appropriate for pregnant women to access Antenatal Care Services?

Immediately pregnancy is detected [] 1st Trimester [] 2nd Trimester []

]

3rd Trimester []

12. How many visits should a pregnant make to the Antenatal Care Services during the entire period of pregnancy?

One [] Two [] Three [] Four and above[]

13. How often have you accessed Antenatal Care Services?

Once [] Twice [] Thrice [] 4 times []

As often as there are signs of danger []

14. What do you think are some of the benefits of Antenatal Care Services?

.....
.....
.....

SECTION C: SERVICE DELIVERY AT ANC/PNC

15. What is the average number of staff you meet in the facility?

16. Do you visiting the health facilities very often for services?

Not Regularly [] Regularly [] Very Often [] other []

17. How well are you received in the facilities?

Cordially [] Cold heartedly [] other []

18. What services are rendered at the Antenatal Care Services?

Screening [] Management of minor ailment []

Immunization [] Health education []

Others (specify).....

19. What is to the average time spent in the facility to access health care?

Less than 30mins [] 1hr [] 1hr 30mins [] above 2hrs []

20. What is the general attitude of staff towards their clients?

Poor [] Fair [] Good [] Excellent []

21. How will you rate the overall services that were being provided at the center?

Poor [] Fair [] Good [] Excellent []

SECTION D: REASONS WHY PREGNANT WOMEN DO NOT ATTEND FACILITIES

22. a) how far do you live from the facility (in kilometers)?

b) Does that motivate you to attend the facility when time is due?

Yes [] No []

23. What is the means of transportation to the Antenatal Care center?

Walking [] Public means [] Private Car [] Others

(Specify).....

24. How much (in GH¢) do you pay for to and from the antenatal care center or estimated cost of transportation?

.....

25. a) Do you consult anybody for permission before attending a health facility?

Yes [] No []

b) If Yes, Who: Father [] Mother [] Husband []

Religious Head [] other (specify)

c) Does that have an influence your quest to seek care?

Yes [] No []

26. a) Do you have any other reason(s) for not utilizing maternal health services?

Yes [] No []

b) If Yes, what is it/what are they?

.....

.....