

## CHAPTER ONE

### **1.0 INTRODUCTION**

Utilization of health services is a complex behavioral phenomenon. Empirical studies of preventive and curative service have often found that the use of health services is related to availability, quality and cost of services as well as to social structure, health beliefs and personal characteristics of the users.

### **1.1 BACKGROUND**

Pregnancy is not a disease and pregnancy related mortality is almost always preventable yet more than half a million women die annually worldwide (about 1,600 women die every day) due to pregnancy related complications. About 90-95% of these come from developing countries.

Maternal mortality is one of the greatest development and health challenges facing the developing world. Maternal mortality ratios have barely fallen in the last fifty years, even as other health indicators have improved. 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).

On 16<sup>th</sup> September 2000, the largest-ever gathering of heads of state from all over the world ushered in the new millennium by adopting the U.N. Millennium declaration. The declaration

endorsed by 189 countries was then translated into a roadway, setting out goals to be reached by the year 2015. Three out of the eight goals, eight of the sixteen targets and eighteen of the forty eight indications are directly related to health. Improved maternal health is one of the key goals of millennium declaration. Target is to reduce maternal mortality by three quarters between the years 1990 and 2015.

Though the issue of improving maternal health care services has been high on the international agenda for two decades, the ratio of maternal mortality seems to have changed little in regions where most deaths occur i.e. Sub Sahara Africa and Southern Asia. Adequate reproductive health services and family planning are essential in improving maternal health, therefore adequate utilization of the maternal health services would contribute substantially in achieving this goal.

## **1.2 MATERNAL MORTALITY IN GHANA**

Ghana's maternal mortality rate rises at an unacceptable 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. The tragedy and opportunity is that most of these deaths can be prevented with cost-effective health care services. Reducing maternal mortality and disability will depend on identifying and improving those services that are critical to the health of women and girls in Ghana. These include antenatal care, emergency obstetric care,

adequate post natal care, and family planning services. Ghana's maternal and perinatal mortality rate is 205 per 100,000 live births

Antenatal care is commonly understood to have beneficial impact on pregnancy and birth outcomes through early diagnosis and treatment of complications as well as promoting the health of the pregnant woman through nutrition

Antenatal care services create the opportunity for service providers to establish contact with the woman to identify and manage current and potential risks and problems during pregnancy. It also creates the opportunity for the woman and her care providers to establish a delivery plan based on her needs, resources and circumstances. Again it creates opportunity for screening for such conditions as HIV and Sexually Transmitted Infections among others.

The current strategy for delivery of antenatal care services is geared towards promoting individualized client-centered and comprehensive services, disease detection and at risk assessment, and improving the skills and boosting the morale of service providers to deliver effective antenatal care services.

In Ghana antenatal care services are provided by public, private, quasi and in some circumstance by Traditional Birth Attendants.

### **1.3 PROBLEM STATEMENT**

Women and children are the most vulnerable group and they form 76% of the population (2000 Population and Housing Census). Morbidity and mortality among this group accounts for a major

population of all health and deaths in Ghana. The best estimates suggest that roughly between 1400 and 3900 women and girls die each year due to pregnancy related complications. Again it is said that another 28,000 to 117,000 women and girls will suffer from disability caused by complications during pregnancy and child birth each year.

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 the 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.

Women in reproductive health in Atwima Nwabiagya district utilize antenatal care services but the factors that influence the utilization is not known. A careful study of the trends of Antenatal care services in Atwima Nwabiagya District reveals a steady increase in coverage from 84.9% in 2004 to 86.0% in 2007 (Atwima Nwabiagya District Profile, 2007). It is against this background that the study was undertaken to best address the question “which factors influence the utilization of Antenatal Care Services in the Atwima Nwabiagya District?”.

#### **1.4 RATIONALE OF THE STUDY**

The policy of the government is to increase health care facilities and improve on the existing ones to make them easily accessible and therefore increase utilization. The rationale of the study was to assess factors influencing utilization of Antenatal Care Services in Atwima Nwabiagya District of Ashanti Region.

## **1.5 HYPOTHESIS**

Antenatal care services are utilized by the women in the reproductive age.

## **1.6 NULL HYPOTHESIS**

Antenatal care services are not utilized by the women in the reproductive age.

## **1.7 CONCEPTUAL FRAMEWORK**

### **❖ Socio Demographic Factors** Age

Occupation

Level of education

Marital status

Parity

Religion

Cultural beliefs

Income level

### **❖ Knowledge Of Women About Services Factors** Awareness

Beliefs

Time of first visits (Initiation)

Interval between number of visits

Number of visits

❖ **Quality Of Care Factors**

- Personnel
- Skills of personnel
- Attitude of personnel
- Services provided
- Where services are sought
- Reasons for accessibility
- Satisfaction with services rendered

❖ **Access Factors**

- Availability
- Affordability
- Accessibility
- Environment
- Distance of facility
- Transport

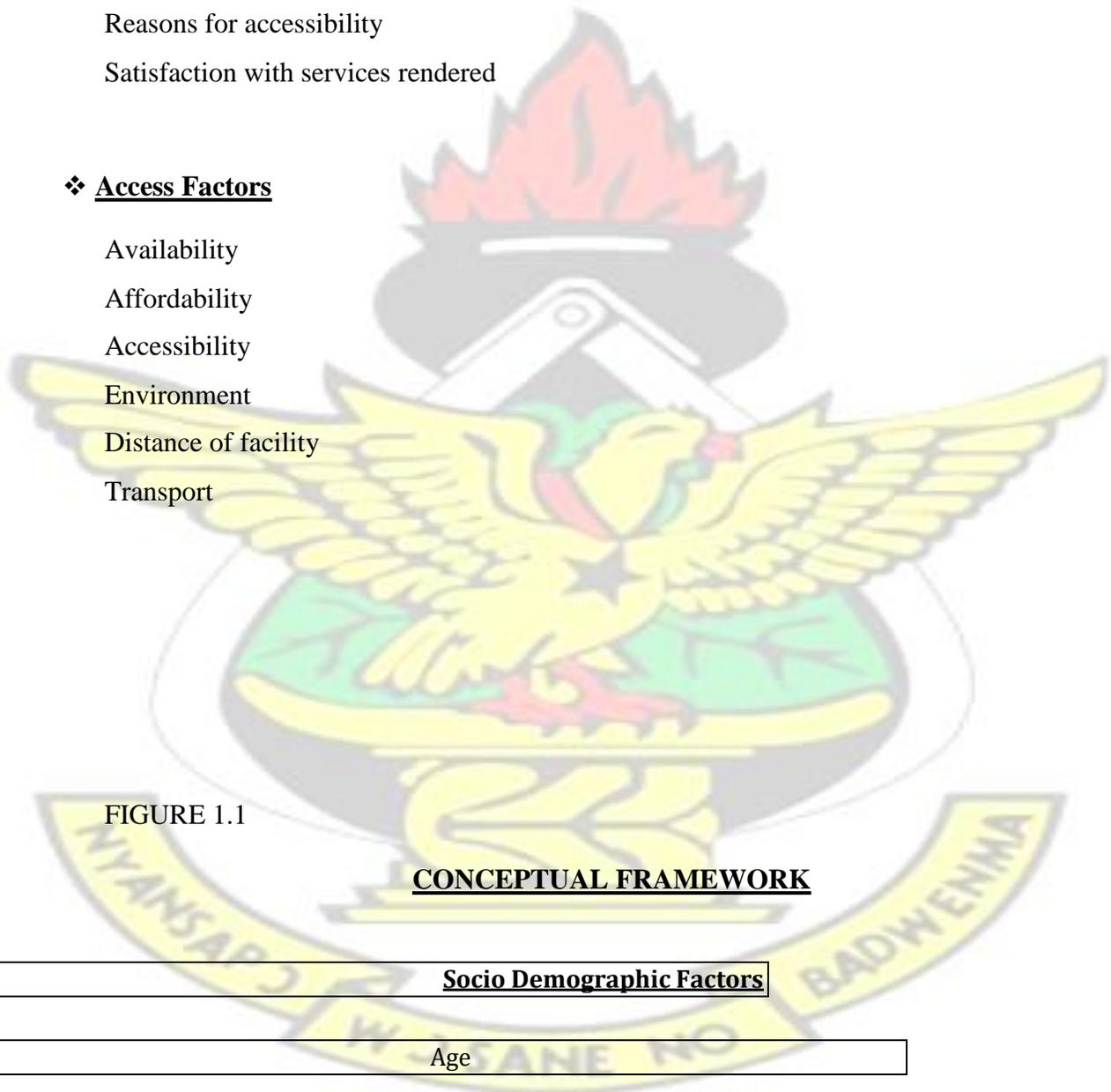


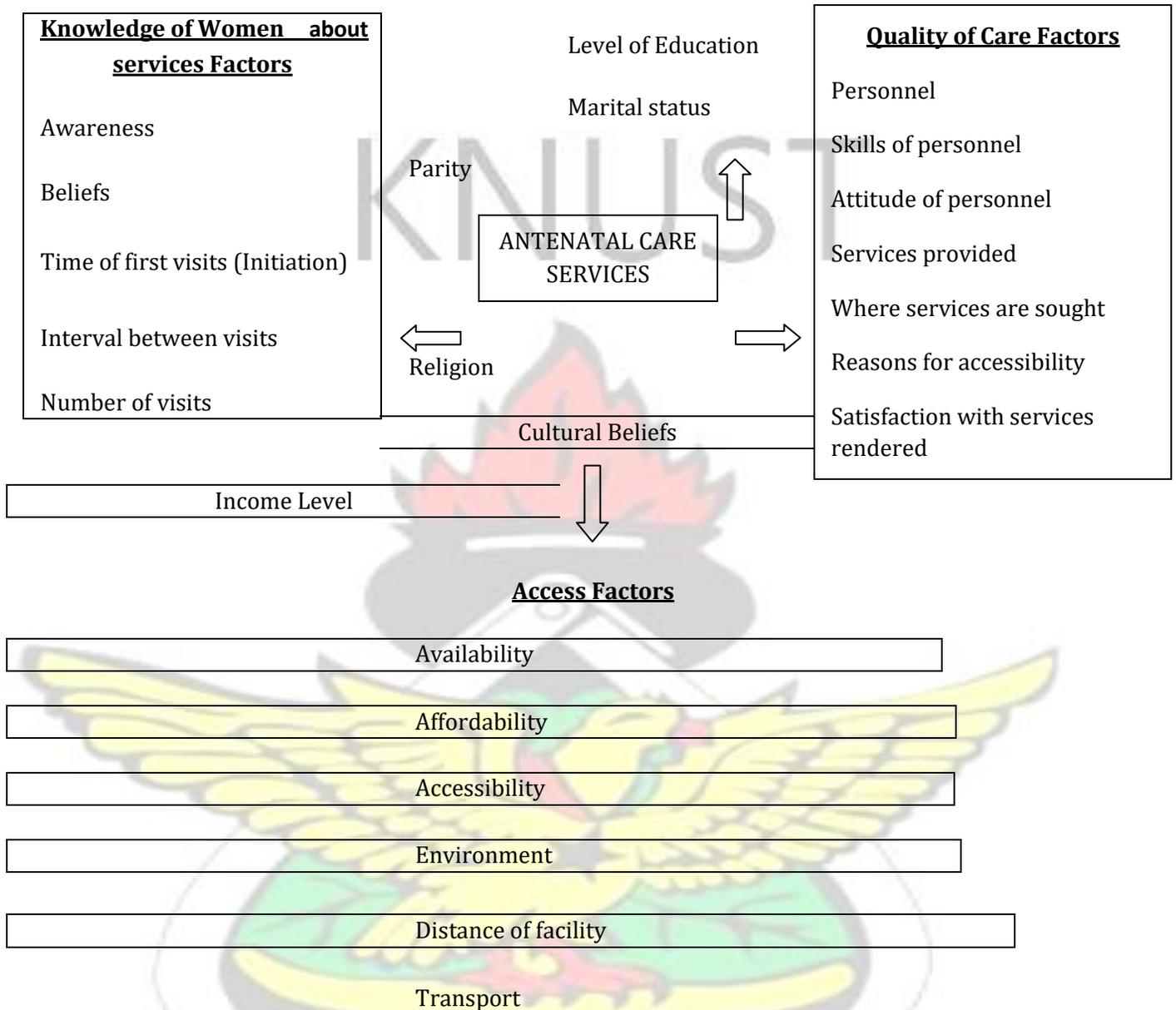
FIGURE 1.1

**CONCEPTUAL FRAMEWORK**

**Socio Demographic Factors**

Age

Occupation



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

These were

- (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.

## 1.8 **RESEARCH QUESTIONS**

- What are the Socio-demographic profiles of women in the reproductive age accessing Antenatal Services?
- What is the knowledge level of women about Antenatal Services
- What is the quality of care rendered to women who access Antenatal Services
- What are the factors that help the women to access Antenatal Services
- What suggestions and recommendations can help solve these questions?

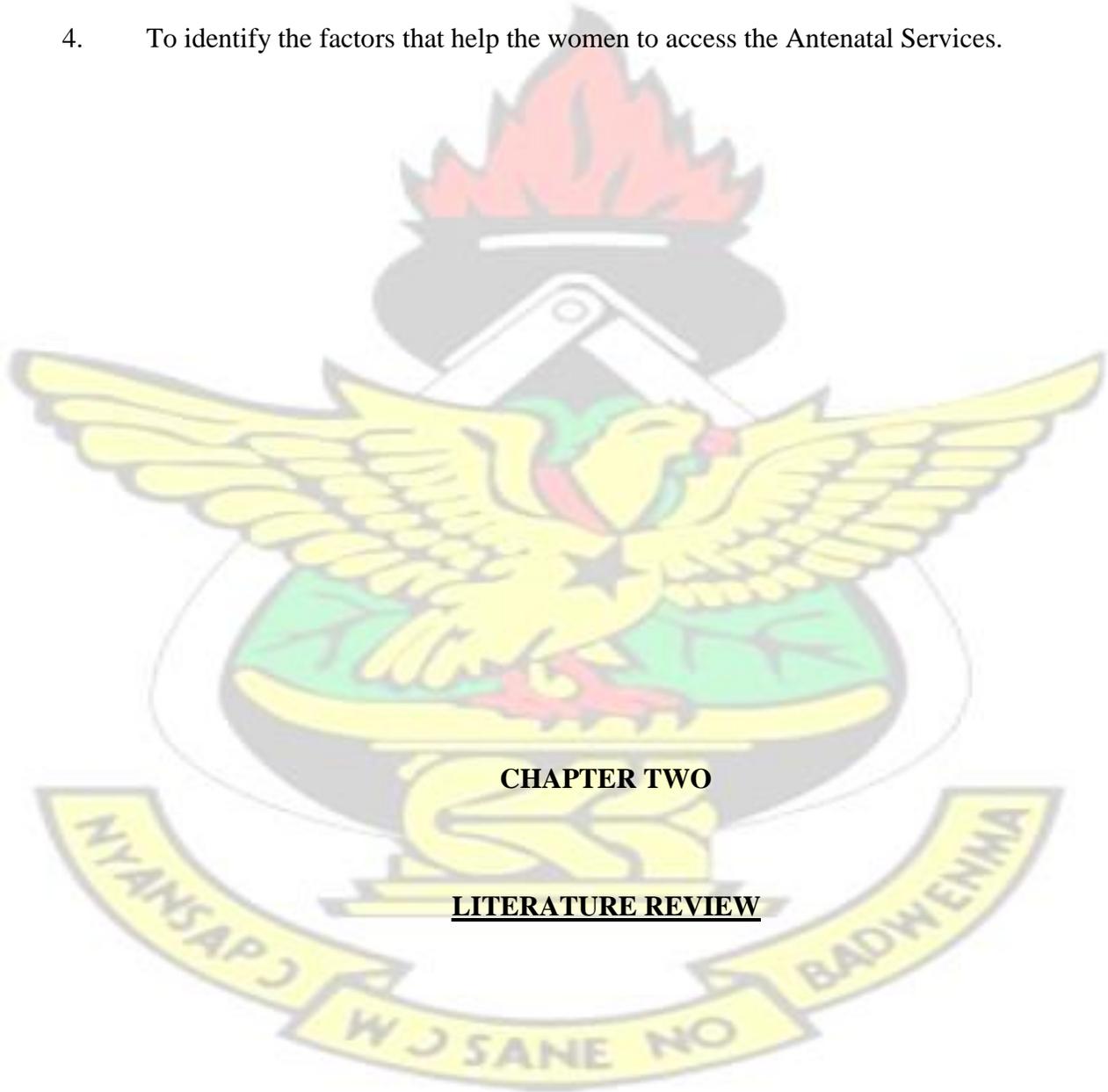
## 1.9 **OBJECTIVES**

### 1.9.1 **GENERAL OBJECTIVES**

To determine the factors influencing the utilization of Antenatal care services in Atwima Nwabiagya District.

### 1.9.2 SPECIFIC OBJECTIVES

1. To determine the Socio-demographic Profile of women in the reproductive age group who access Antenatal care services.
2. To determine the knowledge level of women about Antenatal Care Services.
3. To assess the quality of care rendered to women who access Antenatal Care Services.
4. To identify the factors that help the women to access the Antenatal Services.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

## 2.1 INTRODUCTION

Maternal mortality 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.

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, 1994)

Antenatal care which is known as care during pregnancy is essential for diagnosing and treating complications that could endanger the lives of mother and child.

Most life threatening obstetric complications can be prevented through antenatal care. Moreover, there is sufficient evidence that care during pregnancy is an important opportunity to deliver interventions that will improve maternal health and survival during the period immediately preceding birth and after birth. Furthermore, if the antenatal period is used to inform women and families about danger signs and symptoms and about the risks of labour and delivery, it may ensure that pregnant women deliver with the assistance of a skilled health care provider.

Antenatal care is a potentially important way to link a woman with the health system which if functioning well, will be critical for saving her life in the event of a complication (UNICEF 2004).

The antenatal period also offers opportunities for delivering health information and services that can significantly enhance the well-being of women and their infants, but this potential is yet to be realized. Antenatal visits offer entry points for a range of other programmes including information on nutrition and the prevention of malaria, HIV infection, tetanus and tuberculosis, as well as obstetric care (UNICEF, 2004).

While antenatal care can be an important tool in diagnosing and preventing risks during pregnancy, many women in developing countries do not use this service. Using a three level linear regression model, data from the 1993 Kenya Demographic and Health Survey were analyzed to determine the frequency and timing of use of antenatal care services. The result showed that the median number of antenatal care visit was four and the first visits occur in the fifth month of the pregnancy on average (Magadi et al, 2000). Use of antenatal care is started later and is less frequent for unwanted and mistimed pregnancies. Even women who appear to use antenatal care frequently are less likely to use the services for a mistimed pregnancy. Long distance to the nearest antenatal care facility is an obstacle to antenatal care (Magadi et al, 2000).

The factors that prevent women in developing countries from getting the life saving health care needs include: cost (direct fees as well as the cost of transportation, drugs and supplies); multiple demands on women's time; women's lack of decision-making power within the family. The poor quality of services, including poor treatment by health providers, also makes some women reluctant to use the services (WHO, 1997).

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)

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 (MCHFP, 1993). This 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 7<sup>th</sup> and 8<sup>th</sup> months and women usually averaged only one visit per pregnancy (Williams, 1972). Patients may also report to antenatal clinics only when they are ill (Ledward, 1982).

In Jamaica, McCaw-Binns et al (1994) observed that commencement of antenatal care in the first trimester appeared to reduce the risk of all prenatal death and for interpartum asphyxia in particular. Toker et al (1994) found the number, timing, location and supervision of antenatal visit

as the main pregnancy outcome measures in a retrospective cohort study of case record of antenatal care.

In Dundee, Scotland, Floray and Taylor (1994) observed that the earlier in pregnancy the first antenatal visit is made, the greater the infant birth weight. This relationship was independent of gestational age of birth, mothers' age and height, social class and the child's sex. The work of Maquart-Mouhn et al (1992) lends supporting evidence to the above factors.

Some factors have been associated with delayed antenatal care. Among them is the study of Mikulaudra et al (1992) which stated that pregnancy and delivery in grand multiparas are at higher risk due to poorer antenatal care and advancing maternal age. MacDonald et al (1992) 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.

Blondel et al (1993) associated poor antenatal care attendance with young age.

In New Zealand, Essek 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 socioeconomic status, and low education level.

## 2.2 **FACTORS INFLUENCING UTILIZATION OF ANTENATAL CARE SERVICES**

### 2.2.1 **SOCIO-DEMOGRAPHIC FACTORS**

Socio demographic factors influencing utilization of material health care services in less developed countries include residence or distance to health services, age, parity, economic status and the problems during pregnancy and birth been observed in India.

The levels of antenatal care utilization were also found to be high among women with higher economic status, better education, few children, married women and employed women. In another related research conducted in Nicaragua by Lubbak and Stephenson, (2008) on the utilization of antenatal care services, the age of participants range from 18 – 40 with a mean age of 26 years. The mean number of children per woman was 3.3. The overwhelming majority of women interviewed sought antenatal care.

The study also reveals the shared cultural belief that a woman's role is to be the caretaker of her children. Women's acceptance of this prescribed gender role as the passive caretaker of the family heightens the perceived opportunity costs of seeking antenatal care. For women, prenatal care is considered necessary primarily to ensure the health of a child rather than to protect one's own health. There is a disconnection in how women view antenatal care in relation to the health and security of their child, which may result in the difference in their utilization of antenatal care services.

There are a number of published and unpublished works that explores women's experiences, views, and beliefs in relation to delivery in Bangladesh. These studies have found a wide range of factors that may contribute to low levels of use of professional services to delays in the decision to seek care, or to refusal of referrals for service.

Elizabeth Simoes, Slegfried Kunz et al, (2004) in their findings on association between maternal occupational status and utilization of antenatal care in Germany as cited by Heinrich, (1977); Greenberg (1983); Selbmanu (1984); Moore et al, (1986) wrote that the use of antenatal care varies between different social groups of women. They stated that maternal socio-economic factors influence health behaviour

A high percentage of rural women in the world live in poverty of which 90% are in Africa and Asia (World Bank 1994). Poverty levels in Africa are very high and in Ghana particularly, it has been estimated that forty nine percent of Ghanaians earn less than a dollar a day (UNICEF, 2000)

In a study on the determinants of maternal health services in the rural India, it was found that, there is a correlation between household income and utilization of maternal health services (Sharif and Singh, 2002). It was evident that as a result of lack of productive resources for women, income earned by women had negative impact on utilization of Antenatal care (ANC) and post natal care (PNC).

Even though basic ANC services by policy are free in Ghana, its implementation has shown evidence that cost of ANC Services affects utilization especially among poor women. A study comparing utilization of health services in Urban and Rural Ghana revealed that cost of health facilities deprives the poor of access to health facilities. The study also established that income is exceeded only by distance as the most important factor influencing the

utilization of health services in rural area of Ahafo-Ano South District of Ghana (Bour, 2004).

It was found that women from low-income families were less likely to seek prenatal care, visit the town health centre or local private clinic, whereas women from high-income families used country hospitals or higher medical institutes which provided better quality care. These findings led to the recommendation that low income should be taken as “high-risk factor” for poor maternal health (World Bank, 1993)

According to the World Bank, (1993), there has been no significant decline in poverty rates throughout most of the developing world over the past decade. It is indicated that in developing countries the individual family is likely to be impoverished with no resources for emergencies. When daily survival of the family is at risk, mothers will use fewer resources for their own health. Moreover, most developing countries spend less on health and welfare than they do on servicing their debts.

Millions of women cannot afford to use maternal health services. Even when formal fees are low or non-existent women often face hidden fees and expenses for transport, drugs and food. In Zaria, Nigeria a study found that from free to fee-based services for obstetric care reduced admission overall, but significantly increased emergency cases. The number of maternal death rose correspondingly (Harrison, 1997). The poorer the women are the more likely fees are to affect their use of health services.

According to Hadi A et al, (2007) in their research on “the inaccessibility and utilization of antenatal health care services in Balkh Province of Afghanistan”, the utilization of Antenatal care (ANC) services was differentiated by the participation of women in activities. The use of each of the ANC services was significantly lower among women who were involved in economic activities than among those not economically active. This indicates that involvement in such activities might have created extra burden on them and reduced the time they had available for receiving such services. Again they said that age of the women appeared to be negatively associated with the use of ANC.

According to Chaibva C. N., (2008), a woman’s age might influence her decision to initiate ANC late or not to attend ANC at all. She claimed that pregnant adolescents might tend to hide their pregnancies because they might be unmarried, attending school, afraid of or prejudicial against health care providers or they might be simply too young and ignorant to appreciate the value of ANC (Chaibva C. N., 2008)

According to Matua (2004), as cited by Chaibva S.N (2008), pregnant adolescents might shun ANC services for fear of being labeled “promiscuous”. On the other hand, older adolescent who have had uneventful pregnancies and deliveries with previous pregnancies might see no reason to attend ANC. In 19 out of 26 developing countries, women who were 19 years or younger were reportedly less likely than older women to seek ANC from health professionals (Reynold et al 2006)

Knowledge is power, and many women have little knowledge. Illiteracy rates may be almost 50% higher for women than men UNESCO (1992) and women without formal education have a greater risk of maternal mortality than educated women (Harrison 1990 and Briggs 1993).

Although education and social welfare are not aimed at only improving maternal health, increased spending in these areas leads to sustained reduction in maternal mortality and morbidity (Franke and Chasin, 1992).

The client's level of education could also influence pregnant women's utilization of the health facilities as well as the understanding of the importance of seeking health care promptly. Low educational status has been identified as a major barrier to the utilization of health care services especially ANC. These women could easily be persuaded by their grandmothers or TBA's not to attend ANC and to deliver their babies at home. (Mottew 1997, cited by Mathole et al 2005). Lack of education can also negatively affect the women's comprehension of important information and the ability to make informed decisions including the awareness of their own rights (Matua 2004; Irinoye et al 2001)

These findings imply that pregnant adolescents who may have attained only low level education may not value utilizing ANC services. High educational levels of both husband and wife have been observed to promote positive health seeking behaviours according to Mulholland, Alibarnho, Brew-Graves and Monreal-Pinland (1999) as well as Matha (2004).

In Kausani, Kano State, Nigeria, according to Adamu and Salihu (2002), most women deliver at home and a few receive ANC. The three most common reasons given for nonuse of ANC were limited financial resources, God's will and husband demand. In order to improve utilization of ANC services, efforts to relieve poverty, and empower women economically are needed. Any programme must take into consideration this socio cultural context of the population.

Cultural practices and traditional beliefs could be a negative factor contributing to ANC services utilization. In Sudd, Southern Sudan, traditional practices in pregnancy and child birth have been deeply rooted in the lives of the people that it conflicts with the acceptance of modern antenatal care (Boudier, 1984). In Cameroun, one reason why women continue to seek care from traditional midwives in spite of sufficient number of government maternity units is to guarantee appropriate disposal of placenta, which plays a vital role in their culture (Coma, 1960).

Leslie and Gupta (1988) and Pelto (1987) in their studies revealed that cultural background of women serves as an important factor in the utilization of maternal health services. The cultural prospect on the use of maternal health services suggests medical need is determined not only by the presence of physical disease, but also by cultural perception of illness (Addai 2000)

In many parts of Africa, women's decision making power is extremely limited particularly in matters of reproduction and sexuality. Decision making with regard to maternal care is

often made by husband or other family members (WHO 1998). In a study conducted in Nigeria, it was found that in almost all cases, a husband's permission is required for a woman to seek health services, including life saving care. Men play a determining role in decision over when to seek treatment, be it traditional or orthodox in many cultural contexts (Oxaal and Baden, 1996).

Marital Status could influence health care seeking behaviours. According to WHO (2003) cited by Chaibva C.N (2008), unmarried pregnant women are less likely to seek ANC services due to a lack of economic and social support from parents, guardians and spouses. Married pregnant adolescents may also lack social independent and decision making powers to seek ANC. There may be pressure or oppression from the spouse or influential members of the extended family forcing pregnant women to accept the decision made on their behalf (WHO 2003)

### 2.2.2 **KNOWLEDGE ABOUT A.N.C**

Knowledge was identified as a major structural variable that could influence the decision on whether to utilize ANC services. Women need information about pregnancy and ANC services during their pre conception period so that they can make informed decisions when pregnant.

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; Lesser 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.

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 (1998) 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.

Inadequate knowledge about ANC and its benefits to the mother's and the infant's health may also negatively influence the utilization of ANC services. Sometimes, pregnant women may not be aware of the health problems related to poor or no utilization of ANC services (Dennit et al 1995). Lack of knowledge about the dangers of not seeking health care in pregnancy and delivery were major barriers to seeking health care among pregnant women in Uganda (Matua 2004). Behaviour is expected to change if pregnant women are aware of the implications of not attending ANC and if they are convinced of the benefits of practicing preventive care.

Perceived benefits of utilizing ANC services provide a platform for interacting with the pregnant women, identifying needs or problems and jointly arriving at possible solutions to these needs. The pregnant women need to know the benefits of attending ANC as well as the implications of not attending ANC. Pregnant women might value the importance of ANC if they were aware of its benefits to their health and that of their babies. Adequate ANC utilization implies that the initial ANC should take place before 16 weeks of gestation during the first trimester of pregnancy with a minimum of four ANC visits during the pregnancy.

The second ANC visit should occur between 16 and 23 weeks gestation. The third ANC visit takes place between 24 and 28 weeks gestation. The fourth ANC visit takes place between 32 and 34 weeks of gestation. The fifth ANC visit is conducted between 36 and 37 weeks, while the sixth visit between 38 and 42 weeks respectively. However the ANC visits may be more frequent when there are potential health risks. The ANC attendance register for 2004 and 2005 revealed that the majority of Zimbabwe's pregnant women had an average of one ANC visit before delivery and an initial ANC visit was made during the second or third trimester (Singh and Khare 2001)

In Ghana, the total number of antenatal registrants for 2006 was 791,166 representing 88.4% of expected pregnancies. This is a slight decline from that of 2005 (88.7%). The near 90% coverage implies that about 9 out of 10 women would pay at least a visit to a health facility during pregnancy. The average number of visits recorded was 3.3 in 2006 as compared to 3.4 in 2005. More than half (58.5%) of registrants made at least 4 visits in

2006. There was however a drop as compared to 2005 (62.0%). In 2006, the proportion of pregnant women who made their first antenatal care visit during the first trimester was 33.5%, an increase over that for 2005 (30.9%) (GHS/RCH, 2007).

### 2.2.3 **QUALITY OF CARE**

Quality Care in ANC should ultimately do what is right, acceptable to and good for the pregnant adolescents and should adhere to professional ethics. Quality ANC has to be imbued with the concept of caring including the humanistic attributes of competence, confidence, commitment, compassion and conscience and should be based on knowledge, skills and values (Van der Wal 2002). Focused ANC promotes quality care. The JHPIEGO stipulates the following general principles on the provision of quality care.

- ❖ Adolescent friendly services inclusive of a partner
  - Provide services that are acceptable to the women by doing the following;
    - Respect beliefs, traditions and culture
    - Include family, partner or other support persons in care -  
Provide relevant and feasible advice
  - Empower the woman and their family to become active participants in care -  
Ensure that all health staff use good interpersonal skills.
    - Consider the emotional, psychological and social wellbeing of the woman.

- Adolescents/women friendly antenatal care services is life – saving as studies have shown that women may refuse to seek antenatal care from a provider who “abuses” them or does not treat them well, even if the provider is skilled in preventing and managing of complications.

❖ Culturally appropriate ANC services.

Pregnancy and childbirth are individual, family and community events, rich in spiritual significance and power, cultural awareness, competency and openness are therefore essential in entering into a care relationship with a woman during this important time in her life. When a specific cultural practice has been identified as harmful and violation of human rights, skilled providers must carefully assess the usefulness of the practice in their area and with other skilled providers and local influential people to develop a plan to advocate a change.

❖ Individualized services

This is an approach to ANC that emphasizes individualized care, client centered, fewer but comprehensive visits, disease detection not risk management and the care is by a skilled provider.

Individualized services, privacy/confidentiality is assured, continuous care is provided by the same person to national protocols and referral is facilitated.

Pregnant women have reported negative attitudes of health care providers (Matua 2004). Women including adolescents are sometimes reluctant to use maternity care services because health care providers are perceived to be rude, insensitive and threatening to these young mothers. Pregnant women can also base their behaviour on previous negative experiences and perceptions of care received (Matua 2004; Starrs 1997; Ziyani et al 2004). This is an area of concern to midwifery practice, as it has serious implications for the accessibility of ANC services.

According to Vail J., (2002), the average waiting time was less than one hour.

#### 2.2.4 **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. Slap (1995). Antenatal care services should be accessible to all pregnant women irrespective of social status, age, race or level of education and HIV status, and should provide an environment of trust and confidentiality. (Kluge, 2006)

According to Kathryn (1997) and Llongo (2004), the following factors contribute to 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.

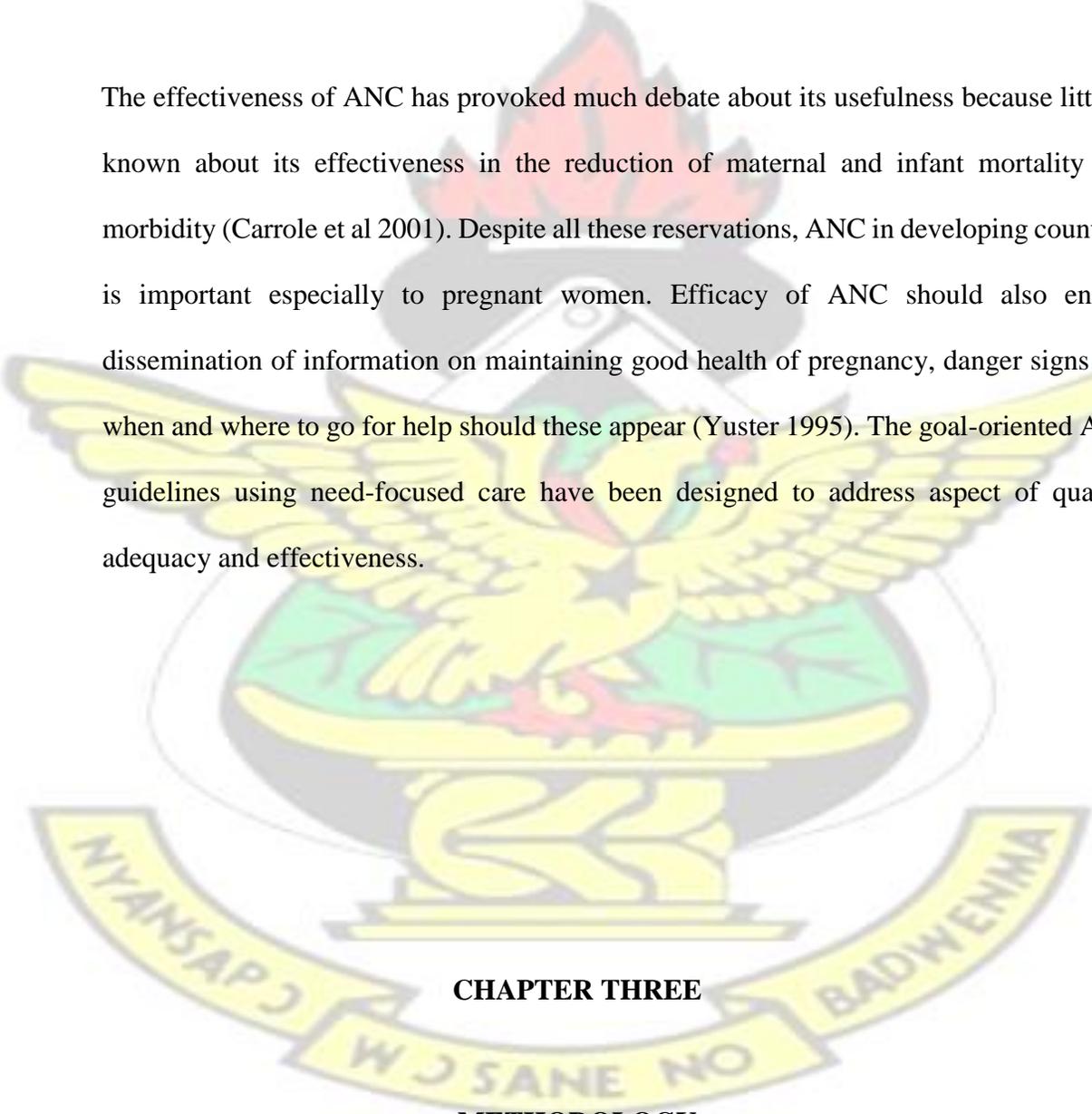
The majority of pregnant women might not be able to afford the maternity fees that are charged because most of them have financial limitations. Pregnant women in Zimbabwe pay about (US\$25.00) at the PHC clinics. The government tries to assist those pregnant women who genuinely cannot afford to pay by referring them to social welfare.

However the process of obtaining state assistance by pregnant women who genuinely cannot afford to pay is long and frustrating causing mothers to shun social welfare. 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.

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<sup>st</sup> July, 2008, the government of Ghana in order to reduce the maternal mortality which was high made antenatal and delivery free of charge.

Pregnant women would be motivated to use the ANC services if they are acceptable and need focused without restrictions. Pregnant women expect care that is acceptable and focuses on their individual needs. ANC services should be available to pregnant women without any restrictions. In Ghana, ANC is provided at every health centre/hospital and it is clear that its availability is acceptable to pregnant women.

The effectiveness of ANC has provoked much debate about its usefulness because little is known about its effectiveness in the reduction of maternal and infant mortality and morbidity (Carrole et al 2001). 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 (Yuster 1995). The goal-oriented ANC guidelines using need-focused care have been designed to address aspect of quality, adequacy and effectiveness.



### **CHAPTER THREE**

#### **METHODOLOGY**

### 3.1 STUDY DESIGN

The study was primarily cross-sectional descriptive and it was carried out from August to October 2008

### 3.2 STUDY POPULATION

The sample population consisted of 28,255 women. This represented the total number of women in the reproductive age group at the time of the study.

TABLE 3.1

#### AGE COMPOSITION OF STUDY POPULATION

AGE GROUP IN YEARS	ABSOLUTE NUMBER	PERCENTAGE
15 – 19	5,504	19
20 – 24	5,320	18
25 – 29	5,075	17
30 – 34	4,107	14
35 – 39	3,479	12
40 – 44	2,726	9
45 – 49	2,044	7
TOTAL	28,255	100

Atwima Nwabiagya District Profile 2006

### 3.3 PROFILE OF THE STUDY AREA

Atwima Nwabiagya is one of the twenty one political and administrative districts in Ashanti

Region. It was carved out of the former Atwima District in 2004 by the legislative instrument 1738 (L1 1738).

### 3.3.1 **GEOGRAPHICAL LOCATION**

Atwima Nwabiagya District lies approximately on the western part of Ashanti Region and shares boundaries with Ahafo Ano South and Atwima Mponua Districts to the west, Offinso district to the North, Amansie District to the South and Kumasi Metropolis and Kwabre District to the east. It covers an estimated area of 294.84 Sqkm. The district capital is Nkawie. The district is divided into five sub-districts – Barekese, Asuofia, Akropong Abuakwa and Nkawie.

### 3.3.2 **DEMOGRAPHIC CHARACTERISTICS**

#### 3.3.2.1 **POPULATION**

The total population of the District according to the 2000 population and housing census was (129,375) with an annual growth rate of 3%.

The census revealed that the district has a sex ratio of 101:100 males to females

The projected population of the district for 2008 (using geometric methods) is 178989 and population density 439 persons per Sq Km. The population of women in the reproductive age (WIRA) was 28255.

### 3.3.2.2 **COMMUNITIES**

The district is predominantly urban with 64.0% living in the urban and 36.0% in the rural areas. There are 126 communities in the district.

### 3.3.2.3 **RELIGION**

Christianity is the dominant religion in the district with 75.7% Islam 13.2% Traditional Religion 1.2%, other religions 0.9% and no religion 9.0%.

### 3.3.2.4 **KINGSHIP SYSTEM**

Each town in the district has a chief (Nana), sub chiefs and elders who help him to rule. However in some smaller communities, there are sub chiefs.

## 3.3.3 **AVAILABLE RESOURCES AND ECONOMIC ACTIVITIES**

### 3.3.3.1 **OCCUPATION**

The main occupation of the people in the district are agriculture, trading, teaching with some of them employed in Banking, Post and Telecommunication, Health care services and Electricity company of Ghana.

### 3.3.3.2 **RESOURCES**

The district has a hospital, four health centers, four private clinics and seven maternity homes. It also has road network with 34.6% of Bitumen surfaced road. The district is hooked to the National grid and has signals from all the frequency modulations (FM)

stations in Kumasi. It also has signals from G.T.V, TV3 and Metro T.V. There is pipe borne water from Barekese and Owabi Waterworks, boreholes and hand dug wells fitted with pumps.

KNUST

### 3.4 SAMPLE SIZE

A total sample size of 222 women was selected using the following statistical formula.

$$N = \frac{Z^2 p q}{d^2} \quad \text{where,}$$

N= The desired sample size (when population is greater than 10,000)

Z= The reliability co-efficient for 95% confidence level set at 1.96

p = Proportion of Antenatal care services non users

q = 1 – P = 86.0% or 0.86

Degree of freedom

$$N = \frac{Z^2 p q}{d^2}$$

$$= \frac{1.96^2 \times (0.14) \times (0.86)}{0.05^2}$$

$$= \frac{3.842 \times 0.116}{0.0025}$$

$$= \frac{0.4625}{0.0025} = 185$$

Non respondents = 20% of 185

$$= 37$$

Therefore sample size = 185+37

$$= 222$$

### 3.5 SAMPLING PROCEDURE / TECHNIQUE / METHOD

The following sampling procedure was used;

- ❖ Simple random sampling was used to select three subdistricts out of five in the district.  
The three subdistricts selected were Abuakwa, Nkawie and Akropong
- ❖ In each of the subdistricts, four communities were selected. This was done by writing the names of all the communities of the subdistrict on pieces of paper and four were randomly selected. Thus, 12 communities were selected from the three subdistricts.
- ❖ 222 women, who had delivered between the period of 1<sup>st</sup> January, 2008 and 31<sup>st</sup> August, 2008 were selected from 12 communities in the three sub districts.
- ❖ In the four communities in each subdistrict, 18 households were selected using the following method. The chief's house was located in each community, facing it; the first house on the right was selected and moving in that direction, every alternate household was selected until the 18 households were covered. When the 18 households were not covered, the researcher and research assistants turned right, then right until the 18 households were covered for the particular community.

### 3.6 DATA COLLECTIONS TOOL / TECHNIQUE

The technique used in the study was questionnaire which was both close and open ended.

### 3.7 **PLANS FOR DATA HANDLING**

Regular verification and validation of data were done with all inconsistencies being checked and resolved with the researcher, research assistants and the data entry clerk.

All data were entered into a computer and processed using EPI INFO and SPSS Version 15 Software.

Data collected from the questionnaire were presented graphically using pie chart, bar chart etc.

### 3.8 **STUDY VARIABLES**

#### 3.8.1 **DEPENDENT VARIABLE**

Utilization of Antenatal Care Services

#### 3.8.2 **INDEPENDENT VARIABLES**

- ❖ Age
- ❖ Educational level of women
- ❖ Religious affiliation
- ❖ Occupation of women accessing Antenatal care
- ❖ Marital status
- ❖ Parity
- ❖ Income Level
- ❖ Initiation of visits
- ❖ Number of visit.

- ❖ Cultural practices
- ❖ Attitude of health providers ❖ Services rendered.
- ❖ Environment
- ❖ Distance of facility
- ❖ Availability of services
- ❖ Affordability of service



TABLE 3.2

**TABLE OF STUDY VARIABLES**

<b>STUDY VARIABLES</b>	<b>OPERATIONAL DEFINITION</b>	<b>TYPE OF VARIABLE</b>	<b>OBJECTIVES ADDRESSED</b>
Age	Age at last birthday	Continuous	1
Education	Last level of education attended – Basic, Secondary, Tertiary	Ordinary	1
Religion	As reported by respondents (Christian, Muslim, Traditionalist)	Nominal	1
Occupation	Work performed daily e.g. Housewife, student, farmer, civil, servant and trader.	Nominal	1
Marital Status	Expressed in terms of single, married, widowed, divorce, separated as at the time of research.	Nominal	1
Parity	Expressed in terms of each time of pregnancy. 1-2 , 3-4, 5-6, above 6	Discrete	1
Income level	Personal Income	Continuous	1
Initiation of visits	Expressed in terms of when the first visit to Antenatal is made. <ul style="list-style-type: none"> <li>• As soon as pregnancy is noticed .</li> <li>• One-two months after pregnancy.</li> <li>• Three – four months after pregnancy.</li> <li>• After four months of pregnancy</li> </ul>	Continuous	2

<b>STUDY VARIABLES</b>	<b>OPERATIONAL DEFINITION</b>	<b>TYPE OF VARIABLE</b>	<b>OBJECTIVES ADDRESSED</b>
------------------------	-------------------------------	-------------------------	-----------------------------

Number of visits	Expressed in terms of how many times a woman visits Antenatal before delivery. 1 2 3 4 above 4	Discrete	2
Interval of visits	Expressed as how often women visit Antenatal	Continuous	2
Attitude of health care providers	Expressed in terms of how the women are treated. 1-Poor, 2-Fair, 3-Good, 4 - Very Good, 5- Excellent.	Nominal	3
Type of services rendered	Expressed in terms of what is done at Antenatal Screening Immunization Family planning Management of minor ailment	Nominal	3
Place where services are rendered	Expressed as follows; 1. Room provided for such 2. Veranda 3. Under a tree 4. Under the sun	Nominal	3

<b>STUDY VARIABLES</b>	<b>OPERATIONAL DEFINITION</b>	<b>TYPE OF VARIABLE</b>	<b>OBJECTIVES ADDRESSED</b>
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Place where services are sought	Expressed as <ol style="list-style-type: none"> <li>1. Government institution</li> <li>2. Private</li> <li>3. Traditional Birth places</li> <li>4. Maternity home</li> </ol>	Nominal	3
Number of health personnel attending to client	Expressed in terms of <ol style="list-style-type: none"> <li>1. One Person</li> <li>2. Two persons</li> <li>3. Three persons</li> <li>4. Four persons</li> </ol>	Discrete	3
Time spent at the service	Expressed in terms of <ol style="list-style-type: none"> <li>1. 1- 30 minutes</li> <li>2. 30 – 60 minutes</li> <li>3. 60 – 90 minutes</li> <li>4. 120 minutes and above</li> </ol>	Continuous	3
Satisfaction of service	Expressed in terms of <ol style="list-style-type: none"> <li>1. Not satisfied</li> <li>2. Fairly satisfied</li> <li>3. Satisfied</li> <li>4. Very Satisfied</li> </ol>	Nominal	3
Distance of facility	Expressed in terms of kilometers <ol style="list-style-type: none"> <li>1. 0 -500m near</li> <li>2. 500 – 1000 m a bit far</li> <li>3. 1000 – 1500 m far</li> <li>4. 1500 – 2000 m very far</li> <li>5. above 2000 m very very far</li> </ol>	Continuous	4
<b>STUDY VARIABLES</b>	<b>OPERATIONAL DEFINITION</b>	<b>TYPE OF VARIABLE</b>	<b>OBJECTIVES ADDRESSED</b>

Transport	Expressed in terms of type <ol style="list-style-type: none"> <li>1. Foot</li> <li>2. Bicycle</li> <li>3. Motor bicycle</li> <li>4. Car</li> </ol>	Ordinal	4
Availability of service	Expressed in terms of number of health institutions that render Antenatal Services	Discrete	4
Affordability	Expressed in terms of being able to pay for services <ol style="list-style-type: none"> <li>1. No fee charged</li> <li>2. GH¢ 1.00</li> <li>3. GH¢ 2.00</li> <li>4. GH¢ 2.00 and above</li> </ol>	Discrete	4

Source: Field data, 2008

### 3.9 **ETHICAL CONSIDERATIONS**

Ethical clearance for this study was obtained from Department of Community Health-KNUST, District Director of Health Service, various Chiefs, sub chiefs and opinion leaders in Atwima Nwabiagya District. In addition, verbal consent was obtained from the individuals in the communities who agreed to be part of the study. Privacy and confidentiality were ensured.

### 3.10 **PRETESTING**

The study instrument (questionnaire) was pre-tested in Asuofia one of the study communities on people other than those interviewed for the study. This was to further train the interviewers and also to ensure the questionnaire met the stated objective. After the pre-testing, problems such as ambiguity associated with the questionnaire were modified.

### 3.11 **LIMITATIONS**

It would have been more appropriate to sample respondents from all the 126 communities under the five sub districts. However due to time and financial constraints four communities were sampled from each of three sub districts. In spite of these difficulties, the findings of this study were applicable to the district.

### 3.12 **ASSUMPTIONS**

- ❖ It was assumed that women who had delivered within the last eight months prior to the study utilized antenatal care services during pregnancy.
- ❖ Again it was also assumed that irrespective of distance and attitude of health personnel these women accessed antenatal care services.
- ❖ It is assumed that the respondents understood the questions asked and gave truthful answers

## CHAPTER FOUR

### RESULTS

#### 4.1 INTRODUCTION

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

#### 4.2 BACKGROUND CHARACTERISTICS OF RESPONDENTS

The average age of the respondents was 28.0 years with a deviation of 6.51. The minimum age among the respondents was 15 and the maximum 47 years. Over fifty percent (52.2%) of the respondents were between the ages of 20 – 29 years. Their occupations were farming, 35.1%, trading, 36.5% and artisan, 14.9%. About eight percent (8.1%) were unemployed, 3.6% were civil/public servants and 1.8% were students. Whereas 81.5% had had formal education, 18.5% were illiterates. Among those with formal education, 46.4% attended JHS, 26.1% attended primary school and 5.9% attended SHS. Christians formed 80.6% of the respondents. About sixty nine percent (68.9%) were married, 17.1% single and 9.5% separated. The average number of children a woman had was 3.04 with a deviation of 1.96. As far as ethnicity was concerned, the Akans formed 69.8%, Northerners, 22.1% and Ewe, 8.1%.

TABLE 4.1

### **BACKGROUND OF RESPONDENTS**

<b>Variable</b>	<b>Frequency (N=222)</b>		<b>Percentage (%)</b>	
<b>Age</b>			19	8.6
< 20			66	29.7
20 – 24	51	23.0	39	17.6
30 – 34	47	21.2		
35 and above				
<i>Mean = 28.0; SD = 6.51, Minimum = 15; Maximum = 47</i>				
<b><u>Occupation</u></b>				
Artisans			33	14.9
Civil/public servant			8	3.6
Farming			78	35.1
Student			4	1.8
Trading			81	36.5
Unemployed			18	8.1
<b><u>Education</u></b>				
Non-formal	41	18.5	Primary	58
	103	46.4	SSS	13
	2	0.9	JSS	26.1
			Vocational Technical	
Tertiary			5	2.2
<b><u>Religion</u></b>				
Islam			38	17.1
Christianity	179	80.6	Traditional	4
Other			1	0.5
<b><u>Marital status</u></b>				
Single	38	17.1	Married	153
Divorced	4	1.8	Widowed	6
			Separated	21
				9.5
<b><u>Number of children</u></b>				
< 5			180	81.1
5 and more			42	18.9
<i>Mean = 3.04; SD = 1.96; Minimum = 1; Maximum = 11</i>				
<b><u>Ethnicity</u></b>				
Akans			155	69.8
Ewe			18	8.1
Northerners			49	22.1

Source: Field data, 2008

### 4.3 KNOWLEDGE ABOUT ANTENATAL

All the respondents had heard about ANC services. As detailed in Table 4.2 below, friends, relatives and health institutions forming 12.2%, 31.5% and 41.9% respectively were their sources of information on ANC services. Over fifty percent (51.4%) knew that ANC should be visited in the 1<sup>st</sup> trimester whilst 31.1% knew that it was supposed to be attended in the 2<sup>nd</sup> and 17.6% knew it was supposed to be attended in the 3<sup>rd</sup> trimester. Their knowledge on the frequency of visit showed that on the average, a pregnant woman should use the services 5.77 times with deviation of 2.54. Over eighty percent (84.2%) knew that a pregnant woman should visit ANC 4 times or more whilst the rest, 15.8% thought it should be less than 4 times.

TABLE 4.2

#### KNOWLEDGE ABOUT ANTENATAL CARE

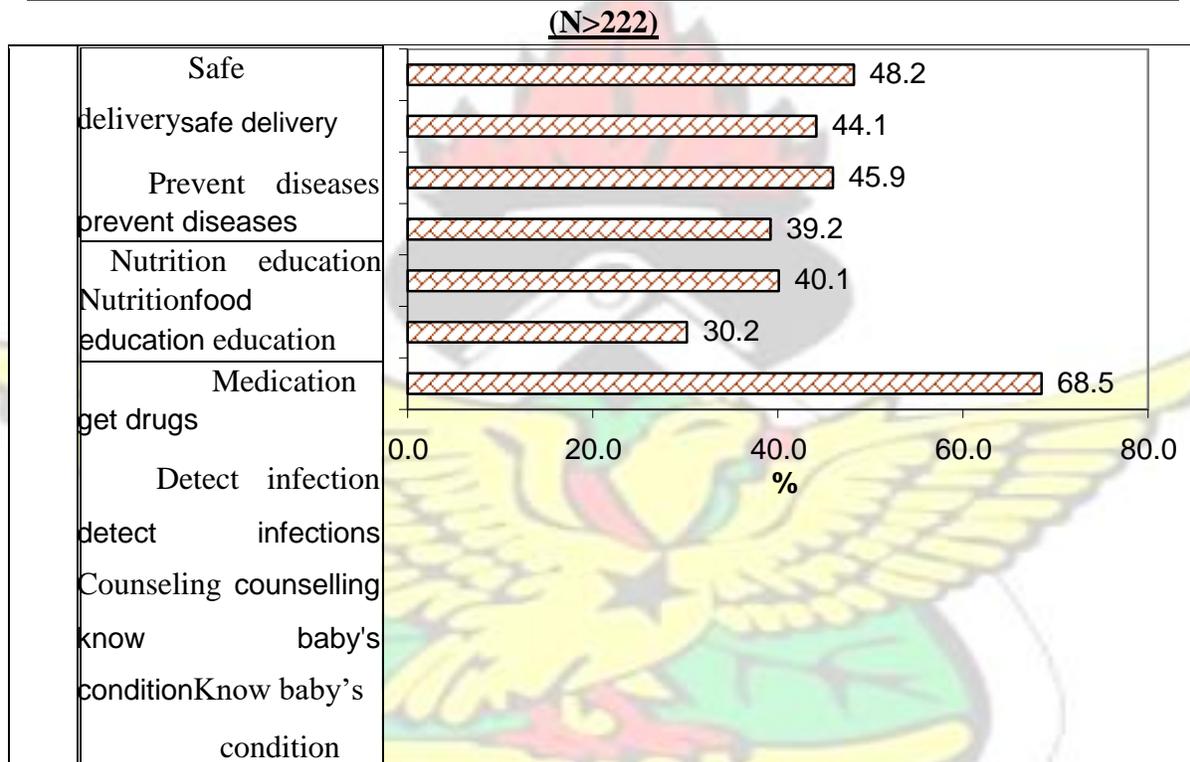
Variable	Frequency (N=222)	Percentage (%)
All know about ANC	222	100
Source of information		
Friends	27	12.2
Relatives	70	31.5
Health institution	93	41.9
Media	32	14.4
Time of ANC visit		
1 <sup>st</sup> trimester	114	51.4
2 <sup>nd</sup> trimester	69	31.1
3 <sup>rd</sup> trimester	39	17.6
Expected number visits		
< 4 visits	35	15.8
4 or more visits	187	84.2
<i>Mean = 5.77, SD = 2.54, Minimum = 1, Maximum = 14</i>		

Source: Field data, 2008

Knowledge about the benefits of ANC as listed by the respondents is as shown in Figure 4.1 below. The benefits listed included knowing the baby’s condition, 68.5%, safe delivery 48.2%, getting nutrition education, 45.9% and prevent diseases, 44.1%.

FIGURE 4.1

**A BAR GRAPH SHOWING BENEFITS OF ANC AS LISTED BY RESPONDENTS**



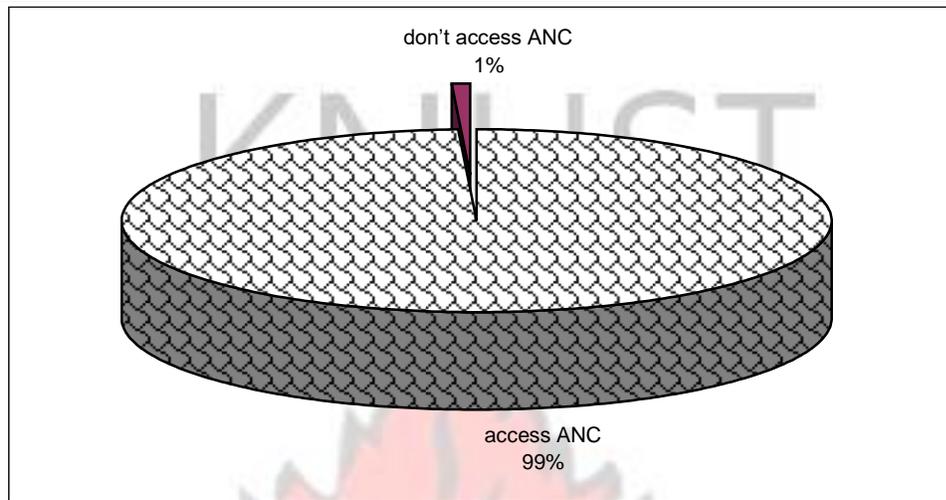
Source: Field data, 2008

4.4 **QUALITY OF CARE RENDERED**

As shown in Figure 4.2 on the next page, out of the 222 respondents, 99% attended ANC anytime they were pregnant whilst only one percent did not.

FIGURE 4.2

**A PIE CHART SHOWING ATTENDANCE OF ANC BY PREGNANT WOMEN**



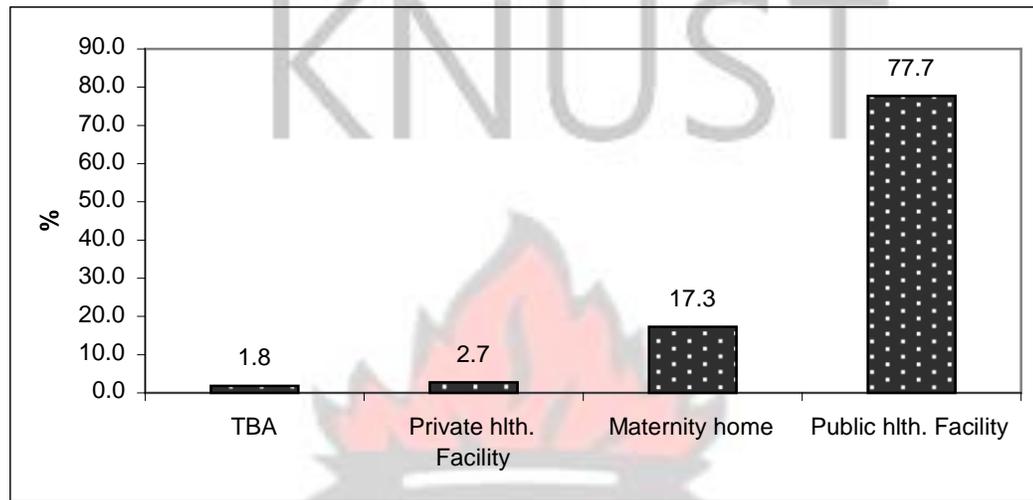
Source: Field data, 2008

Figure 4.3 is a bar chart showing the places where the women attended ANC services. Public health facilities, 77.7%, maternity homes, 17.3%, private health facilities, 2.7% and TBA site, 1.8% were the places used for ANC services by the respondents.

FIGURE 4.3

**A BAR CHART SHOWING THE PLACES WHERE THE WOMEN ATTENDED ANC**

**SERVICES**



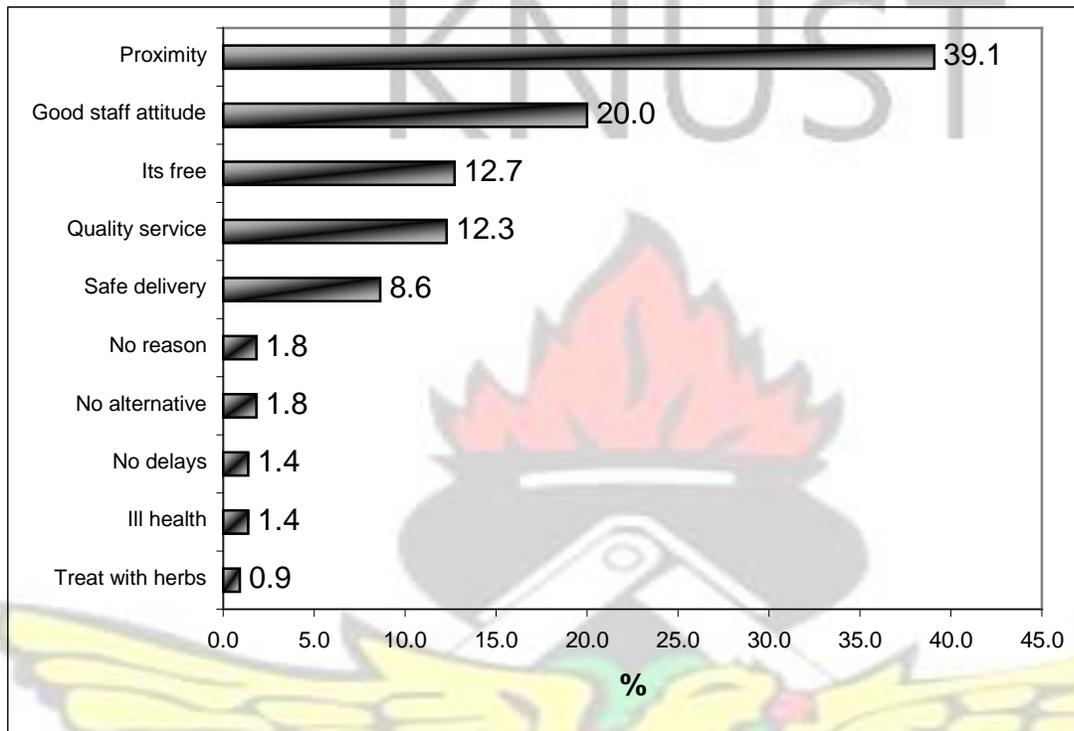
Source: Field data, 2008

The reasons for the choice of place for ANC service is as graphically presented in Figure 4.4 on the next page. The reasons included: proximity, 39.1%, good staff attitude, 20.0% and free services 12.7%. The others were quality services 12.3%, safe delivery, 8.6% and no delays 1.4%. About two percent (1.8%) indicated that they made those choices without any reason and about two percent (1.8%) indicated there was no alternative.

FIGURE 4.4

**A BAR GRAPH SHOWING THE REASON FOR CHOICE OF PLACE FOR ANC**

**SERVICES**



Source: Field data, 2008

Over fifty percent (51.4%) of the respondents indicated three or more staff attended to them during the ANC session. About 98.6% of the respondents claimed that words of encouragement were used by the Officers, whereas 3.2% of the respondents said otherwise. Multiple services were rendered including screening, 97.3%, management of minor ailments, 77.7%, immunization, 81.8% and health education, 80.5%. Over twenty percent (20.5%) of the respondents said that they were referred when they had health problems, while 79.5% said they were not referred when such difficulties were encountered. Over seventy percent (77.2%) of the women waited for 60 minutes

or more before services were given, whilst 22.7% waited for less than one hour as detailed in Table 4.3 below.



TABLE 4.3

**SERVICES EXPERIENCES BY RESPONDENTS**

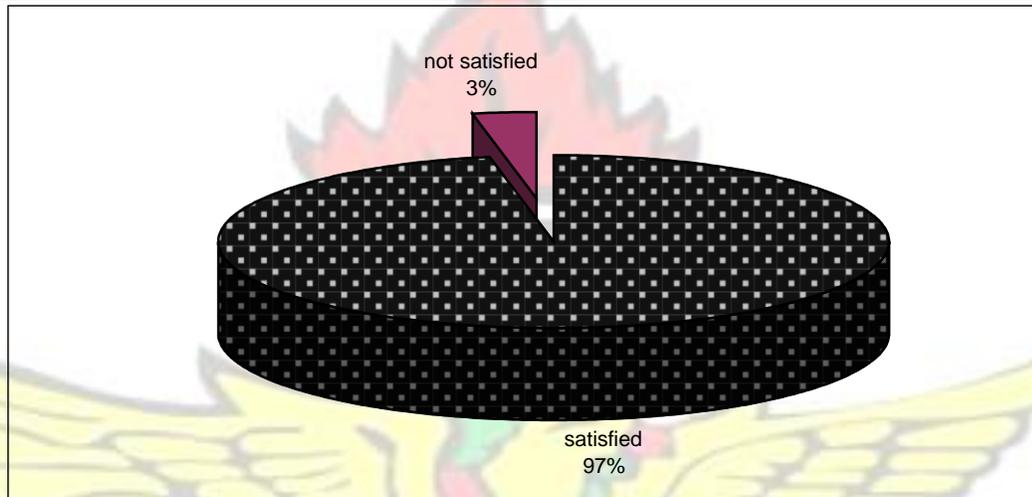
<b>Variable</b>	<b>Frequency (n=220)</b>	<b>Percentage (%)</b>
No. people who attend to client at ANC		
< 3 persons	107	48.6
3 or more person	113	51.4
Words of encouragement		
Used	213	96.8
Not used	7	3.2
Services rendered		
Screening	214	97.3
Managed minor ailment	171	81.8
Immunization	180	81.8
Health education	177	80.5
All the above	98	44.5
Referred when needed		
Yes, referred	45	20.5
No, not referred	175	79.5
Waiting time		
< 60 minutes	50	22.7
60 minutes and above	170	77.2

Source: Field data, 2008

Figure 4.5 below shows a proportional distribution of the clients' satisfaction with the quality of services received from ANC service providers. Whereas 3% were not satisfied, 97% indicated that they were satisfied with the services provided at the ANC clinic they attended.

FIGURE 4.5

**A PIE CHART SHOWING SATISFACTION WITH ANC SERVICE RENDERED**



Source: Field data, 2008

**4.5 ACCESSIBILITY OF ANC SERVICES**

As shown in Table 4.6 overleaf, over ninety percent (97.7%) of the respondent who used ANC anytime they were pregnant thought that the service was accessible. The means to the ANC service points were by walking, 32.7% and using of vehicle, 67.3%. Among those who used vehicle, 66.2% spent less than one Ghana cedi. The average transport to the ANC service point was 0.81 GH cedis. 79.7% of the respondents said the cost was paid by their partners, 14.2% paid by themselves and 6.1% paid by their relatives. ANC services was paid by 43.6% whilst the rest, 56.4% did not pay. The mean amount of money paid for ANC service was 3.05 GH cedis with a

Standard deviation of 1.61. The most frequent payment made was 5.0 GH cedis. Over seventy percent (77.1%) of the women paid less than 5.0 GH cedis for ANC services whilst 22.9% paid 5 GH cedis or more. The minimum amount paid was 0.20 GH pesewas, and the maximum, 7.00 GH cedis.

TABLE 4.4

**ACCESS TO ANC SERVICES**

<b>Variable</b>	<b>Frequency (n=220)</b>	<b>Percentage (%)</b>
ANC accessible		
Yes	215	97.7
No	5	2.3
Means of transport		
Walk	72	32.7
Vehicle	148	67.3
Amount spent on transport (n=148)		
< 1 GH cedi	98	66.2
1 GH cedi or more	50	33.8
Mean = 0.81; SD =0.68 , Mode = 0.80; Minimum = 0.20, Maximum = 6.00		
Pays for transport (n=148)		
Self	21	14.2
Partner	118	79.7
Relative	9	6.1
Pay for ANC		
Yes	96	43.6
No	124	56.4
Amount paid		
< 5 GH cedis	74	77.1
5 GH cedis or more	22	22.9
Mean = 3.05, SD = 1.61; Mode = 5.00; Minimum = 0.20; Maximum = 7.00		
Source: Field data, 2008		

**CHAPTER FIVE**

## **DISCUSSIONS OF FINDINGS**

### **5.1 INTRODUCTION**

This chapter discusses the result of the study in relation to the objectives, literature review and key variables of the research.

### **5.2 SOCIO - DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS**

The analysis of the findings of this research indicated that the average age of respondents was 28.0 years with SD = 6.51 minimum 15.0 years and maximum 47.0 years. This confirms the findings of Lubbock and Stephenson (2008) which was conducted in Nicaragua that the age of women utilizing ANC was 26 years.

On the occupation, the findings in this research indicated that the majority of respondents (90.1%) were engaged in at least a kind of employment (farming 35.1%, Trading 36.5%, Civil Servants 3.6% and artisans 14.9%). In a study on the determinants of maternal health services in the rural India, by Sharif and Singh (2002), it was found that, there is a correlation between household income and utilization of maternal health services.

In the said research, it was evident that as a result of lack of productive resources for women, income earned had negative impact on utilization of antenatal care. However, contrary to this research in India, income by women in Atwima Nwabiagya district had had positive impact on Antenatal Care utilization.

Another research conducted in Afghanistan by Hadi A., et al in 2007 found out that the use of each of the antenatal care services was significantly lower among women who were involved in economic activities than among those not economically active.

On education, 81.5% of the respondents had formal education. This correlates to the work of Harrison (1990) and Briggs (1993), which stated that women without formal education have a greater risk of maternal mortality than educated women. Franke and Chasin (1992) also stated that education of women not only improved maternal health but helped to reduce maternal mortality and morbidity. Low educational status has been identified as a major barrier to the utilization of antenatal care services. According to MOHEW (1997) as cited by Mathole, Lindmark and Ahlberg (2005), women with low educational status could easily be persuaded by their grandmothers or traditional birth attendants not to attend antenatal care and to deliver their babies at home. Again Matua (2004); Irinoye, Adeyemo and Ellujoba (2001), said that lack of education can negatively affect the women's comprehension of important information and the ability to make informed decisions. The findings implied that pregnant women who may have attained only low level education may not value utilizing antenatal care services.

This research found that the majority of women (68.9%) were married. According to MacDonald et al (1992), unmarried women were less likely to have planned pregnancy and to attend antenatal care, but there was no significant effect on marital status on pregnancy outcome. Essex et al (1992) observed that late antenatal care attendance was associated with single marital status. According to WHO (2003), as cited by Chaibva C.N (2008), unmarried pregnant women are less likely to

seek antenatal care services due to a lack of economic social support from parents, guardians or spouses.

On religion the majority of respondents were Christians (80.6%), Muslims formed 17.7%, traditional religion 1.8 and others 0.5%. On parity, the majority of respondents (81.1%) had less than 5 children. The majority of the respondents (69.8%) were Akans, 8.1% were Ewes and 22.15% were Northerners.

### 5.3 **KNOWLEDGE ABOUT ANTENATAL CARE**

All respondents in this study had heard about antenatal care services. In some studies knowledge was identified as a major structural variable that could influence the decision on whether to utilize antenatal care services or not.

Lack of knowledge about the antenatal care services could be a major barrier to women's utilization of antenatal care. Matua (2004) and Jewkes et al (1998), cited lack of adequate knowledge and information about pregnancy, laboratory tests results and dangers of late bookings or not attending antenatal care at all, as contributors to the poor utilization of antenatal care services.

As to the source of information on antenatal care services the majority of respondents (41.9%) heard it from health workers /institution, relatives 31.5%, friends 12.2% and media 14.4%.

Over fifty percent (51.4%) of respondents knew that antenatal care services should be visited in the 1<sup>st</sup> trimester whilst 31.1% and 17.6% knew it was supposed to be attended in the 2<sup>nd</sup> and 3<sup>rd</sup>

trimester respectively. This confirmed the literature review by GHS/CRS (2006) which stated that the first antenatal care services should take place during the first trimester of pregnancy.

The respondents' knowledge on the frequency of visit showed that on the average, a pregnant woman should use the service 5.77 times with a deviation of 2.54. Over eighty percent (84.2%) knew that pregnant women should visit antenatal care 4 times or more while the rest 15.8% thought that it should be less than 4 times. This is in contrast to the study conducted by Singh and Khare (2001) which stated that majority of Zimbabwe's pregnant women had an average of one visit before delivery and an initial antenatal care visit was made during the second and third trimester.

Knowledge about the benefits of the antenatal care services as listed by the respondents included the following: knowing baby's condition, safe delivering, food education, prevention of diseases, and detection of infections, obtaining drugs, and counseling. However lack of knowledge about ANC and delivery were major barriers to seeking health care among pregnant women in Uganda. (Matua, 2004).

#### 5.4 QUALITY OF CARE

Almost all the respondents (99%) attended antenatal care services. One percent of the respondents did not attend antenatal care services. As to the places of attendance, the majority of antenatal care

services attended Public health facilities 77.7%, maternity homes 27.3% private health facilities 2.7% and Traditional Birth Attendant 1.8%. The reasons for the choice of place for antenatal care services included proximity (39.1%), good staff attitude 20.0% and free services 12.7%. The others were quality of services 12.3%, safe delivery 8.6% and no delays 1.4%. Only about two percent (1.8 %) each indicated that they made those choices without any reason and because there was no alternative. Over fifty percent (51.4%) of the respondents indicated three or more staff attended to them during the antenatal care session. This is a far cry from the focused antenatal care which was stipulated by JHPIEGO as cited in the literature review.

Words of encouragement were used by the health providers as claimed by most of the respondents (98.6%). However, only 1.4% said otherwise. Matua, in 2004 reported that pregnant women have reported negative attitudes of health care providers. He said that women are sometimes reluctant to use maternity care services because health care providers are perceived to be rude, insensitive and threatening to the young mothers.

The respondents mentioned multiple services including screening 97.3%, management of minor ailments 77.7%, immunization 81.8% and health education 80.5%.

As to the waiting time, over seventy percent (77.2%) of the respondents waited for about 60 minutes before services were rendered while 22.8% waited for less than 60 minutes. Whereas 3.0% of respondents were not satisfied, 97.0% indicated that they were satisfied with the services provided at the antenatal care they attended. This however is in contrast to what Chaibva, (2008), wrote in her thesis “Factors Influencing adolescents’ utilization of Antenatal care services in

Bulawayo.” She claimed that pregnant adolescents were not satisfied with services rendered hence poor or non utilization.

## 5.5 ACCESS TO THE ANTENATAL CARE

Over ninety percent (97.7%) of the respondents who used antenatal care anytime they were pregnant thought that the services were accessible. Kluge (2006) cited that antenatal care services should be accessible to all pregnant women irrespective of social status, age, race or level of education and should provide an environment of trust and confidentiality.

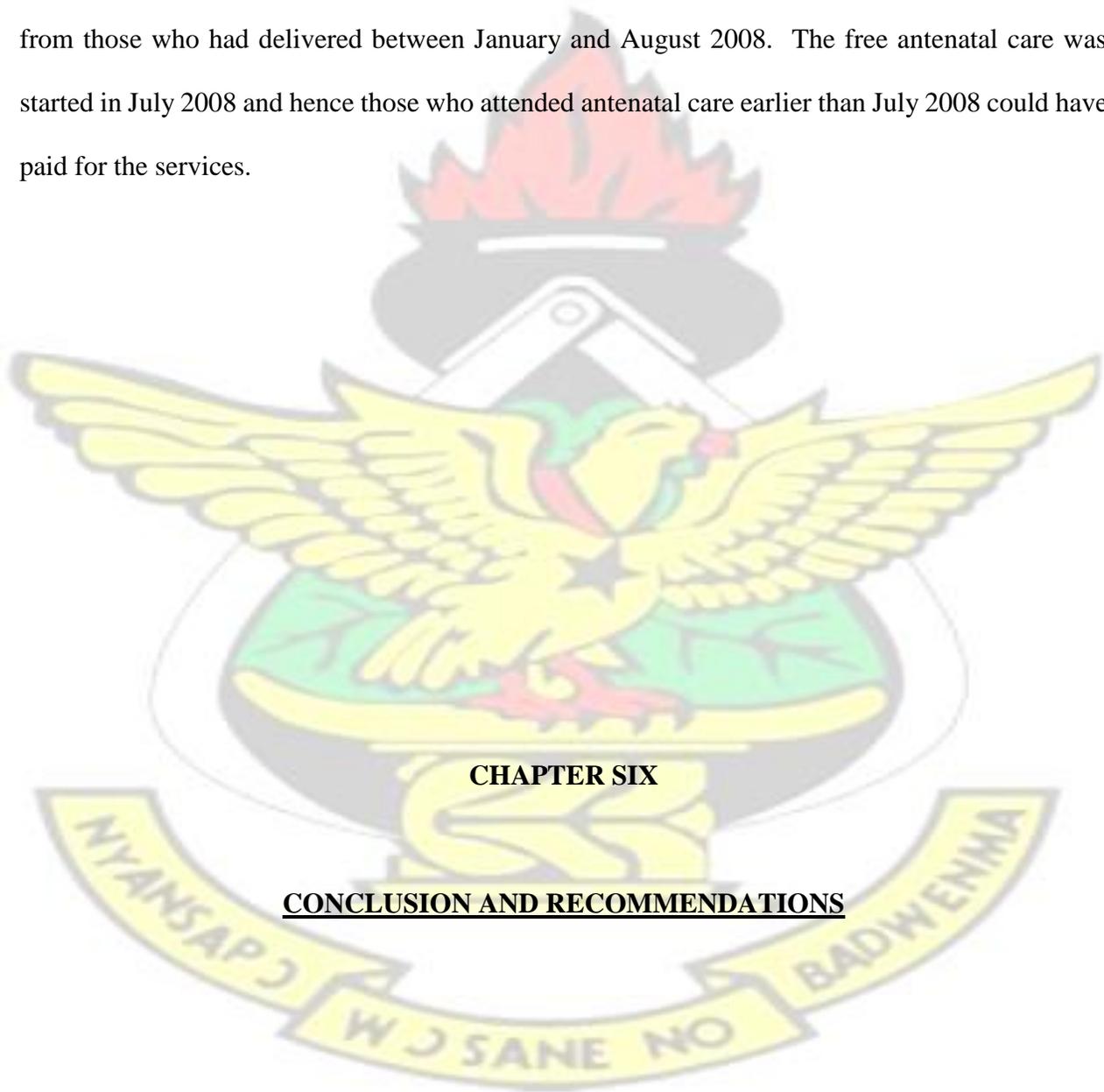
The means of transport to the antenatal care services points, according to this research, were walking (37.7%), and using of vehicles (67.3%). Among those who used vehicles, 66.2% spent less than one Ghana cedi. The average transport to the antenatal care service point was 0.81 Ghana cedi. This cost is paid by partners 79.7%, self 14.2% and relatives 6.1% and according to Chaibva, (2008), the cost of ANC is paid for by partners and relatives.

Antenatal care services were paid by 43.6% of the respondent whilst the rest 56.4% of the respondent did not pay. The mean amount of money paid for antenatal care services was 3.00 Ghana cedis with a standard deviation of 1.61. The mode was 5.0; minimum 0.20 and maximum 7.00 Ghana cedis.

According to Magadi et al (2000), long distance to the antenatal care facility is an obstacle to the antenatal care. They cited some of the factors that prevent women in developing countries from getting the antenatal services as: cost (direct fee, as well as the cost of transportation, drugs and

supplies); poor quality of services; multiple demands on women's time and women's lack of decision making power within the family.

In the study at Atwima Nwabiagya District, it is understandable if some respondents claimed they paid for the antenatal care services. The reason was that respondents for the study were selected from those who had delivered between January and August 2008. The free antenatal care was started in July 2008 and hence those who attended antenatal care earlier than July 2008 could have paid for the services.



## 6.1 CONCLUSION

The study was educative and challenging with regards to the findings and the discussions. It is therefore concluded that women in the fertility age (WIRA) in Atwima Nwabiagya district utilized the antenatal care services and the factors that contributed to the utilization were:

- The youthful age of the majority of respondents
- The engagement in productive employment by the majority of the respondent
- The high level of education of the majority of the respondents making them able to comprehend what was taught at antenatal care, improving maternal health and hence likely to reduce maternal mortality and morbidity.
- Martial status of the respondents making them attend antenatal care regularly and probably with support from parents, guardians and or spouses.
- The respondents' adequate knowledge on the benefits of the antenatal care services.
- Adequate information on antenatal care services.
- Respondents reasons for attending antenatal care which included proximity, free services, good interpersonal relationship between health personnel and clients, good quality of care, no delays, safe delivery and satisfaction of service.

### 6.1.2 CONCLUDING REMARKS

Most maternal and many neonatal deaths could be prevented if adequate antenatal care and effective obstetric services were provided. However if pregnant women did not utilize antenatal care services, many obstetric problems could become life threatening crises for both mother and baby by the time these were diagnosed. Utilizing antenatal care services is particularly important

to the pregnant women who are most likely to be prone to developing obstetric complications.

The death of a mother is a tragic occurrence and ... “one of the most terrible ways to die... an event that could have been avoided and should never have been allowed to happen” (Starrs 1997)

## 6.2 **RECOMMENDATIONS**

The study findings unveiled a number of factors in the provision of antenatal care services leading to utilization. The following are therefore recommended based on the findings.

- The DHMT should review and strengthen reproductive health programmes and ensure that they are friendly and are need focused.
- Adequate supervision and monitoring at all levels of health care should be ensured by the DHMT
- The NHIS in the Districts should be reimbursed with the funds so that all pregnant women would benefit from the free ANC services.
- Encourage focused antenatal care in line with the stipulations by JHPIEGO.
- Continuous disseminating of information by the DHMT on antenatal care, delivery and postnatal care services to enhance accessibility by every pregnant woman.
- Spouses of pregnant women should be encouraged by their partners to support them to access the ANC services.
- Antenatal care services should be provided throughout the day (24hours service)

## **REFERENCES**

Aboyeji, A.P., Ijaiya, M.A, Fawole, A.A., 2007. Maternal Mortality in a Nigerian Teaching Hospital: A Continuing Strategy, *Tropical Doctor*, 37 (2); 83 – 85.

Adamu, Y.M and Salihu, H.M, 2002. Barriers to the use of antenatal and obstetric services in Nigeria. *Journal of Obstetrics and Gynaecology*, 22 (6): 600-603.

Ajayi, A.D., Garba, S.N., Ngoran, G.B., and Djo, A.A. 2004. Early marriage and its implications among women in Samaru, Zaria, Nigeria. *African Journal of Nursing and Midwifery* (6): 35-37.

Atwima Nwabiagya District Profile 2006.

Baker, P.J., 1996. Interview in the research process in Nursing, edited by D.F.S. Cormack, 3<sup>rd</sup> edition. Oxford: Blackwell science. Pp 226-235.

Kluge, J. 2006. Sex education in adolescents: an opportunity for HIV and pregnancy prevention. *Professional Nursing Today* 10(1): 24-26.

Blondel, B. et al. (1993). Poor Antenatal care and pregnancy outcome. *European Journal on Obstetrics and Gynaecology – Reproductive Biology*. August. 50 (3): 191-6

Bulatao, R.A., and Ross, J.A., 2000. Rating Maternal and Neonatal Health Programmes in Developing Countries. Chapel Hill, NC: University of North Carolina, Carolina Population Centre.

Carroli, G., Rooney, C., Villar, J. 2001. How effective is antenatal care in preventing maternal mortality and serious morbidity? An overview of evidence. *Paediatric Perinatal Epidemiology* 15 (1): 51-342.

Chaibra, C.N.M. 2008. Factors influencing adolescents' utilization of Antenatal care services in Bulawayo, Zimbabwe.

Fourn, L., and Ducic, S., (2002). Antenatal care utilization and unfavourable pregnancy outcome trends in Benin (Africa). Vol. 12, Number 4, 399 – 404.

Ghana Demographic and Health Survey. 2003, Maternal and Child Health.

Ghana National Reproductive Health Service and Standards: Second Edition. 2003.

Greenberg, R.S. (1983). The impact of prenatal care in different social groups. *Am J. Obstetric and Gynaecology*. 145: 797-801.

Gupta, N. and DaCosta, L. 1999. Adolescent fertility behavior: trends and determinants in north – eastern Brazil. *International Family Planning Perspectives*. 25 (3): 125-130.

Hafez M. A., Ullah, M.A., Begum, H.A., Alam A.T, Hague, M.A. Extent of utilization and factors influencing antenatal care in rural Rajshahi PMID; 12174649(PubMed – indexed for medline)

Ikaman, L.D.E. 2004. Maternal health care utilization in Teso District, Kenya. *African Journal of Health sciences* (11): 21-32.

Irinoye, O.O., Adeyemo, A., Elujoba, A.A. 2001. Care of women during pregnancy and labour by Traditional Birth Attendants in Ike – Ife, Nigeria. *Africa Journal of Nursing and Midwifery* 3 (2): 4-18.

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.

Jimon, A. A. G. (2003) Utilization of antenatal services of the Provincial Hospital, Mongomo Guinea Equatorial *African Journal of Reproductive Health/La Revue Africain de la Saule Reproductive*. Vol. 7 No. 3 Pp 49-54

Kanitkar T and Sinha R. K., *Antenatal care services in fire states of India*. Population transition in India, vol.2, edited by S. N. Singh, M.K. Premi, P.S. Bhatia, and Ashish Bose. Delhi, India, B.R. Publishing, 1989. :201-11

(Popline Document Number 065406)

Karen, M.L., Findlay, S.M., Frappier, J.Y., Goldberg, E., Pinzon, J., Sandaran, K., Taddeo, D. 2003

Kathryn, K.B. 1997. The young mother club: a programme designed for special needs of pregnant adolescents. *Permanente Journal* pp 1-5  
<http://xnet.org/permanentejournal/fal197/mothers.html>.

Kumar, R., Singh, M.M., Kaur, M. 1997. Impact of health center availability on utilization of maternity care and pregnancy outcome in a rural area of Haryana, India. *India Medical Association* 95 (8): 448-450.

Lubbock, L.A, Stephenson, R.B. Utilization of Maternal health care services in the department of Malagalpa, Nicaragua. *Rev. Pnanam Salud Publica*. 2008: 24(2):75-84.

Magadi, P.t., Thembi, I.T., Ransjo – arvidson, A.B., Ahiberg, B.M.2002. quality of Maternal Care for adolescent mothers in Mbabane, Swaziland. *International Nursing Review* 49: 38-46.

Mathole, T., Lindmark, G., Ahlberg, B.M. 2005. Competing Knowledge in the provision of antenatal care: a qualitative study of traditional birth attendants in rural Zimbabwe. *Health care for women international* 26: 937-956.

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.

McDonagh, M. 1996. Is ANC effective in reducing maternal morbidity and mortality? *Health policy planning* 11(1): 1-15.

Ministry of Health, Uganda, Department of Maternal and Child Health and Family Planning. 1997. *The Uganda Safe Motherhood Strategic Plan 1997-1999*. Kampala.

Mitu, K. (2005). An overview of the state of motherhood services and its utilization status in Bangladesh. *Pakistan Journal of Social Sciences* 3 (5): 798-802, 2005. Grace Publications.

Mulholland, A., Alibaruho, G. L., Brew – Graves, C. and Monreal – Pinand, I. 1999. *Promoting Health through women’s functional literacy and intersectoral action: Lessons from the Nigeria projects*. WHO: Geneva.

*Pakistan Journal of Social Sciences* 3 (5): 798-802, 2005. Grace Publications, 2005. An overview of the safe motherhood services and its utilization status in Bangladesh.

Population Reference Bureau. 2001. *2001 Worlds Population Data Sheet*. Washington, DC: Population Reference Bureau. Available at <http://www.p.r.b.org/content/navigationmenu/other-report/2000-2002/sheet4.html>

Ranjan Das, Ali Amir, Papri Nath (2006). Utilization and coverage of services by women of Jawan Block in Aligarh. Vol. 26 No. 2 (2001-04, 2001-06)

Renolds, H.W., Wong, E.L, Tucker, H. 2006. Adolescents’ use of maternal and child health services in developing countries. *International Family Planning perspectives*. 32(1): 6-16.

Reproductive and Child Health Unit: Public Health Division (Ghana). *Annual Report 2006*.

Simons, E., Kunz, J. et al. Association between maternal occupational status and utilization of Antenatal care. *Tut. Arch. Occup. Environ. Health* (2006) 79: 75-81.

Singh, N.K. and Khare, S. 2001. Outcome in adolescent pregnancy. *The Journal of Obstetric and Gynaecology in India*. 51 (6): 34-36.

Slap, G.B. 1995. Adolescents: access and availability of health care. *Issue in Brief* 2 (3): 1-4.

Stanhope, L. and Lancaster, J. 2000. *Community and Public health nursing*. 5<sup>th</sup> edition. St Louis: L.V Mosby.

Starrs, E. 1997. *The safe motherhood action agenda: Priorities for the next decade*. New York: Family care International.

Stephenson, R. and Tsui, A.D. 2002. Contextual influences on reproductive health services in Uttar Pradesh, India. *Studies in Family Planning*. 33 (4): 309-320.

United Nations Children's Emergency Fund and World Health Organization. 2004. *Antenatal care in developing countries: promises, achievements and opportunities: an analysis of trends, levels and differentials*. <http://www.chilinfo.org/eddb/antenatal/index2.htm2005/10/03>.

*Utilization of Reproductive, Maternal and Child Health Services: The public and private sector analysis for Jinja and Kampak districts*.

Uuster, E.A., 1995. Rethinking the role of the risk approach and antenatal care in maternal mortality reduction. *International Journal of Gynaecology and obstetrics* 50 (2): 559-561.

Vail, J. 2002. *Antenatal Utilization, Family Planning and Fertility preference in Tar*.

Van der Wal, D.M. 2002. *Caring in nursing management*. *Africa journal of Nursing and Midwifery* 4 (2): 16-18.

World Health Organization. 2001. *Advancing Safe Motherhood through Human Rights*. Available at <http://www.who.int/reproductive health/publications>

Zafar Ahmed A., Ehiri John E., Anyanwu, Ebere C. (2003): *The Scientific World Journal* Vol. 3 Pp 1081 – 1092.

Ziyani, I.S., King, L., Ehlers, V.J. 2004. Using triangulation of research methods to investigate family planning practices in Swaziland. Africa Journal of Nursing and Midwifery 6(1): 12-17.

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**APPENDICES**

**APPENDIX ONE**

**QUESTIONNAIRE**

**SCHOOL OF MEDICAL SCIENCES COLLEGE OF HEALTH SCIENCES  
DEPARTMENT OF COMMUNITY HEALTH K. N. U. S. T. – KUMASI**

**AN ASSESSMENT OF FACTORS INFLUENCING UTILIZATION OF ANETNATAL  
CARE SERVICES IN ATWIMA NWABIAGYA DISTRICT OF ASHANTI REGION**

Interview guide for women who have delivered between the periods of 1<sup>st</sup> January, 2008 and 31<sup>th</sup>  
August, 2008

**INTRODUCTION**

Dear Respondent,

This questionnaire is designed to collect data on the topic;

**“AN ASSESSMENT OF FACTORS INFLUENCING UTILIZATION OF ANTENATAL  
CARE SERVICES IN ATWIMA NWABIAGYA DISTRICT OF ASHANTI REGION”.**

You are kindly requested to answer the questions below by indicating a tick or writing the  
appropriate answered when needed. Confidentiality will be observed therefore your name will not  
be disclosed in this research. Please answer the questions as frank and possible.

**Section A: SOCIO-DEMOGRAPHIC DATA**

1. Age of respondent .....
  1. 15 – 20
  2. 21 – 25
  3. 26 – 30
  4. 30 – 35
  5. 36 – 40
  6. 41 – 45
  7. 46 – 50
  8. Above 50
2. Occupational status .....
3. Educational status .....

1. Non formal
2. Primary
3. Middle /JHS
4. Secondary /SHS
5. Vocational / Technical
6. Tertiary (Univ, Poly, Training college)
7. Others (Specify)

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4. Religious Denomination .....

1. Islam
2. Christianity
3. Traditional Religion
4. Others (specify)

5. Marital Status

1. Single
2. Married
3. Divorced
4. Widowed
5. Separated

6. Ethnicity / Tribe

1. Akan
2. Eve
3. Others

7. No of Children: .....

**Section B: KNOWLEDGE ABOUT ANTENATAL**

8. What do you understand by Antenatal Care Services?

.....  
.....

9. How did you hear about Antenatal Care Services?

1. Through friends
2. Through relatives
3. During a visit to health institution
4. Through the media

10. In your view when should pregnant women access Antenatal Care Services?

1. 1<sup>st</sup> Trimester
2. 2<sup>nd</sup> Trimester
3. 3<sup>rd</sup> Trimester

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

1. 1
2. 2 3. 3
4. 4
5. More than 4 (Specify)

12. How often do you need to access Antenatal Care Services?

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

13. What are some of the benefits of Antenatal Care Services?

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

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## Section C: QUALITY OF CARE RENDERED

14. Do you access Antenatal anytime you are pregnant?

1. Yes
2. No

15. Where do you attend Antenatal?

1. Government hospital
2. Private hospital
3. Maternity home
4. Traditional birth attendants
5. Non attendants

16. Can you give any reason for your choice of Antenatal Care Services?

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

17. How many people attend to you when you access Antenatal Care Services?

1. 1 person – excellent
2. 2 people – good
3. 3 people – fair
4. 4 people – poor

18. How would you described / rate the attitude of service providers towards pregnant women?

1. 1 – 2 poor
2. 3 – 4 fair
3. 5 – 6 good
4. 7 – 8 excellent

19. Do they use words of encouragement?

1. Yes
2. No

20. Which of the following services do they render at the Antenatal Care Services?

1. Screening
2. Management of minor ailment
3. Immunization
4. Health education
5. Others (specify)

21. Are you always referred in case of health problem?

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

22. Where is Antenatal Care Services rendered?

1. Room built for Antenatal
2. Under a tree
3. On a veranda

23. How long does it take to access Antenatal Care Service?

1. 1 – 20 minutes – excellent
2. 20 – 40 minutes – good
3. 40 – 60 minutes – fair

4. 60 minutes – poor

24. Are you satisfied with the Antenatal Care Services rendered?

1. 1 – 5 - poor
2. 6 -10 - fair
3. 11 – 15 - good
4. 16 – 20 – excellent

**Section D: SERVICE OF ACCESSIBILITY**

25. Where can one locate Antenatal Care Services?

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

26. Are the Antenatal Care Service accessible?

1. Yes
2. No

27. What means of transport do you use when accessing Antenatal Care Services?

1. Walk
2. Public means
3. Others (Specify)

28. How much do you pay for transport to and from the services?

.....  
.....

.....

30. Do you pay for the Antenatal Care Services?

.....  
.....

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31. How much do you pay of the Antenatal Care Services?

.....  
.....

32. Do you have any other comments?

.....  
.....

**THANK YOU**

