

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Annually, an estimated 529,000 women die from complications of pregnancy and childbirth globally. Ninety nine percent (99%) of these maternal deaths occur in the developing world and one percent (1%) in the developed countries. This number is based on calculations by Zahr et. al., (2000) for WHO and UNICEF. For every woman who dies, approximately twenty more are seriously injured or disabled (WHO/UNICEF, 2000). This means that, every year, close to nine (9) million women suffer some type of injury from pregnancy or childbirth that can have a profound effect on their lives and that of their families. These deaths are almost equally divided between Africa and Asia, which together account for 95% of the total global maternal deaths. Only four percent (22,000) of all maternal deaths occurred in Latin America and the Caribbean, and one percent (2,500) in the developed regions (WHO/UNICEF, 2000).

The maternal mortality ratio is a measure of the risk of death a woman faces every time she becomes pregnant. Thus, in countries where fertility is high, women face this risk many times, and the cumulative risk of maternal death over a lifetime may be as high as one in 16, compared to one in 3,800 in the countries of the developed world (WHO/UNICEF, 2000). This lifetime risk would be considerably reduced if women had access to well organised antenatal care (WHO/UNICEF, 2000).

Once a woman is pregnant, skilled medical care is essential to ensure her safety and that of her infant. The maternal mortality ratio was estimated to be 450 deaths per 100,000 live births in all developing regions in 2000. It was highest in Sub-Saharan Africa (920), followed by Southern Asia (540) (WHO/UNICEF, 2000).

In Ghana, maternal mortality rates are very high, that is, 230 per 100,000 live births (GHS, 2007). Maternal mortality ratio reflects the rate of death of women from pregnancy to puerperium and it is the most important indicator used for evaluating the effectiveness of safe motherhood services (GHS/RCH, 2002).

The pattern of causes of maternal deaths as estimated by WHO shows that haemorrhage (24.8%) is the leading cause followed by infection (14.9%), unsafe abortion (12.9%), eclampsia (12.9%) and obstructed labor (6.9%). This pattern may vary in different healthcare facilities. Other direct causes such as the delay model account for (7.9%) of the total maternal deaths, while (19.8%) is attributed to indirect causes like malaria, hepatitis, anaemia etc. (WHO and UNICEF, 2000).

Lack of access to essential obstetrical care is a crucial factor that contributes to high maternal mortality. Providing skilled attendants is able to prevent, direct and manage the major obstetric complications like haemorrhage, eclampsia, obstructed labour etc. In addition, providing equipment, drugs and other supplies essential for the management of these complications is the single most important factor in preventing maternal deaths.

As part of efforts in attaining the fifth Millennium Development Goal - which calls for improving maternal health, with a target of reducing maternal mortality ratio by three – quarters, between 1990 and 2015 - there is the need for all pregnant women to have access to antenatal care in pregnancy. Basic antenatal care components are effective means to prevent a range of pregnancy complications and reduce maternal mortality (Pallikadavath *et. al.*, 2004). Antenatal care refers to the care that is given to a pregnant woman from the time that conception is confirmed until the beginning of labour (Viccars and Maputle, 2006). Trends on the use of antenatal care in developing countries during the 1990s show significant progress. Currently, the WHO has recommended the practice of focused antenatal care, which is being implemented by health facilities in some parts of Ghana as well as other health facilities worldwide. Focused antenatal care is an approach to ANC that emphasizes: individualized care, client centered, fewer but comprehensive visits, disease detection not risk classification and care by a skilled provider (Kinzie and Gomez, 2004).

Antenatal care services currently provided in many parts of the world fail to meet the standards recommended by WHO (UNICEF, 2004). In Sub-Saharan Africa, use of antenatal care has hardly changed over the decade, although levels are relatively high compared to Asia. In the developing countries, there are a lot of impediments preventing most women from accessing available obstetric facilities. Some of these impediments include financial constraints, poor road network, lack of transport facilities, shortage of midwives, public health nurses, doctors and obstetricians, leading to long queues and several hours stay at the facility. Others include old

traditional practices and taboos, which have prevented the women from seeking antenatal care when pregnant (UNICEF, 2004).

Furthermore, the outcomes of pregnancy depend on the health and age of the mother, her nutritional status, her prior pregnancy history and the spacing between her previous birth, as well as her education and ability to access health services. Specifically, important risk factors for maternal mortality are low educational level, high parity and age below 20 or above 35 (UNICEF, 2004).

Most life-threatening obstetric complications can be prevented through antenatal care. There is ample evidence that care during pregnancy is an important opportunity to deliver interventions that will improve maternal health and survival during the period immediately preceding and after childbirth (WHO/AFRO, 2006). Moreover, 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 provide the route for ensuring that pregnant women deliver with the assistance of a skilled health care provider. Antenatal care is a potentially important way to connect a woman with the health system, which if functioning, will be critical for saving her life in the event of a complication.

1.2 Problem statement

Since 2007, the government of Ghana has made ANC services free for pregnant women but there is still low coverage in Sekyere East District coupled with low attendance. There has not been any assessment of the barriers of ANC services as

perceived by those who use them. This study is intended to examine how the characteristics of users of ANC influence their perceived barriers to the use of the service.

Despite progress in improving ANC, disparities in access to antenatal care remain significant. Urban women are twice as likely as rural women to report four or more antenatal visits. Overall, women with secondary education are twice as likely to have antenatal care as women with no education. Wealth distribution is also a major determinant of antenatal care. In all regions, the poorest fifth of the population are far less likely to have antenatal care than the richest fifth. Wealth disparities are greatest in Asia, Africa, and in Latin America (WHO, 2003).

In Ghana, the coverage of antenatal care has been stagnant for the past four years. A look at the regional performance shows that the Northern, Central, Upper East and Upper West have been consistently attaining high coverage whereas in the other regions like the Ashanti, Eastern, Brong Ahafo regions, the rate has been stagnant (GHS, 2007). The average number of visits has been stagnant at about 3 visits per registrant for the last 5 years. After increasing sharply from 29% in 2003 to 55% in 2004, the percentage of women making at least 4 visits has also stagnated at about 60%. The proportion of pregnant women who seek care during the third trimester has been about 20% for last 5 years. All these are indications that in spite of the high antenatal coverage some registrants may not be deriving maximum benefits from the service (GHS, 2007). Antenatal care is an aspect of preventive health that seeks to alleviate the problems of pregnancy and delivery

and to improve the health of women and children. Improvement of the health of women and children is an important corridor to better health for the entire population.

In Sekyere East District antenatal coverage decreased from 70.6% in 2003 to 47.7% in 2008. The problem of non – utilization of available services calls for constant evaluation of the services provided to assess the reason why women do not utilize the facilities as expected. There is therefore the need to ascertain the reason why some women do not access antenatal care in the Sekyere East District.

1.3 Rationale of the study

Governments and health professionals of most African countries continue to decide on how to make health services and for that matter maternal health services more accessible to all categories of women. In Ghana, the institutional maternal mortality ratio has increased from 187 per 100,000 live births in 2006 to 230 live births. Safe motherhood programme is aimed at improving women's health in general and especially, to reduce maternal mortality and morbidity and to contribute to reducing infant morbidity and mortality. This study is therefore aimed at providing information that can be used to facilitate the realization of these goals. In addition, it would further inform stakeholders as to explanations and possible interventions for improving the study trends of ANC visit as indicated in the GHS/RCH annual report 2007. Furthermore, the District Health Management Team of Sekyere East would be better informed about the contextual and perceptual issues that affect users and prospective users of ANC services in the district and develop strategies

of making the services more receptive and acceptable to vulnerable groups and women in general.

It is hoped that this study will come out with suggestions that would help improve access to antenatal care and also make the service provision acceptable to every pregnant woman in order to reduce maternal mortality and morbidity.

1.4 Research questions

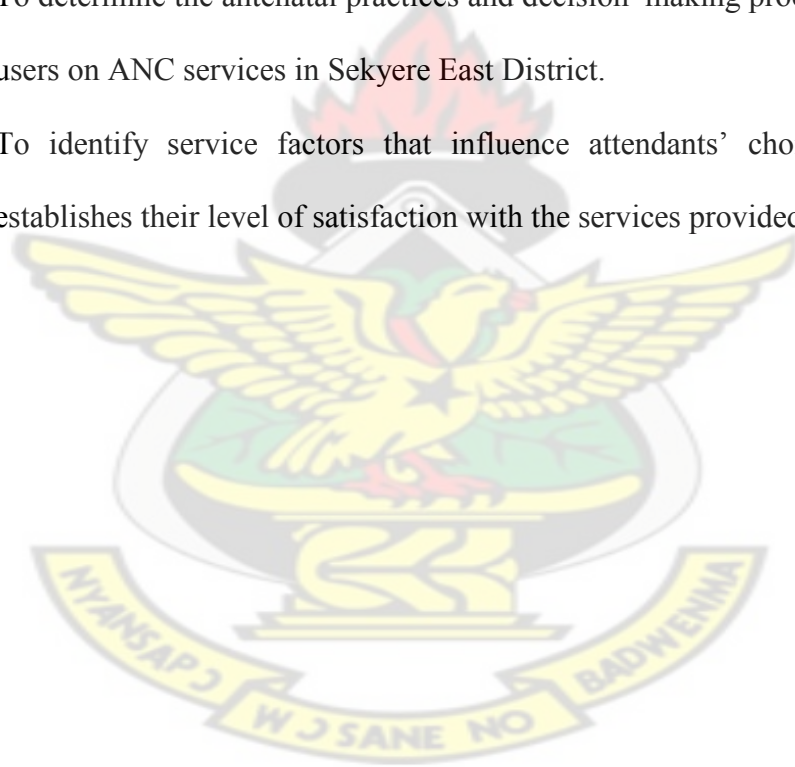
1. What proportion of ANC attendants perceive that geographical barriers affect access to ANC and how do their social characteristics influence the perceptions?
2. What is the relationship between the perceived economic barriers and the economic characteristics of users of ANC services in the district?
3. What are the antenatal practices and decision – making processes that have influence on ANC use among users of the services in the district?
4. What are the service factors that influence attendants' choice and what is their level of satisfaction with the specific services provided at ANC?

1.5 General objective

To ascertain the various factors that give rise to barriers to antenatal care in the Sekyere East District.

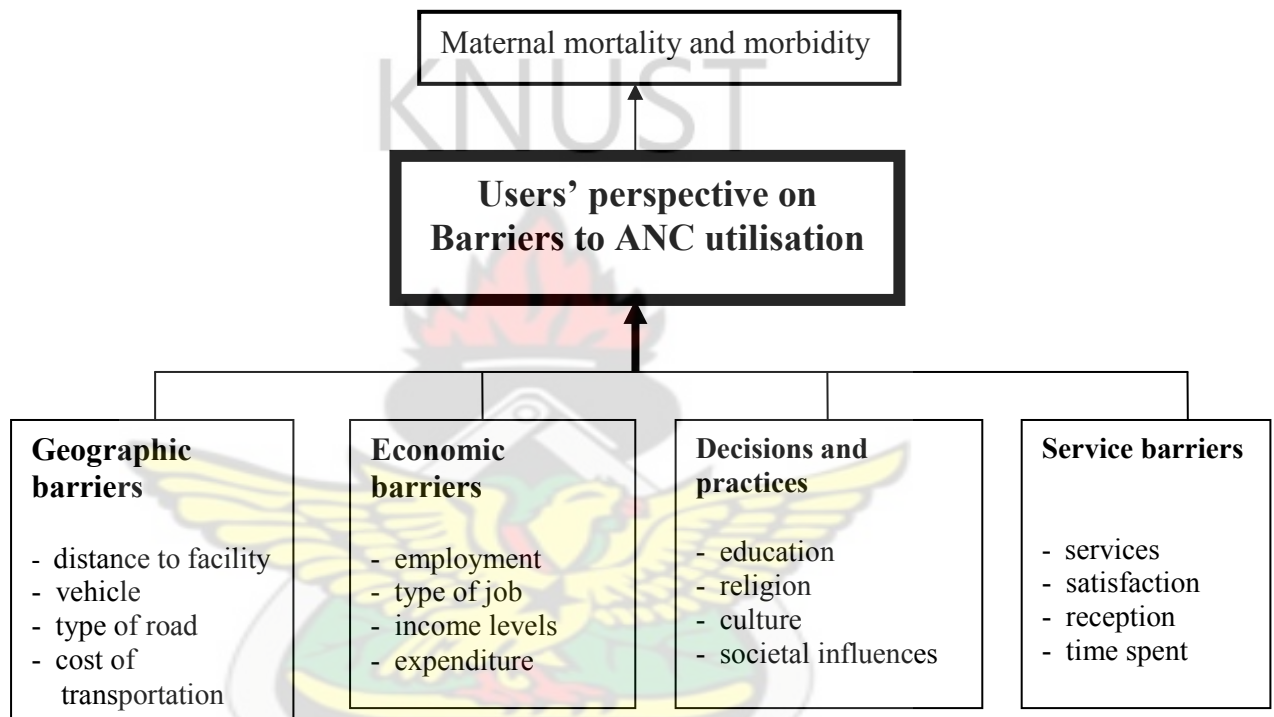
1.5.1 Specific objectives

1. To determine the proportion of women who perceived geographical barriers to ANC services and how that perception is influenced by their social characteristics.
2. To establish the extent to which the economic characteristics of respondents influence their perception of economic barriers to ANC services in the district.
3. To determine the antenatal practices and decision-making processes among users on ANC services in Sekyere East District.
4. To identify service factors that influence attendants' choice and also establishes their level of satisfaction with the services provided.



1.6. Conceptual framework

Figure 1.1 - Conceptual framework showing the various access barriers to utilisation of antenatal care.



Source: Author's Construct

1.6.1 Geographical barriers

Geographical barriers such as transportation as indicated in Figure 1.1, plays a major role in ensuring antenatal clinic attendance, especially when and where they are readily available. In most areas, due to the bad nature of their road network, few vehicles ply such routes. However, in other areas women living in newly developed areas also face transportation problems. The nature of roads in such areas is very bad and this situation is aggravated during the rainy season. Pregnant women are normally compelled to either walk the long distance to the nearest

facility or hire a taxi, which in most cases is very expensive and not affordable to most women, an economic barrier which must be acknowledged.

1.6.2 Economic barriers

Generally, the financial status of a woman plays an important role in her ability to access antenatal care. Formal and informal user fees in many settings strongly influence ANC attendance. It is the policy of the Ministry of Health that all basic ANC services should be free. However, the evidence from its implementation proves otherwise, as pregnant women are charged for services such as ultrasound scan and laboratory services. This could deter pregnant women from accessing ANC services. From the client's perspective, even though the user fees could be relatively low, it may still not be affordable.

Lack of formal education among women limits their engagement in productive ventures and consequently, their ability to afford total cost involved in ANC attendance. Most women are not empowered because they do not have employable skills, which will enable them to work. They are therefore dependent on their husbands for their livelihood. Women married to poor or irresponsible husbands always have to work extra hard to be able to cater for themselves and their families. Pregnant women who find themselves in such a dilemma always have the difficulty leaving their jobs to attend ANC.

Cost associated with utilization of formal health care services has direct bearing on households in most developing countries. Most mothers therefore prefer sending

their children and other members of the household to the hospital rather than seeking care for themselves considering the limited income of households. When cost is high, households resort to using other means of health care services such as traditional medicine, self medication, patronage of services of untrained traditional birth attendants and quack doctors. Cost related to utilisation therefore affect clients decisions and practices on ANC.

1.6.3 ANC practices and decision making influences

Among the social barriers hindering pregnant women from accessing ANC services include illiteracy, ignorance, adherence to outmoded cultural and traditional practices, and inability to make personal decisions. Lack of formal education among women is one most important social factor that impedes greatly their ability to patronize maternal health services. Most rural women are not gainfully employed, thus totally dependent on husbands for their livelihood. Women's decision making power is extremely limited, particularly in matters of reproduction and sexuality. In this regard, decisions about maternal health care are often made by husbands or other family members. Poverty compels most women to resort to the use of outmoded traditional practices instead of attending ANC service.

Societal influence also serves as an important access barrier, especially to pregnant teenagers. Social comments and family rebuff experienced by these individuals prevent them from coming out let alone attending ANC service. This results in service barrier to ANC.

1.6.4 Service barriers

The major service barriers that prevent expectant mothers from accessing antenatal care service include long waiting time at the facility, unprofessional attitude of some health workers, and lack of proper examination.

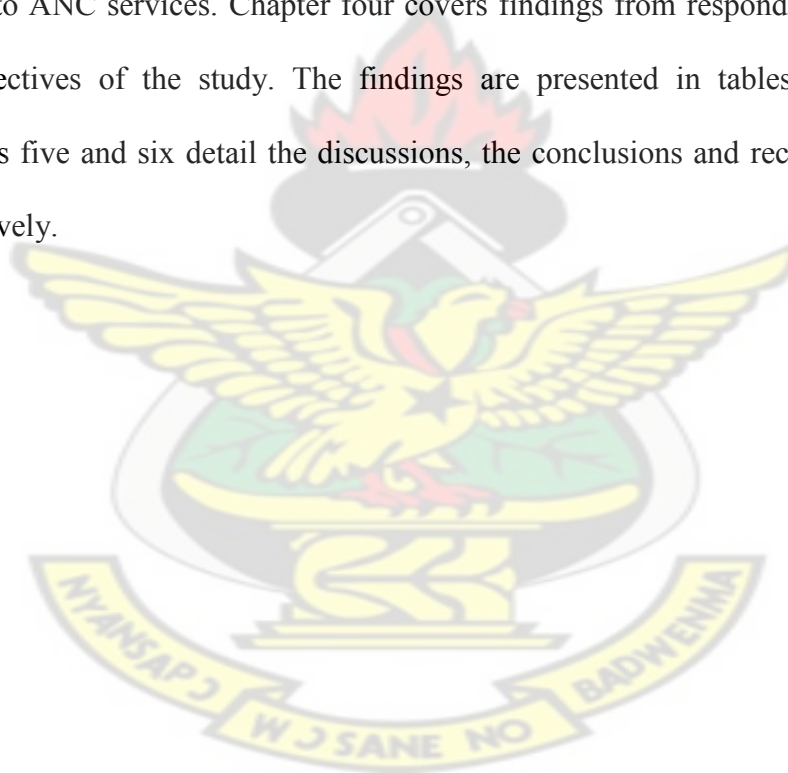
Although satisfaction is relative, clients like all other people have their expectations when they visit health facilities. Their need may differ from one person to another but the overall expectation of quality health care cannot be ignored.

Women's perception of the quality of care greatly influences their health care-seeking practices. Pregnant women generally do not want to be treated badly by midwives. They want to be given enough information during antenatal care. They expect to know about the status of the baby or when they might be expected to deliver, and also given test results. Good interaction between client and health staff improves the quality of services. If clients' satisfaction is met, it will lead to greater utilization of antenatal services.

Geographical, economical, social and service barriers interact by creating possible situations or impossibilities for the expectant mother to influence her access to antenatal care.

1.7 Organisation of work

The work is organised into six chapters. Chapter one covers the background information, problem statement, research questions and objectives. Chapter two reviews related literature based on the geographic, social, economic and service barriers to ANC attendants. Chapter three illustrates the methodologies and procedures used in the collection of data. It also captures the profile of the areas related to ANC services. Chapter four covers findings from respondents based on the objectives of the study. The findings are presented in tables and graphs. Chapters five and six detail the discussions, the conclusions and recommendation respectively.



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 have been identified as an essential component of the United Nations (UN) Millennium Development Goals (MDGs). Globally, 180million pregnancies occur each year, 8million suffer pregnancy related complications, more than half (585, 000) a million die (WHO, 2004). More than 400,000 occur in developing countries and the risk of dying is highest in Africa.

In addition to maternal death, women experience more than 50million maternal health problems annually. As many as 300million women – more than one – quarter of all adult women living in the developing world – currently suffer from short – or long – term illnesses and injuries related to pregnancy and childbirth (WHO, 1994).

In Ghana, complications during pregnancy and childbirth are leading causes of death and disability among women of reproductive age in many developing countries. A total of 995 institutional maternal deaths were recorded in 2007. This represents a 4.0% increase over the 957 maternal deaths reported in 2006. The institutional maternal mortality ratio has increased from 187 per 100,000 live births in 2006 to 229.9 live births. During the last 10 years the lowest maternal mortality ratio has been

fluctuating between 186 /100,000 live births and then 277.1/100,000 live births (GHS, 2007).

Care during pregnancy known as ‘antenatal care’, 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 ample evidence that care during pregnancy is an important opportunity to deliver interventions that will improve maternal health and survival during the period immediately preceding 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 provide the route for ensuring 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 (WHO, 2003).

Until recently, many of the components of antenatal care had not been rigorously evaluated. Now the World Health Organization has developed a focused ANC package that includes only counseling, examinations, and tests that serve immediate purposes and have proven health benefit (WHO, 2005).

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 (WHO, 2003).

While antenatal care can be an important tool in diagnosing and preventing risks during pregnancy, many women in developing countries do not use these services. 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 results show that the median number of antenatal care visits is four, and the first visit occurs 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 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 life-saving health care needs include: distance from health services; 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 services (WHO, 1997).

In Ghana, the coverage of antenatal care has been stagnant for the past four years. A look at the regional performance shows that the Northern, Central, Upper East and Upper West have been consistently attaining high coverage. The average number of visits has been stagnant at about 3 visits per registrant for the last 5 years. After increasing sharply from 29% in 2003 to 55% in 2004, the percentage of women making at least 4 visits has also stagnated at about 60%. The proportion of pregnant women who seek care during the third trimester has been about 20% for last 5 years. All these are indications that in spite of the high antenatal coverage some registrants may not be deriving maximum benefits from the service. Pregnancy is particularly risky to certain groups of women - very young women, older women, women who have had more than four deliveries, and women with existing health problems. Very young, adolescent women who become pregnant face serious health risks because their bodies may not be physically mature enough to handle the stress of pregnancy and childbirth. Women aged 15-19 have up to three times the maternal death rate as those aged 20-24. They are especially likely to suffer from pre-eclampsia and eclampsia, obstructed labour, and iron deficiency anaemia (GHS, 2007).

In 2006, women younger than 20 years and those older than 35 years have had a disproportionate share of maternal mortality over the years. They constituted 28.8% of antenatal registrants but they accounted for 38.5% of maternal deaths; in 2007 the group accounted for 24.8% and 35.3% of antenatal registrants and maternal deaths respectively. The proportion of antenatal care registrants who are teenagers was 12.4%. The lowest proportion of 8.8% was reported in the Greater

Accra region while Central region reported the highest proportion of 16.8%. The Central, Brong-Ahafo, Volta and Western regions have reported persistently high figures during the last 5 years. Service providers have been urged to make their facilities adolescent friendly to promote utilization by this group. Education on the dangers of unprotected sex and teenage pregnancy should be intensified (GHS, 2007).

2.2 Access barriers to ANC service

2.2.1 Geographical barriers

Accessibility of health services has been shown as one of the determinants in developing utilization of health services in developing countries. Lack of vehicles, especially in most rural areas coupled with poor road network and high cost of transportation, make it extremely difficult for women to reach even relatively nearby health facilities. In a study conducted by the World Bank in 1994 one in every three women in rural areas in Africa lives more than five kilometres away from the nearest health facility (World Bank, 1994b). Longer travel times and distance from home constitute more of repeated visits (retention) than to first time visits. Vehicle shortages and poor road conditions mean that walking is often the main mode of transportation for most women even those in labour (World Bank, 1994b).

In a descriptive study of maternal health care utilisation including ANC services at Teso district, Kenya, Ikamari reports that service access also depend on the availability of services points either orthodox or alternative. It was evident from

the study that women who had access to health post or hospitals within their community increased use of services (Ikamari, 2004). Factors that prevented others from using the services included availability of alternative care providers including the presence of Traditional Birth Attendants and other private health stations and also quick means of transport (Ikamari, 2004).

Primary health care concept has shown that providing services to clients at their door steps could increase utilisation and reduce disease incidence. This is achieved through provision of clinical and preventive services. In a cluster randomised trial of the effects of preventive interventions on the utilisation of antenatal care services in rural Honduras, showed that household interventions increased ANC coverage 15 – 20% points (Morris *et. al.*, 2004). The intervention however, provided stimulus for the utilisation of ANC services which cannot be sustained practically. The intervention arms were provided with money to the household to utilise the service or health teams resourced or a combination of both. This provides an ideal situation and cannot justify the efficacy in practice and also its sustainability.

Follow-up visits required in ANC services are required to be provided by health workers when needed. However, extending such service pose a challenge considering resource constraints in most developing nations. However, in settings where this is practiced there could be discrimination on the part of health workers based on the economic status of the women. In a study in rural north India that addressed the issue of inequality in ANC services, it was evident that home visits

were biased towards household with better living conditions. In addition, even the services provided were limited as compared to the facility based ANC services (Pallikadavath *et. al.*, 2005).

2.2.2 Economic barriers

A high percentage of rural women in the world live in poverty of which, 90% are in Africa and Asia (World Bank, 1994a). Poverty levels in Africa are very high and particularly in Ghana, it has been estimated that forty nine percent of Ghanaians earn less than a dollar a day (UNICEF, 2004).

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 (Sharrif 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 the utilization of ANC and PNC.

A study by WHO on antenatal care randomized trial for the evaluation of a new model of routine antenatal care revealed that women and providers in both groups were, in general, satisfied with the care received. There was no cost increase, and in some settings the new model decreased cost (WHO, 2001).

In Ghana a study comparing utilization of health services in urban and rural revealed that cost of health services 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 district of Ahafo Ano-south District, Ghana (Buor, 2004).

In Kausani, a group of villages in Kano State, Northwestern Nigeria, most women deliver at home, few receive antenatal care. The three most common reasons given for non-use of antenatal care were limited financial resources, God's will and husband's denial. In order to improve utilization of antenatal care services, efforts to relieve poverty, and empower women economically are needed. Any programme must take into consideration the specific socio-cultural context of the population (Adamu and Salihu, 2002).

In Zaria Nigeria, a study found that the shift from free to fee-based services for obstetric care reduced admissions overall, but significantly increased emergency cases. The number of maternal deaths rose correspondingly (Harrison, 1997). The poorer the women are the more likely fees are to affect their use of health services. Studies in Côte d'Ivoire and Peru found that fees deter everyone from using health services, but deter poor women most of all (Harrison, 1997).

2.2.3 ANC practices and decision making influences

Utilisation of antenatal services and early booking are important factors in the reduction of maternal mortality and morbidity and these are influenced negatively by social, cultural and religious factors (Adeyemi *et. al.*, 2007).

A research carried out to ascertain the determinants of antenatal booking time in a South-Western Nigeria revealed that, 57.3% of pregnant mothers felt that women should book by the first trimester but half of them actively booked late (Adeyemi *et. al.*, 2007).

Cultural factors play an important role here. The lack of autonomy and low status of women also affect the decision to seek care. In some areas a woman cannot be taken to hospital without her husband's permission (WHO, 2004).

In Kenya, a study carried out on acceptability and sustainability of the WHO focused antenatal care package, revealed that the majority seek antenatal care but late in pregnancy and make very few antenatal visits mainly because of lack of access to institutionalised care; quick means of transport, inability to meet user charges and associated costs, the availability of cheap and more accessible alternative care providers such as traditional birth attendants (TBAs), and the poor quality of services offered at the local health facilities (Birungi *et. al.*, 2006).

The study also revealed that while focused ANC is generally acceptable to clients, they had a number of concerns. Clients cited the poor infrastructure and physical condition of clinics as some of the biggest impediments toward effective and sustainable implementation of focused ANC. Due to limited space, some crucial components of focused ANC, such as individualized counselling and laboratory tests, were not offered in some clinics (Birungi *et. al.*, 2006).

The cultural prospective on the use of maternal health services suggest medical need is determined not only by the presence of physical disease, but also by cultural perception of illness (Addai, 2000).

While most safe motherhood programs emphasize ensuring access to emergency obstetric care and skilled care at delivery, there continues to be an important role for antenatal care. The results of this analysis of trends, levels, and differentials in antenatal care in developing countries from 1990 to 2001 indicate that antenatal care is largely a success. On average, two-thirds of pregnant women in developing countries report for at least one antenatal care visit (WHO, 2003).

During the 1990s, use of antenatal care increased 20 percent overall, although there has been little change in Sub-Saharan Africa. Disparities in care remain between rural and urban areas, and more educated and wealthier women tend to receive more care. Women who present for one antenatal care visit are likely to come for more care. Efforts are needed to close the exiting gaps in antenatal care and improve the content and quality of care (WHO, 2003).

In many parts of Africa women's decision-making power is extremely limited, particularly in matters of reproduction and sexuality. Decision-making with regards 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 decisions over when to seek treatment, be it traditional or orthodox in many cultural contexts (Oxaal and Baden, 1996).

Often cultural barriers exist that militate against the use of whatever obstetric services are in existence. Many women expect to deliver at home and many refuse to see a male doctor. Many husbands refuse to provide money for medical treatment, or would not allow their wives to be removed from the family compound. Ignorance of potential complications of labour is widespread: obstructed labour can be regarded as a consequence of a wife's infidelity (UNICEF, 1996).

2.2.4 Service barriers

Acharya and Cleland (2000) conducted a study in rural Nepal on access and quality. The study evaluated the relative importance of access and quality on the utilization of preventive health services in the western and middle-western hill region of Nepal. Access was measured by travel time to the nearest health post and coverage by outreach workers. Quality was defined by physical infrastructure, number of staff, availability of drugs, and the holding of special maternal and child health clinics. The study indicated that, travel time to nearest post had less effect. Regular monthly visits by outreach workers also had a significant effect on service utilization. According to them, investing into the quality of health post is more important than increase in the number and expansion of outreach services.

A study carried out in South Africa on acceptability and sustainability of the WHO focused antenatal care package, revealed that although introduction of the package was feasible and acceptable, several factors, notably trainer and staff turnover, inadequate logistics and budgetary planning, and insufficient involvement of key stakeholders negatively affected clinic capacity to implement and sustain the re-organized services as well the quality of service provision (Chege *et. al.*, 2005).

A research was carried out in Kenya which showed that there was under-utilization of Municipal health facilities for MCH services. This was related to the perceived poor quality of care in the facilities. Perception of quality is influenced by a person's socio-economic status especially education (Audo *et. al.*, 2005).

In a randomised control trial comparing focused ANC and general ANC models, it was found out that obstetricians/gynaecologist, midwives and general practitioners provided the services. The services provided by these skilled professionals had influence on the quality of antenatal care (Villars *et. al.*, 2001).

Furthermore, a similar research conducted by Abrahams *et. al.*, (2000) in South Africa, indicates that women's perceptions of the quality of care greatly influence their health care-seeking practices. They generally thought antenatal care to be beneficial; particularly to avoid being scolded by staff should they arrive in labour without prior antenatal care. The women's interactions with staff were generally poor, and women expected to be treated badly by the midwives. The women's own needs for information were not met during antenatal care. They were given little

information about the status of the baby or when they might expect to deliver, and given no test results. The study shows the need to improve the quality of services, improve staff-patient communication, and make services more patient-oriented.

In a study by WHO on antenatal care randomized trial for the evaluation of a new model of routine antenatal care, it was revealed that women and providers in both groups were, in general, satisfied with the care received, although some women assigned the new model expressed concern about the timing of visits (WHO, 2001).

Most major obstetric complications occur without warning and can kill within hours. Appreciable delay between the onset of the complication and the initiation of effective treatment can be fatal. Most women in the developing world who die in childbirth do so remote from a hospital. In most instances they would not have attended antenatal care, and neither would their death have been prevented by it (WHO, 2004).

A study in Zimbabwe showed that a lack of antenatal care contributed to only 7% of all rural and 10% of all urban maternal deaths (Abrahams *et. al.*, 2001).

The screening of pregnant women to determine high and low risk groups, although useful, will not detect a no-risk group. Every pregnancy, irrespective of risk category, may develop a life-threatening complication and needs prompt access to

skilled obstetric intervention. Recognition of the limitations of those low cost strategies has led to the concept of “essential obstetric care” (WHO, 2004).

In Tanzania 21% of women deliver at home because of rudeness of health staff even though they thought delivering in a health facility were safer than delivering in the home (Biego *et. al.*, 1995).

In general, most women in the developing world, particularly in rural areas, have no access to adequate maternal health services. Only low cost strategies unlikely to make a major impact on overall maternal health have been introduced to combat this problem (Abrahams *et. al.*, 2001).

In Ghana, a study performed on the extent to which pregnant women make their visits according to the focused ANC schedule, was assessed through a review of clients’ observation form. The data indicated that there was a higher tendency for third and fourth visit clients attending the intervention clinics to seek antenatal care at the appropriate time, but there was no significant difference from the control sites. Almost one-third of third visit clients in the intervention clinics sought care between 28 and 32 weeks of gestation compared to 17 percent of those in the comparison clinics. For fourth visit clients, the figures were 7 and 4 percent respectively (Nyarko *et. al.*, 2006).

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section describes the procedures used for the study. It describes in detail the study type and design, data collection techniques and tools, study area, study population and study variables. It also explains sampling techniques, sample size, data handling and analysis, ethical considerations, limitations of the study and assumptions of the study.

3.2 Study type and design

A descriptive study with cross sectional design was used to assess the various barriers hindering effective utilization of ANC services in the district. A cross-sectional view of ANC clients' perspective on geographic, social, economic and service barriers to ANC services were examined from 2nd to 9th October, 2008 at Sekyere East District. These factors were determined using qualitative and quantitative variables.

3.3 Study area

3.3.1 Location and size

The Sekyere East District was created in 1998 and is one of the 21 districts in the Ashanti Region of Ghana. It has Effiduase as the district capital. Located in the north-eastern part of the region, it lies approximately between Latitude 6 45' – 7 32' North and Longitude 0 22' West. The district shares common boundaries with some districts in the Ashanti Region. They include the Afigya Sekyere and the

Sekyere West districts to the West, the Ashanti Akim North district to the South-East and the Ejisu-Juaben district to the South-West. It also shares boundaries with the Sene and the Atebubu districts in the Brong Ahafo Region and the Kwahu North District in the Eastern Region. The Sekyere East is the largest of the twenty one (21) districts in the Ashanti and covers a total land area of about 4,231.4km². The district has 136 settlements of varying sizes. Out of this figure, 55 of the settlements are located in the Afram Plains portion of the district (SEDA, 2006).

3.3.2 Population

The district has four urban settlements namely: Effiduase, Kumawu, Asokore and Bodomase. The remaining settlements were regarded as rural. It is estimated that out of a total district population of 205,664, 33.7% and 67.3% were in urban and rural settlements respectively (DHA, 2008). The district is predominantly akan with other ethnic tribes living in mainly farming settlements. These include dagombas, konkombas, ewes and other northerners. The people are mainly farmers and traders. There are also artisans including drivers, hairdressers, dressmakers and mechanics. Few persons are found in white colour jobs.

3.3.3 Traditional and Religious systems

The district has two traditional leaders – Kumawu and Asokore chiefs who report directly to the Asantehene. The traditional leader for Effiduase one of the urban areas of the district is still being litigated. Each traditional area has sub-chiefs who are well represented in every community and village. The people give high regard to the authority and powers of the chief as custodians of the land. Settlers have

identified representatives who inform and represent the members in the matters relating to social and economic situations affecting them.

There are multiple of religious sects including Christians, Moslems and traditionalist. Each religious grouping has several divisions and denominations scattered across the district. The religious grouping meets at regular periods to interact and worship. In such meetings several information relating to health, social, and economic issues are shared and discussed.

3.3.4 Political Administration structure

The district has a political head, the District Chief Executive (DCE), who has the responsibilities of overseeing and ensuring the implementation of government policies and interventions. He is supported by a district coordinating director and directors of various sectors including health, education, agriculture, roads and revenue among others. The political chain of command is decentralised in the communities in the forms of electoral areas represented by elected assembly members. In each community there are elected and government appointee who act as unit committee members. Their role is to assist in channelling and managing the concerns of the communities to the higher level (i.e. district levels).

3.3.5. Social Amenities

3.3.5.1 Electricity

Between 25 percent to 35 percent of the settlements in the district have access to electric power from the national grid. The main towns are Effiduase, Asokore,

Oguaa, Dadease, Bodomase, Besoro, and Kumawu. However, not a single community in the Afram Plains portion of the district enjoys electric power.

3.3.5.2 Water Supply

The supply of potable water in the district is inadequate. Many communities in the Afram Plains portion of the district do not have access to potable water and rely on rivers and streams for drinking water and domestic activities. This explains why the incidence of guinea worm outbreak is very acute in areas like Densi and Anyinofi, all in the Afram Plains portion of the district. Some communities in the South-Western portion of the district lack access to potable water and depend on streams for drinking water.

3.3.5.3 Road Network

The district has about 10% tarred road which is mainly second class. Majority of the roads to the urban centres are un-tarred. Access to certain parts of the districts is difficult during rainy seasons. These parts are largely in the Afram plains section of the district. In some sections of the district, canoe is the major means by which people access social facilities including health. In majority of the villages, access to services is assisted by farm paths usually motorable by truck and tractors or donkeys.

3.3.6 Sectors

3.3.6.1 Education

The Sekyere East District has a number of educational facilities but are only concentrated in the South-Western portion of the District to the disadvantage of North-Eastern (Afram Plains) portion. The District has 108 Pre-schools, 129 Primary Schools and 65 Junior Secondary Schools. There are four Senior Secondary Schools in the District. These are Tweneboah Koduah Secondary School, Effiduase Secondary/Commercial School, Asokore T.I. Ahmadiyya Secondary School and Dadease Agricultural Secondary School. Between 2003 and 2005, the total enrolment in the Schools increased from 3045 to 3780. These educational institutions could stimulate development of cognitive capacities of the populace and women in particular and therefore influence their ability to understand issues relating to health and ANC services in particular.

3.3.6.2 Health Care

For the purpose of effective health management the district has been demarcated into five sub-districts. They are Effiduase/Asokore, Mponua, Bira-Onwam, Kumawu, and Afram Plains. There are total of 14 health facilities (see table 3.1). Seven are public and the rest are private. The hospitals are Effiduase District Hospital, Asokore Ahmadiyya Hospital and Oyoko Westphalian Hospital. These last two hospitals are non-governmental.

Government health centres in the District are located at Kumawu, Woraso, Banko, Akokoaso, Okaikrom and Anyinofi. Other non-governmental health centres are at

Seniagya, Drobonso and Sekyere. The two maternity homes are located at Bodomase and Senchi.

Table 3.1: Health Facilities in the District

CATEGORY	HOSPITAL	HEALTH CENTRE	MATERNITY	TOTAL
Government	1	6	-	7
Non-government	2	3	2	7
Total	3	9	2	14

Source: DHA, 2008

All the fourteen facilities provide curative care on twenty-four hours service delivery, with Effiduase hospital functioning as a referral centre. The three hospitals at Effiduase, Asokore, Oyoko and the health centre at Kumawu have laboratory facilities but the rest have none. Surgical operations are also performed at Effiduase, Westphalian and Ahmadiyya Hospitals. The Westphalian Hospital is a special Hospital for eye care. Apart from the Ahmadiyya Hospital, all the facilities have maternity units.

- **Staff strength**

The public health facilities are staffed with 141 personnel of varied background. These comprise three doctors, two pharmacist and two medical assistants. The rest are 26 general nurses, 15 community health nurses, six technical officers and the rest are support and administrative staff.

- **Organisation of ANC services**

The Medical and Public Health staff are responsible for conducting ANC services. The services is organised at the facility level and at the community level. The hospitals and the health centres hold daily ANC services for pregnant women. The services rendered include foetal assessment, physical examination, haemoglobin, sickling and urine test and also health talks. These services are provided by doctors, nurses and laboratory technicians. At the community level, there is a monthly service provision by public health personnel usually community health nurses. They provide all other services except laboratory examination when not accessible. They also make referrals when required and as per protocol of care. The community based services are usually provided using Community Based Volunteers who assist in assembling clients for the services. These services are usually provided under trees or near the chief's palace or at the market place, unlike the facility based that is organised under structures. Such selected sites at the community levels serve between five and ten villages around the selected communities.

3.4 Study Population

The study population comprises women of reproductive age 15 – 49 years in the Sekyere East District. The sample frame was women who had parity one or more. The eligibility criteria were: pregnant woman or woman who had parity one or more, who had lived in the district for over 6months, and had used ANC services. The exclusion criteria included nulliparous or parity one but have not lived in the

district for 6months, and or parity one but did not use public ANC services either at the facility or community level.

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3.5 Study variables

Qualitative and quantitative variables were used to ascertain utilization of antenatal services. The relationship among them was also determined.

Table 3.2: Study variables

Variable	Operational Definition	Means of measurement	Scale of Measurement
i. Geographical barriers	Factors that hinder a pregnant woman's physical movement from home to the ANC service point.	Nature of road (tarred, un-tarred, farm roads)	Nominal
		Distance from facility(km) This is categorised (<1km and 1km or more)	Ratio
		It was also estimated by the time spent to the nearest health facility (i.e. <30 minutes or 30 minutes or more)	
		Means of transport to the nearest health facility (i.e. foot, vehicle, bicycle etc)	Nominal
		Cost of transportation to facility (expensive, moderate, cheap)	Ordinal
ii. Economic barriers	The ability of the pregnant woman to foot her medical bills and its impact on her ANC attendance.	Employment (e.g. artisans, civil servants, traders, farmers etc.) These were categorised into employed and unemployed.	Nominal
		Monthly income (equivalent amount spent per day times the number of days in the month)	Ratio
		Affordability of ANC related services (affordable, not affordable)	Nominal
iii. Service barriers	Nature of the facility, presence of qualified staff and attitude of staff towards clients.	ANC queuing (satisfaction or dissatisfaction with time spent in queuing)	Nominal
		Staff attitude (satisfied or not satisfied with staff attitude at ANC)	Nominal
		Client satisfaction, entire service provided (satisfied or not satisfied)	Nominal
iv. ANC practices and decision making influences	Decision making processes that impact negatively on ANC attendance.	Decision making processes Factors that influence decision to use ANC (e.g. financial, distance, superstition etc)	Nominal
		Influenced by others to use or not to use ANC services (influenced, not influenced)	
		Knowledge level on antenatal services Answers to series of questions on ANC ranked into: (adequate knowledge, inadequate knowledge)	Nominal

3.6 Sampling and sampling technique

3.6.1. Sample size

The sample size was determined using the EPI STAT Calc version 4.0. This is a recognised software for estimating sample size for surveys, cohort or cross-sectional and unmatched case-control study designs. With estimated Women in their Fertility Age (WIFA) of 47,714 in 2008 and ANC coverage of 47.7% a sample size of 301 was determined at worst acceptable frequency of 42.08%, at 95% C.I. and with a 5% margin of error.

3.6.2 Sampling technique

Sampling of eligible respondents was done at the selected public health facilities and at selected communities which were due for ANC services. Five health facilities comprising three public and two non-governmental facilities were randomly selected. The public health facilities selected were Effiduase, Asokore and Kumawu. The two non-governmental facilities selected were the Senchi and Bodomasi maternity homes. In addition to these, two communities were conveniently selected because they were due for ANC service provision during the period of data collection.

At the health facility and the selected communities systematic random sampling technique was employed in the selection of pregnant women and other women of parity one or more. Based on an average daily attendance of 130, and a daily sample of 43, a sample interval of 3 was determined. Pregnant women of parity one or more attending ANC services at selected health facilities within the District

were sampled for the survey. Starting from the last woman in the queue, every other woman of parity one or more was interviewed. Where the number in attendance on a particular day is less than twenty, they were all sampled.

3.7 Data collection techniques and tools

3.7.1. Data collection technique

The technique employed for data collection was interviewer administered techniques. The researcher read the questions to the clients and ticked or wrote down the answers given by the respondent on the interview guide. In all cases, participants were briefed about the objectives of the study and were assured of confidentiality and the dissociation of the findings to them. Questions were translated to respondents when applicable so as to ensure valid responses.

3.7.2. Data collection tools

3.7.2.1. Interview guide

Detailed open and close-ended questions were designed, which posed specific and structured questions on all objectives of the study. These were geographic, social, economic and perspectives on service delivery. The questions were aimed at collecting information from eligible respondents of different educational, economic and social backgrounds.

3.7.2.2. Key Informant interview guide

The public health nurse who coordinates ANC services was purposively selected and interviewed using a key informant interview guide. This captured issues

relating to the organisation and patronage of ANC services at the various service points in the district.

3.8 Pre-testing.

The designed interview guide was pre-tested at Sekyere West which has similar characteristics such as ethnicity, infrastructure and social amenities as that of the study area. Pregnant women and women of parity one or more were chosen conveniently for the exercise. This was done to identify and correct inconsistency and also assess the level of understanding of the people to the questions. The necessary corrections and rephrasing of questions were done to give clearer meaning and understanding to the questions.

3.9 Data handling

Data were checked for accuracy and completeness so as to ensure quality. The instrument was numbered serially. On daily basis, completed questionnaires were checked thoroughly. Double entry data was done, entered in the designed templates to ascertain consistency and accuracy of the data entry and for better analysis. Back-ups of data entered were made on CDs and pen drives.

3.10 Data analysis

The data were analysed with Statistical Package for Social Scientist (SPSS) software version 15.01 and Microsoft Excel version 6.0. The results were presented in tables and graphs. Descriptive and inferential statistics were employed to describe and estimate significances of observations respectively. Inferential

statistic used included chi square, p-values and confidence intervals for strength of relationships.

3.11 Ethical consideration

- Ethical approval was obtained from the District Director of Health Services, Sekyere East, chiefs and opinion leaders of all the communities visited.
- Informed consent was obtained from the individuals who were involved in the study. The purpose of the research was explained to the respondents and those willing to respond to questions were interviewed.
- A letter of introduction was obtained from the Department Of Community Health, KNUST/SMS for this purpose.

3.12 Limitations

Among the limitations of the study were:

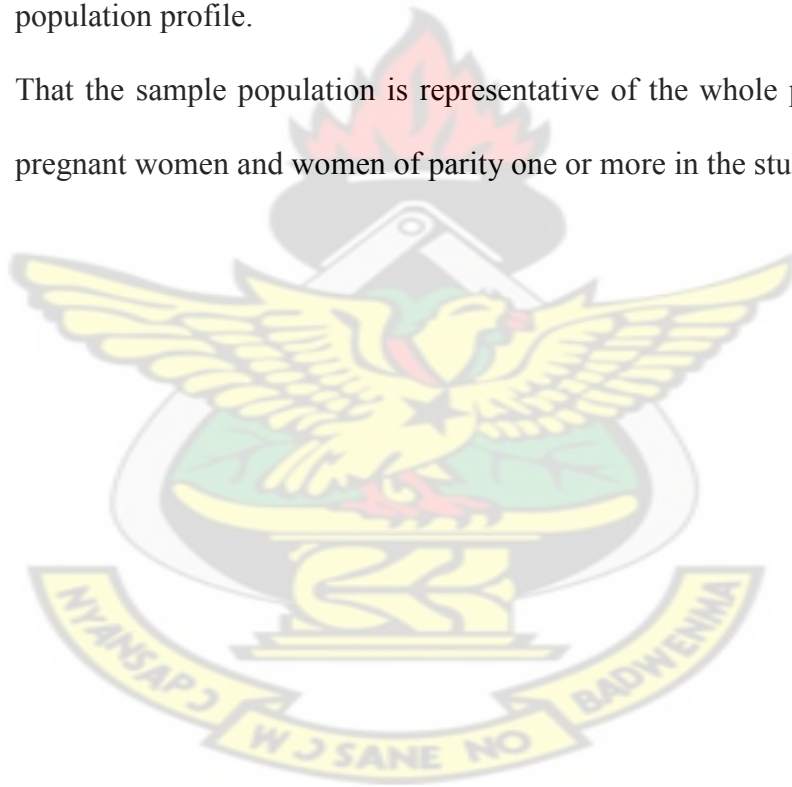
- ❖ The idea of asking people in a survey to talk about their perception and conditions are acceptable. However, one cannot be sure whether or not what such people say is true. Factors like age, education, economic status and religious background may affect their interest. This effect was minimised through assuring clients that they would not be associated with the results of the study.
- ❖ Even though the instrument was standardised for translation purposes, it was presumed that some of the women may still misunderstand the

importance of the questions and may respond wrongly. This was reduced by clarifications made during the interview session with the women.

3.13 Assumptions

In the course of the study the following assumptions were made:

- ❖ All the responses obtained from the respondents were true and accurate.
- ❖ That in the course of the study there was no sudden change in the population profile.
- ❖ That the sample population is representative of the whole population of pregnant women and women of parity one or more in the study area.



CHAPTER FOUR

RESULTS

4.1 Introduction

This section of the study covers the findings. The findings are presented in tables and graphs. The results are based on the responses of 301 clients who used ANC services in their last pregnancy and what they perceive to be geographic, economic, social and service factors that could serve as barriers in accessing quality ANC services in the districts. Appropriate statistical tests were employed to determine the significance of variation of factors that could account for the use of ANC services.

4.2 Background characteristics

Table 4.1 shows the percentage distribution of the background characteristics of the respondents. Out of the 301 respondents, 10.6% were below 19 years and 21.9% above 35 years. The mean age was 28.33 years with a standard deviation of 8.24. The minimum age was 12 years and the maximum, 45years. Sixty six percent (66.1%) were married. Thirty percent (30.2%) had parity one and 16.9% more than parity three. Out of the 301 women, 18.6% had not had any formal education. Among the educational levels reported by the respondents were tertiary level, 9.6%, secondary level 28.6% and basic level 43.2%. Rural residents accounted for 20.3% of the women whereas 45.2% and 34.6% lived in peri-urban and urban settings respectively. In terms of religious distribution Christians formed 85.7%.

Table 4.1: Background characteristics of respondents

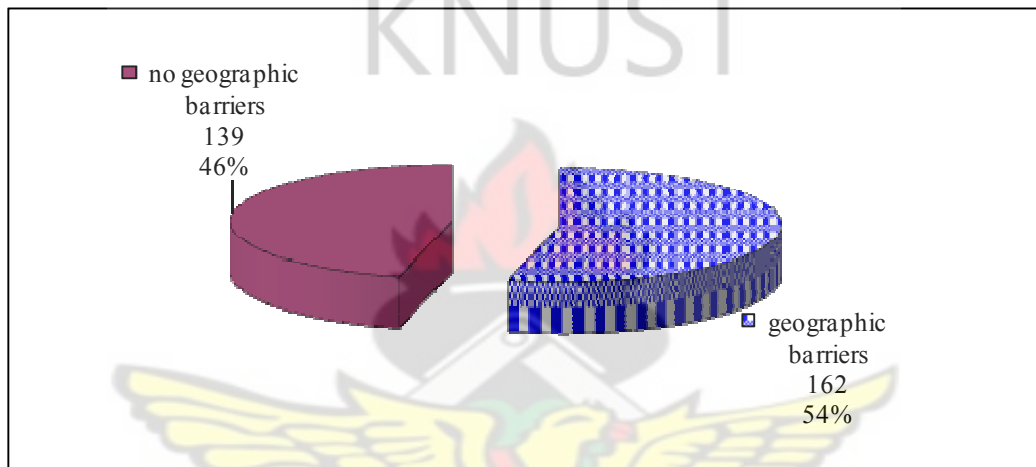
Variable	Frequency (N = 301)	Percentage (%)
Age group		
< 19	32	10.6
20 – 24	70	23.3
25 – 29	76	25.3
30 – 34	57	18.9
35 and above	66	21.9
Mean = 28.33 \pm 8.24; Minimum = 15; Maximum = 45		
Marital status		
Married	199	66.1
Not married	102	33.9
Parity		
One	91	30.2
Two	100	33.2
Three	59	19.6
More than three	51	16.9
Educational level		
None	56	18.6
Basic	130	43.2
Secondary	86	28.6
Tertiary	29	9.6
Areas of Residence		
Rural	61	20.3
Peri-urban	136	45.2
Urban	104	34.6
Religion		
Christian	258	85.7
Muslim	36	12.0
Traditionalist	7	2.3

Source: Author's field data, 2008

4.3 Geographic barriers to ANC services

In Figure 4.1 below is a pie chart presentation showing the proportion distribution of the responses to perceived geographical barriers to ANC services. Out of the 301 women 54% indicated that there exist geographical barriers to the ANC services.

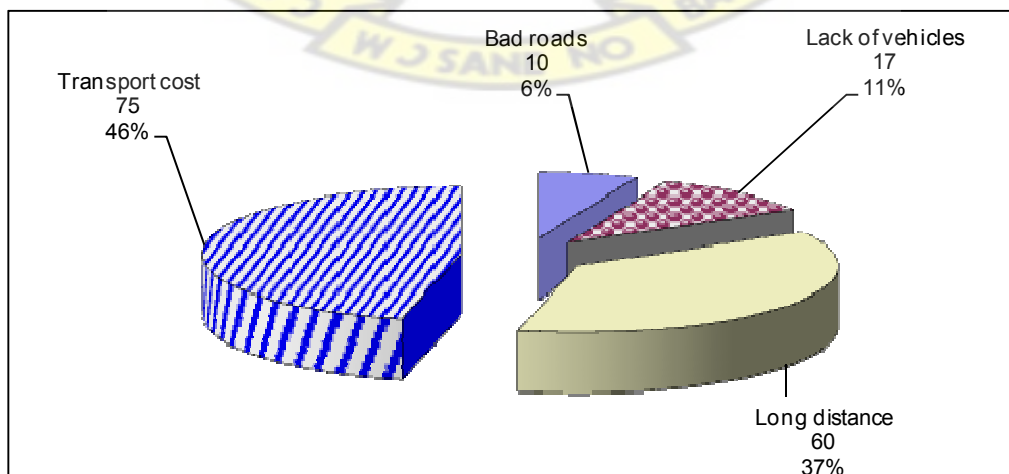
Figure 4.1: Perceived existence of geographic barriers to ANC services



Source: Author's field data, 2008

The geographic factors perceived as barriers to ANC services as identified by the women included transport cost, 47% and long distance to the health facility, 37% as shown in figure 4.2 below.

Figure 4.2: Identified geographic barriers to ANC services



Source: Author's field data, 2008

The women's perception about geographical barriers was significantly related to age ($p=0.00$), marital status ($p=0.00$), educational level ($p=0.00$) and areas of residence ($p=0.00$) however their parity and religion did not show any significance, ($p=0.26$, and $p=0.26$ respectively) as detailed in table 4.2 below.

Table 4.2: Relationship between background characteristics and perceived existence of geographic access to ANC services

Variable	Chi square or t-test	p-value	OR [95% C.I.]
Age	24.17	0.00	-
Marital status	34.66	0.00	0.20 [1.12, 0.36]
Parity	3.98	0.26	-
Educational status	19.49	0.00	0.22 [0.11, 0.45]
Area of residence	44.18	0.00	-
Religion	2.88	0.26	-

Source: Author's field data, 2008

In table 4.3 below is detailed the geographic responses that influences the perception that there exist geographic barriers to ANC services. Sixty two percent (61.7%) and 26.7% of those who perceived existence of geographical barriers and non-existence of it respectively, lived 1 kilometre (km) or more from the nearest health facility. Those who lived in such distance were 2.30 times more likely to hold the view that there are geographic barriers to ANC services. This was statistically significant ($p=0.00$). The means of transport and the nature of roads to the nearest health facility also had significance ($p=0.00$ and $p=0.00$ respectively) in the perception of existence of geographic barriers to ANC services in addition to the cost of transport ($p=0.00$). Even though the regularity of transport to the health facility did not show any significant relationship ($p=0.89$) with the perceived existence of geographic barriers to ANC, the time to the health facility did have a significant influence ($p=0.00$). Among those who perceived existence of geographic barriers to the services, 63.0% spent more than 30 minutes to the

nearest health facility compared to 19.4% in the group who said geographic barriers did not exist. The former were 3.11 times more likely to think that geographic barriers affect ANC services than the later.

Table 4.3: Relationship between existence of geographic barriers and geographic factors to health facilities among respondents

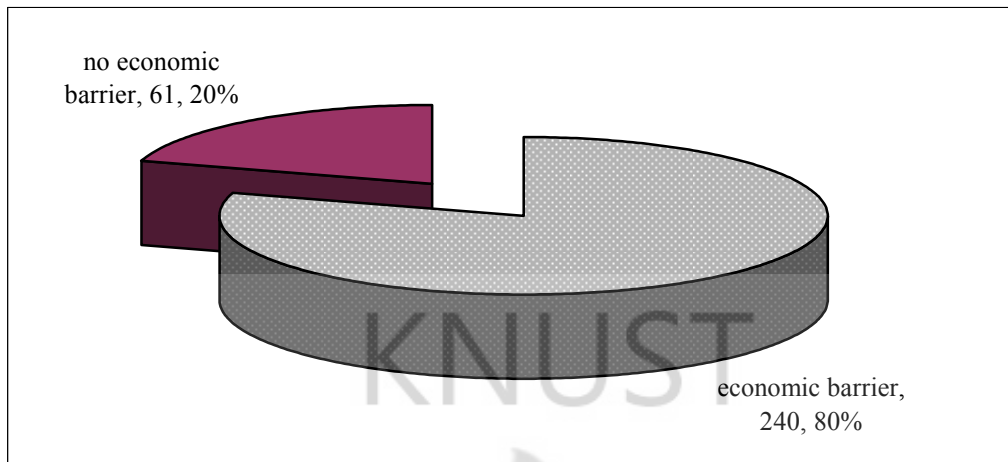
Variable	Geographical barrier exist n = 162 (%)	Geographical barrier do not exist n = 139 (%)	Chi square or t- test (p-value)	OR [95% C.I.]
Distance 1 km or more < 1km	61.7 38.3	26.6 73.4	37.18 (0.00)	2.30 [1.7, 3.1]
Means of transport Private Commercial vehicle Walking	3.7 70.4 25.9	10.8 74.8 14.4	10.42 (0.00)	-
Nature of road Good Bad Very bad	50.0 47.5 2.5	87.1 12.9 0.0	(0.00)	-
Regular transport Yes No	88.3 11.7	87.8 12.2	0.02 (0.89)	1.05 [0.5, 2.1]
Cost of transport Too high High Affordable	18.5 63.0 18.5	0.7 14.4 84.9	(0.00)	-
Time to health facility Above 30 min Up to 30 min	63.0 37.0	19.4 80.6	57.91 (0.00)	3.11 [2.2, 4.4]

Source: Author's field data, 2008

4.4 Economic Barrier

Out of the 301 women, 240 representing 80% said that there exist economic barriers to access to ANC services as shown in figure 4.3 below.

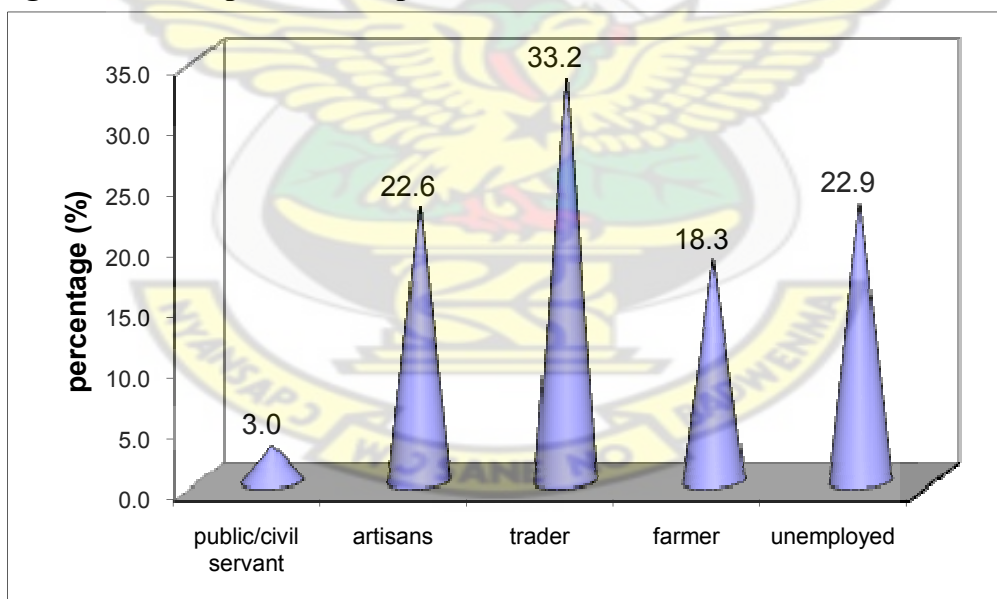
Figure 4.3: Perceived existence of economic Barrier



Source: Author's field data, 2008

Artisan, 22.6%, trading, 33.2% and farming, were the occupation engaged by the women as shown in figure 4.4 below.

Figure 4.4: Occupation of respondents



Source: Author's field data, 2008

Two hundred and thirty two (232) of the respondents were employed representing 77.1%. This is distributed 74.2% and 88.5% among those who perceived the existence and non-existence of economic barriers respectively. The employment status of the women had a significant influence ($p=0.02$) on assertion of an

economic barrier to ANC. The unemployed were 2.67 times more likely to hold the perception that economic barriers exist in accessing ANC services. The monthly income ($p=0.74$) and ability to pay medical bills ($p=0.57$) were not significant in determination of a perceived economic barrier to ANC, however, the person who pays medical bills of respondents ($p=0.00$) was significant. The medical bills among those who perceived existence of economic barrier and those who perceived not was paid by spouse in 57.9% and 90.2% respectively.

Table 4.4: Relationship between perceived economic barrier to ANC and economic characteristics of respondents

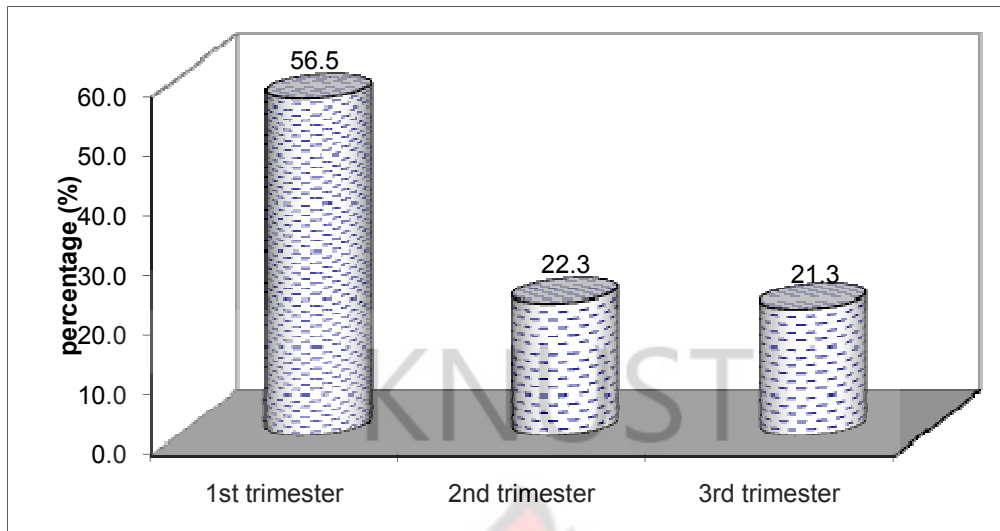
Variable	Economic barrier n = 240 (%)	No economic barrier n = 61 (%)	Chi square or t- test (p-value)	OR [95% C.I.]
Employment status				
Not Employed	25.8	11.5	5.67	2.67
Employed	74.2	88.5	(0.02)	[1.1, 6.2]
Monthly income				
< 100 GH cedis	60.0	62.3	0.11	0.91
More than 100	40.0	37.7	(0.74)	[0.5, 1.6]
Payer of medical bills				
Self	18.8	3.3	23.56	-
Spouse	57.9	90.2	(0.00)	
Relative	22.5	4.9		
All	0.8	1.6		
Able to pay bills				
Yes	61.3	57.4	0.32	1.12
No	38.7	42.6	(0.57)	[0.6, 2.0]

Source: Author's field data, 2008

4.5 Antenatal practices and decision making influences

In figure 4.5 below, 56.5% of the women attended ANC in the first trimester and 21.3% in the 3rd trimester.

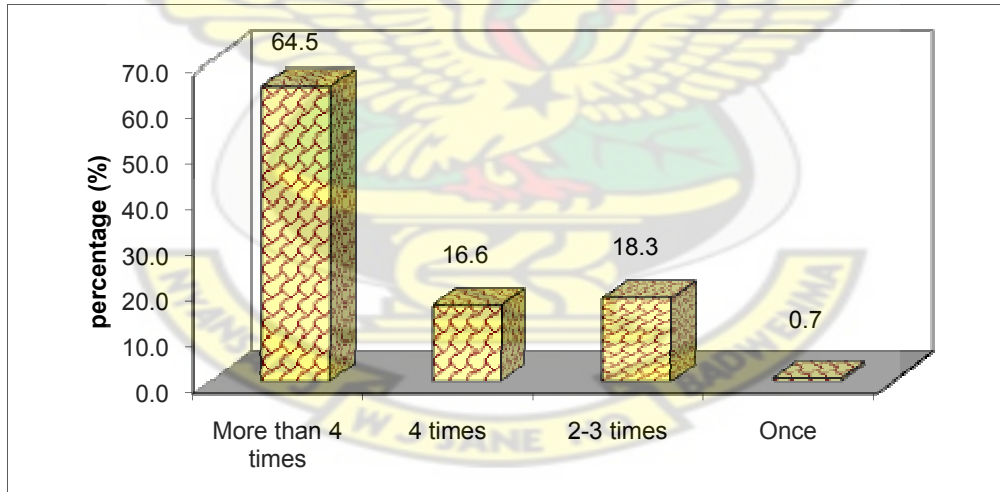
Figure 4.5: Time of attending ANC (N=301)



Source: Author's field data, 2008

In figure 4.6 below, 64.5% of the women visited ANC more than four times, 16.6% four times and 18.3% 2-3 times.

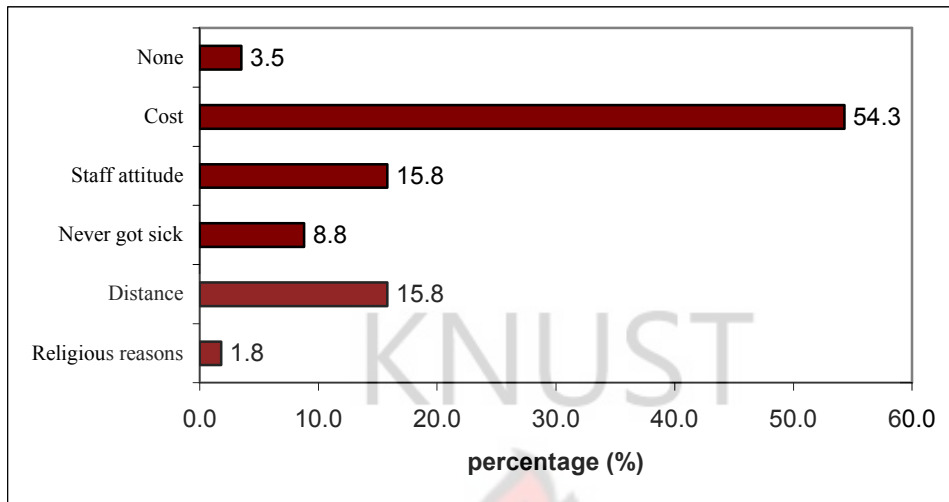
Figure 4.6: Frequency of visits to ANC



Source: Author's field data, 2008

The reasons for not attending ANC for 4 times included cost, 54.8%, distance, 15.8% and staff attitude, 15.8%. Religious reasons accounted for 1.8% whilst 3.5% could not give any reason as shown graphically in figure 4.7 below.

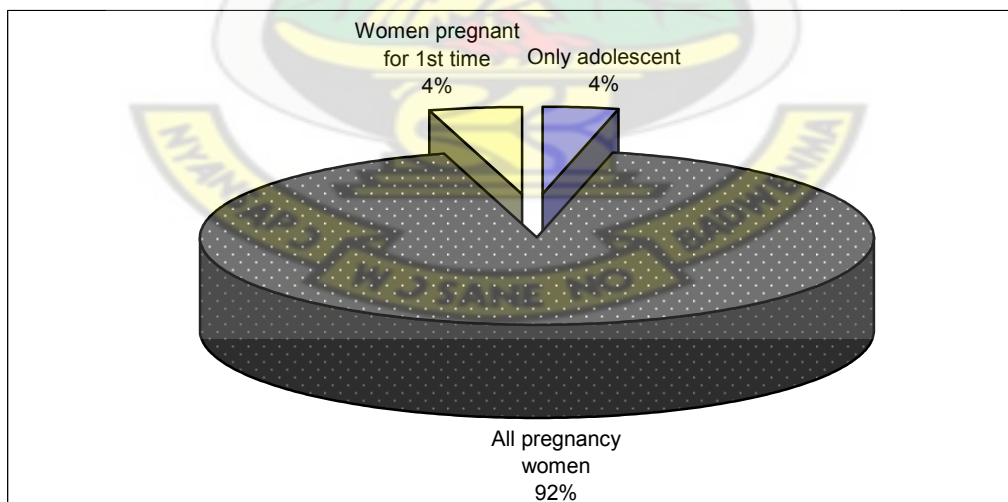
Figure 4.7: Reasons for not attending ANC for four times (n=57)



Source: Author's field data, 2008

Figure 4.8 shows that, 92% of the women knew that all pregnant women have to attend ANC whilst 4% each, knew that women who were pregnant for the first time and adolescent respectively needed ANC services.

Figure 4.8: Knowledge about who needs ANC services



Source: Author's field data, 2008

About twenty seven percent (26.6%) of the women were influenced to use ANC services. They were influenced by spouses, 38.8%, relatives, 36.3%, and friends, 20.0%. Over seventy percent (74.8%) knew that the time to start ANC visit was in

the 1st month of pregnancy. Others, 3.7% and 2.3% knew that ANC visit was done when one is sick or had developed complication and when it is time to deliver respectively. When asked about the existence of cultural practices 2.3% indicated in the affirmative as detailed in table 4.5 below.

Table 4.5: Influences on ANC use, knowledge on time of ANC visit and Cultural practices

Variables	Frequency (N = 301)	Percentage (%)
Influenced to use ANC		
Yes	80	26.6
No	221	73.4
Influenced by:		
Spouse	31	38.8
Relative	29	36.3
Friend	16	20.0
Health worker	4	5.0
Time ANC should start		
In 1 st month	225	74.8
After 3 rd month	58	19.3
Getting to time of delivery	7	2.3
When sick or complication	11	3.7
Cultural practices against ANC		
Yes	7	2.3
No	294	97.7

Source: Author's field data, 2008

As shown in figure 4.9 below, the cultural practices affecting the use of ANC as identified by the respondents (7) were that church forbids ANC use, 57%, religion, 29%, praying for pregnant women, 14%.

Figure 4.9: Cultural practices that affect use of ANC (n=7)

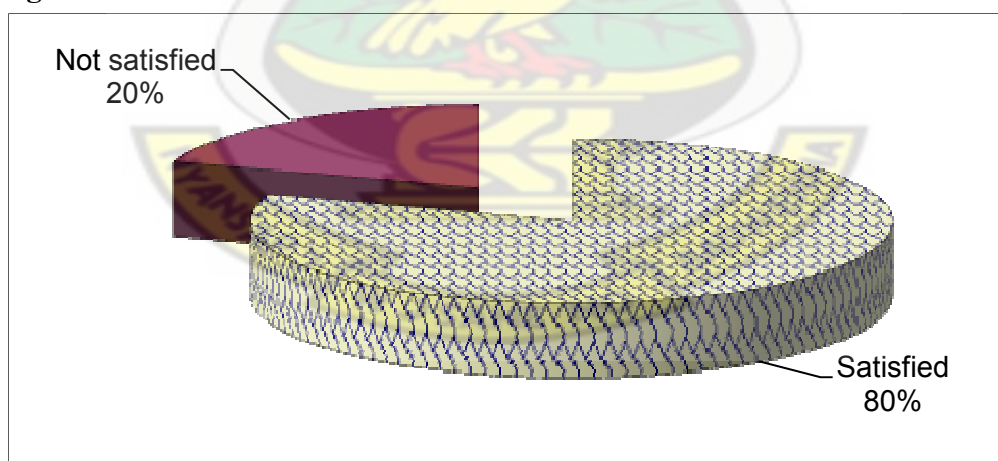


Source: Author's field data, 2008

4.6 Service barriers

The women (80%) expressed satisfaction with ANC services whilst 20% indicated that they were not satisfied as shown in figure 4.10 below.

Figure 4.10: Satisfaction with ANC services



Source: Author's field data, 2008

The reasons for being satisfied with the service included examination done, 64.7% and the friendly attitude of staff, 22.8%. Among those who were not satisfied, long waiting time, 78.8%, and unfriendly staff attitude, 17.3% were the reasons. The

respondents (86.7%) said that a hospital was in their community and the reason for the choice of health facility included its nearness, 28.6%, having qualified staff, 51.8% and that it is the only option, 19.6%. The services that attracted the women to the health facility included its laboratory service, 42.2% and having an ultrasound scan, 32.9% whilst for 9.6% of the women nothing attracted them to the facility as shown in table 4.6 below.

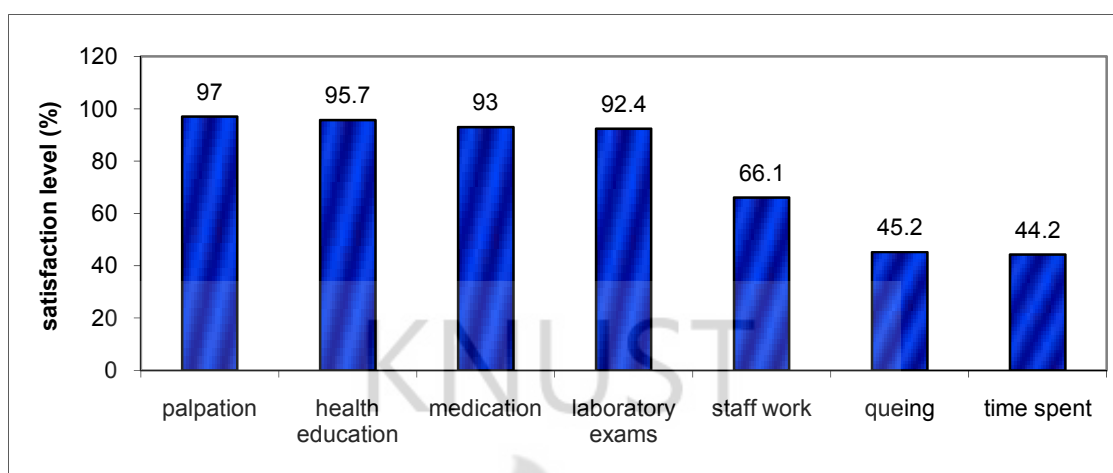
Table 4.6: Respondent's perspective on service barriers

Variables	Frequency (N = 301)	Percentage (%)
Basis for satisfaction (n=249)		
Proper examination	161	64.7
Quick service	31	12.5
Friendly attitude	57	22.8
Basis for dissatisfaction		
Long waiting time	41	78.8
Unfriendly attitude	9	17.3
Inadequate examination	2	3.9
Type of facility in community		
Hospital	261	86.7
Clinic	36	12.0
Health post	4	1.3
Reason for choice of facility		
It is near	86	28.6
It is the only option	56	19.6
Qualified staff	156	51.8
Service that attracts		
Laboratory service	127	42.2
Ultra-sound scanning	99	32.9
Ambulance service	21	7.0
All	25	8.3
None	29	9.6

Source: Author's field data, 2008

Figure 4.11 below graphically shows the level of satisfaction of women on specific ANC services. Over ninety percent were satisfied with palpation, health education, medication and laboratory services whilst over 50% were not satisfied with queuing and time spent before services was rendered.

Figure 4.11: Level of satisfaction with specific ANC services



Source: Author's field data, 2008



CHAPTER FIVE

DISCUSSIONS

5.1 Geographical barriers

It was revealed by this survey that majority of the women who perceived existence of geographical barriers and those who were of the view that there was non-existence of it respectively, lived 1 kilometre (km) or more from the nearest health facility. Those who lived in such distance were 2.30 times more likely to hold the view that there are geographical barriers to ANC services. Among those who perceived existence of geographical barriers to the services, 63.0% spent more than 30 minutes to the nearest health facility compared to 19.4% in the group who said geographical barriers did not exist. The former were 3.11 times more likely to think that geographical barriers affect ANC services than the later. This implies that most of the women have to travel a long distance and spend some time before they can gain access to ANC services. This shows that the response of the Government to the ICPD, 1994, held in Cairo has not been satisfactory. A similar study was carried out by the Population Studies and Research Institute, University of Nairobi, Kenya (2004), where it was revealed that the majority seek antenatal care but late in pregnancy and make very few antenatal visits mainly because of lack of access to institutionalised care; quick means of transport, inability to meet user charges and associated costs, the availability of cheap and more accessible alternative care providers such as traditional birth attendants (TBAs), and the poor quality of services offered at the local health facilities.

5.2 Economic barriers

Eighty percent (80%) of the respondents were of the view that there are economic barriers in accessing ANC services. This implies that most pregnant women did not have enough money to cater for their expenses and therefore needed financial support from their spouses or other support persons. A similar study was done that showed that finance was a major hindrance to accessing maternal health services in rural settings (Bour, 2004). Pregnant women in rural areas therefore may require additional financial support to enable them access ANC services. Again, the unemployed were 2.67 times more likely to hold the perception that economic barriers exist in accessing ANC services. The medical bills among those who perceived existence of economic barrier to ANC services and those who did not perceived economic barriers to ANC was paid by their spouse in 57.9% and 90.2% respectively. This indicated that without support from their husbands, majority of the pregnant women would not have been able to afford their total medical expenses. Even though the monthly income ($p=0.74$) of the women and their ability to pay medical bills ($p=0.57$) were not significant in the determination of a perceived economic barrier to ANC, someone paying for the medical bills of respondents ($p=0.00$) was significant in the study and this supports the fact that most of the women were not empowered financially to cater for the financial demands of their health. A similar research was also carried out which revealed that, as a result of lack of productive resources for women, income earned by women had negative impact on the utilization of ANC and PNC (Shariff and Singh, 2002).

5.3 Antenatal practices and decision making influences

Decision making on when and where to access ANC service has been reported by many authors (Shariff and Singh, 2002; Nyarko et.al, 2006) as one of the most important issues that affect women in their quest to utilise antenatal service. It was revealed from the survey that most women (56.5%) attended ANC in the first trimester and (23.1%) in the 3rd trimester. This implies that majority of pregnant women are interested in their first visit to the health facility, after which they did not attend the clinic, except when they may have encountered a health problem or when they are in labour. A similar research carried out to ascertain the determinants of antenatal booking time in a South-Western Nigeria setting revealed that, 57.3% of pregnant mothers felt that women should book by the first trimester but half of them actively booked late (Adeyemi et. al., 2007).

This study is however different from another research which indicated that there was a higher tendency for third and fourth visit clients attending the intervention clinics to seek antenatal care at the appropriate time, but there was no significant difference from the control sites. Almost one-third of the clients in the intervention clinics sought care between 28 and 32 weeks of gestation compared to 17 percent of those in the comparison clinics (Nyarko et. al., 2006).

The survey showed that 64.5% of the women visited ANC more than four times, 16.6% four times and 10.3% 2-3 times. A similar research conducted by UNICEF (2004), revealed that urban women are twice likely as rural women to report four or more antenatal visits. There is a statement that, for women whose pregnancies

are progressing normally, WHO recommends four ANC visits, ideally at less than 16 weeks, at 26 weeks, 32 weeks and 36 weeks (Nyarko et. al., 2006).

Majority of respondents, were influenced by their spouses, 38.8%, relatives, 36.3%, and friends, 20.0%. The influences of spouses, relatives and friends are supported by a study which revealed that social relations play an important role in the decision to seek care. In some areas a woman cannot be taken to hospital without her husband's permission (WHO, 2004).

In this study, 92% of the women knew that all pregnant women have to attend ANC while 4% each, knew that women who were pregnant for the first time and adolescents respectively needed ANC services. This indicates that most of the women had an idea about the need for pregnant women to attend ANC but lack detail information as to how often the visits should be carried out. A similar study carried out to ascertain clients' knowledge about timing of ANC service delivery revealed that only eight percent (8%) of ANC clients were able to give a correct answer when asked about the number of visits an ANC client is expected to make (Nyarko et. al., 2006).

5.4 Service barriers

Majority of the women, eighty percent (80%) expressed satisfaction with ANC services while twenty percent (20%) indicated that they were not satisfied. The reasons for being satisfied with the service included the physical examination done, 64.7% and the friendly attitude of staff, 22.8%. Among those who were not

satisfied, long waiting time, 78.8%, and unfriendly staff attitude, 17.3% were the reasons. Interactions with the women revealed that majority of them, 86.7% said that the hospital was in their community and the reason for the choice of health facility included its nearness, 28.6%, having qualified staff, 51.8% and that it is the only option, 19.6%. The services that attracted the women to the health facility included its laboratory service, 42.2% ultrasound scan, 32.9% while for 9.6% of the women nothing attracted them to the facility. Not being attracted by the service provided implies that clients were not happy with the type of service available and or the attitudes of the staff tend to discourage them from utilising the facility. A similar research was carried out in Kenya which showed that there was under-utilisation of Municipal health facilities for MCH services. This was related to the perceived poor quality of care in the facilities. Perception of quality is influenced by a person's socio-economic status especially education (Audio et. al., 2005).

It has been well documented that clients – patient relations, waiting time, pain management and others contribute significantly to the utilization of health services (Acharya and Cleland, 2000). Improving quality of service to ill – persons does not involve providing purely clinical service, but also including good human relations skills so as to achieve ultimate health outcome.

Over ninety percent (90%) of respondents were satisfied with palpation, health education, medication and laboratory services whilst over fifty percent (50%) were not satisfied with queuing and time spent before services was rendered. Concerning the level of satisfaction, 90% indicated it was due to palpation, 95.7%,

health education, 93% medication, 92.4% laboratory exams, 66.1% staff work, 45.2 % queuing and 44.2 % time spent. During interaction with the women, they consented that although they were satisfied with examinations, they expected midwives and other skilled providers to brief them on the outcomes of their examinations. A similar research was conducted by Abrahams et. al., (2001) in South Africa, which revealed that women's own needs for information were not met during antenatal care. They were given little information about the condition of the baby or when they might expect to deliver, given no test results. The study shows the need to improve the quality of services, improve staff – patient communication, and make services more patients - oriented.



CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Antenatal care is extremely important for diagnosing and treating complications that could endanger the lives of women and children in our societies. The main objective of this study was to ascertain the perceived barriers to antenatal care by attendants in the Sekyere East district and also to provide appropriate management with valuable suggestions to help promote ANC attendance.

6.1.1 *Geographical barriers*

It is evident that even though majority of respondents stayed within 5km radius from the nearest health facility, the road network in the study area was partially good, there were enough commercial vehicles plying the roads, and transport fare were quite moderate, the geographical factors perceived as barriers to ANC services as identified by the women included transport cost, 47% and long distance to the health facility, 37%. Considering the number of cars one has to board in order to travel in and out of a health facility and others who always had to hire a taxi before they could get to their destination, it would not be out of place agreeing with them that the cost of transportation adversely affected their ANC attendance.

6.1.2 *Economic barriers*

It is concluded that even though there were other economic barriers that affected ANC attendance, the most influential barrier was poverty or lack of funds. This was evident because eighty percent (80%) of the respondents were of the view that

there are economic barriers to access to ANC services. The women also lacked empowerment and this was revealed by their low level of education, as reflected in 43.2% of them with only basic education and 18.6% with none, thus made the majority, 90.2% of them dependent on their spouses for financial support.

6.1.3 Antenatal practices and decision making influences

Cost of services, distance to health facility, as well as staff attitude were the major factors that accounted for using ANC less than 4 times among the women. The decision to use ANC by the women is influenced by their spouses, relatives and friends.

6.1.4 Service barriers

It was clearly established by the survey that quality of service at the facilities patronised by the respondents was not a barrier to ANC in the study area. This was so because their reasons for being satisfied with the service included physical examination done, 64.7% and the friendly attitude of staff, 22.8%. Among those who were not satisfied, long waiting time, 78.8%, and unfriendly staff attitude, 17.3% were the reasons.

6.2 Recommendations

The following recommendations are being made to enable the Sekyere East District Directorate of Health Services and other stakeholders take the necessary steps that will help address the shortcomings associated with utilisation of antenatal services in the district:

District Assembly

- ❖ The district assembly in collaboration with the Ministry of Roads and Transport should make frantic effort to improve the nature road network in the district since most of its roads are untarred and or not motorable especially in the rural areas. This will facilitate easy access to the health facilities and reduce the cost of transportation.
- ❖ The District Assembly must work in collaboration with the Ministry of Education Science and Sports and the Ministry of Women and Children to improve girl child education in the district as some of the women in the area are either illiterates or have only basic education. There is also the need to work hard at empowering the women to be financially independent by providing them with skill training to enhance their chances of gaining employment. Innovations including provision of financial credits to women's groups from the Poverty Alleviation Funds in the District Assembly could be a good intervention.

District Health Directorate

- ❖ The District Health Directorate should intensify education of women on the need to attend ANC clinic timely. This is because over 20% of the pregnant women attended ANC in the third trimester.
- ❖ The District Health Directorate should conduct client satisfaction surveys periodically to assess service factors that accounts for the high

dissatisfaction (55.8%) of clients regarding time spent at the ANC clinic sites.

Hospital Management

- ❖ The hospital management should conduct a review of staff attitude to work since only 66.1% of the pregnant women were satisfied with the conduct of health staff towards them in the course of rendering ANC services.
- ❖ Health Care Providers should organise regular health education programmes for women to enlighten them on issues of Antenatal Care and other Maternal Health Services. This would ensure that pregnant women attend ANC on timely rather than turning up late during the 3rd trimester.
- ❖ Health personnel should avoid any rudeness to or making of derogatory remarks about teenagers when they visit the health facility. This is because 15.8% of the pregnant women did not attend ANC because of poor staff attitude.

Community

- ❖ Community-level leaders should facilitate education programmes related to late attendance to ANC service. The role of community members could include influencing the pregnant friends to attend ANC in time and disabusing the mind of women that ANC services is meant for only women who are pregnant for the first time (4%), or for only adolescents (4%).

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APPENDIX

DEPARTMENT OF COMMUNITY HEALTH **SCHOOL OF MEDICAL SCIENCES** **KNUST**

QUESTIONNAIRE FOR WOMEN OF PARITY ONE OR MORE

Questionnaire to ascertain the perceived barriers to antenatal care by attendants in the Sekyere East District.

You are assured that your response will be kept confidential and used for the research purpose only.

(You are at liberty to respond to the questions or otherwise).

SECTION A **(Personal Record)**

QUESTION	RESPONSE OPTIONS	RESPONSE
1. Age (in completed years)	Write age in numbers
2. Marital Status	<ul style="list-style-type: none">• Married• Not married	<ul style="list-style-type: none">• []• []
3. Parity	<ul style="list-style-type: none">• One• Two• Three• More than three	<ul style="list-style-type: none">• []• []• []• []
4. Educational level	<ul style="list-style-type: none">• None• Basic• Secondary• Tertiary	<ul style="list-style-type: none">• []• []• []• []
5. Area of residence	<ul style="list-style-type: none">• Rural• Peri-urban• Urban	<ul style="list-style-type: none">• []• []• []
6. Religion	<ul style="list-style-type: none">• Christian• Muslim• Traditionalist• Other (Specify)	<ul style="list-style-type: none">• []• []• [].....

SECTION B
(Geographical Barriers)

QUESTION	RESPONSE OPTIONS	RESPONSE
7. What is the distance between your home and the nearest facility?	Write in kilometers
8. Means of transport to the nearest health facility?	<ul style="list-style-type: none"> • Private vehicle • Commercial vehicle • Walking • Bicycle • Other(Specify) 	<ul style="list-style-type: none"> • [] • [] • [] • [] • []
9. What is the nature of road leading to the facility?	<ul style="list-style-type: none"> • Good road • Bad road • Very bad road 	<ul style="list-style-type: none"> • [] • [] • []
10. Do you have regular commercial transports plying the road?	<ul style="list-style-type: none"> • Yes • No 	<ul style="list-style-type: none"> • [] • []
11. How do you perceive the cost of transportation to the facility?	<ul style="list-style-type: none"> • Too high • High • Moderate/Affordable 	<ul style="list-style-type: none"> • [] • [] • []
12. In your opinion which of these geographical barriers mainly affect your ANC attendance?	<ul style="list-style-type: none"> • Long distance • Lack of vehicles • Bad roads • High cost of transportation • Other(Specify) 	<ul style="list-style-type: none"> • [] • [] • [] • [] • []
13. How much time do you spend to get to the health facility?	

SECTION C
(Economic Barriers)

QUESTION	RESPONSE OPTIONS	RESPONSE
14. Occupation	<ul style="list-style-type: none"> • Artisan • Public/Civil servant • Trader • Farmer • Unemployed • Other (specify) 	<ul style="list-style-type: none"> • [] • [] • [] • [] • [] • []
15. How much money do you spend in a day?	
16. Who is responsible for your	<ul style="list-style-type: none"> • Self • Spouse 	<ul style="list-style-type: none"> • [] • []

medical expenses?	<ul style="list-style-type: none"> • Relative • All • Other(Specify) 	<ul style="list-style-type: none"> • [] • [] •
17. Are you able to foot all your medical expenses together with other additional expenses?	<ul style="list-style-type: none"> • Yes • No 	<ul style="list-style-type: none"> • [] • []
18. In your opinion which of these economic barriers mainly affects ANC attendance?	<ul style="list-style-type: none"> • Lack of funds/poverty • Inability to leave job for ANC • Lack of commitment to one's health 	<ul style="list-style-type: none"> • [] • [] • []
19. How long (in hours) do you have to wait till you see a health worker at ANC?	

SECTION D
(Social barriers)

QUESTION	RESPONSE OPTIONS	RESPONSE
20. At what stage of your pregnancy did you start ANC?	1 st trimester 2 nd " 3 rd " 4 th "	<ul style="list-style-type: none"> • [] • [] • [] • []
21. What influenced your decision in attending ANC at this trimester?	<ul style="list-style-type: none"> • Financial • Distance • Superstition • Religious reasons • Other (Specify) 	<ul style="list-style-type: none"> • [] • [] • [] • [] •
22. How many times did you attend ANC during your last pregnancy?	<ul style="list-style-type: none"> • More than four times • Four times • Less than four times • Not at all 	<ul style="list-style-type: none"> • [] • [] • [] • []

23. What prevented you from attending ANC at least four times before delivery?	<ul style="list-style-type: none"> • Cost • Religious reasons • Distance • Staff attitude • Never got sick • Other (Specify 	<ul style="list-style-type: none"> • [] • [] • [] • [] • [] • []
24. Did anyone influence your decision to attend ANC?	<ul style="list-style-type: none"> • Yes • No 	<ul style="list-style-type: none"> • [] • []
25. If yes, who influenced you?	<ul style="list-style-type: none"> • Spouse • Relative • Friend • Health workers 	<ul style="list-style-type: none"> • [] • [] • [] • []
26. In your opinion what category of pregnant women need ANC?	<ul style="list-style-type: none"> • Only adolescents • All pregnant women • Women pregnant for the first time 	<ul style="list-style-type: none"> • [] • [] • []
27. At what time should a pregnant woman start ANC?	<ul style="list-style-type: none"> • In the first month • After the third month • Getting to the time of delivery • When sick or during complication 	<ul style="list-style-type: none"> • [] • [] • [] • []
28. Do you have any cultural practices that prevent pregnant women from accessing ANC?	<ul style="list-style-type: none"> • Yes • No 	<ul style="list-style-type: none"> • [] • []
29. If yes, what is it?	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>	
30. Which of the following is a major factor that hinders ANC attendance in your community?	<ul style="list-style-type: none"> • Ignorance and illiteracy • Cultural practices • Societal influence /stigmatization 	<ul style="list-style-type: none"> • [] • [] • []

SECTION E
(Service barriers)

QUESTION	RESPONSE OPTIONS	RESPONSE
31. Type of facility in your locality	<ul style="list-style-type: none"> • Hospital • Clinic • Health post • CHPS 	<ul style="list-style-type: none"> • [] • [] • [] • []
32. Which of the following conditions mainly influenced your choice of facility?	<ul style="list-style-type: none"> • Its nearness to residence • It is the only option • The presence of qualified staff 	<ul style="list-style-type: none"> • [] • [] • []
33. What type of service is provided in the facility that attracts you?	<ul style="list-style-type: none"> • Laboratory service • Ultra-sound scanning • Ambulance service • Other (Specify) 	<ul style="list-style-type: none"> • [] • [] • [] •
34. What is your assessment of service provision? (check below)	<ul style="list-style-type: none"> • Satisfied • Not satisfied 	<ul style="list-style-type: none"> • [] • []
35. What is the major basis of your satisfaction?	<ul style="list-style-type: none"> • Proper examination • Quick service • Friendly attitude • Other (Specify) 	<ul style="list-style-type: none"> • [] • [] • [] • []
36. What is the major basis of your dissatisfaction?	<ul style="list-style-type: none"> • Long waiting time • Unfriendly attitude • Inadequate examination 	<ul style="list-style-type: none"> • [] • [] • []

KEY TO QUESTION 34

Questions	Satisfied	Not Satisfied
a) How do you assess the initial arrangement for ANC in terms of queuing and collection of cards at the facility?	[]	[]
b) What is your assessment of staff attitude to work?	[]	[]
c) Are you satisfied with the process of palpation and other examinations offered during ANC?	[]	[]
d) How do you assess the various processes you go through at the laboratory and scanning centre?	[]	[]
e) Are you satisfied with medication offered during ANC?	[]	[]
f) Are you satisfied with the time spent during antenatal services?	[]	[]
g) Are you satisfied with the health education talks organized during the ANC?	[]	[]

NB:

- The client is satisfied with the service provision, if he/she is satisfied with four or more of the questions asked.
- The client is dissatisfied with the service provision, if he/she is not satisfied with four or more of the questions asked.