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FACTORS INFLUENCING UTILIZATION OF ANTENATAL CARE SERVICES AMONG PREGNANT WOMEN AT TEMA GENERAL HOSPITAL

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DECLARATION

This dissertation, either entirely or in part has not been submitted for any other degree or professional qualification except specified. We declare this work was compiled by us, thus the work contained herein is our own except where explicitly stated otherwise in the text and duly acknowledged.

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DEDICATION

We dedicate this research to our children and the entire family who have sacrificed many pleasures to see us this far. God bless you all for standing by us in the most trying times.

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ABSTRACT

The study was conducted to identify the factors that influence utilization of antenatal services in Tema General Hospital.

A quantitative design using cross-sectional survey was employed as the study design. Convenient sampling technique was used to select 100 pregnant women aged 20 years to 49 years who attend antenatal clinic at Tema General Hospital. A structured questionnaire was used for data collection. The questionnaire consisted of four sections: A - demographic data, B - women's knowledge on ANC, C - encouraging and preventing factors of ANC and D – ANC improving factors Spread Sheet, SPSS 20.0 and Microsoft Office Excel 2010 were the tools used in processing the data for analysis.

The commonest indicators for utilization of ANC services were external factors such as transport, distance, and ignorance followed by perceived factors relating to the health facility.

Most of the respondents in the study (71%) confirmed an existing difference between home delivery and health facility delivery.

It also revealed that majority (95%) of respondents were knowledgeable on the importance of ANC. Majority of the respondents (60%) decided with their husbands on where to deliver and 21% also took the decisions themselves.

The study recommended that, mobile clinics should be instituted so that ANC services will be brought to the door steps of pregnant women, more education should be given on the availability of ANC services as well as other maternal health services to enhance healthy pregnancy and informed choices in birth options.

CHAPTER ONE

1.0 INTRODUCTION

This chapter provides background to the study, statement of the problem, purpose of the study, research objectives, research questions, and the significance of the study. The chapter also gives operational definition of terminologies and literature review.

1.1 Background to the study

The experience of being pregnant encompasses physiological, psychological, spiritual and socio-cultural dimensions (WHO, 2013). Antenatal care refers to the care that is given to a pregnant or expectant woman from the time that conception is confirmed until the beginning of labor (WHO, 2015). Antenatal care (ANC) services are essential for a healthy pregnancy and child delivery though some practitioners argue against this notion (Arthur, 2012). Conrad et al. (2012) argue that experiences from countries which have achieved low maternal mortality suggest access to good-quality maternity services. Globally, while 82% of pregnant women access antenatal care at least once with skilled health personnel, only half (51%) receive at least 4 antenatal visits which is the recommended minimum. In China, a study reported financial difficulties as the most important reason for not attending ANC. (WHO. 2013).

According to the World Health organization (WHO), (2015), globally, 20% of all births in the richest households were more than twice as likely to be attended to by skilled health personnel as those in the poorest 20% of households. This means that millions of births are still not assisted by a midwife, a doctor or a trained nurse. In high-income countries, almost all pregnant women have at least four antenatal care visits and are attended by a skilled health worker during childbirth and also receive postpartum care. Again, only 40% of all pregnant women in low income countries

including Ghana had the recommended antenatal care visits. The United Nations (UN) estimates that 289,000 women died in the year 2013 from complications during pregnancy and childbirth, down from 523,000 in 1990 according to the WHO. This figure represents a decrease of 45%.While the utilization of ANC services in Kenya is one of the highest in Sub-Saharan Africa with 88% of women reporting at least one ANC visit, maternal death is among the leading causes of death among women of reproductive age (Central Bureau of Statistics, 2004). The poor pregnant women in the remote areas are considered the least likely to receive adequate antenatal care. This is especially true for regions with low numbers of skilled health workers, such as sub-Saharan Africa including Ghana. According to the Ghana Statistical Service (GSS), the Ghana Maternal Health Survey (GMHS) conducted in 2017 on 27,000 households, for all pregnant women age ranging between 15-49 years in selected households which were eligibly intervened, maternal mortality has gone up from 350 per 100,000 live births to 380 which indicate that Ghana has a persistently high maternal mortality rate, despite considerable investment and effort made in health care to meet the Sustainable Development Goal Five (5). Each year, about 6 million women become pregnant; 5 million of these pregnancies result in child birth (Costello, Llanos, & Jensen, 2015).

Several standard protocols come to play at the prenatal clinics in Ghana. At the Tema General Hospital in particular some of these protocols/activities that take place includes but not limited to:

- Booking visit: this is the initial visit the pregnant woman makes to the health care provider and should take place as soon as pregnancy is confirmed. It helps assess the levels of health and to obtain a baseline data or recordings.
- History taking: this is taking all the various histories such as social, medical (past and present), surgical, family and past and present obstetrical history. This information helps

in managing the pregnant woman appropriately and also identify any factors that will put her at risk.

- Physical examination. This is done to detect early and treat appropriately all conditions and or abnormalities that may endanger the life of the mother and fetus.
- Laboratory investigation: various investigations such as hemoglobin estimation, blood group, fasting blood sugar and many more done to ascertain the health of the pregnant woman.
- Health education/Counseling: during this period every education necessary to the pregnant woman is given to help her take care of herself and the growing fetus. Examples include diet/nutrition, personal hygiene, rest and exercise, birth preparedness plan and many others.
- Prescribing of routine medication and treatment of minor disorders.

Adequate utilization of antenatal health care services is associated with improved maternal and neonatal health outcome. Antenatal care is expected to have impact on the developing fetus and the mother and this can be achieved through early booking and regular attendance of antenatal clinic. The trend of maternal mortality in developing countries have been increasing and various international organizations have reported that an important factor related to maternal and neonatal mortality has been linked to lack of antenatal care (Villar, et al 2001).

In order to decrease these mortality rates regular antenatal care has to be instituted or reinforced which can only be achieved through identifying factors causing poor utilizations of antenatal care services. A study carried out on reproductive health issues showed that in 69% of the recorded births, the mothers made four or more antenatal visits, while 20% made fewer than 4 visits and 6.3% did not attend at all which is contrary to WHO recommendation of 12 visits (WHO, 2013).

This shows that there are marked differential in the use of antenatal and same trend has been observed in Ghana, thus giving rise to the need to identify the factors influencing the utilization of antenatal care services among pregnant women in the Tema General Hospital.

1.2 STATEMENT OF THE PROBLEM

The utilization of antenatal care service provides opportunity to identify most of the risk associated with pregnancy with the aim of mitigating any complications arising during labor. During our third year clinical experience on obstetric and gynecological nursing at Korle-Bu Teaching Hospital, we were given an opportunity to work at triage and labor ward and observed that most of the complicated cases that were reported there was as a result of default in ANC and or non-attendance to ANC. In view of this, we were motivated to conduct a study to bring into light the factors influencing utilization of antenatal care service. Government of Ghana in an attempt to reduce maternal mortality introduced free maternal health service system to break financial barriers of access to maternal care services. (University of Ghana, http:// ugspace.ug.edu.gh). Despite this, facility-based deliveries continue to be low partly due to poor quality of antenatal care that prevents pregnant women from giving birth in hospitals (Atinga & Baku, 2013). Furthermore, despite the availability and benefits antenatal care services provide, it is mostly underutilize due to non-compliance to the recommended four visits proposed by the World Health Organization.

The growing population of Tema as an industrial hub in Ghana presents maternal health as one of the main health issues which confronts it. Hence pregnant women in Tema need to be provided with quality maternal care by health facilities around. Since, failure of pregnant women to use ANC services put them at risk of poor birth outcome and the health of the mother (Chaibva *et al.*,

2010). It is against this background that we seek exploring the influencing factors hindering ANC utilization at the Tema General Hospital.

1.3 PURPOSE OF THE STUDY

The study is meant to identify the factors that influence utilization of antenatal services in Tema General Hospital as a way of improving overall maternal health and making available a systematic body of knowledge that can be used for appropriate policy formulation.

1.4 RESEARCH OBJECTIVES

The objectives of the study are:

- To explore the factors influencing the utilization of antenatal care services among pregnant women in Tema General Hospital.
- To assess the level of knowledge of pregnant women about antenatal care services in Tema General Hospital.
- To examine the ways to improve the utilization of antenatal care service at Tema General Hospital.

1.5 RESEARCH QUESTIONS

The study seeks to answer the following key questions.

- What factors influence the utilization of antenatal care?
- What do pregnant women know about antenatal care?
- What are the ways to improve the utilization of antenatal care?

1.6 SIGNIFICANCE OF THE STUDY

The study will provide the basis for health care professional to determine the factors causing poor or irregular utilization of antenatal care services and how to eradicate it. It seeks to unravel the perception of pregnant women on antenatal care, also seek to find out the knowledge of pregnant women concern to help prevent complications during and after birth. It will also help the government to develop and implement new policies towards encouraging appropriate utilization of antenatal care services. The study will also serve as a reference material for other researchers to embark on similar or related work and finally, findings from the study will add to existing knowledge which will add impact on resolving maternal and neonatal issues.

1.7 OPERATIONAL DEFINITION OF TERMS

Factors: they are elements, or components of something that gives a result or outcome.

Utilization: this is the act of using something effectively to increase outcome.

Antenatal care: this is a specialized care given to a woman during pregnancy till delivery by a trained health worker.

Pregnant woman: is a woman who have missed her monthly menstrual flow and a test have confirmed that she is carrying a baby.

Fetus: is an unborn offspring of human more than 8weeks after conception.

Skilled Birth Attendant: is a health professional (doctor, nurse or midwife) who provides basic and emergency care to women during pregnancy.

1.8 LITERATURE REVIEW

Research on factors influencing utilization of antenatal care services among pregnant women has sparingly been done across the world with focus on mainly rural settings. There has however been little research done on this topic in an urban and cosmopolitan demographic setting. This chapter reviews research works done in Ghana and other countries across the world on the subject.

1.8.1 Factors affecting utilization of antenatal care services among pregnant women

Globally a number of research works have been carried out to determine factors affecting utilization of antenatal care services. Agus & Horiuchi, (2012), researched into the factors related to low visits for antenatal care (ANC) services among pregnant women in Indonesia. A descriptive design was used for identifying factors of why women do not take advantage of appropriate ANC services.

In Karnataka, India women were about 45% less likely to receive ANC (Navaneetham & Dharmalingam, 2002). Women living in developed region of the country were positively and significantly associated with ANC use (Celik *et al,* 2000). Distance is associated with ANC use (Glei, Goldman & Rodriguez, 2013). An increase in distance or travel time to the nearest healthcare facilities was associated with fewer antenatal visits (Magadi *et al.* 2000), and lower uptake of ANC (Nielsen, Hedegaard, Liljestrand, Thilsted & Joseph, 2001). The distance to services or physical access as well as uncomfortable transport, poor road conditions and difficulties in crossing big rivers also turn to be barriers to ANC services utilization (Chowdhury *et al*. 2003, Mathole *et al.* 2004). ANC use was influenced by accessibility of the services, mainly place of residence, distance and transport to the healthcare facilities. (Mekonnen *et al,* 2003). Women in urban areas are more likely to use ANC from a healthcare professional in Ethiopia (Mekonnen et al, 2003).

They found that, three-quarter of respondents (77.9%) received ANC more than four times. The other 22.1% received ANC less than four times. 59.4% received ANC visits during pregnancy, which was statistically significant compared to multiparous. Women who were encouraged by their family to receive ANC had statistically significant higher traditional belief scores compared to those who encouraged themselves. Preference for traditional birth attendant (TBA) was most strongly affected by traditional beliefs. On the contrary, preference for midwives was negatively correlated with traditional beliefs. (Agus &Horiuchi, 2012). Parity was the factor influencing women receiving less than the recommended four ANC visits during pregnancy. Women who were encouraged by their family to get ANC services had higher traditional beliefs score than women who encouraged themselves. Moreover, traditional beliefs followed by lower income families had the greater influence over preferring TBAs, with the opposite trend for preferring midwives. Increased attention needs to be given to the women; it is also very important for exploring women's perceptions about health services they received. (Agus & Horiuchi, 2012). Although this study was limited by a small sample size, the findings still indicate some areas for attention.

Simkhada *et al.,* (2007), studied to identify and analyzed the main factors affecting the utilization of antenatal care in developing countries. A range of electronic databases was searched for studies conducted in developing countries and published between 1990 and 2006. English-language publications were searched using relevant keywords, and reference lists were hand-searched. A systematic review was carried out and both quantitative and qualitative studies were included. Twenty-eight papers were included in the review. Studies most commonly identified the following factors affecting antenatal care uptake: maternal education, husband's education, marital status, availability, cost, household income, women's employment, media exposure and having a history of obstetric complications. Cultural beliefs and ideas about pregnancy also had an influence on

antenatal care use. Parity had a statistically significant negative effect on adequate attendance. Whilst women of higher parity tend to use antenatal care less, there was interaction with women's age and religion. Only one study examined the effect of the quality of antenatal services on utilization. None identified an association between the utilization of such services and satisfaction with them.

Simkhada *et al.,* (2007), concluded that more qualitative research is required to explore the effect of women's satisfaction, autonomy and gender role in the decision-making process. Adequate utilization of antenatal care cannot be achieved merely by establishing health centers; women's overall (social, political and economic) status needs to be considered.

In Asia, Kabir & Khan, 2013, researched into the utilization of antenatal care among pregnant women in urban slums of Dhaka city, Bangladesh**.** The study design was a retrospective cross-sectional design. Data of this study was collected from Bangladesh Urban Health Survey (UHS), 2006. The survey was designed to obtain a broad health profile of the urban population in Bangladesh. This study indicated that overall knowledge about antenatal care was found to be better among women who had utilized antenatal care as compared to women who did not receive antenatal care. Women in reproductive age (15-49) need to recognize the importance of antenatal care and receive such care in the community. Underlying this need, there was also a need to uplift the socio-economic status and literacy level through community based education. In particular there was a need to increase reproductive health education, highlighting the importance of seeking antenatal care, and recognition of danger signs in pregnancy. Women are very much reluctant to select place of delivery and skilled personnel until they faced serious complications. Health seeking behavior is highly distinctive among the poor and the rich women. (Kabir, Hafiz & Khan, 2013).

Sumera *et al,* (2018), had the objective to appraise the factors affecting antenatal care utilization among pregnant women in Karachi, Pakistan for the department of Pediatrics and Child Health, Aga Khan University Hospital, Karachi, Pakistan. The Pediatric intensive Care Unit, this work identified multiple socio demographic, reproductive and access related factors which affect the utilization of antenatal care among pregnant women in different countries. These factors included, maternal age, number of living children, education, socioeconomic status, previous bad obstetrical history, support from spouse, quality of care and distance from health care facility were significantly associated with the use of antenatal care. The findings of this literature review could help policy makers and researchers to design some country specific strategies to improve the utilization of ANC (Sumera *et al,* 2018).

The sub-Sahara Africa presented peculiar factors that influence utilization of antenatal care services. In a case study in Nairobi County, Kenya, on the factors influencing the utilization of antenatal care services among reproductive women, Mbinya, (2015), it was discovered that most maternal and many neonatal deaths could be prevented if adequate antenatal care and effective obstetric services were provided. However, if pregnant women did not utilize antenatal care services, many obstetric problems could become life threatening crises for both mother and baby by the time these were diagnosed. Utilizing antenatal care services is particularly important to the pregnant women who were most likely to be prone to developing obstetric complications (Mbinya, 2015). Women in the reproductive age in Kibera utilized the antenatal care services and the factors that contributed to the utilization were those in their youthful age forming the majority of respondents, the engagement in productive employment by almost half of the respondents, the high level of education of the majority of the respondents making them able to comprehend what was taught at antenatal care, improving maternal health and hence likely to reduce maternal mortality

and morbidity (Mbinya, 2015). The study however failed to apply a research instrument like focused group discussions to involve respondents in discussions in order to generate detailed information which would help improve delivery of ANC services.

Baale, (2011), discovered the factors found important in influencing the utilization of antenatal care content in Uganda included ownership of facility, maternal education, location, access to media, wealth status, timing and frequency of antenatal visits, family planning and the use of professional care. Government efforts should be designed to enhance female education beyond secondary level for future favorable health outcomes. Mothers should be motivated to seek care from a formal government or private institution and not from home (Baale, 2011). On the average, only 16% of women uptake all the items in the antenatal care content. Considering the individual components, it was shown that, on average, 77% were weighed, 53% had blood pressure measured, 12% had a urine sample taken, 28% had a blood sample taken, 63% were given or bought iron tablets or syrup, 27% were given intestinal drugs, 50% received at least two tetanus injections, and 89% sought professional care. (Baale, 2011).

Pell et el, (2013), concluded that timely ANC attendance was influenced by: women's health and staff's uncertainties in early pregnancy; the design of ANC and its capacity to deal with uncertainty around pregnancy status and the degree to which care is orientated towards women's health concerns; the provision of clear, unambiguous recommendations about the timing of ANC and messages that identified ANC as a service that deals with health concerns during early pregnancy; and the perceived normality of ANC initiation in early pregnancy. Furthermore, a perceived lack of flexibility regarding follow-up appointments increased the total cost of ANC, which resulted in delayed ANC, particularly, amongst women with limited resources and who face high transport costs. Moreover, the direct charges levied for ANC procedures – not authorized in national ANC

policy – represented only part of the wider cost of ANC. Adolescents and young women were at particular risk of delaying ANC initiation and further research should focus on this group. Data were collected as part of a programme of qualitative research investigating the social and cultural context of malaria in pregnancy. A range of methods was employed, interviews, focus groups with diverse respondents and observations in local communities and health facilities. (Pell *et al*, 2013).

In the West African Sub- regions, Dairo & Owoyokun, (2010), researched the factors affecting the utilization of antenatal care services in Ibadan, Nigeria. A cross-sectional study carried out in two randomly selected local government council areas in Ibadan. A pretested questionnaire was administered to 400 women. Information was obtained from the women on their attendance at antenatal clinic and the reasons for not attending the antenatal clinics. The results indicated, majority (76.8%) of the respondents attended ANC clinic. Women in urban areas were more than 2 times likely to attend antenatal clinic than women in rural areas. Women who were Muslims or other religions were more than 2 times likely to attend ANC clinic than women who were Christians. Also, Women who were 25 years and older were more than 2 times more likely to utilize antenatal than women who were 25 years or younger Dairo and Owoyokun, 2010. The study concluded that efforts towards ensuring the utilization should be targeted towards rural areas, the importance of modern antenatal care should be emphasized even in the religious settings and younger women should be encouraged to utilize antenatal care services.

Owoseni, (2016), investigated factors that influence Utilization of antenatal care among pregnant women in Moba Local Government Area of Ekiti state. Descriptive research design was used for the study. The population for the study consisted of all pregnant women who are receiving antenatal care in maternity centers and hospitals in Moba Local Government Area in Ekiti State. A Simple random sampling technique was used to select the sample. This study concluded that

knowledge and attitude of pregnant women towards the utilization of antenatal care services are encouraging and determined to a large extent their interest in using the services. It was recommended that government should endeavor to provide both human and material resources needed for effective utilization of antenatal care services and the services should be made completely free so that women from low socio-economic statuses would be able to assess it.

In the Amenfi West District, Ghana, Kparu, (2016), concluded that all pregnant adolescent have attended ANC during pregnancy but most of them have not made the recommended 4 or more ANC visit during pregnancy. The study revealed that adolescent who get pregnant stayed with their peers and spouse parents which can affect their utilization of ANC. The educational level of respondents was low with majority of them with primary education yet their level of knowledge about antenatal care is relatively high and their adherence to ANC was also found to be high with majority making ANC visit 4 times or more.

Akowuah, Agyei-Baffour & Awunyo-Vitor, (2018), examined the socioeconomic determinants of antenatal care utilization in peri-urban Ghana using pregnant women who were in their third trimester. Two-stage sampling technique was used to sample 200 pregnant women who were in their third trimester from the District Health Information Management System software. Well-structured questionnaire was the instrument used to collect data from respondents. Descriptive statistics used to analyze the data. The study found out that, Socioeconomic and health system factors were important determinants of antenatal care utilization. They concluded that, stepping up of interventions aimed at improving the socioeconomic status and addressing health system and proximity challenges could be helpful in improving antenatal care utilization by pregnant women in Ghana.

1.8.2 Level of awareness (knowledge) on antenatal care services

Nigenda *et al* (2017), researched on women's opinion on antenatal care in Cuba, Thailand, Saudi Arabia and Argentina. The study was conducted in the context of a randomized controlled trial to test the benefits of a new antenatal care protocol that reduced the number of visits to the doctor, rationalized the application of technology, and improved the provision of information to women in relation to the traditional protocol applied in each country. Through focus groups discussions the researchers were able to assess the concepts and expectations underlying women's evaluation of concepts and experiences of the care received in antenatal care clinics. 164 women participated in 24 focus groups discussion in all countries. Three areas were particularly addressed in this study: concepts about pregnancy and health care, experience with health services and health providers and opinions about the modified Antenatal Care (ANC) programme. In all three topics similarities were identified as well as particular opinions related to country specific social and cultural values. In general women have a positive view of the new ANC protocol, particularly regarding the information they receive. However, controversial issues emerged such as the reduction in the number of visits, particularly in Cuba where women were used to have 18 ANC visits in one pregnancy period. But unfortunately, antenatal care interventions alone did not address the main causes of maternal deaths that resulted from complications arising during labour, delivery and the immediate postpartum period (WHO, UNICEF & UNFPA, 2015).

Weitzman, (2017), examined the causal effect on women's education on maternal health in Peru, a country where maternal mortality has declined by more than 70% in the last two and a half decades. To isolate the effects of education, the researcher employed an instrumented regression discontinuity that took advantage of an exogenous source of variation - an amendment to compulsory schooling laws in 1993. The results indicated that extending women's years of schooling reduced the probability of several maternal health complications at last pregnancy/birth,

sometimes by as much as 29%. Underlying these effects, increasing women's education was found to decrease the probability of short birth intervals and unwanted pregnancies (which may result in unsafe abortions) and to increase antenatal healthcare use, potentially owing to changes in women's cognitive skills, economic resources, and autonomy. These findings underscored the influential role of education in reducing maternal morbidity and highlighted the contributions of women's education to population health and health transitions (Weitzman, 2017).

Exposure to mass media (especially television and radio) significantly predicted utilization of ANC. Women with high levels of exposure was more likely to received ANC (Navaneetham & Dharmalingam, 2002). Watching television every week substantially increased the chances of women seeking ANC (Pallikadavath, Foss & Stones, 2004). Use of family planning was positively associated with ANC in India (Pallikadavath, *et. al*., 2004). Additionally, contraceptive users attended early ANC in Jamaica (Magadi, Madise & Rodrigues, 2000). Women's dietary knowledge was significantly associated with utilization of ANC; knowledge about danger signs in pregnancy was seen to be statistically significant in Pakistan (Nisar & White, 2003) and in Ecuador (Paredes *et al*, 2005). Personal hygiene appeared to be the important predictor of ANC. In India, pregnancy is perceived as a natural process that only warranted ANC when problems arose (Griffith & Stephenson, 2001).

In Africa one reason for not attending ANC at first trimester was fear associated with the local belief that the early period of pregnancy was most vulnerable to witchcraft (Parades, *et al.*, 2005). It was feared in some part of Ghana that blood could be used for bewitching women if it came into the wrong hands and neither urban nor rural women were sure about the benefits of ANC for their health or their unborn child (Sarpong & Affainie-Amankwa, 2016). Some women booked ANC very late because they were uncertain whether they were pregnant (Myer and Harrison, 2003).

Most women in Prampram, Ghana and South Africa saw little direct benefit from ANC and did not visit early if they had not experienced problems in previous pregnancies. (Sarpong & Affainie-Amankwa, 2016, Myer and Harrison, 2003). Similarly, ANC was not seen as essential unless there was physical discomfort during pregnancy and complications in previous pregnancy or childbirth in India. Women's perceptions on the risk factors associated with adverse obstetric outcomes were significantly related to the probability of seeking ANC. Women who had prior fetal loss or neonatal death received ANC (Cicekliogl u, Soyer and Ocek, 2005).

1.8.3 Improving ANC

Globally, it is estimated that 34% of the mothers delivered with no skilled attendant; this meant there were 45 million births occurring at home without skilled health personnel each year. Skilled attendants assist in more than 99% of births in developed countries compared with 62% in developing countries. In five countries including Ethiopia the percentage dropped to less than 20% (WHO, 2012).

Skilled attendants assisting delivery was one of the key indicators to reflect progress towards the Millennium Development Goal of improving maternal health. The agreement set the goal of 40% of all births to be assisted by a skilled attendant by 2005, with 50% coverage by 2010 and 60% by 2015 among countries with very high maternal mortality. Globally, the goal was to have 80% of all births assisted by skilled attendants by 2005, 85% by 2010 and 90% by 2015 (Stanton et al, 2013).

Health workers availability, especially during emergencies, was considered a prerequisite for good antenatal care in India and China. (George A., 2002). Non-availability of nursing personnel's and inadequacy of staff to attend to women, especially during labor, was reported as a cause of maternal mortality in Ghana and Nigeria (Fawole, Okunlola, Adenkule, 2008)

Women were more satisfied with maternal health services when they perceived the technical quality of care to be good or the provider to be technically competent. Completeness of procedures, good medicine and advice were perceived as good care in India (George A., 2002). Lack of congruence between care expected and care actually received also determined women's level of satisfaction, as found in a study in Ghana (Dzomeku, 2011).

Perceived competence was associated with the provider's qualification or previous experience, and was a significant factor in maternal satisfaction in Cuba, Nigeria and Thailand (Bazante and Koenig, 2009).

Evidence on interpersonal aspects of care as determinants of maternal satisfaction was generated in 22 studies from 18 countries. Being treated with dignity, respect and courtesy was a key determinants in improving ANC. Therapeutic communication (listening, politeness, prompt pain relief, kindness, approachability and smiling demeanor), caring behavior (attentive to needs, making clients feel accepted and coaxing clients) and interpersonal skills of staff (staff confidence and competence) were significant themes that were identified as ways of influencing clients satisfaction and hence improving ANC attendance among pregnant women in Ghana, Lebanon and Gambia (Dzomeku, 2011)

The use of praising words by the medical staff or by the obstetrician or midwife during ANC encouraged women and boosted their self-esteem, as reported in a study in Lebanon (Bazante, *et. al.*, 2009). In fact women chose to repeat the same provider for their next delivery if they were comforting and encouraging to them (Bazante, *et. al.,* 2009). On the other hand, staff unfriendliness, negative attitude and impatience was a major cause for dissatisfaction with the service and avoidance of the use of ANC services in Nigeria, Gambia, Ghana and Turkey (Dzomeku, 2011)

Convenience of access to maternity care was an important determinant of maternal satisfaction in developing countries (Chunuan & Kachapakdee, 2013). Access included both distance and connectivity

(availability of transport between residence and facility). In a study on patient perception of antenatal care quality in selected private facilities in Nigeria, location to the facility near the residence and convenient timing led to greater satisfaction among women utilizing ANC services (Balogun, 2007).

Affordable care was a significant determinant of satisfaction with maternal care service in both facility and home deliveries in Prampram, Ghana (Sarpong & Affainie-Amankwa, 2016). Besides overall cost of care, affordable drugs, availability of finance for healthcare and transparency in financial transactions also influence satisfaction with care in Nigeria, Gambia, Thailand, Ghana etc. (Chunuan *et al.,* 2013). Availability of free medicine in the facility significantly enhanced maternal satisfaction with care in Gambia (Dzomeku, 2011).

Maternal mortality and morbidity are directly and indirectly related to societal and cultural factors that impact women's health and their access to services. Thus, lack of access and control over resources, limited educational opportunities, poor nutrition, and lack of decision-making contribute significantly to adverse pregnancy related outcomes. Review of the international literature also emphasized factors like cultural beliefs, socio-demographic status, women's autonomy, economic conditions, physical and financial accessibility, disease pattern and health service issues to be important determinants of the use of maternal health care services and success in these areas immensely improved ANC. Also perceived delay in attending to the client hinder ANC attendance whiles competence of health workers staffing in the facilities to meet nurse to client ratio prenatal care. (Sarpong & Affainie-Amankwa, 2016, Changole *et al.,* 2010, Bazante *et al.,* 2009, Shaikh *et al*, 2014, AbouZahr, 203).

In Ghana, a study explored Ghanaian pregnant women's understanding and recognition of danger signs in pregnancy, birth preparedness and complication readiness, and their understanding of newborn care. Understanding and recognition of danger signs in pregnancy, preparedness for

childbirth, understanding and recognition of danger signs in the newborn, and appropriate and timely referral. With limited health literacy, pregnant women could not fully comprehend the scope of services that a health system could provide for them and their families. It became relevant to primarily having a positive influence on expectant women by altering the negativities related to pregnancy, delivery among others. (Lori *et al,* 2014).

CHAPTER TWO

METHODOLOGY

2.0 INTRODUCTION

This section describes the steps to be taken to investigate a research problem. It includes a description of the rationale for the use of specific procedures or techniques used to identify, select, process and analyze information applied to understanding the problems which allow the reader to critically evaluate the research overall validity and reliability. It discusses the research design, study area, the target population and the sampling. It also deals with the instruments for data collection and the procedures for the analysis of the research data. This helps in the realization of the research objectives, namely,

2.1 RESEARCH DESIGN

We employed descriptive cross-sectional survey, to assess the influencing factors, the knowledge of pregnant women as well as ways that could help improve the service.

2.2 STUDY SETTING

Tema General Hospital is located in Tema Metropolitan area, which has a total projected population of 403,943. It has the largest Public Health Institution in the Metropolis. It was constructed in 1954 by J .W. Harrow & Sons Limited and handed over to the Government of Ghana in 1962. The geographical location of the hospital, its surrounding road network and commercial nature of the Metropolis makes the hospital one of the busiest in the country as well as a referral point for all other clinics and hospitals in the Tema Metropolis. It is also the first point of call for most road traffic accident and industrial accidents in the Metropolis. The catchment area includes the whole of Tema Metropolis, its satellite towns and villages, and extends as far as Sakumono, Lashibi, Nungua, Ningo, Prampram and Ada. The hospital is staffed with 52 medical officers, 49 house officers, 2 physician assistants, 14 pharmacists, 409 nurses and 185 paramedics. There are ten (10) wards with a total bed complement of 280. Tema General Hospital provides a 24-hour specialist and general service to both out-patients and in-patients. Facilities available includes; Internal Medicine , General Surgery , Obstetrics and Gynecology , Reproductive and Child Health / Family Planning , Emergency Service and pediatrics. Specialized units includes ; Eye clinic, Dental clinic, Diabetic clinic, Public Health unit, Weekly Dermatology clinic, Weekly Urological clinic, Ear, Nose and Throat clinic, Chest clinic, Hypertensive clinic and a fevers unit. A support service includes; Laboratory / Blood bank, Radiological unit, Pharmacy and Physiotherapy unit. Other facilities include Staff rest room, Catering unit, mortuary, Laundry services, stores and supplies, and Estate management. Tema general hospital is currently attached with an Ebola center that will hold any Ebola Suspected case in the southern sector of Ghana.

2.3 POPULATION SAMPLE /TARGET POPULATION

The study focuses on pregnant women aging between 20 and 49 years who attend antenatal clinic at Tema General Hospital. However, the population from which respondents will be sampled will include also pregnant women who have been receiving prenatal care at the facility since conception as well as those referred from other health facilities.

INCLUSION CRITERIA

The participants of the study were aged from 20 to 49 years and mentally sound enough to make decisions concerning their health needs and attending antenatal at Tema General Hospital.

EXCLUSION CRITERIA

The study excluded participants aging below and above the stipulated age range found within and without the hospital. Again persons unwilling to provide information were excluded.

2.4 SAMPLING TECHNIQUE & SAMPLE SIZE

In this study, a convenient sampling method was adopted to sample 100 of the eligible pregnant women at the Tema General Hospital. This style of sampling was adopted to afford the researchers the chance to deal with only individuals who can serve the purpose of the study.

2.5 DATA COLLECTION TOOL

A structured questionnaire with more closed ended questions and very few open ended questions was used considering the timing of submission. The questionnaire was categorized into four main sections i.e. A, B, C and D with each category seeking responses to address the various set objectives.

2.6 DATA COLLECTION PROCEDURE

Secondary data was obtained from books, articles, internet sources to review literature whiles primary data was also obtained from pre-coded structured questionnaire administered.

2.7 VALIDITY AND RELIABILITY OF THE STUDY

Validity of the study was ensured by setting the questions with the set objectives and administered to only those who meet the entry criteria. In order to ensure variability, the questionnaire was pretested at the Prampram Poly Clinic for necessary corrections and improvements.

PRE-TESTING

Pre-testing of the questionnaire was carried out on ten (10) pregnant women who met the entry criteria at the Prampram polyclinic. After the Pre-test, the questionnaires were reviewed and necessary amendment made based on the responses before the actual data collection was done. However, responses from the pre-test were not included in the main report findings.

2.8 ETHICAL CONSIDERATION

Ethical clearance was obtained from the supervisors in Central University Nursing Department by sending proposal for approval. Consent of approval was obtained from the Tema General Hospital. Consent of approval was also attained from all participants. They were told that information given will be treated as confidential. Researchers ensured participants were not harmed physically or psychologically during and before the conduct of the research.

2.9 LIMITATIONS OF STUDY

The study was confined to Tema General Hospital and its immediate environs and therefore cannot be generalized to every hospital in the country. In addition, the sample size was too small as a

result of time frame for generalization of the results. Financing the project was a challenge as it was wholly funded by us.

CHAPTER THREE

3.0 INTRODUCTION TO CHAPTER

This chapter gives a detailed account of the results of the study, approach to data analysis, findings, discussions of the results, conclusion and recommendations made based on the findings of the result. A total of 100 questionnaires were used. Data collected from the questionnaires administered to sample the opinions of respondents who were present at the time of the study. Hundred (100) questionnaires were sent out, filled and collected back.

The analysis and presentation of data collected is a true reflection of the views as presented by the respondents who were present at the time of the survey. The analysis has been presented in the form of tables and charts.

3.1 APPROACHE TO DATA ANALYSIS

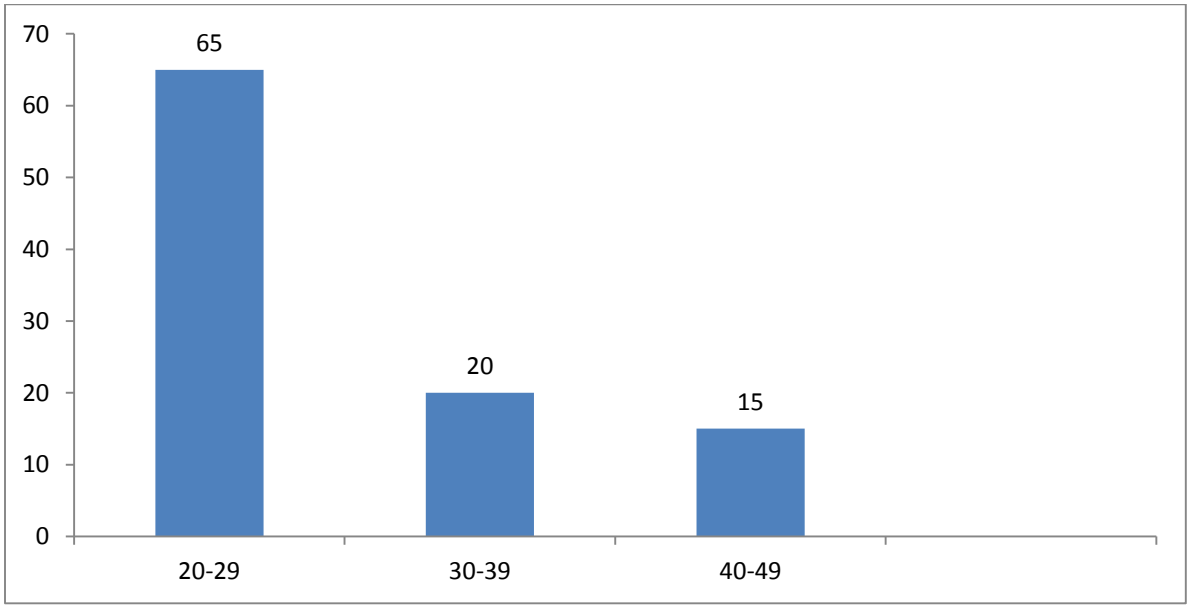
The analysis was done using Spread Sheet, Statistical Package for Social Sciences, (SPSS Version 20.0) and Microsoft Office Excel 2010. Tables and charts were used for data presentation. The

primary data were presented by some of these statistical tools and by way of narration. Presentation of the data on these statistical tools made the analysis very easy.

3.2 FINDINGS

3.2.1 Demographic characteristic of respondent

Figure 1: Respondents age distribution



Source: Field Data, 2019

The age distribution of respondents captured in this study indicated that majority of the respondents (65.0%) were aged 20-29 years while 20 respondents which represent 20.0% were

aged 30-39 years and the remaining 15 respondents representing 15% were between the ages of 40-49.

Table 1: Respondents Marital Status, Educational Background and Work

		Frequency	**Percent**
Marital Status	Married	62	62
	Single	18	18
	Co-habiting	20	20
	Total	**100**	**100**
Educational Background	Primary Level	21	21
	Secondary Level	62	62
	Tertiary	13	13

	Nil	4	4
	Total	**100**	**100**
Work	Self Employed	67	67
	Government Worker	17	17
	Nil	10	10
	Others	6	6
	Total	**100**	**100**

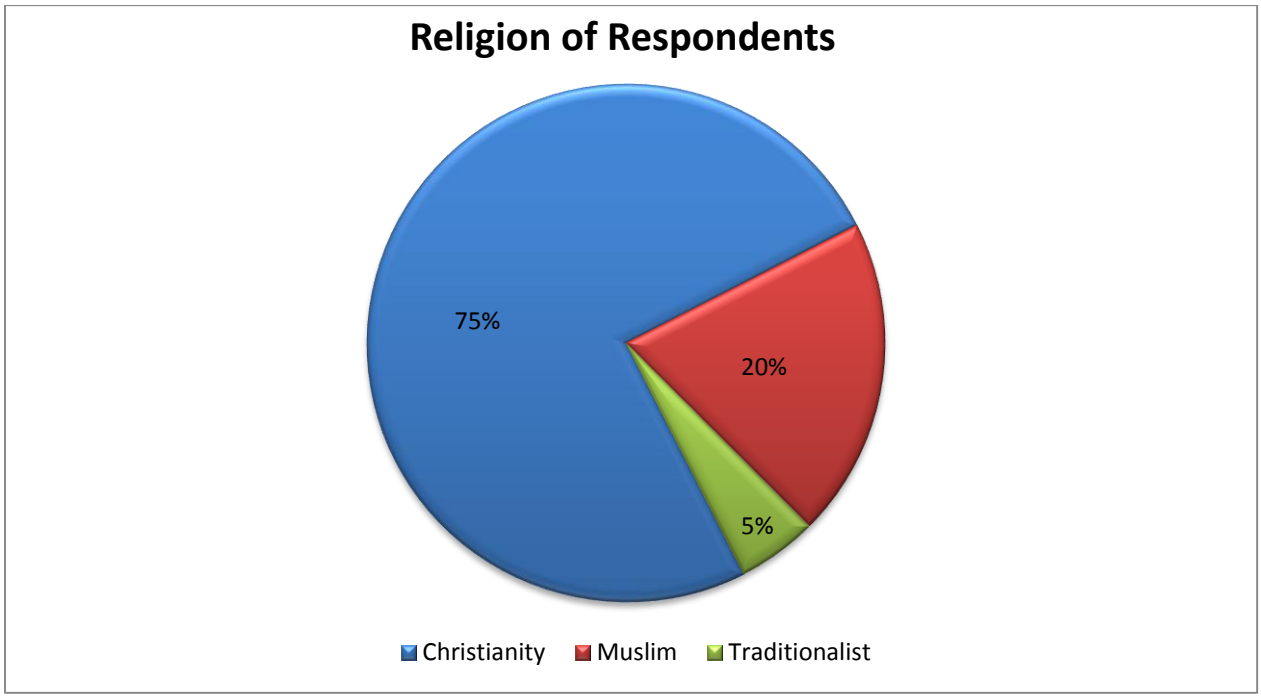
Source: Field Data, 2019

The above table shows that majority (62%) of the respondents were married, 20% were co-habiting whereas 18% were single.

The table further indicated that 62% representing majority had secondary level education, 21% had basic educational level, 13% had a tertiary level education and 4% had not attained any formal education.

Lastly, as indicated in table 1, 67% of the respondents were self-employed, 17% were government workers while 10% were unemployed and 6% ticked others such as trading and fish mongering.

Figure 2: Respondents, Religion



Source: Field Data, 2019

Figure 2 above indicates that 75% of the respondents were Christians, 20% were Muslims while 5% were Traditionalist.

Table 2: Respondents partners work and educational background

		Frequency	Percent
Partners Work	Self Employed	50	50
	Government Worker	40	40
	Nil	10	10

	Total	**100**	**100**
Partners Education	primary level	14	14
	secondary level	37	37
	Tertiary	44	44
	Nil	5	5
	Total	**100**	**100**

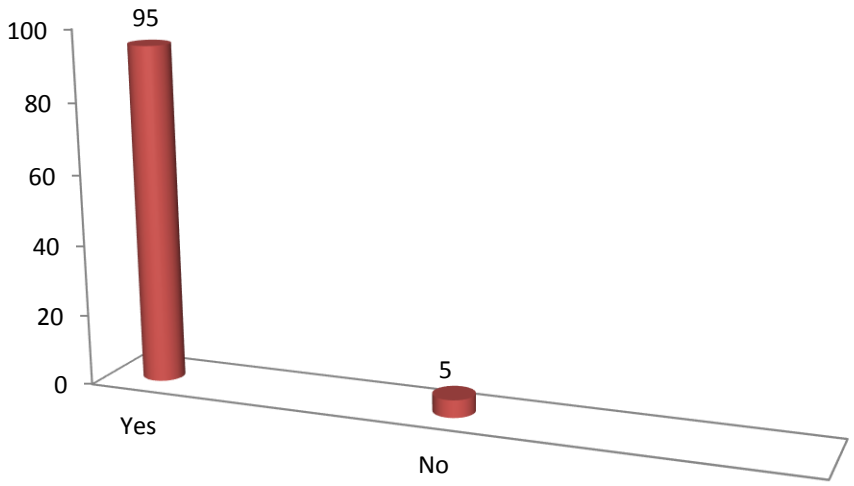
Source: Field Data, 2019

On the issue on educational level of respondents' partners, table 2 above indicates that 44% had tertiary education, 37% had secondary level of education, and 14% had primary education whereas the remaining 5% had no formal education.

In addition, with regards to partners' occupation, 50% were self employed, while 40% were government workers and the remaining 10% had no permanent employment.

3.2.2 General Knowledge of Women on ANC

Figure 3: Adequacy of Respondents' Knowledge on ANC



Source: Field Data, 2019

From the bar chart above, when asked about the adequacy of knowledge on ANC, 95% of respondents said they have adequate knowledge on ANC while 5% had inadequate knowledge on ANC.

Table 3: ANC Importance

	Responses		Percent of Cases
	Frequency	Percent	

Have no idea	9	4.1%	9.3%
Promote healthy pregnancy	55	24.9%	56.7%
Give strength to pregnant women and developing fetus	57	25.8%	58.8%
Pregnant women get education from ANC service	57	25.8%	58.8%
Pregnant women get drug from ANC service	39	17.6%	40.2%
Others	4	1.8%	4.1%
TOTAL	**221**	**100.0%**	**227.8%**

Source: Field Data, 2019

From the table 3 above, a total of 221 responses were obtained from the respondents on the importance of ANC. Out of the total responses, 57 (25.8%) of the respondents agreed that ANC gives strength to the pregnant women and developing fetus, having the same value as getting education from the ANC service. In addition, 55 respondents representing 24.9% responded that ANC promote healthy pregnancy and 39 (17.6%) respondents consented to pregnant women getting drugs from the ANC service. The least represented group of (1.8%) attributed other importance to ANC.

Table 4: Education, source of education and decider of where to give birth

		Frequency	Percent
Ever Had Education On ANC	Yes	100	100
	No	Nil	Nil
	Total	**100**	**100**
Source Of Education	Midwives	26	26
	Community Health Nurse (CHNs)	40	40
	Traditional Birth Attendants (TBAs)	4	4
	Media	30	30
	Total	**100**	**100**
Who Decides Where To Give Birth	Myself	21	21
	My husband	10	10
	Both of us	60	60
	Mother	5	5
	Mother-in-law	4	4
	Total	**100**	**100**

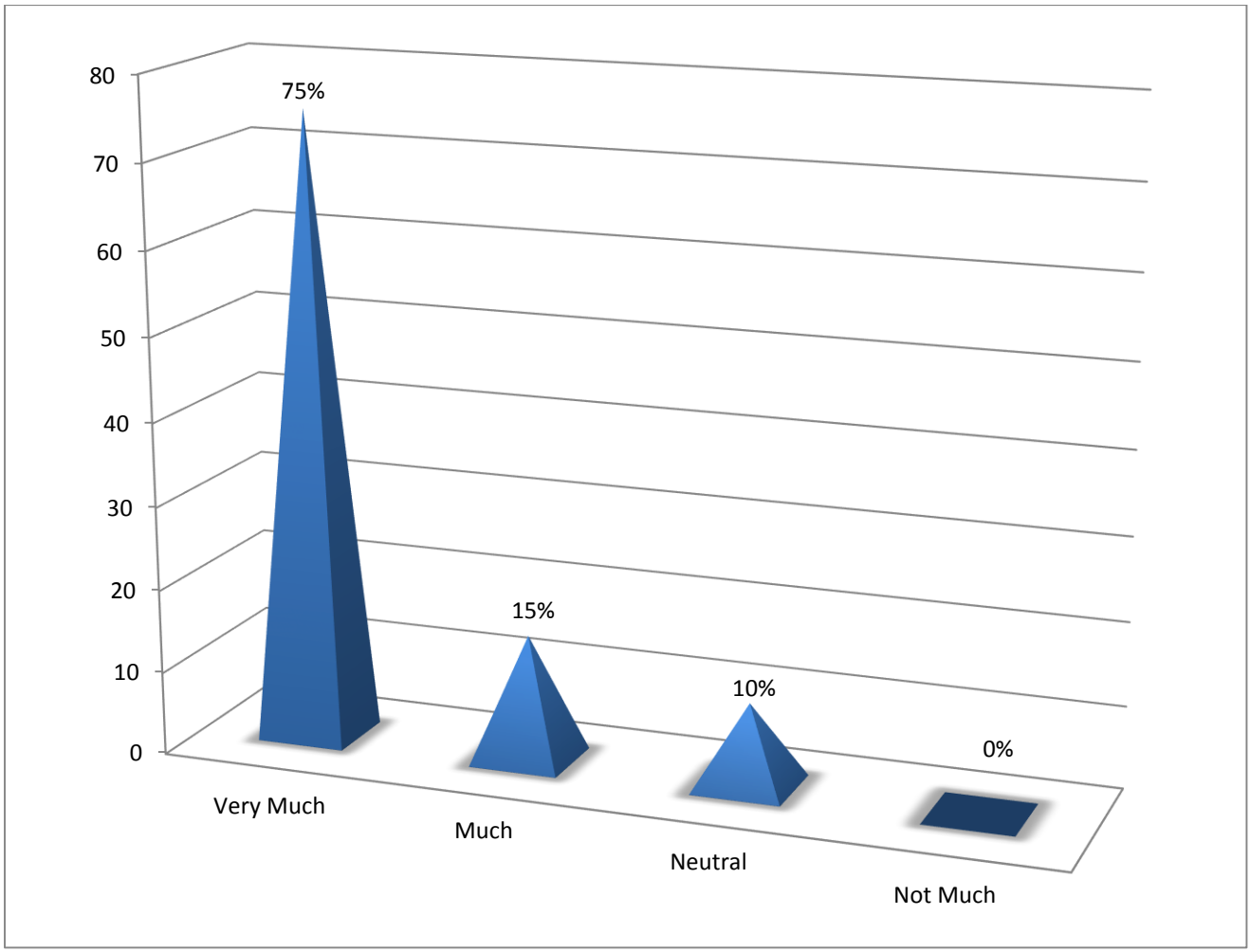
Source: Field Data, 2019

The table 4 above indicates that all the respondents 100% responded that they have received some form of education on ANC. With regards to respondents' source of education, 40% had

Community Health Nurses (CHN) as their source of education, while 30%, 26% and 4% had the media, midwives and TBAs as their sources of education respectively.

In addition, 60% of the respondents indicated that both couples decide where to give birth, while 21% responded that they decide by themselves on where to give birth or deliver, furthermore,10%, 5% and 4% indicated that their places of delivery is determined by their husbands, mothers and mother in-laws respectively.

Figure 4: ANC Enhance Birth Preparedness

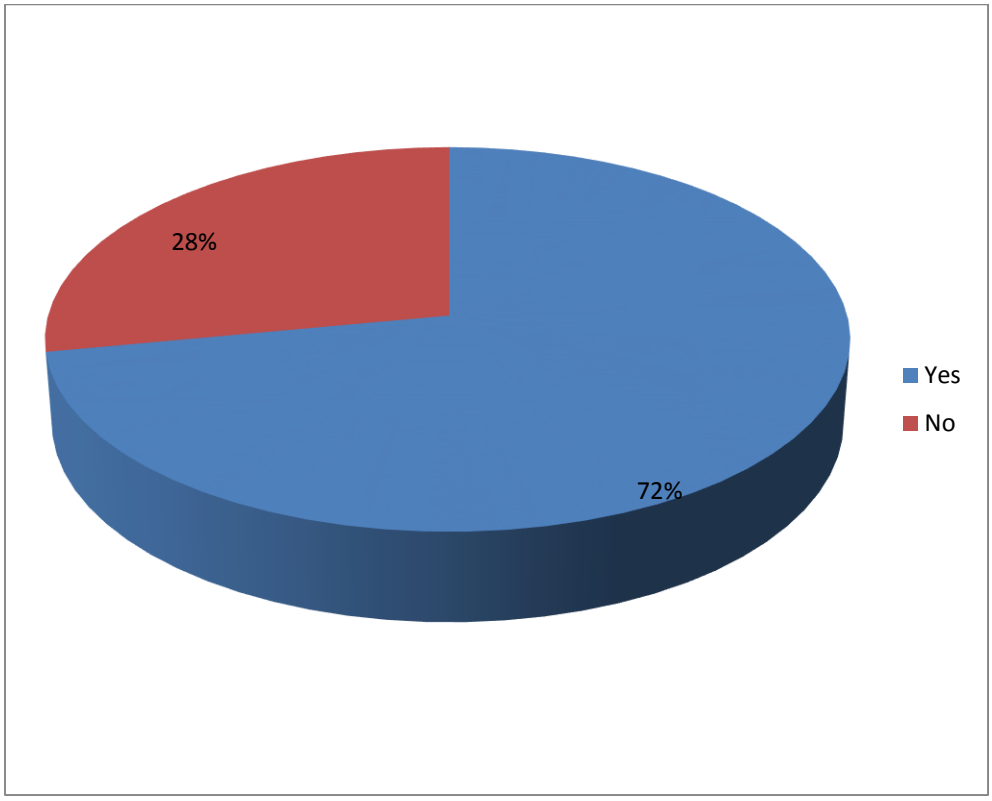


Source: Field Data, 2019

Figure 4 above shows that 75% of the respondents agreed that ANC enhanced birth preparedness very much, whereas 15% agreed that ANC enhanced birth preparedness much and 10% were neutral. None of them indicated that not much birth preparedness is enhanced by ANC.

3.2.3 Encouraging and Preventing Factors of ANC

Figure 5: Insurance Cover



Source: Field Data, 2019

From figure 5 above, 72% of the respondents had health insurance cover while 28% had no health insurance cover.

Table 5: Why give birth at Health facility

	Responses		Percent of Cases
	Frequency	**Percent**	
I was sick	6	3.0%	6.2%
It was a free service	23	11.5%	23.7%
Health Facility close by	8	4.0%	8.2%
Good service	57	28.5%	58.8%
Family allowed	29	14.5%	29.9%
It is the safest place to give birth	77	38.5%	79.4%
Total	**200**	**100.0%**	**206.2%**

Source: Field Data, 2019

As indicated by table 5 above, 38.5% of the respondents stated that the health facility was the safest place to give birth, furthermore, 28.5%, 14.5% and 11.5% said good services, family support and ANC being free service respectively as their reasons for delivering at the health facility. In addition, 4.0% stated, the health facility was close to their place of residence as their reason for given birth at the health facility while 6.0% stated, they were sick as their reason for given birth at the health facility.

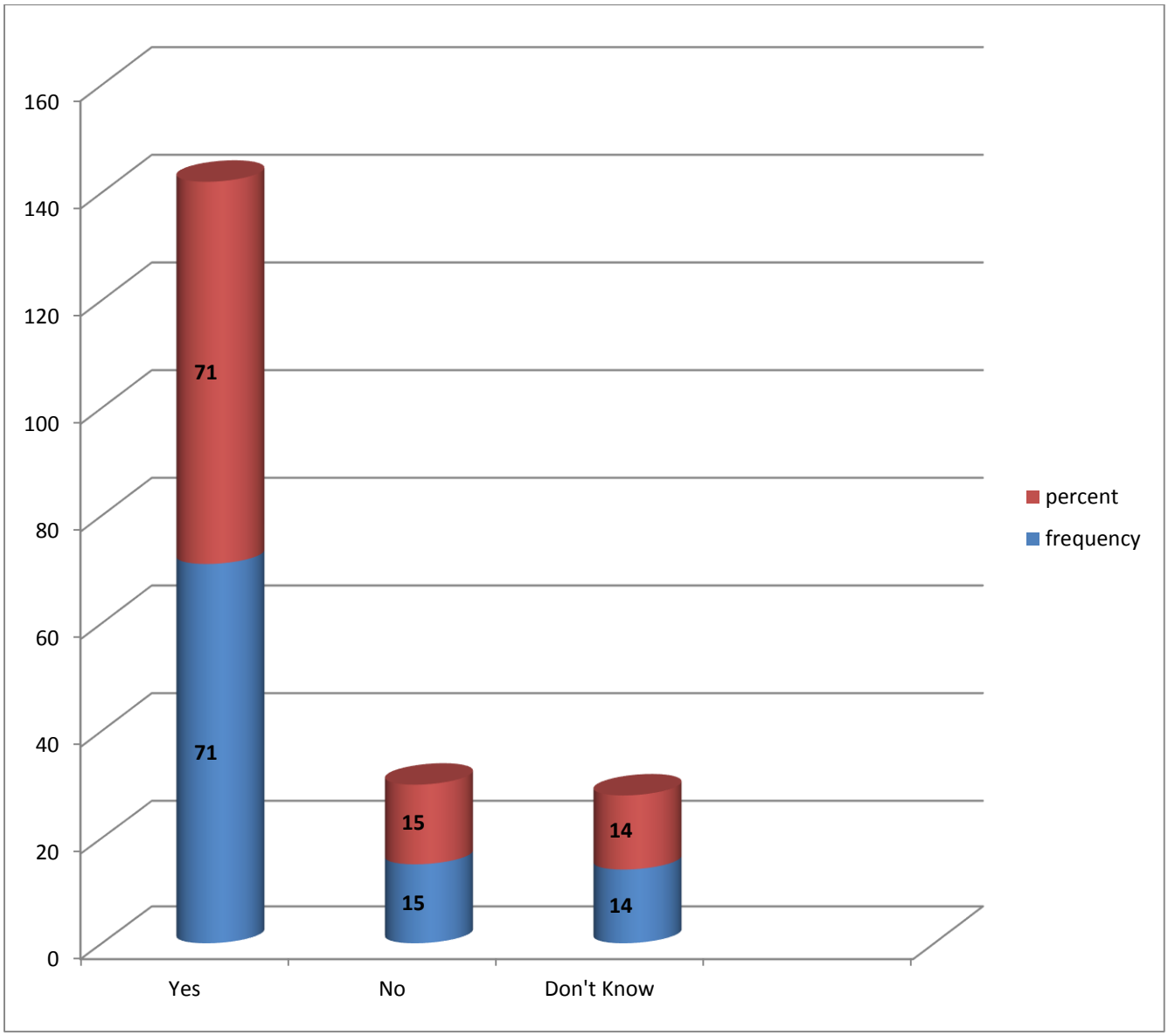
Table 6: Why give birth at home

	Responses		Percent of Cases
	Frequency	Percent	
Easily labor	11	17.5%	29.7%
Transport Problem	5	7.9%	13.5%
Health facility far away	7	11.1%	18.9%
Husband refused	3	4.8%	8.1%
Afraid of user fee	11	17.5%	29.7%
Poor service	7	11.1%	18.9%
Poor attitude of health workers	9	14.3%	24.3%
Don't know its importance	5	7.9%	13.5%
I was sick	5	7.9%	13.5%
Total	**63**	**100.0%**	**170.3%**

Source: Field Data, 2019

Out of the 100 questionnaires that were collected, 63 respondents representing 63% said they had delivered at home before. When asked of their reasons, 17.5% indicated that they were afraid of high user fee. Another 17.5% claimed easy labour as their reason for given birth at home whiles 14.3% and 11.1% stated poor attitude of health workers and poor services respectively as their main reasons for delivering at home. In addition, 7.9% stated, they were sick, transportation problem and not knowing the importance of ANC as their reasons for given birth at home.

Figure 6: Difference giving birth at Home and Health facility



Source: Field Data, 2019

The figure 6 above shows that 71% of the respondents acknowledged a difference between health facility and home delivery, while 15% said there was no difference between home and health facility delivery and the remaining 14% said they did not know any difference.

Table 7: Contributing Factors To Prompt ANC attendance

	Responses		Percent of Cases
	Frequency	Percent	
Positive attitude of health workers	79	41.1%	88.8%
Nearness to health facility	22	11.5%	24.7%
Low charges and bills	33	17.2%	37.1%
Convenient timing of ANC services	34	17.7%	38.2%
Being compelled by health workers	24	12.5%	27.0%
Total	**192**	**100.0%**	**215.7%**

Source: Field Data, 2019

From table 7 above, 41.1% of respondents indicated that positive attitude of health workers contributes to prompt ANC attendance while 17.7% indicated convenient timing of ANC services is a major contributing factor in ANC attendance, also, 17.2%, 12.5% and 11.5% stated, low charges and bills, being compelled by health workers and nearness of health facility to their place of residence respectively as a major factor that can enhance prompt ANC attendance.

Table 8: ANC attendance frequency and recommendation

		Frequency	Percent
Frequent Visit To ANC	0	Nil	Nil
	1 to 2	12	12
	3 to 4	17	17
	More than 4	71	71
	Total	**100**	**100**
Recommend ANC service	Yes	94	94
	No	6	6
	Total	**100**	**100**

Source: Field Data, 2019

Table 8 above shows that 71% of respondents made more than 4 ANC visits, 17% made 3-4 ANC visits while 12% made 1-2 visits. This means that each client has made at least one (1) ANC visit.

Again, satisfaction of pregnant women in the ANC services rendered at the facility was ascertained by asking respondents whether they will recommend ANC to other pregnant women. The findings obtained indicated that majority 94% of them would recommend ANC services to other pregnant women while 6% said they would not recommend it.

Table 9: The degree at which distance, transportation and cost of service encourage or prevent ANC service.

	Encourage	Prevent
Distance	49(41.2%)	51(58.8%)
Transportation	35(29.4%)	65(70.6%)
Cost of Service	35(29.4%)	65(70.6%)

Source: Field Data, 2019

The table 9 above gives respondents view on factors that encourage or prevent ANC attendance. With regards to distance, 41.2% indicated that distance from their houses to the health facility encouraged them while 58.8% indicated otherwise. In addition, 29.4% indicated means of transportation encouraged them while 70.6% indicated they are discouraged by the means of transport to the health care facility, furthermore, 29.4% and 70.6% of respondents stated cost of service to accessing ANC services as encouragement and preventive factor respectively.

Table 10: Attitude of Health Care Providers

		Frequency	Percent
Attitude Of Health Workers	Indifferent	18	18
	Very friendly	44	44
	Friendly	34	34
	Rude	4	4
	Total	**100**	**100**
Privacy And Confidentiality Rate	Excellent	69	69
	Average	27	27
	Poor	4	4
	Total	**100**	**100**

Source: Field Data, 2019

From the table 10 above, when asked about attitude of health care providers, 44% said they were very friendly while 34% said they were friendly, whereas, 18% and 4% indicated, staffs are indifferent and rude respectively.

In addition, on the issue of privacy and confidentiality, 69% indicated, it was excellent while 27% and 4% indicated that it was average and poor respectively.

Table 11: Improving ANC attendance

	Responses	
	Frequency	**Percent**
More friendly staff at the facility	89	27.9%
Free ANC service	85	26.6%
Good road network	73	22.9%
Increased community based education	72	22.6%
Total	**319**	**100.0%**

The table 11 above spells out the factors considered by respondents for improving ANC attendance. 27.9% believe that more friendly staff at health facilities would improve ANC attendance, while 26.6%, 22.9% and 22.6% indicated, free ANC service, increased community based education and good road network respectively will improve or enhance ANC attendance.

3.3 DISCUSSION

Demographic characteristics

The study population was made up of 100 pregnant females. Findings from the study showed that 65.0% were between the ages of 20-30 years, 20% were between the ages of 30-39, while 15.0% were between the ages of 40-49 years. This revealed that participants had a youthful population with majority (65.0%) being secondary school leavers.

The effect of mothers' age on the use of ANC services is unclear. Our finding disagrees with that of Kabir, et. al., (2005) who suggested that women in their late thirties are more likely to have ANC than younger women. However, it agrees with Kabir.et.al. (2005) findings that educational level of respondents has a relation with ANC as majority (62.0%) had at least secondary level education and 10% with tertiary education. It can therefore be concluded that the higher a woman's education, the more she is likely to utilize ANC services.

In addition, majority (62%) of respondents were married followed by those that were single (18%) then (17%) were co-habiting. This study concluded that marital status contributed to ANC attendance confirming similar revelations made by Cicekliogl*u et. al*., (2005).

Furthermore, the study showed that 67% of the respondents were self-employed, 14% were government workers while 10% were unemployed. In addition, with regards to partners' occupation, 69% were self employed, while 28% were government workers. This confirms Kabir, et. al., (2005) who maintained that pregnant women married to jobless men or labourer's had inadequate ANC attendance compared to those whose husbands had other jobs. This can be linked to the support from husbands that could be in terms of finances and transportation. Finally, religion and educational background of partners had a positive correlation with ANC attendance. It can be opined that majority of the pregnant women were Christians, however, educational background

could have really affected pregnant women`s decision on ANC attendance. This study can be implied that husbands who had adequate education encouraged their wives to patronize ANC service hence the findings obtained.

Knowledge of Women on ANC

The behavior towards maternal health services and health seeking behavior in general was most often than not influenced by knowledge of the population under consideration. In this study, findings on knowledge of pregnant women on ANC and its importance, pointed out that majority (95%) of respondents were knowledgeable on what the ANC service was about.

It was found that ANC was a maternal service that sought to enhance the health of pregnant women and the developing fetus. The knowledge of respondents was further proven in the findings on education of ANC service where majority 40% had prior education about the ANC service through Community Health Nurses (CHN), 30% from the media and 26% and 4% received education from midwives and TBAs respectively. This is in partial agreement with Navaneetham and Dharmalingam (2002) who said exposure to mass media (especially television and radio) significantly improves utilization of ANC service.

This study after assessing the place of delivery for respondents, identified that majority of the respondents (60%) decided with their husbands where they delivered, 21% personally took that decision. From the study, it can be implied that majority of the respondents made the decision on where they wanted to deliver personally or with their husbands and did not rely more often on other individuals in making this decision. The study also found that ANC attendance has some influence on birth preparedness as ANC education prepare expectant mothers for birth by acquiring needed materials, undergo laboratory investigations, make reservations on means of transportation and even blood donor in case of an emergency. According to the majority of respondents (75.0%)

in this study, ANC service prepared them very well for birth. This is a confirmation that they received the right education and promptings from health workers. Sarpong, et. al., (2016) maintained that adequate attendance of ANC services contributed positively to birth preparedness which is confirmed in this study.

Factors influencing ANC attendance

In this study, it was found out that distance, cost of service and transport have adverse influence on ANC attendance since most of the pregnant women were not resident in the community where the health facility was located.

From the results this study can be concluded that inadequate utilization of ANC service solely was influenced by external factors including transport, distance, and ignorance other than perceived factors relating to the health facility. This was in partial agreement with Sarpong and Affainie-Amankwa's study in 2016 and Glei et al in their 2013 study.

According to Agus & Horiuchi, (2012), three-quarter of respondents (77.9%) received ANC more than four times. The other 22.1% received ANC less than four times, which was statistically significant compared to multiparous. This was confirmed by our study as majority of the respondents 71.0% received more than four times ANC visit whereas 12% received less than four visits during pregnancy. This point was also affirmed by WHO & UNICEF, (2003) who mentioned that high quality ANC can save lives by providing simple interventions such as screening for hypertensive disorders and by helping women plan ways to access skilled delivery care. Overall quality of service contributed to the patronage of ANC services in this study. This result clearly confirms the fact that the overall quality of service was good enough.

It was observed that presently some pregnant women resort to delivery at home instead of the health facility. Owing to this occurrence, it was ascertained among respondents whether a

difference occurred between delivery at home and at the health facility. Findings obtained indicated that most respondents (71%) of them confirmed an existing difference between the two places. The quality of care given and the preparedness of the health facility for eventualities could have made pregnant women acknowledged that difference. In other studies distance is associated with ANC use and delivery (Glei, et. al., 2013) and transport to the healthcare facilities was indicated by Mekonnen, et. al., (2003) as adversely affecting ANC attendance.

Improving ANC Services

Finally, ANC services and attendance were noted to improve through friendly health worker attitude, privacy and confidentiality of service and this was mutually established in Sarpong et al study in 2016. With regards to staff attitudes, our study indicated 44% and 34% respondents responded very friendly and friendly respectively while 18% and 4% also recorded indifferent and rude staffs respectively

Also, 27.9% respondents responded to the fact that ANC attendance can be improved by having more friendly health care service providers at health facilities.

3.4 CONCLUSIONS

Based on findings of this study it is concluded that;

- Level of knowledge on antenatal care was good and contributed to patronage for ANC services.
- It was also found that distance, cost of service and transportation discouraged some pregnant women from attending ANC.
- Very friendly health care workers with highly professional skills in maintaining confidentiality and privacy level would improve ANC services. Reducing cost or making

ANC free was identified as a means of improving the service and enhancing ANC attendance.

3.5 RECOMMENDATIONS

This study recommends that;

- More education should be transmitted on the existence of ANC services as well as other maternal health services to enhance healthy pregnancy and informed choices in birth options primarily by taking advantage of the media space available example TV, radio, internet etc.
- Since distance and means of transportation was discovered as a big challenge, mobile clinics should be instituted whereby ANC services will be brought to the door steps of pregnant women.
- The prescribed number of ANC visits should be encouraged to pregnant women such that all medical checks can be done and education can be done early enough to ensure safe pregnancy and delivery.
- Measures should be put in place to ensure that all ANC services are covered by NHIS since service cost is a major factor that discouraged the effective utilization of the service.

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APPENDIX A

QUESTIONNAIRE ON ANC VISIT AMONG PREGNANT WOMEN AT TEMA GENERAL HOSPITAL

INTRODUCTION

As part of our educational requirements, we are supposed to conduct a survey on a topic of our choice. This questionnaire has been designed with a set of questions solely for survey purposes to assess the influencing factors of ANC among pregnant women at the Tema General Hospital.

Your answers will therefore be helpful in the successful completion of this study. Any response you give will only be used for survey purposes and any personal information provided here will be held in outmost confidentiality.

Thanks very much for your time and views

Instructions for completing of this Questionnaire:

Please, tick [√] the appropriate box.

SECTION A: Background Information

1. Respondents age 20-30 ☐ 30-39 ☐ 40-49 ☐
2. Marital status:

   Married [ ] Single [ ] Divorced [ ] Separated [ ]

   Widowed [ ] co-habiting [ ]

3. What is your educational background?

   Primary level [ ] Secondary level [ ] Tertiary [ ] Nil [ ]

4. What work do you do?

Self-employed [ ] Government worker [ ] Nil [ ]

Any other type of work (specify)……..

5. Respondent's religion

Christianity [ ] Muslim [ ] Traditionalist [ ]

6. What is the main occupation of your husband?

Self-employed [ ] Government worker [ ] Nil [ ]

Other (specify) _____

7. What is your husband's educational level?

Primary level [ ] Secondary level [ ] Tertiary [ ] Nil [ ]

SECTION B: WOMEN'S KNOWLEDGE

8. Do you have adequate knowledge on ANC?

Yes [ ] No [ ]

9. What are the importance of ANC in pregnancy? Select as many options you deem fit.

a) Have no idea [ ]
b) Promotes healthy pregnancy [ ]
c) Gives strength to pregnant women and developing fetus [ ]
d) Pregnant women gets education from ANC services [ ]
e) Pregnant women get drugs from ANC service [ ]
f) Other, please specify_____

10. Have you ever had education on ANC?

a) Yes [ ] b) No [ ]

11. If response to question B11 is yes, please indicate source?

a) SBAs [ ] b) CHNs [ ] c) TBAs [ ] c) Radio [ ] d) television [ ]

e) Other (specify) _____

12. Who decides where you give birth?

a) Myself [ ] b) My husband [ ] c) Both of us [ ] d) Mother [ ]

e) Mother –in-law [ ] f) TBA [ ]

g) Others specify_____

14. To what extent does ANC attendance enhance birth preparedness?

a) Very much [ ]

b) Much [ ]

c) Neutral [ ]

d) Not much [ ]

e) Not at all [ ]

SECTION C: ENCOURAGING AND PREVENTING FACTORS OF ANC

15. How far is the nearest health facility from you house: ……...minutes

16. Is your prenatal care cost covered by any insurance?

a) Yes [ ] b) No [ ]

17. Why do you want to give birth at a health facility?

	Yes	**No**
a) I was sick		
b) Its was a free delivery		
c) Health facility close by		
d) Good service		
e) Family allowed		
f) It is the safest place to give birth		

h) Other (specify) _____

18. If you gave birth for the recent baby at home, why?

	Yes	**No**
a) Easily labor		
b) Transport problem		
c) Health facility is far away		
d) Husband refused		
e) Afraid of user fee		
f) Poor service		
h) Poor skill of health workers		
i). Don't know its importance		
j). I was sick		

k). other (specify) _____

19. Do you think there is a difference giving birth at home and health facility?

a) Yes [ ] b) No [ ] c) Don't know [ ]

20. What can contribute to pregnant women attending ANC promptly?

a) Positive attitude of health workers [ ]

b) Nearness of health facility [ ]

c) Low charges and bills [ ]

d) Convenient timing of ANC services [ ]

e) Being compelled by health workers [ ]

f) Other, please specify_____

21. How frequent do you visit ANC?

a) 0 [ ] b) 1 to 2 [ ] c) 3 to 4 [ ] d) more than 4 [ ]

22. Will you recommend other pregnant women to patronize ANC services?

a) Yes [ ]

b) No [ ]

23. Determine if the various factors encourage or prevent you from assessing ANC

	positive	**Negative**
a) Distance		
b) Transportation		
c) Cost of service		

d) other (specify) _____

SECTION D: IMPROVING

24. How will you rate the attitude of health workers at the facility towards you?

a) Very friendly [ ]

b) Friendly [ ]

c) Indifferent [ ]

d) Rude [ ]

e) Others (specify) _____

25. How will you rate the level of privacy and confidentiality at the facility?

a) excellent [ ]

b) average [ ]

c) poor [ ]

26. How can ANC attendance be improved?

	Yes	**No**
a) More friendly staff at the facility		
b) Free ANC service		
c) good road networks		
d) Increased community based education		

Thank you for your time and the assistance given us. You will be highly acknowledged for the invaluable role you played in this research work.