

**Utilization of antenatal care services among mothers in Central
Division, Kitui District, Kenya. //**

By

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health sciences of Kenyatta University.**

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*Utilization of
antenatal care*



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DECLARATION.

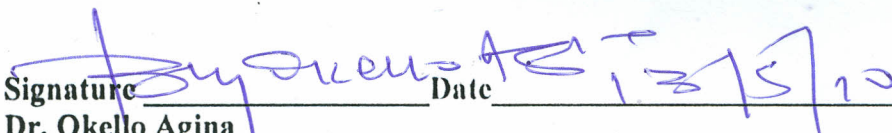
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DEDICATION

This work is dedicated to my husband Clement Mbatha and our daughter Martha Mwikali for the continued support that they offered me during the project.

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I hereby do wish to acknowledge the Lord God almighty for giving me the strength to keep going even when things became tough.

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OPERATIONAL DEFINITIONS

Antenatal care: Routine care for the healthy pregnant woman and her offspring provided by a health professional in a health care institution

Caesarean section: Surgical alternative to natural child birth, where the baby is removed from the womb via an opening that has been cut into the abdomen.

Eclampsia: Convulsions or seizures brought on by seriously high blood pressure in pregnancy (pre-eclampsia). Untreated, eclampsia can lead to coma or death.

Haemorrhage: Excessive bleeding or loss of blood.

Majority: 60% of the respondents and above

Maternal Mortality: Maternal death, or maternal mortality, also "obstetrical death" is the death of a woman during or shortly after a pregnancy.

Maternal Mortality Rate: Annual number of deaths of women of reproductive age (15-49) from pregnancy-related causes per 100,000 live births.

Maternal Mortality Ratio: The number of maternal deaths per 100,000 live births during the same time period.

Multiparous: Having given birth two or more times. Giving birth to more than one offspring at a time.

Nulliparous: Never having given birth to a child.

Perinatal Death: Death of a fetus or a newborn in the perinatal period that commences at 22 completed weeks (154 days) of gestation (the time when birth weight is normally 500 g) and ends seven completed days after birth.

Preterm Birth: A birth which takes place after at least 26, but less than 37, completed weeks of gestation. Babies born before 37 completed weeks of pregnancy are called premature.

Primigravida: A woman who is having her first pregnancy.

Primiparous: A term used to describe an individual bearing a first offspring or that has borne only one offspring.

Puerperal sepsis: Infection of the genital tract occurring at any time between the onset of rupture of membranes or labor and the 42nd day postpartum or abortion.

Sequelae: Is a pathological condition resulting from a disease, injury, or other trauma.

ABBREVIATIONS AND ACRONYMS USED IN THE STUDY.

CBOs	Community Based Organizations
HCV	Hepatitis C Virus
HIV	Human Immuno-deficiency Virus
FANC	Focused Antenatal Care
ICPD	International Conference on Population and Development
IPT	Intermittent Presumptive Treatment of Malaria
ITBN	Insecticide Treated Bed Nets
KMTC	Kenya Medical Training College
MDGs	Millennium Development Goals
M. O. H	Ministry Of Health
SP/IPT	Sulfadoxine–Pyrimethamine for Intermitted Preventive Treatment
STOMP	St George Outreach Maternity Project
TBA	Traditional Birth Attendant
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children’s Emergency Fund
WHO	World Health Organization

ABSTRACT

To promote the health and survival of mothers and babies, Kenya has adapted the WHO goal-oriented Antenatal Care (ANC) package, popularly known as Focused ANC (FANC). The Ministry of Health (MOH) has designed new guidelines for FANC services, placing emphasis on refocusing antenatal care, birth planning and emergency preparedness. ANC visits are now used as an entry point for a range of other reproductive health services, thus promoting comprehensive integrated service delivery. The objectives of this study were; to establish whether antenatal mothers in Central Division of Kitui District are aware of the antenatal care services available in the health care facilities and their health benefits, assess the levels of utilization of these services and establish the social- cultural and economic factors that influence the utilization of these services. This was a cross-sectional descriptive study. Convenient sampling was employed to identify the study area and simple random sampling to select the research participants. A total number of 254 antenatal mothers were sampled. Data collection tools included structured questionnaires, key informant interview guide and focus group discussion guide. Quantitative data analysis was done using SPSS version 11.5. Descriptive and inferential statistics were used. 76.4% of the mothers fully utilized antenatal care services while 23.6% did not. The utilization of ANC services increased with the number of previous deliveries ($X^2=22.891$, $df=4$, $p=0.0001$). It was also observed that the level of knowledge for antenatal care services being offered was higher with an increase in the number of deliveries ($X^2=83.973$, $df=12$, $p=0.0001$). This was an indication that those women with prior deliveries were more likely to report for antenatal care services at an earlier gestation age. Age was also observed to affect utilization of antenatal care services, whereby the younger respondents had little knowledge about the antenatal care services. From the study findings, awareness of the benefits of antenatal care services influenced the utilization of ANC services. It was observed that the respondents who thought that it was important for pregnant mothers to receive intermittent presumptive treatment of malaria were more likely to utilize antenatal care services ($X^2=6.833$, $df=1$, $p=0.009$). Negative attitude towards health providers was also found to hinder utilization of antenatal care services ($X^2=8.019$, $df=1$, $p=0.005$). It was further noted that respondents who were aware of the dangers of anaemia in pregnancy were more likely to utilize antenatal care services ($X^2=12.966$, $df=3$, $p=0.005$). Consequently, women who had support from the spouse were also more likely to utilize antenatal care services ($X^2=4.112$, $df=1$, $p=0.043$). Other factors like the distance to the health facility, availability of the antenatal care services and time taken to reach the health facility were also found to influence ANC services utilization. The study concludes that the level of utilization of ANC services was relatively high and that socio-cultural and economic factors hindered utilization of antenatal care services. It is recommended that the Ministry of health and hospitals should improve training sessions for ANC staff regarding client handling in order to make the services more acceptable. Hospitals should utilize CBOs to sensitize the community about ANC services in order to encourage early visits among women in their first pregnancy as well as spouse support. The government through the ministry of health should provide health facilities within the reach of the people to optimize their utilization. This will assist in improving utilization of antenatal care services and also reduce the utilization of traditional birth attendants.

Chapter One: Introduction

1.1 Background information.

A joint World Health Organization (WHO), United Nations Population Fund (UNFPA), United Nations International Children's Emergency Fund (UNICEF) and World Bank statement of 1999 that suggested provision of special care for women during pregnancy through the public health services was a relatively late development in modern obstetrics. Not until the late 1930s did the United Kingdom and Northern Ireland authorities decide that all women should be offered regular check-ups during pregnancy as an integral part of maternity care, some 30 years after the introduction of formalized labour and delivery care. During the second half of the 20th century, international awareness focused more on the tragedy of maternal mortality. Consequently national governments began to collaborate with technical assistance and donor agencies to ensure that pregnant women in developing countries had access to maternity care.

Antenatal Care Services (ANC) gained more relevance globally at the millennium summit when world leaders unanimously adopted the Millennium Declaration (United Nations General Assembly, 2000), which led to the articulation of eight specific Millennium Development Goals (MDGs). Being a sensitive development indicator with unacceptably large cross-country differentials, maternal mortality was of concern at both the 1999 International Conference on Population and Development (ICPD) conference and the Millennium Summit. Therefore, improving maternal health and reducing deaths due to maternal causes were among the adopted goals and targets in both ICPD Programme of Action and the MDGs. The fifth MDG stipulates that the need to ensure

that maternal deaths are reduced by three quarters and that maternal health improved.

This entails ensuring effective utilization of ANC services.

It was against this background that the current study sought to address several issues of concern with regard to ANC services in Central Division of Kitui District which included; establishing the level of awareness of the ANC services available in the district, assessing the utilization of the ANC services by antenatal mothers, and establishing the socio-cultural and economic factors which influence the utilization of ANC services by mothers in the community. These formed the subject of research in this study.

1.2 PROBLEM STATEMENT

An estimated 414 women per 100,000 livebirths die as a result of pregnancy related complications, childbirth and sequelae in the postnatal period, making maternal death the leading (27%) cause of death among women of reproductive age. Between 6,000 and 12,000 Kenyan women die annually from pregnancy related conditions. The first ANC visit coverage is at 88% down from 92% in 1998 while the 4 ANC visits coverage is at 52% (KDHS 2003). Due to the low ANC attendance, Kenyan women face an unacceptable 1 in 20 lifetime risk of maternal death.

ANC services are key to ensuring that maternal health is improved and that the maternal mortality ratio is reduced by three quarters as stipulated in the fifth MDG. Therefore there was need to establish the level of awareness among antenatal mothers in Central Division of Kitui District about available ANC services, and assess their level of utilization of these services. This study also sought to establish the factors which influence utilization of ANC services by mothers in Central Division, Kitui District.

1.3 RESEARCH QUESTIONS

1. What antenatal care services do mothers in Central Division of Kitui District know about?
2. What is the mothers' level of utilization of these services?
3. What socio-cultural and economic factors influence utilization of available antenatal care services among antenatal mothers in Central Division of Kitui District?

1.4 NULL HYPOTHESIS

There are no factors influencing utilization of ANC services among antenatal mothers in Central Division, Kitui District of Kenya.

1.5 GENERAL OBJECTIVE OF THE STUDY

The general objective of this study was to determine the factors influencing utilization of ANC services by antenatal mothers in Central Division of Kitui District.

1.6 SPECIFIC OBJECTIVES OF THE STUDY

1. To establish the awareness of antenatal mothers on the antenatal care services available and their benefits.
2. To assess the level of utilization of antenatal care services by antenatal mothers.
3. To determine the socio-cultural and economic factors that influence utilization of antenatal care services.

1.7 SIGNIFICANCE OF THE STUDY

The findings of this study are of invaluable use to policy makers and the government of Kenya. The results reflect the situation on the ground in regard to utilization of the ANC services. The government and other stakeholders will use the insight provided by the

study to improve in their shortcomings (if any) and to put measures in place to ensure that ANC services are fully utilized. This will contribute to achieving the desired goal which is improving maternal health and reducing maternal mortality. Therefore the government will be able to realize the fifth MDG which is "Improve maternal health and reduce by three quarters the maternal mortality ratio." The results are also of invaluable use to other multinational and international organizations whose work directly involves enhancing maternal health and improving reproductive health.

1.8 SCOPE AND LIMITATION OF THE STUDY

This study sought to establish the level of awareness of the ANC services among the antenatal mothers in Central Division of Kitui District. The study also assessed the utilization of the ANC services in the same community. Further, the researcher sought to establish the socio-cultural, economic and any other factors that influenced the utilization of the ANC services in the community.

One major limitation of the study was the lack of finances to take the researcher through the study period. Only Central Division was used for the study upon which generalization and conclusions were made. This may not reflect the true picture on the target population.

CHAPTER TWO: LITERATURE REVIEW

2.1 Global overview of antenatal care

Taguchi *et.al* (2003) conducted a case control study to establish the influence of socio-economic background and antenatal care programmes on maternal mortality. The study was carried out in Surabaya, Indonesia. It revealed that there was no significant difference in race and religion between the cases and the controls. The proportion of women living outside of Surabaya was 47.5% for the cases and 7.9% for the controls. This was statistically significant. The proportion of women who attended primary school was 44.1% in the cases and 22.0% in the controls ($P < 0.001$). The study also established that the mean number of visits (\pm SD) to antenatal care facilities was 4.6 ± 0.4 in the cases and 7.1 ± 0.2 in the controls. This difference was significant. In the cases, 22.0% of women had visited an antenatal care facility by the third month of pregnancy. In the same group 45.8% had visited an antenatal care facility by their fourth month of pregnancy. However for the controls, 50.8% of women had visited a facility by their third month of pregnancy.

Humphrey and Keating (2004) conducted a retrospective observational study between 1992 and 2001 in far North Queensland, Australian. The study aimed at examining reasons for women not accessing antenatal care and subsequent pregnancy outcomes. It revealed that the women who did not access antenatal care were more likely to be highly parous or young. The same group were more indigenous and users of alcohol than the women who did access antenatal care. Similarly women who lived in remote communities and those with significant medical conditions complicating their pregnancy were less likely to default on antenatal care. The women who did not access antenatal

care had a higher incidence of preterm birth and post-partum haemorrhage. Their babies were more likely to be of low birthweight, to be born with 5-min Apgar scores less than 5, and had a higher incidence of perinatal death.

Mary *et.al* (2005) conducted a study entitled "What Is It About Antenatal Continuity of Caregiver That Matters to Women?" in Victoria, Australia. The study aimed at analyzing the influence of continuity of caregiver on ANC attendance. It established that most women saw the same caregiver at each antenatal visit (77%) and thought that caregivers got to know them (65%). This finding varied widely among different models of maternity care. Before adjustment, women were much more likely to describe their antenatal care as very good if they always or mostly thought the caregiver got to know them (OR 5.86, 95% CI 4.3, 7.9). The same case applies if they always or mostly saw the same caregiver at each visit (OR 2.91, 95% CI 2.0, 4.3). The analysis also confirmed the importance that women place on quality interactions with their doctors and midwives

Caroline *et.al* (2000) conducted a randomized controlled trial study to evaluate women's perceptions of a new community-based model of continuity of antenatal care. The study was carried out at the St George Outreach Maternity Project (STOMP) in New South Wales. It found out that women in the STOMP group reported waiting significantly less time for antenatal visits with easier access to care. STOMP group women also reported a higher perceived 'quality' of antenatal care compared with the control group. STOMP group women saw slightly more midwives and fewer doctors than control group women did.

Emil *et.al* (2002) conducted a study to identify factors that are predictive of late initiation of antenatal care. The study was done in England and Wales. It found out that

primiparous women of high obstetric risk were 13.4% more likely to initiate antenatal care after 10 weeks of gestation than a low risk reference group (adjusted OR 1.134, 95% CI 1.011, 1.272; $P= 0.0312$). 34.3% of the same group were more likely to initiate antenatal care after 18 weeks of gestation (adjusted OR 1.343, 95% CI 1.046, 1.724; $P= 0.0208$). This association between high obstetric risk status and late initiation of antenatal care was not replicated among multiparous women. When the effects of other independent variables on gestational age at booking were examined, certain characteristics were associated with failure to initiate antenatal care by 10 weeks of gestation ($P \leq 0.05$). These characteristics included maternal age at booking, smoking status, ethnicity, type of hospital at booking, the planned pattern of antenatal care and the planned place of delivery.

Larsen *et.al* (2004) conducted a qualitative study to identify perceptions, beliefs, barriers and strengths relevant to the utilization of antenatal care. The study was carried among women in the urban, periurban and rural communities of Goroka, Papua New Guinea. Some health care workers were also sampled to give their views. It was established that there were multiple encouragers and barriers to using antenatal care. These were identified within the three categories of physical barriers/encouragers, cultural issues and health care system characteristics. The attitude of health care workers and their perceived ill-mannered treatment of women was one of the most significant concerns raised by the women. Nevertheless, all of the women expressed overall satisfaction with the care given. All of the health care workers stated that antenatal care is very important for the health of both the baby and the mother and expressed a desire to improve the level of

care. The major constraints faced were staff shortages, limited supplies and broken equipment.

Coimbra *et.al* (2007) conducted a cohort study in two Brazilian municipalities, Ribeirão Preto in 1994 and São Luís in 1997/1998. The study was aimed at identifying and comparing factors associated with inadequate utilization of prenatal care. It also went further to identify factors capable of explaining the differences observed between the two cities. It was established that the percentage of inadequacy was higher in São Luís (34.6%) than in Ribeirão Preto (16.9%). Practically the same variables were associated with inadequacy in both cities. Puerperae with lower educational level presented higher percentages of inadequate prenatal care utilization. Similarly those with companion or cohabiting demonstrated inadequate utilization of antenatal care. Respondents who delivered in public health units and were younger than 20 years followed the same pattern. Multiparae and smokers as well as those with low family income also presented higher percentages of inadequate prenatal care utilization. However, the effects of some variables differed between the two cities. The risk for inadequate use of prenatal care was higher for women attended in the public health sector in São Luís and for cohabiting women in Ribeirão Preto.

2.2 Overview of antenatal care in Africa

Albrecht *et.al* (1998) conducted a study to assess whether antenatal care achieves identification and timely referral of high-risk pregnancies in southern Tanzania. It was revealed that a significant risk selection towards obstetric referral level care was observed only for previous caesarean section (prevalence hospital 6.7% all pregnancies 1.5% $P <$

0.005) and for nulliparity (hospital 42.8% all pregnancies 25.0% $P < 0.005$). No significant differences were observed for other risk factors. These risk factors include previous perinatal death, height < 150 cm, multiple gestation and breech presentation. Prevalence of the risk factors age > 34 years and grand multiparity was significantly lower among hospital users. Coverage of obstetric care was below 50% for all risk factors except previous caesarean section (91.5%). The study concluded that despite pursuing the risk approach and very good coverage, antenatal care in Tanzania has only limited effect on extending obstetric care to high-risk mothers.

Adeyemi *et.al* (2007) conducted a study to assess the determinants of antenatal booking time in a South-Western Nigeria setting. It revealed that the mean (SD) age of patients was 30.47 (+/-5.52) years. 60% of the mothers were educated beyond secondary school level and 44.3% of the patients booked late. Late booking was thrice as common in multiparae as in nulliparae. Variables that were significantly associated with time of booking included educational level of the husband ($P = 0.005$) and parity ($P = 0.012$). Others included previous miscarriage ($P < 0.001$) and medical problem in the index pregnancy. 57.3% of pregnant mothers felt that women should book by the first trimester but half of them actively booked late. Early detection of problems was the commonest reason for the choice of time of booking.

Timothy *et.al* (2004) conducted a cluster sample survey to study the use of antenatal care services and intermittent preventive treatment for malaria. The study was carried among pregnant women in Blantyre District, Malawi. It was established that among 391 women in the sample, 98.6% had attended antenatal clinic at least once. 90.2% knew that

sulfadoxine–pyrimethamine for Intermittent Preventive Treatment (SP/IPT) of Malaria was recommended during pregnancy. Overall, only 36.8% received the full recommended two-dose regimen of SP/IPT. Using data from 187 women with antenatal clinic cards, it was found that certain factors were not associated with failure to receive sulfadoxine–pyrimethamine for Intermittent Preventive Treatment (SP/IPT) of Malaria. These factors included residence location, housing type and gender/age/education of the head of household. Adjusting for education, multigravid women were more likely not to receive the recommended SP/IPT regimen (RR 1.2, 95% CI 1.02–1.5, $P = 0.03$).

Galadanci *et.al* (2007) conducted a cross-sectional descriptive study to determine the level of maternal care in Northern Nigeria. It established that majority of the respondents, 73.2%, were between the ages 20 and 34 years. Overall, 50% of the women attended antenatal clinics during their last pregnancy, with a range of ANC coverage by LGA of 14.0–81.0%. The proportion of women who booked in the first, second and third trimesters was 22.8, 63.0 and 14.2%, respectively. The antenatal services offered ranged from 95.7% for abdominal examination to 41.2% for urine examination. Sixty percent of the women received no tetanus toxoid in their last pregnancy. 11% had one dose and 29% had at least two doses of the tetanus toxoid. Home delivery was still the norm throughout the zone with 1791 (85.3%) delivering at home. Up to 80.5% of the deliveries were supervised by personnel with no verifiable training in sanitary birthing techniques. Only 11.4% (233) of those who received ANC had postnatal check-up.

Fekede and Mariam (2007) conducted a cross-sectional study in Jimma Town, South West Ethiopia. The study aimed at assessing antenatal care service utilization and factors

associated with antenatal care non attendance. The study revealed that about 76.7% of the women had attended antenatal care and 23.3% had not attended at all. Literacy status, income, gravidity, religion and occupation showed statistically significant association ($P < 0.05$) with utilization of antenatal care. However, marital status, ethnicity and parity showed no statistically significant association ($P > 0.05$) with antenatal care utilization. The study showed that about 42.8% of the attendants had made their first antenatal visit in the 3rd trimester of pregnancy. Out of the total, only 6.5% of the studied women had the recommended four visits. Women in the age group 15-24 were more likely to attend ANC 2.75 times more than women in the age group 25-34 (OR = 2.74, 95% CI: 1.37, 4.38). Similarly others like students and farmers were about four times likely to attend ANC than house wives (OR = 4.06, 95% CI: 1.50, 11.40).

2.3 Overview of antenatal care in Kenya

A co-hort study was conducted between 2004 and 2005 by Brown *et.al* (2007) in Kwale district. The study aimed at identifying the determinants of attending ANC and the association between attendance and perinatal outcomes (live births and healthy birth weight). It was established that only 32% (506/1,562) of women reported having any ANC. Women with secondary education or above (adjusted OR 1.83; 95% CI 1.06–3.15) were more likely to attend for ANC. Women living further than 5 km from a dispensary were less likely to attend (OR 0.29; 95% CI 0.22–0.39). Paradoxically, however, the number of ANC visits increased with distance from the dispensary (OR 1.46; 95% CI 1.33–1.60). Women attending ANC at least twice were more likely to have a live birth (vs. stillbirth) in both multivariate models. Women attending for two ANC visits (but not

more than two) were more likely to have a healthy weight baby (OR 4.39; 95% CI 1.36–14.15).

Jean *et.al* (2008) conducted a study aimed at identifying the factors that influence the choice of place of delivery among the urban poor. It was carried out in two slums of Nairobi. The study established that although 70% of women reported that they delivered in a health facility, only 48% delivered in a facility with skilled attendant. Besides education and wealth, the main predictors of place of delivery included being advised during antenatal care to deliver at a health facility, pregnancy “wantedness”, and parity. The influence of health promotion (i.e., being advised during antenatal care visits) was significantly higher among the poorest women.

Eijk *et.al* (2005) conducted a study to assess the use of intermittent preventive treatment for malaria in pregnancy. The study was conducted in a rural area of western Kenya with high coverage of insecticide-treated bed nets. It revealed that Antenatal clinic (ANC) attendance was high (89.9% of the 635 participating women). 77.5% of attendees visited an ANC before the third trimester and 91.9% made more than one visit. Delivery of SP by the ANC was reported by 19.1% of all women but only 6.8% reported receiving more than one dose. Given the high rate of use of ANC services, if SP were given at each visit after the first trimester, the potential coverage of IPT (two doses of SP) would be 80.3% in this study population. ITNs were used by 82.4% of women during pregnancy, and almost all mothers (98.5%) who slept under an ITN shared the nets with their newborns after delivery. Women who thought malaria in pregnancy caused foetal problems were more likely to have used an ITN (adjusted odds ratio [AOR] 1.6, 95% confidence interval [CI] 1.0–2.4). This same group was likely to have visited ANC more than once (AOR

2.4, 95% CI 1.2–4.7) compared to women who thought malaria in pregnancy was either not a problem or caused problems for the mother only. Identification and removal of the barriers to provision of IPT during ANC visits can help to increase coverage.

Guyatt *et.al* (2004) conducted a study aimed at assessing the use of intermittent presumptive treatment and insecticide treated bed nets by pregnant women. This study was done in four Kenyan districts. It established that of the 1814 women surveyed, only 5% had slept under an ITN. More than half of the 13% of women using a bednet (treated or untreated) had bought their nets from shops or markets. Women from rural areas used bednets less than urban women (11% vs. 27%; $P < 0.001$). 41% of the bednets used by rural women had been obtained free of charge from a research project in Bondo or a nationwide UNICEF donation through antenatal clinics (ANCs). Despite 96% of ANC providers being aware of IPT with sulphadoxine–pyrimethamine (SP), only 5% of women interviewed had received two or more doses of SP as a presumptive treatment. The coverage of pregnant women with at least one dose of IPT with SP was 14%, though a similar percentage also had received at least a single dose as a curative treatment. The coverage of nationally recommended strategies to prevent malaria during pregnancy during 2001 was low across the diverse malaria ecology of Kenya. Rapid expansion of access to these services is required to meet international and national targets by the year 2005. The scaling up of malaria prevention programmes through ANC services should be possible with 74% of women visiting ANCs at least twice in all four districts. Issues of commodity supply and service costs to clients will be the greatest impediments to reaching RBM targets.

2.4 SUMMARY AND IDENTIFICATION OF GAPS

It has been demonstrated that there are some pertinent issues of concern that have not yet been addressed by previous studies on antenatal care services. Since the introduction of the ANC services in the country, there is no single study which has been conducted to establish the level of awareness of the ANC services provided by health centers in the community. To add on this, sufficient studies have not been conducted to assess the utilization of these services as well as establishing those social-cultural, economic and other factors that influence the utilization of antenatal care services among antenatal mothers in Kenya. These constitute gaps of knowledge which require to be filled. It is these gaps that this research work sought to fill.

CHAPTER THREE: MATERIALS AND METHODS

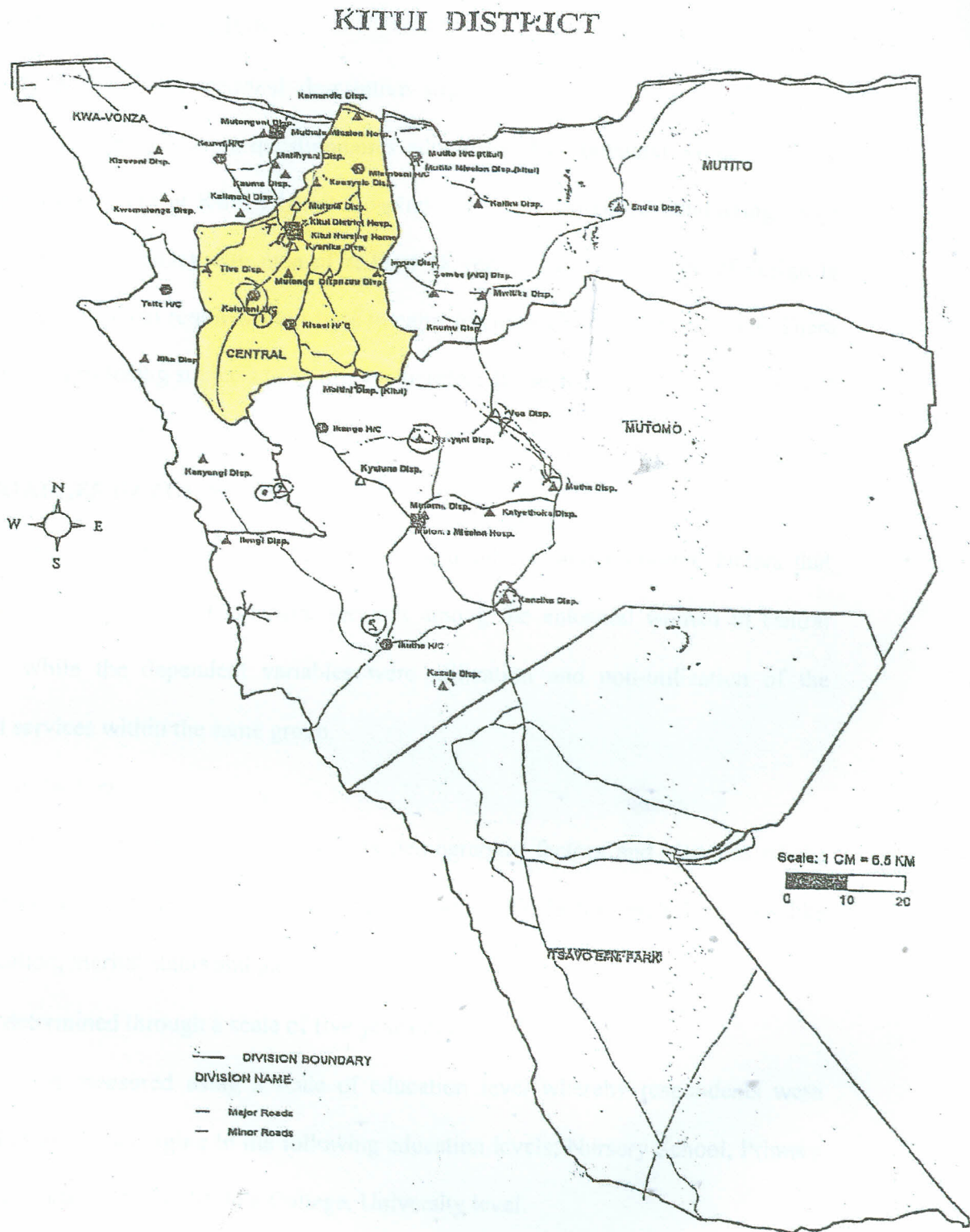
3.1 LOCATION OF THE STUDY

This study was carried out in Central Division of Kitui District in the Eastern Province of Kenya. Data collection took place at Kitui District hospital and in the catchment area around the hospital that encompasses the 8 locations and 30 sub locations. The hospital is situated at Kitui town, which is the Kitui District Headquarters. (The maps of the study area are as shown below).

Figure 3.1: Map of Kenya showing the position of Kitui District in the country.



Figure 3.2: Map of Kitui District showing the position of Central Division.



3.2 THE RESEARCH DESIGN

This study was a cross-sectional descriptive study done in two phases. Phase one involved data collection using questionnaires administered to antenatal women seeking antenatal care services at Kitui District Hospital. Phase two involved conducting focus group discussions (FGDs) with men of at least 18 years of age. This type of design is known to be cheap and requires short time to carry in comparison to other studies. There are no chances of losing subjects to follow up therefore it was the preferred study method chosen.

3.3 VARIABLES IN THE STUDY

The independent variables in the study were socio-cultural and economic factors that influenced the utilization of antenatal services among the antenatal women in central division. While the dependent variables were utilization and non-utilization of the antenatal services within the same group.

3.3.1 Social factors

In this study, this refers to factors such as demographic factors and attitudes of the mothers towards ANC services and the staff. Demographic factors include factors like age, education, marital status and parity.

Age was determined through a scale of five year intervals.

Education was measured using a scale of education level whereby respondents were classified as either belonging to the following education levels; Nursery School, Primary School, Secondary School, Middle College, University level.

Marital status was measured through a scale which classified respondents into the following statuses; Single mothers, Married, Separated, Divorced, Widowed.

Parity refers to the number of children the respondent has ever had. It was measured through a scale which classified respondents as having certain number of children.

Attitudes of the respondents towards ANC Services was measured through a scale whereby the respondents were classified as either liking the services or not.

Attitudes of the mothers towards ANC Staff was measured through a scale of classifying the staff in terms of gender either male or female and respondents stating the most preferred gender. It was also measured through a scale whereby respondents gave a Yes or No response to statements of attitude.

3.3.2 Cultural factors

This refers to those practices inherent within a community that arise from their traditional beliefs and practices. These were measured through a scale of whether the respondent visited a traditional birth attendant or not as well as the frequency of visits. The respondents also gave reasons which made them visit the TBAs and were classified accordingly. Cultural factors were also measured through spousal support whereby respondents were classified either as receiving spousal support or not since some cultural practices do not allow men to accompany women to hospitals or even go near them at the time of delivery.

3.3.3 Economic Factors

Economic factors refer to those factors which determine the purchasing power of respondents in terms of income and occupation. These were determined through their primary occupation and amount of income per month.

3.3.4 Utilization and Non Utilization

Utilization refers to access and use of services by a certain group of people. Utilization was measured through the number of antenatal visits and gestational age at first visit. Focused antenatal care advocates for four comprehensive visits whereby the mother receives all the services and care during the four visits. In this case full utilization refers to the respondents who attended all the four visits. Respondents who attended the first antenatal visit during the first trimester and early second trimester (Between 0-5 months) would manage to attend all the four visits. These were considered as full utilization. Those reporting for the first visit during their early third trimester (6-7 months) would manage only two visits which was considered as low utilization. Those reporting for the first antenatal visit in their late third trimester (8-9 months) would only manage one visit and this was considered as non utilization.

3.4 THE STUDY POPULATION

The study population was antenatal women who are in their reproductive age and ANC users; that is women between the ages of 15 and 49 years in Central Division, Kitui District. The total number of women in their reproductive age in Kitui District is 291,008. In Central Division the number of women in their reproductive age is 65,359. (2008, Kitui District Development Plan.)

3.5 THE SAMPLING PROCEDURE

The study employed two sampling techniques. Convenient sampling was done to identify the study area on the basis of specific considerations by the researcher such as convenience and accessibility of the area. Simple random sampling was used to identify the research participants. This was done by allocating numbers to the antenatal care attendance cards of women who attended ANC care on the particular days of data collection. The same numbers were written on slips of paper, which were then put in a box and mixed thoroughly. Eight slips per day were then drawn without looking whereby the owners automatically qualified to participate in the study.

3.6 SAMPLE SIZE DETERMINATION

The total number of women in their reproductive age is given as 65,359 persons in Central Division as stated above. This number exceeds 10,000. Therefore the minimum sample size was obtained using a formula as used by Fisher *et al* (1998) for calculating sample sizes whose target population exceeds 10 000 persons as shown below;

$$n = \frac{Z^2 pq}{d^2}$$

Where; n= is the desired sample size when the study target population is over 10,000

Z - Is the normal deviate=1.96 which corresponds to 95% confidence interval.

P - Proportion of the target population estimated to have the desired characteristics.

$$Q = 1 - P$$

d = Degrees of freedom = 0.04

D - Is the design effect = 1 (since there will be no comparison between two study areas)

The proportion of the target population estimated to have the desired characteristics is 88/100. Therefore;

$$P = 88/100 \text{ or } 0.88$$

$$q = 1-p = 1 - 0.88 = 0.12$$

Hence, the desired sample size (n) was calculated as follows.

$$n = \frac{Z^2 pq D}{d^2} = \frac{1.96^2 \times 0.88 \times 0.12 \times 1}{(0.04)^2}$$

$$n = \frac{0.405673}{0.0016}$$

$$n = 253.55$$

$$n = 254$$

n = 253.55 which is approximately 254

NB. The sample size (n) could be increased depending on the abundance of the study subjects who met the inclusion criteria. Increase of the sample size (n) would cater for any attrition.

3.7 RECRUITMENT CRITERIA

3.7.1 Inclusion Criteria

To be eligible for inclusion in this study, individuals were to be;

- (i) Willing and able to give informed consent
- (ii) An antenatal mother seeking antenatal services from Kitui District Hospital.
- (iii) A male of at least 18 years of age willing to secure sufficient time to participate in a focus group discussion.

3.7.2 Exclusion Criteria

Individuals who were excluded from this study were;

- (i) Those not willing and not able to give an informed consent.
- (ii) Antenatal women who were not seeking ANC services.

3.8 RESEARCH INSTRUMENTS

3.8.1 Questionnaires

Questionnaires and interview schedules were administered accordingly to a minimum sample of n =254 research subjects. They consisted of semi-structured questions. They were administered by the researcher assisted by 15 research assistants (third year KMTC students) who had been trained beforehand by the researcher. Data collection took place in the month of November 2008.

3.8.2 Focus Group Discussion note-taker forms.

At least 3 focus group discussions (FGDs) were conducted to obtain information on spouse support in ANC attendance. The number of FGDs was based on the time and financial resources available for the study. Each group was made of 8 men of 18 years and over. FGD note-taker forms were used to make notes during the focus group discussions.

3.9 PILOT STUDY

A pilot study (pretest) is a mini study of the study that the researcher intends to carry out. It employs the same methodology as the main study but in a smaller sample population. The population should have similar characteristics as the main study. A pilot study is intended to pre-test the research instruments such that in case of deviations the research instrument is adjusted accordingly. In this case one pilot study was undertaken in Mwala Division, Machakos District which is a location different from the study area. This was

done by randomly selecting sixty participants with the desired characteristics and administering the questionnaire to them. In this way, the questionnaire was standardized to ensure that the questions provided the desired answers. This guaranteed the validity of the questionnaire whereby validity refers to the ability of a test to measure what it purports to measure.

Reliability refers to the repeatability of a test. The ability of a test to give the same results when repeated over a number of times. It also refers to consistency. In this study, research assistants were trained and monitored to ensure that they were competent and administered the questionnaires in the right way. This guaranteed reliability of the research instrument.

3.10 DATA MANAGEMENT

3.10.1 Data Storage And Retrieval

All physical data (filled questionnaires, Filled FGDs note-taker forms, Tape recordings and transcripts) were first locked in a filing cabinet. This was followed by conversion of the raw data into computer files. An archival analog was established where all electronic (computer files) and paper data were organized, identified and stored according to archival numbers assigned in sequential order to record each data collection event. One large, heavy duty archival envelop with an archival information sheet was used to store the original physical data for easy retrieval.

3.10.2 Data Analysis And Presentation

Data was analyzed using SPSS version 11.5. Chi-square statistic was used to analyze for relationship between the independent variables (social factors, cultural factors and the

economic factors that influenced the utilization of antenatal services) and dependent variables (utilization and non-utilization of the antenatal services). Descriptions, contingency tables and graphics were used for data presentation.

3.11 ETHICAL CONSIDERATIONS.

Permission to carry out this study was sought from the relevant authorities including; the National Council of Science and Technology (NCST), Kenyatta University and the Ministry of Health authorities in the study area as well as the Central Divisional Officer. In addition, informed consent was sought from the study participants. This ensured protection of the human research subjects.

CHAPTER IV: RESULTS AND ANALYSIS

4.1 Demographic factors

4.1.1 Age of the respondents

The findings show that a high proportion (96.8%, n=146) of the respondents were aged between 16 and 35 years, while 3.2% (8) were between 36 and 40 years. Generally, the respondents' age varied from 16 to 39 years, with a mean age of 23.96 years as shown in figure 4.1 below.

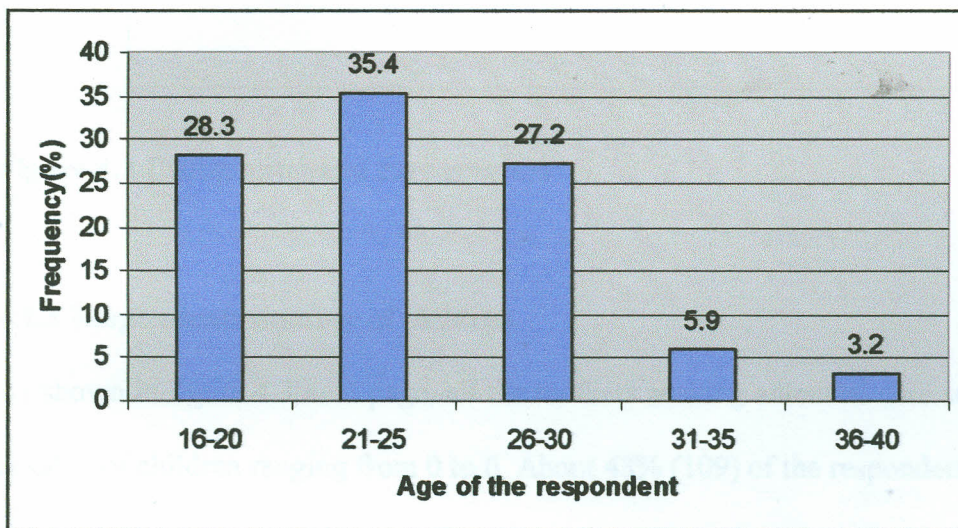


Figure 4.1 Age of the respondents

4.1.2 Utilize antenatal care services

As shown in figure 4.2 below, over three quarters (76.4%) of the mothers fully utilized antenatal care services while a quarter (23.6%) of them did not. Hence there are still a number of women who never utilized the antenatal care services.

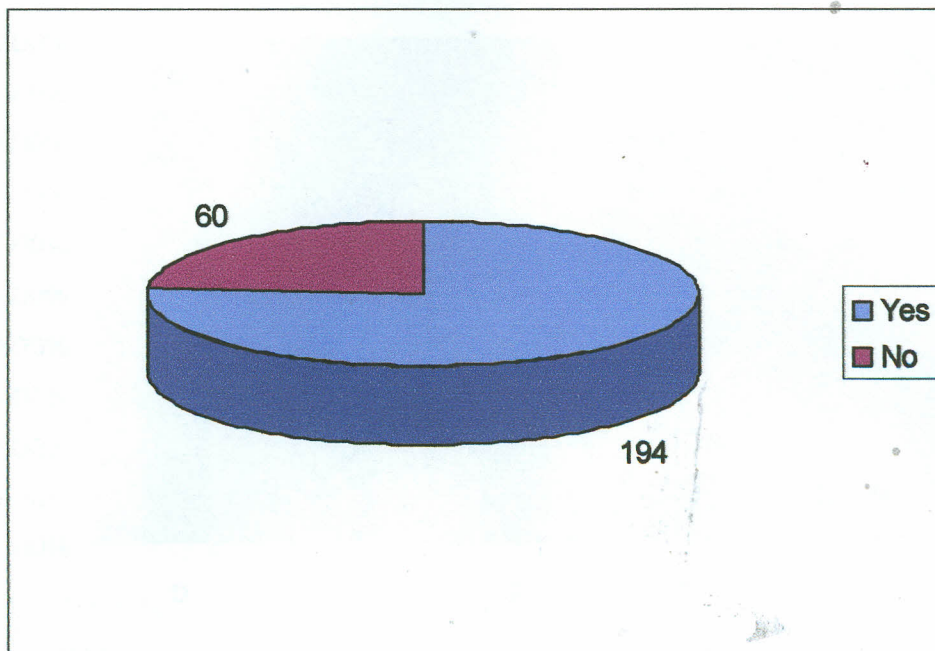


Figure 4.2 Utilize antenatal care services

4.1.3 Respondents number of children

As shown in figure 4.3 next page, all the mothers seeking antenatal care services had the number of children ranging from 0 to 6. About 43% (109) of the respondents did not have any child, 30% (77) had one child while about 18% (45) had two children. It was observed that the number of children increased with age. There was a significant statistical association between the number of children and utilization of ANC services ($X^2=18.654$, $df=5$, $p=0.002$).

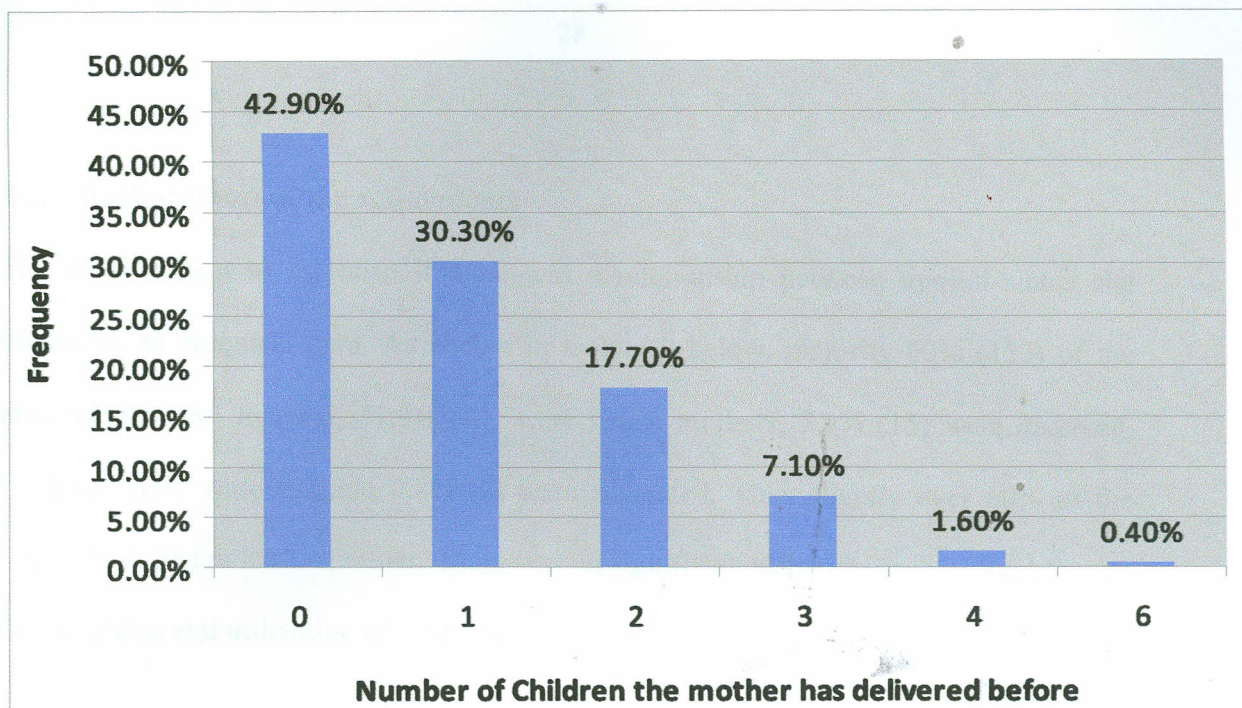


Figure 4.3 Respondents number of children

4.1.4 Highest education level for the respondent

About 40% (102) of the respondents had secondary education, 35% (89) had primary education, 18.9% (48) had middle college education while 3.9% (10) had university level education. Table 4.1 next page has details.

Table 4.1 Highest education level for the respondent

Educational level	Frequency	Percent (%)
Nursery	5	2.0
Primary	89	35.0
Secondary	102	40.2
Middle college	48	18.9
University	10	3.9
Total	254	100.0

4.1.5 Marital status of the respondents

The study sought to establish if there was a relationship between marital status and utilization of antenatal care. As shown in table 4.2 below, majority 60% (153) of the respondents were married, 31.9% (81) were single mothers, 5.9% (15) were divorced, 1.2% (3) were widowed and 0.8% (2) were separated. Thus slightly over 60% of the respondents had at least a partner. There was no significant statistical association between marital status and utilization of antenatal services ($X^2=3.126$, $df=4$, $p=0.537$).

Table 4.2 Marital status of the respondents

Marital status	Frequency	Percent (%)
Single mother	81	31.9
Married	153	60.2
Separated	2	0.8
Divorced	15	5.9
Widowed	3	1.2
Total	254	100.0

4.2 Knowledge of antenatal mothers about the antenatal care services

4.2.1 Knowledge of the expected antenatal care services

With regard to the respondents' knowledge of the services they expected to receive, well over half 55.5% (141) of the respondents had knowledge while about 45.5% (113) had no knowledge (Figure 4.4 below). A chi square test showed that there was a significant

statistical association between knowing the antenatal services one expected to receive and utilization of antenatal services ($X^2=20.703$, $df=1$, $p=0.0001$).

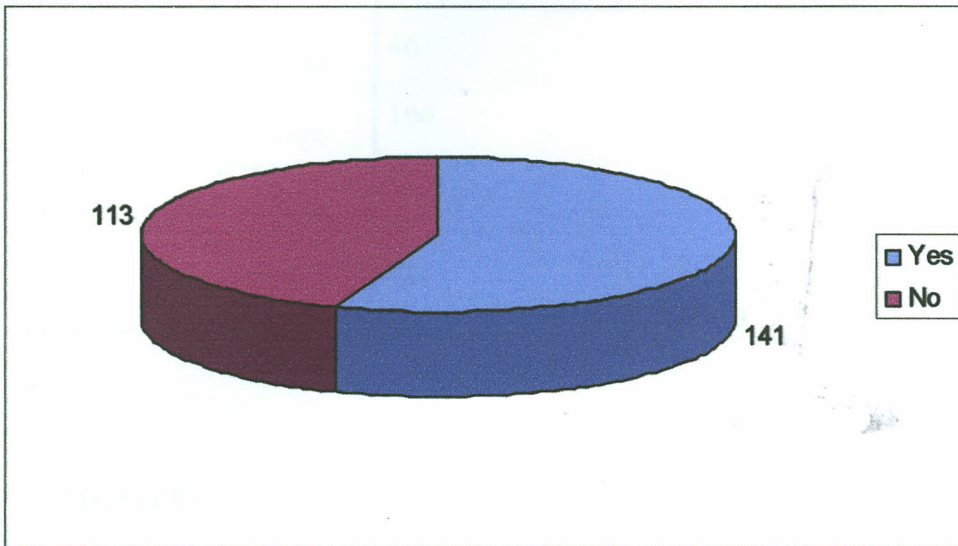


Figure 4.4 Expected antenatal care services

4.2.2 Knowledge status about the benefits of antenatal care services

The study further attempted to establish the respondents' knowledge of the benefits of seeking antenatal care. As shown in table 4.3 below, about 41.7% (106) of the mothers had low knowledge, 31.9% (81) had average knowledge, 18.1% (46) had no knowledge while 8.3% (21) had high knowledge. Thus a significant proportion (60%) of the mothers had a low knowledge about the benefits of seeking antenatal care services.

Table 4.3 Knowledge of benefits of seeking antenatal care services

Knowledge status	Frequency	Percent (%)
No knowledge	46	18.1
Low knowledge	106	41.7
Average knowledge	81	31.9
High knowledge	21	8.3
Total	254	100.0

4.2.3 Status of knowledge on the danger signs of pregnancy

The findings show that (Table 4.4 next page) about 37.0% (94) of the mothers had low knowledge, 29.5% (75) had no knowledge, 28.0% (71) had average knowledge while 5.5% (14) had high knowledge.

Table 4.4 Knowledge status for the danger signs of pregnancy

Knowledge status	Frequency	Percent (%)
No knowledge	75	29.5
Low knowledge	94	37.0
Average knowledge	71	28.0
High knowledge	14	5.5
Total	254	100.0

4.2.4 Knowledge of HIV status

4.2.4.1 Importance of a HIV Test

The study also sought to establish the respondents' knowledge on the importance of knowing one's HIV status. As shown in figure 4.5 below, three quarters, 77.6% (197) of the mothers thought that it was important to know their HIV status while 22.4% (57) did not.

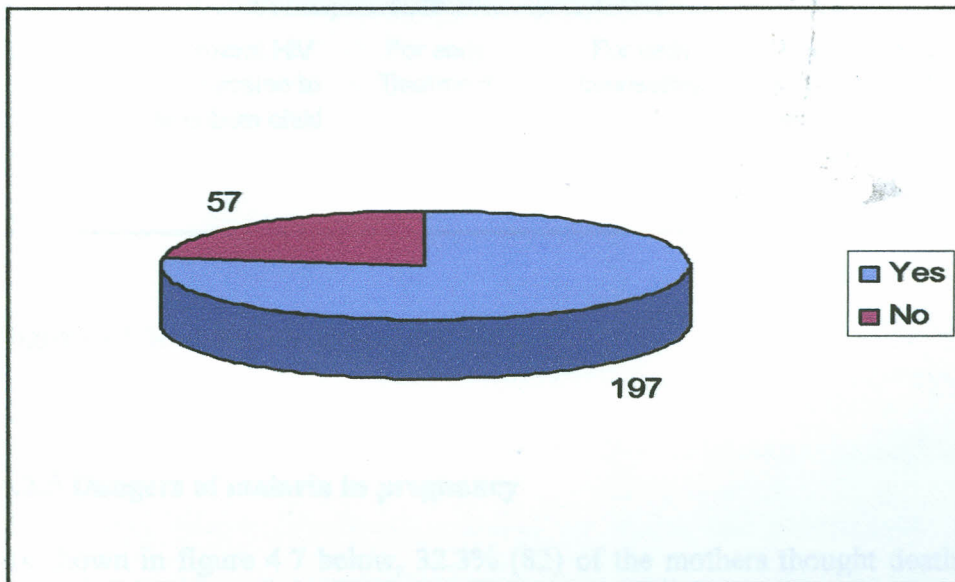


Figure 4.5 Think that it's important to know your HIV status

4.2.4.2 Reasons for testing for HIV

As shown in figure 4.6 below, 62.8% (125) of the mothers thought that the reason for knowing their HIV status was to prevent transmission of the virus to the unborn child, 16.6% (33) thought that those who are not positive will be advised on how to live negative, 11.6% (23) thought that they could get early counselling while 9.0% (18) said that they would get early treatment. There was a significant statistical association between reasons for knowing one's HIV status and utilization of antenatal services

($X^2=19.223$, $df=3$, $p=0.0001$). Hence mothers who thought that it was important to know their HIV status were likely to utilize antenatal care services.

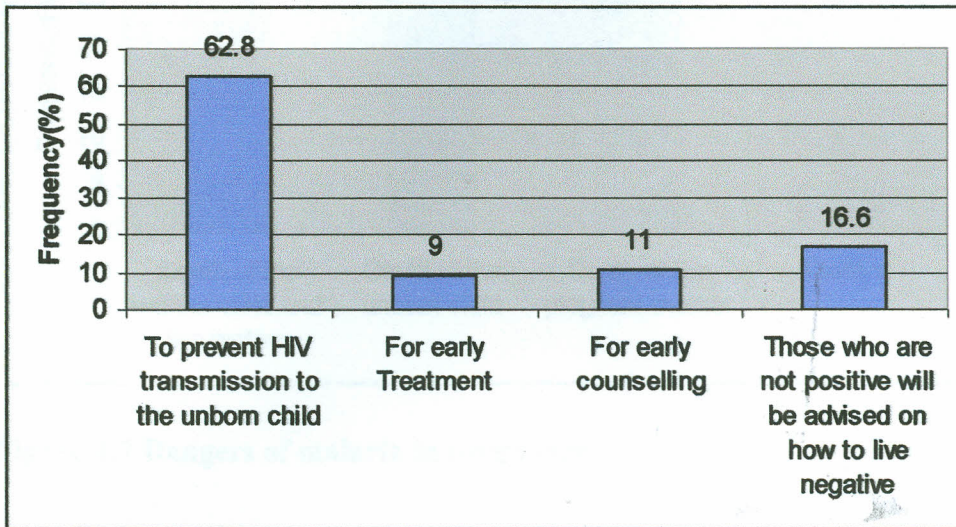


Figure 4.6 Reasons for testing for HIV

4.2.5 Dangers of malaria in pregnancy

As shown in figure 4.7 below, 32.3% (82) of the mothers thought death of the unborn child and mother as one of the dangers of malaria in pregnancy, another 33.1% (84) thought death of the pregnant mother, nearly 30% (75) thought of death of the unborn child and 5.1% (13) thought abortion was the danger of malaria in pregnancy.

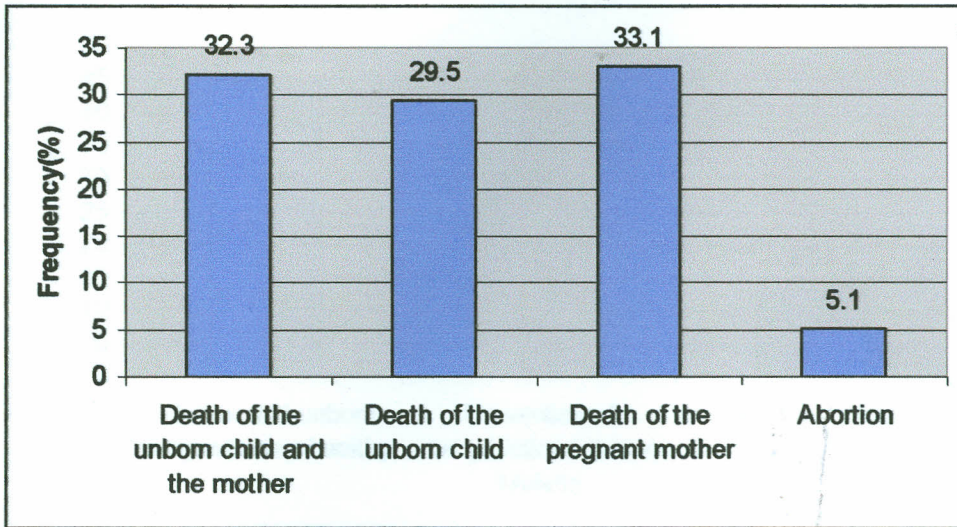


Figure 4.7 Dangers of malaria in pregnancy

4.2.6 Benefits of Intermittent Presumptive Treatment of malaria

The study attempted to establish the respondents' knowledge of the benefits of IPT. As shown in figure 4.8 next page, 44.5% (90) of the respondents reported that Intermittent Presumptive Treatment of malaria makes the mother and unborn baby to stay healthy, 41.6% (84) thought it prevented complications due to malaria while 13.9 (28) thought that it prevented abortions. There was no significant statistical association between reasons for receiving intermittent presumptive treatment of malaria and utilization of antenatal services ($X^2=0.459$, $df=3$, $p=0.928$).

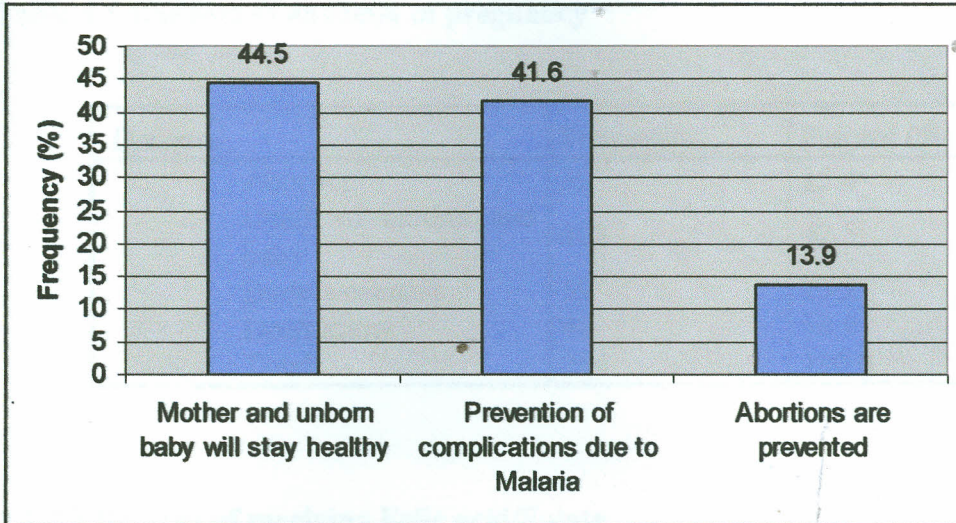


Figure 4.8 Benefits of Intermittent Presumptive Treatment of malaria

4.2.7 Anaemia in pregnancy

4.2.7.1 Dangers of anaemia in pregnancy

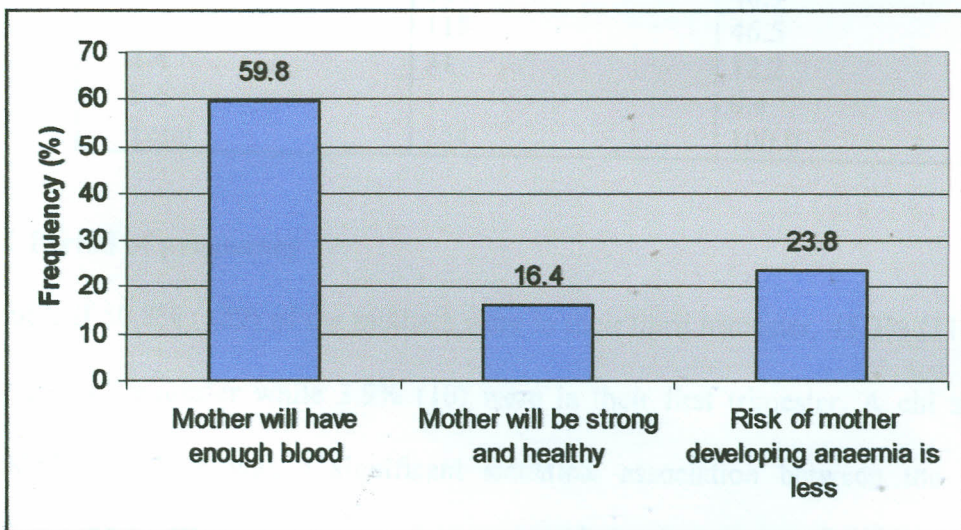
About 42.5% (108) of the mothers reported that anaemia in pregnancy could lead to the death of the mother and the baby, another 23.2% (59) thought that it could lead to body weakness. Just over 18% (48) had no idea while 15.4% (39) thought that it could lead to abortion. Details are presented in table 4.5 below. The study found a significant statistical association between awareness of the dangers of anaemia in pregnancy and utilization of antenatal services ($X^2=12.966$, $df=3$, $p=0.005$).

Table 4.5 Dangers of anaemia in pregnancy

Dangers	Frequency	Percent (%)
Abortion	39	15.4
Death of mother and baby	108	42.5
Body weakness	59	23.2
Don't know	48	18.9
Total	254	100.0

4.2.7.2 Benefits of receiving Folic acid/Folate

Further the study attempted to establish the respondents' knowledge on the benefits of receiving folic acid. As shown in figure 4.9 next page, over half 59.8% (120) of the respondents thought that Folic acid would make the mother to have enough blood, 23.8% (48) thought that the risk of developing anaemia was less while 16.4% (33) of the respondents thought that the mother will be strong and healthy.

**Figure 4.9 Benefits of Folic acid/Folate**

4.3 Utilization of antenatal care services

4.3.1 Number of deliveries

The study sought to establish if there was a relationship between the respondents' number of prior deliveries and utilization of antenatal services. As shown in table 4.6, about 46.5% (118) of the mothers had one to two prior deliveries, 40.9% (104) had no previous delivery. In addition, about 12.2% (31) had three to four deliveries while 0.4% (1) had five to six deliveries. There was a significant statistical association between the number of prior deliveries and utilization of antenatal services ($X^2=22.436$, $df=4$, $p=0.0001$). It was shown that mothers who had prior deliveries were likely to utilize antenatal care services.

Table 4.6 Number of deliveries the respondent has ever had before

Deliveries	Frequency	Percent (%)
0	104	40.9
1-2	118	46.5
3-4	31	12.2
5-6	1	0.4
Total	254	100.0

4.3.2 Period of pregnancy

About half 50.8% (129) of the mothers were in their third trimester, 45.3% (115) were in their second trimester while 3.9% (10) were in their first trimester. A chi square test revealed that there was a significant statistical association between the period of pregnancy and utilization of antenatal services ($X^2=33.678$, $df=2$, $p=0.0001$).

Table 4.7 Period of pregnancy

Period	Frequency	Percent (%)
First trimester	10	3.9
Second trimester	115	45.3
Third trimester	129	50.8
Total	254	100.0

4.3.3 Gestation age for the first antenatal visit

Gestation age for the first antenatal visit is an indicator as to whether the respondent would attend all the 4 antenatal visits as required in Focused Antenatal Care (FANC). As shown in table 4.8, 44.1% (112) of the mothers had a gestation age between three to six months, 28.3% (72) had a gestation age between one to three months, 22.8% (58) had a gestation age between six to nine months while 4.7% (12) had a gestation age of less than a month. Thus, well over half of all the mothers reported late for their first antenatal visit. There was a significant statistical association between gestation age for the first antenatal visit and utilization of antenatal services ($X^2=211.410$, $df=3$, $p=0.0001$). Hence mothers whose gestation period at first visit was less than 3 months were likely to utilize antenatal care services.

Table 4.8 Gestation age for the first antenatal visit

Gestation age	Frequency	Percent (%)
Less than a month	12	4.72
1-3 months	72	28.35
3-6 months	112	44.10
6-9 months	58	22.83
Total	254	100.0

4.4 Social-cultural and economic factors influencing antenatal care services

4.4.1 Respondents primary occupation

In this section, the first item was to establish the relationship between respondents' primary occupation and utilization of antenatal care services. Table 4.9 shows that just over half 53.1% (135) of the respondents were unemployed, 20.8% (53) had a formal employment, 15.7% (40) were business women while 10.2% (26) had a non-formal employment. A chi square test to establish relationship revealed that there was no significant statistical association between occupation and utilization of antenatal care services ($\chi^2=3.495$, $df=3$, $p=0.321$).

Table 4.9 Respondents primary occupation

Occupation	Frequency	Percent (%)
Formal employment	53	20.86
Business	40	15.75
Non-formal employment	26	10.24
Unemployed	135	53.15
Total	254	100.0

4.4.2 Mother's income per month

With regard to respondents' monthly income and antenatal care utilization, over half 53.1% (135) of the mothers had no income, 15.0% (38) had a monthly income between Ksh 2000-4999, 12.2% (31) had a monthly income above Ksh 10000. Another 12.2% (25) had Ksh 5000-9999, 7.5% (19) had Ksh 500-1999 while 2.4% (6) of the mothers had a monthly income between Ksh 1-499 (Table 4.10 below). There was no significant

statistical association between monthly income and utilization of antenatal care services ($X^2=4.346$, $df=5$, $p=0.501$).

Table 4.10 Mother's income per month

Income per month	Frequency	Percent (%)
Ksh 1-499	6	2.4
Ksh 500-1999	19	7.5
Ksh 2000-4999	38	15.0
Ksh 5000-9999	25	9.8
Above Ksh 10000	31	12.2
None	135	53.1
Total	254	100.0

4.4.3 Ever sought care from a Traditional Birth Attendant during any pregnancy

As shown in figure 4.10 below, 86.2% (219) of the mothers had never sought care from a Traditional Birth Attendant while 13.8% (35) of the mothers had visited a TBA. A chi square test to establish relationship revealed that there was no significant statistical association between ever getting care from a TBA during any previous pregnancy and utilization of antenatal services ($X^2=0.098$, $df=1$, $p=0.754$). However it was established that respondents who were married were more likely to have sought care from a traditional birth attendant during any of their previous deliveries ($X^2=13.892$, $df=4$, $p=0.008$).

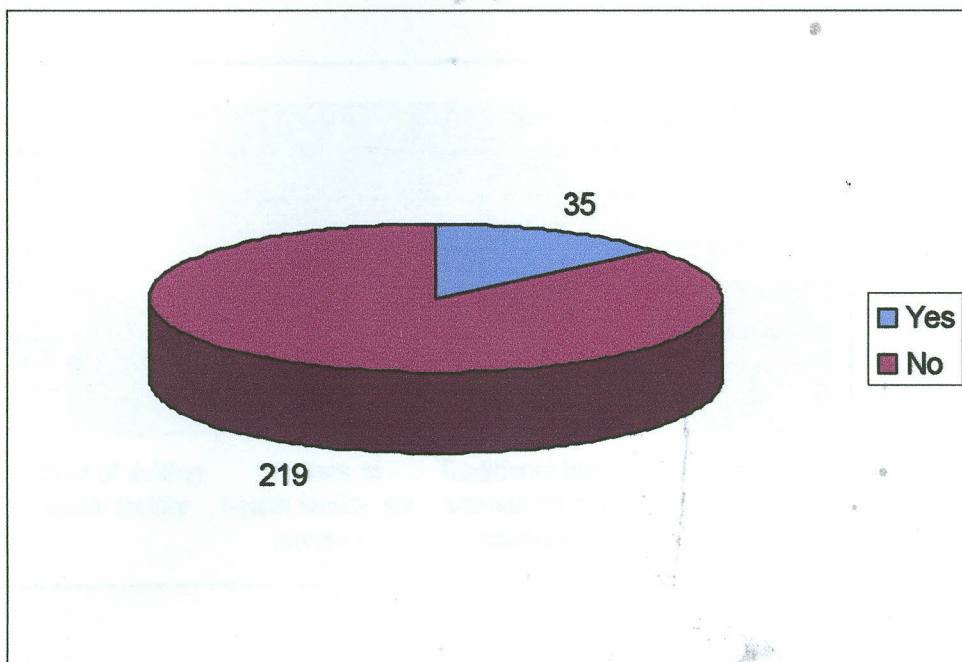


Figure 4.10 Ever sought care from a Traditional Birth Attendant during any pregnancy

4.4.4 Reasons for using Traditional Birth Attendant care

Figure 4.11 below shows the reasons cited by respondents for seeking care from traditional birth attendants. The majority 60.0% (21) of the mothers reported that traditional birth attendants are cheaper, 17.1% (6) were afraid of visiting the health facility, 14.3% (5) had other reasons while 8.6% (3) of the mothers indicated that workers at the health facility were arrogant. There was no significant statistical association between reasons for using TBA care and utilization of antenatal services ($X^2=3.338$, $df=3$, $p=0.342$).

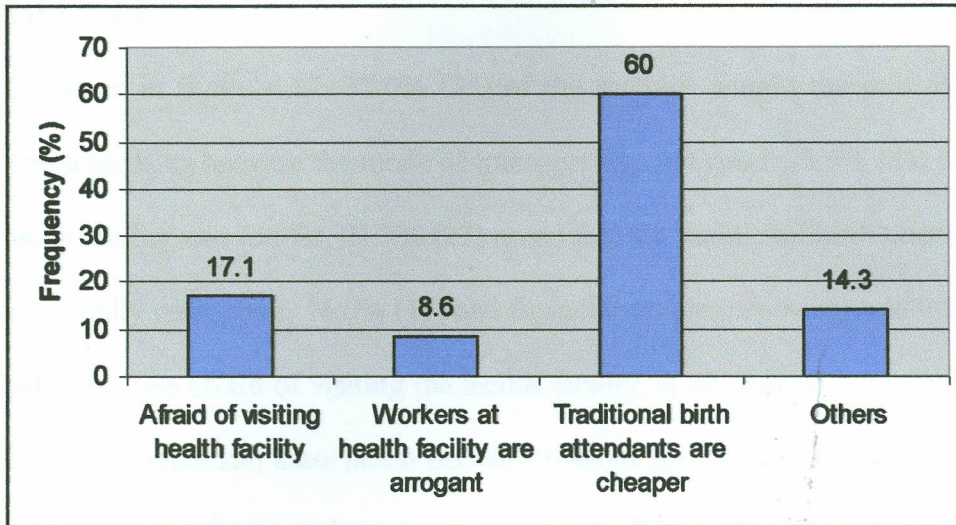


Figure 4.11 Reasons for using Traditional Birth Attendant care

4.4.5 Aware of antenatal mothers who seek services of a Traditional Birth Attendant

Well over half, 58.3% (148) of the mothers were not aware of antenatal mothers who seek services of a traditional birth attendant while 41.7% (106) were aware. There was no significant statistical association between awareness of mothers who seek TBA services from one's neighbourhood and utilization of antenatal services ($X^2=0.241$, $df=1$, $p=0.624$).

Table 4.11 Aware of antenatal mothers who seek services of a Traditional Birth Attendant

Response	Frequency	Percent (%)
Yes	106	41.7
No	148	58.3
Total	254	100.0

4.4.6 Reasons for other women (Other than the respondent) seeking Traditional Birth Attendant care

As shown in figure 4.12, 33.0% (35) of the mothers sought the services of traditional birth attendants because the mode of transport was not good, 23.6% (25) reported that the health facility was too far, 21.7% (23) noted that the traditional birth attendants were near and equally competent, 16.0% (17) had financial problems/poverty while 5.7% (6) argued that they were afraid of visiting the health facility. A chi square test revealed there was a significant statistical association between reasons for the mothers seeking TBA services and utilization of antenatal services ($X^2=10.398$, $df=3$, $p=0.015$).

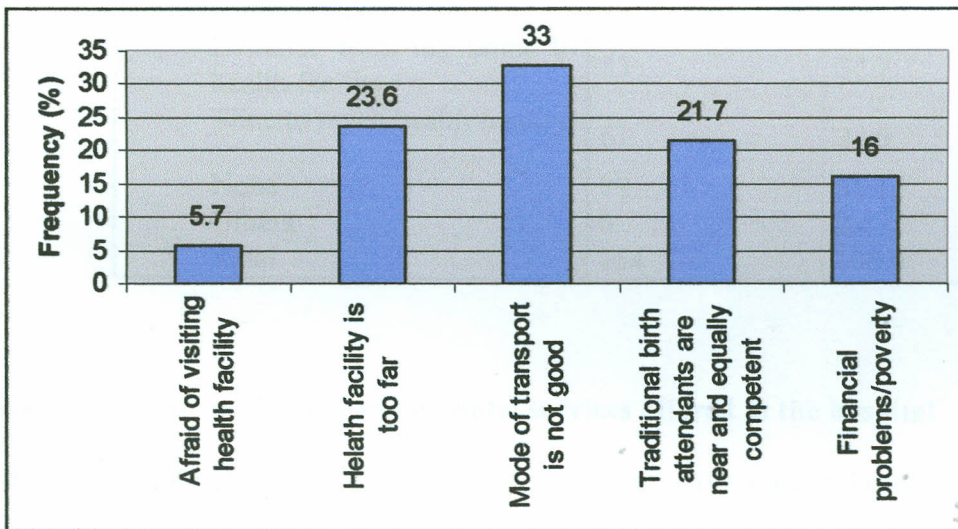


Figure 4.12 Reasons for other women seeking Traditional Birth Attendant care

4.4.7 Other factors that hinder the seeking of antenatal care services

The study further sought to establish other factors that hinder respondents from seeking antenatal care. As shown in table 4.12, about 32.7% (83) of the mothers complained of

the distance from home to the health facility, 31.1% (79) had no reason, 24.0% (61) associated this with time to reach the health facility, 9.8% (25) complained of unavailability of services while 2.4% (6) had varied reasons. There was no significant statistical association between other factors that hinder one from seeking ANC services and utilization of antenatal services ($X^2=8.702$, $df=4$, $p=0.069$)

Table 4.12 Other factors that hinder the seeking of antenatal care services

Factors	Frequency	Percent (%)
Unavailability of services	25	9.8
Distance from my home to health facility	83	32.7
Time to reach health facility	61	24.0
None	79	31.1
Others	6	2.4
Total	254	100.0

4.4.8 Reasons for preference of antenatal services offered at the hospital

Just below half 46.1% (117) of the respondents preferred the antenatal care services being offered because the services are available, 35.0% (89) because the staff were friendly, 16.1% (41) because the time taken to be attended is short and 2.8% (7) because of the availability of qualified staff (Table 4.13). A chi square test revealed that there was no significant statistical association between reasons for preferring the antenatal services offered at the hospital and utilization of antenatal services ($X^2=2.493$, $df=3$, $p=0.477$).

Table 4.13 Reasons for preference of the antenatal services offered at the hospital

Reasons	Frequency	Percent (%)
Staff are friendly	89	35.0
Services are available	117	46.1
Time taken to be attended is short	41	16.1
Qualified staff	7	2.8
Total	254	100.0

4.4.9 Reasons for dislike of the antenatal services offered in the hospital

As shown in table 4.14 below, nearly half 48.4% (123) of the mothers complained that the time taken to be attended was long, 21.3% (54) said that the staff were arrogant, 15.3% (39) had no reasons, 9.1% (23) complained that the services were unsatisfactory while 5.9% (15) said that the services offered were not adequate. A chi square test to establish relationship revealed that there was no significant statistical association between reasons for dislike of ANC services offered in the hospital and utilization of antenatal services ($X^2=1.964$, $df=4$, $p=0.742$).

Table 4.14 Reasons for dislike of the antenatal services offered in the hospital

Reasons	Frequency	Percent (%)
Time taken to be attended is long	123	48.4
Staff are arrogant	54	21.3
Services offered are inadequate	15	5.9
Services are unsatisfactory	23	9.1
None	39	15.3
Total	254	100.0

4.4.10 Most preferred staff in terms of gender

In this section the study attempted to establish whether the respondents were gender biased with regard to the service providers. As shown in table 4.15 below, about 45.7% (116) of the mothers preferred a female staff whereas 37.4% (95) preferred a male staff. Only 16.9% (43) were comfortable with any gender. There was no significant statistical association between the most preferred gender and utilization of antenatal services ($X^2=4.125$, $df=2$, $p=0.127$).

Table 4.15 Most preferred staff in terms of gender

Gender of staff	Frequency	Percent (%)
Male	95	37.4
Female	116	45.7
Either Male or Female	43	16.9
Total	254	100.0

4.4.11 Attitude of antenatal mothers towards the hospital staff

The study further attempted to establish the respondents' attitudes towards the hospital staff. As shown in figure 4.13 next page, 69.7% (177) of the mothers had a positive attitude towards hospital staff while 30.3% (77) of the mothers had a negative attitude. Mothers with 6-10 positive responses were considered to have a negative attitude while those with less than 6 positive responses were considered to have a positive attitude. There was a statistically significant relationship between the client's attitude towards hospital staff and utilization of antenatal care services ($p=0.005$, $df=1$, $\chi^2= 8.019$). The findings showed that mothers with a negative attitude towards the hospital staff were less likely to utilize the services compared to those with a positive attitude.

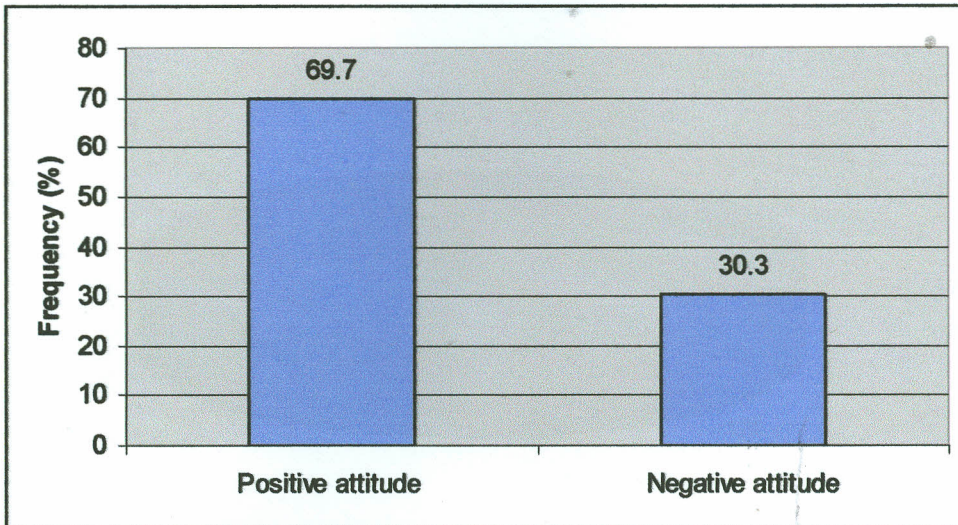


Figure 4.13 Attitude of clients towards hospital staff

4.4.12 Spouse supports decision to seek antenatal care services

About three quarters 74.1% (120) of the mothers with a spouse had partner support while a quarter 25.9% (42) of the mothers had no partner support. A chi square test to establish relationship revealed that there was a significant statistical association between spouse support and utilization of antenatal services ($X^2=4.112$, $df=1$, $p=0.043$). Thus mothers who had support in the decision of seeking ANC services were likely to utilize antenatal care services. Figure 4.14 next page provides more details.

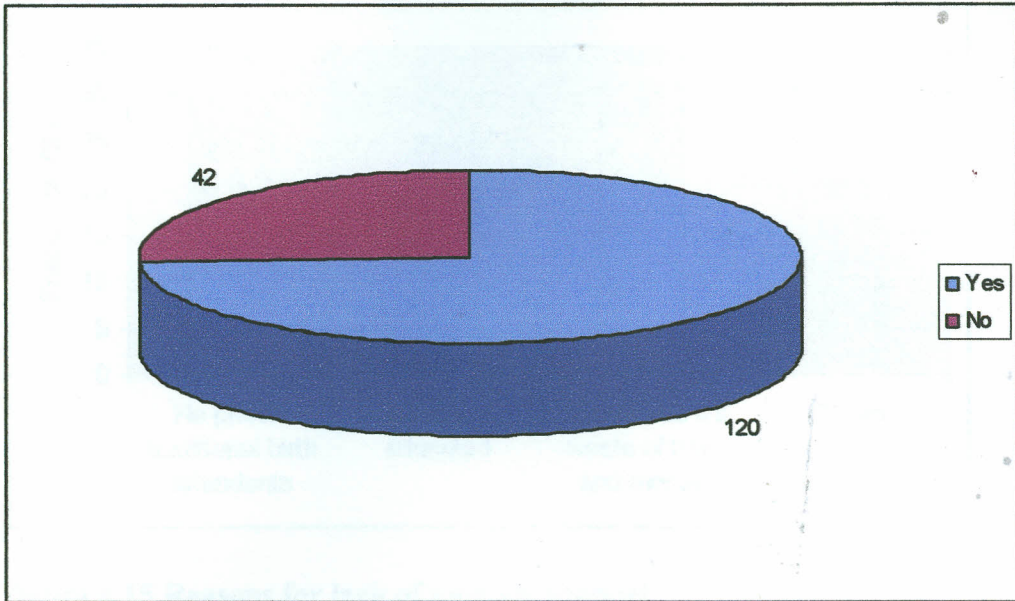


Figure 4.14 Spouse supports your decision to seek antenatal care services

4.4.13 Reasons for lack of partner support

Lack of partner support was associated with the following: just over a quarter 30.9% (13) of the respondents stated that the spouse prefers traditional birth attendants, another 30.9% (13) reported that the spouse believed that it was a waste of time and money, 21.4% (9) said the spouse was not educated while 16.8% (7) of the antenatal mothers gave varied responses (Figure 4.15 next page). There was no significant statistical association between reasons for lack of spouse support and utilization of antenatal services ($X^2=4.271$, $df=3$, $p=0.234$).

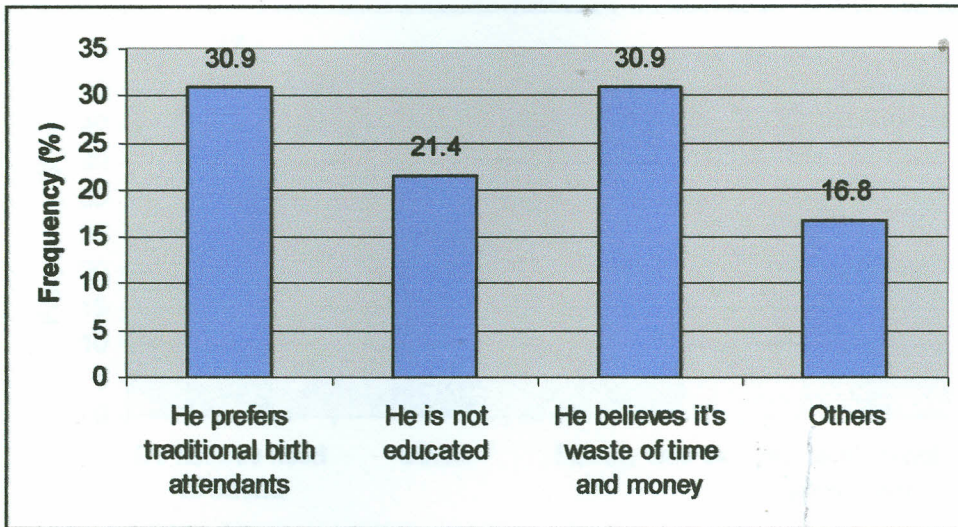


Figure 4.15 Reasons for lack of partner support

4.4.14 Aware of antenatal mothers not seeking antenatal care services

Only 26% of mothers reported being aware of mothers who did not seek antenatal care services in their neighbourhood. See details in table 4.16 below.

Table 4.16 Aware of antenatal mothers not seeking antenatal care services

Response	Frequency	Percent (%)
Yes	66	26.0
No	188	74.0
Total	254	100.0

4.4.15 Reasons for mothers (Other than the Respondent) not attending antenatal care services

As shown in figure 4.16 below, about half 47.0% (31) of the mothers reported that they did not see the need to attend while 21.1% (14) had varied reasons. Another 16.7% (11) argued that it was far and 15.2% (10) said that the husbands did not allow them.

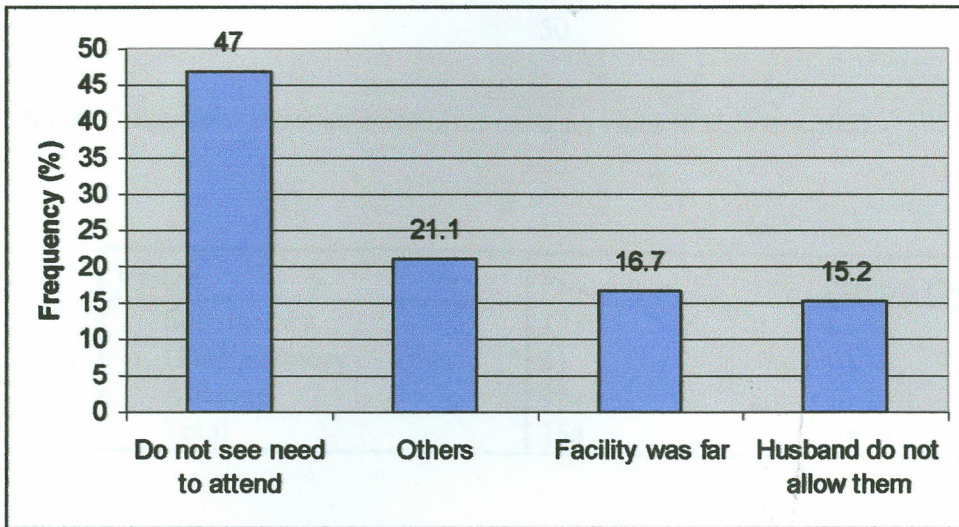


Figure 4.16 Reasons for other mothers not attending antenatal care services

4.4.16 General view on antenatal care services in the hospital

Close to half 47.6% (121) of the antenatal mothers were satisfied with the services, while about 36.2% (92) stated that the antenatal care services were average. Only 16.1% (41) noted that the services were unsatisfactory (Table 4.17 below). A chi square test to establish relationship revealed that there was no significant statistical association between the general view of ANC services offered in the hospital and utilization of antenatal services ($X^2=0.286$, $df=2$, $p=0.867$)

Table 4.17 General view on antenatal care services in this hospital

Views	Frequency	Percent (%)
Satisfactory	121	47.64
Unsatisfactory	41	16.14
Average	92	36.22
Total	254	100.0

CHAPTER V: DISCUSSION

The objective of the study was to establish the level of awareness of the ANC services among antenatal mothers in Central Division of Kitui District. It also assessed the utilization of these services as well as establishing the social-cultural and economic factors that influenced the utilization of the ANC services in the community. The findings have demonstrated a fairly high utilization of antenatal care services. However, there were several factors that influenced attendance.

5.1 Demographic factors

The study established that most of the mothers had some formal education with a majority (63%) of them having attained some education at secondary school level and above. This implies that most of the mothers were literate though there was no significant association between highest education level and utilization of antenatal care ($X^2=2.966$, $df=5$, $p=0.564$). This finding is in contrast with a study conducted in Kwale whereby women with a secondary education or above were more likely to attend antenatal clinic (Brown *et.al*, 2007). Similarly a cohort study conducted in Brazil revealed that respondents with lower educational level presented higher percentages of inadequate prenatal care utilization (Coimbra *et.al*, 2007). A study on antenatal care service utilization and factors associated with it in Ethiopia showed a statistically significant association ($P < 0.05$) between literacy status and antenatal care utilization (Fekede and Mariam, 2007).

In regard to marital status, about 60% of the respondents were married. Further analysis however established no significant relationship between marital status and utilization of

antenatal care ($X^2=3.126$, $df=4$, $p=0.537$). This finding compares to a study in Ethiopia whereby there was no significant association ($P>0.05$) between marital status and antenatal care utilization (Fekede and Mariam, 2007). However a cohort study conducted in Brazil found out that women who had a companion or were cohabiting demonstrated inadequate utilization of antenatal care (Coimbra *et.al*, 2007).

It was also established that well over half of the respondents (53.1%) were not employed. This could be one of the factors that hindered utilization of antenatal care services. However, further analysis showed that there was no significant association between respondents' occupation and antenatal care utilization ($X^2=3.495$, $df=3$, $p=0.321$). This is in contrast to a study in Ethiopia whereby there was a statistically significant association between occupation and antenatal care utilization (Fekede and Mariam, 2007). The study revealed that an overwhelming majority of the respondents (78%) had an income of less than 5,000ksh per month. This gives an indication of the struggle by the respondents to prioritize their needs considering that they have other needs to attend to in addition to seeking antenatal care. A chi square test to establish for relationship revealed no statistically significant association between monthly income and utilization of antenatal care services ($X^2=4.346$, $df=5$, $p=0.501$). On the contrary, a cohort study conducted in Brazil established that respondents with low family income presented with high percentage of inadequate prenatal care utilization (Coimbra *et.al*, 2007). Similar findings were also observed in a study on antenatal care service utilization and factors associated with it in Ethiopia whereby there was a statistically significant association between income and antenatal care utilization (Fekede and Mariam, 2007).

5.2 Number of previous deliveries

The utilization of antenatal care services was higher with an increase in the number of previous deliveries ($\chi^2=22.436$, $df=4$, $p=0.0001$). The likely reason could be due to the fact that mothers who had previous deliveries were more knowledgeable on the importance of antenatal care services compared to the mothers seeking antenatal care services for the first time. This finding was supported by the observation that majority of the respondents from the younger age group were more likely to report late for their first antenatal visit ($\chi^2=111.543$, $df=69$, $p=0.001$). This finding compares well to a study in North Queensland, Australia where women who did not access antenatal care were more likely to be young (Humphrey and Keating, 2004). A study on late initiation of antenatal care in England and Wales found maternal age at booking being associated with failure to initiate antenatal care by 10 weeks of gestation (Emil *et al*, 2002). Similar findings were also observed in a cohort study in Brazil whereby respondents younger than 20 years presented higher percentages of inadequate prenatal care utilization (Coimbra *et.al*, 2007). A study on antenatal care service utilization and factors associated with it in Ethiopia showed a statistically significant association ($P < 0.05$) between gravidity and antenatal care utilization (Fekede and Mariam, 2007).

It was also observed that the level of knowledge for antenatal care services being offered was higher with an increase in the number of deliveries ($\chi^2=83.973$, $df=12$, $p=0.0001$). This was also an indication that those women with prior deliveries were likely to report for antenatal care services at an earlier gestation age. It was supported by the findings that respondents with prior deliveries were more likely to seek antenatal care services at an earlier gestation age ($\chi^2=60.679$, $df=12$, $p=0.0001$). This finding is in contrast to a study

in North Queensland, Australia where women who did not access antenatal care were more likely to be highly parous (Humphrey and Keating, 2004).

5.3 Knowledge of antenatal care services and their benefits

From the study findings, women who were aware of the antenatal care services they expected to receive from the facility were more likely to utilize the antenatal services ($\chi^2=20.703$, $df=1$, $p=0.0001$). A significant proportion (60%) of the mothers seeking antenatal care services had low knowledge about the benefits of seeking antenatal care services. Hence awareness needs to be enhanced among the community regarding the benefits of utilizing antenatal care. Similarly, only 66.5% of the mothers were aware of the danger signs of pregnancy. Therefore awareness on danger signs of pregnancy needs to be enhanced as well. It is through knowing the danger signs of pregnancy that the mother will be able to take prompt action once they notice any of the danger signs that range from unexplained bleeding, premature rupture of membranes and severe headache among others.

The study revealed that a high proportion (77.6%) of the respondents had knowledge on the importance of knowing their HIV status. This demonstrated their knowledge on prevention of mother to child transmission of HIV which is one of the components of focused Antenatal care. A chi square test to establish for relationship revealed that there was a significant statistical association between reasons for knowing one's HIV status and utilization of antenatal services ($\chi^2=19.223$, $df=3$, $p=0.0001$). Hence mothers who thought that it was important to know their HIV status were likely to utilize antenatal care services.

With regard to malaria in pregnancy, it was noted that a significant proportion (66.9%) of the respondents thought that malaria was detrimental to the unborn child and would even cause abortion in some cases. This finding compares well to a study conducted in a rural area in Western Kenya whereby mothers who thought that malaria caused foetal problems were more likely to attend antenatal care more than once (Eijk *et.al* 2005).

The respondents gave varied examples of some of the dangers of anaemia in pregnancy. They varied from death of the mother and the baby, body weakness and abortion. A chi square test to establish relationship revealed a significant statistical association between awareness of the dangers of anaemia in pregnancy and utilization of antenatal services ($X^2=12.966$, $df=3$, $p=0.005$). Hence mothers who were aware of the dangers of anaemia were more likely to utilize antenatal care services. This observation was supported by a 32 year old Key informant who reported that, "*most of the women who fail to utilize antenatal care services are not aware about its importance.*" Hence it's evident from the study findings that lack of awareness to the benefits of antenatal care services can hinder utilization.

5.4 Socio-cultural and socio-economic factors hindering utilization

From the study findings it was established that respondents who were married were more likely to have sought care from a traditional birth attendant during any of their previous deliveries ($X^2=13.892$, $df=4$, $p=0.008$). The likely reason was due to lack of spouse support which plays a vital role in the utilization of antenatal care services. This was supported by the observation that respondents who had support from the spouse were more likely to utilize antenatal care services ($X^2=4.112$, $df=1$, $p=0.043$). From the focus group discussion, a 29 year old husband had this to say, "*According to me, it's a waste of*

time for my wife to visit antenatal clinic because some health workers are very rude and may demand bribes in order to attend to the expectant mother." Another 39 year old husband reported that, *"men are culturally not allowed to accompany an expectant woman to the clinic because men are not allowed to go where women are."* It's therefore evident that men need to be educated about the importance of supporting a spouse during pregnancy period. These findings compare well with a study conducted in Brazil whereby respondents with a companion or were cohabiting demonstrated inadequate utilization of antenatal care (Coimbra *et.al*, 2007).

Attitude is one of the factors commonly associated with clients attendance to care. In this case, there was a statistically significant relationship between the client's attitude towards hospital staff and utilization of antenatal care services ($p=0.005$, $df=1$, $\chi^2= 8.019$). Hence attitude towards antenatal care staff played an important role in hindering utilization of antenatal care services. This finding was supported by a 35 year old male Key informant who reported that, *"The attitude of the health workers towards the women seeking antenatal care services hinders the utilization of these services."* This finding compares to a study in Papua New Guinea whereby the attitudes of the health workers and their perceived ill manner of treating women was identified as a barrier to utilization of antenatal care (Larsen *et.al* 2004). Hence the staff of antenatal clinics should improve on their attitudes towards women seeking antenatal care services in order to optimize utilization of these services.

A good proportion of the respondents (41.7%) reported that they were aware of women who sought the services of a traditional birth attendant in their neighbourhood. They cited various reasons that the women gave for preferring birth attendants. They ranged from;

poor mode of transport to the health facility, the distance to the health facility, financial problems while others felt that the traditional birth attendants were accessible and equally competent. A chi square test revealed there was a significant statistical association between reasons for the mothers seeking TBA services and utilization of antenatal services ($X^2=10.398$, $df=3$, $p=0.015$). This shows the gap that needs to be filled in educating mothers to seek antenatal care and avoid the services of traditional birth attendants. It has been established from practice that the traditional birth attendants cannot manage an antenatal mother adequately especially in times of emergencies.

Respondents were also required to state some of the reasons why they did not like the antenatal services offered. Nearly half (48.4%) of the respondents stated that time taken to be attended was long, others felt that the staff were arrogant while others argued that the services were inadequate. However the chi square test showed no significant statistical association between reasons for dislike of ANC services offered in the hospital and utilization of antenatal services ($X^2=1.964$, $df=4$, $p=0.742$).

It was also established that majority of the mothers were gender biased though there was no statistically significant association between the most preferred gender and utilization of antenatal care. ($X^2=4.125$, $df=2$, $p=0.127$).

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This study aimed at establishing the factors influencing the utilization of antenatal care services. This chapter provides the conclusions, recommendations and suggestion for further studies.

6.2 Conclusions

This study makes the following conclusions;

1. Three quarters of the mothers fully utilized antenatal care services while a quarter of them did not. Several factors were established to influence utilization of antenatal care services. The utilization of antenatal care services was higher with an increase in the number of previous deliveries ($X^2=22.436$, $df=4$, $p=0.0001$).
2. Women who were aware of the antenatal care services they expected to receive from the facility were also more likely to utilize the antenatal services ($X^2=20.703$, $df=1$, $p=0.0001$). The awareness of the benefits of antenatal care services influenced the utilization of antenatal care services.
3. It was observed that the respondents who attributed importance to intermittent presumptive treatment of malaria were more likely to utilize antenatal care services ($X^2=7.110$, $df=1$, $p=0.008$).
4. It was further noted that respondents who were aware of the dangers of anaemia in pregnancy were more likely to utilize antenatal care services ($X^2=12.966$,

df=3, p=0.005). Women who had support from the spouse were also more likely to utilize antenatal care services ($\chi^2=4.112$, df=1, p=0.043).

5. Negative attitude towards health providers hindered utilization of antenatal care services ($\chi^2=8.019$, df=1, p=0.005).
6. Factors like the distance to the health facility, availability of antenatal care services and time taken to reach the health facility were also found to influence ANC utilization.

6.3 Recommendations

1. The hospitals should utilize community based organizations to sensitize the community about antenatal care services in order to encourage early visits among women undergoing the first pregnancy.
2. The government through the ministry of health should provide health facilities within the reach of the people to optimize their utilization.
3. The Ministry of health together with the hospitals should improve training sessions for antenatal care staff regarding client handling in order to make the services more acceptable.
4. The Ministry of Health and the non-governmental organizations should educate the public to increase participation of men in supporting their spouses in seeking ANC services.

6.4 Recommendations for further research

There is need for studies to be conducted on the role of men in seeking antenatal care services in Kitui District.

Similar Studies on utilization of antenatal care services in other districts to establish reasons why antenatal care utilization has remained low in Kenya.

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Appendix i

INFORMED CONSENT

(i) Introduction.

This is to inform you that a student studying masters of Public Health (MPH) Degree in Kenyatta University is carrying out a research to address some pertinent/relevant issues of concern in Public Health. The research has been approved by the Department of Public Health in Kenyatta University, Medical Officer of Health (MOH) in Kitui District and the acting District Officer in central Division.

You have been identified as a potential study participant and an appeal is being extended to you now, to read through/listen to the information contained in this document with the aim of giving your consent on whether you will agree to participate in the study.

(ii) Reason for the research.

You are being asked to join this study to help the researcher to understand some issues pertaining the factors influencing the utilization of antenatal care services by antenatal mothers.

(iii) Information about the research.

It has been planned that antenatal mothers attending ANC services in Kitui District Hospital will be talked to in a private place and answer a few questions regarding the services received. It has been preferred that a questionnaire will be filled on your behalf by the researchers. After the study is over a study report will be written.

(iv) Your part in the study.

If you agree, a researcher will take some part of your time which will be approximately 10 – 15 minutes. The study aims at determining the factors influencing the utilization of

antenatal care services by antenatal mothers. Therefore, if you agree, you will be asked some questions about the antenatal care services you are seeking. There is absolutely no penalty if you decide not to participate/take part in the study.

(v) Benefits of the study.

What the researchers will learn from this study may not help you now. Later it will help to protect your health or the health of your child and of other children.

(vi) Risks in participating in the study.

There is a chance that things we discuss may make you feel uncomfortable. You may refuse to answer any question at any time. You may as well propose to end your talk at any time.

(vii) Confidentiality.

An individual (Research assistant) will talk with you in a private place. He/she will not ask you your name instead he/she will give you a number. Research study papers will be kept in a secure place. Neither your name nor number will appear anywhere in the study report.

(viii) Compensation.

Joining the study is on a voluntary basis. There is no compensation available for study participants.

(ix) Leaving the study.

You are free to leave the study at anytime. However, we will highly appreciate your co-operation during the study period which will last between 10 to 15 minutes.

(x) Statement of Content.

I have read/ listened to the information contained in this document and clearly understood it. I therefore agree to participate in the study.

SIGNATURE.....

DATE.....

INTERVIEWER: Ask each question
once for each question.

What is your highest level of education?

- Nursery
- Primary
- Secondary
- University

What is your marital status?

- Single
- Married
- Divorced
- Widowed

Appendix ii

A questionnaire designed to examine the Factors influencing utilization of Antenatal care services among antenatal mothers in Central Division; Kitui District, Kenya. (To be administered to mothers seeking antenatal care service in Kitui District Hospital.)

PARTICIPANT NUMBER _____

DATE OF INTERVIEW MONTH YEAR

INTERVIEW NUMBER

INTERVIEWER: Ask each question carefully and exactly as written. Be sure there is an answer for each question. Use a black ball point pen to record the respondents answer.

1. How old are you (in years)?

2. How many children do you have?

3. What is your highest level of education?

Nursery

Primary

Secondary

Middle College

University

4. What is your marital status?

Single

Married

Separated

Divorced

Widowed

5. What is your primary occupation? _____

Formal employment

Non formal employment

Unemployed

6 How much is your income per month? (Tick as per the range)

Less than 500

500-1000

2000-5000

5000-10000

Above 10000

7 What is your religion?

Catholic

Protestant

Muslim

Hindu

Others (Specify) _____

8 How many deliveries have you ever had?

1-2

3-4

5-6

More than 6

9 For each delivery, fill the table below

YEAR OF DELIVERY	ANC ATTENDANCE (Indicate how many visits)	IF NOT FULLY ATTENDED, STATE REASONS	PLACE OF DELIVERY (Indicate home or Hospital)	GIVE REASONS FOR THE CHOICE OF PLACE OF DELIVERY

10 How old is your pregnancy? (Tick where appropriate)

First Trimester

Second Trimester

Third Trimester

11 At what gestational age did you make the first Antenatal visit?

Less than one month

1-3 months

3-6 months

6-9 months

12 Do you know the antenatal services that you expect to receive in this hospital?

No = 0

Yes = 1

13 If yes, state them; (Weight & Height taking, BP measurement, Palpation, ANC Profile, PMTCT, IPT, IBP, Folic acid/folate supplementation, Advice on delivery)

<u>Service named</u>	<u>Grade</u>	<u>Knowledge status</u>	
None	0	No knowledge	
1-2	1	Low knowledge	
3-4	2	Average knowledge	
4 and above	3	High knowledge	<input type="checkbox"/>

14 Why is it important for pregnant women to attend ANC clinic? (To ensure healthy mother and baby, Existing diseases are identified and treated, Prevention of conditions like eclampsia, Health education on danger signs, PMTCT)

<u>Importance</u>	<u>Grade</u>	<u>Knowledge</u>	
None	0	No knowledge	
1	1	Low	
2	2	Average	
3 and above	3	High	<input type="checkbox"/>

15. Name some of the danger signs of pregnancy (APH, PROM, HBP, Fits, Severe headache and dizziness)

<u>Danger sign</u>	<u>Grade</u>	<u>Knowledge status</u>	
None	0	No	
One	1	Low	
Two	2	Average	
Three & above	3	High	<input type="checkbox"/>

16. State the measures to be undertaken in case of each of the above cases

Seek medical attention

See a Traditional Birth Attendant

See a traditional healer

Others (specify) _____

17. What is PMTCT?

18. Do you think it is important for pregnant women to know their HIV status?

No=0 Yes=1

19. If yes, give reasons

To prevent transmission of HIV to the unborn child

For early treatment

For early counseling

For those negative to be advised on how to remain negative

20. If No, give reasons

The pregnant mother may fear being rejected

Fear of results

Source of stress to the expectant mother

No reason

21. What are the dangers of malaria in pregnancy?

Death of unborn child

Abortion

Death of pregnant mother

Other (Specify) _____

22. Do you think it is important for pregnant women to receive IPT (Intermittent Presumptive treatment of malaria)

No= 0 Yes= 1

23. If yes, give reasons

Mother and unborn baby stay health

Prevention of complication due to malaria

Abortions are prevented

Others (Specify) _____

24. What are the dangers of Anaemia in pregnancy

Abortion

Death of mother and baby

Body weakness

Don't know

25. Do you think it is important for pregnant women to receive Folic acid / folate?

No= 0 Yes= 1

26. If yes, give reasons

Mother will have enough blood

Mother will be strong and healthy

Risk of mother developing anaemia is less

Others (Specify) _____

27. If No, give reasons

28. Name some of the traditional beliefs that may affect your seeking of ANC services

29. Have you ever sought the care of a TBA during any of your pregnancies?

No=0

Yes= 1

30. If yes, give reasons

Afraid of visiting health facility

Health workers are arrogant

TBAs are cheaper

Others (Specify) _____

31. Are you aware of antenatal mothers who seek the services of a TBA in your neighbourhood?

No= 0

Yes= 1

32. If yes, what reasons do they give for seeking these services?

Health facility is too far

Mode of transport is not good

TBAs are near and competent like health workers

Others (Specify) _____

33. Does your religious belief affect your seeking of medical attention?

No = 0

Yes = 1

34. If yes, how?

35. Name any other factor(s) that may hinder you from seeking ANC care services

Unavailability of services

Distance from home to the health facility

Time taken to reach health facility

Others (Specify) _____

36. State how the above factor(s) may bar you from seeking ANC care

37. What do you like about the antenatal services offered in this hospital?

Staffs are friendly

Services are available

Time taken to be attended is short

Others (Specify) _____

38. What don't you like about the antenatal services in this hospital?

Time taken to be attended is long

Staffs are arrogant

Services offered are inadequate

Services are unsatisfactory

Others (Specify) _____

39. There are male and female health staff in this hospital. Whom do you prefer to attend to you when you are visiting the hospital for antenatal care service? (Tick against the box giving your preference.)

Male staff Female staff

40. If male, give reasons

They are kind

They are careful

They understand us better

They offer better services

Others (Specify) _____

41. If female, give reasons

They are kind

They are careful

They understand us better

They offer better services

Others (Specify) _____

42. Questions on attitude towards hospital staff

a. ANC staff are not well trained Yes=0 No=1

b. ANC staff do not have adequate skills Yes=0 No=1

c. ANC staff are not well equipped Yes=0 No=1

d. ANC staff do not show respect to clients	Yes= 0	No= 1	<input type="checkbox"/>
e. ANC staff are not motivated	Yes= 0	No= 1	<input type="checkbox"/>
f. ANC staff do not demonstrate support to clients	Yes= 0	No= 1	<input type="checkbox"/>
g. ANC staff do not provide privacy to clients	Yes= 0	No= 1	<input type="checkbox"/>
h. ANC staff do not respect our culture	Yes= 0	No= 1	<input type="checkbox"/>
i. ANC staff discriminate along economic status	Yes= 0	No= 1	<input type="checkbox"/>
j. ANC staff do not give adequate time to clients	Yes= 0	No= 1	<input type="checkbox"/>

Total Yes

 No

43. Does your spouse support your decision of seeking antenatal care service?

No = 0 Yes = 1

44. If No, why?

He prefers TBAs

He is not educated

He believes it's a waste of time and money

Others (Specify) _____

45. Do you have a reason which may hinder/bar you from seeking these services in future?

No = 0 Yes = 1

46. If yes what are the reasons?

Failure of spouse to support me

Lack of money

If services are not brought near to me

Others (Specify) _____

47. Are you aware of antenatal mothers who are not seeking this service in your neighborhood?

No = 0

Yes = 1

48. If yes, what reasons do they give for not attending?

Husband did not allow me

It is far

Did not see need to attend

No reason

Others (Specify) _____

49. Please give me a general view/your final comment on antenatal care services in this hospital.

Satisfactory

Unsatisfactory

Average

Others (Specify) _____

4. Give reasons for the above.

5. In your view, what are the factors that may hinder mothers from accessing the above services?

Appendix iii

Key Informant Question Guide (For Health Care Givers)

PARTICIPANT NUMBER _____

- 1. a) Age _____
- b) Gender _____
- c) Designation _____
- d) Duration in service _____

2. What are the trends in ANC for the past three years?

3. What is your comment on the ANC attendance in the Hospital?

- Excellent
- Good
- Fair
- Poor

4. Give reasons for the above comment

5. In your own opinion what are the factors that may hinder mothers from accessing the above services?

6. What are your suggestions on improving the ANC attendance;

a) Within the Hospital (Internal)

b) From the clients aspect (External)

7. From the register, out of any 200 mothers (already delivered) who attended ANC how many attended;

All the 4 visits _____

3 visits _____

2 visits _____

Only 1 visit _____

8. Are there any TBAs attached to the hospital and what is their role?

9. How do they relate with the staff?

Antenatal care services are services provided to pregnant women (antenatal mothers) at health centers. Do you support your spouse(s) to attend antenatal clinics for the services (ANC) coordinated by the nurse of the partner agency? Do you support their spouses and people who do not?

Yes = No =

2. For those who support the spouse(s) to attend antenatal clinics for the services (ANC) coordinated by the nurse of the partner agency, what do you think the benefits are?

3. For those who do not support your spouse(s) to attend the antenatal care services, what do you dislike on the antenatal care services offered at the health centers?

4. Do you have any other reasons which bar you from supporting your spouse(s) from attending antenatal clinics for antenatal care services? E.g. like religious believes, or even cost of receiving the service or distance from your home to the health center? Please

Appendix iv

FOCUS GROUP QUESTION GUIDE

Questions to be used in the FGD groups composed of 8 men.

1. Antenatal care services are services received by pregnant women (antenatal mothers) in health centers. Do you support your spouses to attend antenatal clinics for the services? (FGD coordinator: Take note of the percentage of men who support their spouses and these who do not.)

No = 0

Yes = 1

2. For those who support their spouses to attend clinics for the antenatal services , what benefits do you think this services have on expectant mothers?

3. For those who do not support your spouses in attending the antenatal care services what do you dislike on the antenatal care services offered at the health centers?

4. Do you have any other reasons which bar you from supporting your spouse from attending antenatal clinics for antenatal care services? E.g. like religious believes, or even cost of receiving the service or distance from your home to the health centre? Please state.

5. Do you people accompany your spouses to the health centre when she is attending the antenatal care services?

(FGD coordinator: Take note of the percentage of men who accompany their spouses and those who do not.)

No = 0

Yes = 1

Thanks for your participation.

Appendix v

FOCUS GROUP NOTE-TAKER FORM

Form NO. _____ DATE _____

NOTE-TAKER NO. _____

QUESTION

RESPONSES

OBSERVATIONS

NOTE – TAKER
SIGNATURE.....