ENSIGN COLLEGE OF PUBLIC HEALTH
KPONG-EASTERN REGION, GHANA

HEALTH SEEKING BEHAVIOUR DURING PREGNANCY, CHILDBIRTH AND THE POSTPARTUM PERIOD AMONG WOMEN (15 – 49 YEARS) OF EAST AKIM MUNICIPALITY, EASTERN REGION, GHANA

by

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A Thesis submitted to the Department of Community Health in the Faculty of Public Health in partial fulfilment of the requirements for the degree

MASTER OF PUBLIC HEALTH

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DECLARATION

I hereby declare that this submission is my own work towards the MPH and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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DEDICATION

I dedicate this work to God Almighty for his immeasurable grace and favor throughout my studies.

This work is also dedicated to my entire family, especially to my elderly sister, Gifty Ohenewaa Amoah and her husband, Arek Potukyan.

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DEFINITION OF KEY TERMS

Health seeking behaviour: Health seeking behaviour is a state in which a person in stable health actively seeks ways to alter personal health habits and/or the environment to move toward a higher level of wellness (Carpenito-Moyet, 2008).

Antenatal care (ANC): It is used to describe the medical procedures and care that are carried out during pregnancy (Ekabua, *et al.,* 2011). ANC serves as an opportunity to promote facility delivery.

Regular ANC Attendance: Routine attendance for ANC services and following all appointments as planned with the service provider.

Institutional delivery: This refers to all births occurring in health facilities either public or private. This includes any type of building where health care is typically delivered by trained health providers, for example community health centres, clinics, regional hospitals, tertiary care centres, and where health care equipment and supplies are typically available. (Akazali *et al.,* 2011).

Skilled birth attendant: A skilled birth attendant (SBA) is a midwife, physician, obstetrician, nurse, or other health care professional who provides basic and emergency health care services to women and their new-born during pregnancy, childbirth and the postpartum period.

Traditional Birth Attendant: A birth attendant other than a skilled or qualified health worker who assist women in delivery but has not been trained or recognized as suitable birth attendant by the health regulatory organizations.

ABBREVIATION/ACRONYMS

ANC	Antenatal Care
AU	African Union
CHAG	Christian Health Association of Ghana
CHPS	Community-Based Health Planning and Services
DHS	Demographic and Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
IMR	Infant Mortality Rate
Km	Kilometers
MDG	Millennium Development Goals
MOH	Ministry of Health
NGOs	Non-Governmental Organizations
PNC	Post Natal Care
WHO	World Health Organization
MMR	Maternal Mortality Ratios

ABSTRACT

Background: Health seeking behaviour among women especially during pregnancy, childbirth and postpartum period is considered critical in determining the overall health of the mother and the child. It is also known as an indirect indicator of maternal and neonatal health outcomes, but has been understudied in the East Akim Municipality. This study was therefore undertaken to investigate the health seeking behaviour and factors that influence the utilization of maternity services among women in their reproductive ages in the municipality.

Methods: A cross sectional study design employed, using a structured questionnaire. The study population included women (15- 49 years) who had delivered within two years prior to the study. Stratified sampling and simple random sampling methods were employed to obtain a sample size of 310. Association among variables was determined using the Chi-Squared and Fishers' exact tests and multivariate logistic regression was done to explore determinants of health seeking behaviour at a 5% significant level.

Results: ANC attendance, at least once, was 98.39% whiles institutional deliveries constituted 74.52%. Also 73.55% of mothers delivered in the presence of qualified health personnel, while the rate of non-skilled delivery was 26.45%. Some 86.13% of postnatal women had attended PNC within 42 days after delivery. In comparison to women who lived more than 10km to a health facility, women who lived less than 5km were three times more likely to fulfil all their ANC appointments. Regular ANC visitors and those with active health insurance were also twice and four times more likely to deliver in a healthcare facility, respectively.

Conclusion: In East Akim Municipality, in addition to having a high utilization of maternity services during pregnancy and childbirth, a significant proportion of women continue to avoid the use of healthcare services after childbirth.

Table of Contents

List of Tables

List of Figures

List of Appendices

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

High maternal and child mortality rates are major public health concerns in developing countries including Ghana. Most of these deaths are associated with pregnancy related complications. Annually, thousands of women are faced with pregnancy related complications, most of which are attributed to hemorrhage, puerperal sepsis, obstructed labour, hypertensive disorders, and unsafe abortions (WHO, 2008). Women are at further risk of morbidity and mortality due to poor health seeking practices and limited access to healthcare.

Pregnancy increases women's vulnerability to adverse health issues which if not promptly managed could lead to maternal morbidity, poor pregnancy outcomes, such as loss of the baby and death of the mother. For these reasons, pregnant women are expected to seek pre-natal, antenatal care (ANC) so as to maintain good physical, mental, social and emotional health during pregnancy and also for early detection and prompt treatment of high risk condition that would endanger the life of mother and baby (Myles,1975, 2013). When health care during pregnancy is not sought in a timely and appropriate manner, maternal mortality may result.

Maternal care includes care during pregnancy, childbirth and postnatal period and it occurs in the lives of many women. Care during pregnancy should begin from early stage of pregnancy. Women can assess the antenatal care either by visiting the health center where such services are available or from health workers during their community visit. Further antenatal visit may raise awareness about the needs for care during delivery or give women and their family a familiarity with the health facilities, that enables them to seek help more efficiently during crises (Park,

2009). However, uptake of these services is far from universal even in settings where they are widely available (Sandiq *et.al.*, 2011).

In view of this the Millennium Development Goals (MDGs) 4 and 5 were developed by the United Nations as a matter of urgency to reduce maternal and child mortality. The MDG 4 aimed at reducing under-five mortality by two-thirds of the 1990 rates, while MDG 5 has twin goals: first to reduce maternal mortality by three – quarters between 1990 and 2015 and secondly, to achieve universal access to reproductive health by 2015. Maternal and child mortalities remain a huge challenge in Ghana, as far as the achievement of MDGs 4 and 5 are concerned.

At the global level, initiatives to intensify policy intervention for maternal mortality reduction began with the Safe Motherhood Initiative in 1987 in response to the growing recognition that primary health-care programmes in many developing countries were not adequately focused on maternal health (Obaid, 2009).While some countries in sub-Saharan Africa have shown slight improvements in lowering their Maternal Mortality Ratios (MMR), overall progress in reducing maternal mortality in the region has been negligible (Starrs, 2006). Approximately more than half of all maternal deaths occur in Sub-Saharan Africa (Breen, 2011).

Maternal mortality ratio in Ghana is currently estimated at about 358 deaths per 100,000 live births which is higher than the MDG 5.1 target of 185 per 100,000 live births (Ghana MDGs Report, 2015). To accelerate its achievement, Government of Ghana and the United Nations Country Team developed the Ghana MDG Acceleration Framework and Country Action Plan to help achieve MDG goals 4 and 5.

The onset of pregnancy through to childbirth can pose unpredictable but preventable risk to both mother and child. This is why every pregnant woman must seek health care throughout the

period of pregnancy and follow-up to deliver in a health facility in order to avoid all forms of complications associated with pregnancy and child birth (Nutakor, 2015). Unfortunately, most women including those in Ghana received little or no ANC, even in urban areas where medical services are readily available (Otolorin, 1997,2015). Even if women do attend ANC and receive health education on other self-care and health seeking behaviours such as eating a nutritious diet and resting more during pregnancy, there is no guarantee that they will follow-up on such suggestions (Ezeama and Ezeamah,2015). Therefore, it is important to understand the factors that influence a woman to make a decision to seek care and the patterns of their health seeking behavior as it is critical to improve access and utilization of medical care during pregnancy and childbirth.

Furthermore, understanding the determinant factors that influence health care seeking behaviour is critical for ensuring safe pregnancies and deliveries. While antenatal care is considered essential for the health of both mother and the unborn child so as the choice of place to deliver and care during the postnatal period. Hence, this study is being carried out to identify patterns and factors that influence health seeking behavior of women during pregnancy, childbirth and the postpartum period. The study also assessed the maternity services utilization and mothers' perceptions toward these services. Understanding health seeking behaviour in a community is necessary for the development of appropriate health policies, health systems and educational strategies to facilitate access.

1.2 Rationale of Study

Maternal morbidity and mortality remain a major issue of concern worldwide. This is more so in the developing world. World Health Organisation (WHO) recommends that skilled attendance during pregnancy and at birth is effective for preventing maternal morbidity and mortality.

Although a number of studies have been carried out in Ghana to determine the major causes of maternal morbidity and mortality, little is known about pregnant women's health seeking behavior and factors that influence their healthcare service utilization.

This study seeks to explore the pattern of health seeking behaviour of expectant mothers to identify socio-demographic and enabling factors that influence their health seeking behaviour relevant to the design of culturally appropriate and effective safe motherhood programmes. Such information is necessary to inform the design of effective messages to impact the demand for healthcare utilization. These constitute the focus of this study in East Akim Municipal of Eastern Region, Ghana.

1.3 Significance of the Study

This study will provide baseline data on the prevailing pattern of health seeking behavior of pregnant women in East Akim Municipal area which would provide basis for recommendations for the design of effective intervention programmes for reducing maternal and child mortality and morbidity in the municipality which can be replicate in other parts of Ghana, Africa and the whole in general. Findings from the study add to the scientific body of knowledge on subject which is currently sparse in the country.

1.4 Research Hypothesis

a. Distance to a health facility is significantly associated with the utilization of maternity services among women.

b. Women's perception about maternal health and services is significantly associated with regular antenatal visits

c. Regular antenatal visit is significantly associated with health facility delivery

d. Health insurance coverage is significantly associated with facility delivery

1.4.2 Conceptual Framework

A modified version of the Andersons Health Seeking Behavioural Model (2005) is used to explain the framework for this study. It is chosen as the ideal model for explaining maternal health seeking behaviour. This is used to illustrate the dynamics of the individual, community and care providers in such decisions (Andersen, 1995). The model describes three categories of determinants at play in health care decision making: predisposing characteristics, enabling characteristics, and need. Predisposing characteristics include the individual's demographics, their social structure as well as their beliefs regarding the benefits of health services. Enabling characteristics encompass personal and community resources that encourage usage of health services. Finally, the third category relates to the perceived and actual need for services (Andersen, 1995). The *socio- demographic* (marital status of a mother, age of a mother, educational attainment of a mother, parity and birth order of a mother, place of residence of a mother) and *enabling factors* (household wealth and insurance coverage); and *perceived benefit or needs*.

Individual characteristics determine how two individuals will use health care services; that is, those characteristics that exist prior to the onset of specific episode of illness (Anderson and Newman, 2005). People with certain attributes are more likely to patronize health care services although these attributes are directly responsible to the use for health care services. Health beliefs are attitudes, values and knowledge that people have about health and health care services that might influence their subsequent perceptions of need and use of these services (Andersen, 1995).

Education also has an association with household wealth; it is argued that, the more educated a person is the more wealth they acquire relative to those with less education or those without any form of education; education is thus an important premise for health care use especially seeking during pregnancy as well as the use of Skilled Birth Attendants. Place of residence, parity and birth order have all been recognized as *predisposing factors* to maternity service utilization.

There are also other elements that influences maternal health seeking behaviour. These elements serve as a link between the factors mentioned above and maternal health seeking behaviour. Again, Anderson and Newman (2005) referred to these factors as *enabling factors*. Enabling conditions can be measured by family resources such as income or wealth, level of health insurance coverage, perceived benefits used as intermediary variables.

Household wealth tends to influence the use or non-use of health services even if the person is covered by a health insurance. The extent of health insurance coverage which addresses partly financial accessibility issues particularly out of pocket settlement at the point of service determines health care utilization.

The third aspect of the model is *Need*, which refers to health status, perceived by the individual or evaluated by the health providers (Andersen, 1995). It is how people see their own general health and state of function, as well as how they experience the symptoms of illness, pain and worries about their health and whether or not they judge their problems to be importance to seek professional health care.

This model also consists of health status outcomes in order to extend the measures of access to include dimensions which are particularly important for health policy and health reform. It also depicts response loops showing that outcome, in turn, affects subsequent predisposing factors and perceived need for services as well as health behaviour (Andersen, 1995).

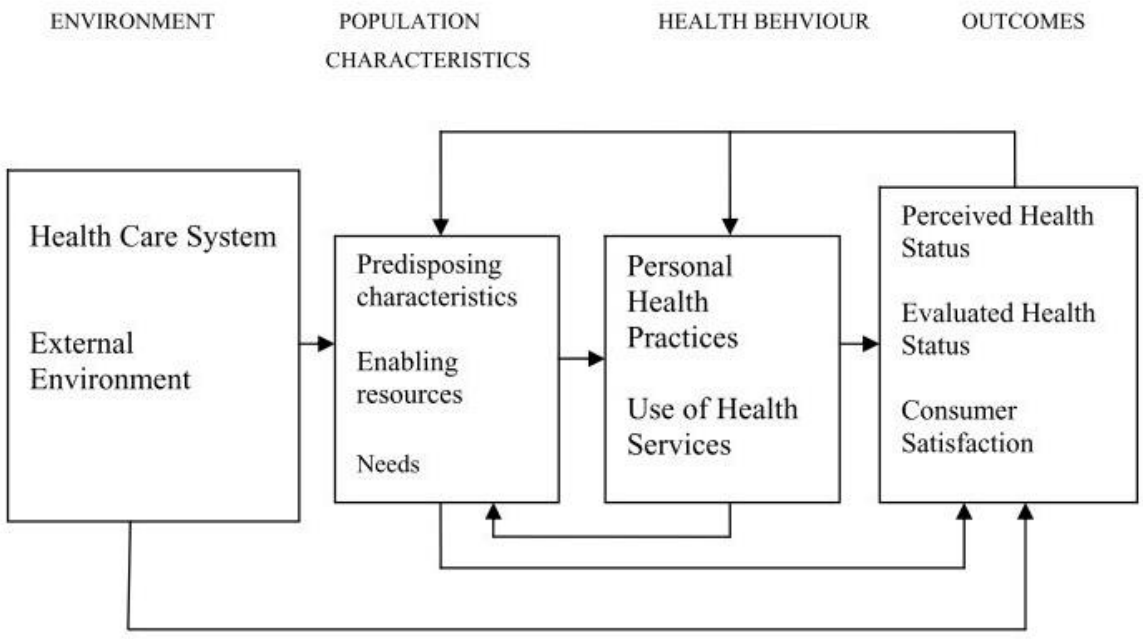


Figure 1.1: The behavioural model of health service use

Source: Andersen (1995)

1.5 Research Questions

1. What socio-demographic factors that are associated with the utilization of maternity services among women during pregnancy and childbirth?

2. What are the health seeking behaviour of women during pregnancy and childbirth?

3. What are the patterns of maternity and other health services utilization among women in the East Akim municipality of Ghana?

4. What are women's perceptions and attitudes toward maternal health and maternity services in the East Akim municipality?

1.6 Objectives of The Study

The general objective was to examine the health seeking behaviour and the utilization of maternity services among women in the East Akim municipality of the Eastern Region of Ghana.

1.7 Specific Objectives

1. To explore the socio-demographic factors influencing the utilization of Maternity services during pregnancy, childbirth and the postpartum period.
2. To describe the health seeking practices of women during pregnancy and childbirth and postpartum period.
3. To determine the influence of perceptions and attitudes on the utilization of maternity services.
4. To assess the patterns of maternity services utilization among women of different socioeconomic and demographic groups in the study area.

1.8 Profile of Study Area

The study was conducted in the East Akim Municipality of the Eastern Region of Ghana.

East Akim Municipality is one of the twenty-six administrative districts in the Eastern region of Ghana. Kyebi (Kibi) is the municipal capital. East Akim Municipal Assembly has a total land area of approximately 725km2. It lies within longitude 0º.56 West and 0º. 15 West and latitude 6.03 North and 6º•.35 North. The Municipality is bounded by six districts namely Atiwa District to the north, West Akim District to north west, Fanteakwa District to the East, New Juaben to the south, Yilo Krobo District to the south east and Suhum-Kraboa-Coaltar District to the west (Ghanadistricts.com/eastakimmunicipal/ 14/07/2016)

The district capital, Kibi, is 55km from Koforidua, 105km from Accra and 179km from Kumasi. The land is generally undulating with several different types of rock formation which give the different relief features ranging from flat bottom valleys to steep-sided highlands endowed with iron pans, bauxite and kaolin. The municipality lies in the west semi-equatorial zone which is characterized by two main rainfall seasons. It also lies within the moist semi-deciduous forest which has Asikuma--Ansum/Oda Compound Association major types of soils.

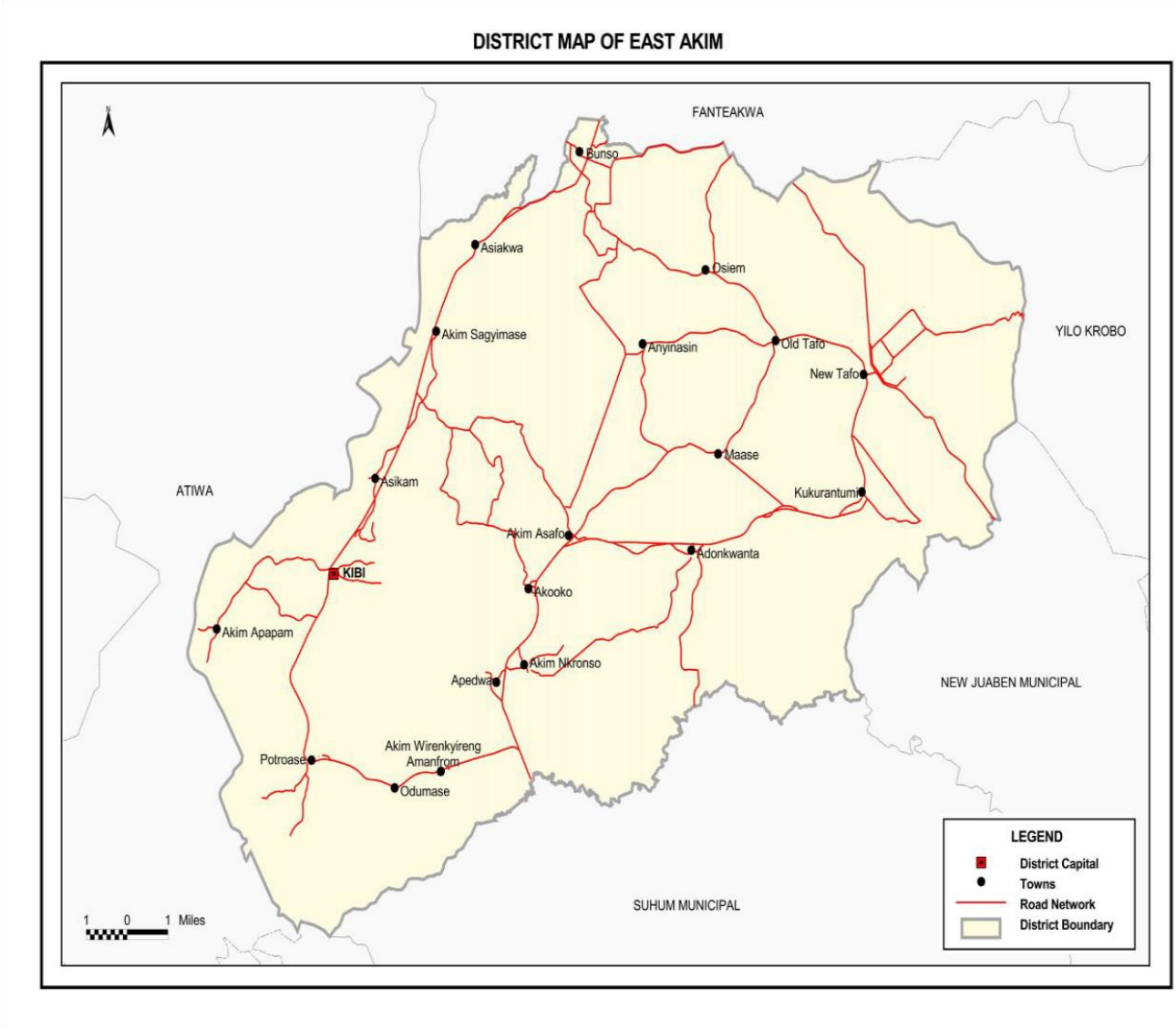


Figure 1.2:Map of East Akim Municipality

Population Size

The population of the East Akim Municipal, according to the 2010 Population and Housing Census, is 167,896 representing 6.3 percent of the region's total population. Males constitute 49.7 percent and females represent 51.3 percent. Nearly forty percent of the population is rural. The district has a sex ratio of 94.9. The population of the district is youthful (35.9%) depicting a broad base population pyramid which tapers off with a small number of elderly persons (6.7%).

A total number of 42,092 households. The average household size in the district is 4.0 persons per household.

Of the employed population, about 74.3 percent are engaged as skilled agricultural, forestry and fishery workers, 24.1 percent in service and sales, 16.9 percent in craft and related trade, and 11.6 percent are engaged as managers, professionals, and technicians[Source: Ghana Statistical Service. 2010]

Political Administration

The East Akim municipal Assembly is the highest political administrative authority. The Assembly has eight zonal Councils, 133 Unit Committees and two constituencies (Abuakwa North and South).

Ethnicity, Religious and cultural composition

The main festival is the Ohum. The Ohum festival is celebrated in Akyem Abuakwa in two parts; the Ohumkan and the Ohumkyire. The main ethnic groups that exist in the municipality are the Akyems, who form the majority of the ethnic groups; others include Krobos, Asantes, Akuapem and Ewes. The dominant religious group in the municipality is Christianity.

Vegetation, Climate, Rainfall and Drainage

The main vegetation of the municipality is forest with traces of savannah in the North-Eastern Sector. The municipal experiences two main seasons. These are the, wet season which starts from April and ends in October, and the Dry season which also starts from November, and ends in March.

Economic Activities

The main economic activities in the municipality are farming, petty trading, small-scale industries and currently small scale mining (Galamsey).

Health facilities and health infrastructure

Health facilities providing health service delivery within the Municipality consist of public, private and CHAG.

The level of health facilities in the municipality are: Hospital, Health centres, Maternity Clinics, Community clinics or Community-Based Health Planning and Services (CHPS).

Health Infrastructure includes; Two Public hospitals; One CHAG hospital; Four Health Centres; Three Private Maternity Clinics; 18 functioning CHPS compounds (35 demarcated CHPS sites); 120 health volunteers

1.9 Scope of The Study

Health seeking behavior studies are broad and encompasses numerous areas, however, this study covers investigating factors that influence health seeking behaviour during pregnancy, childbirth and the postpartum period as well as assessing the patterns of maternal health care services utilizations. It is limited to only health seeking behaviour among women who have recently given birth and those who have given birth not more than two years preceding the study. Geographical scope involves the communities or areas within the East Akim Municipality in the Eastern Region of Ghana.

1.10 Organization of Thesis

This thesis is divided into six (6) chapters. Chapter one provides the introduction grouped under the following headings: Background to the study, rationale and significance, Objectives of the study, Research questions, Research hypothesis, conceptual framework, Scope of the study, and Organization of the study. Chapter two covers the review of related literature on the subject under the study. Chapter three outlines the methodology of the study, including the study design, sample size, data collection procedures and data analysis. Chapter four presents results, and analysis of the data gathered for the study. Discussions are provided in chapter five Finally, the sixth chapter provides conclusions and recommendations.

CHAPTER TWO

2.0 LITERATURE REVIEW

Introduction

This chapter discusses the literature on the main areas of the study. The literature review sets out the foundation of the study and is intended to present and assess existing evidence regarding the topic of interest with a purpose of identifying what is known and unknown about the research subject (Boswell & Cannon 2011). This chapter reviews literature on health seeking behaviours of mothers mainly during pregnancy, childbirth and the postpartum period.

The review in this study is an attempt to link findings in the literature about maternal health care seeking behaviour particularly on antenatal, delivery and postpartum services utilisation. Global, regional, national and local sources regarding the variations in the health seeking behaviour of women during pregnancy, delivery and postpartum are reviewed.

2.1 HEALTH SEEKING BEHAVIOUR

2.1.1 The Concept of Health care

The world health organization defines Health as the state of complete physical, mental, social and psychological wellbeing and not just an absence of diseases and infirmity, (WHO, 1948). The Dictionary of Epidemiology refers health care as "services provided to individuals or communities by agents of the health services or professions to promote, maintain, monitor, or restore health" (Porta 2008). Under the definition, health care is not limited to medical care and its concept sometimes includes 'health-related self-care'(Bayou 2014). Meriam Webster's Online Dictionary, 2016) defines health care as maintaining and restoration of health by the treatment and prevention of disease especially by trained and licensed professionals (as in medicine, dentistry, clinical psychology, and public health). The provision of health care refers

to the way resources such as money, staff, equipment and drugs are combined to allow the delivery of health interventions (WHO 2013).

2.1.2 The Concept of Health-Seeking Behaviour

Health-seeking behaviour of individuals comprises two major aspects: the "process" or the act of seeking health and the "end point" or the health care seeking behaviour. (Bayou 2014). Health-seeking behaviour is about illness behaviour in general and focuses on motivating factors of illness perception and health belief in particular (Danso-Appiah et al. 2010). Health care seeking behaviour on the other hand involves identification of pathways to the formal health care system, starting from home care and traditional healers and extending to the formal health care system (Grundy & Annear 2010).

Health seeking behaviour refers to a "sequence of remedial actions that individuals undertake to rectify perceived ill health". The sequences include the time span from symptom onset to contacting a health care provider, the type of health care provider chosen by the household, and the patient's compliance with treatment (Rahman et al 2011). These sequences are the ways in which people look for treatment or help for their illnesses or health condition.

Health care seeking behaviours are specific actions taken to maintain health or remedy health problems, including health behaviour during pregnancy, household self-treatment of common ailments, reliance on care available within a community's indigenous health system or referral for care outside of the community (Grover, Kumar, Jindal,2006). Kasl and Cobb (1966) provided classical definitions of health behaviour when they explained, (1) a preventive health behaviour as action taken to stay well and prevent illness. (2) illness behaviour as actions taken when one is feeling indisposed to determine the cause and find help and (3) sick role behaviour that consists of actions taken to recover from illness. These concepts have been adapted to the

needs of pregnant women, whose health seeking behaviour may include both promotive, preventive actions and curative measures (Ezeama & Ikenna, 2015).

2.2 MATERNAL HEALTHCARE

2.2.1 Antenatal Care

Antenatal care (ANC) programmes were introduced as an intervention that a pregnant woman receives from health care services. It aims to prevent and identify pregnancy risks and treat conditions timely through providing appropriate information to the client (WHO, 2013). ANC helps a woman to approach pregnancy and birth as a positive experience. Berg's report on Prenatal Care in Developing Countries as cited by Bayou (2014), indicates the four components of the ANC goal: (1) early detection of pregnant women at risk of any potential complications;(2) action in order to prevent any future difficulties; (3) diagnosis and treatment of pre-existing medical conditions and (4) prompt referral to the appropriate specialist when complications develop during pregnancy.

Comprehensive skilled antenatal care services can save lives of mothers and neonates (Gabrysch & Cambell 2009, WHO and UNICEF 2013). Adjiwanou & LeGrand (2013) stated that the number and timing of antenatal visits and the content of services during antenatal visits matter the most in identifying pregnancy risks and management of delivery complications. The recommended practice by WHO is that under normal circumstances a woman should have at least four antenatal care visits and the first visit should take place at or before the first 12 weeks of gestation. However, in 2011 only half of pregnant women in developing regions received the recommended minimum of four antenatal care visits (UN, 2013). Some ANC packages are recommended that should be provided to any pregnant woman regardless of the gestational age at first visit.

In Ghana, free antenatal care was started in July 2008 and hence those who attended antenatal care earlier than July 2008 could have paid for the services. ANC serves as an official entry point to health facility delivery; therefore women must make it a point to report at the nearest health facility immediately they suspect signs of pregnancy (Anon, 2015).

2.2.2 Delivery Care

2.2.2.1 Skilled Birth Attendance

The skilled birth attendance is the process by which a pregnant woman is provided with adequate care during labour, delivery and the early postpartum period (Adegoke & Van den Broek 2009; WHO 2007. The recommendation regarding the implementation of skilled birth attendance at all levels for every segment of the population has been greatly acknowledged and also endorsed universally (Bayou 2014). Progresses have been made so far in raising the proportion of skilled birth attendance (UN, 2013).

Skilled birth attendance including emergency obstetric care has been identified as a useful approach to reduce maternal mortality and morbidity in developing countries (UN, 2013; WHO and UNICEF 2013). Global targets for skilled birth attendance were set by the UN in 1999 just five years after the ICPD 1994. The global goals were to achieve 80%, 85% and 90% of all births assisted by skilled attendants by 2005, 2010 and 2015 respectively (UN 2000; WHO 2008). Estimates suggest that the presence of a skilled attendant at every delivery would reduce maternal mortality by 13-33% (Adegoke & Van den Broek 2009).

In developing regions, the percentage of births attended by skilled workers has risen from 55% in 1990 to 66% in 2011 (UN 2013; WHO 2012). Many wealthy nations and Eastern Asia have universal coverage, but more than half of all births in sub-Saharan Africa and South Asia take place without the support of a skilled birth attendant (UN 2013; WHO and UNICEF 2013). In

some African countries including Ghana, skilled birth attendance is even less than 20% (CSA and ICF International 2012; WHO 2008; WHO 2012), but the number is expected to go high with deliberate efforts by nations

2.2.2.2 Preferred places to give birth

One important decision women make during pregnancy is where to give birth. Preferences for places to give birth refer to the main options available in which to give birth i.e., birth either at home or in a health facility and then in private or public facilities (National Childbirth Trust 2009). Therefore, timely use of qualified personnel reduces the risk of death for both the mother and newborn (Gabrysch & Campbell 2009; Singh *et al.*, 2009).

According to Grundy & Annear (2010), providing access to health services according to need has become more complex in the context of an increasing role for private providers and, frequently, a more limited role for the public sector. Even in areas with a wide range of public and private health care providers, mothers have limited alternatives to seek care if health systems are characterised by high out-of-pocket payments (Kinney *et al*., 2010).

Several studies have also indicated that women living in poor conditions rely more on public or governmental health services than on private health services (Ibnouf, Van den Borne & Maarse 2007); or are more likely to have Traditional Birth Attendant (TBA) or no trained assistant at delivery (Tann *et al.,* 2007) compared to women of better living conditions. Furthermore, studies have shown that, urban, rich and more educated women prefer to be attended by skilled personnel, if not doctors then midwives, as care providers; and well educated mothers are more likely to go to private hospitals seeking for antenatal care (Tann *et al.*, 2007).

The features of the health facility, trust in, and/or the health care workers' customer care also play major roles in decision making about the choice of the health facility (Bayou 2014). A study in the slums of Nairobi indicates that 10% of the births were handled by TBAs and many women prefer TBAs to nurses in public health facilities because of the bad attitude and abusive behaviour of the nurses (African Population and Health Research Center, 2009). Hence, high quality care provided by doctors is associated with more use of antenatal care services (Ibnouf *et al.*, 2007).

2.2.3 Postnatal Care

Every year in Africa, at least 125,000 women and 870,000 newborns die in the first week after birth, yet this is when coverage and programmes are at their lowest along the continuum of care. The first day after childbirth is the time of highest risk for both mother and baby (World Health Organization 2015). The fact that 18 million women in Africa currently do not give birth in a health facility poses challenges for planning and implementing postnatal care (PNC) for women and their newborns. Regardless of place of birth, mothers and newborns spend most of the postnatal period (the first six weeks after birth) at home (WHO 2015).

2.3.0 GLOBAL COMMITMENTS / INITIATIVES ON MATERNAL HEALTH

Maternal health refers to the health of women during pregnancy, childbirth, and postpartum. Motherhood is often a positive and fulfilling experience but for many women especially those in developing nations, child birth is associated with suffering, morbidity, and death (WHO 2013). Health problems during pregnancy and childbirth are not limited to the mother alone but can have serious consequences to the child, the family or the community as a whole. (WHO 2002; UN, 2013).

Maternal mortality remains a major challenge to nations of the world (WHO 2012b; WHO 2012a). The UN and nations of the World were committed to reduce maternal mortality by 75% in a quarter of a century (UN 2000).

From the launching of the Safe Motherhood Initiative in 1987 by international agencies and governments to raise the global awareness about the impact of maternal mortality and morbidity and find solutions (United Nations Population Fund [UNFPA], 1999), the health and well-being of mothers and new-borns have been improving in many countries the world over (WHO 2012b). However, inequalities within countries are increasing between the affluent who have access to care, and those marginalised (Kinney et al 2010). In 2010, an estimated 287, 000 maternal deaths occurred globally implying that it has taken 20 years to achieve a decline of just 47% from levels in 1990 (Bayou, 2014).

Most pregnant women (81%) in developing countries visited antenatal care services at least once in 2011 (UN 2013). Far less available and accessible is provision of professional childbirth care, either institutional or at home, and of emergency obstetric and newborn care services (Ewa *et al.*, 2012; Singh *et al.*, 2009). In many settings, systematic and regular post-partum follow-up care is rarely available (Bayou 2014) and even women who deliver in a health facility are often discharged within some few hours post-partum and are not seen again until some considerable time afterwards (Singh *et al.*, 2009).

2.3.1 Maternal Health in Ghana

2.3.1.1 Maternal Health care policies and efforts in Ghana

Ghana has designed a number of policies and strategies for improving maternal and reproductive health. Assurance of health care for all segments of the population is one of the top priorities in the Ghana's Health Care Policy and it states that special attention shall be given to the health

needs of women and children among others (GHS, 2003). In September 2003, the Ministry of Health of Ghana introduced an exemption policy directed at making delivery care free. The thrust of these policies has been to improve uptake, quality and financial and geographic access to delivery care services. The services covered by the exemption policy are normal deliveries, assisted deliveries including Caesarean section and management of medical and surgical complications arising out of deliveries, including the repair of vesico-vaginal and recto–vaginal fistulae. The policy covered delivery services in public, private and faith- based health facilities.(Ofori-Adjei 2015).

In focusing safe motherhood as a major theme of Reproductive and Child Health, the Ghana Health Service (2003) defined Safe Motherhood as creating the circumstances within which a woman is enabled to choose whether she will become pregnant, and if she does, ensuring she receives care for prevention and treatment of pregnancy complications, has access to trained birth attendants, has access to emergency obstetric care if she needs it, and care after birth, so that she can avoid death or disability from complications of pregnancy and child birth. (Mahamadu, 2011)

2.3.1.2 Maternal mortality in Ghana

One of the main health issues facing the country is the high incidence of infant mortality. The Ghana Demographic and Health Survey (GSS, 2014) estimates the Infant Mortality Rate (IMR) to be 77 per 1,000 live births. Enormous reduction in child mortality (under 5 mortality) occurred almost everywhere around the world between 1980 – 1990. For example, child mortality in Chile dropped from 155 to 20 per 1,000 live birth, Tunisia from 245 to 45 and Sri Lanka from 140 to 22 (World Bank, 1993). However, in Ghana child mortality rate as recorded in the GDHS of

1988 was 155 per 1,000 live births. From Ministry of Health (MOH), data sources reveal that almost 60% of the deaths occurring among children under 5 are preventable. It is also established that 31.4% of children under 5 are underweight (Mahamadu 2011).

2.4 FACTORS AFFECTIING MATERNAL HEALTH CARE UTILISATION

Major complications that occur during and following childbirth are the leading cause of death among adolescent girls in most developing countries (WHO 2012c); and can be sudden and unpredictable (Bayou 2014). Maternal and perinatal outcomes in such instances are greatly improved when such complications occur in the presence of a trained attendant and in a facility well equipped to handle such emergencies (Singh *et al.,* 2009).

The determinants of the utilization of maternal health care services vary across socio-economic, demographic and cultural contexts (Gabrysch & Campbell 2009). Some of the selected factors influencing maternal care utilization are summarized below.

2.4.1 Demographic factors

Age of Mother

Maternal age is often indicated as factor for health care seeking behaviour. Older women are more likely to use health care services (Adjiwanou & LeGrand, 2013) due to their experience in using health services, more confidence in household decision-making, and they might have the knowldge that older age is a risk factor (Gabrysch & Campbell 2009). Some studies from Africa indicates that primipara women or teenagers are less likely by about 16% to receive advice and information about pregnancy complications (Nikie´ma *et al.,* 2009). A study in Vietnam shows that giving birth in Hospitals was more frequently associated with women older than 35 years (Toan *et al.,* 2013).

This is however, the positive in some societies, in some societies maternal health care utilisation is lower among older women (Ibnouf *et al.,* 2007). In Nepal and India, institutional delivery was more common among young mothers compared to older ones (Baral, Lyons, Skinner & Van Teijlingen, 2012). A Similar study in urban Kenya shows that young women were better users of skilled professional assistance (Ochako *et al.*, 2011).

Parity

A study from the Democratic Republic of Congo indicates that primiparous and grand multiparous women were twice likely not to attend ANC compared to multiparous women. The same study however, indicates that more multiparous women delivery at health facility than the primi or grand multiparous ones (Ntambue, Malonga, Dramaix-Wilmey & Donnen 2012). Higher parity women are less likely to use health care (Mahapatro, 2012). Women who have several births prefer to deliver at home by using traditional birth attendants or with no support at all (Canavan, 2009). A study conducted in Uganda, indicated that high parity women tended to receive a lower content of ANC service (Adjiwanou & LeGrand 2013). The poor use of maternal health services by multi-parity women is sometimes related to the misconceptions of risks of pregnancy as they feel experienced and knowledgeable from previous pregnancies and childbirths (Ochako *et al.,* 2011).

Education

One of the key social determinants of health and health care among all societies is education. In Ghana, a study indicated that women with secondary schooling have higher probability of getting ANC services compared to women with no schooling (Adjiwanou & LeGrand, 2013). In Bangladesh, a mother with more than primary education has twice more chance of seeking for

ANC services from a skilled care provided (Amin, Shah & Becker et al 2010). Woman's and partner's or husband's education has a positive effect on seeking modern antenatal care and skilled birth attendance services (Adjiwanou & LeGrand, 2013; Tann *et al.,* 2007).

Occupation

Women who are gainful employed are empowered and have a key position in the distribution of resources at household level. Employment gives women more autonomy which helps them ensure their right to health (Mahapatro, 2012). Studies show that women engaged in farming activities are less likely to use ANC and skilled delivery care services. Similarly, women in the formal employment are more likely to use delivery services compared to their informally employed (Gabrysch & Cambell, 2009). Likewise, women whose husbands are in skilled occupation are more likely to use maternal health care compared to those whose husbands are engaged in manual or agricultural occupation (Mahapatro, 2012).

2.5.3 Beliefs and Perceptions

Women's awareness about pregnancy complications and risks hugely influence maternal care utilisation. Perceived benefits of skilled services, influence women's care seeking behaviour. These perceptions can be shaped by increasing the general level of awareness about dangers or risks of pregnancy and childbirth and possible interventions (Gabrysch & Cambell, 2009). Each antenatal visit creates an opportunity to teach pregnant mothers how to recognise signs of pregnancy complications and how to seek for emergency obstetric care if the need be (Singh *et al.,* 2009). A study conducted in Zambia revealed that women who were aware of danger signs of pregnancy and were informed about pregnancy complications at ANC visit were found to be more likely to give birth in health facilities (Gabrysch & Cambell, 2009).

2.6 Predisposing Factors

History of pregnancy complications

Women having a previous history of complications or worried about health problems are likely to seek both antenatal care and skilled attendance at birth more frequently than other women. Women with high risk pregnancy are more likely to get skilled delivery assistance from health facilities (Toan *et al.*, 2013). Complications during an attempted home delivery including prolonged labour or knowledge about pregnancy risks often influence women and their families to seek professional care. It is also to add that expecting complications may discourage women from seeking skilled care at delivery through fear of operation or caesarean section (Carter, 2010).

Unintended Pregnancy

Unintended pregnancies have been identified as important factors influencing maternal health care seeking behaviour. Several studies show that unplanned births are associated with delayed initiation of antenatal care (Dibaba, Fantahun & Hindin, 2013). Dibaba *et al.* (2013), reveal in a meta-analysis based on studies conducted in different countries that there was a higher odds of inadequate ANC utilisation among women with unintended pregnancies. A study conducted in Democratic Republic of Congo shows that women who had unplanned pregnancy were less likely to attend ANC services compared to those who had planned their pregnancies by themselves or jointly with partner (Ntambue *et al.,* 2012). In Kenya, the odds of home delivery increased by 40% when the pregnancy is unwanted or unintended and in South Africa, the odds of having a doctor at delivery increased by 30% when the child was wanted at the time of birth (Gabrysch & Cambell 2009).

Healthcare Utilization Factors

2.5.4 Family and Individual Resources

Large disparities in maternal health care exist between rich and poor people (Canavan 2009; WHO 2012c), between public and private health sectors, between districts, and among rural, urban, and peri-urban populations (Canavan 2009; *Singh et al.,* 2009). Household level poverty plays a different role on skilled delivery attendance. In Burkina Faso, a study indicates that household wealth is negatively associated with ANC utilisation and has no any significant association with facility-based delivery (De Allegri, 2011). In Bangladesh, mothers from highest wealth quintile were nearly 8 and 11 times more likely to seek ANC and delivery care services respectively compared to those in lowest wealth quintile (Amin *et al.,* 2010). Also in Kenya, another study shows that women from the richest households were nine percent more likely to receive good ANC services compared to those from the poorest households (Adjiwanou & LeGrand, 2013).

2.5.5 Accessibility

Findings from empirical studies of preventive and curative services indicate that health care utilisation is related to the availability, cost of care during pregnancy and childbirth, distance from health facility (Carter, 2010; Friberg *et al.,* 2010) and social structure, health beliefs, and personal characteristics of the users (Singh *et al.,* 2009). Difficulties in physical accessibility of or geographical distance to health services (Tann *et al.,* 2007) affects the utilization of maternal care services through delaying of reaching the health facility or indirectly delaying individuals motive of seeking for care (Gabrysch & Campbell, 2009). Women receiving overall adequate ANC services were more likely to give birth at Hospitals in rural Vietnam (Toan *et al.,* 2013).

2.5.6 Previous ANC Experience

ANC services are important entry points for birth preparedness (Canavan, 2009). There is also a strong linkage between use of antenatal care and place of delivery or skilled birth attendance. Women who make four or more antenatal care visits are more likely to deliver in a health facility or by qualified practitioner than women who make less than four antenatal visits (Baral *et al.*, 2012; Joharifard *et al.*, 2012). In Kenya and in Ghana women who have had at least four antenatal consultations were, respectively, 20% and 17% more likely to give birth with medical assistance (Adjiwanou & LeGrand 2013). Early initiation of first ANC visits also influences use of skilled assistance at birth (Ochako *et al.*, 2011).

2.5.7 Cost Health Cost/ Health Insurance

The cost of care-seeking may include costs of transportation, medications and supplies, official and unofficial provider fees as well as the opportunity costs of travel time and waiting time lost from productive activities (Gabrysch & Campbell, 2009). According to findings of a study in Uganda, nearly 40% of women with financial and transport limitations delivered at home with no trained assistant (Tann *et al.*, 2007).

CHAPTER THREE

3.0 METHODOLOGY

Introduction

This chapter presents the materials, methods and techniques that were adopted to explore the research questions. This section describes the study population, research design and sampling techniques, data sources, data collection instruments, data processing and analysis and data quality.

3.1 Study Design

This was a cross-sectional study among women in their reproductive ages, particularly those who have experienced childbirth in not more than two years to the study in the East Akim Municipality. Quantitative data collection approaches using a structured questionnaire was used to collect data on socio-demographic and enabling factors, health seeking behaviour, maternity services utilization and the perceptions among women about maternal health and maternity services.

3.2 Data collection technique/method and tools

The data collection tool that was used for this study was a structured questionnaire. The questionnaire was developed based on the objectives of the study and also based on the literature reviewed. The questionnaire was focused on the respondents' demographics, health seeking practices, the utilization of maternity services, factors influencing healthcare seeking and perception about maternal health services. The questionnaire was composed of closed ended questions intended to answer the research questions.

Respondents were guided in completing the questionnaire. Completed questionnaires were checked for completeness.

3.3 Study Population

The study involved women in their reproductive ages (15-49 years) in the East Akim Municipality who have experienced pregnancy and child birth in past two years prior the study.

3.3.1 Inclusion and exclusion criteria

The inclusion criteria used was that the respondent must be in her reproductive age (15-49 years) and that the last childbirth must be within two years preceding the study. The respondent must have delivered within the municipality and have stayed in the municipality for more than one year.

The study excluded mothers below the age of fifteen years and those who had delivered in another district other than East Akim and had moved to East Akim. The study also excluded mothers who had their last childbirth more than two years to the study.

3.4 Study Variables

Dependent variable;

- **The regular use of antenatal services**: respondents use of antenatal services, time of first initiation, the interval of use and the number of antenatal visits during pregnancy.
- **The use of health facility for delivery:** Respondents preferred place of delivery, reasons for the non-use of health facility.
- **The use of skilled attendants:** Respondents attendants at birth
- **The use of postnatal care:** respondents use of care after delivery, time of initiation, interval and number of attendance within forty-two days following delivery.

Independent variables;

- **Socio-demographic/predisposing factors;** Age, marital status, educational level, place of residence, ethnicity, Religion, parity, family structure, employment and income status.
- **Enabling factors/ socioeconomic status/ health system:** availability of health facility, distance to health facility, payment for health services, decision making power, supportive systems, availability of information.
- **Need factors:** perception about health services and perceived susceptibility to pregnancy risk, pregnancy intentions,

3.5 Sampling

3.5.1 Sample Size determination

The sample for the study determined as follows.

Population of women in their reproductive ages = 41,601

Confidence level = 95%

Confidence Limit = 5%

Expected Frequency = (Population of Women with children)/ Total women in their reproductive years =31201/41601 = 0.75

Design Effect = 1

Using EPI 7 Sample size calculator, the sample size was given as 288

Given non-response rate of 8%, 0.08*288=22.04

Therefore 288+23=310

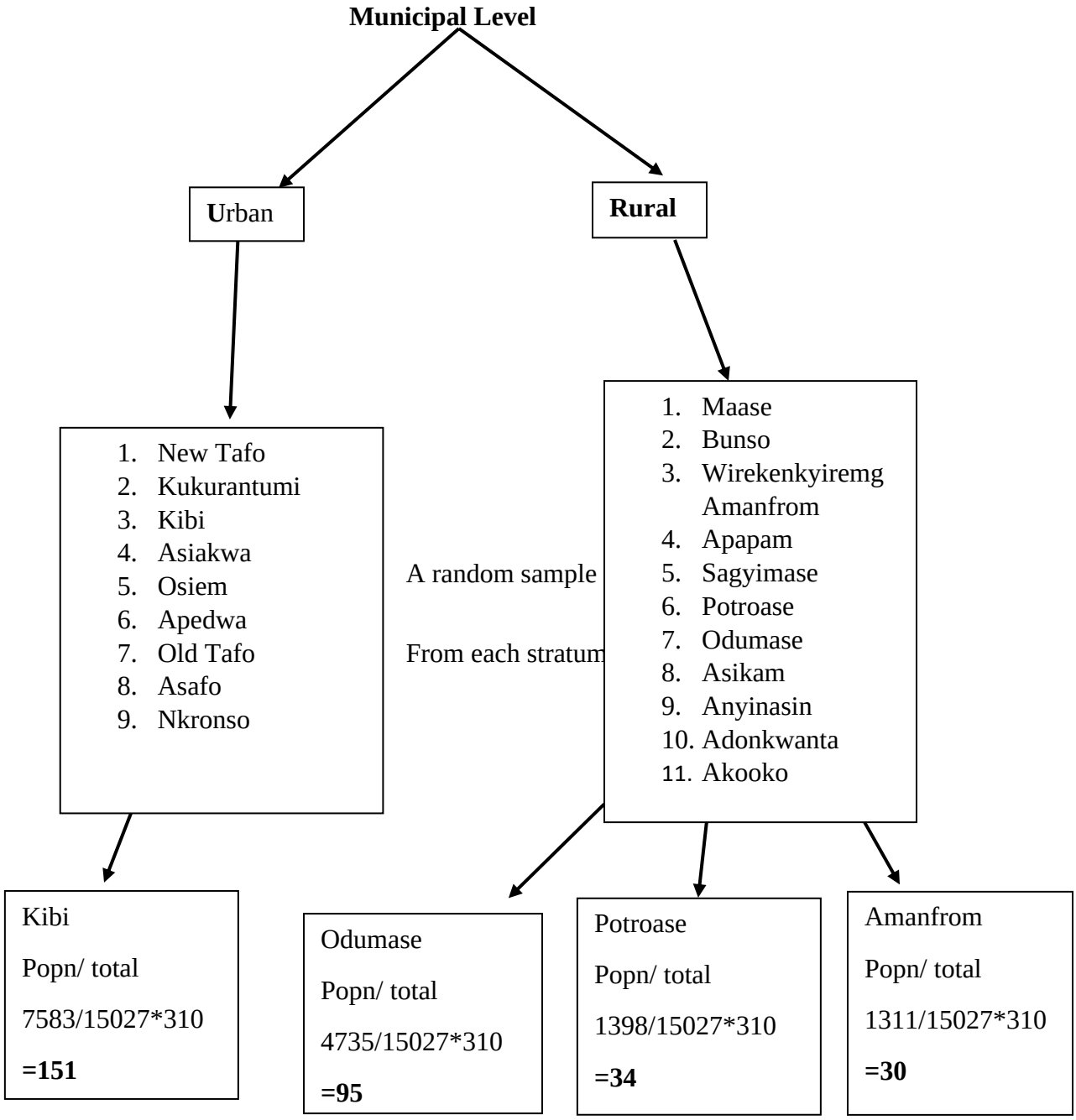
From the above, the total sample size for the study is **310.**

3.5.2 Sampling Method

Stratified Sampling technique was used by the researcher in selecting the required sample for the study. The communities within the East Akim Municipality were stratified into two different groups; namely urban and rural communities. This method was chosen because of the need for representativeness of the chosen population.

Each stratum was subdivided into nine and eleven major urban and rural communities respectively. A simple random sampling methodology was used to select a total of four communities from each of the rural and urban strata. A total of four communities comprising of three rural and one urban area were selected from the 20 major communities for the study.

Three hundred and ten respondents (310) respondents were drawn from the 4 randomly selected communities according to their population proportion. Any woman who meets the inclusion criteria was selected and interviewed with a structured questionnaire. Houses and non-houses were visited until the required respondents for each community was exhausted.



Sample size=**310**

Figure 0.1:The proportion of mothers that was sampled from each stratum

3.6 Pre-testing of Instruments

The questionnaire was pre-testing on a sample of 10 mothers with similar characteristics from a nearby district. This was useful in uncovering aspects of the questionnaire that would have made it difficult for respondents to interpret and respond as intended.

Several writers, including (Best & Khan, 1998; Gall *et al.*, 1996) have advocated the pilot-testing of a survey instrument prior to its delivery to participants. In line with the views expressed, the instrument was pre-tested in the Fanteakwa District among a population of similar characteristics to the study population.

3.7 Data Handling

Data collection was done solely by the researcher and trained assistants. All questionnaires returned were checked for mistakes and completeness. The data was entered in an excel spreadsheet and exported into STATA 14. Programmed error check and cleaning was done to reduce data entry errors and validated authenticity.

3.8 Data Analysis

Data was entered using Microsoft excel 2016, cleaned, coded and all errors checked. The statistical analysis was done using STATA 14 (StataCorp LP, College Station, TX, USA). Preliminary analysis was carried out on 310 questionnaires to summarize the data on socio-demographic characteristics of respondents, women's health seeking behaviour. Hence used both univariate, bivariate and multivariate analysis to explore the effects of the independent variables on the study outcomes.

Univariate analysis. Use Percentages, tables and figures. The univariate analysis was conducted for the purpose of describing the background characteristics of the study participants. Tabulation

of each independent variable resulted in an output of frequencies and percentages of the characteristic of the mothers in the study area.

Bivariate analysis. The bivariate analysis is the second level of analysis which was under taken in the study. This was performed on each independent variable against the study outcomes

This then indicated the extent to which each variable was associated with each other. Pearson Chi-square test was at 5 % confidence level. This test, reports Chi square value and fishers exact where applicable, indicating the nature of association between each independent variable and dependent variables.

Multivariate analysis: binary logistic regression. The third stage of the analysis was the multivariate logistic regression test. The model first looked at the impact of each independent variable on the dependent variable. The final model included all the independent variables against the dependent variable. This was done to determine the extent to which all the background variables have an effect on the dependent variable at the different stages

3.8.1 Dissemination of findings

The research findings are presented in a Thesis format report and will be disseminated in a Journal publication and representation in review meetings at municipal health directorate and at the academic community of Ensign. Also through any other electronic or print media if possible.

3.9 Ethical consideration/Administrative Approvals

The researcher sought for ethical clearance from the Ghana Health Service through the East Akim Health Directorate and the Ensign College of Public Health Ethics Committee. Administrative approval was given by the East Akim Municipal Assembly. Consent was

obtained from respondents prior to interviews after the objective and rationale for the study had been explained to them.

3.9.1 Privacy and confidentiality

The privacy and confidentiality of the respondents was assured. All information provided by the respondents was kept confidential and data were locked in cabinet and on computers protected by passwords. The name and identity of the respondent was not needed for the study. The information provided was only identified by a code number and was treated with strict confidentiality. Respondents' name did not appear or was not mentioned in any part of the report of this study.

The respondents' involvement in this study was only through an interview and was not exposed to any form of risks. The subjects' participation in the study was voluntary and was not given any monetary or any kind of reward. All the information provided by the respondents was used for the study.

3.10 Limitations of the study

The study included only women in their reproductive ages but did not include mothers below the age of 15 years or above 49 years, although their participation could have further substantiated the results obtained. Women outside the reproductive ages were not included because their different characteristics which might be different from the study group.

The study relied on self-report from the respondents and some of the information given by the respondents could not be verified, there may therefore be information bias. This was reduced by occasionally requesting respondents' Antenatal booklet to verify the authenticity of information given.

3.11 Assumptions

The study made use of the following assumptions;

- It is assumed that all conditions were fairly stable at the time of the study.
- It is also assumed that health services are equally distributed within the municipality
- It is assumed that all respondents are of sounding reasoning and understanding.
- Again, responses from respondents are assumed to be truth and accurate.

CHAPTER FOUR

4.0 PRESENTATION OF RESULTS

Introduction

This section of the thesis presents the results obtained from the respondents of the study. It is presented both descriptively and analytically in the form of tables and graphs and organized according to the study objectives.

4.1. Demographic Characteristics of Respondents

The demographic characteristics of the respondents are presented in Table 4.1. The average age of respondents was 27 years ±6.57, ranging from 16 to 42 years. A high proportion of the respondents (88.39%) had formal education with 11.61% having no formal education. More than half of the respondents had up to Middle or JSS education (50.65%). Primary level education constituted 24.19 while 5.16% had higher or tertiary education. With regards to ethnicity, more than half of the respondents were from the Akan ethnic group (50.32%), 20.0% were Ewes, 19.03% were Krobos with 10.65% constituting other groups. 35.38 % of the women were married and 22.26% were single mothers. Majority of the respondents (42.26%) were cohabiting, that is staying with a partner without a formal marriage.

With regards to the employment status of the respondents, women in formal employment constituted only 7.10% of the total respondents. 47.10% of respondents were in Informal employment and 45.81% were unemployed. Respondents were predominantly rural residents (63.23%) with 40.32% urban. With regards to parity, 59.68% of the respondents have had up to two births and 40.32% have had more than three births. Vaginal or normal delivery was the most common delivery mode experienced by the mothers (85.81%) with less than 14% having either Emergency or planned caesarean.

Table 4. 1:Demographic Characteristics of Respondents

Characteristics (N=310)	Frequency (n)	Percentage (%)
Age		
16-22	95	30.65
23-28	115	37.10
29-34	54	17.42
35-43	46	14.84
Educational Status		
No Formal Education	36	11.61
Primary	75	24.19
Middle/JSS/JHS	157	50.65
SSS/SHS/Vocational	26	8.39
Tertiary/Poly	16	5.16
Ethnicity		
Akan	156	50.32
Ewe	62	20.00
Krobo	59	19.03
Other	33	10.65
Religion		
Christian	290	93.55
Muslim	15	4.84
No Religion	5	1.61
Marital Status		
Married	110	35.48
Co-habiting	131	42.26
Single	69	22.26
Employment Status		
Formal/Salary workers	22	7.10
Informal/self-employed	146	47.10
Unemployed	142	45.81
Residence		
Rural	196	63.23
Urban	125	40.32
Parity		
1-2 children	185	59.68
3-8 children	125	40.32
Mode of Delivery		
Vaginal	266	85.81
Emergency Caesarean	38	12.26
Planned Cesarean	6	1.94

Note: Data is presented in frequencies (n) and percentages (%)

4.2: Health seeking practices among the respondents during pregnancy, child and the postpartum period

Data was collected to assess the common health seeking practices of women during pregnancy. The data obtained, which covered adhered health advice, where ailment is treated, self-medication and interested areas of health practice is presented in Table 4.1.2.

Table 4.2:Distribution of health seeking practices among respondents

Health Seeking Practices	Frequency (N)
Most practiced health Advice	
Prescription from Health worker	238 (76.77)
Family/ Friends recommendations	56 (18.06)
Self-studied information from radio/online and others	16 (5.16)
Where ailment was treated	
At health facility	274 (88.39)
Form Herbalist or Traditionalist	7 (2.26)
Self-treatment	10 (3.23)
None	19 (6.13)
Ever Self-Medicated*	
Yes	98 (31.61)
No	212 (68.39)
Type of medication used for self-medication	
Use of prepared herbal medicine	93 (94.90)
Use of prescribed drug from past treatment	2 (2.0)
Use of chemical drug not prescribed	3 (3.1)

***Self-medication was explained as the use of any medications during the period pregnancy and childbirth without the direction of a qualified doctor, physician or a health personnel.**

Majority of the respondents (76.77%) had followed only prescriptions or advice from a professional health worker while 18.06% had used recommendations and advice from family and

friends. A small minority (5.16%) had followed health information read or heard from electronic media and the internet. With regards to respondents behaviour towards ailment treatment, an overwhelming majority (88.39%) had only used healthcare facilities when they were sick. The remaining (3.23%) had resorted to self-treatment at home, 2.26% had visited the herbalist for medication and 6.13% had practice none of the above-mentioned methods. Self-medication during pregnancy and childbirth was reported to have been performed by 31.61% of the respondents. Methods and types of self-medications used among these included the use of prepared herbal medication (95%), used of prescribed drug from past treatment (2.0%) and the use of chemical drug not prescribed constituted 5% of those who had ever practiced self-medication.

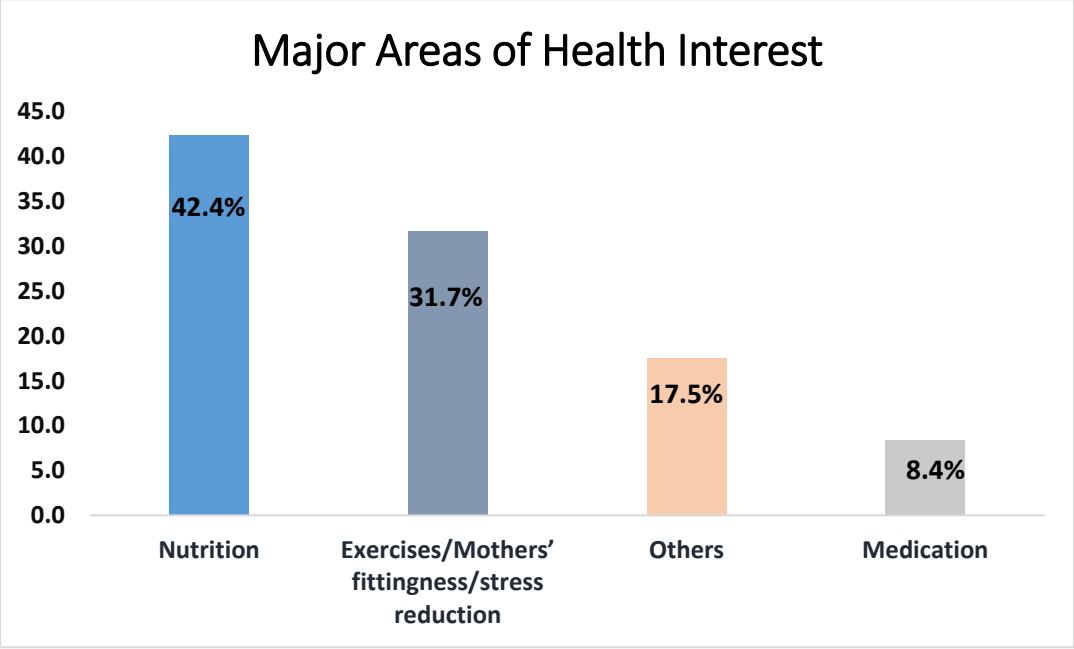


Figure 4.1:Respondents major areas of health interest during pregnancy, Childbirth and Postpartum Period.

Among the mothers studied, 42.4% of them indicated that nutrition was the main component of area of health interest and 31.7% were most interested in exercises, fitness and stress reduction.

The proper use of medication was only preferred by 8.4% of the respondents. Other areas of health interest such as child health formed 17.5%. See (Figure 4.1 above)

4.3.0: Predisposing and enabling factors relating to health seeking behaviour during pregnancy, childbirth and the postpartum period

Table 4.3 presents information on some factors regarding socioeconomic status, pregnancy history.

Table 4.3: Presentation of predisposing factors relating to health seeking behaviour and the use of maternity services during pregnancy, childbirth and the postpartum period

Factors	Categories	Frequency (%)
Previous childbirth		
	Yes	214 (69.03)
	No	96 (30.97)
Intended pregnancy	Yes	114 (36.77)
	No	196 (63.23)
Complications with pregnancy	Yes	87 (28.06)
	No	223 (71.94)
Difficulties with previous pregnancies	Yes	58 (27.10)
	No	252 (81.29)
Family Structure	Nuclear Family	205 (66.13)
	Extended Family	105 (33.87)
Birth and pregnancy decision making power	High	63 (20.32)
	Medium	104 (33.55)
	Low	143 (46.13)
Health Status during pregnancy	Fair	33 (10.65)
	Good	172 (55.48)
	Very Good	105 (33.87)

Note: Data is presented in frequencies and percentages (%)

The table above (Table 4.3) indicates that 69.03% of the mothers had a previous childbirth prior to their current or the last birth at the time of the study with the remaining 30.97% having no previous childbirth experience. Also, 36.77% of the women had an intended pregnancy whilst 63% of the women had an unintended pregnancy. Only 27.10% of respondents had a history of pregnancy complications, however, 28.06% of the women indicated having difficulties with their current childbirth.

Mothers who had high decision-making power regarding pregnancy and childbirth constituted only 20.32% with the majority (46.13%) having low decision-making power concerning pregnancy and childbirth including birth planning. Family support for women during pregnancy and childbirth was high (78.71%). Only 21.29% of the respondents indicated that they had received no support from their families. The most supportive family members include partners, parents and in-laws.

Table 4.3.1: Presentation of enabling factors relating to health seeking behaviour and the use of maternity services during pregnancy, childbirth and the postpartum period

Factors	Categories	Frequency (%)
Access of Pregnancy information through media	Yes	167 (53.87)
	No	143 (46.13)
Availability of family support	Yes	244 (78.71)
	No	66 (21.29)
Availability of maternity services in the community	Yes	275 (88.71)
	No	35 (11.29)
Distance to the nearest facility	Less than 5 km(close)	106 (34.19)
	5 to 10 km (Far)	175 (56.45)
	More than 10 km (Very Far)	29 (9.35)
Attitudes of health workers	Excellent	105 (33.87)
	Very Good	123 (39.68)
	Good	49 (15.81)
	Fair	17 (5.48)
	Poor	16 (5.16)
Having Active Health Insurance	Yes	297 (95.81)
	No	13 (4.19)
Sources of Care financing	Health Insurance	259 (83.55)
	Out of pocket	39 (12.58)
	Family Support	12 (3.87)
Cost of Maternity Services	High	37 (11.94)
	Moderate	85 (27.42)
	Low	28 (9.03)
	Don't Know	160 (51.61)

Note: Data is presented in frequencies and percentages (%); Km-kilometers

The table above (Table 4.3.1), most respondents described the attitude of health workers as excellent (33.87%), or very good (39.68%), with 15.81% describing them as good and 5.48% as fair. On the other hand, 5.16% of respondents described health workers' attitudes as poor. Majority of the mothers (88.71%) admitted having maternity services within their community with only 11.29% disclosing the non-availability of maternity services in their community. More

than half of the respondents lived within 5 to 10 kilometers to the nearest health facility and 34.19% live less than 5 kilometers to the closest health facility. Only 9.35% of the respondents lived very far - more than 10 kilometers from the nearest health facility. Active health insurance ownership was high. 95.81% of the mothers interviewed had active health insurance with only 4.19% not having any active health insurance. Cost of maternal health care was largely financed through health insurance (83.55%), other means of payment included out of pocket and family support (12.58% and 3.87% respectively). Respondents rated cost of maternity services as high (11.94%), Moderate (27.42%) and Low (9.03%). More than half of the mothers (51.61%) could not rate the cost because they believed they did not incur any extra cost above the insurance coverage.

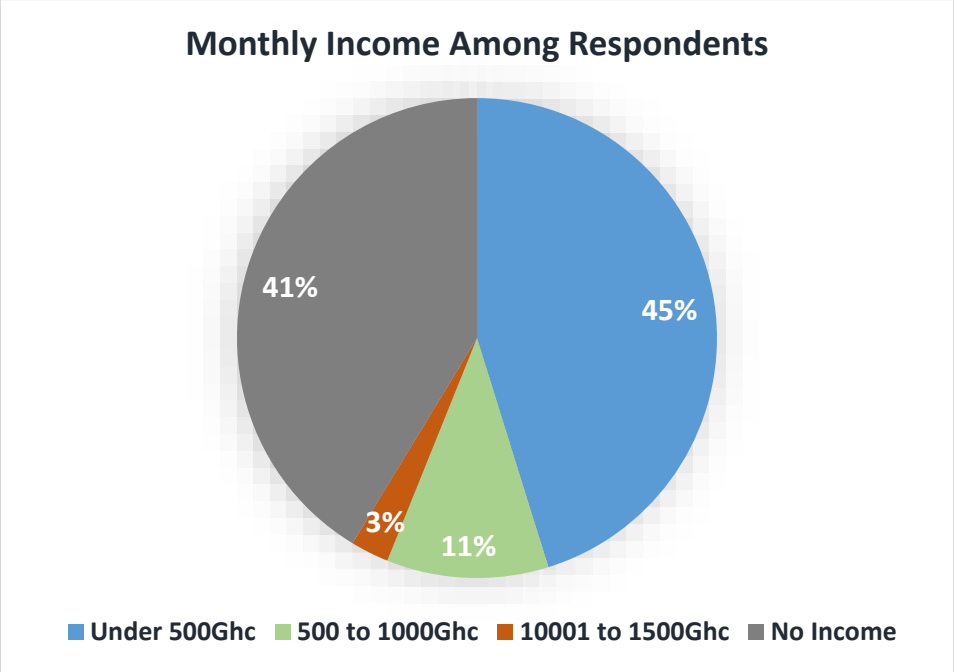


Figure 4.3.1: Respondents Monthly Income

Most respondents in the study had very low or no monthly incomes. 45% of women had monthly salaries or incomes that were under Ghc 500.00, 11% received income between Ghc 500 and Ghc 1000.00, with only 3% earning a monthly income above Gh 1000.00. Almost half (41%) of the respondents had no monthly income. (Figure 4.3.1 above)

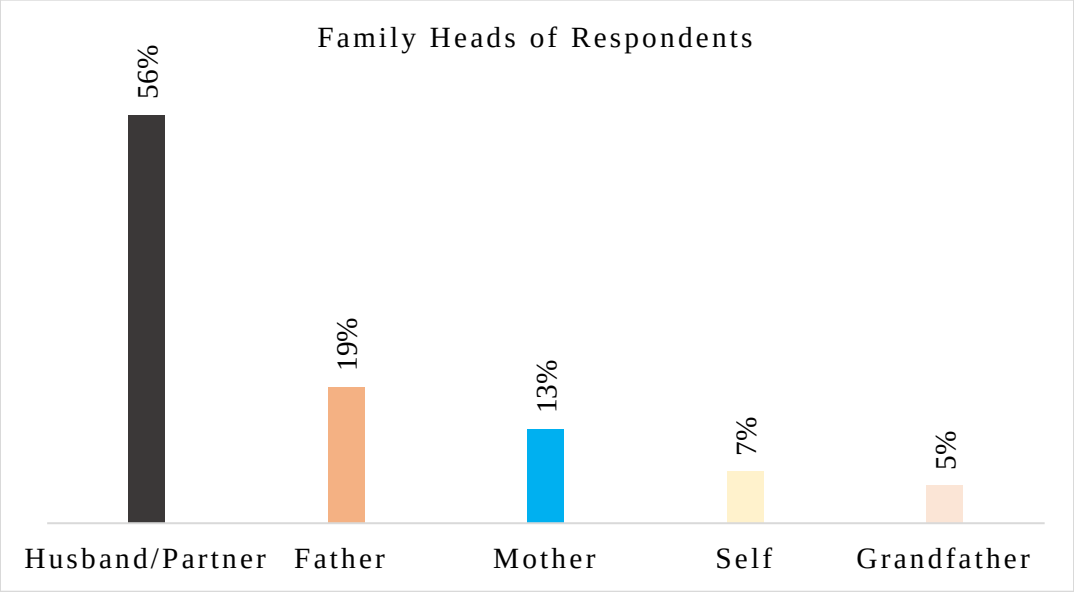


Figure 4.3.2: Heads of Households

From the figure 4.3.2 above, more than half of the households of these mothers were headed by their partners or husbands (56.13%). Households headed by the mothers themselves formed only 7.10%. Other heads of households include respondents' father, mother and grandparent (18.71%, 12.90% and 5.16%) respectively.

Social and Electronic Media

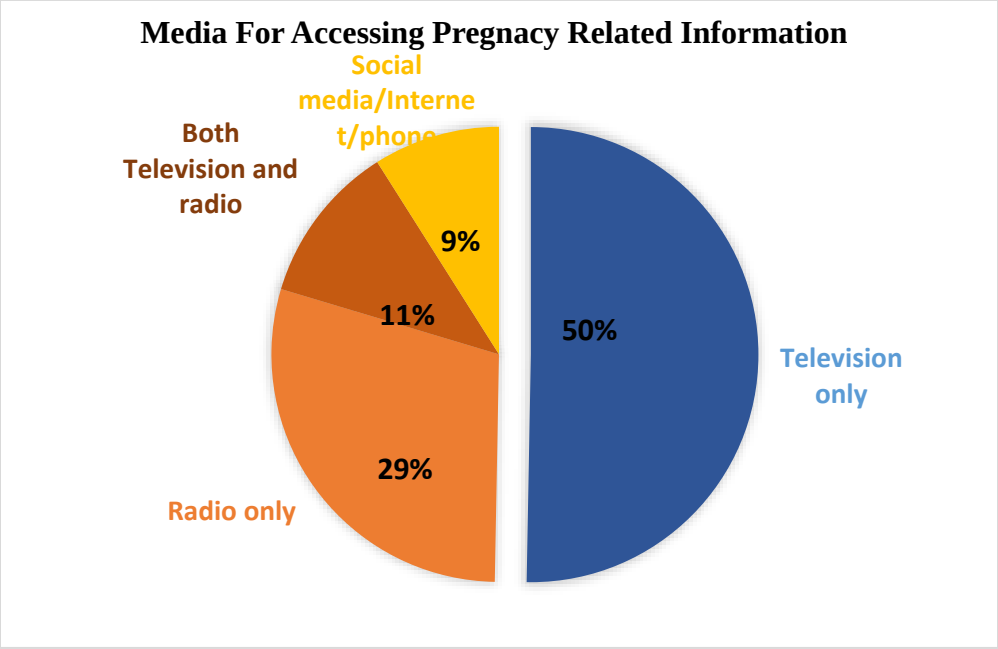


Figure 4.4: Media for accessing pregnancy information

Figure 4.4 is a pie chart showing types of media for accessing pregnancy information. Most respondents indicated that social and electronic media help mothers to learn more about pregnancy and child birth related issues. Among the various media mentioned, half of the respondents indicated receiving information from Television. 29% mentioned radio and 11% indicated they received information from both radio and television. (Figure 4.4)

4.4.0 Perceptions and Attitudes Towards Maternal Health and Maternity Services

4.4.1. Perceptions and Attitudes toward Antenatal services

The table below provides the distribution of perceptions and attitudes of respondents towards ANC

Table 4.4: Distribution of Respondents Perceptions towards Antenatal Care.

Variable	Category	N (%) n=310	P-Value	OR(95%CI)
A pregnant woman does not need to go to a hospital for regular checks to be safe	Don't Agree	218 (70.32)	Ref	1
	Agree	53 (17)	0.5469	1.21(0.65, 2.26)
	Don't Know	39 (12.58)	0.6000	1.21 (0.59, 2.46)
Antenatal care is more effective than self-treatment or the use of herbal medicine at home.	Don't Agree	41 (13.23)	Ref	1
	Agree	258 (83.23)	04540	0.77 (0.38, 1.54)
	Don't Know	11 (3.55)	0.669	1.38 (0.31, 6.15)
Antenatal care is good for every pregnant woman	Don't Agree	7 (2.26)	Ref	1
	Agree	292 (94.19)	0.1593	0.59 (0.11, 3.10)
	Don't Know	11 (3.55)	0.4478	4.00 (0.24, 65.66)
Antenatal care is mostly recommended for first time pregnancy or women having complication.	Don't Agree	269 (86.77)	Ref	1
	Agree	27 (8.71)	0.1593	1.89 (0.77, 4.64)
	Don't Know	14 (4.52)	0.4478	0.66 (0.22, 1.94)
Going for regular antenatal care helps to identify and reduce risks associated with pregnancy.	Don't Agree	53 (17.10)	Ref	1
	Agree	239 (77.10)	0.0059	0.37 (0.19, 0.78)
	Don't Know	18 (5.81)	0.3710	0.59 (0.18, 1.92)
Women who utilize Antenatal services are more likely to have better birth or pregnancy outcomes	Don't Agree	38 (12.26)	Ref	1
	Agree	251 (80.97)	0.1317	0.57 (0.27, 1.20)
	Don't Know	21 (6.77)	0.6735	1.30 (0.38, 4.50)
Pregnant women are treated with respect and dignity by health workers at facilities.	Don't Agree	110 (35.48)	Ref	1
	Agree	167 (53.87)	0.0001	0.35 (0.20,0.59)
	Don't Know	33 (10.65)	0.5816	0.79 (0.33, 1.86)

Note: OR-Unadjusted odds ratio, CI-Confidence Interval, α<0.05 (significant level)

The table 4.4 below gives the summary of responses of participants on their perceptions of antenatal care services and their association with regular antenatal visits. A majority of the women did not agree with the statement that "a pregnant woman does not always need to go to the hospital for regular checks", (70.32%) at p-value= 0.546 (OR=1.21, CI:0. 649-2.46). Only 53(17%) of the respondents agreed to the statement. Over 83% of the mothers agreed that "Antenatal care is more effective than self-treatment at home" and with only 13.33% not agreeing with the statement (P-value=0.66).

When the respondents were asked about their perception of the statement that, "antenatal care is good for every woman", an overwhelming majority (94.19%) agreed to such statement. Respondents were again asked about their perception of the statement that "antenatal care is mostly recommended for first time pregnancy or when there is a complication, again, the majority 269 (86.77%) did not agree with the statement, with a p-value of 0.159 (OR: 1.89, CI:0.768-4.638). Another 77.10% of the respondents also agreed to the statement that "going for regular antenatal care helps to identify and reduce risks associated with pregnancy". This was significantly associated with regular ANC visit (p-value=0059, OR:0.37, CI:0.1913-0.7803), however, 17.10% (53/310) did not agree to this statement. When the respondents were also asked on how they are treated by health workers, more than half (53.87%) agreed to the statement that "pregnant women are not treated with respect and dignity by health workers. This was significantly associated with regular antenatal visit with p-value=<0.0001 (OR:0.35, CI:0.201, 0.594). See (Table 4.1.4)

4.4.2. Perceptions towards health facility deliver

The below table 4.5 shows the distribution of respondents' perceptions toward health facility delivery.

Table 4.5:Respondents perceptions and attitudes toward Institutional delivery

Statements	Category	N (%) n=310	P-Value	OR(95%CI)
It is safe and convenient to delivery at home than in the health facility	Don't Agree	223 (71.94)	Ref	1
	Agree	66 (21.29)	0.3594	0.75 (0.41, 1.38)
	Don't Know	21 (6.77)	0.5663	1.39 (0.45, 4.32)
Health facility delivery is the sure way to reduce your risk to dying from birth	Don't Agree	27 (8.71)	Ref	1
	Agree	272 (87.74)	0.4323	0.67 (0.24, 1.84)
	Don't Know	11 (3.55)	0.0915	0.27 (0.05, 1.38)
I believe that skilled attendant is the best person to assist my delivery	Don't Agree	34 (10.97)	Ref	1
	Agree	253 (81.61)	0.2873	0.61 (0.24, 1.54)
	Don't Know	23 (7.42)	0.2632	0.49 (0.14, 1.75)
A woman who have experienced with childbirth do not need the presence of a skilled attendant in her subsequent delivery	Don't Agree	263 (84.84)	Ref	1
	Agree	32 (10.32)	0.3950	0.71 (0.32, 1.58)
	Don't Know	15 (4.84)	0.4334	0.64 (0.21, 1.96)

Note: OR: Unadjusted odds ratio; P-value<0.05: significant association

From the above, majority did not agree (71.94%) to the statement that home delivery is more safe and convenient than institutional delivery, however, this was not shown to be significantly associated with facility delivery at p-value 0.359 (OR:0.75, CI:0.4096,1.3841). Interestingly, (21.29%) of the respondents agreed to the statement and the remaining 6.77% did not know. On the statement that "Facility delivery is the sure way to reduce risk of dying from childbirth", a majority of respondents agreed (87.74%) with almost 4% neither agreeing nor disagreeing and those who didn't agree were 8.71%. With regard to skilled attendant at birth, 81.84% agreed that a Skilled attendant is the best person to assist in delivery. Almost 11% did not agree and remaining 7.42% had no idea whether to agree or not to agree. On the perception that "women

who have experience with childbirth do not need the presence of skilled attendant", majority did not agree (84.84%) however, this was not significantly associated with institutional delivery in a bivariate logistic regression and 4.84% had no idea.

Table 4.6: Perceptions and attitudes towards Postpartum care.

Statements	Category	N (%) n=310	P-Value	OR(95%CI)
The TBA in my village or town can give me all the assistance I need just as a skilled health worker.	Don't Agree Agree Don't Know	246 (79.35) 44 (14.19) 20 (6.45)	Ref 0.4668 0.3600	1 1.34 (0.61, 2.94) 0.64 (0.24, 1.68)
It is always important to take the baby for postnatal care	Don't Agree Agree Don't Know	44 (14.19) 252 (81.29) 14 (4.52)	Ref 0.7187 0.4875	1 0.58 (0.20, 1.73) 0.60(0.10, 3.77)
I believe that I or my mother or anyone in the family is capable of providing all the health needs my baby requires	Don't Agree Agree Don't Know	201 (64.84) 32 (10.32) 77 (24.84)	Ref 0.7187 0.4875	1 1.23 (0.40, 3.76) 1.33 (0.60, 2.94)

Note: OR: Unadjusted odds ratio; P-value<0.05: significant association

The table (4.6) above provides the description of perceptions and attitudes toward postpartum care among the respondents. Most of the respondents (79.35%) did not agree to the statement that "TBA can give all the assistance a qualified health worker can provide". They also disagreed with the statement that" postpartum care can be provided at home" (64.84%). On the other hand, majority (64.84%) agreed that postpartum care is important for themselves and the baby.

4.5.0 Patterns of maternity services utilization and associated factors among women of different socioeconomic and demographic groups in the study area.

4.5.1 Antenatal Service Utilization

The average number of ANC visits by respondents during pregnancy was 6 ± 2.3 visits. The least visits recorded was one visit and the maximum being 11 visits among the respondents.

Table 4.7:The Distribution of Antenatal service utilization among Respondents

Variables	Categories	Frequency (%)
At least one ANC	Yes	305 (98.39)
	No	5 (1.61)
Regular ANC (Not missing ANC appointments)	Yes	189 (60.97)
	No	121 (39.03)
ANC Provide	Midwife	100 (32.26)
	Nurses	190 (61.29)
	Doctors	15 (4.84)
	None	5 (1.61)
Place of Receiving ANC	Hospital/ clinic	285 (91.94)
	Health Center	18 (5.81)
	Private facility	2 (0.65)
	None	5 (1.61)
Having Difficulties accessing ANC	Yes	86 (27.74)
	No	224 (72.26)
Reasons for Difficulties	Long distance	24 (27.91)
	Cost	22 (25.58)
	Lack of family support	13 (15.12)
	Poor physical condition(environment)	25 (29.07)
	Time	2 (2.33)

Note: Information is presented in frequencies and percentages (%)

Antenatal care was widely utilized, 98.39% of the respondents had at least one antenatal visit with only 1.61% who did not make any visit throughout their entire period of pregnancy. However, regular visit to antenatal service (not missing an antenatal appointment) was not much outstanding. Out the total percentage of women who made a least one visit, only 60.97% of them followed all their antenatal appointments. The remaining 39.03% missed at least one appointment. ANC was largely accessed from government hospital or clinics (91.94%). Others accessed their care from health centers (5.81%) with an insignificant proportion accessing services from private facility. Difficulty in accessing ANC was low, 27% of respondents had

difficulty reaching for antenatal services. Reasons for such difficulties include long distance, cost, poor physical conditions of the environment (24.91%, 25.58%, 29.07% respectively). Other reasons indicated were lack of support from family (15.12%) and time constraint (2.33%) on the part of working mothers. See the Table 4.7

Table 4.8:Levels of ANC utilization among the mothers from various socioeconomic backgrounds.

Characteristics	ANC Timing		ANC Visits (%)	
	n (%) Early	n (%) Late	n (%) At least 4	n (%) Less than 4
Age Group				
16-22	60 (65.93)	31(34.07)	72 (75.79)	23 (24.21)
23-28	90 (78.95)	24 (21.05)	96 (83.48)	19 (16.52)
29-34	48 (88.89)	6 (11.11)	52 (96.30)	2 (3.70)
35-43	36 (78.26)	10 (21.74)	39 (84.78)	7 (15.22)
Residence				
Rural	107 (56.02)	84 (43.98)	156 (79.59)	40 (20.41)
Urban	70 (61.40)	44 (36.60)	103 (90.35	11 (9.65)
Education				
Primary to JHS	126 (55.26)	102 (44.74)	191 (82.33)	41 (17.67)
Secondary of Higher	30 (71.43)	12 (28.57)	40 (95.24)	2 (4.76)
None	21 (60.00)	14 (40.00)	28 (77.78)	8 (22.22)
Parity				
1-3	106 (57.61)	78 (42.39)	154 (83.24)	31 (16.76)
Above 3	71 (58.68)	50 (41.32)	105 (84.00)	20 (16.76)
Employment Status				
Formal/salary worker	19 (86.36)	3 (13.64)	21 (95.45)	1 (4.55)
Informal/self employed	118 (80.82)	28 (19.18)	126 (86.30)	20 (13.70)
Unemployed	97 (70.80)	40 (29.20)	112 (78.87)	30 (21.13)

Note: Information is presented in frequencies and percentages (%)

The table above (Table 4.8) shows the utilization of Antenatal care (timing and number of visits) among respondents of different demographic characteristics. The data indicates that early ANC visits was high among all age groups with 65.93% for 16-22 years, 78.95% for 23-28 years, 88.89% for those within 29-34 years and 78.26% for the older age group as (35 to 43 years). The percentage difference between early and late ANC visits among urban women (24.08%) was wider than that of urban women (12.04%). More than half of women with 1-3 living children, (57.61%) had early visits compared to women with late visits (42.39%). A similar observation was made for women with more than three living children. On employment status, 86.36% of formal workers had an early visit compared with 13.64% with late visits.

ANC visits was classified as either adequate, (at least four visits) or inadequate (less than four visits). The nature of antenatal visit had similar patterns with that of ANC timing, that is, adequate ANC visits was observed among all respondents from the various demographic backgrounds. Specifically, a higher proportion of urban women (90.35%) had adequate visits as compared with those who had less than 4 visits (9.65%). A similar pattern was found among rural women (79.59% and 20.41%) for at least 4 visits and less than four visits respectively. Almost all women in formal employment had at least four visits (95.45%) as against inadequate visits (4.55%).

4.5.1.2: Factors Associated with Regular Antenatal visits

Table 4.9:Bivariate analysis of demographic and enabling factors associated with Regular antenatal visits

	Regular ANC Attendance			
Variables	**Yes N (%)**	**No N (%)**	$X^{2\,(df)}$	**P-value**
Age				
28 years and Below	113(59.79)	97(80.17)	14.0174(1)	<0.001
29 years and Above	76(40.21)	24(19.83)		
Education				
None	23(12.17)	13(10.74)	10.9337(2)	0.004
Primary/JSS	131(69.31)	101(83.47)		
Secondary or High	35(18.52)	7(5.79)		
Religion				
Christian	177(93.65)	113(93.39)		0.107*
Muslim	11(5.82)	4(3.31)		
None	1(0.53)	4(3.31)		
Residence				
Rural	105(55.56)	91(75.21)	12.2524(1)	<0.001
Urban	84(44.44)	30(24.79)		
Employment Status				
Formal/Salary worker	18(9.52)	4(3.31)		<0.001*
Informal/self-employed	108(57.14)	38(31.40)		
Unemployed	63(33.33)	79(65.29)		
Ethnicity				
Akan	98(51.85)	58(47.93)	3.7972(3)	0.284
Ewe	35(18.52)	27(22.31)		
Krobo	32(16.93)	27(22.31)		
Other	24(12.70)	9(7.44)		
Marital Status				
Cohabitation	76(40.21)	55(45.45)	9.8859(2)	0.007
Married	79(41.80)	31(25.62)		
Single	34(17.99)	35(28.93)		
Parity				
1-2	109(57.67)	76(62.81)	0.8093(1)	0.368
3-8	80(42.33)	45(37.19)		

Fisher's exact p-value X2: chi square value; p-value <0.05: measure is significant; N represents frequencies and %, percentages

The table above show the distribution of demographic factors that are associated with the regular use of antenatal services among women during pregnancy. Among the demographic and

predisposing factors, age of the women, educational levels and residence were significantly associated with regular antenatal visits (p-values <0.001, 0.004 and <0.001 respectively). Again, factors such as women's employment status and marital status were also found to be significantly associated with regular antenatal visits with p-values <0.001 and 0.007 respectively. Parity and ethnicity were not significant factors.

4.10.1: Bivariate analysis of health care/enabling factors associated with Regular antenatal visits

Variables	Regular ANC Attendance Yes N (%)	No N (%)	$X^{2\,(df)}$	P-value
Distance to Health Facility				
Less than 5 kilometers	64(33.86)	42(34.71)		
5 to 10 kilometers	117(61.90)	58(47.93)	16.1458(2)	<0.001
More than	8(4.23)	21(17.36)		
Availability of Maternity Services				
No	16(8.47)	19(15.70)	3.8575	0.050
Yes	173(91.53)	102(84.30)		
Health Status During Pregnancy				
Fair	20(10.58)	13(10.74)		
Good	99(52.38)	73(60.33)	2.2751(2)	0.321
Very Good	70(37.04)	35(28.93)		
Decision Making Power				
High	43(22.75)	20(16.53)	8.0976(2)	0.017
Low	75(39.68)	68(56.20)		
Medium	71(37.57)	33(27.27)		
Income Status				
High	30(15.87)	12(9.92)	18.2026(2)	<0.001
Low to Medium	99(52.38)	41(33.88)		
No Income	60(31.75)	68(56.20)		
Intended Pregnancy				
No	101(53.44)	95(78.51)	19.9466(1)	<0.001
Yes	88(46.56)	26(21.49)		
Health Insurance				
No	6(3.17)	7(5.79)	1.2513(1)	0.263
Yes	183(96.83)	114(94.21)		

***Fisher's exact p-value X2: chi square value; p-value <0.05: measure is significant; N represents frequencies and %, percentages**

The table 4.1.9.1 above show the distribution of enabling factors that are associated with the regular use of antenatal services among women during pregnancy. Income status of women was found to be significant at $\alpha<0.05$ and pregnancy intention was also significantly associated with regular antenatal care visits. (p-value <0.001). Additionally, availability of maternity services in the community (p-value=0.050) and distance to the nearest health facility (p-value <0.001) were also found to be significantly associated with regular ANC visits.

On the other hand, health status during pregnancy and having an active health insurance were not found to be significantly associated with regular ANC visits.

Table 4.11:Multivariate Logistic Regression of selected variables associated with regular antenatal care visits.

Variables	Categories	P-value	OR (95%)	P-Value	AOR (95%CI)
Age	28 and below	Ref	1	Ref	1
	29 and above	0.0002	2.72(1.57, 4.70)	0.162	1.64(0.82, 3.27)
Education	None	Ref	1	Ref	1
	Primary/JHS	0.4028	0.73(0.35, 1.5216)	0.987	1.0(0.44, 2.37)
	Secondary or Higher	0.0514	2.83(0.95, 8.43)	0.237	2.48(0.55, 11.14)
Residence	Rural	Ref	1	Ref	1
	Urban	0.0005	2.42(1.45, 4.06	0.126	1.62(0.87, 3.01)
Employment status	Unemployed	Ref	1	Ref	1
	Informal/self-employ	<0.001	3.56(2.12, 6.00)	0.013	2.42(1.20, 4.88)
	Formal work	0.0011	5.64(1.74, 18.28)	0.488	1.94(0.30, 12.62)
Marital status	Single	Ref	1	Ref	1
	Cohabiting	0.2388	1.42(0.79, 2.56)	0.864	0.94(0.46, 1.93)
	Married	0.0024		0.682	0.83(0.36, 1.95)
Distance to Facility	More than 10 km	Ref	1	Ref	1
	5 to 10 kilometers	0.0001	5.29(2.13, 13.18)	0.074	2.56(0.91, 7.17)
	Less than 5 kilometers	0.0018	4.00(1.56, 10.25)	0.020	3.24(1.20, 8.72)
Available Maternity service	No	Ref	1	Ref	1
	Yes	0.0499	2.01(0.99, 4.11)	0.125	2.04(0.82, 5.06)
Decision Power	Low	Ref	1	Ref	1
	High	0.0350	1.95(1.04, 3.37)	0.841	1.084 (0.50, 2.37)
	Medium	0.0127	1.95(1.14, 3.32)	0.287	1.42 (0.75, 2.69)
Income status	No Income	Ref	1	Ref	1
	High income	0.0058	2.83(1.31, 6.14)	0.160	0.45(0.15, 1.37)
	Low to medium	0.0001	2.74(1.63, 4.60)	0.790	1.10(0.54, 2.23)
Intended Pregnancy	No	Ref	1	Ref	1
	Yes	<0.001	3.18(1.86, 5.45)	0.005	2.46(1.32, 4.57)
Regular Antenatal is good	Don't Agree	Ref	1	Ref	1
	Agree	0.0059	0.39(1.19, 0.78)	0.153	0.55(0.24, 1.25)
	Don't Know	0.3710	0.59(0.18, 1.91)	0.517	0.65(0.18, 2.39)
Treated without respect and dignity	Don't Agree	Ref	1	Ref	1
	Agree	0.0001	0.35(0.20, 0.59)	0.016	0.45(0.24, 0.86)
	Don't Know	0.5816	0.79(0.33, 1.86)	0.292	0.60(0.23, 1.56)

Note: OR-Unadjusted odds ratio, AOR-Adjusted odds ratio, CI-Confidence Interval, α<0.05 (significant level)

The table above (Table 4.10) compares unadjusted and adjusted odds ratios of factors which were found to be significant using the bivariate analysis to determine the likelihood of a woman having a regular ANC visits. The odds ratios were adjusted to control for possible confounders among the independent variables used. After adjustment, some factors which were significant at the bivariate logistic stage were no longer found to be significant contributing factors to regular ANC visits. Age, education and residence were not significant determinants of ANC use. Employment status was significant and women who are engaged in informal work were about 2 times likely to have regular ANC visits with reference to the unemployed and is significant with p-value 0.013 at (AOR:2.42, 95%CI: 1.204-4.488). Women in formal employment were almost two times likely than those with no employment to fulfil all their antenatal appointments (AOR 1.94, 95%CI:0.298-12.615) but this association was not significant (p-value, 0.488). Distance to the health facility was found to be significant factor in predicting the regular visit for ANC after adjusting for age, education, marital status and residence. With reference to those who lived in more than 10 kilometers to a health facility, women who lived in a shorter distance (less than 5 kilometers) were 3 times likely to have a regular ANC visits (OR :3.24, 95%CI:1.20-8.72, p-value 0.020). Pregnancy intention and the perception that pregnant women are not treated with respect and dignity were significantly associated with regular ANC visits (AOR: 2.46, CI:1.32-4.57) and (AOR: 045, CI: 0.235, 0.86) respectively. Thus, mothers whose pregnancy were intended were two times likely to have regular ANC visits compared to those who did not intend.

4.5.3 The choice of place for delivery and facility use

Table 4.12:Respondents Last child birth Delivery History

Variable	Category	Frequency n (%)
Health facility Delivery	Yes	231 (74.52)
	No	79 (25.48)
Type of Health Facility	Hospital	223 (96.54)
	Health Center	5 (2.16)
	Private Facility	3 (1.30)
Other Place of Delivery	Home/Spiritual/Prayer Center	74 (93.68)
	On the way to hospital	5 (6.33)
Skilled Delivery	Yes	228 (73.55)
	No	82 (26.45)
Type of Skilled Attendant	Midwife	111 (48.68)
	Doctor	41 (17.98)
	Nurse	76 (33.33)
Non-skilled Attendant	Traditional Birth Attendant (TBA)	50 (60.98)
	Family Member	20 (24.39)
	Self-Assisted Delivery	12 (14.63)

Note: n: frequency; %: percentage

A high proportion (74.52%) of the respondents in this study had their delivery at the healthcare facility and the remaining 25.48% had their last child birth at other places other than the health facility. Among the health facility deliveries, Government hospitals and or clinics formed the majority (96.54%) of the total facility deliveries. Other types of health facilities included health centers and private facilities (2.16% and 1.30% respectively). Home deliveries either assisted by a family member of a Traditional Birth Attendants constituted the majority among those who delivered outside the health facility (93.68%).

Skilled birth attendant at delivery was high, 73.55% of the respondents indicated the use of skilled attendant at birth. Almost 27% of the mothers had their last deliveries attended to by

someone other than a skill attendant. Traditional birth attendants formed more the half (60.98%) of non-skilled attendants. 24.39% of the respondents who did not use skilled were attended to by their family members, especially the mothers and the in-laws who had experience in assisting delivery.

Table 4.13:Levels of Institutional deliveries among mothers of different demographic backgrounds

Characteristics	Heath Facility Delivery		Skilled Attendant	
	Yes n (%)	No n (%)	Yes n (%)	No n (%)
Age Group				
16-22	72 (75.79)	23 (24.21)	72 (75.79)	23 (24.21)
23-28	86 (74.76)	29 (25.22)	83 (72.17)	32 (27.83)
29-34	38 (70.37)	16 (29.63)	38 (70.37)	16 (29.63)
35-43	35 (76.09)	11 (23.91)	35 (76.09)	11 (23.91)
Residence				
Rural	122 (62.24)	74 (37.76)	120 (61.22)	76 (38.78)
Urban	109 (95.61)	5 (4.39)	108 (94.74)	6 (5.6)
Education				
Primary to JHS	174 (75.00)	58 (25.00)	62 (26.72)	170 (73.28)
Secondary of Higher	41 (97.62)	1 (2.38)	1 (2.38)	41 (97.62)
None	16 (44.44)	20 (55.56)	19 (52.78)	17 (47.22)
Parity				
1-3	151 (81.62)	34 (18.38)	45 (36.00)	80 (64.00)
Above 3	80 (64.00)	45 (36.00)	37 (20.00)	148 (80.00)
Employment Status				
Formal/salary worker	21 (95.45)	1 (4.55)	21 (95.45)	1 (4.55)
Informal/self employed	104 (71.23)	42 (28.77)	102 (69.45)	44 (30.14)
Unemployed	106 (74.65)	36 (25.35)	105 (73.4)	37 (26.06)
Any ANC visit				
Yes	231 (75.74)	74 (24.26)	228 (74.75)	77 (25.25)
No	0 (0.00)	5 (100.00)	0 (0.00)	5 (100.00)
Facility Delivery				
Yes			227 (98.27)	4 (1.73)
No			0(0.00)	79(100.00)

Note: Data is presented in frequencies and percentages (%)

Table 4.12 gives a summary of respondents' use of health facility and the presence of a skilled attendant during delivery. A comparison was made among various respondents of various demographic characteristics. At least 70% of all the respondent from the different age groups had an institutional delivery. And at least 70% had a skilled health worker present at the delivery. A great majority of urban women had their child birth in institution (95.61%) as compared to those who did not 4.39% (5/114). Again, the presence of skilled attendant during delivery was also high among the urban mothers (94.74%) compared to 5.6% of the mothers who delivered in absence of a skilled attendant. Low institutional delivery was found among women with no formal education, only 44.44% had institutional delivery with more than half (55.56%) delivered outside health institution. Among women who had at least one Antenatal visits, 231(75.74%) had institutional delivery and 74(24.26%) did not.

All women in formal employment had institutional delivery and with the presence of a skilled attendant (95.45%, 21/22) except 1 individual (4.44%). Interestingly, 4 women (1.73%) who had facility delivery did not have a skilled worker attending to them. Most of them had a self-assisted delivery due to neglect by health workers. There was no observation of the presence of skilled attendant among deliveries that took place outside a healthcare institution.

Table 4.14:Bivariate analysis of demographic associated with Health delivery

Variables	Delivery at Health Facility Yes	No	X^2 (df)	P-value
Age				
28 years and below	158(68.40)	52(65.82)	0.1787(1)	0.673
29 years and above	73(31.60)	27(34.18)		
Educational level				
None	16(6.93)	20(25.32)		<0.001*
Primary/JSS	174(75.32)	58(73.42)		
Secondary or Higher	41(17.75)	1(1.27)		
Ethnicity				
Akan	114(49.35)	42(53.16)		
Ewe	47(20.35)	15(18.99)	0.6499(3)	0.885
Krobo	46(19.91)	13(16.46)		
Other	24(10.39)	9(11.39)		
Religion				
Christian	214 (92.64)	76 (96.20)		0.156*
Muslim	14 (6.06)	1 (1.27)		
None	3 (1.30)	2 (2.53)		
Residence				
Rural	122 (52.81)	74 (93.67)	42.2643(1)	<0.001
Urban	109 (47.19)	5 (6.33)		
Marital status				
Cohabiting	90 (38.96)	41 (51.90)	4.3755(2)	0.112
Married	85 (36.80)	25 (31.65)		
Single	56 (24.24)	13 (16.46)		
Employment Status				
Formal/salary worker	21 (9.09)	1 (1.27)		0.039*
Informal/ self-employed	104 (45.02)	42 (53.16)		
Unemployed	106 (45.89)	36 (45.57)		
Family Structure				
Extended Family	79 (34.20)	26 (32.91)	0.0436(1)	0.835
Nuclear Family	152 (65.80)	53 (67.09)		
Parity				
Above 3	80 (34.63)	45 (56.96)	12.1982(1)	<0.001
Below 3	151 (65.37)	34 (43.04)		

Note: α<0.05 (significant level) *Fisher's exact p-value; n: frequency, %: percentage

Table 4.13 shows the distribution of factors associated with the choice of health facility for delivery. A number of demographic were used to determined their significance to health facility

delivery. Women's education, residence, employment status as well as parity were found to be significant at a bivariate analysis stage with p-values <0.001, 0.001, 0.039 and <0.001 respectively. Again, ethnicity and educational level were also found not to be significantly associated with facility delivery.

Table 4.15.1: Bivariate analysis of enabling factors associated with Health delivery

Variables	Delivery at Health Facility			
	Yes n(%)	**No n(%)**	***X^2 (df)***	**P-value**
Distance to health facility				
Less than 5 kilometers	82 (35.50)	44 (55.70)	2.8277(2)	0.243
5 to 10 kilometers	131 (56.71)	24 (30.38)		
More than 10 kilometers	18 (7.79)	11 (13.92)		
Income Status				
High	36 (15.58)	6 (7.59)	3.9818(2)	0.137
Low to Medium	105 (45.45)	35 (44.30)		
No Income	90 (38.96)	38 (48.10)		
Regular Antenatal Visit				
No	76 (32.90)	45 (56.96)	14.3220(1)	<0.001
Yes	155 (67.10	34 (43.04)		
Maternal service available				
No	15 (6.49)	20 (25.32)	20.8245(1)	<0.001
Yes	216 (93.51)	59 (74.68)		
Active Insurance				
No	5 (2.16)	8 (10.13)		0.005*
Yes	226 (97.84)	71 (89.87)		
Existence of family support				
No	48 (20.78)	18 (22.78)	0.1413	0.707
Yes	183 (79.22)	61 (77.22)		

Note: α<0.05 (significant level) *Fisher's exact p-value; n: frequency, %: percentage

The table 4.13.1 above, regular ANC visits was found to be highly associated with facility delivery (X^2 =14.32) and also significant with p-value, <0.001 at α<0.05

Other enabling factors such as availability of maternity services in the community was also found to be significant in the bivariate analysis at α<0.05 (p-value, <0.001). The possession of active health insurance was found to be significantly associated with health facility delivery (p-value, 0.005. There was no observed association between the existence of family support, income status, distance to health facility and facility delivery.

Table 4.16:Multivariate logistic regression of selected variables to institutional delivery

Variables	Categories	P-value	OR (95%CI)	P-Value	AOR (95%CI)
Education	Primary/JHS	Ref	1	Ref	1
	Secondary or Higher	0.0011	13.66(1.76, 106.18)	0.140	13.75(0.42, 446.5)
	None	0.0002	0.27(0.13, 0.56)	<0.001	0.18(0.74, 0.46)
Residence	Rural	Ref	1	Ref	1
	Urban	<0.001	13.22(4.79, 36.49)	<0.001	11.01(3.84, 31.63)
Employment status	Unemployed	Ref	1	Ref	1
	Informal/self-employ	0.5151	0.84(0.50, 1.41)	0.969	0.99(0.49, 1.99)
	Formal work	0.0303	7.13(0.893, 56.96)	0.292	0.14(0.004, 5.31)
Parity	Above 3	Ref	1	Ref	1
	Below 3	0.0005	2.50(1.47, 4.26)	0.008	2.41(1.253, 4.62)
Regular ANC visit	No	Ref	1	Ref	1
	Yes	0.0002	2.70(1.578, 4.62)	0.011	2.42(1.224, 4.78)
Health Insurance	No	Ref	1	Ref	1
	Yes	0.0023	5.09(1.58, 16.38)	0.054	4.72(0.98, 22.85)
Facility delivery-Sure way to reduce risks	Don't Agree	Ref	1	Ref	1
	Agree	0.4323	0.67(0.24, 1.84)	0.985	0.99(0.28, 3.53)
	Don't Know	0.0915	0.27(0.054, 1.38)	0.240	0.30(0.04, 2.25)

Note: OR-Unadjusted odds ratio, AOR-Adjusted odds ratio, CI-Confidence Interval, α<0.05 (significant level)

Table 4.14 above shows the multivariate analysis of some selected factors which were significantly associated with facility delivery in the bivariate analysis. The residence of women was significantly associated with health institutional delivery after adjusting for educational level

and employment status (AOR:11.01, CI:3.835-31.625) and a p-value of <0.001 that is, Women who lived in the urban communities were 11 times more likely to have an institutional delivery compared to rural women. The parity of a woman and the availability of maternity services were also significant after adjustment (AOR: 2.41, CI:1.25-4.615) and (AOR:3.20, CI:1.356-7.573) respectively. Health Insurance was significant and there is greater likelihood of institutional delivery among women who had an active health insurance during pregnancy than those who did not (AOR: 4.70, 95%CI: 0.98-22.85).

4.5.4 Postpartum visit within 42 days following child birth

Mothers were asked about their postpartum visit within the 42 days following childbirth. The table below summarizes the responses of the mothers.

Table 4.17:Summary of Postpartum care among respondents

Postpartum care	Category	Frequency (%)
Visit within 42 days after birth child	Yes	267 (86.13)
	No	43 (13.87)
Place of Receiving Care	Hospital/clinic	238 (76.77)
	Health Center	26 (8.39)
	Private facility	3 (0.97)
	Home	43 (13.87)
Postpartum care provider	Midwife	94 (30.32)
	Nurse	156 (50.32)
	Doctor	17 (5.48)
	Family Member	30 (9.68)
	Traditional Birth Attendant	13 (4.19)

Note: Data is presented in frequencies and percentages

The majority of the respondents (86.13%) had their postpartum visit within 42 days of birth. A few mothers (13.87%) had no postpartum visit. Government hospitals and clinics remain the ideal place of choice (76.77%) for receiving maternity services including postpartum care. Those who used health centers and private facilities constituted less than 10%. Nurses provided most of the postpartum care (50.32%), a little above half of all providers. This was followed by midwives (30.32%) and Doctors (5.48%). Table 4.15 above

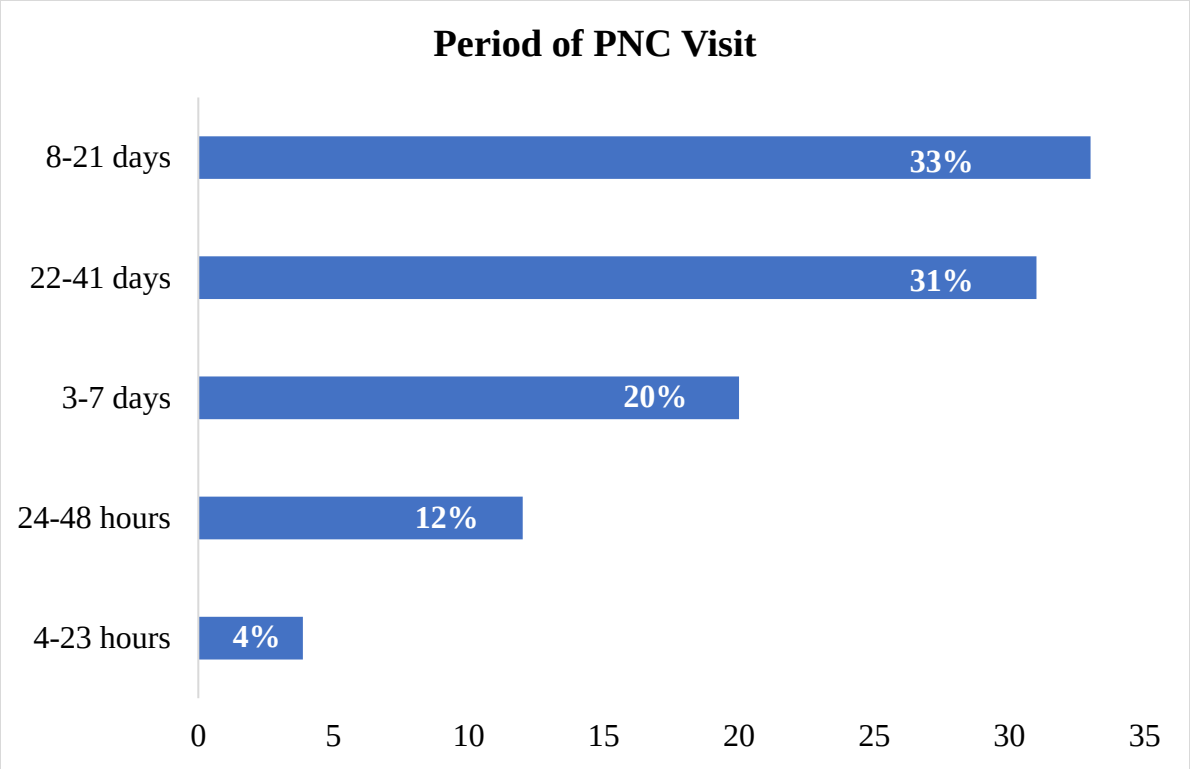


Figure 4.2:Period of postpartum visits among respondents

The figure 4.5.0 above shows the timing of postpartum care visits among the respondents. Few of the respondents (13.87%) made their first visit in just a few days after child birth. Majority (33%) made their visit within 8-21 days following childbirth, with 31% of women making a visit in the last 22-41 days.

Table 4.18:The relationship between ANC visit and facility Delivery and Postpartum care attendance

Variable	Postpartum Within 42 days after Childbirth	
	Yes	**No**
Any ANC visit		
Yes	264 (86.56)	41(13.44)
No	3 (60.00)	2 (40.00)
Facility Delivery		
Yes	207 (89.61)	24 (10.39)
No	60 (75.95)	19 (24.05)

The table above shows the relationship between timing of ANC visits and Facility delivery and Postpartum care visit. Almost all the women who had any ANC (86.56%) visit also had a postpartum visit. Only 13.44% had ANC visits but did not go for postpartum care. Among those who delivered at a health facility 89.61% had a postpartum visit. Also, 24 women representing 10.39% of those who delivered in a health facility did not go for postpartum care within 42 days following childbirth. Majority (75.95%) of women who did not have institutional delivery went for their postpartum care within the 42 days following childbirth.

CHAPTER FIVE

5.0 DISCUSSIONS

5.1 INTRODUCTION

In this Chapter, the findings interpreted under Chapter 4 will be discussed in detail in accordance with the research objectives and stated research questions. The discussions will also be done in contrast or support with previous local, regional and global studies conducted on the same subject. The discussions are all based on quantitative, descriptive and analytic research studies.

5.2 Socio - Demographic Characteristics of Respondents

The analysis of the findings of this research indicated that the average age of respondents was 27.0 years $\pm$ 6.6, ranging from 16 to 42 years. This confirms the findings of Lubbock and Stephenson (2008) which was conducted in Nicaragua that the average age of women utilizing ANC was 26 years. Women in informal sector of employment largely dominate the study population and this may partly due to the predominantly rural nature of the study site and the non- existence of formal work for people with lower or no formal education. Little over half (50.65%) of the mothers have completed Junior high school and another 24.19% have obtained up to primary education. Secondary and high education was observed to by only 13.55% among the mothers. The levels of education as stated above go line with the overall educational levels among Ghanaians women in the same age group (15-49 years) as reported in Ghana DHS (2014). Again, in this study, those without any formal education formed 11.61% compared to the national average of 14.4% of similar population group (GDHS,2014). Women who were cohabiting were higher (42.26%) compared to married women (35.48%). This is in contrast with what was reported in 2014 Ghana demographic and health survey for cohabiting and married women in the same age group (42.2% and 14.4% respectively).

5.3 Health seeking practices among the respondents during Pregnancy

The study finds that majority of the mothers (76.77%) adhered and only followed health advice from a professional health worker. This may be due to their understanding of the dangers associated with unhealthy practices during pregnancy. This finding supports that of Egbuniwe et al. (2016), who reported that majority of pregnant women in the rural communities of Anambra State, go to health centers to seek health advice. Those who followed health recommendations from their friends or families were few (18.06%). They believed that those families and friends have had experiences with pregnancy and childbirth, thus their advice on recommended practices during pregnancy and childbirth was valid and good to follow. A similar study done in Nigeria among rural women in Nnewi North L.G.A Anambra State by Egbuniwe et al. (2016), found that most women believed and followed what their parents told them to do during pregnancy. The health facility was the main place for seeking care for ill health and the treatment of diseases among mothers, and this observation was found among both rural and urban mothers. The study found that 88.39% of mothers went to the main health facilities in the municipality to seek care for their ill health. The high-level use of health facility during pregnancy, childbirth and after may partly be due to the availability of three main hospitals in the municipality which makes it easier for everyone to access healthcare.

The use of medication not prescribed by a medical doctor or a professional health worker during pregnancy was quite rampant (31.61%). This observation is disturbing considering the dangers of self-medication and drug use in general, especially during pregnancy and in the period after childbirth. This is because such medications when wrongly used can cause harm to the mother and the fetus or breastfeeding baby, including potential death. Herbal concoctions prepared by

family members at home or by herbalist was found to be widely (94.90%) used for self-medication.

5.4 Perceptions of Maternal Health and Maternity Services

Women's perceptions of maternity services as well as the attitude of health workers significantly influenced their usage of maternity services. The study found that women who believed that going for regular antenatal care helps to identify and reduce risks associated with pregnancy were high (77.10%) and this was significantly associated with regular antenatal visits ($p<0.05$). A study conducted in Narobi- -Kenya, also found that women with a good attitude and right perceptions about maternity services were more likely to obtain an adequate number of ANC visits (Muriithi M. K. 2013). Again, this study also finds that women who believed they are treated with respect and dignity by health workers (53.87%) were also less likely to miss their antenatal appointments. The attitudes of health workers have been found by several studies to be significantly associated with maternity service utilization (Mannava *et al.*, 2015); Ikenna, 2015).

Women's choice of place to deliver was also found to be influenced by the perceptions and attitudes to the type of facility and the quality of care offered. This study found that majority of the women (81.61%) believed that institutional delivery was the sure way to reduce their risk of dying from childbirth. Similar findings were made in a study in Nigeria where perception greatly influence the use of health facility and TBA assisted deliveries (Ebuehi & Akintujoye, 2012). Again, the mothers did not believe that experience with childbirth should be a requirement to avoid institutional delivery.

Furthermore, care after childbirth was found to be high among mothers who believed that it was always important to take the baby and themselves to the hospital or health facility for postnatal care. Another 79.35% did not accept that the TBA or the unskilled birth attendant in their

community could give them all the assistance they required and they were more likely to go for postnatal care.

5.5 Antenatal Care utilization and associated factors among women of different socioeconomic and demographic background in the study area.

Antenatal visits were predominantly high among women in the East Akim municipality. 98.39% of mothers in the municipality had a least one visit. This is just a percentage higher than what was found in the 2014 Ghana Demographic and Health. It reported that 97 of women seek routine care during pregnancy (GSS, 2014). A case study of Lubumbashi in the Democratic Republic of Congo (DRC), also found a similar prevalence (92.2%) of ANC visits among women residing in the City (Abel Ntambue et al. 2012). The average ANC visits in this study was found to be 6 visits which is above the recommended number of visits considered adequate by WHO. However, the study also finds that Regular Antenatal visits were far less than the general prevalence of ANC visits, 39.03% of the women could not follow all their antenatal visit appointments.

The study also revealed that public hospitals or clinics were the major places for accessing ANC services (91.94%). The reason being that, government hospitals or clinics are the most common health facilities available in the municipality. Private facilities are less common, hence rarely used by women (0.65%). Difficulties in accessing ANC services was reported by only 27.26% of mothers in this study. The principal reason given was due to poor physical condition of the weather or the environment. Women who reside far away from health facilities complained of muddy and non-motorable roads during the rainy seasons. Poor road condition has also been

found by Sarker et al. (2016) to be one of the factors that prevent women in the Sunamganj district of the Sylhet division of Bangladesh in using healthcare facility.

With regards to ANC timing and number of visits, more than half (58.03%) of the women had their first ANC registration within their first three months of pregnancy. Early timing of first ANC visits is required for early detention and prevention of any conditions that may have adverse consequences on the pregnant woman and her unborn baby. WHO (2012), recommends that every woman should have at least their first visit in the first three months of pregnancy. This study also finds that 68.52% of the mothers had at least four ANC visits during the period of pregnancy. The Ghana DHS (2014), put the proportion of women who had received four or more visits at 87%. In comparison, this is over 18% higher than what this study found among the women of East Akim Municipality.

5.5.1 Sociodemographic and enabling factors associated with Regular antenatal visits

Regular ANC visits were found to be influenced by some interrelated factors. After adjusting for some demographic factors such as age, education and employment status of the women, distance to the nearest health facility was found to a determinant of Regular ANC visits. Those who lived less than 5 kilometers to a health facility were found to be 3 times likely to fulfil all their antenatal care appointments (AOR:3.24, 95%CI:1.20-8.72) compared to those who lived more than 10 kilometers from the health facility. Jalal & Shah (2011) also found that rural woman who lived in far and remote areas were less likely to attend an ANC than those who did not. An increase in distance implies paying some cost to travel to the source of treatment as opposed to undertaking self-treatment. There is a sense that distance adds an extra burden to the monetary cost of treatment (Muriithi M. K 2013). Again, the women in this study whose last pregnancy was intended, were also more likely to attend all their ANC appointments (AOR:2.46,

95%CI:1.32-4.57). Pregnancy intention has been documented by several studies to be significantly associated with adequate number of ANC visits (Abel Ntambue et al. 2012).

The study also found that the perceptions women formed about ANC services and the attitudes of health workers towards them greatly influenced their regular use of ANC services. In this study, woman who agreed that they were not treated with respect and dignity were significantly less likely to obtain regular ANC visits. In a similar study, (Bbaale 2011) found that women who complained about the attitudes of health workers were less likely to follow all their ANC appointments. In addition, a study conducted among women in a south-eastern part of Nigeria showed that women usually report late for ANC due to the belief that there are no advantages to early booking, as ANC is perceived primarily as curative rather than preventive (Akaju *et.al.,* 2016).

5.6 The choice of place for delivery and factors associated with institutional delivery

The World Health Organization has stressed the need and importance of institutional delivery (WHO, 2008). Deliveries assisted by a skilled health worker is recommended as the safest way for every pregnancy. However, unskilled deliveries still continue in some parts of sub-Saharan Africa and Asia (Kotecha *et al.,* 2012). In this study, it was found that 25.48% of the mothers had no institutional delivery. There were intended or unintended reasons to delivery outside the health facility. Those who intended not to use a facility delivery, delivered in their homes or the center of Traditional birth attendants. Some out of institutional deliveries were not intended by the mothers as they claimed labour was abrupt or had occurred at times when it was impossible to reach a health facility. Labour had occurred at times when it was almost impossible to get the woman to the health facility. For some, labour was abrupt, others also delivered on their way to a health facility. The poor nature of road networks was a factor cited as inhibiting the ability to

transport a pregnant woman to a health facility for delivery (Gabrysch & Campbell 2009). Institutional deliveries were 74.52% among the mothers in this study. This finding was higher than findings from a National Survey on maternal health and care-seeking behavior in Bangladesh which showed that most deliveries occurred at home and were attended by medically unskilled birth attendants. It was observed that among all live births and stillbirths in the three years preceding the survey, 91% took place outside of a health facility (Koenig *et al.*, 2007).

The use of skilled attendance was 73.55% among the women in the municipality and this is an exact match to the proportion of skilled deliveries (74%) reported in the Ghana Demographic and Health Survey (2014). In a similar study conducted by (Ml *et al.*, 2012) in Democratic Republic of Congo, greater proportion (97.2%) of the women surveyed had delivered in the presence of a qualified healthcare professional. A similar 74.52% of deliveries took place in a health facility, again, this is just a percentage higher than total facility deliveries in Ghana (Ghana Statistical Service, 2014). In this current study, the remaining 26.45% of mothers who were found not to be attended by a skilled health worker during delivery. The use of unskilled workers was not only associated with deliveries occurring outside health facilities alone, 1.73% of the mothers who delivered in an institution (healthcare facility), were not assisted by a health worker. This is a very interesting observation given anecdotal citations of overcrowding in maternity wards resulting in undesirable, delivery conditions in some public health facilities in Ghana (http://www.myjoyonline.com/ghana-news/news, 15/04/2015).

Despite the above reports, this study found that government (public) hospitals and clinics remain the major (96.54%) choice of place for delivery among mothers in the East Akim municipality.

5.6.1 Sociodemographic and enabling factors associated with Institutional delivery

Several studies have found a number of factors that are associated with institutional delivery. In this study, several sociodemographic and enabling factors were found to influence women in their choice of place for delivery. After adjusting for education, employment status and parity in a multivariate logistic regression model, residence was found to be significantly associated with institutional delivery. Thus, women who lived in urban communities were 11 times likely to have an institutional delivery compared to rural women (AOR:11.01, 95%CI:1.36-7.57). Ghana DHS (2014) also reports 93% of facility deliveries among urban and city women compare to 36% of rural or underprivileged communities. Such difference was also found in a similar study in the use of facility use among women in the slum and non-slum residents in Addis Ababa, Ethiopia (Bayou, 2014).

Regular ANC attendance was also found to have a stronger association with institutional delivery. Women who never missed their antenatal appointments were 2 times likely to delivery at a healthcare facility compared to those who missed one or more appointments (AOR:2.41, 95%CI:1.22-4.78). This finding is similar to what was reported by (Esena & Sappor 2013) in a study done among women in the Ga East Municipality, Ghana, where women who had 4 or more visits were found to deliver in a healthcare facility than those who did not. The utilization of ANC services has been identified by several studies as a key determinant of institutional deliveries (Titaley *et. al.*, 2010; Furuta & Salway, 2006). Efforts to improve uptake of Institutional deliveries could be boosted by intensifying early initiation of ANC and the quality of care to provide mothers with a good experience that is likely to positively influence their choice of skilled care at delivery.

The cost of health care has great impact on how pregnant women and postnatal women utilize maternity services (Kinney *et al.*, 2010). In this study, a strong association was observed between health insurance ownership and the choice of institutional delivery. Women who had an active health insurance during pregnancy were 4 times more likely to have an institutional delivery than those who did not have (AOR:4.72, 95%CI:0.98, 22.85). Insurance coverage especially among pregnant women is seen an effective way to minimize the financial burdens associated with pregnancy and childbirth, to assure equity and to improve pregnancy outcomes. A review on demographic and health survey in Ghana done (Anon, 2015) also found that health insurance coverage is statistically linked to Facility Based Delivery. This finding is equally in agreement with the findings of (Arthur, 2012) in Ghana. The study found a positive relationship between insurance and institutional delivery and this was strong after the introduction of the National Health Insurance. Other studies found a similar association between health insurance and facility use (Agboola, 2009); Benova et al. 2014).

5.7 Postpartum visit within 42 days following child birth

The period after childbirth is very critical for the mother and the new born child. The first day after childbirth is the time of highest risk for both mother and baby (World Health Organization, 2015). The postpartum visits help to resolve any medical conditions that might result from childbirth or the period after. In the first two days, only 20% of the mothers had received postnatal care. This is in contrast to what was observed generally in Ghana. In Ghana, 78% of women reported having received a PNC checkup in the first two days after birth (GDHS, 2014). However, this study also found that majority of mothers (86.13%) had their first postpartum visit within 42 days following childbirth. This is contrary to what was found in a maternal health survey conducted in Bangladesh and the Democratic Republic of Congo where only 15% and

24% of mothers respectively were reported having obtained a postnatal checkup for themselves or for their baby from a medically trained provider. (Koenig *et al.*, 2007); (Abel Ntambue et al. 2012).

In this study hospitals remained the mostly widely used facility for receiving postpartum care. This is partly due to the availability of government hospitals in the municipality and the rarity of private health facilities. Household socioeconomic status, perception of the quality of care may also influence women's choice of place for postnatal services (Eshiet *et al.*, 2016)

In this regard, the study found that most of the mothers (33%) had their first postnatal visit within the second week following childbirth. The timing of postnatal visits did not begin early for most mothers. The reason being that new mothers with no special condition were asked by health care providers to report only a week after childbirth or on the 40^{th} day following childbirth.

It was again observed that those who had at least one ANC visit also attended PNC visit (86.56%). Similar finding was observed among those who had institutional delivery where 89.61% also had a postnatal care visit within 42 days following childbirth. Among women who delivered outside a healthcare facility 75.95% had their postnatal visits.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

The study revealed a positive health seeking behaviour among the women as the majority visited health facilities for ill treatment and mostly followed the advice of professional health workers.

In East Akim Municipality, although there is high level of maternity services utilization among women, there is still a significant proportion of women who fail to use healthcare services during pregnancy, as well as during and after childbirth. Women living more than 10 km from a health facility, those who are unemployed, and women with an unintended pregnancy, made less frequent use of ANC. Moreover, women who had not gone for ANC frequently rarely deliver in an institution or go for postnatal checkups. Similarly, those who live in the rural, less frequently made use of institutional delivery.

It was interesting to note that most of the study respondents obtain services in public health care institutions, despite the general doubts about the quality of services and the attitudes of care providers in these institutions. Can this be attributed to the lack of options of available providers or a matter of cost and affordability or a general preference for a public health care institutions in spite of their short falls? Not surprisingly, women without health insurance coverage deliver mostly outside of healthcare facilities. Ensuring the viability of the national health insurance scheme with continued coverage for pregnant women is a critical investment in ensuring good maternal and child health outcomes in Ghana, as demonstrated by the results of this study.

In addition to measures aimed at reinforcing women's autonomy in the society, efforts are also needed to reinforce and improve the information given to women of childbearing age, as well as

communication between the healthcare system and the community. The participation from the community is indeed critical, since this will contribute to raising awareness of safe motherhood interventions and their potential benefits.

6.2 RECOMMENDATIONS

The findings of this study provide valuable information on the regular use of maternity services with regards to the number and timing of antenatal visits, delivery, and postnatal care services received among women of reproductive age groups in East Akim Municipality. Although there was high coverage of the number of antenatal visits with the majority having four or more visits, there are significant gaps that should be addressed in ensuring adherence to antenatal appointments, preferences for places to give birth and the use of postnatal services to improve the overall adequacy or quality of the maternal care services. On the basis of the findings, the following main recommendations have been made.

Recommendations for policy makers, programme planners and implementers

- To improve maternity services in the study area, the overall, policy making, planning, and implementation should focus on increasing utilization of ANC services among the disadvantaged groups including the low socioeconomic groups. The ability to access health care services among women with lower educational status, women with low or no employment status, and rural or remote residents should be facilitated.

Recommendations for health care facilities and service providers

- To improve the overall effect of maternity services on maternal and child health outcomes, raising the awareness of women on the importance of antenatal visits and basic maternity services should be priority.

- All maternal health programmes and services should be strengthened, including improvements in quality of care, and access to related information and communication should be improved so as to reduce the percentage of home deliveries and unintended pregnancies among both married and unmarried women with special attention to young people.
- The majority of the antenatal care attendees visit public health care facilities since they are the most common to be found in the municipality. Meanwhile, the quality of care is sometimes doubtful. Because public facilities are the main providers for the general population, improving the quality of maternity services at these facilities is imperative.
- Despite the high level of ANC attendance among mothers in the study area, a good number of pregnant women especially among poor socioeconomic groups still chose to deliver at home. Therefore, efforts should be made to bring every pregnant woman to health facilities by providing good quality ANC services and strengthening health education campaigns at ANC centers and at the community level. Sensitization programs might be a good approach to reach these women and influence their choice of place for delivery.
- Women need more information about danger signs and complications of pregnancy, the importance of core ANC and other maternity services. Service providers must make this information readily available to women in the study area.
- Ensuring that health services are made friendlier for adolescents and sensitive to their needs to ensure early utilization. This strategy will likely impact national maternal

and child mortality rates as adolescents tend to have poorer pregnancy and birth outcomes than older women.

Recommendations to Civil society organizations, Professional Associations, NGOs and other developmental partners

- They must strengthen advocacy on the right of women to health information and education, informed choices, good quality maternal health care services, affordable and accessible to all women irrespective of their socioeconomic, religious, ethnic, or educational background.
- Professional associations should advocate and collaborate with public and other private actors on improving quality of health services and reducing professional malpractices among service providers.

Recommendations on future research

- Future studies need to examine the attitude of service providers and their influence on the maternity service provision.
- Qualitative research is recommended for in-depth understanding of attitude of service users and views of service providers towards the use of maternity services.
- This study should be replicated in other areas of the country including most remote areas using the combinations of indicators to see the levels and trends of the quality of maternity services.
- Future study should involve male partners or husbands to explore and understand their influence on the health seeking behaviour of mothers and their utilization of maternity services.

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APPENDICES

Part 1. Participant Information

Institutional Affiliation: Ensign College of Public Health-Kpong

Background

The Principal Investigator is **Mr. Richard Amoako**, currently a student of the Ensign College of Public Health-Kpong, Eastern Region. Ghana. He is undertaking a study on the Health seeking Behaviour during pregnancy, childbirth and the postpartum period among women of East Akim Municipality of Eastern Region, Ghana. This is an academic study and as a partial requirement for the award of Master of Public Health (MPH) degree.

Benefits and Risks

The aim is to investigate the health behaviour and factors that influence a women's decision to seek care during pregnancy and childbirth; and also, to identify the patterns of maternity service utilization. The Knowledge of these will help in the proper planning of health and maternity services in the Municipality and in Ghana. There is no known human risk attached to this study protocol.

Procedures

If you agree to be part of the study, a trained project staff, will ask you to fill a questionnaire alone for approximately 10-20 minutes. As a participant, if you agree to participate in this study, data from your responses may be used as part of my investigation of factors that determine health seeking behavior of women.

Right to Refuse

Though, there are no known risks associated with this research, nevertheless, should you feel at any point in time to withdraw your participation in this study, you will be at liberty to do. You are selected on accounts of your eligibility and your inclusion into this study is absolutely voluntary and under no obligation.

Anonymity and Confidentiality

You are assured that the information collected will be handled with strict confidentiality and will be used purely for academic purposes.

Be assured that all your information will not be shared with any third parties not directly involved in the research.

Before taking Consent

Do you have any questions that you wish to ask? If yes, please state

……..……

……

……

……

This study has been approved by the Institutional Review Board of Ensign College but if you have questions you wish to ask later, or if there is anything you wish to seek clarification on regarding the research, please don't hesitate to contact the principal investigator (Mr. Richard Amoako) on 0209155000 or the Project Supervisor (Dr. Juliana Enos). You may also contact the Director of the Municipal Health Directorate, Dr. Ketum

Part Two. Consent Declaration

"I have read the information given above, or the information above has been read to me. I have been given a chance to ask questions concerning this study; questions have been answered to my satisfaction. I now voluntarily agree to participate in this study knowing that I have the right to withdraw at any time without affecting future health care service.

Signature/ Thumbprint of Respondent …… Date…/……/...…

Interviewer's Statement:

I have explained the procedure to be followed in this study and the risks and benefits involved to the client in the language that he/she understands best and he/she has agreed to participate in the study.

Signature of interviewer …….

Date ……/……/……

QUESTIONAIRE

Questionnaire Number……..... **Interviewer' Name……**

Date of Interview …/…. /….

TOPIC: HEALTH SEEKING BEHAVIOUR DURING PREGNANCY, CHILDBIRTH AND THE POSTPARTUM PERIOD AMONG WOMEN OF EAST AKIM MUNICIPALITY OF EASTERN REGION, GHANA.

INSTRUCTIONS: Tick or circle your choice(s) from the options given. Also, supply the answer where options are not provided to choose from.

(**REMINDER ABOUT ELIGIBILITY**: ***Only women with children older than 40 days but not more Than Three Years old*** **are eligible)**

SECTION A: SOCIO-DEMOGRAPHIC OR BACKGROUND INFORMATION

1. Age _____ years
2. Highest completed educational level a. Primary [ ] b. Middle/JSS/JHS [ ] c. SSS/SHS/Vocational [ ] d. Tertiary/Poly [ ] e. No Formal Education [ ]
3. Ethnic group a. Akan [ ] b. Ewe [ ] c. Krobo [ ] d. Other [ ] Please Specify……..
4. Religion a. Christianity [ ] b. Muslim [ ] c. Traditionalist [ ] d. Other [ ]
5. Place of Residence a. Urban [ ] b. Rural [ ]
6. Employment Status a. Formal/Salary worker [ ] b. Informal/Self-employed [ ] c. Not Working [ ] c. Others [ ] Please specify ……
7. Mode of Delivery of last child a. Vaginal [ ] b. Emergency Caesarean [ ] c. Planned Caesarean [ ]
8. Number of children? ……
9. How old is your last child (In Months or Years)?..…….Sex? Male [ ] Female [ ]
10. Marital status a. Married [ ] b. Single [ ] c. Co-habitation (living together) [ ] d. Divorced/Separated/Widowed [ ]

NOTE*: (Only information relating to your Last pregnancy and/or childbirth as at the time of the study is being requested)*

SECTION B: HEALTH SEEKING BEHAVIOUR DURING PREGNANCY AND CHILDBIRTH

11. What type(s) of health advice and practices did you mostly follow? a. Self-studied information from online/radio or tv [ ] b. Professional advice from health worker [ ] c. Family/Friends advice [ ] d. Others [ ] Please specify……
12. Where did you go for treatment when you were faced with any pregnancy related illness? a. Visited Health Facility [ ] b. Visited Herbalist/Spiritualist [ ] c. Self -Treatment at home [ ] d. Others [ ]. Specify…….
13. Did you once self-medicated whiles pregnant? a. Yes [ ] b. No [ ]
14. If **Yes to the above**, what kind of self-medication did you practice? a. Use of prepared herbal concoction [ ] b. Use of chemical drug without prescription [ ] c. Use of prescribed drug from past treatment [ ] d. Others [ ] Please specify……
15. Which aspects about pregnancy and childbirth were you interested in seeking information or education on? a. Mother's health [ ] b. Child's health [ ] b. Nutrition [ ] c. Medication [ ] d. Others [ ] Please specify ……
16. Did you receive enough information on pregnancy and childbirth related issues? a. Yes [ ] b. No [ ]
17. If **No**, what additional information did you desire or what was missing? ……

SECTION C: MATERNITY SERVICES UTILIZATION

Utilization of Health Care Services during your last pregnancy

18. Did you attend any Antenatal(ANC) care? a. Yes [ ] b. No [ ]
19. If yes, did you seek full term/regular Antenatal care throughout the period of your last pregnancy? a. Yes [ ] b. No [ ]
20. What was the gestational age of your first ANC visit? a. One Month [ ] b. Two Months [ ] c. Three Months [ ] d. Four Months [ ] e. Five Months [ ] f. Six months [ ] g. Others [ ] Please specify …….
21. How many ANC visits did you have during your last pregnancy? ……. visits
22. Who was your ANC provider? a. Obstetrician or Health Center Doctor [ ] b. Nurse [ ] c. Midwife [ ] d. Others [ ] Specify…….
23. Which place did you often receive ANC? a. Hospital or Clinic [ ] b. Health Center [ ] c. Private Facility [ ] d. Others [ ] Please specify……
24. Did you have any Difficulty receiving ANC? a. Yes [ ] b. No [ ]

25. If yes, what reasons accounted for the difficulty? a. Cost [ ] b. Access [ ] c. Lack of family support [ ] d. Poor physical condition [ ] e. Others [ ] Please specify?.....

Questions related to delivery or Childbirth

26. Did you have your delivery in a health facility? a. Yes [ ] b. No [ ]

27. If **Yes**, which type of health facility? a. Public (i. Hospital or Clinic [ ] ii. Maternity Home [ ] iii. Health Center [ ]) b. Private health facility [ ]

28. If **No** to **Question 26** above, where did you have your delivery? a. Home [ ]
b. Spiritual/Prayer Center [ ] c. On the way to the hospital [ ]
d. Other [ ] Please Specify……

29. Was your delivery done by a qualified healthcare personnel? a. Yes [ ] b. No [ ]

30. If **Yes**, who? a. Doctor [ ] b. Nurse [ ] c. Midwife [ ] d. Others [ ] specify……

31. If **No** to **Question 29** above, who attended to you? a. Traditional Birth Attendant (TBA) [ ] b. Family member [ ] c. Self-Assisted [ ] d. Others [ ] Please specify…….

Postpartum (after delivery) Utilization of Health Care Services

32. Did you have your postpartum care within 42 days following delivery or childbirth? (a)Yes [ ] (a) No [ ]

33. When was your first Postpartum visit after delivery? (a) 4-23 hrs [ ] (b) 24-48hrs[ ]
(c) 3-7 [ ] d. 8-21[ ] c. 22-41 days [ ].

34. How many Postpartum visits did you have within the 42 days? (a). One [ ] (b) Two [ ]
(c) Three [ ] (d) Four [ ] (e) Others [ ] Please specify…….

35. Who was your Postpartum care provider? (a) Obstetrician or Health Center Doctor [ ]
(b) Nurse [ ] (c) Midwife [ ] (d) Others [ ] Specify…….

36. Where did you receive your postpartum care? (a). Public (i. Hospital or Clinic [ ] ii. Health Center [ ] iii. Maternity Home [ ]) (b) Private facility [ ]
(d) Others [ ] Specify……..

SECTION D: FACTORS INFLUENCING HEALTH SEEKING BEHAVIOUR

37. Did you have child(ren) before your last pregnancy? a. Yes [ ] b. No [ ]

38. Was your last pregnancy planned? a. Yes [ ] b. No [ ]

39. Did you face any difficulties during your last pregnancy? a. Yes [ ] b. No [ ]

40. If **Yes**, what kind of difficulty did you experience? a. Pregnancy-related complications[ ]
b. Financial difficult [ ] c. Difficult access to Maternity services [ ]
d. Others [ ] Please Specify…….

41. Did you face any difficulties with your previous pregnancy before your last pregnancy?
a. Yes [ ] b. No [ ] c. Not applicable [ ]

42. Were you actively working during your last pregnancy? a. Yes [ ] b. No [ ]

43. How much will you estimate your monthly income? (a) under 500 ghc [ ] (b) 500 to 1000 ghc [ ] (c) 1001 to 1500 ghc [ ] (d) 0ver 1500 ghc [ ] f. Not Applicable [ ]

44. What is your Family Structure? a. Nuclear Family [ ] b. Extended Family [ ]

45. Who is the head or takes most decisions in the family? a. Father [ ] b. Mother [ ]
c. Husband [ ] d. Self [ ] f. Others [ ] Please specify……

46. How will you rate your ability to make decisions on matters concerning your pregnancy and childbirth? a. High [ ] b. Medium [ ] c. Low [ ]

47. How will you describe your health status during your last pregnancy? a. Fair [ ] b. Good [ ] c. Very Good [ ]

48. Were there any available Maternity services in your community? a. Yes [ ] b. No [ ]

49. How will you describe the attitudes of health workers? a. Poor [ ] b. Fair [ ]
c. Good [ ] d. Very Good [ ] e. Excellent [ ]

50. How long is the distance to the nearest health facility? a. Less than 5 kilometers [ ]
b. 5 to 10 kilometers [ ] c. More than 10 kilometers [ ]

51. Did you receive any pregnancy related information on the radio/television/Phone/ social media? a. Yes [ ] b. No [ ]. **If yes, state which** ……...

52. Were your family/ friends supportive during the period of pregnancy and childbirth?
a. Yes [ ] b. No [ ]

53. If **Yes**, who was the most supportive family member? a. Husband [ ]
b. Mother/Mother-in-law [ ] c. Friends d. Others [ ] Please Specify…..

54. Did you have an active Health Insurance during your last pregnancy? a.Yes [ ] b. No [ ]

55. How did you pay for your care? a. Personal Finance [ ] b. Health Insurance [ ]
c. Family support [ ] d. NGO or Philanthropic Support [ ] e. Loan from Bank or People [ ] f. Others [ ] Please specify……..

56. How will you describe the cost of maternity services during your last pregnancy and childbirth? a. High [ ] b. Moderate [ ] c. Low [ ] d. Not Applicable [ ]

SECTION E: WOMEN'S PERCEPTIONS OF MATERNITY SERVICES

	Questions	***Response***	***Codes***
1.	A pregnant woman does not need to go to a hospital for regular checks to be safe	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
2.	Antenatal care is more effective than self-treatment or the use of herbal medicine at home.	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
3.	Antenatal care is good for every pregnant woman	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
4.	Antenatal care is mostly recommended for first time pregnancy or women having complication.	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
5.	Going for regular antenatal care helps to identify and reduce risks associated with pregnancy.	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
6.	Women who utilize Antenatal services are more likely to have better birth or pregnancy outcomes	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
7.	Pregnant women are not treated with respect and dignity by health facility.	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
8.	It is safe and convenient to delivery at home than in the health facility	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
9.	Health facility delivery is the sure way to reduce your risk to dying from birth	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
10	I believe that skilled attendant is the best person to assist my delivery	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
11	A woman who have experienced with childbirth do not need the presence of a skilled attendant in her subsequent delivery	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
12	The TBA in my village or time can give me all the assistants I need just as a skilled health worker.	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
13	It is always important to take the baby for postpartum care	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
14	I believe that I or my mother or anyone in the family is capable to give all the health needs my baby requires	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1

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OUR REF: ENSIGN/IRB/M2
YOUR REF:
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P. O. Box AK 136
Akosombo
Ghana

21st November, 2016.

INSTITUTIONAL REVIEW BOARD SECRETARIAT

Richard D. Amoako
Ensign College of Public Health.

Dear Mr. Amoako

OUTCOME OF IRB REVIEW OF YOUR THESIS PROPOSAL

At a meeting of the INSTITUTIONAL REVIEW BOARD (IRB) of Ensign College of Public Health held on 16th and 17th November 2016, your proposal entitled "**Determinants of health seeking behaviour during pregnancy and childbirth among women of East Akim Municipality, Eastern Region, Ghana** "was considered.

Your proposal has been approved for data collection in the following settings:

1. Re-phrase the title.
2. Give a better description of your methodology

We wish you all the best.

Sincerely,

Dr (Mrs) Acquaah-Arhin

(Chairperson)

Cc. Dean of Ensign College.

Cc: Ag. Academic Registrar, Ensign College.