UNIVERSITY OF CAPE COAST

DETERMINANTS OF WOMEN'S CHOICE OF DELIVERY SITE IN APAM

JACOB EYIAH AYETEY

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BY

JACOB EYIAH AYETEY

DISSERTATION SUBMITTED TO THE DEPARTMENT OF POPULATION AND HEALTH OF THE FACULTY OF SOCIAL SCIENCES, UNIVERSTIY OF CAPE COAST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR AWARD OF MASTER OF ARTS IN POPULATION AND HEALTH

MAY, 2014

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature: ..... Date:.....

Name: Jacob Eyiah Ayetey

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature:..... Date:.....

Name: Dr. A. Kumi-Kyereme

ABSTRACT

Majority of the maternal deaths that occur, especially in developing countries are avoidable or preventable. The study assessed the major factors responsible for determining the choice of delivery place in Apam. Using a descriptive cross sectional research design, the study involved 128 mothers who attended post natal clinic within Apam and delivered between December 2010 and May 2011, irrespective of site of delivery. Quantitative and qualitative research methods were used in the study. Structured interview and focus group discussion guide were used for data collection. Data was analysed using the Statistical Product and Service Solutions (SPSS) Version 16 software. Out of the 128 mothers that reported at the health facility, it was found that majority (78%) of the respondents who delivered at the hospital were married. There are significant relationships between marital status, level of education and the choice of delivery location. This is also consistent with decision making in relation to the choice of delivery place. The study concludes that even though most pregnant women attend antenatal care before their most recent births, about one-third did not deliver in a health care facility. It is recommended that level of health education within Apam should be intensified to enable women know the hazards of not delivering under a supervised setting.

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DEDICATION

To my life partner, Stella.

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LIST OF ACRONYMS

ANC	Ante Natal Care
AOR	Adjusted Odds Ratio
CHPS	Community-based Health Planning and Services
CI	Confidence Interval
FGD	Focus Group Discussions
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GPRTU	Ghana Private Road Transport Union
GSS	Ghana Statistical Service
HMB	Health Belief Model
JHS	Junior High School
MDG	Millennium Development Goal
NHIS	National Health Insurance Scheme
RCH	Reproductive and Child Health
SCM	Stages of Change Model
SHS	Senior High School
SPSS	Statistical Product for Service Solutions
TBA	Traditional Birth Attendants
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

Background to the study

For more than 20 million women each year, pregnancy and childbirth mean suffering, ill health or death. Recent estimates suggest that more than 500,000 women die annually of pregnancy related complications, ninety-nine percent (99%) of those deaths occur in less developed regions particularly Africa and Asia (Idris, 2006). In addition, 3.9 million newborn and 3 million still births are lost each year. Furthermore, every year, more than 20 million women become pregnant, and some 15 percent are likely to develop complications that will require skilled obstetric to prevent the unacceptably high maternal morbidity and mortality (WHO, 1998 as cited in Idris, 2006).The immediate medical causes of maternal death are similar for women worldwide: obstetric haemorrhages, toxaemia, obstructed labour and septic abortions (Idris, 2006).

Maternal health has emerged as a global priority because of a gap in the status of mother's well-being between the rich and the poor countries. According to WHO (2008), maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. In developed nations, where women have access to basic health care, giving birth is a positive and fulfilling experience. On the other hand, for many women in developing countries it is associated with suffering, ill health and even death. Majorie (2003), puts it that nearly half of all maternal deaths in developing countries occur during labour or the postpartum period.

Early and regular check-ups by health professionals are essential in assessing the physical status of women during pregnancy and ensuring appropriate interventions during delivery. In spite of the national and global efforts at curbing maternal morbidity and mortality through the safe motherhood initiative, the phenomenon is on the ascendancy in many developing countries (Weil & Fernandez, 1999).

According to Prual (2000) cited in Nketsiah-Amponsah and Sagoe-Moses (2009), the main causes of severe maternal morbidity in West Africa are haemorrhage, obstructed labour, eclampsia, and sepsis. Complications of pregnancy and childbirth remain the leading causes of death and disability among women of reproductive age in developing countries (Maine and Rosenfield,1999). This scenario is no different for Ghana and the Central Region specifically.

According to WHO (2005), the maternal mortality ratio for the world reduced from 430/100,000 in 1990 to 400/100,000 in 2005. For developing countries it reduced from 480 to 450 within the same period. In sub Saharan Africa it also reduced from 940 to 920. However, in western and central Africa the maternal mortality ratio remained the same. It was 1,100 in 1990 and remained the same in 2005.

Access to professional health care during delivery is considered to be critical for maternal mortality reduction. According to Buttiens (2004), the rationale for this is grounded in three observations. Firstly, early identification and proper management of obstetric complications is fundamental for life saving since the majority of deaths occur during delivery. Moreover the antenatal screening has such a low predictive value in identifying risk cases.

Hence, the presence of a skilled attendant at delivery more likely reduces mortality. Secondly, the common factor among countries managing to reduce pregnancy-related deaths has been the presence of skilled providers attending most of the deliveries. Finally, ineffectiveness of training traditional birth attendants has drawn attention towards training of professional personnel.

The proportion of births conducted by a skilled attendant has become an indication for monitoring progress towards reduction of maternal mortality. Therefore the utilisation of maternal health services, specifically institutional delivery cannot be under-emphasized as it aims at reducing maternal mortality. For instance, in the United States of America, members of the Faith Assembly avoid obstetric care. In 1984 it was recorded that the maternal mortality rate was 872/100,000 live births for church members residing in the two counties of Indiana versus 9/100,000 for Indiana: an astounding ninety-twofold higher rate (Kaunitz et al, 1984). The risk of perinatal and maternal death is an issue even in the US because some women do not utilize obstetric care (Kaunitz et al, 1984).

According to the Annual Report of the Ghana Health Service (2009), antenatal care coverage is >90%. However this high attendance does not translate into high institutional delivery rates with only 57 percent of the deliveries being conducted by trained personnel nationally. This gap between antenatal care attendance and clinic based deliveries suggests that there are factors influencing women not to return to the health facility at the time of delivery, despite information and knowledge about the capacity of skilled personnel to conduct deliveries and identify high risk pregnancies and referral cases.

It is often maintained that women's choices and preferences for location of childbirth are enshrined in society's understanding of birth as a social process. In the developed world, this conception is based on biomedical knowledge coupled with two competing models of child birth; the biomedical/technocratic model and natural/holistic model, mediating women's choices and preferences for child birth location (Viisainen, 2001). In contrast, the developing world offers a varied picture, ranging from reluctance to use biomedical services even in cases of pregnancy-related complications, given women's penchant to have normal home births surrounded by their families (Berry, 2006). Therefore, the choice of and preference for a place of delivery location are influenced by the socio-economic factors of the contextual environment in which they arise. Cultural and religious epistemologies shape the demand for health seeking such as the demand for delivery institution. In some communities, it is regarded a bad omen if a woman delivers via caesarean section, hence, the choice of home delivery.

Anecdotal evidence among a section of the Akans, a Ghanaian tribe, had it that a woman who experiences prolonged difficulty delivering at home might have cheated on her husband through adultery. Such women were made to confess after which it is believed they would have safe passage.

While in some developed countries, it is possible for women to decide to give birth safely at home, in developing countries, conditions are not safe enough to encourage women living in rural and remote areas to deliver at home. When home deliveries occur, some go well and others lead to complications and death. The latter often occurs when the family is not prepared to refer the woman to a health facility or cannot recognize the signs

of complication. The situation in the developed and developing world is very different, due to availability of health facilities and the legitimate aspiration of women to deliver in an environment with which they are familiar.

In developed countries the choice to give birth at home could be motivated by the perceptions of over-medicalisation in the hospital. There is also the possibility for individuals to have a midwife or skilled personnel to assist them during labour, childbirth and after. In developing countries, sometimes women also decide to give birth at home. The decision is not always motivated by a real choice but by several kinds of pressure which could be economic, social, physical, cultural or institutional.

Statement of the problem

Labour and delivery is the shortest and most critical period of the pregnancy-childbirth continuum because most maternal deaths arise from complications during delivery. According to the GDHS 2008, even with the best possible antenatal care, any delivery can become a complicated one and therefore, skilled assistance is essential to safe delivery care. Despite this known fact, in much of sub-Saharan Africa, fewer than half of women deliver their infants in health facilities (Wang et al., 2011). The reasons are myriad, and the published literature is replete with studies exploring the factors that are associated with utilization of delivery care services in the developing world.

In the developing countries, women face a lot of life threatening and other serious problems related to pregnancy and child birth. In Ghana, the high maternal mortality rate remains an indictment on the health status of women and the general quality of health care service delivery. The recent data

available indicated a maternal mortality ratio of 451 per 100,000 live births (GDHS, 2008).

According to the final draft of the 2009 annual report of the Ghana Health Service, skilled delivery rate improved nationally from 42 percent in 2008 to 46 percent in 2009. However, there are inter-regional variations: skilled delivery rates dropped in the Central region from 56 percent in 2008 to 53 percent to 2009. This is against the backdrop of increases in antenatal attendance. In 1988, 82 percent of mothers received antenatal care for their most recent birth in the five years preceding the survey compared to 95 percent of mothers in 2008 (GDHS, 2008). Nationally, hospital births increased from 47 percent in 2003 to 57 percent of births in the year 2008 (GDHS, 2008). Despite these improvements, medically assisted deliveries continue to be low in Ghana with 41 percent not benefitting from professional delivery assistance over the past five years (GDHS, 2008).

The low patronage of skilled attendance at delivery is a source of concern for health practitioners if the high numbers of maternal deaths and still births are to be reduced to help achieve the Millennium Development Goal Five. The challenge for health care practitioners is to find the reasons for the low patronage of available maternal health services. More especially in the present situation where geographical access has greatly improved with the introduction of Community-based Health Planning and Services (CHPS) as well as financial access with the introduction of the National Health Insurance Scheme coupled with free maternal health care for expectant mothers.

Objectives of the study

The general objective of the study is to assess the major factors responsible for determining the choice of delivery place in Apam. The specific objectives are to:

1. Access the socio-economic factors affecting the choice of delivery place in Apam.
2. Investigate challenges of expectant mothers in delivering at a health care facility.
3. Assess perception of expectant mothers towards place of delivery.
4. Examine the cultural factors contributing to the choice of delivery place in Apam.

Research hypothesis

1. There is no significant relationship between women's socio demographic characteristics (age, marital status, educational level, antenatal attendance, incomes, and religious affiliation) and choice of delivery place.

Significant of the study

Women in developing nations continue to die each year during delivery and the situation is worst amongst those who live in rural settings such as Apam in the Central Region which is one of the deprived regions of Ghana. The death of women affects the society at large due to their role in caring for and supporting their families. However, most of these deaths are preventable, yet, there seem to be little attempt on the part of women and communities in general in rural settings in avoiding these deaths. In addition,

the situation poses great challenge and frustration to health workers in rural settings, who continuously strive for improved maternal health care outcomes.

This study primarily, would provide evidence to all stakeholders including health managers and also women as to the possible barriers in accessing skilled delivery services. The aim is that the provision of such vital information would inform better strategy in bridging and or eliminating the barriers to accessing health care delivery. This would contribute significantly in reducing pregnancy complications and thereby reducing maternal deaths.

Organization of the study

The study is structured into five chapters. The first chapter of the study is focused on the introduction to the study and contains issues such as background to the study, research problem, research questions, objectives of the study, the significance of the study and the organization of the study. Chapter Two, reviews related literature and theoretical/conceptual frameworks that underpin this study. Chapter Three discusses the methodology used for the study. This include the study design, study area, target population, sample size, sampling procedure, data sources, research instrument used, methods of data collection, methods of data analysis and theethical issues considered. The Chapter Four of this study contains the analysis, presentation and discussion of the data gathered from the field. The Chapter Five which is the final chapter focuses on the summary of major findings of the study. Conclusions based on the findings of the study are also stated in this chapter and the final part covers the recommendations with reference to the study results.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter reviews related literature on the determinants of delivery location by women. The issues covered include socio demographic factors, financial accessibility, health decision making factors, socio-cultural factors, health service factors personality factors and physical accessibility factors which influence the choice of delivery location amongst women. The second section focuses on theories and conceptual frameworks guiding the study.

Factors which influence women's choice of place of delivery

Socio demographic factors

Women all around the world are faced with an array of choices when it comes to childbearing and the location of delivery. These decisions can be even more difficult in Ghana and in Apam for that matter where women with varying degrees of education and incomes have varying degrees of accessibility to certain types of medical care. Cultural as well religious beliefs play a role in the type of care they receive. In a study by Ahsan et al. (2010) age, religion, type of area of residence, secondary and higher education, and higher socioeconomic status were the significant predictors of choosing safe delivery practices.

Although the debate on the safety and women's right of choice to a home delivery versus hospital delivery continues in the developed countries, an undesirable outcome of home delivery, such as high maternal and perinatal mortality, is documented in developing countries. The objective of this study

by Rajendra et al (2004), was to study whether socio-economic factors, distance to maternity hospital, ethnicity, type and size of family, obstetric history and antenatal care received in present pregnancy affected the choice between home and hospital delivery in a developing country, Nepal.

This cross-sectional study was done from June, 2001 to January 2002 in an administratively and geographically well-defined territory with a population of 88,547, stretching from urban to adjacent rural part of Kathmandu and Dhading Districts of Nepal with maximum of 5 hours of distance from Maternity hospital. There were no intermediate levels of private or government hospitals or maternity homes in the study area. Interviews were carried out on 308 women who delivered within 45 days of the date of the interview with a pre-tested structured questionnaire.

A distance of more than one hour to the maternity hospital, low amenity score status, low education, multi-parity, and not seeking antenatal care in the present pregnancy were statistically significantly associated with an increased risk of home delivery. Ethnicity, obstetric history, age of mother, ritual observance of menarche, type and size of family and who is head of household were not statistically significantly associated with the place of delivery.

The socio-economic standing of the household was a stronger predictor of place of delivery compared to ethnicity, the internal family structure such as type and size of family, head of household, or observation of ritual days by the mother of an important event like menarche. The results suggested that mothers, who were in the low-socio-economic scale, delivered at home more frequently in a developing country like Nepal.

In developing countries, most childbirth occurs at home and is not assisted by skilled attendants. The situation increases the risk of death for both mother and child and has severe maternal complications. The purpose of this study by Télesphore, et al (2011), was to describe women's perceptions of homebirths in the medical districts of Ouargaye and Diapaga in Burkina Faso.

A qualitative approach was used to gather information. This information was collected by using focus group discussions and individual interviews with 30 women. All the interviews were tape recorded and managed by using qualitative data management software. The findings show that homebirths are frequent because of prohibitive distance to health facilities, fast labour and easy labour, financial constraints, lack of decision making power to reach health facilities.

The study echoes the need for policy makers to make health facilities easily available to rural inhabitants to forestall maternal and child deaths in the two districts. There are multiple potential pathways that could explain why maternal education is consistently and strongly associated with all types of health behaviour (Bell et al , 2003).

These include increased knowledge of the benefits of preventive health care and awareness of health services, higher receptivity to new health-related information, socialisation to interact with formal services outside the home environment, familiarity with modern medical culture, access to financial resources and health insurance, more control over resources within the household and wiser spending, more egalitarian relationship and better communication with the husband, more decision-making power, increased self-worth and self-confidence, better coping abilities and negotiating skills as

well as reduced power differential towards health care providers and thus better communication and ability to demand adequate services. Education also reflects a woman's childhood background, including familiarity with health services and certain beliefs and norms, and some recommend this should be controlled for.

It has also been suggested that there may be community effects of education, with more highly educated communities organizing themselves and demanding better public services and a higher position for health on the political agenda. By contrast, better awareness of poor quality in many facilities and higher confidence in self-care may delay care seeking among educated women. Furthermore where strong public health programs reach out to disadvantaged sectors of the population, the education gradient in health service use may be small.

Education is likely to be associated with wealth and even residence. Adjusting for current wealth will measure the direct effect of education, excluding its indirect effect through improved living standards (Singh-Manoux et al, 2002). It is also important to control for confounding by maternal age since average education levels may have changed substantially over time.

With few exceptions, all studies in the field include maternal education and find a strong and dose-dependent positive effect of educational level on use of skilled attendance, but levels of education are classified differently. For example, in most African settings, effects of primary education versus no education are already well discernable. In Tajikistan, where most women have secondary education and 40 percent delivered at home in 1998, there is no differential in service use up to secondary education, but those with higher

education are more likely to deliver in a facility than the rest (Falkingham, 2003).

Where the contextual effect of education is considered by including the percentage of women with secondary education in each cluster, it is highly predictive of an individual woman's facility use for childbirth in most of the African countries studied, more so than the substantial individual education effects . In Haiti and Mali the concentration of adults (not just women) with secondary education is also associated with facility delivery but is restricted to women who had lived in the area for at least 5 years in Mali (Gage, 2007).

Financial accessibility factors

One of the main factors affecting the use of health facilities is poverty. When there is no money to pay for care or drugs people do not go to health facilities to seek care. Poverty is perceived by women as a factor of homebirth. The lack of money is a barrier for use of health facility for ante natal care (ANC) and delivery (Télesphore et al 2011).

The role of income in health seeking is buttressed by the fact that poverty is generally associated with poor health (Abel-Smith & Leiserson, 1978). In the United Kingdom, McKeown, Brown and Record (1972) posited that mortality decline in the nineteenth century was closely related to improvement in living standards rather than medical break-through. Recent studies also corroborate that households within the wealthiest quintiles are more likely to seek health care from appropriate providers (Steinhardt et al, 2009). It is well known that increased income has a positive effect on the utilization of modern health care services (Elo, 1992; Fosu, 1994). Husband's

occupation can be considered a proxy of family income, as well as social status.

Background Studies of factors affecting place of delivery have rarely considered the influence of gender roles and relations within the household. This study conducted by Mwifadhi et al, (2007), combined an understanding of gender issues relating to health and help-seeking behaviour with epidemiological knowledge concerning place of delivery in Tanzania. In-depth interviews, focus group discussions and participant observation were used to explore determinants of home delivery in southern Tanzania, which is evident from quantitative data collected in a cross-sectional survey of 21,600 randomly chosen households.

Issues of risk and vulnerability, such as lack of money, lack of transport, sudden onset of labour, short labour, staff attitudes, lack of privacy, tradition and cultures were perceived as key determinants of the place of delivery. More than 9000 women were interviewed about their most recent delivery in the quantitative survey. There were substantial variations between ethnic groups with respect to place of delivery. Women who lived in male-headed households were less likely to deliver in a health facility than women in female-headed households. Mothers with primary and higher education were more likely to deliver at a health facility. Younger mothers and the least poor women were also more likely to deliver in a health facility compared with the older and the poorest women, respectively.

To address neonatal mortality, special attention should be paid to neonatal health in both maternal and child health programmes. The findings emphasize the need for a systematic approach to overcome health-system

constraints, community based programmes and scale-up effective low-cost interventions which are already available.

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Health decision making factors

In many parts of Africa, women's decision making power is extremely limited, particularly in matters of reproduction and sexuality. In this regard, decisions about maternal care are often made by husbands or other family members (WHO, 1998 in Nketisah-Amponsah, 2009). Availability of women's time is also important. In developing countries, women spend more time on their multiple responsibilities for care of children, collecting water or fuel, cooking, cleaning, growing food, and commerce than on their own health (World Bank, 1994a). The choice of delivery location is therefore left to the husband or family member to decide.

In People's Democratic Republic of Lao, maternal mortality ratio is 660 per 100,000 live births, which is the highest in the Asia-Pacific region. This study, by Douangphanh, Moazzam, Phathammavong and Chushi (2010),

was to explore the factors influencing the decision making of the mothers for choice of place of delivery for their last child. This cross-sectional study was conducted from January to March, 2008. One district from each province was selected using a cluster sampling technique. All catchment villages of the district hospital in each district were recruited (30 villages in total). From those villages, 311 mothers participated in the study.

Half of the mothers delivered their youngest child at the hospital (51.1%). Mothers with more than four ANC visits were 2.3 times more likely to deliver at the hospital compared to mothers with less than four ANC visits. Mothers who had to travel for less than 45 minutes from home to health facility were 2.3 times more likely to deliver in hospital than mothers who have to travel longer distances to the health facility to seek health care. Similarly, mothers whose husbands were government officials, or a daily wage worker were 8.3 times and 5.2 times to deliver at a hospital compared to those whose husbands were not government officials and those who don't earn wages. All of them were more likely to deliver at hospital compared with home delivery.

There was a strong association between the number of antenatal care visits and delivery at health facilities. So, there is a need to promote ANC among mothers living far from the hospital to use hospital delivery, and provide community education to create awareness of obstetric complications, as well as maternal morbidity and mortality.

A study conducted by Madi (2001) was to explore pregnant women's decision-making and major influences on their preferences for a place of delivery. The study was prompted by the UK government's policy of a woman

centred maternity service (Department of Health 1993), and the observation that studies had concentrated on professionals' rather than women's views about the place of delivery. Two factors were considered to have potential influence in decision making; one being the individual woman's risk perception related to the process of childbirth, and the other, knowledge about available options for place of birth. Firstly, a systematic review was conducted, looking at available studies on women's views about the place of delivery. Only 9 studies were found, suggesting a need for more studies.

Secondly, a primary study was conducted using in-depth interviews with 20 women planning a hospital birth, and 13 planning a home birth to explore factors that led to their respective choices. Results from the primary study indicate that women were not offered information about the availability of home birth. Consequently, 90 percent of those planning a hospital birth did not give a thought about where they were going to have their babies, but assumed they were going to go to hospital. On the other hand, those planning a homebirth found information privately and discussed the options with their husbands before making a decision.

Additionally, results exposed differences in perception of safety concerning childbirth for subsequent deliveries according to planned place of delivery. Control of the birth process and environment was also found to be important for women planning a homebirth. Risk perception and information about available options were found to influence decision-making about the place of birth, thus supporting the hypotheses of the study.

Socio-cultural factors

According to Fisher (2002), traditional practices attract Ghanaian women because of their time-tested methods successfully used by generations of family, mothers, and grandmothers. He goes on to posit that others choose to turn to their religion when it comes to having babies. Indeed since religion is so integrated into every aspect of life, why would childbearing be excluded? Both demographic and socioeconomic determinants of use of reproductive health care are mediated by cultural influences on health-seeking behaviour that shape the way individuals perceive their own health and the health services available(Fisher, 2002).

Community beliefs and norms are reflected in an individual's health decisions; behaviour is influenced by how a person thinks the community views his or her actions. Socio cultural factors in the choice of delivery place are also known to be a factor when it comes to the 'first delay' in the "three delays'. This stems from the reluctance within the family or community to send the woman to a care facility due to cultural constraints. For example, traditional beliefs about childbirth, coupled with misconceptions and fears of medical institutions have led many women to maintain reliance on home births in India.

Results from a study in Benin found that women giving birth unassisted were silently admired, and in West Africa child birth is considered a woman's battle Stephenson et al (2006). Thus, although demographic and socioeconomic factors are key determinants of health service use, the individual's cultural environment provides a strong influence on the extent to which these factors can lead to the use of health services. Previous studies

have highlighted a range of factors associated with a woman's decision to seek care during labour. However, the role of the community has been largely ignored. There are several pathways through which a community could influence an individual's health. Community beliefs and norms relating to health behaviours have a strong influence on the health care decisions made by individuals. The level of community economic development may influence health directly, through an association between deprivation and poor health, and indirectly through access to health services and social support systems.

A measure of the proportion of deliveries assisted by skilled attendants is one of the indicators of progress towards achieving Millennium Development Goal (MDG) 5, which aims at improving maternal health. This by Wanjira et al (2011) study aimed at establishing delivery practices and associated factors among mothers seeking child welfare services at selected health facilities in Nyandarua South district, Kenya, to determine whether mothers were receiving appropriate delivery care.

A hospital-based cross-sectional survey among women who had recently delivered while in the study area was carried out between August and October 2009. Binary Logistic regression was used to identify factors that predicted mothers' delivery practice. Among the 409 mothers who participated in the study, 1170 deliveries were reported. Of all the deliveries reported, 52 percent were attended by unskilled birth attendants. Among the deliveries attended by unskilled birth attendants, 39 percent (452/1170) were by neighbours and/or relatives.

Traditional Birth Attendants attended 2 percent (17/1170) of the deliveries while 12 percent (137/1170) of the deliveries were self-

administered. Mothers who had less than three years of education were more likely to unskilled birth attendance (Adjusted Odds Ratio (AOR) 19.2, 95 percent confidence interval (CI) 1.7 - 212.8) and with more than three deliveries in a life time. Mothers with perceived similarity in delivery attendance among skilled and unskilled delivery attendants were associated with unsafe delivery practice. Mother's with lower knowledge score on safe delivery (%) were more likely to have unskilled delivery attendance.

Among the mothers interviewed, utilization of skilled delivery attendance services was still low with a high number of deliveries being attended by unqualified lay persons. The study recommends the need to implement cost effective and sustainable measures to improve the quality of maternal health services with an aim of promoting safe delivery and hence reducing maternal mortality.

Health service factors

To determine the prevalence and correlates for utilization of health facilities for childbirth in a rural Chongwe district, Zambia, Hazemba and Siziya (2007), conducted a cross sectional study which was carried among 250 mothers who had delivered babies within one year prior to the survey. A Backward multiple logistic regression method was used to determine independent predictors for utilization of health services for childbirth. Main Outcome Measures: Percent utilization of health facilities.

A total of 250 mothers were recruited into the study, of whom the substantial number (41.2%) were below the age of 25 year and were married (84.0%). A third (32.8%) of the mothers were not able to read and write. The

rate of health facility utilisation for childbirth was 43 percent. Independent predictors for utilisation of a health facility were place of last childbirth, and the knowledge that the traditional birth attendants (TBAs) are given non food items (excluding money) after assisting delivery.

Compared to mothers who delivered their last pregnancy at a health facility, mothers who had their last childbirth at home were 85 percent less likely to deliver their current pregnancy at a health facility. Knowledge that a TBA was given none food items (excluding money) after assisting delivery was negatively associated with delivery at a health facility. Thestudy concludes that importance of giving birth at a health facility should be communicated to mothers who give birth at home, during postnatal visits or clinic outreach sessions.

This study conducted by Colonna (2009) discusses the concept of accessibility and how it can be incorporated into transport planning. Accessibility refers to people's ability to reach goods, services and activities, which is the ultimate goal of most transport service delivery. Many factors affect accessibility, including mobility (physical movement), the quality and affordability of transport options, transport system connectivity, mobility substitutes, and land use patterns. Accessibility can be evaluated from various perspectives, including a particular group, mode, location or activity. Conventional planning tends to overlook and undervalue some of these factors and perspectives. More comprehensive analysis of accessibility in planning expands the scope of potential solutions to transport problems.

In a study by Télesphore (2011), it was observed that the decision to use a health facility is motivated by many factors. The reception and

providers' kindness are important in the use of health services. When the experience is good, women generally go back for further care. But, when the interaction is bad, women are reluctant to go back. Sometimes women are faced with worst staff in health facility and they are not encouraged to go back.

In a Ugandan study by Amooti-Kaguna and Nuwaha (2000) cited in Wagle et al (2004), it was shown that access to maternity services is one of the influencing factors in choice of delivery site. In most of these studies, low socio-economic status of the women measured by different variables individually or by combining information from several variables is implicated as being a predictor for home delivery.

It should be noted that the mere availability of health care service does not lead to utilization or increased utilization for that matter. However other studies argue that the mere existence of health services is not enough to lead to better utilization (e.g. Basu, 1990). Since health care is a consistent choice of individuals, the factors that change women's perception of the available alternatives and their motivation to seek care need to be understood properly. Thus there has been a considerable debate in the literature recently as to whether the mere provision of health services will lead to increased utilization (Magadi et al, 2000; Obermeyer, 1993; Basu, 1990).

There is ample evidence that higher maternal age, education and household wealth and lower parity increase use, as does urban residence. Facility use in the previous delivery and antenatal care use are also highly predictive of health facility use for the index delivery, though this may be due to confounded by service availability and other factors. Obstetric

complications also increase use but are rarely studied. Quality of care is judged to be essential in qualitative studies but is not easily measured in surveys, or without linking facility records with women. Distance to health facilities decreases use, but is also difficult to determine. Challenges in comparing results between studies include differences in methods, context-specificity and the substantial overlap between complex variables.

Physical accessibility factors

According to Babinard and Roberts (2006), transport plays a critical role in the delivery of and access to health services, and in the overall effectiveness of the referral process. In effect, transport and road infrastructure acts as a key link between potential accessibility and actual utilization of health services (Babinard & Roberts, 2006).Accessibility of health services has been shown to be an important determinant of utilization of health services in developing countries. In most rural areas in Africa, one in three women lives more than five kilometres from the nearest health facility (World Bank, 1994). The scarcity of vehicles, especially in remote areas, and poor road conditions can make it extremely difficult for women to reach even relatively nearby facilities. Walking is the basic mode of transportation, even for women in labour (Williams, 1985; World Bank, 1994).

This study conducted by Colonna (2009) discusses the concept of accessibility and how it can be incorporated into transport planning. Accessibility refers to people's ability to reach goods, services and activities, which is the ultimate goal of most transport service delivery. Many factors affect accessibility, including mobility (physical movement), the quality and

affordability of transport options, transport system connectivity, mobility substitutes, and land use patterns. Accessibility can be evaluated from various perspectives, including a particular group, mode, location or activity. Conventional planning tends to overlook and undervalue some of these factors and perspectives. More comprehensive analysis of accessibility in planning expands the scope of potential solutions to transport problems.

In most developing countries and Ghana for that matter, the problems within the transportation sector makes it very difficult or next to impossible for some expectant mothers to make it to the health facility when their time to deliver is due. In most villages within the rural communities only old and ill maintained vehicles ply routes between communities and coupled with the bad road network, transportation of pregnant mothers to health facilities becomes a problem. In some rural communities in Ghana the Ministry of health has partnered the Ghana Private Road Transport Union (GPRTU) to transport pregnant mothers freely to the nearest health facility. This is a welcomed idea but some drivers are scared of the mothers delivering in their vehicles which make the implementation of this collaboration difficult.

Personality factors

The various dimensions of autonomy, such as position in the household, financial independence, mobility and decision-making power regarding one's own healthcare, may all impact on health facility use. In many countries, women cannot decide on their own to seek care, but have to seek permission from a husband or mother-in-law. Furthermore, women may lack control over material resources needed to pay for expenses, their mobility may

be restricted or they may lack access to vehicles or even bicycles or donkeys. However, women's informal power in the household may mitigate some of the above. The interpretation of various measures of autonomy depends on the context women who take decisions alone in a context where this is unusual, "might be relatively isolated, unsupported individuals and not autonomous agents". As such they may have resource constraints and be less likely to use services.

Women's status, as it reflects on the importance attached to female health also plays a role. Sex discrimination as a contributory factor to maternal mortality has been largely ignored, and has been hidden within the general issue of poverty and underdevelopment which is assumed to put everyone at an equal disadvantage in health terms. Autonomy and status effects are likely to be modified by age, marital status, wealth and parity. According to Glei et al, 2003, several studies examine the effect of autonomy dimensions on use of skilled attendance at delivery.

Most find significant associations for at least some dimensions, but which ones are important varies from study to study. Dimensions studied include freedom of movement, aspects of decision-making, control over earnings, communication and sharing.

Theories and conceptual framework

The two main theories used in this study are the Health Belief Model (HBM) by Rosenstock, Becker and Kirscht (1988), and the theory of Reasoned Action by Ajzen and Fishbein (1980). The HBM was one of the first models which adapted theories from the behavioural sciences to examine

health problems. It is still one of the most widely recognized and used models in health behaviour applications. The Theory of Reasoned Action was designed to explain not just health behaviour but all volitional behaviours.

Health belief model

This model was originally introduced by a group of psychologists in the 1950's to help explain why people would or would not use available preventive services, such as chest x-rays for tuberculosis screening and immunizations for influenza. These researchers assumed that people feared diseases and that the health actions of people were motivated by the degree of fear (perceived threat) and the expected fear reduction of actions, as long as that possible reduction outweighed practical and psychological barriers to taking action (net benefits).

The HBM can be outlined using four constructs which represent the perceived threat and net benefits: *Perceived susceptibility*, a person's opinion of the chances of getting a certain condition; *Perceived severity*, a person's opinion of how serious this condition is; *Perceived benefits*, a person's opinion of the effectiveness of some advised action to reduce the risk or seriousness of the impact; and *Perceived barriers*, a person's opinion of the concrete and psychological costs of this advised action (Becker et al 1978). Regarding this theory, the study would like to ascertain how women's opinions on choice of delivery place are influenced by advice in order to reduce the impact of choice and the cost of making that choice of delivery place.

Stages of change model

This model outlines the stages of an individual's readiness to change, or attempt to change, toward healthy behaviours. The Stages of Change Model evolved from research in smoking cessation and also the treatment of drug and alcohol addiction. More recently it has been applied to other health behaviours, such as dietary changes. Behaviour change is viewed as a process, not an event, with individuals at various levels of motivation or "readiness" to change.

There are six stages that have been identified in the model: *Pre-contemplation* - the person is unaware of the problem or has not thought seriously about change; *Contemplation*- the person is seriously thinking about a change (in the near future);*Preparation* - the person is planning to take action and is making final adjustments before changing behaviour; *Action* - the person implements some specific action plan to overtly modify behaviour and surroundings; *Maintenance* - the person continues with desirable actions (repeating the periodic recommended steps while struggling to prevent lapses and relapse; and *Termination* - the person has zero temptation and the ability to resist relapse (Prochaska & DiClemente, 1983).In context of the SCM model, the study seeks to identify whether women are aware of the consequences of choice of delivery place or not in addition, the study intends to determine whether women plan their choice of delivery place or not.

Framework for health promotion practice

The framework for health promotion practice,(National Institutes of Health) was used by the United States Department of Health and Human Services. The framework combined Health Belief Model (HBM) by Rosenstock, Becker and Kirscht (1950), and Reasoned Action Model (RAM) by and Ajzen (1980). Both theories focus on individual health behaviours. For instance, The HBM examines health behaviour applications whiles the RAM explains health behaviour and all volitional behaviours. Even though this framework illustrates how individual health behaviours with issues and concepts influencing them, it remains silence on the socio-economic and socio-cultural factors as well as perceptions of expectant mothers. For this reason the study adapted this framework to examine expectants mothers choice of delivery place.

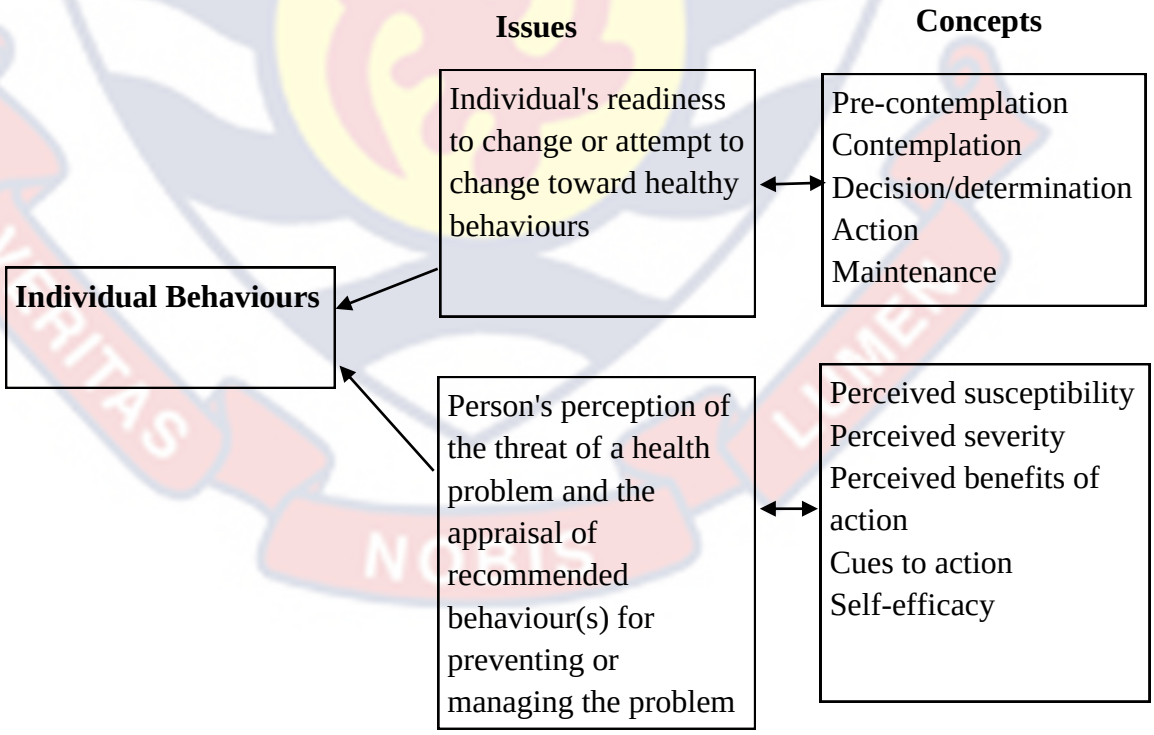

Figure 1: Framework for health promotion practice

Source: US Department of Health and Human Services, (2005)

Choices of delivery place by expectant mothers are influenced by socio-economic factors (transport, road infrastructural, income, residence etc), socio-cultural factors (religion and beliefs) and the perceptions of the expectant mother. These factors mentioned above, influence such concepts as Pre-contemplation, Contemplation, Decision/determination, Action and Maintenance, Perceived susceptibility, Perceived severity, Perceived benefits of action, Cues to action and Self-efficacy of the individual whereas these concepts as well influence the socio-economic and socio-cultural factors as well as perceptions of expectant mothers.

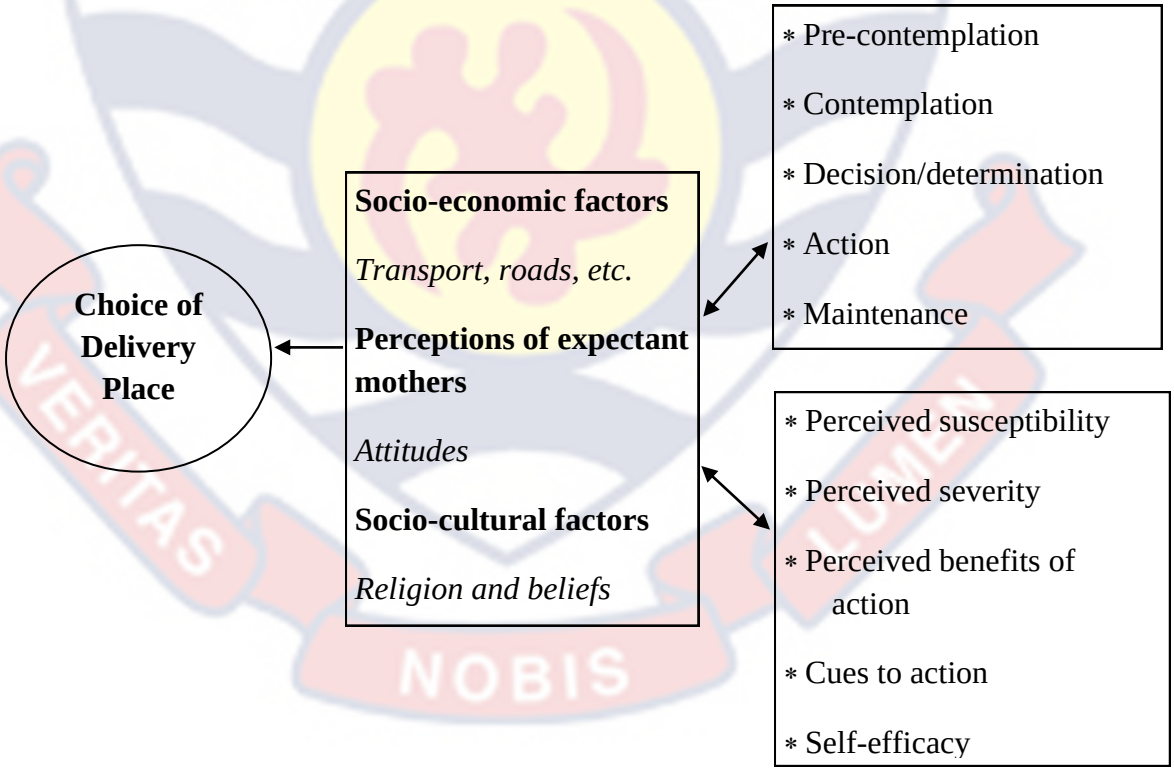

Figure 2: Conceptual framework

Source: Adapted from US Department of Health and Human Services(2005)

CHAPTER THREE

METHODOLOGY

Introduction

This chapter describes the approach that was adopted and the methods for data collection to achieve the study objectives. It also describes the study design, study area, target population, sample size, sampling procedure, data sources, research instrument used, methods of data collection, data analysis and the ethical consideration.

Research design

A research design is the researcher's overall plan for obtaining answers to a research question or testing hypothesis (Burns & Grove, 2003, cited in Mthethwa, 2009). This study employs a descriptive cross sectional research design. A cross-sectional study is the simplest range of descriptive or observational epidemiology that can be conducted on representative samples of a population (Vandenbroucke,2011).This describes the relationship between diseases (or other health-related states) and other factors of interest as they exist in a specified population at a particular time. It is done on representative samples of the population for generalizations from the findings to have validity (Babbie, 2009).

According to Brink (2006) as cited in Mthethwa (2009), a descriptive design may be utilized to study characteristics in a population for the purpose of investigating probable solutions for a research problem. This design was chosen because of the numerous advantages it has. Apart from the fact that it is relatively inexpensive and takes up little time to conduct, it can estimate

prevalence of outcome of interest because sample is usually taken from the whole populationfrom which many outcomes and risk factors can be assessed.It is useful for public health planning, understanding disease aetiology and for the generation of hypotheses.

This study gathers information about the prevalence of health-related states and conditions. What it does is to measure the frequency (prevalence) of conditions and demonstrates associations. It is inexpensive and produces fast results. It is a beneficial approach for intervention planning and development.

Study area

Apam is the capital of the Gomoa West district, which is one of the seventeen districts in the Central Region. The Gomoa district is one of the deprived districts in the Central region. The inhabitants are mainly fishermen and subsistence farmers. Most of the crops grown by farmers are maize, cassava, water melon, vegetables among others. There is also salt winning during the dry season. The 2000 Population and Housing Census revealed that females head most of the households in Gomoa. This trend may also account for the high level of poverty in the district since most of these women do not have men to support them.

There are access roads in the Gomoa West district. Most of these roads are however in deplorable conditions. Most of the communities do not have ready access to transport. Apam is one of seven towns within Gomoa West district. Apam has six communities including Nsawam, Nsuekyir, Mamfam, Alata, Bombua and Kantam. The total population of Apam from projected figures of the 2000 population census is 45,090.

Target population

According to Brink (2006), a population is the entire group of persons or objects that is off interest to the researcher, which also meets the criteria which the researcher is interested in studying. In research, target population is the entire set of units for which the study is to be used to make inferences. It is also defined as the eligible population that is included in research work.The target population for this study is all mothers who are attending post natal clinic within Apam and have delivered between December 2010 and May 2011, irrespective of site of delivery. The total population of Apam from projected figures of 2000 population census is 45,090. Of this total, the number of women in fertile age is 10,362 (23%) of the population and this accounts for our target population.

Sample size

A sample is a part or fraction of a whole or subset of a larger set selected by a researcher to participate in a research study (Brink, 2006). The sample size for this study was 128.The total population of Apam is 45,050 with 10,362 women being in the fertile age which constitutes the target population for this study. In order to get the sample size for the study, the Fisher et al (1998) formula for determining sample size was employed. This is given as:

$n_f = \frac{n}{1+n/N}$

Where:

n_f= the desired sample size (when population is less than 10,000),

n = the desired sample size (when population is greater than 10,000),

N = the estimate of the target population size.

In order to get n,(Fisher ,1998) provided another formula, which is

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

Where:

n= the desired sample size (when the population is greater than 10000)

z= the standard normal deviation, usually set at 1.96 which corresponds to 95 percent confidence level;

p= the proportion of the target population with similar characteristics;

q= 1.0-p; and

d= the degree of accuracy desired, this is usually set at 0.05

The population of Apam Township is 45,090 according to data made available at the office of the District Director of Health Services. The woman in fertile age (WIFA) is 10,370. The total number of expected pregnancies is 1,804 in a year. This figure gives us our target population.

In order to calculate for 'n' in the formula below

$$N_f = \frac{n}{1+n/N}$$

We need to use the formula

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

where 'n' is unknown:

$z^2 = 1.96^2$ (which is 3.8416)

p = 90 (proportion of population with similar characteristics

q = 10

$d^2 = 0.05^2$ (0.0025)

By substitution,

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

$$n = \frac{3.841 \text{ X } 0.90 \text{ X } 0.10}{0.0025}$$

$$n = \frac{3.8416 \text{ X } 0.09}{0.0025}$$

$$n = \frac{0.3457}{0.0025}$$

$$n = 138.29$$

To get the nf which is the sample size for the study:

$$n_f = \frac{n}{1+n/N}$$

Where:

n_f= the desired sample size (when population is less than 10,000),

n = the desired sample size (when population is greater than 10,000), (138)

N = the estimate of the target population size. (1,804)

By substitution

$$n_f = \frac{n}{1+n/N}$$

$$n_f = \frac{138}{1+\frac{138}{1804}}$$

$$= \frac{138}{1 + 0.0765}$$

$$= \frac{138}{1.0765}$$

$$= 128.19$$

The sample size that was used for the study was therefore 128.

Sampling procedure

Data was collected at two points; at the St. Luke's Catholic Hospital and the Reproductive and Child Health (RCH) Unit of the District where most some women in attend post natal clinic. These two locations were selected because in the case of the hospital it serves as the district hospital where over 98% of supervised deliveries within the district occur. The RCH and the Hospital both conduct post natal care.

The sample size of 128 was divided equally between the two locations. At the RCH unit after getting the sampling frame it became imperative to visit the community because that was where post natal clinic at that unit was done.

Sampling is necessary because in dealing with large numbers of respondents, there is the need to get a fair representation of the people since everybody in the society cannot be studied. A simple random sampling was used to draw sample for the quantitative approach. The register of mothers at post natal clinic was used as the sampling frame. The lottery method of the simple random sample was used. Mothers in the sampling frame were numbered and the sample drawn.

With respect to the sampling for the qualitative approach, a purposive sampling technique was used. This technique was employed because it enabled the study to select respondents who per opinion would bring out the responses relevant to the study.

Data sources

Data for the study was gathered mainly from primary sources. The Catholic Hospital and the Reproductive and Child Health unit within the

district was the point of collection of the primary data. Secondary data sources used in the study also includes official information from the St. Luke's Catholic Hospital in Apam, the internet, publications and journals.

Instruments of data collection

Two main methods of data collection were used in this study. These are the interview schedule and a focused group discussion guide. The interview schedule was for the quantitative technique and the focused group discussion for the qualitative. In consonance with the quantitative technique, the interview schedule was used to collect data on factors affecting the choice of delivery place by women in Apam. These methods of data collection were chosen because it is economical and appropriate for such data collection. The interview schedule was used because some of the respondents in Apam could not read and write in English language. The questions were therefore read and translated into the Fante language which is widely spoken in Apam.

The interview schedule was structured into five modules in line with the objectives of the study. The first module of the interview schedule dealt with the demographic profile of the respondents. They included age, marital status, educational level and income of respondents. The second part of the interview schedule was socio-economic factors affecting choice of delivery place. The third was on challenges that mothers face in delivering at a health facility. The fourth was on perception of expectant mothers towards place of delivery. The likert scale was used to analyse the perceptions of mothers. The final part of the interview schedule was on the cultural factors contributing to

the choice of delivery place. The focus group discussion guide was also developed based on the same structure as the interview schedule.

Methods of data collection

The study used both qualitative and quantitative approaches to strengthen each other in the collection of data. The quantitative approach adopted an interview schedule to get responses from mothers with reference to choice of site of delivery. The interview schedule included items on socio-economic characteristics; obstetric factors, decision making, place delivery of last child, and traditional birth attendants-related factors. All the questionnaire were administered by the researcher. All the respondents were clients who were attending at the Catholic Hospital, Apam.

The qualitative approach employed a focused group discussion which enabled the participants freely discuss the issues which affect their choice of delivery site. With the help of opinion leaders within Apam and the Disease Control Officer of the District Health Directorate, a total of 18 women were selected for the FGD. They were selected by way of a simple random sampling from the target population. The characteristics of the participants were fairly homogenous. The participants (18) were grouped into two comprising ten and eight participants in each. A session was held for each group to discuss the issues on the instrument.

The venue for the focus group discussions was the reproductive and child health unit of the Catholic Hospital. Informal interviews were conducted with the participants about the venue for the focus group discussion. Almost all advised that the health facility was appropriate because there would be

minimal or no distractor. On the average, each session of the discussion with a group lasted for about forty-five minutes.

Data analysis

Data gathered from the fieldwork was keyed into the Statistical Product for Service Solutions (SPSS version 16) software for analysis. The chi square statistic was used to test the hypothesis. The results were presented in tables and in some cases in percentages. The focus group discussion was transcribed and the information gathered used thematically. Data will be organised into frequencies and percentages which will be presented using tables.

Ethical considerations

Permission for the study was obtained from the district director of health for the Gomoa West District within which the study was conducted. Additional permission was sought from the Acting Medical Superintendent of the St. Luke's Catholic Hospital, the district hospital where majority of the women of Apam deliver. Participants were informed that there would be no risk to their participation in the study, that participation was voluntary, confidential and that they could withdraw their participation anytime during the interview. They were informed that refusing to participate would not affect the usual services they access at health units within Gomoa West and beyond.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the background characteristics of respondents. Among the issues discussed are the age, marital status, place of residence, religion, educational attainment and economic characteristics of the respondents. The chapter goes on to talk about the decision making of delivery location by respondents and their families.

Background characteristics of respondents

Table 1 shows the frequency and percentage distributions of the socio-economic and other demographic characteristics of women sampled for this study. These socio demographic characteristics include age, education, marital status, actual place of last delivery and decision making with regards to choice of delivery location. Table 1 also shows the frequency and percentage distribution of respondents with reference to attendance at antenatal for their most recent delivery. A total of 128 women between the ages of 16 and 43 responded to the interview schedule. The mean age was 27.87 with over 62 percent of respondents below the age of 30 years.

Table 1: Background characteristics among women in Apam

Variables	Frequency	Percentage
Age		
15 – 19	12	9.4
20 – 24	25	19.5
25 – 29	42	32.8
30 – 34	25	19.5
35+	24	18.7
Total	128	100
Marital Status		
Single	21	16.4
Married/Living Together	97	75.8
Widowed	2	1.6
Separated	8	6.3
Total	128	100
Educational Level		
None	37	28.9
Primary	23	18.0
JHS/JHS	53	41.4
SHS/SSSCE	7	5.5
Training College	3	2.3
Tertiary	5	3.9
Total	128	100

Table 1 Continued

Religious Affiliation		
Christian	111	86.7
Moslem	4	3.1
Traditional Religion	7	5.5
No Religion	6	4.7
Total	128	100

Source: Fieldwork, 2011

Age group of women in Apam

The age of respondents in any study serves as a very important background characteristic. It is well recognised that women's current age plays an important role in the utilization of medical services. Mothers' age may sometimes serve as a proxy for women's accumulated knowledge of health care services, which may have a positive influence on the use of health services. In this study, the age of respondents determines the choices that the mothers will take with respect to delivery location.

Results in Table 1 indicate that, out of the 128 respondents that were sampled, 9 percent were between the age group of 15-19. Mothers aged 20-24 were 20 percent of the total. Respondents aged 25-29 constituted the greatest number of responses which was 33 percent. Additionally, 20 percent were aged 30-34.

Educational level of women in Apam

Women's literacy is an important predictor for the use of maternal health care services. It is well recognized that a woman's educational level has a positive impact on health care utilisation. High educational attainment influences service use by increasing female decision-making power, increasing awareness of health services, changing marriage patterns, and creating shifts in household dynamics. Women's education may also act as a proxy variable of a number of background variables representing women's higher socioeconomic status, thus enabling them to seek proper medical care whenever they perceive it as necessary.

As shown in Table 1, 29 percent of the respondents had no education. Respondents who had education up to the JHS/JHS level were 41 percent, accounting for the highest group among the mothers who were interviewed. Mothers who had been educated beyond the training college level accounted for 6 percent of responses. Results from the study as shown in Table 1 indicates that 2 percent and 4 percent of respondents had been educated up to training college and tertiary levels respectively.

Antenatal attendance

Frequency of antenatal care (ANC) is a significant determinant of facility delivery as cited by Mpembeni (2007) and Letamo et al (2003). This has been found in studies done in Botswana, Tanzania and Cambodia as well as in compiled data from developing countries from all the continents, (Chakraborty et al 2003). More than 95 percent of respondents made at least one visit to the antenatal clinic before the most recent delivery. About five

percent of respondents never attended antenatal clinic for their most recent birth. This is shown in the table below. This finding is not different from literature which shows that antenatal visits have increased over the years reaching 98 percent in 2001 as compared to supervised deliveries for the same year which was 50 percent.

Table 2: Site of delivery and age among women in Apam, 2011

Variable	Hospital	TBA	Home	X^2	P - value
Age				25.56	0.181
15 – 19	8.00	18.75	8.33		
20 – 24	17.00	25.00	33.33		
25 – 29	35.00	18.75	33.33		
30 – 34	22.00	12.50	8.33		
35+	18.00	25.00	16.67		
Total	100.00	100.00	100.00		

Source: Field work, 2011

Delivery location and marital status among women in Apam

As evident from a study by Akazili et al (2011), marriage is almost universal as 76 percent of the respondents reported they were either married or living together with their partners; one percent was single and three percent were either separated or widowed. To further ascertain respondents marital status and their delivery location, a cross tabulation was computed. Table 3 shows a cross tabulation of marital status against place of delivery.

In the case of women who were married or living together, 78 percent delivered at a hospital as compared to 18 percent for single mothers and four percent for mothers who were separated. From the responses, 75 percent of those who delivered with the assistance of a TBA were married women as compared to about 19 percent who were separated or widowed. Majority (58%) of those who delivered at home were also married.

The table above shows a chi-square value of 25.56 with a p-value of 0.181 which is not significant even at an alpha value of 10%. This p-value indicates that we fail to reject the null hypothesis that there is no significant relationship between site of delivery and age among women in Apam. In effect, we conclude that, in Apam, a woman's age does not significantly influence her choice of site of delivery (be it hospital, TBA, or home)

Table 3: Site of delivery and marital status among women in Apam, 2011

Variable	Hospital	TBA	Home	X^2	P - value
Marital Status					
				20.55	0.152
Single	18.00	6.25	16.67		
Married	78.00	75.00	58.33		
Separated/widowed	4.00	18.75	25.00		
Total	100	100	100		

Source: Field work, 2011

From the chi square table, it produced a chi square value of 20.55 with a P-value of 0.0152. This P-value is significant at an alpha value of 0.05 (5%)

indicating that we fail to accept the null hypothesis which states that there is no significant relationship between marital status and choice of delivery site. Thus, that there is a significant relationship between marital status and choice of delivery site by mothers.

Educational Background and site of delivery

The results from the study showed that out of the thirty seven (37) respondents who had no formal education, 22 percent delivered at a hospital or health facility while 56 percent delivered assisted by a TBA. For respondent who had education up to the primary level, 18 percent of them delivered their most recent baby in a health facility as against 25 percent with a TBA. For respondents who had been educated up to the SHS level or higher 60 percent delivered at a health facility.

Table 4: Site of delivery and education among women in Apam

Variable	Hospital	TBA	Home	X^2	P - value
Education				20.89	0.0689
None	22.00	56.25	50.00		
Primary	18.00	25.00	8.33		
JHS/JSS	45.00	18.75	41.67		
SHS/Higher	15.00	0	0		
Total	100.00	100.00	100.00		

Source: Field work, 2011

From Table 4, the analysis of the relationship between site of delivery and education produced a chi square value of 20.89 with a p-value of 0.0698. This p-value is significant at an alpha value of 0.10 (10%) which means that

we fail to accept the null hypothesis which states that there is no significant relationship between educational level and choice of delivery site by mothers. Thus, a woman's educational level significantly influences her choice of delivery site.

This is consistent with literature that education of women has been found to have the strongest association with the use of maternal health care services. In Peru for example, formal education of women influences the use of maternal health care services. Results from a cross-sectional and fixed-effects model study by Elo (1992) which controlled for service availability and the socio-economic status of the household, confirmed the importance of maternal education on the utilization of both prenatal care and delivery assistance. Similarly, a study in Thailand showed that maternal education exerts a significant influence on the use of maternal health care services; the odds of using prenatal care and formal delivery assistance is much greater for women with primary schooling, compared to women with zero years of schooling (Raghupathy 1996). Educated mothers are considered to have a greater awareness of the existence of maternal health care services and thus more likely to use such services.

Finally, it must be admitted that schooling reflects a higher standard of living and access to financial and other material resources. This is because educated women are more likely to marry men who earn income which will increase the earning that their household would have.

Reason for location choice for most recent delivery

Table 5, shows the reason for the choice of location of most recent delivery by respondents. Respondents were allowed to select more than one reason for their choice of delivery location. Out of the 151 responses given, 53 percent of mothers indicated that they chose to deliver in a hospital because it has all facilities. An additional 20 percent also indicated that an abrupt labour pain was very crucial in their choice of delivery location while 13 percent indicated that due to complications they prefer to deliver at a hospital where they can be well managed.

Table 5: Reason for most recent choice of delivery location among women in Apam,2011

Response	Frequency	Percentage
Public hospital with all facilities	80	53.0
Abrupt labour pains	30	19.9
Complications requiring Hospital care	19	12.6
Father made the decision	8	5.3
Free Medical Care	8	5.3
Lack of money	1	0.7
Advised by relative	5	3.3
Total	151	100

Source: Field work, 2011

Accessibility of health facility by women in Apam

From the results, 79 percent reported that their homes are far (between 3-5km) from the nearest health facility. When respondents were further probed if the distance between their homes and the nearest health facility deters them from seeking supervised delivery, 16 percent did not think so. About 75 percent of respondents indicated that they arrived at the health facility to deliver by car (Table 6). It can thus be deduced that availability of vehicles becomes relevant in this regard.

As part of exploring the challenges that expectant mothers go through in delivering at a health facility, the attitudes of health care workers towards service delivery was discussed. During the FGD one respondent indicated that "*when I arrived, the midwives did not attend to me on time and my baby almost dropped to the ground. It was only then that they rushed to my aid and started apologising"*. Another woman added "*sometimes they insult you when they ask you to push and you cannot, some of the nurses even beat you"*.

Table 6: Accessibility factors towards choice of delivery site among women in Apam, 2011

	Frequency	Percentage
Does distant from health facility affect		
Your choice of delivery site		
Yes	101	78.9
No	26	21.1
Total	**128**	**100**
Mode of Transport		
By Car	75	75.4
Walked	23	22.8
Walked & Car	2	1.8
Total	**100**	**100**
Deterred by Staff attitude		
Yes	21	16.4
No	107	83.6
Total	**128**	**100**

Source: Fieldwork, 2011.

Perception and cultural factors affecting choice of delivery location

The results also showed that some perceived factors and cultural practices also affect the choice of delivery location within the community. A cross tabulation revealed that 75 percent of respondent chose to delivery in a hospital due to abrupt labour pains at night. In addition, all those who delivery at home also

responded that it was abrupt labour pains that necessitated their delivery at home.

Table 7: Perceived choice of delivery location among women in Apam, 2011.

Variable	Hospital	TBA	Home
Labour Pains			
Strongly Disagree	6.3	16.7	0
Disagree	12.5	33.3	0
Undecided	6.2	16.7	0
Strongly Agree	75.0	33.3	100
Total	100	100	100
Birth of first Child			
Strongly Disagree	11.8	0	0
Disagree	17.9	66.7	100
Undecided	5.9	33.3	0
Agree	5.9	0	0
Strongly Agree	58.8	0	0
	100	100	100

Source: Fieldwork, 2011

The FGD responses also indicated that labour pains usually necessitate the need for a service. During the discussion, it was observed that labour pains caused some to the respondents to seek services from personnel that are closer to their residence. This assertion was corroborated by a mother during the FGD.

> I had all my things packed and was waiting for my due date of delivery but had abrupt labour pains eight days before my expected time of delivery. I had no option because my home is far from the hospital, than to call a TBA for assistance.

Cultural factors contributing to choice of delivery location

In response to questions during the interview of respondents, around 99 percent of them indicated that there were no cultural factors that affect the choice of delivery location. The response on whether rituals concerning the placenta were a reason for the choice of delivery location, the response (irrespective of site of delivery) was more than 97 percent. However, during the FGD one of the mothers indicated otherwise.

> I prefer to deliver at home so that I can bury the placenta myself or by a member of my family, I therefore prefer not to deliver at a health facility where the placenta is buried by health workers.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter sums up the findings of the research, conclusion and the recommendations for future studies.

Summary of findings

This study primarily set out to assess the major factors responsible for determining the choice of delivery site by women in Apam. Using a descriptive cross sectional research design, the study involved 128 mothers who are attending post natal clinic within Apam and have delivered between December 2010 and May 2011, irrespective of site of delivery. Quantitative and qualitative research methods were used in the study. Structured interview schedule and focused group discussion guide were used to collect the data. Data was analysed using the Statistical Product and Service Solutions (SPSS) Version 16 software while manual transcription was used to analyse the qualitative data.

The study found that respondents aged 25-29 were about one-third (33%) of the total respondents. Majority of the respondent (95%) made at least one visit to the antenatal clinic before their most recent delivery. The results from the study reveal that most of the respondents (75%) had their deliveries in a health facility. In the case of women who were married or living together, majority (79%) of them delivered at a hospital. It was found that 53 percent of

mothers indicated that they chose to deliver in a hospital because it has all facilities to support their safe delivery.

Respondents indicated that the attitudes of health workers at times deter them from seeking care from such location as the hospital. It was further found that 75 percent of respondents who delivered at health facility strongly agreed that abrupt labour pains were very crucial in determining where they choose to deliver.

Even though the quantitative results did not show the influence of cultural factors in the choice of locations for delivery, the qualitative data did. That is, while 99 percent indicated that there were no cultural factors that affected the choice of delivery location statements from the FGD said otherwise.

The findings from the study shows that antenatal care is almost complete with over 90 percent attendances whereas skilled delivery is still less than 60 percent. The results show that 74 percent of the respondents did not see distance as a deterrent to hospitalized delivery largely due to availability of transport service.

Results of the study showed a significant relationship between marital status and the choice of delivery location (R^2 = 0.19; P 0.023). This is also consistent with decision making in relation to choice of delivery place. The results also shows that majority of women are now responsible for decisions regarding their health and place of delivery. For women who were separated, 88 percent took decision about delivery location themselves.

Conclusions

It can be concluded that antenatal care is almost complete with majority of respondents attending ANC before their most recent births. With the introduction of free maternal health care and the national health insurance scheme (NHIS) it is even expected that more than the figure will choose a hospital with all the necessary interventions for a safe delivery and care of the mother and new born baby. This however is not the case, even though Apam has over 3 health facilities including a 105 bed capacity hospital.

Regardless of the distance, pregnant women would deliver at a nearest health facility if transportation is made available. In addition, the pains experienced at labour influences a pregnant mother's choice of delivery place.

Finally, even though cultural factors play a role in the choice of delivery location of the pregnant mother, it did not reflect the views of the survey respondents at Apam.

Recommendations

Based on the findings of the study, the following recommendations for action are made:

1. The level of health education within Apam should be intensified by health workers to enable women know the hazards of not delivering under a supervised setting by out-reach nurses.
2. Mothers who visit health facilities must be given special treatments such as exemption from queues, to encourage them to choose to deliver at health facility instead of Home.

3. With the introduction of NHIS and maternal health services, mothers should be encouraged to attend hospital regularly and deliver at health facility.
4. The health directorate in Apam should encourage the communities to participate in maternal health issues. This would in the long run ensure that mothers seek care at a health facility and on time.

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APPENDICES

APPENDIX A

INTERVIEW SCHEDULE

UNIVERSITY OF CAPE COAST

FACULTY OF SOCIAL SCIENCE

DEPARTMENT OF POPULATION AND HEALTH

Hello, my name is ..... from the University of Cape Coast, Department of Population and Health. I would like to interview you as part of a study on the determinants of women's choice of delivery place in Apam. The aim is to understand the factors influencing attendance of maternal health facilities in the district.

Your participation is exclusively voluntary and will have no adverse consequences on you and your subsequent treatment in any health facility. You may refuse to answer questions and choose to withdraw from the interview at any given moment.

SECTION A: SOCIO-DEMOGRAPHIC INFORMATION

1. How old are you? (Completed Age) .....
2. Marital Status

Single	[ ]		
Married/Living together	[ ]		
Widowed	[ ]		
Divorced	[ ]		
Separated	[ ]		

3. Number of children ever born
4. Male [ ] Female [ ]
5. Number of children alive

Male	[ ]	Female	[ ]

6. What is the highest level of school you attended?

None	[ ]	Primary	[ ]
JHS/JSS	[ ]	SHS/SSSCE	[ ]
Training College/Vocational	[ ]	Tertiary	[ ]

7. What is your religion?

Christian	[ ]	Moslem	[ ]
Traditional Religion	[ ]	No Religion	[ ]

8. What is your occupation

Farming	[ ]	Trading	[ ]
Teaching	[ ]	Clerical	[ ]
Artisan	[ ]	Fishmonger	[ ]
Student	[ ]	Other (specify)	

9. Place of residence .....

SECTION B: SOCIO-ECONOMIC FACTORS

10. Who in your home decides where you should deliver your baby?

Self	[ ]	Spouse	[ ]
Family/Relatives	[ ]		

11. Did you attend antenatal clinic when you were pregnant?

Yes	[ ]	No	[ ]

12. Where did you deliver your last baby?

Hospital	[ ]	Health Centre	[ ]
TBA	[ ]	Maternity Home	[ ]
Spiritualist/Herbalist	[ ]	Private Hospital/Clinic	[ ]
Home	[ ]	Spiritual Garden	[ ]

Other .....

13. Why did you choose to deliver your baby at that place?

Public hospital with all facilities	[ ]
Father of child made decision	[ ]
Complication requiring Hospital	[ ]
Free Medical Care	[ ]
Lack of money	[ ]
Referred	[ ]
Advised by relative	[ ]
Others	[ ]
Private Hospital	[ ]
Abrupt Labour pain at night	[ ]

SECTION C: PHYSICAL CHALLENGES

14. Are there any barriers to seeking health care in a hospital?

Long distance [ ]

Rude health workers [ ]

Lack of money [ ]

Prefer herbal treatment [ ]

Fear to be told HIV status [ ]

15. Where do you live? .....

16. How did you get to the health facility?

By Car [ ] Walked [ ]

17. How did you get to where you delivered your last baby

By car [ ] Walked [ ]

SECTION D: PERCEPTION OF MOTHERS

18. What influences your choice of delivery location

Complications of pregnancy [ ]

First child birth [ ]

Multiple deliveries [ ]

Previous experience with last child birth [ ]

SECTION E: CULTURAL FACTORS

19. Are there any cultural beliefs associated with delivery

Yes [ ] No [ ]

20. Traditional healer recommended my place of delivery

Yes [ ] No [ ]

21. Rituals concerning the placenta

Yes [ ] No [ ]

APPENDIX 'B'

FOCUS GROUP GUIDE

- How many children have you given birth to?
- How many of the children were borne at a health care facility?
- How many were borne at home?
- Are all your children delivered alive?
- Is antenatal clinic necessary?
- In all the pregnancies did you go for antenatal clinic as expected
- Are there any influence by family members' on the choice of place of delivery
- Are there some beliefs that are associated with where one delivers?