

# **CHAPTER 1**

## **1.1 Background of the Study**

In 1987 the World Bank, in collaboration with World Health Organisation (WHO) and United Nations Population Fund (UNFPA) launched the Safe Motherhood Initiative (SMI) which aimed at reducing maternal morbidity and mortality by one half by the year 2000. SMI is to ensure that all women receive the care they need to be safe and healthy throughout pregnancy and childbirth. SMI strategic interventions as outlined by Inter-Agency Group includes family planning, prenatal care, obstetric care, postnatal care, post abortion care and sexually transmitted infection (STI) and human immunodeficiency virus (HIV) control implemented through communication for behaviour change, primary health care and equity for women. Other components includes reproductive health issues, such as unplanned pregnancy, obstetric fistula, female genital mutilation and factors limiting women in using these services, such as social, economic and cultural factors (The World Bank, 2008).

In Ghana, SMI was adopted in 1987. Its components are health education, antenatal care, supervised delivery, postnatal care, family planning, and post abortion care (Ghana National Reproductive Health Service Policy and Standard, 2003). Among the indicators for measuring maternal health are antenatal care coverage and skilled delivery.

Proportion of births attended by skilled health personnel was defined for tracking progress towards the attainment of Millennium Development Goal 5 (MDG-5), which seeks to improve maternal health (UNICEF, 2006a). The high level of maternal mortality in developing countries is partly due to the non-availability of services and partly to the poor utilisation of these services when they are available (Graham, Bell, Bullough, 2001).

Countries with poor utilisation of skilled attendance services even, when it is operating on fee-exemption policy like that of Ghana (IMMPACT, 2007a), call for effective dissemination of health education to promote the services. Promoting health involves enabling people and groups to increase control over,

and to improve, their health and quality of life. This has led to a shift from medical and preventive paradigms to a socio-ecological paradigm, addressing inequities, social justice and social norms and making healthy choices, as conditions to improve health.

Information, education and communication (IE&C) recognizes that individuals have competencies and abilities that they apply in their daily life to maintain health. Considerable improvement in skilled delivery could be achieved by reinforcing and improving these competencies and abilities, mainly through IE&C. Backed by this priority, the Jakarta Declaration of 1997 stated that health promotion is carried out by and with people, not on or to people.

IE&C efforts aim at developing mind sets, processes, attitudes, values, actions, supportive household and community environments and healthy competencies as needed in different socio-cultural contexts to support pregnant women in accessing skilled delivery care they need, when they need it. The IE&C section of the health services should work hand-in-hand with other sectors and health professionals to influence positively, the socio-cultural determinants of accessing skilled care such as norms that undermine women autonomy; delays in receiving skilled care; awareness and perceptions; accessibility and quality of care such as staffing, antenatal care, birth preparedness; and community and social networks involvement (WHO, 2003a).

Globally, gaps exist in health promotion knowledge, skills and concept application even among health personnel and decision makers in most countries (WHO, 2006). It is important for all health professionals to be aware of the need for effective education, information and communication, that good counselling is also a lifesaving skill, that intercultural and interpersonal competencies increase use of care, that communication and health education functions are not separate or less important than their more clinical functions. Increased awareness and change in providers' attitude and practices can also result in providing care to women and newborns rather than just medication (Moore, 2002)

IE&C calls for community action for health and improving the quality of care through dialogue between the community and health services (Kaseje, Orinda,

2001). This facilitates understanding so that interventions and contributions from the outside such as the lithotomic position for delivery, screening for syphilis and human immunodeficiency virus, can be more relevant and appropriate.

Essential to IE&C approach on skilled delivery is the development of self-care during pregnancy and childbirth, which is closely linked to knowledge and norms, and positively influenced by formal education (Tinker, Finn, Epp, 2000). A woman is more likely to adapt to institutional delivery if the procedure is relevant to her needs, interest and it is within her capabilities (Nepal Health Education Information Communication Centre, 2003a).

## **1.2 Statement of problem**

Globally, 63.1% of births are assisted by skilled attendants. Sub-Saharan Africa (SSA) has 42% of childbirth assisted by skilled attendants (WHO, 2007a).

In Ghana, skilled delivery and maternal mortality ratio have remained stagnant at 47.1% (UNICEF, 2007a) and 214/100 000 live births (MOH, Ghana, 2001) respectively. Antenatal care coverage is 92%. In contrast to reduction in maternal deaths at the world level, pregnant women in Ghana are dying at an alarming rate during delivery. Ghana lost 837 women in 2002; 854 in 2003; 824 in 2004; 912 in 2005; 954 in 2006; and 470 in the middle of 2007. In the Western Region, reported maternal mortality ratio (MMR) ranges from 500 to 600 deaths per 100,000 live births; 117 out of 45 484 pregnant women died in 2006. These figures have persisted for some time despite the introduction of policies and initiatives including Antenatal Care policy, Safe Motherhood Initiative (1987) and Fee-exemption policy for maternal care.

In Bibiani-Anhwiaso-Bekwai District (BABD), antenatal care coverage reduced from 97.1% in 2006 to 96.2% in 2007. Skilled delivery dropped from 2159 (59.5%) in 2005 to 1865(36.2%) in 2007. Surprisingly, delivery by traditional birth attendants (TBAs) also dropped from 24.5% in 2005 to 15.4% in 2006 and increased to 36.9% in 2007. Statistically, 37.2%, 42.4% and 26.9% accounted for unassisted delivery during 2005, 2006 and 2007 in that order. Two maternal deaths were recorded in 2007as against 3 in 2006 (BABD Annual Health Report, 2007a). Health facilities have been fairly spread out in the district. However,

very few mothers access skilled care during pregnancy and childbirth. Expectant women continue to consult non-medical prophets, pastors, and traditional healers for care during pregnancy. Almost 63.8% of expectant mothers give birth at home resulting in high maternal morbidity. Childbirth assisted by TBAs is declining and mothers continue to undergo unassisted delivery at home.

The status of skilled care during pregnancy and childbirth as pertain in the district and Ghana as a whole, makes the International Conference on Population and Development (ICPD) + 5 target of 85% of deliveries being attended by a skilled attendant by 2010 unrealistic and calls for special intervention in behaviour change for both providers and users.

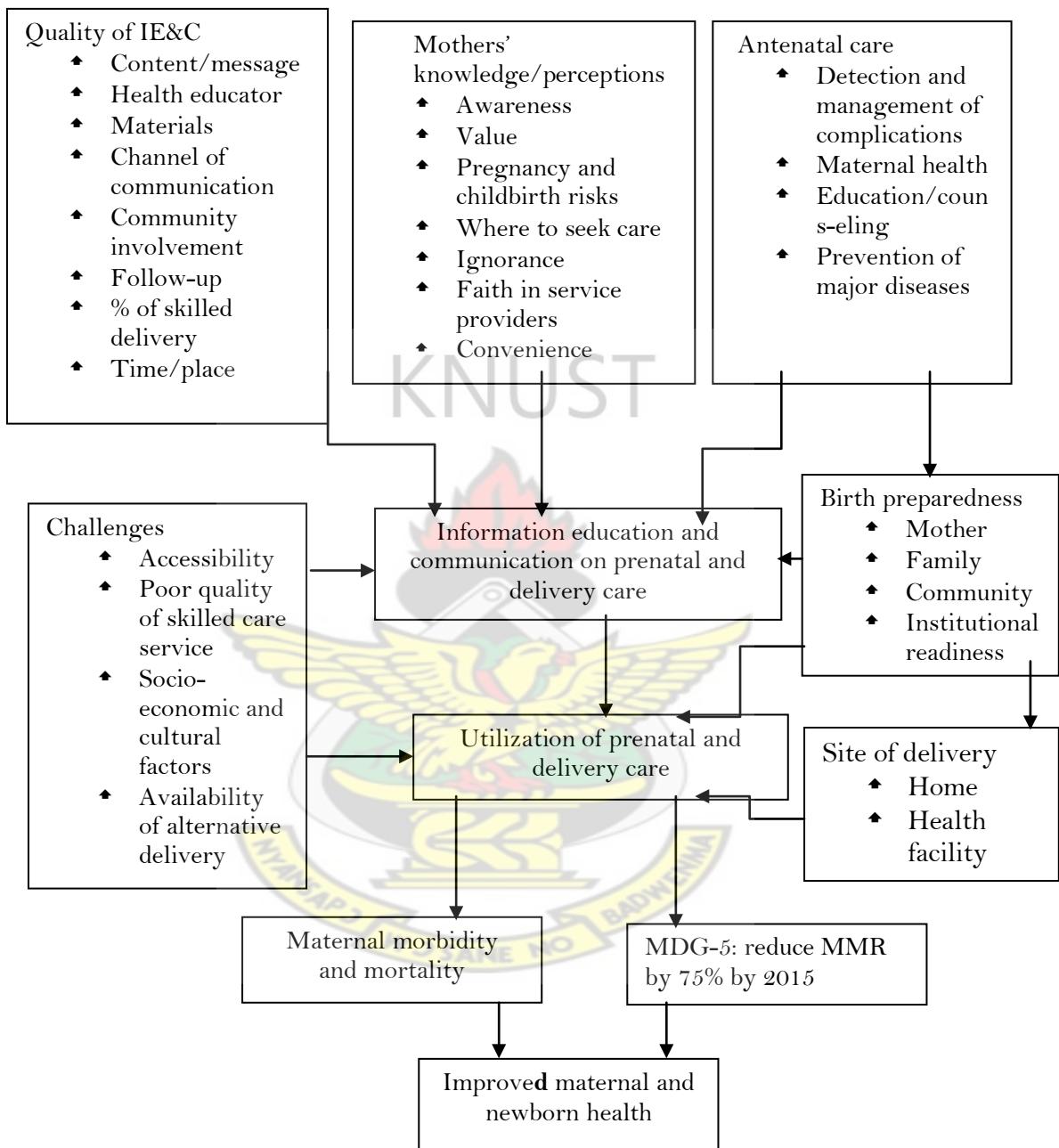
### **1.3 Rationale of the study**

The availability of quality service alone will not produce the desired health outcomes especially in settings where majority of women belief that pregnancy- and childbirth-related complications are caused by witchcraft; that non-medical TBAs, pastors and fetish priests are better equipped to intervene and therefore do not access health facilities for interventions.

Lack of reliable and valid research evidence had led to the use of IE&C interventions with unknown effectiveness and even those that have been demonstrated to be harmful. It is therefore necessary to research into the current situation of IE&C on prenatal and delivery care and clients' knowledge of and value for prenatal and skilled delivery. It is also important to find out which IE&C activities have helped in influencing behaviour and attitudes of the people towards prenatal and skilled delivery care and how to make those actions more effective. This will enable the IE&C officials and the District Health Management Team (DHMT) to develop evidence-based IE&C interventions sensitive to the interpersonal and intercultural context of the district to improve the service.

### **1.4 Conceptual framework**

The diagram below illustrates the components of IE&C on skilled delivery care. The study seeks to assess what pertains to the study area and how it can be improved.



## 1.5 Research questions

- What is the proportion of skilled delivery in the district?
- What is the knowledge, perceptions and attitudes of mothers on prenatal care and skilled delivery?
- What factors influence the acceptability and utilisation of IE&C on prenatal care and skilled delivery?
- What strategies can be adopted to improve the service?

## **1.6 General objective**

To ascertain the status of IE&C on prenatal care and skilled delivery in the district.

## **1.7 Specific objectives**

- A. To determine the proportion of birth attended by skilled health personnel in the district.
- B. To ascertain the knowledge, perceptions and attitudes of mothers on prenatal care and skilled delivery.
- C. To investigate the factors influencing the acceptability and utilisation of IE&C on prenatal care and skilled delivery in the district.
- D. To recommend strategies to improve the IE&C on prenatal care and skilled delivery services based on the above listed objectives.

## **1.8 Profile of the study area**

The BAB district has 119 communities and a total population of 128,728 of which 24% are women in their fertile age, and 4% are expected to be pregnant (5303 births) annually (Ghana National Population and Housing Census, 2000a). The district is essentially rural with most of the inhabitants (indigenous Sefwi) engaged in small-scale farming and petty trading. Out of 101 major settlements, there are only three urban centres with 37% of the total population. The net migration of 4.2% means in-migration outweighs out-migration resulting in a lot of pressure on social amenities.

The main road linking all the sub-districts except that of Chirano Sub-district is asphalted. There are feeder roads linking peripheral communities which need urgent attention. The main means of transport is by taxi or minibus. Telephone and internet services are available.

The district is dominated by Akan 79.4%, Ewe 12.7% and Northerners 7.9%. The major religions are Christianity 88.7%, Islam 7.5% and traditional religion 3.8%. Almost 50.7% of the population are poor or very poor with the Agriculture sector highly hit by incidence of poverty (51.1% are very poor). Girl-child education is very low with its consequences on equality principle, women

autonomy and poverty. 39.9% of women are vulnerable and 13.8% face cases of assault by men per annum.

The district has five health sub-districts: Bibiani, Anhwiaso, Awaso, Chirano and Bekwai. All the health centres and health post, except that of Chirano sub-district, are supposed to provide basic emergency obstetric care services. Emergencies are catered for at the three district hospitals with complications referred to Komfo Anokye Hospital, Kumasi (88km). An ambulance is stationed at each of the hospitals. An average distance to a health facility is 1.6km. However, only 29% are within the high access zone of 35 minutes/2.9km. The rest cover a distance of 80-20minutes/6.7-10km to access health care.

IE&C on safe motherhood is carrying out by the following categories of reproductive health personnel in the district: seven medical practitioners, 18 midwives, and 36 community health nurses mainly during antenatal clinic, out-patient-department attendance and admissions. Doctor to client ratio is 1:2385 and that of a nurse is 1:1361. Antenatal care coverage is 96.2% (58.8% with at least four antenatal care visits), 36.2% skilled delivery and 1065 trained TBAs (BABD Annual Health Report, 2007b, BABDA Development Plan, 2006).

## CHAPTER 2

### 2.0 Literature Review

#### 2.1 Introduction

The presence of quality health care services alone will not yield the desired health outcomes where women, men, families, and communities can not make healthy decisions, and be able to act on these healthy decisions (WHO, 2003b); due to the alienation and gap between most health centres and communities they serve. Be it a nationwide campaign, an outreach programme or a private counselling during antenatal care session, IE&C links the general population to the skilled care services by influencing the demand for the services.

The literature review covers the proportion of births attended by skilled attendants, knowledge, beliefs and attitudes of mothers and communities towards skilled delivery, factors influencing the acceptability and utilisation of IE&C on skilled delivery, the use of antenatal care and birth preparedness.

## **2.2 Proportion of births attended by skilled attendant**

At the United Nations General Assembly in 1999, participants reached a consensus that, globally 80%, 85% and 90% of all deliveries should be assisted by skilled health personnel by 2005, 2010 and 2015, respectively (UNICEF, 2006b). There is a correlation between the proportion of deliveries assisted by a skilled attendant and MMR. Skilled care at all births gives those women who develop life-threatening complications a better chance of receiving emergency obstetric care in time.

Skilled attendance coverage has increased in all regions. Developing countries, in all, improved from 44% to 59.1% between 1990 and 2007 (UNICEF, 2007b). In Ghana, despite 92% ANC coverage (Ghana DHS, 2003), skilled delivery is stark at 47.1% (WHO, 2007b). Skilled delivery coverage in BABD dropped from 59.5% to 36.2% between 2005 and 2007 (BABD Annual Report, 2007b).

## **2.3 Knowledge, beliefs and attitudes of mothers towards skilled care**

Generally, individuals, families and communities may choose to use health facility delivery if doing so enables the individual or the community to fulfil a particular goal in life; and their understanding of the need or value for the service. Mothers should be made to understand that pregnancy and childbirth problems or risks exist and should be treated as physical, not social and moral issues, by skilled attendants (WHO, 2005).

Women with low social status and lacking appropriate knowledge in maternal health have far greater chances of complicated pregnancy and delivery. Level of education and income influence the impact of IE&C interventions. In Mozambique, ignorance and fear for skilled care services e.g. caesarean section and injection compelled women to hide their pregnancies. Instead of seeking free prenatal care at nearby health clinics, women visit non-medical prophets, pastors, and traditional healers in order to hide their pregnancy from sorcery by jealous neighbours and family (Chapman, 2003).

In Mali, women, husbands or household heads generally have good knowledge about pregnancy-related care including frequency and timing of antenatal and postnatal visits, and danger signs before, during and after delivery. However, lack of knowledge about needs and financial constraint continue to create discrepancy between knowledge and behaviour (Smith, et al, 2004).

#### **2.4 Factors influencing acceptability and utilisation of skilled delivery**

Shifting births to health facilities has generally been a reliable strategy for reducing maternal deaths (UNFPA, 2004).

The high level of maternal mortality in developing countries is partly due to the non-availability of services, and partly to the poor utilisation of these services when they are available. There are several reasons behind the low use of skilled delivery care services.

In reality, most women experience a host of socio-cultural, geographic and economic barriers in accessing skilled attendance during delivery. Potential barriers to access which can lead to home-delivery include: distance from a health facility, transportation problems, costs of services-including informal charges or expenses, opportunity costs from time lost, quality of health care in health facilities, or cultural barriers to professional health-seeking, including social norms, stigma, fear, inability for women to travel alone, or to be seen by male doctors (Afsana, Rashid, 2001; Safe motherhood, 2001)

In Tanzania, Zambia and Malawi skilled delivery decreased with increasing distance (>5km) from health facility (Mpembeni, et al, 2007). Long distance and lack of motorized transport increase the delay in seeking facility-based care in Kenya (Kenya Ministry of Health & UNFPA, 2004).

Also, in Rakai district, Uganda, access to maternity services is influenced by spouse and relatives, TBAs, self-efficacy, previous experience and the concept of normal versus abnormal pregnancy (Amooti-Kaguna, Nuwaha, 2000a).

Time of labour onset coupled with transportation difficulty and long distance, play a crucial role in determining place of delivery. In Kenya, long distance to health facility, bad road and lack of transportation discourage women in seeking facility delivery when labour starts at night (Family Care International, 2003).

Husband involvement in care-related decisions significantly affects the use of health facilities during delivery in Kenya and Tanzania. This is a reverse of a report that men are more likely to limit women's access to health care in low income countries. A woman's decision-making power within the family, and her past experiences in childbearing, may affect the care she receives as well (Family Care International, Kenya, 2007a; Family Care International, Tanzania, 2007a). A study in Uganda and Bangladesh pointed out the need to engage with individuals through their social networks to influence both decision making and resources for seeking care (Parkhurst, et al, 2006).

Although most low income countries operate under delivery-fee exemption policies, cost of supplies such as gloves, diapers, soaps and antiseptics is an obstacle to facility delivery. It may contribute to strong faith in TBA-assisted delivery. Despite strong appreciation for interpersonal and compassionate TBA care, most Kenyans and Tanzanians prefer facility delivery for professional care and safety (Family Care International Kenya, 2003b). In Uganda, women with normal pregnancy see no reason to deliver at a health unit (Amooti-Kaguna, Nuwaha, 2000b).

Poor quality of care and disrespectful treatment by facility-based providers such as poor reception, canning, shouting, and refusing to attend to women in pain

during labour constitute a strong disincentive for community members to use available services. This is especially so when community-based providers, such as TBAs, are perceived by most community members as extraordinarily caring and compassionate, though less skilled (Family Care International, Kenya, 2007c; Campbell-Krijgh, et al, 2003).

According to D'Ambruoso, et al (2005), women in Ghana, expect humane, professional and courteous treatment from health professionals and a reasonable standard of physical environment. Women will consciously change their place of delivery and will not recommend it to others if they experience degrading and unacceptable behaviour. The delivery-fee-exemption policy introduced in Ghana (2005) has increased utilisation of delivery services. However, poor quality of care, staff strength, poverty, transportation, long distances to health facilities, socio-cultural barriers, and the custom of using traditional birth attendants remain and continue to impede access to skilled delivery (IMMPACT, 2007b).

## **2.5 Antenatal care**

Antenatal care or prenatal care is the complex of interventions that a pregnant woman receives from organized health care services. These interventions may be provided in approximately 12-16 ANC visits during a pregnancy. WHO recommends that all pregnant women should have a minimum of four antenatal visits, each lasting for at least twenty minutes.

The basic activities of antenatal care fall within three general areas: screening for health and socioeconomic conditions likely to increase the possibility of specific adverse outcomes; providing therapeutic interventions known to be beneficial; and educating pregnant women about planning for safe birth, emergencies during pregnancy and how to deal with them (WHO, 2007).

Although the onset of most pregnancy- and delivery-related complications are unpredictable, high quality antenatal care during pregnancy provides a unique opportunity for promoting health education related to pregnancy and childbirth, instituting prophylactic measures for disease prevention, managing existing diseases and other health conditions, and detecting and managing maternal

health complications like mother-to-child transmission of HIV (Family Care International, Tanzania, 2007b).

In Cape Town, South Africa, women generally perceived antenatal care to be beneficial and a means to avoid being scolded by health staff during delivery (Abraham, et al, 2001).

In rural Kano, Nigeria, the three most common reasons for non-use of antenatal care were limited financial resources, God's will, and husband's denial (Adamu, Salihu, 2002).

It has been shown that high levels of antenatal care can have a positive effect on the use of skilled delivery and may promote interaction with health services in general to enable families to seek to access care more efficiently (WHO, UNFPA &UNICEF, 2003). Vanneste, (2000) reported in Bangladesh that women who visited antenatal care were four times more likely to deliver with a midwife than women who had no antenatal visit.

Globally ANC coverage has improved over the past decade at least once during pregnancy. In Ghana, ANC coverage was 92% in 2003 (Ghana DHS, 2003).

## **2.6 Birth preparedness**

Birth preparedness is an advance planning and preparation made by an expectant woman and her family, community, and health staff ahead of delivery. Birth preparedness helps to ensure that women can reach professional delivery care attendants when labour begins and reduce the 'three delays' to care-seeking for obstetric emergencies-delay in recognition of problem, delay in seeking care, and delay in receiving care at facility.

Key elements of birth preparedness include attending at least four ANC visits, gathering funds to cover delivery cost, knowing community resources in case of emergencies, and plan for emergencies such as knowing what transport can be used to get to the hospital, setting aside funds, identifying person(s) to accompany to the hospital and/or to stay at home with family and identifying a blood donor.

Most communities perceive pregnancy and childbirth as risky, a perception that may help motivate them to prepare for delivery. Generally, community beliefs and norms support putting aside money for delivery. In reality, families find it difficult to save funds due to poverty as well as beliefs that the outcome of the pregnancy cannot be known and such preparations may invite misfortune.



## CHAPTER 3

### 3.0 Methodology

#### 3.1 Study type

The study is a descriptive cross-sectional survey.

#### 3.2 Study design

A cross-sectional survey using questionnaire was conducted among a sample of mothers residing in 40 communities randomly selected from the district. The questionnaire enquired into the demographic background of respondents; choice of place of delivery; their knowledge, perceptions and attitude towards prenatal and skilled delivery care; and the acceptability and utilisation of IE&C on skilled delivery care. The questions were translated into and back-translated from the two local dialects popular in the study area i.e. Sefwi and Twi. The questionnaires were administered in these two local dialects by three trained interviewers.

Supporting opinions were obtained from skilled attendants and key informants in the selected communities. Open ended questionnaires were administered to skilled attendants working in the health facilities accessed by mothers from the selected communities. Six focus group discussions (FGDs) were held with three groups of male and similar groups of female adults. Each group was made up of 8-10 key informants from the selected communities. A questionnaire guide for the FGDs contained similar issues covered in the questionnaire for the mothers. Two research assistants moderated the FGDs. Discussions were tape-recorded and translated into English. Both surveys (interview and FGDs) were held in the months of August–October, 2008.

### **3.3 Data collection techniques and tools**

Interviews were conducted using structured and unstructured questionnaire among mothers and skilled attendants in the selected communities. FGDs using questionnaire guide was used to sample key informants' opinion on the study. Direct observations were made at maternity units and antenatal clinics

### **3.4 Study population**

The target population were mothers who reside in the study area and had delivered in the district within the last six months (stillbirths, prenatal and neonatal deaths are included). Supporting opinion was obtained from skilled attendants and elderly males and females who are knowledgeable in prenatal care and health facility delivery in the selected communities.

### **3.5 Study variables**

Information on the demographic background of respondents, knowledge, perception and attitudes of respondents toward prenatal care and skilled delivery and factors influencing acceptability and use of health education on skilled care were the exposure variables. Place of delivery was the outcome variable. The table below defines the variables for the study.

**Table 1: Study variables**

Study variable	Operational definition	Indicator	Type of variable	Expected outcome	Objective addressed
Age	Age of the mother at the time of her last delivery	Age (in years) of the mother at time of her last delivery	discrete	,<14, 14-19,20-34, 35+	Knowledge, perception and attitudes of mothers, on prenatal and skilled care
Mother's level of education	Mother's level of education as at the time of delivery	The level of education reached by the mother as at the time of her last delivery	Ordinal	None, basic, secondary, tertiary	
Parity	Number of child birth (still births and dead included)	Number of childbirths by the mother	Ordinal	1, 2, 3, 4+	
Occupation	The main work the mother does for a living as at the time of delivery	What the mother does for a living as at the time of delivery	Nominal	None, self-employed, works in government or private organisation	

**Table 1: Study variables (Continue)**

Study variable	Operational definition	Indicator	Type of variable	Expected outcome	Objective addressed
Awareness	Mother's knowledge on danger signs of pregnancy ,signs of labour and birth plans	% of correct answers to questions on danger signs of pregnancy, signs of labour and birth plans	Ordinal	Mothers has good, moderate or low knowledge on danger signs of pregnancy, signs of labour and	Knowledge, perception and attitudes of mothers, on prenatal and skilled care

				birth plans	
Need for skilled care	Mother's knowledge on the importance of ANC and health facility delivery	% of correct answers to questions on the importance of ANC and skilled delivery	binary	Mother is aware or unaware of the importance of skilled care during pregnancy and delivery	
Beliefs about pregnancy and child birth complication	Mother's view on the cause of pregnancy and child birth complication	Mother's response to questions on their beliefs behind pregnancy and child birth complication	Nominal	Physical condition, spiritual condition, both , no firm belief	
ANC visits	ANC clinic attendance during her last pregnancy	Number of ANC attendance during pregnancy	Discrete	None, 1,2,3, ≥4	
Time of first ANC attendance		Timing of her first ANC clinic during pregnancy	binary	≤ first 3 months, ≥ after the first three months	
Place of delivery	Place where the mother gave birth	Place where the mother delivered her last child	Nominal	Home, health facility	Proportion of birth assisted by skilled attendant

**Table 1: Study variables (continue)**

Study	Operational	Indicator	Type of	Expected	Objective
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variable	definition		variable	outcome	addressed
Delivery attendant	The professional qualification of the person who assisted the delivery of her last child	The profession of the one who assisted her last delivery		doctor, midwife TBA, self, others	Proportion of birth assisted by skilled attendant
Birth preparedness	Mother's plans and preparation made ahead of delivery  Institutional readiness for delivery	Mother's response to questions on preparations made ahead of delivery. Plans, personnel, utilities, equipment, referral systems in place for skilled care	Binary  Binary	Adequately, inadequately prepared  Yes, No	Factors influencing IE&C on prenatal care and skilled care
Distance	Distance from home to the nearest health facility	Measure of home-health facility distance	Binary	≤5km, 5km	
Items required for delivery	Mother's capability to acquire the items needed for skilled care during child birth	Able to gather the items needed for skilled care at delivery	Binary	Yes, No	
Transport	Access to transport during labour	Availability of transport during labour	binary	Yes, No	
Cost	Mother's view on cost of health facility delivery	Response to questions on cost of health facility delivery	Nominal	Free, affordable, expensive, I don't know	

### 3.6 Sampling

Forty communities were selected at random using STATA Version 9.1. In each of the selected communities, 10 houses were randomly selected. This was done

by spinning a bottle on the ground at the centre of the town or village. By walking in the direction of the bottleneck, every third house was chosen until 10 houses were obtained. A mother within the inclusion criteria having the least post partum age was chosen from each house for interview. Skilled attendants and discussants for FGDs were purposefully selected.

A sample of 400 mothers was selected for the study. This figure was determined using Epi-Info version 6 at 95% confidence interval, 5% accuracy, an estimated 20% non-respondent, population size of 2 575, expected frequency of 47.1% (UNICEF, 2007c), and worst expected frequency of 42.1%.

### **3.6 Pre-test**

The questionnaires and FGDs guide were pre-tested in four communities in the nearby Sefwi Wiawso District of Western Region. The questionnaires and FGDs guide were modified base on the results from the pre-test. Sefwi Wiawso district was chosen as it shares similar characteristics with BABD e.g. the indigenous people are Sefwi with similar culture and majority of them are farmers. Forty respondents were included in the pre-test.

### **3.8 Data handling**

Two research assistants were trained in standardized data collection procedures. Administered questionnaires were locked under key and the key kept by the principal researcher. Data entry was done using Microsoft Excel 2003 and password protected.

### **3.9 Data analysis**

Data analysis was done using STATA version 9.1. Data were presented in the form of frequency distributions and cross-tabulations. A chi-square test was used to assess the association between place of delivery and socio-economic variables and other service characteristics. *P*-values of less than 0.05 were considered significant. Statistically, variables which showed a significant association with the choice of a place of delivery were assessed on the risk of each variable on the use of skilled delivery while controlling for potential confounders.

### **3.10 Ethical consideration**

Research clearance was obtained from the School of Medical Sciences, Kwame Nkrumah School of Science and Technology, Kumasi. The main objective of the study was explained to all the participants in the study and their consent sought prior to interview.

### **3.11 Limitations of the study**

The questionnaire had the tendency to over-report good or bad behavioural practices as the respondent tries to please the interviewer. This may limit the validity of the study. Identity of the research team was disclosed when seeking verbal consent to distinguish the researchers from health personnel. The objective of the study was explained to enable mothers to tell the truth without fear.

Few mothers were unable to recognise skilled attendants during delivery. A few mothers identified the proficiency of the delivery attendants by their uniform. All the health facilities where mothers accessed skilled care were visited by the researcher to confirm the presence of skilled attendants within the last six months.

The survey questionnaires and FGDs guide were administered by the principal researcher and two research assistants. The likelihood of interpreting the questions differently to respondents was high. Two university graduate teachers were employed and trained on questionnaire administration. The same questionnaires were used by all members of the research team.

### **3.12 Study assumptions**

Maternal health education has been going on at antenatal clinics.

Mothers have been accessing health services in the district.

## **CHAPTER 4**

## 4.0 Findings

### 4.1 Background information

There were 400 respondents in the study; the median age was 24.7 years within the range of 14–35+. All the respondents were women of reproductive age (15–49 years). Majority (88.12%) of the respondents were Christians. Moslems and pagans constituted 5.45% each whiles 0.99% belongs to the traditional religion. Parity ranges from one to nine with parity of one as the mode. Most (91.34%) of the respondents were married, 26.24% had no education, 68.81% had basic education and 4.95% had secondary education. None of them had tertiary education. Most of the mothers (81.93%) were self-employed farmers, 16.58% had no job and 1.40% worked in private or public organization.

### 4.2 Proportion of skilled delivery

The table below indicates mothers' response on the choice of place of delivery.

**Table 2: Place of delivery**

Place of delivery	Place mother preferred to deliver (%)	Place delivered (%)	mother attendant
Health facility	76.18	50.50	Health personnel
Home	23.82	49.50	TBAs, self, others
Total	100	100	

Source: Field data, 2008

A large proportion (76.18%) of the respondents preferred to deliver at a health facility. However, 50.50% delivered at a health facility and they were assisted by health personnel (midwives, doctors and nurses). Few of the mothers who delivered at a health facility were unable to identify the proficiency of the delivery attendant. However, all the health facilities mothers delivered had skilled attendants assisting delivery within the last six months.

Reasons why mothers delivered at home (49.50%) included cost of health facility delivery (informal charges or expenses, and items such as antiseptics, soap, gloves, etc required) (73.37%), fast progression of labour (56.00%), difficulty in getting transport during labour (22.1%), faith in TBAs (21.00%), delay at home (21.10%) and others. Typical comments among the discussants of FGDs included:

*"I can't afford the items required for health facility delivery. Nurses will insult you if you don't have the items. To avoid this shame, I'll deliver at home" [young mother].*

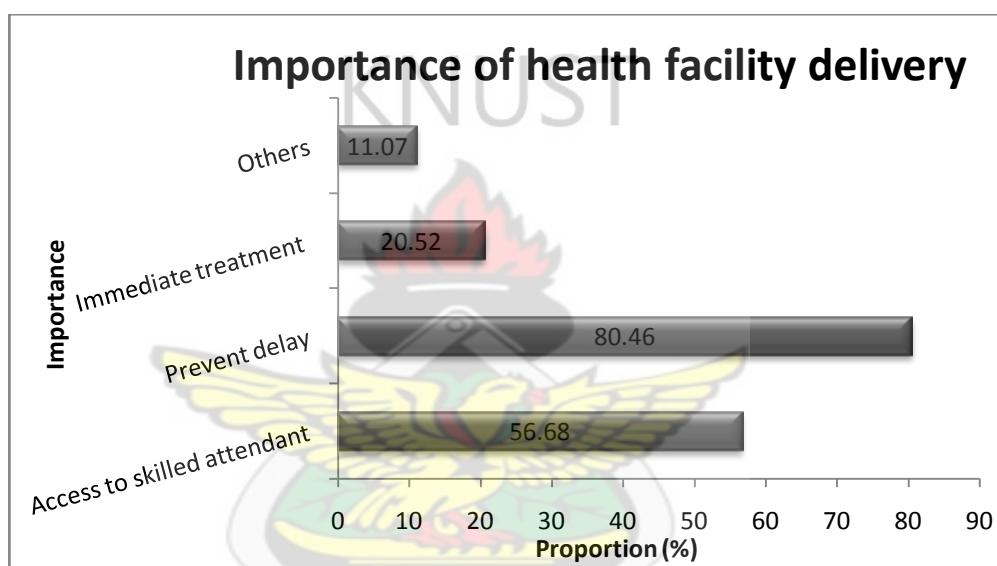
*"I know my husband doesn't have money. I don't want to put him into trouble. So I'll deliver at home" [mother of six children].*

### **4.3 Knowledge, attitudes and perceptions of mothers towards prenatal care and skilled delivery**

#### **4.3.1 Importance of health facility delivery**

The figure below illustrates mothers' response on importance of skilled delivery.

**Figure 1: Reasons for health facility delivery**



Source: Field data, 2008. Multiple responses

The main reasons why mothers accessed health facility delivery were to avoid delay in getting medical care in case of emergency (80.46%), access to skilled attendants (56.68%), immediate treatment for the mother and the newborn (20.52%), and others (11.07%) such as freedom, privacy and unsafe pregnancy.

*"The TBA gave me chewing stick and told me to stretch. It took her four days to realize that she can't help. I was very weak before I was finally taken to hospital. She warned me not to report her to the nurses" [mother of one child].*

*"You're not forced to deliver at hospital. There is nothing like push! push!" [mother of four children]*

#### **4.3.2 Danger signs of pregnancy**

The table below shows mothers' response on the danger signs of pregnancy.

**Table 3: Danger signs of pregnancy**

Danger sign	Frequency	Proportion (%)
Anaemia	172	42.57
Swelling of the ankle/feet(pitting oedema)	270	66.83
Vaginal bleeding/foul smelling discharge	180	44.55
Chronic headache	233	57.67
Cessation of foetal movement	265	65.59
Persistent vomiting/'morning sickness'	207	51.24
Blurred vision	164	40.59
Abdominal pain	91	22.52
Others	38	9.41
None	18	4.46

Others included heart problem, sleepless night, loss of appetite and coughing.

Source: Field data, 2008: Multiple responses

The overall level of knowledge on danger signs of pregnancy is moderate as 54.52% were aware of more than four danger signs, 35.68% were aware of 1-4 danger signs and 4.46% (18) did not know any of the danger signs.

#### **4.3.3 Signs of labour**

The table below illustrate mothers' level of awareness on the signs of labour

**Table 4: Signs of labour**

Signs of labour	Frequency	Proportion (%)
Regular rhythmic uterine contraction	263	65.10
Appearance of show	321	79.46
Cervical dilation	9	2.23
Low back pain radiating to abdomen	197	48.76
Rupture of membrane	39	9.65
Others (frequent urine)	4	0.99
None	9	2.23

Source: Field data, 2008. Multiple responses

Mothers had good knowledge on the signs of labour as 81.73% listed more than two, 15.84% listed 1-2 and 2.22% (9) had no idea on the signs of labour.

#### **4.3.4 Perceptions on skilled attendants**

Most (84.83%) of the respondents believed that pregnancy complications are physical conditions and should be treated by physicians. This could contribute to high ANC coverage as mothers seek medical care at antenatal clinic. Also, 3.48% of the respondents believed pregnancy complications are spiritual conditions,

4.74% believed in both while 6.97% had no idea. Among the respondents, the perception on antenatal care staff attitude was friendly (91.94%), unfriendly (1.26%), while 6.80% perceived some as friendly and others unfriendly. On attitudes of health personnel at delivery, 95.07% of the respondents were satisfied with the attitudes of the health personnel during delivery. However, the attitudes of the health staff was met with mix reaction among the discussants in the FGDs:

*“Nurses are hostile. They favour others especially the young ones. They can and insult us and our husbands. I'll never recommend for any one to deliver at hospital” [a young mother]*

*“Most women have bad perception about nurses. I never knew it was easy for me to deliver at a hospital. The nurses are available and ready to help us” [mother of three children]*

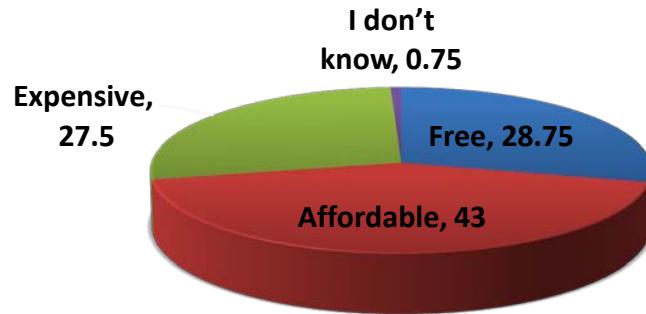
Almost all (96.98%) of the respondents were happy about IE&C during antenatal care, 87.06% preferred to receive the IE&C at health facility while 10.45% had wanted it at home. Also, 91.75% of the respondent perceived IE&C receive from health personnel as the most credible source while 8.25% trusted other sources like relatives, media (radio, TV) and TBAs. Again, 49.37% preferred to receive IE&C on maternal health in a large group, 40.1% would have preferred one-on-one (focus antenatal care), 9.27% would have preferred small groups and 1.25% would have preferred peer education. Many of them preferred to receive IE&C in large or small groups so as to avoid misinterpretation, share ideas and remind each other of the salient points discussed and timing of the next ANC Clinic in case one has forgotten. Others were of the views that focus antenatal care pave way for intimate discussion with the skilled attendant.

#### **4.3.5 Perceived cost of health facility delivery**

The figure below illustrates mothers' view on the cost of health facility delivery.

**Figure 2: Cost of health facility delivery**

### **Mothers' view on the cost of health facility delivery**



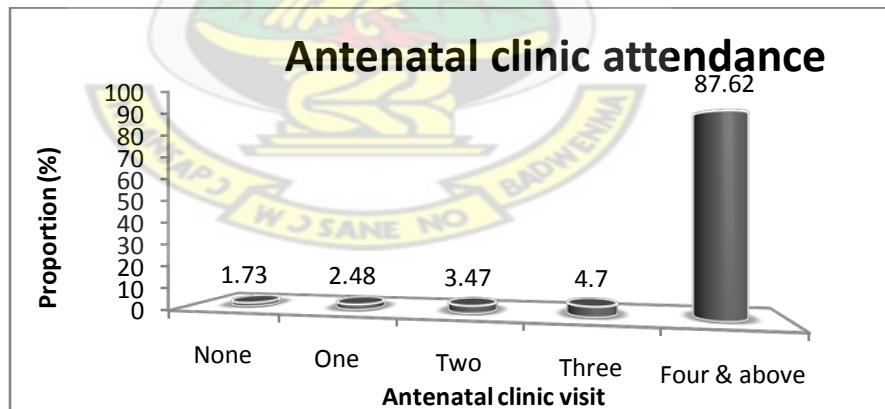
Source: Field data, 2008.

Among the respondents, 43% perceived health facility delivery as affordable, 28.75% perceived it as free (insured, NHIS), 27.50% perceived it as expensive and 0.75% had no idea.

#### **4.3.6 Attitude towards antenatal care attendance**

Antenatal clinic attendance was very high among the respondents as shown in the bar chart below.

**Figure 3: Antenatal clinic attendance**

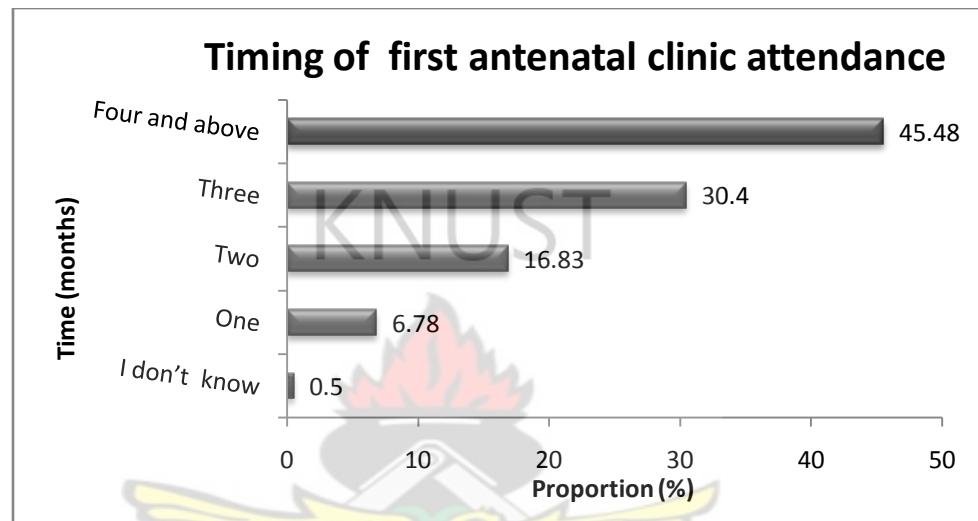


Source: Field data, 2008. Multiple responses

At least 98.51% of the mothers visited ANC once, 87.62% had at least four antenatal care visits and 1.73% did not attend antenatal care at all. Reasons why mothers attended ANC included detecting and reducing dangers associated with pregnancy (66.83%), monitor progress of pregnancy (51.73%), receive education and counselling on maternal health (28.71%) and treatment of sickness while 7.67% (31) did not know the importance of prenatal care.

The main reasons for defaulting antenatal care were ignorance (53.57%) and cost of accessing antenatal care (charges, and lorry fare) (37.50%). More than half (54.03%) of the respondents initiated antenatal care within the first three months of pregnancy, and 45.97% started after the first three months of pregnancy while 0.50% did not know the timing of the first antenatal care visit (fig.4). Late initiation of ANC was due to ignorance (71.51%), and poverty (28.49%).

**Figure 4:** Timing the of first antenatal clinic attendance

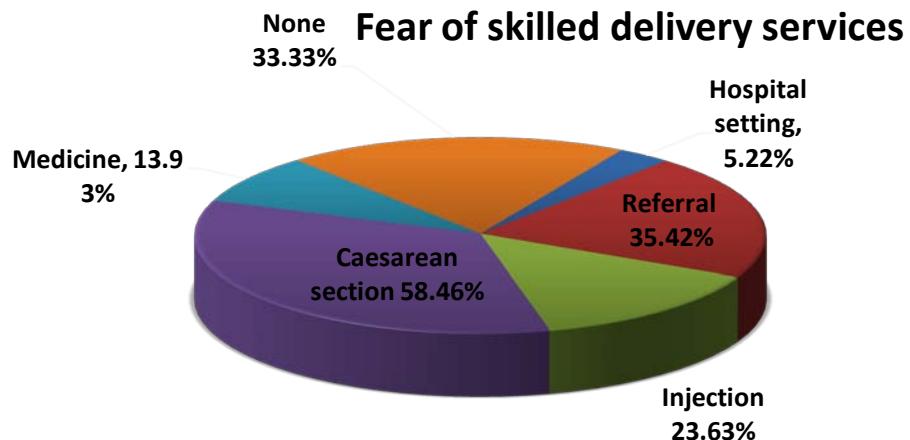


Source: Field data, 2008.

#### 4.3.7 Attitude towards skilled delivery

Almost 66.67% of the mothers associated fear with at least one of the skilled delivery services. Referral of clients and caesarean section were associated increase in the cost of the service, emergency and death. Few of the respondents dislike injections and taking of medicines as indicated in the pie chart below.

**Figure 5:** Fear of health facility delivery



Source: Field data, 2008. Multiple responses

#### 4.3.8 Birth preparedness

The table below illustrates preparations mothers made towards health facility delivery.

**Table 5: Preparations made towards childbirth**

Birth plan	Frequency	Proportion (%)
a. Saved money for delivery	366	90.59
b. Arranged for transport	343	84.90
c. Planned for place of delivery	255	63.12
d. Gathered essential items	392	97.03
e. Identified a person to follow you to health facility for delivery	160	39.60
f. Identified blood donor	4	0.99
g. Others	1	0.25
h. None	5	1.24

Source: Field data, 2008. Multiple responses

In all, 14.47% of the mothers adequately prepared ahead for skilled delivery (at least a-e) and 85.53% inadequately prepared for health facility delivery. The main problem the mothers encountered in birth preparedness was poverty (10.28%) while 87.22% had no problem in their preparation towards health facility delivery. One of the women in the FGD remarked:

*“Reduce the number of soaps and other informal charges. All informal charges without receipts should cease” [A mother in her sixth delivery].*

#### 4.4 Factors influencing the acceptability and utilisation of IE&C on skilled delivery

#### **4.4.1 Mothers' satisfaction on health facility delivery**

The table below represent the mothers' view on what they like or dislike about health facility delivery in the district.

**Table 6: What mothers like and dislike about health facility delivery**

Health facility delivery	Client Satisfaction				
	Total frequency	Yes	%	No	%
Home-health facility distance	377	221	58.62	156	41.38
Staff attitude	203	193	95.07	10	4.93
Items required	367	193	52.59	174	47.41
Position taken during delivery	204	193	94.61	11	5.39
Care for the mother and baby	202	202	100	0	0
Opening hours	204	204	100	0	0
Service provider readiness	203	198	97.54	5	2.46
Transport availability during labour	215	165	76.74	50	23.26
Availability of skilled attendant	400	399	99.01	4	0.99

Source: Field data, 2008. Multiple responses

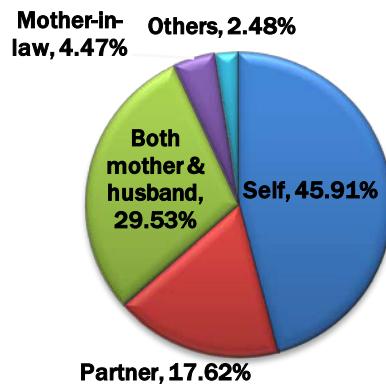
From the above table, the mothers were happy about a number of factors influencing health facility delivery in the district. However, a considerable number of mothers were not happy about the number of items required for health facility delivery particularly number of soaps, parasol and other antiseptics (47.41%), and distance to health facility for delivery (41.38%). Almost 76.74% of mothers had access to transport during labour. Some of them walked to the health facility during labour.

#### **4.4.2 Deciding for a place of delivery**

Most of the expectant women who decided on their own, discussed with their partners and both mother and husband on place of delivery, delivered under skilled care in a health facility as illustrated in the pie chart below.

**Figure 6: Choice of place of delivery**

### Deciding for a place of childbirth



Source: Field data, 2008

#### 4.4.3 Socio-economic factors influencing place of delivery

A number of socio-economic factors contributed to the choice of place of delivery by the expectant mothers as indicated in the table below.

**Table 7: Socio-economic factors influencing place of delivery**

Variable	Total	% with health facility delivery		% with home delivery		P-value, $\alpha=0.05$	Computed $\chi^2$ value
	N	N	Frequency	%	Frequency		
<b>Mother's level of education</b>							
None	106	42	39.62	64	60.38		
Basic	276	145	52.54	13	47.46	0.006	10.2665
Secondary	20	15	75.00	5	25.00		
<b>Timing of first ANC (month)</b>							
1-3	214	123	57.48	91	42.52		
$\geq 4$	80	76	42.22	104	57.78	0.048	5.5955
I don't know	2	1	50.00	1	5000		
<b>ANC visits</b>							
None	6	2	33.33	4	66.66		
1-3	43	13	30.32	30	69.77	0.050	9.5070
$\geq 4$	352	187	53.13	165	46.88		
<b>Birth preparedness</b>							
Adequate	57	51	89.47	6	10.53		
Inadequate	337	147	43.62	190	56.38	0.000	41.0039
<b>Cost</b>							
Free	115	81	70.43	34	29.56		
Affordable	172	81	47.09	9	52.91		
Expensive	110	40	6.36	70	63.63	0.000	35.4726
I don't know	3	0	0.00	3	100.00		

Source: Field data, 2008

**Table 7: Socio-economic factors influencing place of delivery (continue)**

Variable	Total	% with health facility delivery		% with home delivery		P-value,	Computed $\chi^2$ value
	N	N	Frequency	%	Frequency		

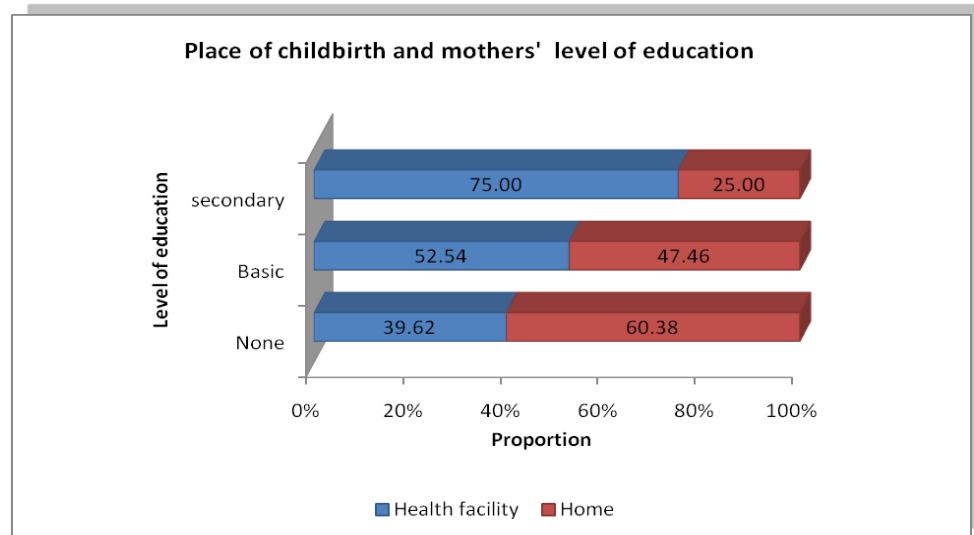
**$\alpha=0.05$**

	N	Frequency	%	Frequency	%		
<b>Decider for type of delivery</b>							
Pregnant mother	84	70	38.04	114	61.96	0.000	30.0576
Husband	71	33	46.47	38	53.52		
Both mother & husband	119	81	68.07	38	31.93		
Others	27	18	66.67	9	33.33		
<b>Knowledge on signs of labour</b>							
Moderate	385	197	51.17	5	48.83	0.746	3.5427
None	7	5	29.41	12	70.58		
<b>Skilled attendant available</b>							
Yes	397	200	50.38	197	49.62	0.312	1.0202
No	4	1	25.00	3	75.00		
<b>Items required</b>							
Yes	193	135	69.94	58	30.05	0.000	39.1963
No	174	65	37.36	109	62.64		
<b>Transport accessible during labour</b>							
Yes	221	155	93.94	10	6.06	0.002	9.1785
No	49	39	79.59	10	20.41		
<b>Attitude of delivery attendant</b>							
Yes	193	191	98.96	2	1.04	0.746	0.1047
No	10	10	100.00	0	0.00		
<b>Position taken during delivery</b>							
Yes	193	190	98.42	3	1.58	0.677	0.1735
No	11	11	100.00	0	0.00		
<b>Distance</b>							
$\leq 5\text{km}$	221	15	67.87	71	3.13	0.000	45.4743
$> 5\text{km}$	156	51	32.69	105	67.30		
<b>Service provider readiness</b>							
Yes	198	195	98.48	3	1.51	0.782	0.769
No	5	5	100.00	0	0.00		

Source: Field data, 2008

There was a significant association between the use of health facility delivery and the mother's level of education ( $\chi^2=0.10.2665$ ;  $p<0.05$ ). The higher the mother's level of education, the more likely she is to give birth at a health facility as indicated in figure 7 below.

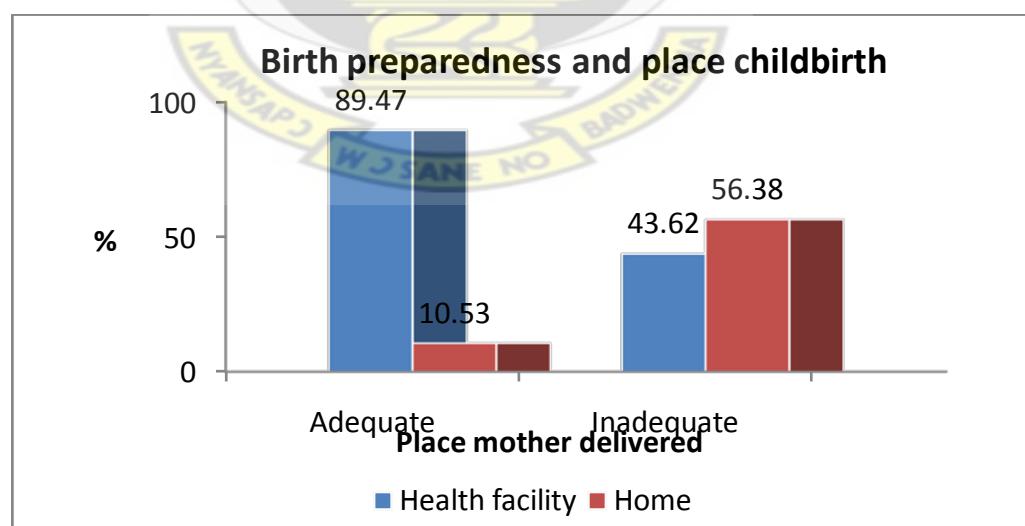
**Figure 7: Place of delivery and level of education**



Source: Field data, 2008

A large proportion of mothers who prepared adequately for delivery (saved money towards childbirth, arranged for transport, decided ahead for a place of delivery, identified a person to accompany her to health facility for delivery, identified a blood donor, gathered essential items required and others), delivered in a health facility as compared to those who prepared inadequately (89.47% vs. 43.62%). The difference was statistically significant ( $\chi^2=41.0039$ ;  $p<0.05$ ). Majority of the mothers who prepared adequately for health facility delivery gave birth in a health facility as shown in figure 8.

**Figure 8: Birth preparedness and place of delivery**



Key: 1=mothers adequately prepared, 2= mothers inadequately prepared=2  
Source: Field data, 2008

Distance to a health facility was significantly associated with the use of health facility delivery ( $\chi^2=45.7456$ ;  $p<0.05$ ). Majority of the mothers (68.87%) who lived about 5km away from a health facility , delivered under skilled care while

32.69% of the respondents who lived far away from a health facility ( $>5\text{km}$ ) delivered in a health facility.

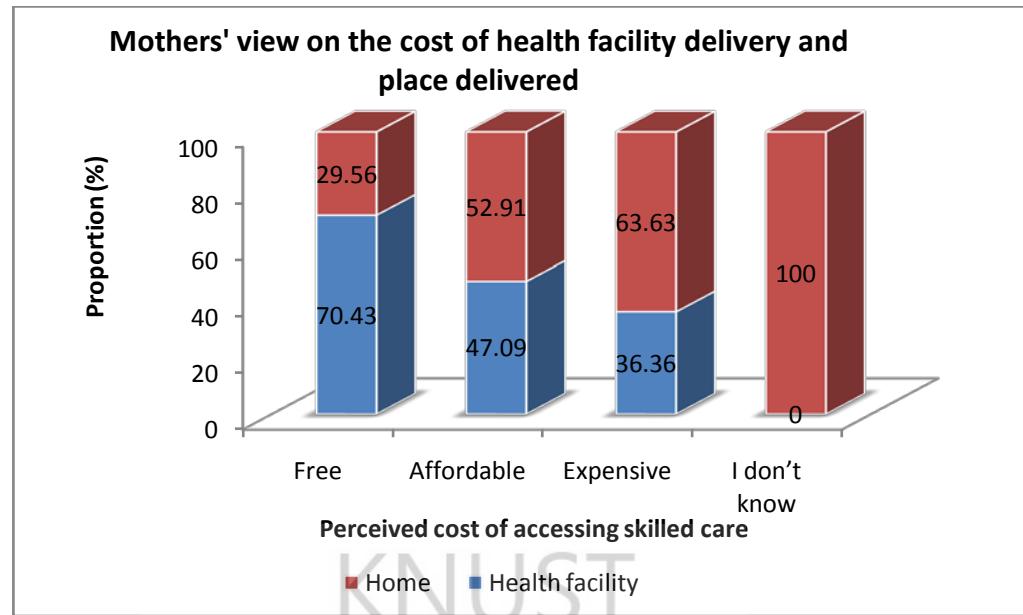
Most (69.94%) of the mothers who were able to acquire the items required for skilled delivery gave birth at a health facility. On the other hand, 37.36% of the mothers who could not acquire the items required for facility delivery gave birth at a health facility. The difference was statistically significant ( $\chi^2=39.1963$ ;  $p<0.05$ ).

On ANC attendance, 53.13% of mothers who had at least four ANC visits used health facility for delivery and among those who had 1-3 ANC visits, 30.32% delivered at a health facility. Also, among the mothers who did not attend ANC at all, 33.33% gave birth at a health facility. However, the difference was not statistically significant ( $\chi^2=9.5070$ ;  $p>0.05$ ).

More than half (57.48%) of mothers who initiated ANC within the first three months of pregnancy gave birth at a health facility. Also, 42.22% of mothers who initiated ANC after the first three months of pregnancy gave birth at health facility and only one mother who did not know the timing of first ANC used health facility for delivery. In most cases, mothers who initiate ANC early are at risk (had bad pregnancy history or problem) and were advised to deliver at a health facility. Statistically, timing of first ANC was not significantly associated with the place of delivery ( $\chi^2=9.5955$ ;  $p=0.05$ ).

Almost 70.43% of the mothers who perceived the cost of health facility delivery as free delivered under skilled care. Similarly, 47.09% of the mothers who perceived it as affordable, and 36.36% of the mothers who perceived it as expensive, delivered in a health facility. All the expectant mothers who did not know the cost of accessing skilled care delivered at home as shown in the figure 9 below. Statistically, the perceived cost of health facility delivery was significantly associated with the place of delivery ( $\chi^2=35.4726$ ;  $p<0.05$ ).

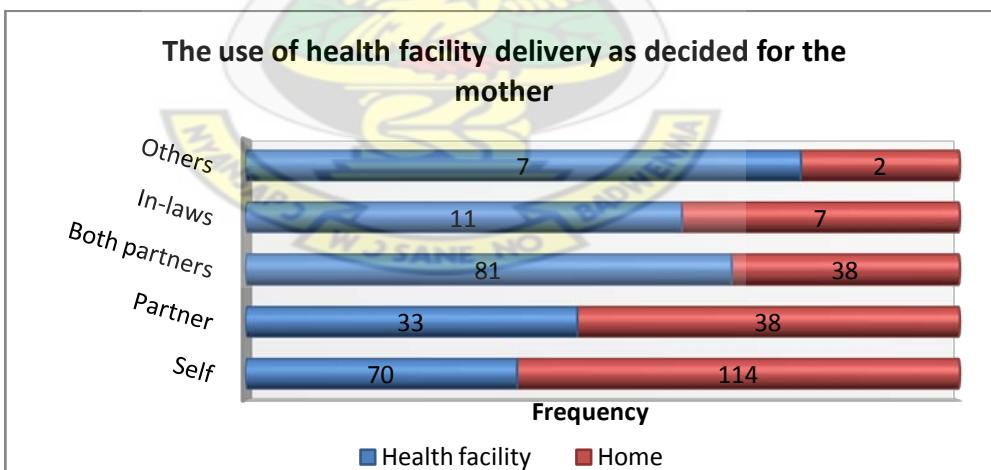
**Figure 9: Mothers' view on the cost of skilled delivery and place delivered**



Source: Field data, 2008

Comparatively, a large proportion of the mothers who decided for themselves, discussed with their partners and mothers on place of delivery while pregnant delivered with a skilled attendant. Statistically, the person who decides for a place of delivery was significantly associated with a place of delivery ( $\chi^2=30.0576$ ,  $p < 0.05$ ).

**Figure 10: The use of health facility delivery as decided for the pregnant woman**

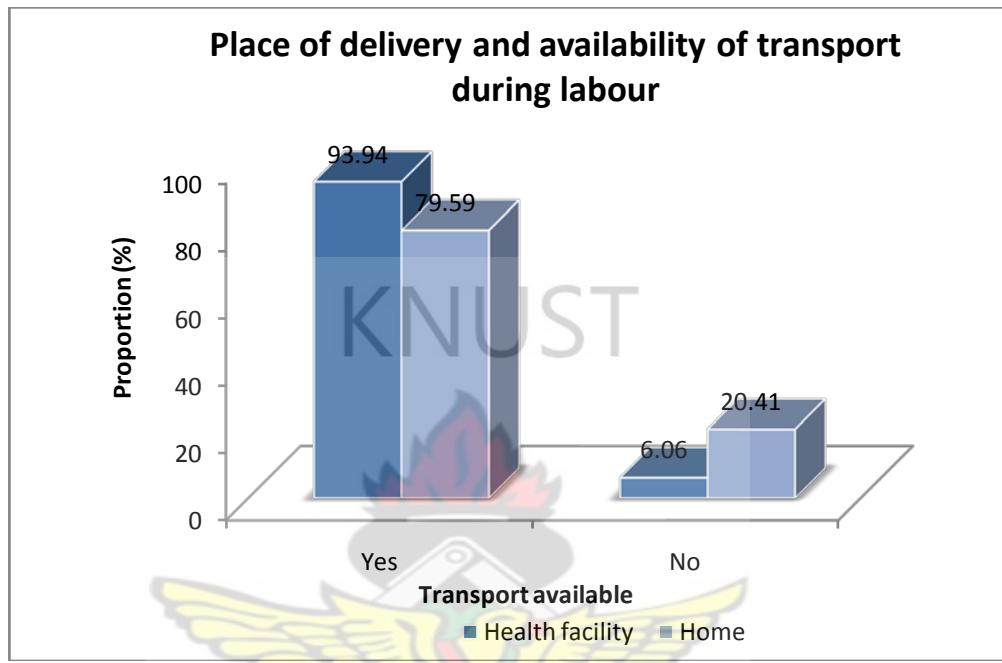


Source: Field data, 2008

Mothers were asked about the presence of a skilled attendant at the nearest the health facility. Almost 50.38% of them who responded "Yes" delivered at a health facility while one-quarter (1) of those who said "No" (4) delivered in a health facility. However, the difference was not statistically significant ( $\chi^2=1.0202$ ;  $p>0.05$ ).

Statistically, access to transport during labour was significantly associated with place of delivery ( $\chi^2=9.1995$ ;  $p<0.05$ ). Where transport was accessible during labour, 69.94% delivered in a health facility. On the hand, where mothers found it difficult in accessing transport, 32.69% gave birth in a health facility (figure 11)

**Figure 11: Access to transport during labour and choice of a place of delivery**



Key: 1=Yes, 2=No. Source: Field data, 2008

An overwhelming majority (98.86%) of mothers who delivered in a health facility were happy or satisfied with the attitudes of skilled attendants, lithotomic position taken during delivery and service provider readiness (bed, water, lighting, ventilation). Statistically, none of these factors was significantly associated with the choice of place of delivery ( $p>0.05$ ).

On the signs of labour, mothers had good knowledge on the signs of labour. Statistically, the level of knowledge on the signs of labour was not significantly associated with place of delivery ( $\chi^2=0.1047$ ;  $p<0.05$  respectively).

Statistically, variables which showed a significant association with a type of delivery care were analysed on individual variable effects on the choice of skilled delivery while controlling for confounders (age and mothers' level of education) as shown in table 8 below.

**Table 8: OR and aOR of the factors associated with choice of skilled delivery**

Variable	Total N	% with health facility delivery	Unadjusted OR (95%CI)	Adjusted OR (95% CI)
<b>Mothers' level of education</b>				
None	106	39.62	1	
Basic	276	52.54	0.58(0.37-0.93)	
Secondary	20	75.00	0.22(0.07-0.67)	0.54(0.37-0.79)
<b>Birth preparedness</b>				
Adequate	57	89.47	1	
Inadequate	337	43.62	10.84(4.31-27.26)	9.44(3.80-23.42)
<b>Distance</b>				
≤5km	221	67.87	1	
>5km	156	32.69	4.29(2.69-6.84)	3.86(2.44-6.11)
<b>Cost</b>				
Free	115	70.43	0.23(0.13-0.42)	0.29(0.1-0.53)
Affordable	172	47.09	0.64(0.39-1.05)	0.69(0.42-1.16)
Expensive	110	6.36	1	1
I don't know	3	0.00	-	-
<b>Decider for type of delivery</b>				
Pregnant mother	84	38.04	1	1
Husband	71	46.47	0.70(0.41-1.23)	0.98(0.44-1.39)
the mother & husband	119	68.07	0.28(0.17-0.47)	0.33(0.19-0.54)
others	27	66.67	0.29(0.12-0.69)	0.28(0.11-0.71)
<b>Items required</b>				
Yes	193	69.94	1	
No	174	37.36	3.87(2.44-6.13)	3.86(2.44-6.11)
<b>Transport available during labour</b>				
Yes	221	93.94	1	
No	49	79.59	3.90(1.49-10.24)	4.81(1.73-13.33)

Source: Field data, 2008

Birth preparedness OR=944(95% CI 3.80-23.42), item required for health facility delivery OR=3.87(95% CI 2.44-6.13), distance to the nearest health facility providing delivery care OR = 3.86 (95% CI 2.44-6.11), discussing with male partners on place of delivery OR = 0.33 (95% CI 0.19-0.54), advice on place of delivery during ANC by health personnel and others OR = 0.29 (95% CI 0.12-0.69), perceived cost of health facility delivery as free or affordable OR 0.29 (95% CI 0.16-0.53) and mother's level of education OR = 0.54 (95% CI 0.37-0.79) were significantly associated with the use of skilled care at delivery (Table 8).

## CHAPTER 5

## **5.0 Discussion**

### **5.1 Background information**

Large proportion of mothers interviewed were Christians (88.12%) and married (91.34%). Most (73.76%) of the respondents had at least primary education and 81.93% were self-employed (mainly engaged in small scale farming). These findings are in line with the district profile of 88.7% Christians, low girl-child education and small scale farming being the main occupation in the district (BABD Development Plan, 2006). Parity ranges from one to nine with a parity of one as the mode. The median age was 24.7 years and all respondents were in their reproductive age (15-49 years).

### **5.2 Proportion of skilled delivery**

The proportion of women who delivered in a health facility was 50.50% and all were assisted by health personnel (nurses, midwives, medical doctors). This estimate is an improvement over the national rate of 47.1% obtained from Demographic and Health Survey in 2003 (UNICEF, 2007) and the district rate of 36.2% (BABD Annual Report, 2007). The proportion of births attended by health personnel is far below the ICPD+ target by the year 2005 (WHO Factsheet, 2007). Low rate of health facility delivery has been reported previously by other researchers in Sub-Saharan Africa (WHO, 2007). Immediate treatment and care for the mother and the baby, to avoid delay in getting medical care in case of emergency and access to skilled attendant were the major reasons for accessing health facility delivery.

The proportion of mothers who gave birth at home was 49.50%. This is higher than that of 2007 BABD annual rate of 36.9% skilled delivery (49.50% vs. 36.9%). Home deliveries were assisted by TBAs, the mother herself and others (relatives, friends). The cost of health facility delivery (informal charges, transportation, items required), fast progression of labour, difficulty in getting transport during labour, faith in TBAs, delay in taking decision at home, hostile attitude of health personnel, long distance to health facility, no problem with pregnancy, fear and experience of safe home delivery were the main reasons

behind home delivery. Similar socio-economic factors were reported by Afsana and Rashid in 2001.

### **5.3 Knowledge, attitudes and perceptions of mothers towards prenatal care and skilled delivery**

Most of the respondents preferred to deliver in a health facility. Their major reasons were access to skilled care (home delivery with skilled care is rare in our country), to avoid delay in getting medical care in case of emergency, immediate treatment for the mother and the baby and unsafe pregnancy.

Antenatal care coverage was high; 98.51% had at least one ANC visit and 87.62% visited ANC Clinic at least four times. It is an improvement over national ANC coverage (92 %,) (Ghana DHS, 2003), and that of BABD (96.2%) in 2007 (BABD Annual Report, 2007). Monitoring the progress of pregnancy, to detect and reduce dangers associated with the pregnancy, to receive IE&C on maternal health and treatments of sicknesses were the major reasons behind antenatal clinic visits. Similar reasons were given by ANC attendees in Cape Town, South Africa (Abraham, et al, 2001). The main reasons why the expectant mothers defaulted ANC were ignorance and poverty. Among other factors, similar reasons were major causes of defaulting ANC in rural Kano, Nigeria and India (Adamu, Salihu, 2002; Fatma, Mrisho, 2002).

More than half (54.03%) of the study participants initiated ANC within the first three months of pregnancy. Mothers who started ANC within the first three months in pregnancy had more ANC visits and 57. 8% delivered in a health facility. This may be due to the fact that women with more ANC visits also showed a higher satisfaction with the quality of care. Hence, they are more likely to deliver in a health facility. Also, many ANC visits expose the women to more health education and counselling. In most cases, pregnant women who initiated ANC very early either have unsafe pregnancy, bad obstetric history or know the benefits of ANC services.

Ignorance, poverty, the expectant mother unaware that she was pregnant within the first three months, to hide the pregnancy from the public and reduction in the number of ANC visits were the causes of defaulting and late initiation of ANC.

The Study revealed that mothers have fair knowledge on the danger signs of pregnancy as 54.52% were able to list more than four danger signs. Mothers had good knowledge on the signs of labour. Similar finding was reported in Mali (Smith, et al, 2004).The common known signs of labour were appearance of show, regular rhythmic uterine contraction and low back pain radiating to the abdomen and thighs.

The study also revealed that mothers believe pregnancy complication is a physical condition and should be treated physically by a physician. This could contribute to high ANC coverage. This is in contrast to what researchers found in Mozambique where instead of seeking free prenatal care at nearby health facilities, women hide their pregnancies from sorcery by neighbours and visit non-medical prophets, pastors, and traditional healers. In Southern Sudan some communities associate obstructed labour with adultery (Chapman, 2003).

Fear of skilled delivery was high among the participants, particularly fear of Caesarean section, referral and injection. This could be part of the reasons why ANC coverage was very high but few mothers delivered in a health facility. Referral of clients to the next health facility is usually associated with emergency and other difficulties in accessing skilled care. Some of the clients referred to next health facility end up delivering at home. Fear of Caesarean section and death, and referral problems have been reported as barriers to skilled delivery (UNFPA, 2004).

#### **5.4 Factors influencing the acceptability and utilisation of IEC on skilled delivery**

A number of socio-economic factors were found to have significant influence on the choice of place of delivery. These included level of education, distance to health facility, transportation, birth preparedness, perceived cost of health facility delivery as free, discussion with male partners and relatives on place of delivery, and advice on place of delivery during ANC by health personnel. Similar factors have been previously reported by several researchers (D'Ambruoso, et al, 2005; Safe motherhood, 2001)

An educated woman is able to make informed decision concerning her own health and more prone to deliver at health facility than their uneducated counterparts. This variable also influences the status of the woman in the society which has been found to influence decision making. Level of education and income influence the impact of IE&C interventions and the level of ignorance in the district.

Distance to the health facility was significantly associated with the site of delivery. This was worsened by the fact that there are no means of transport at certain times of the day. Few women who lived about >5km away from a health facility were more likely to accessed health facility delivery. Although in BABD health facilities are fairly spread, only 29% live in the high access zone of 5 minutes walking distance or 2.5km. This situation coupled with poor feeder roads linking the peripheral communities pose a major challenge to majority of expectant mothers who ought to travel a distance of 20-80minutes or 6.7-10km to access care at the nearest health facility. Similar findings were reported in Tanzania, Zambia and Malawi where skilled delivery decrease with increasing distance (>5km) from health facility (Mpembeni, et al, 2007).

Women who had access to transport during labour were more likely to use health facility for delivery as compared to those who had no transport during labour. Time of labour onset coupled with transportation difficulty and long distance play a crucial role in determining place of delivery. In Kenya, researchers have established that long distance to facility; bad road and lack of transportation discourage women in seeking facility delivery when labour starts at night (Family Care International, 2003).

Birth preparedness was a significant determinant of the type of delivery care. Almost all the mothers who prepared adequately for delivery accessed skilled care at childbirth. Large proportion (85.53%) of mothers could not prepare adequately for delivery. In reality, families find it difficult to prepare adequately skilled delivery due to poverty. In contrast, most communities in Kenya perceive pregnancy outcomes as predetermined by God which makes it difficult to prepare ahead of delivery (Family Care International, 2003).

About 43.00% of the mothers perceived cost of health facility delivery as affordable. Among these mothers, 28.75% were insured (National Health Insurance Scheme) to access care at no cost. Mothers who perceived the cost of health facility delivery as free and able to acquire the items required are more likely to access skilled delivery. Although Ghana operates under delivery-fee exemption policy, cost of transportation, informal charges, and supplies such as gloves, diapers, soaps and antiseptics impede health facility delivery in the district. It could contribute to strong faith in TBA and self-assisted delivery (IMMPACT 2007). Similar findings have been reported in South Africa, Burkina Faso, Kenya and Tanzania where client perception on the cost of accessing care is directly associated with skilled-care seeking during childbirth. In such countries, health facility delivery is perceived as expensive (Global Health Council, 2008).

A large proportion of pregnant women who discussed with their husband or partner where to deliver accessed skilled care at delivery. This called for husband involvement in care-related decisions as this significantly affects the use of health facilities delivery. This is a reverse of a report that men are more likely to limit women access to health care in low income countries (Family Care International, Kenya, 2007a). Most of the mothers who were autonomous decided to deliver at home probably due to experience of safe home delivery, fear and to lessen financial burden on their husbands. Mother-in-laws, relatives and nurses' advice had a significant influence on the choice of place of delivery. These findings are similar to what was reported in Rakai district, Uganda, where access to maternity services was highly influence by spouse and relatives (Amooti-Kaguna, Nuwaha, 2000). It supports what researchers established in Bangladesh on the need to engage individuals through their social networks to influence both decision-making and resources for seeking care (Parkhurst, et al, 2006).

Large proportion (95.07%) of mothers see attitude of health personnel as friendly. Almost all the mothers who delivered in health facility were also satisfied with opening hours (24 hours), availability of skilled attendant and service provider readiness. Statistically, these factors were not significantly associated with the choice of place of delivery. This confirms WHO report that

provision of quality services alone will not produce the desired health outcomes where it is not possible for individuals and communities to make healthy decisions, and able to act on these decisions (WHO, 2003b).

Knowledge of danger signs of pregnancy and signs of labour were not significantly associated with the choice of place of delivery. This is in contrast to findings reported in Malawi, Tanzania, and Zambia (Mpembeni, et al, 2007). It was expected that a better informed individual is better placed to make reasonable decisions. As reported in Mali, women have fair knowledge on danger signs of pregnancy, signs of labour, importance of antenatal care and health facility delivery. However, ignorance and financial constraint continue to create discrepancies between knowledge and behaviour (Smith, et al, 2004).



## CHAPTER 6

### 6.0 Conclusion and Recommendations

#### 6.1 Conclusion

##### 6.1.1 Proportion of skilled delivery

In the study area, although almost all pregnant women attend antenatal care at least once, 50.50% delivered in a health facility. The proportion of births assisted by skilled attendants (50.50%) is far below the ICPD+5 target of 85% skilled delivery by 2010. Antenatal care coverage is high (98.5%), 87.6% visited antenatal clinic at least four times and 54% initiated ANC within the first three months of pregnancy.

#### **6.1.2 Knowledge, attitudes and perceptions of mothers towards prenatal care and skilled delivery.**

Mothers have good knowledge on the danger signs of pregnancy, signs of labour and the importance of prenatal care and health facility delivery. They believe pregnancy complication is a physical condition and could be treated by a physician. Fear of Caesarean section, referral and injection is high. Birth preparedness is low especially with the identification of blood donor. Cost of accessing skilled care (informal charges, transportation and items required) and ignorance impede the use of skilled care in the district.

#### **6.1.3 Factors influencing the acceptability and utilisation of IE&C on prenatal care and skilled delivery**

Mother's level of education, birth preparedness, items required for health facility delivery, distance to health facility, access to transport during labour, discussions with male partners on place of delivery, advice on place of delivery during ANC by health personnel and others and perceived cost of health facility delivery as free or affordable were found to be significantly associated with the place of delivery.

## **6.2 Recommendation**

### **6.2.1 Government**

Government in collaboration with other funding agencies and Non-governmental Organisations (NGOs) should improve the number of health facilities and skilled attendants in the district. At least a medical doctor should be present at the district hospital at all times, and skilled attendants should be

available at all health facilities. Medical doctors or skilled attendants should be provided with the enabling environment and motivated to move to sub-districts for care in case of emergency to reduce the number of referral cases.

#### **6.2.2 Ministry of Health**

The Ministry of Health should liaise with other sectors such as Ministry of Women and Children Affairs, Ghana Education Service, the District Assembly, communities and NGOs to raise the status of women in terms of education and socio-economically. All should work hand-in-hand to improve provision of health education to women, families and communities especially on danger signs of pregnancy, signs of labour, and the need for skilled care during pregnancy and childbirth. This will enable the women to make informed decisions concerning their own health. The schools, churches, community leaders, social networks and community health workers should be involved in disseminating maternal health information.

#### **6.2.3 District Health Management Team**

DHMT should intensify monitoring and supervision of health personnel involved in maternal health care. Informal charges, entusing client for gift, and items required for delivery at health facility particularly cleaning agents should be removed. Referrals should be supervised, and have free-access to ambulance at all health facilities.

#### **6.2.4 Health Institutions**

Health care providers should intensify individual counselling of women on health facility delivery, early initiation of antenatal care and individual birth preparedness. The high ANC coverage presents a great opportunity for individual counselling on the benefits of skilled care. The healthcare providers should take the full advantage of this opportunity. The male partner, social networks and communities should be involved in IE&C on maternal health care. This will influence both decision-making and resources for seeking care at the family and community level.



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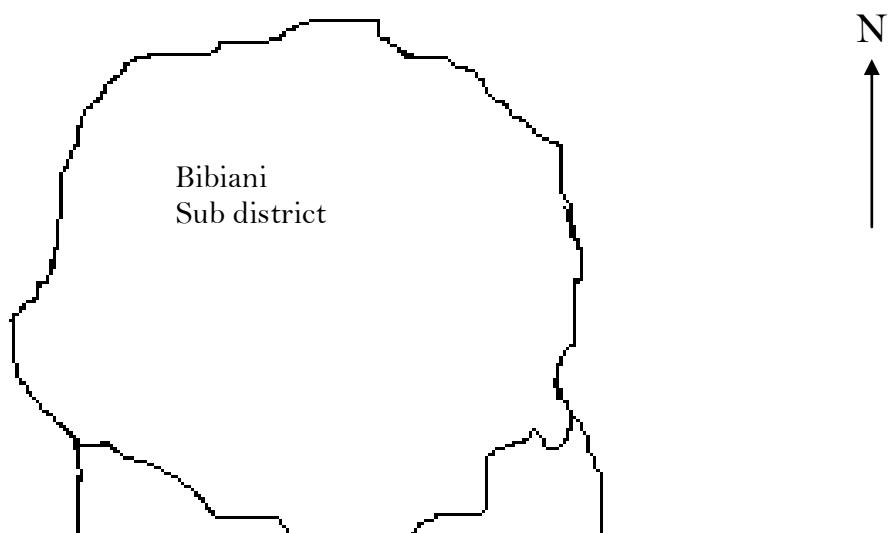
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## The Map of Bibiani-Anhwiaso-Bekwai District





## Appendices

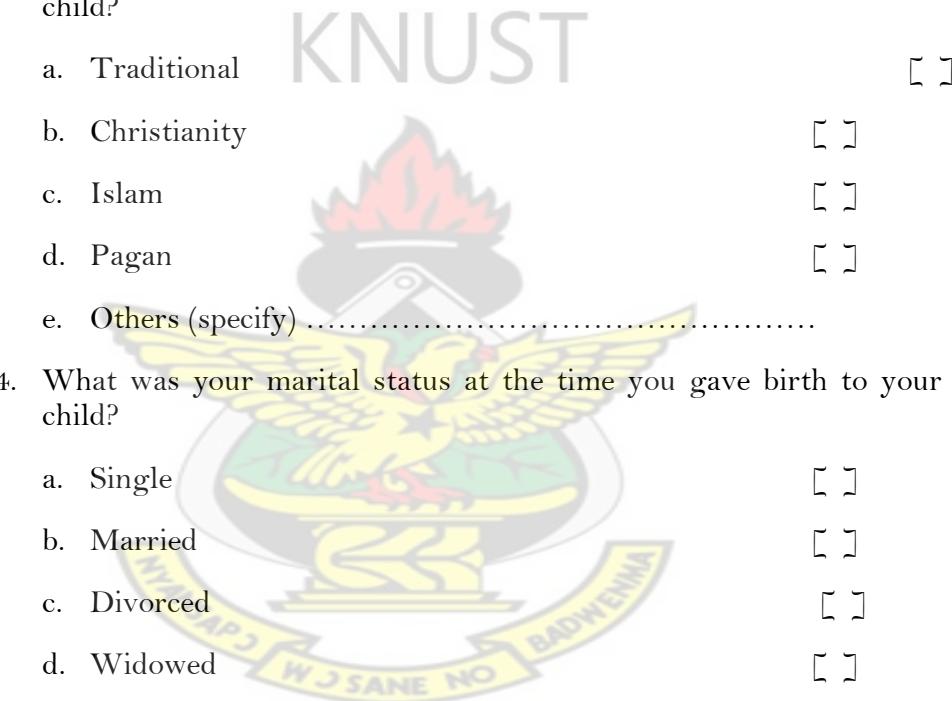
### Appendix A: Questionnaire for the mothers

#### Community Code:

Date:

1. What was your age in years at the time you gave birth to your last child?
  - a. Less than 15
  - b. 15-20
  - c. 21-25
  - d. 26-30

- e. 31-35
- f. above 35
2. How many children (including stillbirth, dead or alive) have you delivered?
- a. One
- b. Two
- c. Three
- d. Four
- e. Five and above
3. To what religion did you belong at the time you gave birth to your last child?
- a. Traditional
- b. Christianity
- c. Islam
- d. Pagan
- e. Others (specify) .....
4. What was your marital status at the time you gave birth to your last child?
- a. Single
- b. Married
- c. Divorced
- d. Widowed
5. What was your highest level of education at the time you gave birth to your last child?
- a. None
- b. Basic education
- c. Secondary education (vocational/technical education)
- d. Tertiary education
6. What was your occupation at the time you gave birth to your last child?
- a. Unemployed
- b. Self-employed
- c. Government worker



- d. Others (specify).....
7. Which of these places do you prefer to deliver? Skip Q10 if the answer is 'b'.
- Health facility
  - Home
  - Others (specify).....
8. If the answer in Q9 is 'a': why do you think health facility delivery is important? (Tick all that apply)
- Access to skilled care
  - Prevent delay in getting emergency care if needed
  - Immediate treatment to the mother and the baby
9. Others (specify).....
10. Why do some mothers choose to deliver at home?  
.....
11. What are the danger signs of pregnancy?
- Anaemia/fatigue
  - Swelling of ankle/ feet (pitting oedema)
  - Vagina bleeding/foul smelling discharge
  - Chronic headache during day and night
  - Stoppage of foetal movement
  - Persistent vomiting or "morning sickness"
  - Blurred vision
  - Others (specify).....
12. What are the signs of labour?
- Regular rhythmic uterine contraction
  - Appearance of show
  - Cervical dilation
  - Low back pain radiating to abdomen and thighs
  - Rupture of membrane
  - Others (specify).....
13. What is your belief about pregnancy complications such as anaemia, eclampsia, and vaginal discharge?

- a. physical condition
- b. spiritual condition
- c. Others (specify).....
14. Do you have fear for any of the following processes of health facility delivery? (Tick all that apply)
- a. Hospital setting
- b. Referral
- c. Injection
- d. Caesarean section
- e. Medicine
- f. Others (specify).....
15. Where do you receive information, education and communication on prenatal and skilled delivery care in the district? (Tick all that apply)
- a. Antenatal clinic
- b. Home
- c. Church/ Mosque
- d. Child welfare clinic
- e. Others (specify).....
16. Which of these places do you prefer most in getting maternal health education?
- a. Health facility/ Antenatal clinic
- b. Home
- c. Mosque/ Church
- d. Child welfare clinic
- e. Others (specify).....
17. Whom do you receive information, education and communication on prenatal and skilled delivery care in the district? (Tick all that apply)  
Specify the kind of media if your answers include 'e'.
- a. Health personnel(nurse, midwife, doctor, health educator)
- b. Traditional birth attendant
- c. Friends
- d. Relatives

e. Media (Radio, TV, Newspapers)

f. Others (specify).....

19. Which of these sources is most credible to you?

a. Health personnel(nurse, midwife, doctor, health educator)

b. Friends

c. Relatives

d. Traditional birth attendant

e. Media (Radio, TV, Newspapers)

f. Others (specify).....

18. Are you happy about the methods use by health personnel in delivering maternal health education in the district?

a. Yes

b. No

19. What methods would you have preferred?

a. Peer education

b. Small group discussion

c. One-on-one

d. Others (specify).....

20. What topics do health personnel discuss with you at antenatal clinic?

a. Self-care during pregnancy (nutrition, pregnancy risks/dangers)

b. Progress of your pregnancy/ultrasound scan

c. Early initiation and number of ANC visits

d. Place of delivery

e. Advice on child care (breastfeeding, immunization)

f. Prevention of malaria in pregnancy (Use of ITN and IPT)

g. Taking of blood/urine sample, weight and blood pressure

h. Getting tested for HIV (virus that cause AIDS)

i. Others (specify).....

21. This question asks about the content of information, education and communication on prenatal care and skilled delivery. Tick Yes if it apply or No if it does not apply to you.

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| a. I understood what was taught at health facility  | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Mothers were allowed to ask questions/involved in discussion   | <input type="checkbox"/> | <input type="checkbox"/> |
| c. The content was relevant   | <input type="checkbox"/> | <input type="checkbox"/> |
| d. I received follow-up/home visit by health personnel  | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Others (specify).....  |                          |                          |
| <b>22.</b> In what ways is your community involved in information, education and communication on prenatal care and skilled delivery? (Tick all that apply) |                          |                          |
| a. Formation of mothers support group   | <input type="checkbox"/> |                          |
| b. Community Resource personnel   | <input type="checkbox"/> |                          |
| c. Involvement of community based volunteers  | <input type="checkbox"/> |                          |
| d. Community/client-oriented provider efficiency services (COPE)  | <input type="checkbox"/> |                          |
| e. None   | <input type="checkbox"/> |                          |
| f. Others (specify).....  |                          |                          |
| <b>23.</b> What is your opinion about attitude of health personnel involved in maternal health education in the district?                                   |                          |                          |
| a. Very friendly  | <input type="checkbox"/> |                          |
| b. Friendly   | <input type="checkbox"/> |                          |
| c. Unfriendly   | <input type="checkbox"/> |                          |
| d. Some are friendly; others are not  | <input type="checkbox"/> |                          |
| <b>24.</b> How many times did you attend antenatal clinic during your most recent pregnancy? Skip Q24 if the answer is 'e'.                                 |                          |                          |
| a. None   | <input type="checkbox"/> |                          |
| b. One  | <input type="checkbox"/> |                          |
| c. Two  | <input type="checkbox"/> |                          |
| d. Three  | <input type="checkbox"/> |                          |
| e. Four and above   | <input type="checkbox"/> |                          |
| <b>25.</b> Why did you default antenatal clinic attendance? (Tick all that apply)   |                          |                          |
| a. Unfriendly open hours  | <input type="checkbox"/> |                          |
| b. Hostile attitude of health staff   | <input type="checkbox"/> |                          |

- c. Cost of transportation
- d. Husband/family didn't allow
- e. Failure of health providers to honour scheduled outreach services
- f. Ignorance
- g. Others (specify).....
26. How many months pregnant were you when you attended your first antenatal clinic during your most recent pregnancy?
- a. One month
- b. Two months
- a. Three months
- b. Four months and above
27. If your answer is 'e' in Q29, why didn't you go for antenatal care earlier? (Tick all that apply)
- a. I didn't have money to pay for the care earlier
- b. I didn't know I was pregnant
- c. I didn't want anyone to know I was pregnant
- d. I didn't know the time to start antenatal care
- e. To have less number of antenatal care schedule to attend
- f. Others (specify).....
28. Why did you decide to attend antenatal clinic? (Tick all that apply)
- a. Detect and reduce dangers associated with my pregnancy
- b. Receive education and counselling on maternal health issues
- c. Monitoring progress of my pregnancy
- d. I was sick
- e. Others (specify).....
29. When you were pregnant, did you prepare for your delivery?
- a. Yes
- b. No
30. What preparations did you make towards your most recent delivery? (Tick all that apply)
- a. Saved money for delivery
- b. Arranged for transport

- c. Planned ahead for a place of delivery
- d. Identified a person to follow me to health facility for delivery
- e. Identified a blood donor
- f. Gathered essential items for delivery
- g. Others (specify).....

31. What difficulties did you encounter in your birth preparedness?

- a. Poverty
- b. Family/Partner concern
- c. May have effect on the child
- d. None
- j. Others (specify).....

32. Where did you give birth to your last child? Skip Q38-39 if you choose 'b' or 'c'.

- a. Health facility
- b. Home
- c. Prayer camp
- d. Others (specify).....

33. Who assisted your delivery during the birth of your last child?

- a. Midwife
- b. Doctor
- c. Nurse
- d. TBA
- e. Self
- f. Others (specify).....

34. This question asks about what you like or dislike about your nearest health facility delivery. For each item tick Yes if you like it or No if you dislike it at the time you gave birth to your last child.

- |  | Yes  | No   |
|--|--|--|
| a. Distance covered to access skilled care           | <input type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| b. Attitudes/behaviour of health staff               | <input type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| c. Items like soap, antiseptic and pad required      | <input type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| d. Position taken during delivery                    | <input type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| e. Opening hours (day/night)                         | <input type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| f. Service provider readiness (bed, water, medicine) | <input type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> |

- g. Others (specify).....
35. What was your opinion about the cost of accessing health facility delivery in the district?
- a. Absolutely free
  - b. Partially free
  - c. Affordable
  - d. Expensive
  - e. Very expensive
36. Was transport available during labour in your most recent pregnancy?
- a. Yes
  - b. No
37. Who decides in your household where you should deliver?
- a. The pregnant woman
  - b. Husband/Partner
  - c. The mother and husband/partner
  - d. Mother-in-law
  - e. Others (specify).....
38. Was a skilled attendant (midwife, doctor or nurse with midwifery skill) available in your nearest health facility as at the birth to your last child?
- a. Yes
  - b. No
39. What suggestion do you have for improving the prenatal and skilled delivery care at where you access skilled care?



## Appendix B: Questionnaire for the skilled attendants

**Record Code:**

**Date:**

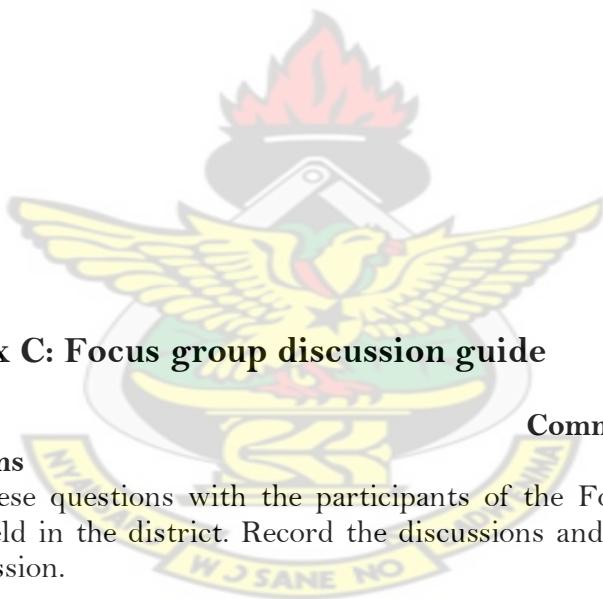
**Health Facility:**

**Instructions**

Provide the necessary information in the dotted lines and indicate the correct response where applicable by ticking (✓) in the box provided.

1. What is your position in this health facility?
2. How long have you remained in active service in this district?
3. What are mothers' attitude towards:
  - a. Prenatal care.
  - b. Health facility delivery.
  - c. Home delivery.
4. Which group of health personnel gives information, education and communication on prenatal and skilled delivery care in the district?
5. Which sectors, besides health, are involved in educating mothers on safe prenatal and delivery care in the district?

6. In what ways do you involve the communities in information, education and communication on prenatal and skilled delivery care in the district?
7. How are information, education and communication on prenatal and skilled delivery care organised in the district?
  - a. Channel of communication
  - b. Educational materials
  - c. Methods use
  - d. Venue
  - e. Number of maternal health education held per year.
8. How often do you follow-up mothers?
9. What do you usually discuss with mothers during antenatal care clinic in the district?
10. Which IEC activities on prenatal and skilled delivery care are targeted on men?
11. What preparations/plans do have you have in place for skilled delivery care in all health facilities in the district/where you work
12. How do mothers prepared ahead for childbirth in the district?
13. What are accounting for downwards trend of skilled attendance in the district?
14. What facilitate mothers to undergo home delivery in the district?
15. What can be done to improve information, education and communication on skilled care in the district?



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## Appendix C: Focus group discussion guide

**Date:**

**Community Code:**

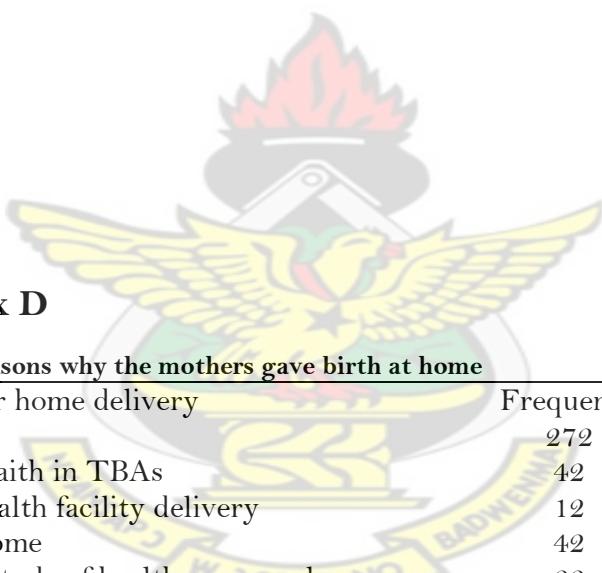
**Instructions**

Discuss these questions with the participants of the Focus Group Discussion sessions held in the district. Record the discussions and summarize the results for each session.

1. What are mothers' attitudes towards:
  - a. Antenatal care?
  - b. Health facility delivery?
1. Which group of health personnel gives information, education and communication on prenatal and skilled delivery care in the community?
2. Which sectors, besides health, are involved in educating mothers on prenatal and skilled delivery care in the community?
3. In what way is the community involved in information, education and communication on prenatal and skilled delivery care in the district?
4. How are information, education and communication on prenatal and skilled delivery care organised in the community?

- a. Channel of communication
  - b. Instructional aids
  - c. Methods use
  - d. Venue
  - f. Number of maternal health education held per year
5. What do health personnel usually discuss with mothers during antenatal care in the district?
6. Do health personnel follow mothers?
7. What preparations/plans do you have in place for health facility delivery in the community?
8. How do mothers prepare ahead for childbirth in the district?
9. Do you have any culture practice/traditional norm for and/or against:
- a. Birth preparedness
  - b. Health facility delivery
  - c. Immediate care for the mother and new born after delivery
10. What are accounting for downwards trend of skilled attendance in the community?
11. What facilitate mothers to undergo home delivery in the community?
12. What can be done to improve information, education and communication on skilled care in the community?

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## Appendix D

**Table 9: Reasons why the mothers gave birth at home**

Reasons for home delivery	Frequency	Proportion (%)
Poverty	272	86.00
Presence/faith in TBAs	42	21.00
Fear for health facility delivery	12	6.00
Delay at home	42	21.00
Hostile attitude of health personnel	22	11.00
Long home-health facility distance	28	14.00
Transport unavailable	44	22.00
Easy to deliver/fast progression of labour	112	56.00
Experience of safe home delivery	11	5.50
No problem associated with pregnancy	18	9.00
Others(support, no ANC visit)	46	23.00

Source: Field data, 2008. Multiple responses