**ENSIGN COLLEGE OF PUBLIC HEALTH, KPONG,
EASTERN REGION, GHANA**

FACTORS ASSOCIATED WITH UNSKILLED DELIVERIES; OBSERVATIONS FROM THE OBOM SUB-MUNICIPALITY, GA SOUTH DISTRICT, GHANA

by

EUNICE NYANKAH

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

MASTER OF PUBLIC HEALTH

JULY, 2017

DECLARATION

I hereby declare that except for reference to other people's work, which I have dully cited, this project submitted to Ensign College of Public Health, Kpong is the results of my own investigation, and has not been presented for any other degree elsewhere.

Eunice Nyankah (157100061)   ………………………..   …………………………..

(Student)   Signature   Date

Certified By:

Dr. Steve Manortey   …………………………..   …………………………..

(Supervisor)   Signature   Date

Dr. Stephen Alder   ………………………..   …………………………..

(President)   Signature   Date

DEDICATION

This thesis is dedicated to the Almighty God, who has been my help and provider; my all supportive husband Frederick Nyankah; and my lovely children, Papa Ato Nyankah and Ewurabena Ampentsiwa Nyankah who were so helpful during my course of study.

ACKNOWLEDGEMENTS

First, my sincere acknowledgement goes to my supervisor Dr. Steve Manortey for his supervision and commitment all through the study process.

My singular gratitude and thanks goes to all Faculty members of the College for their priceless contribution and support in my nurturing process of the MPH programme.

My heartfelt appreciation and recognitions also goes to all study participants and research assistants for their unwavering support during the study.

Finally, my appreciation goes to my dearest husband Frederick Nyankah and lovely mother Mrs. Vida Boamah for all their moral support and backing throughout the study process.

ABBREVIATIONS/ ACRONYMS

CHPS	Community Based Health Planning Services
df	Degree of Freedom
GHS	Ghana Health Service
GSS	Ghana Statistical Services
GDHS	Ghana Demographic Health Survey
GFR	General Fertility Rate
JSS/JHS	Junior Secondary/ Junior High School
LMICs	Low and Middle Income Countries
MOH	Ministry of Health
MVP	Millennium Villages Project
MMR	Maternal Mortality Ratio
NHIS	National Health Insurance Scheme
OPD	Out Patient Department
P-value	Probability value
RCH	Reproductive and Child Health
SSS/SHS	Senior Secondary/ Senior High School
TFR	Total Fertility Rate
TBA	Traditional Birth Attendants
UNICEF	United Nations Children's Fund
UNDP	United Nation Development Programme
UNPFA	United Nation Population Fund
WHO	World Health Organization

ABSTRACT

In times past, Traditional Birth Attendants (TBAs) have been the leading human resource for women during childbirth. In rural areas of developing countries, their role differs across cultures and at different times, but even today, they are present at the majority of deliveries. Trained birth attendants at delivery are vital for averting both maternal and new-born deaths.

To improve maternal health and thus achieve the Millennium Development Goal (MDG 5), there is the need to assess the constraints to skilled delivery.

Obom is one of the sub-municipal in the Ga South District, where women still deliver at home and without the assistance of trained birth attendants. This has necessitated the study to assess the practices of TBAs in determining the prevalence and factors that are associated with traditional birth deliveries in the sub-municipality within the Ga-South municipality in Ghana. This knowledge is important for the design of public health interventions promoting facility-based skilled birth attendance in Obom sub-municipality in the Ga South District.

A cross sectional study was conducted on 380 women within the reproductive age of 15-49 who have delivered within two years and have resided in the community for the past two years prior to the study in 2017. Convenient sampling was used to select participants from three communities each from six functioning CHPS zones in the sub-municipal.

Association between variables was determined using Fisher's Exact Test. The findings showed that a majority of respondents 205 (53.95 %) delivered at home and 46.05% had skilled assistance at delivery. The Age of the woman, Age at first birth, Education level, Religious status, History of miscarriage, Child loss, Parity as well as Use of traditional medicine when child is sick showed statistical association with the utilization of TBAs. Reasons for not utilizing skilled delivery identified in the study include: abrupt delivery 31.71%, perception that health facility delivery is not necessary 19.02%, distance to facility too far 14.63% and too

costly 18.54%, others include: unavailability of transportation, staff not available and not friendly when available. These challenges need to be addressed to improve skilled delivery services in the sub-municipality and the nation at large.

TABLE OF CONTENT

LIST OF TABLES

4.1 Socio-demographic Characteristics

4.2 Summary of Age of first pregnancy

4.3 Descriptive analysis of Family and Social Situation

4.4 Preference of Delivery and Delivery Attendants

4.5 Practices after Delivery

4.6 Bivariate analysis of TBA utilization and selected independent variables

4.7 Output of multiple logistic regression analysis of factors associated with unskilled delivery

List of Figures

Fig 1.1 Conceptual Framework linking factors associated with TBA use and non-use of
health facility with socio-demographic characteristics and individual and household
factors.

Fig. 1.2 Margins plot showing a predictive probabilities of a woman using the services of a
TBA

Appendix

Questionnaire on factors associated with unskilled delivery: Observation in the Obom sub-
municipal, Ga South District

CHAPTER 1
1.0 INTRODUCTION

1.1 BACKGROUND

The loss of women through childbirth is a devastating worldwide health concern. An estimated 287,000 women die globally from pregnancy-related causes every year, with 99% of these deaths occurring in the developing countries (WHO UNICEF UNFPA and The World Bank ,2012). Each year approximately 41% of all under-five child deaths are among new born infants, babies in their first 28 days of life or the neonatal period of life. Three quarters of all new born deaths occur in the first week of life (WHO, 2011), and an estimated 303,000 mothers will die due to pregnancy-related difficulties (WHO, 2015). A very significant attributable phenomena associated with these global health concerns on maternal and neonatal morbidity and mortality arise from insufficient health services.

In low and mid-income countries (LMICs) where investment in human resources and medical resources are limited, mortality rates are frequently higher (Rasch, 2007). The significance of maternal health has been reawakened following its inclusion in the eight Millennium Development Goals (MDGs) in the past years; the fifth which focused on "the decline of maternal mortality"(Bryce, et al., 2008; Mpembeni et al., 2007) Some noticeable spikes to this goal include the fact that one third of childbirths take place at home, globally, without the support of a trained attendant (WHO, 2008). Less than 50% of births in Africa, are assisted by a skilled health worker (WHO, 2006) in spite of an upsurge from 43% to 57% between 1990 and 2005 in all developing regions. Thus, an estimated two million women have died in Africa during childbirth since 2000 (United Nations, 2007).

Rasch has maintained that skilled birth attendants are necessary for the reduction of maternal mortality (Rasch, 2007). Current estimates of maternal mortality ratios (MMR) in developing

countries in 2015 is 239 per 100 000 lives birth versus 12 per 100 000 live birth in developed countries, according to The World Health Organisation (WHO, 2014). High MMR, infant mortality ratios (IMR), a high number of stillbirths, and abortions still prevail today in developing countries. These together with the disabilities facing mothers during pregnancy or after delivery and problems facing the newborn babies as a result of the pregnancy-related complications and those featuring during childbirth are one of major public health policy challenges (WHO, 2012; Kruk, 2008).

A primary cause of high maternal mortality in developing countries is the absence of skilled care attendants at the time of delivery (Ronsman et. al., 2006). Many deliveries still occur in low and middle-income countries without the assistance of trained attendants (Mrisho et al., 2007; Bell et al., 2003; Kyomuhendo, 2003; Duong et al., 2004).This poses serious concerns for mothers who develop life-threatening complications during pregnancy and childbirth. Such mothers require proper and reachable care.

In most developing countries, giving birth at home is a common occurrence and a substantial number or proportion of women still go through that aided by untrained traditional birth attendant (UTBA) (Koblinsky et al., 2006; Montagu et al., 2011). When skilled birth care services are effected, neonatal mortality could be reduced by 20-30%, a recent review reported (Darmstadt et al., 2005). Also during delivery and in the early postpartum period, noticeable declines in maternal mortality even up to 75% or more can be attained (Harvey et al., 2004) (Koblinsky et al., 1999; Kwast, 1996; De Brouwere et al., 1998).The places women deliver and the reasons why they deliver at such places have long been on the research agenda to help understand the complexity of what need to be done to address the global goal to improve the trend in maternal health (Campbell & Graham, 2006). In varied situations, maternal age, household size, family wealth, peers, education, socio-economic status, place of residence, availability and distance of health facilities etc. define the place of delivery (Stephenson et al.,

2006; Gabrysch & Campbell, 2009). The usage of UTBA supported home delivery is associated with young maternal age, lack of Antenatal Care (ANC) services, distance to health facilities, delivery complication, low educational achievement, rural residence, low socio-economic status, high birth order, etc.(Gabrysch & Campbell, 2009; Faye et al., 2011; Paul, B.K. and Rumsey, 2002).

1.2 PROBLEM STATEMENT

It is estimated that between 60% and 80% of all deliveries in developing countries occur outside modern health care facilities, with a significant proportion of these attended by TBAs (Jemal et al., 2010; Tsui et al., 1996). Most women in the rural areas including Ghana, shy away from the modern hospital facilities due to uneasy availability and accessibility. Coupled with the above is also the issue of expensive services at the modern hospitals which act as a hindrance to most rural dwellers. Most rural women dwellers show lack of confidence in the hospitals due to the inability of the hospitals to create customer centred environment (Ray and Salihu, 2004; Imogie and Agwubike, 2002). In 2015, about 830 women died due to complications of pregnancy and child birth in developing countries. Almost all of these deaths occurred in low-resource settings, and most could have been prevented. Out of the 830 daily maternal deaths, 550 occurred in sub-Saharan Africa and 180 in Southern Asia, compared to 5 in developed countries. The risk of a woman in a developing country dying from a maternal-related cause during her lifetime is about 33 times higher compared to a woman living in a developed country (Alkema et al., 2016). This tend to worsen when childbirth is not supervised by a skilled care provider.

In rural parts of Ghana, 45 – 46.1 % of births are overseen by skilled birth attendants (a doctor, physician assistant, midwife or nurse). The projected 55 % of women who do not obtain skilled

presence at birth, largely get care from traditional birth attendants (TBAs, 30 %) and relatives and friends (25 %) (Ghana Statistical Service 2012). In dissimilarity, more than 80 % of births by women in urban areas are managed by skilled birth attendants (Ghana Statistical Service, 2012). Subsequently, maternal mortality in urban settings is evidently lower than that in rural communities (Ronsmans et al., 2003).
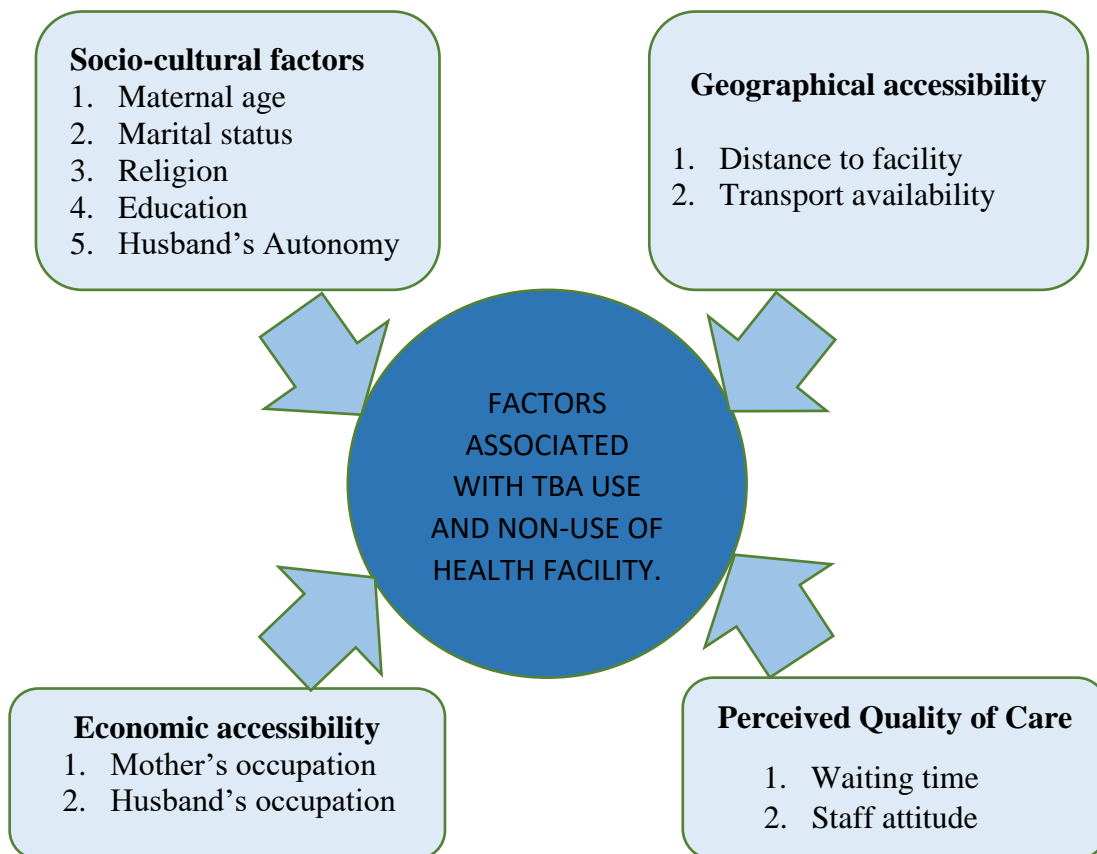
Despite the low levels of maternal and new-born care access and the significant role TBAs continue to play in maternity care, the Ghana Health Service has not been able to fully engage TBAs in the provision of maternal health services. Factors that motivate women to give birth at home and their reasons to seek the assistance of TBAs have not been explored in depth. This has necessitated the study to assess the practices of TBAs in determining the prevalence and factors that are associated with traditional birth deliveries in the Obom sub-municipality within the Ga-South District.

1.3 RATIONALE OF THE STUDY

The possibility of a woman giving birth at home with a TBA in attendant depends on many factors. This include characteristics of the mother and family, such as educational level and household wealth, and aspect of health service setting- distance to the nearest health facility and the quality of care provided at that facility, for example. However there is a deficiency of evidence on the key reasons informing home delivery and use of TBAs despite the various international projects set in place to curb the practice. This study will document the prevalence of unskilled delivery and its associated factors, and will form the baseline for an intervention study. Additionally, this research will help to make available scientifically based information essential to develop applicable health messages and education to a wide range of individuals and stakeholders.

1.4 HYPOTHESIS/CONCEPTUAL FRAMEWORK

A conceptual framework is the visualization of the complete research concept and processed and serves as the starting point for reflection about the research and its context. It vital in assisting the researcher make meaning of subsequent findings. It also enables the researcher to develop awareness and understanding of the situation under investigation and to communicate it effectively and efficiently. The framework in **Fig.** 1.1 below, shows how socio-cultural factors, geographical and economic accessibility, and finally the expectant mother's perception of quality of care influences her choice to decide on having a TBA delivery versus her choice of a health facility.

Socio-cultural factors
1. Maternal age
2. Marital status
3. Religion
4. Education
5. Husband's Autonomy

Geographical accessibility
1. Distance to facility
2. Transport availability

FACTORS ASSOCIATED WITH TBA USE AND NON-USE OF HEALTH FACILITY.

Economic accessibility
1. Mother's occupation
2. Husband's occupation

Perceived Quality of Care
1. Waiting time
2. Staff attitude

Figure 1.1 Conceptual framework (Source: Author's design)

1.5 RESEARCH QUESTIONS

1. What is the prevalence of the mothers who prefer to be delivered by a Traditional Birth Attendant?

2. What are the factors associated with the choice of TBA?

1.6 GENERAL OBJECTIVE

The aim of this study is to determine the prevalence and factors that are associated with traditional birth deliveries in the Obom Sub-Municipal within the Ga-South Municipality of the Greater Accra Region in Ghana.

1.7 SPECIFIC OBJECTIVES

i. To assess the prevalence of unskilled delivery in the Obom sub-municipality.

ii. To determine the factors associated with the choice of TBA.

1.8 PROFILE OF THE STUDY AREA

The district has a total population of 97,986 as at 2015 with a growth rate of 4% with the WIFA (15-49years) making 24.0% of the total population. There are approximately 109 large communities and numerous hamlets. This is due to several early settler farmers and migrants particularly Togolese and Northerners. The farthest community (Asabaham) is 22km from the health centre and nearest (Lebene) -1km. The Obom Health Centre being the only Government health facility, works with a population of 105,315 (projected population). The Sub-municipal share boundaries with Akwuapim South District on the North, Amanfro-Kasoa on the South, Bawjiase and Amasaman Sub-municipal on the West and East respectively. The natives are mainly the Gas, but there are other ethnic groups like the Ewes (mostly Togolese), Grushies, Akans and Northerners. Farming is the main socio-economic activities in the Sub-municipality.

There are three large scale farms (Golden Exotics, Bomart, and Gold Coast Fruits Ltd.), which offer job for about 75% (Arbitrary figure) of the youth in the area. Teachers, health staff, artisans, traders, cattle rearers form other working groups of the area. The women engage themselves in gari processing, preparation of cassava dough for sale on market days at Kasoa and Adeiso on Mondays, Tuesdays, Thursdays and Fridays. Some few health care providers identified in the Sub-municipality are 4 maternity homes, 3 chemical sellers, and 2 private clinics. Road network in the sub-municipal are very deplorable making health work very difficult as most vehicles find it difficult to ply on the roads. Unfortunately only one uncompleted road in the sub-municipal is tarred from Ashweniangmor to Akotiako. During the rains, roads become unmotorable thus affecting the socio-economic activities of the area. The main source of drinking water is from boreholes, streams, ponds and harvesting rain water for consumption. Several churches operate in the sub-municipal. There are mosques, shrines, healing camps, as well as traditional worship centres. There is one night market at Hobor otherwise there is no market in the area. The sub-municipal has no Police posts, post office or telephone networks. The inhabitants use mobile phones for all telecommunications. Few vehicles operate in the area, whiles majority of the people rely on motorbikes popularly called "OKADA". The Obom Health Centre is the only Health Centre in the catchments' area. There used to be 7 CHPS Compounds functioning in the area notably, Kofikwei, Ashalaja, Balagonno, Osofo Lante (Asuom), Kwame Anum, Hobor and Honi. The Health Centre is located in the Obom community. It has one big superstructure accommodating the maternity, RCH, the OPD, consulting room, dispensary, dressing room, records, disease control unit, and a makeshift recovery ward. It operates a 24-hour OPD and maternity services. There is laboratory service attached. There is one bungalow for the Physician Assistant. The other staff has been inadequately housed in the staff quarters. Obom has very active traditional birth attendants (TBA) practices. In Obom, traditional birth attendants are either trained or untrained

and as expected, pregnant women patronize their services. The Total Fertility Rate (TFR) for the district is 3.9. The General Fertility Rate (GFR) is 111.4 births per 1000 women aged 15-49 years, which is the second highest for the administrative region. The Crude Birth Rate (CBR) is 3.18 per 1000 population. In the population of 11 years and above, 87.9 % are literate while 12.1 % are non-literate (Ghana Statistical Service, 2012).

1.9 SCOPE OF WORK

The Obom sub-municipal has sixteen CHPS zones with six functional CHPS compounds that serves about 109 communities in the municipality. The six CHPS compounds are Hobor, Ashalaja, kofi Kwei, Osofo Lamptey, Balaigonno, and Honi. The communities used in this study were selected at random from each of the CHPS compounds and zones. The communities are Hobor, Akutuase, Balaigonno, Vachikope, Ashalaja, Kwame Anum, klokoshwe, Kofi kwei, Manyera, Krodua, Fantemanyera, Teikrom, Addeyman, Honi, Adownkwa, Osofo Lamptey, Donu, Kyekyewere, Tsekwa, Sekyereman, Okaijaman, and Obom.

1.10 ORGANISATION OF WORK

The study is organized into six chapters. Chapter one covers the introduction, background information of the study, problem statement and the rationale behind the study. It also covers the conceptual frame work, general and specific objectives of the study. The profile and scope of study area was addressed in this chapter. Chapter two looks at the literature review which covers sections using the main study variables and the appropriate references cited. Chapter three deals with the methodology used in the study, type of research method/design, data collection tools/technique, study population and variables, sampling methods, pre-testing, and data handling and analysis. The issue with Ethical clearance was addressed and the limitation

of the study stated. Chapter four covers the results which were presented in tables. Chapter five discusses the findings obtained from the study with chapter six concluding and making recommendation.

CHAPTER 2

2.0 LITERATURE REVIEW

The World Health Organisation (WHO) has defined Traditional Birth Attendants (TBAs) as persons who help the mother during childbirth and acquires her skills through an apprenticeship that embroils both observation and imitation and is often highly held by the community that selects her to help women in childbirth (WHO, 2014). In many developing countries, TBAs, also known as traditional midwives are responsible for the majority of core maternity care (WHO, 2010). "Traditional birth attendant'' itself can be considered as an artificial concept made by the biomedical system (Davis-Floyd, 2002), which was to accommodate the system into development policies with an emphasis on delivery care (Pigg, 1995; Pigg, 1997).

During the 1980s, the word '*traditional midwife'* was used which states the extensive work field of a TBA in supporting women during pregnancy, while they give birth, and during postpartum period (Staugard, 1998) The term *"trained*'' attendants was commonly used up until the mid-90s and it included both trained and non-formally trained community-based providers of care during pregnancy, childbirth, and postnatal period (UNPFA, 2011). However, from 1996, the term "skilled" attendant (SBA) was employed for only those who have gone through proper training and have the requisite skills or midwifery skills (e.g., doctors, midwives, and nurses) to manage normal deliveries and diagnose, or refer complications.

The traditional midwives offer simple health care, support, and guidance all through and after pregnancy and childbirth based primarily on the experience and information acquired informally through the traditions and practices of the communities where they live (WHO, 2010). Traditional Birth Attendants (TBAs) are typically found in distant rural areas. These women and occasionally men, do not obtain any formal education and teaching in health care

delivery, and there are no precise qualified requisites such as certification or licensure. Their trade is often knowledgeable through apprenticeship or is self-taught (United Nations, 1996).

There are more than 60 million non-institutional births projected worldwide each year, with the vast majority being attended to by traditional birth attendants (Aguilar et al., 1999). The WHO in an effort to increase access to skilled birth attendants in 1987 in Nairobi, Kenya, launched the Safe Motherhood Initiative (SMI), which intended at guaranteeing women have a safe pregnancy and childbirth (Mahler, 1987; Maine & Rosenfield, 1999)Therefore to quicken improvement of maternal health, Africa launched its road map for fast-tracking the achievement of the Millennium Development Goals associated to maternal and new-born health in 2004, whose first aims was to offer skilled attendance during pregnancy, childbirth, and the postnatal period at all stages of the health care delivery system, using evidence-based standard of care (WHO, 2004).The number or proportion of births assisted by trained birth attendants became a significant indicator to quantify the advancement of improving maternal health as in Millennium Development Goal (MDG)-5, when 147 heads of state and representatives from 189 nations in total signed the Millennium Declaration in September, 2000 (United Nations, 2001; Sachs & McArthur, 2005).

The services of TBAs and village midwives have been engaged in many interventions to lessen maternal mortality and improve pregnancy outcomes in developing countries, with mixed results (Gloyd et al., 2001; Ray and Salihu, 2004). Approximately 45% of all deliveries in Mexico are attended by TBAs (Chakravarty et al., 1996)

TBAs conduct approximately 70% of deliveries in Sierra Leone, offer a significant amount of prenatal care, and are experts in native methods of family planning (USAID, 2009). The US Agency for International Development launched a program in 2007 with World Vision as partner, to reduce the maternal and child mortality risk, and this was part of efforts to reverse

the high toll of human suffering and loss associated with giving birth in Sierra Leone, and the core idea of which is to train women in traditional birth attendance (USAID, 2009).

The Indonesian Government in 1989 recognised the awareness of the Safe Motherhood Initiative through the use of the "Village Midwife" program. The drive of this program is to position a midwife in every village to assist safe pregnancy and delivery for all expectant women (Makowiecka et al., 2008; Shiffman, 2003; Hull et al., 1998). In the beginning, nurses were given a one-year midwifery program to be eligible as village midwifes. It was later realised that the one year training was not adequate so they added two weeks in the form of classroom-based teaching as well as clinical training for the administration of normal delivery and life-saving skills (Makowiecka et al., 2008; Shiffman, 2003; Hull et al., 1998; Ronsmans et al., 2001).This upsurge in maternal health care services in Indonesia has been confirmed by the improved percentage of deliveries aided by trained delivery attendants – from 43% in 1997 to 79% in 2007 (Badan, 1997; Badan, 2007). But Indonesia still documented a high percentage of home deliveries (53%), although the percentage has gone down tremendously over the last decade (73% in 1997) (Badan, 1997; Badan, 2007). It later came up that 79% of institutional deliveries took place in private facilities such as hospitals, clinics, or private practices of midwives (Badan, 2007). A target of 90% of deliveries attended by trained delivery attendant by the year 2010 was set by the Indonesian ministry, however, the percentage of home deliveries and deliveries assisted by traditional birth attendants varies widely across the province in Indonesia (Titaley et al., 2010)

 In Bangladesh, maternal mortality has reduced over the years, however, it still remains a problem of public health agenda. Most of the deliveries that take place in the villages of Bangladesh occurs in the home and are helped by UTBA (National Institute of Population Research and Training, 2011). Most of the maternal mortality in the villages in Bangladesh

occurs because of UTBA assisted home deliveries. By means of data from Bangladesh, TBAs with more knowledge were more likely to use potentially-harmful birthing practices which increased the risk of postpartum morbidity among women with births at home (Fronczak et al., 2007).

The assistance of traditional midwives to promote births as a medical event that should not be managed by specialists alone was promoted by the Ministry of Health in Ghana. In this plan, TBAs are permitted to handle "routine" birth while complicated pregnancies are referred to the district hospital or local clinics. This is encouraged with the hope that it will assist in guaranteeing safe motherhood (Geurts, 1997). Ghana is not any different from many African countries where death from pregnancy and childbirth are very high. Maternal mortality was estimated at 14% of all female deaths and is the second largest cause of female mortality in Ghana (Witter et al., 2007). During the population census in 2010, the maternal mortality ratio in Ghana stood at 350 deaths per 100,000 live births, making it one of the countries with high rate of maternal mortality (Ghana Statistical Service, 2012).

Several interventions have been executed to improve maternal health in Ghana, comprising but not limited to the Safe Motherhood Initiative (SMI), free delivery policy, High Impact Rapid Delivery (HIRD) and the Emergency Obstetric and Neonatal Care programme (Okiwelu et al., 2007; UNDP, 2014; Witter et al., 2007). In 2003, the free delivery policy was first hosted in four regions, and afterwards extended to the whole country in 2005. To ascertain factors that influence skilled attendance at delivery, some studies have so far been conducted in Ghana (Asamoah et al., 2014; GDHS, 2008)

Ghana DHS secondary data analysis offers the chance to assess a bigger sample across the country in order to identify demographic, maternal and community predictors of skilled attendance at delivery amid women who attend ANC at least once during their pregnancy in

Ghana. Despite the free maternal care services in all public and mission healthcare facilities across the country, it was discovered recently that only 55% of women receive skilled assistance during delivery or postnatal care following delivery. It was also identified in the survey that 30% of births still occur at home with traditional birth attendants (TBAs), and relatives and friends 25% (Witter et al., 2007). This very low maternal health situation is coupled with the widespread access of inequality among unalike socio-demographic groups across the country, since the rate of skilled attendance either stagnant or declining for poorer women (Ebuehi & Akintujoye, 2012; WHO/RHR, 2007). The unavailability of these services in the rural areas are partly the cause of this situation (Geurts, 1997). Similarly in urban areas, more than 80 % of deliveries by women are supervised (GSS, 2011) by skilled birth attendants. Subsequently, maternal mortality in urban areas are evidently lower than that in rural communities (Ronsmans et al., 2003).

MDG 5 which seeks to reduce maternal mortality in Lower Middle Income Countries (LMICs) is impeded largely by unskilled birth attendance, thus its attainment. Approximately 75 % of rural maternal deaths are due to; haemorrhage, eclampsia, obstructed labour and puerperal sepsis as direct causes (Addai, 2000). A significant amount of these deaths are avoidable through suitable and timely interventions, mainly improved access to health facility based intrapartum care (Ransom E, 2002; Collender et al., 2012). A number of efforts are being made in Ghana by training more midwives to substitute the large numbers of midwives going on retirement. New midwifery schools are being put up with some present health assistant schools being upgraded to midwifery schools as well as the assignment of non-practising midwives to maternity units. Both local government and Ministry of Health (MOH) have work in partnership to build or enlarge existing health facilities to make space for more maternity units.

The Community Health Planning Services (CHPS) programme is being effected in both rural and urban settlements although the implementation strategies vary slightly in order to bring

health services to the door step of the communities. The National Health Insurance Scheme (NHIS) and the Free Delivery Service models are also being implemented in all public health facilities as well as some accredited private clinics. The NHIS in Ghana takes care of the cost of all maternity services and expectant mothers benefit from it (NHIS, 2009). Women that have registered with the insurance scheme are more likely to seek out medical care when ill as compared to those not insured with the NHIS (Blanchet & Fink, 2012). The possible benefits of the NHIS however, is negated by the lack of skilled personnel in these health facilities and skilled obstetric care services in most rural communities often resulting in unnecessary or otherwise preventable maternal death (Asamoah et al., 2011).

According to World Health Organization's report, developed countries records 99.5% of skilled delivery attendance. Whereas Africa recorded 46.5% and Asia recorded 65.4% (WHO, 2008). This data has put a lot of nations on their toes in improving skilled attendance services. According to the Ghana Demographic Health Survey (GDHS) report for 2008, though 95% of pregnant women go for antenatal from a health professional, only 59% are assisted by skilled personnel in delivery, 30% of deliveries are assisted by TBAs whiles 10% are assisted by either relatives or themselves (GSS, 2008).

The Millennium Villages Project (MVP) in a bid to combat this disparity, planned a strategic model directed at poor communities to alleviate some of these integral problems distinctive to rural areas in LMICs. The MVP sought after the improvement of the living standards of rural communities through the harmonized and simultaneous delivery of established set of interventions in health, agriculture, infrastructure and education (Millennium Villages, Bonsaaso, Ghana).

In Egypt, although most mothers usually received antenatal care from physicians, traditional birth attendants (TBAs) conducted most deliveries (Darmstadt et al., 2008). Families that earn

income that were low were less likely to have skilled birth attendants at birth, thus raising an equity issue (Anwar et al., 2008). In 1999 in Iraq, 46.4% of all causes of maternal deaths were due to bleeding (Ministry of Health Iraq, 2008). Although the literature is undoubtedly not short of articles that establish the adverse effects of being supervised in delivery by traditional attendants, in many settings of the world however, many women continue to be overseen by this group of health care workers. The culturally appropriate and respectful care that traditional birth attendants provide may influence women's decision to be delivered by TBAs (UNICEF, 1997).

TBAs are an inexpensive alternative than domiciliary qualified midwives, for most families, and will agree to take payment in kind. In Southwest of Nigeria especially in rural areas, TBAs do not charge anything for deliveries and are willing to make house visits, which permit the mothers the privacy that many like better therefore encouraging mothers to choose to give birth at home (Oladeji, 2008). They can provide emotional and physical support for the pregnant women and are often fluent in the same language, know the culture, live close by enough to be available any time (Haney, 2001). Nevertheless, most TBAs do not have the knowledge or required expertise to provide services for women with some complications such as hypertensive disorders of pregnancy, infection, haemorrhage, obstructed labour and complications of miscarriage or abortion (Haney, 2001). The United Nation Population Fund (UNFPA) has supported traditional birth attendants as part of the safe motherhood initiatives which started in 1987, and also supported the traditional birth attendants program since 1970 to improve maternal evaluation and child health (UNFPA, 1996). UNFPA jointly with WHO and UNICEF, presented a statement on TBAs to reveal common goals to add to the global effort aimed at improving reproductive health in the 90s. The objectives of the support to trained traditional birth attendants are to enhance the links between modern health care services

and the community; increase the number of births attended by trained attendants and improve skills, understanding and statute of TBAs.

The international conference on population and development held in 1994 in Cairo further encouraged the agenda of the Safe Motherhood Initiatives including the objective that all births should be assisted by trained persons (UNFPA, 1996). Due to the poor performance of trained traditional birth attendant, the importance of the training has been increasingly questioned (Bailey et al., 2002; Maine and Haddens, 1990), though they are still of great importance in low income countries where there is a dire shortage of health care professionals such as midwives and obstetricians in secluded areas of the country. TBAs in maternal and neonatal health programs have had limited success even though efforts have been made to formalize their role in that regard. The continued use of TBAs by expectant mothers for home deliveries proposes, however, their potential in influencing maternal and neonatal aftermaths (Imogie et al., 2002; Falle et al., 2009). A study undertaken in South African to assess the training of TBAs in human immunodeficiency virus/acquired immunodeficiency syndrome care and service delivery shown that after the training, considerably more TBAs conducted prenatal check-ups, considered the baby's position in the uterus, and took the mother's and baby's pulse, and fewer TBAs conducted abnormal or complicated deliveries. The researchers came to a conclusion that training of TBAs can increase their knowledge, improve their approach to the work, and lessen risk practices (Peltzer and Henda, 2006). In recent years the usefulness of TBAs in maternal health care, has sparked a lot of debate (Sibley and Sipe, 2006; Ana, 2011). Those that oppose TBA care are of the opinion that TBAs have contributed little to improve maternal health. They are of the view that commendable efforts made by governments in sub-Saharan Africa to decrease maternal mortality have been frustrated by TBAs, while those in favour of TBAs care and services have explained the need for a continuous partnership with

TBAs as an approach to improve access to basic maternity care in rural areas in order to accomplish significant declines in maternal mortality.

Nonetheless, this debate has been amongst orthodox and traditional health workers (Bergström and Goodburn, 2001; Sibley and Sipe, 2006; Ana, 2011; Lartson et al., 1987; Wikipedia, 2010) and rarely has the view of the benefactors of such services (i.e., pregnant women) been reported (Jemal et al., 2010). The application of essential maternal and new-born care (EMNC) in community based sceneries can reduce the number of deaths among mothers and new-borns intensely, including those mothers who give birth at home attended by skilled providers, which is confirmed by numerous studies carried out. Healthcare delivery is also problematic. In developing countries many primary healthcare facilities and district-level facilities scuffle to meet the present demand for care due to poor infrastructure, lack of basic or suitable equipment and sufficient supplies, insufficient numbers of skilled health staff or low retaining of existing skilled health staff at facilities close to community, lack of competency-based pre-service and continuing education programs, poor communication and referral linkages, and absence of legal authority for service providers to execute to certain life-saving procedures (WHO, 2012).

Issues of the community and the health system together must be addressed thoroughly, and in close partnership among all stakeholders before any strategies to advance essential maternal and new-born care services, would be fruitful (Hallstein et al., 2010). In order to overcome these complex obstacles, with the lasting goal of ensuring that pregnant women and new-borns get suitable and timely care – preferably as close to home as possible, community and healthcare providers must join forces and work together.

CHAPTER 3
3.0 METHODOLOGY

3.1 Research Method

A cross-sectional study design was used to elicit information from the respondents. The design involves the use of well-structured questionnaire for interviews. The study was conducted spanning a period of about four weeks. On average, it took about ten minutes to complete one questionnaire. Interviews were mainly conducted in the local languages. The interviews was aimed at identifying the factors that influence choice for TBA.

3.2 Data Collection Technique and Tools

The data was collected by the administration of structured questionnaire, which was made up of both open and close-ended questions.Questionnaires were interviewer administered for literate and illiterate respondents, respectively.

3.3 Study Population

The study was conducted among all women of reproductive age group of (15- 49 years) in the Obom Sub-Municipal within the Ga-South Municipality of the Greater Accra Region in Ghana.

3.3.1 Inclusion Criteria

    i. Women who have delivered within two years prior to the study whether by skilled or unskilled attendance

    ii. Resident in Obom Sub-Municipal within the Ga-South Municipality for the past 24 months.

    iii. Consented to participate in the study

3.3.2 Exclusion Criteria

    i.   Women who have not resided in Obom Sub-Municipal within the Ga-South Municipality for the past 24 months.

    ii.   Unwillingness to participate in the study

3.4 Study Variables

The study variables were categorized into dependent and independent variables

1. Dependent variable: TBA use and the non-use of health facility
2. Independent variables: socio-demographic characteristics of the respondents, individual and household factors (family and social situations etc).

3.5 SAMPLING METHOD

The existing 6 functional CHPS compounds and zones serving 109 communities and hamlets in the Obom sub-municipal as defined by the Ghana Health Service were used as the first selection stage. A simple random sampling method was then employed to select communities in each of the CHPS zones. In each of the selected communities (clusters), a central point was identified and from there, a pen was used to give the direction of the first household by spinning. All houses/compounds along that direction were entered looking for potential respondents for the study. In cases where we had more than one eligible respondent per household or compound, one of them was randomly selected again to participate in the study by choosing yes/no in order to give each respondent equal chance of selection. At the end of the first randomly selected direction, the sampling team returned to the central point and moved in the opposite direction looking for more respondents. The process was repeated until the end

of the community was reached. A total of 380 participants were finally selected to constitute the study population.

The selected participants were interviewed using a well-structured questionnaire. All respondents were asked to sign or thumbprint on the informed consent form indicating their willingness to participate in the study after they have been briefed on the study objectives. Information obtained included socio-demographic characteristics of respondents, respondents' knowledge on TBAs and their roles, reasons for choosing TBA over government health facility, and compare delivery practices of health facility to that of TBAs in the Obom sub-municipality.

SAMPLE SIZE

The sample size was determined using the formula $n = \frac{Z^2 pq}{e^2}$ Where **n** = sample size for a population. 97,986; **Z** = standard normal deviate = 1.96; **p** = prevalence rate, i.e., proportion in target population estimated to have the particular characteristic of interest, 50%; **q** = 1 – p; and **e** = degree of accuracy, set at 0.05. Therefore, $n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} = 380 \; subjects$

3.6 PRE-TESTING

Pre-testing of the data collection tool was done using women within the reproductive age of 15-49 at Amanfrom who have delivered within two years prior to the study whether by skilled or unskilled attendance and have resided in the community for the past 24 months which had a similar profile to that of the study area. The respondents' clarity of the questions was tested, so as to adjust areas of ambiguity. Corrections were accordingly made where necessary.

3.7 DATA HANDLING

Data handling was done with the help of three research assistants who were trained on standard data collection procedures. Soft copies of data were stored in password secured, coded files and hard copies were stored under lock and key in a locker in the office of the principal researcher. The principal researcher was the only one with access to data and the research team had access only when permission was granted by the principal researcher.

The data obtained from respondents that were interviewed were doubly-entered into a computer using a platform created in Microsoft Excel 2016. Entry, verification and cleaning were run alongside with data collection.

3.8 DATA ANALYSIS

The statistical analysis was done using STATA statistical software package (*StataCorp.2007. Stata Statistical Software. Release 14*. StataCorp LP, College Station, TX, USA). Preliminary analyses were carried out to summarize the data on socio-demographic characteristics of respondents, prevalence of TBA deliveries, associated factors to unskilled delivery, attitudes toward the utilization of TBA and social and cultural practices into percentages and frequencies for descriptive purposes. The Pearson's Chi square (χ^2) and Fisher's exact test were used to examine the association between the variables; the associations between socio-demographic and use of TBA, socio-demographic, culture factors and non-use of health facility, and socio-demographic and attitude towards the utilization of TBA. The multivariate regression analysis was used to explore further variables that were found to significantly have associations, reporting Odd Ratios. The significant level of 5% was set for all statistical procedures.

3.9 ETHICAL CLEARANCE

Ethical clearance was obtained from the Ensign College of Public Health, Ethics Review Board. The ethical clearance was obtained to ensure autonomy for individuals in reading, understanding, and signing of informed consent forms and confidentiality of data that individuals provide. The ethical clearance also assured the participating individuals that there was no intention to do any harm. Further approvals to conduct the study within the geographical area was sought from the Ga South District Health Directorate and opinion leaders in the participatory communities.

Possible risks / benefits – The study was carried out in the participants own environs. Drugs or chemicals were not administered to participants, therefore no danger of possible risk or threat to participants. Participants profited from the study since interventions on enhancement of skilled delivery services will be put in place.

Privacy and confidentiality- Participants were assured of confidentiality during the data collection process and after the study. All information about participants were kept alone by the researcher and assistants.

Conflict of interest- There was no conflict of interest in the study.

3.10 LIMITATIONS

Identification of TBAs in a locality is very important due to their contribution to Ghana health care delivery system. However, due to the government insistence on registration of TBAs, some TBAs were not willing to divulge information on their practices. Furthermore, the unavailability of sufficient funds and transportation posed a challenge to the research. Sampling bias may have been unintentionally introduced due to purposely limiting respondents to births within 2 years of study.

3.11 ASSUMPTIONS

1. The respondents replied to the questions asked truthfully.

2. All the respondents were within the reproductive age bracket and have resided in the community for the past two years.

CHAPTER 4

4.0 RESULTS

Table 4.1, shows the age group of the respondents and the most represented age group of the respondent was 26-35, 179(47.1%) with the younger age group of 16-25 forming 125(33.9%). The minimum and maximum ages of the respondents were 16 years and 52years respectively. The mean age of the participants at the time of the study was $30 \pm 7 \, years$. Majority of the women 232 (61.05%) reported being married, 11 were widowed and 44 separated from their partners. About 40.79% of the respondents had Junior High education with only 1.05% attaining tertiary at the time of the study. Majority of the respondents 346 (91.05%) professed faith in the Christian religion versus only 18 representing about 5% claimed they were traditionalist at the time of conducting the study. On the question of the residential status, more than half the total study participant reported not living in monogamous households.

Table 4.1: Socio-Demographic Characteristics of Respondents.

Characteristics n=380	Category	Frequency (%)
Age Group	16-25	125(33.9)
	26-35	179(47.1)
	36-45	68(17.9)
	46-55	8(2.1)
Marital Status	Married	232(61.05)
	Single	44(11.58)
	Co-habitation	68(17.89)
	Divorced	25(6.58)
	Widow	11(2.89)
Religious Affiliation	Christianity	346(91.05)
	Islam	16(4.21)
	Traditional	18(4.74)
Monogamous Household	Yes	159(41.84)
	No	221(58.16)
Educational Status	None	81(21.32)
	Primary	121(31.84)
	Middle/JHS/JSS	155(40.79)
	High/SSS/SHS	19(5.00)
	University/ High	4(1.05)

Age	Average =30	SD=7

More than half, 248 (65.26%) of the mothers had their first pregnancy between the ages of 16-21 years, 28 (7.37%) of them between the ages of 10-15 years, 79 (20.79%) between the ages of 22-27years and 25 (6.58) women between the ages of 28-33 years. The maximum age at first birth among the group of women who participate at the time of the study is 33 years.

Majority of the respondents, 248 (65.44%) have had between 1-3 births, with 105 (27.7%) respondents having between 4-6 births and 26 (6.86%) of the women having between 9-11 births. The maximum and minimum number of pregnancy and child loss is as follows; 13, 1 and 6, 1 respectively. About 83.16% of respondents indicated to not have experienced a miscarriage/abortion before with 16.84% experiencing miscarriage/abortion. More than half (297) of the women responded "No" to having ever lost a child.

Table 4.2: Summary of Age of Pregnancy History

History n=380	Frequency (%)
Ages of first pregnancy	
10-15yrs	28(7.37)
16-21yrs	248(65.26)
22-27yrs	79(20.79)
28-33yrs	25(6.58)
Parity	
1-3 births	249(65.53)
4-6 births	105(27.70)
7+ births	26(6.86)
History of Miscarriage or Abortion	
Yes	64(16.84)
No	316(83.16)
Ever Loss A child	
Yes	83(21.84)
No	297(78.16)

Table 4.3 below provide the findings on the family data and social situations surrounding the study participants at the time of recruitment. Majority (227) of the respondent representing

59.74% of the total respondents reported being are farmers at the time of the study, with 15.79% of the women indicating they were unemployed, 7.63% of them were house wives and 3.42% were civil servants. Most of their spouses of the respondents representing about 28.16% were said to be farmers/breeders, 36.84% of them were reported to be engaged in other jobs with 10.79% being unemployed.

Table 4.3: Descriptive analysis of Family and Social Situation

Characteristics N=380	Category	Frequency (%)
Occupation	Civil Servant	13(3.42)
	Farmer	227(59.74)
	House Wife	29(7.63)
	No Employment	60(15.79)
	Other	51(13.42)
Partner's Work	Civil Servant	27(7.11)
	Farmer/Breeder	107(28.16)
	Trader	65(17.10)
	Unemployed	41(10.79)
	Other	140(36.84)
Expenditure Bearer	Husband	258(67.89)
	Myself	84(22.11)
	Both partners	16(4.21)
	Parents	20(5.26)
	In-laws	2(0.53)
Child care	Mother	157(41.32)
	Older children	40(10.53)
	Siblings	43(11.32)
	No one	66(17.37)
	Neighbours	23(6.05)
	Others	51(13.39)
Distance to Health centre	Close	152(40)
	Far	164(43.16)
	Very Far	64(16.84)
Use of Tradition Medicine	Yes	171(45)
	No	209(55)

On the question of who handles the household expenditure, about 67.89% of the women mentioned that their husbands and 22.11% mentioned they do that all by themselves. Most of the women (41.32%) responded to leaving their children in the care of their mothers when they

are not around. 43.16% of the respondents said the distance to health centre was far, 40.0%

indicated its close and 16.84% said it's very far. Majority of the women (55.0%) reported they

do not use traditional medicines when their children are sick whilst the remaining 45.0%

affirmed that they use traditional medicine when their wards were sick.

Table 4.4 Preference of Delivery and Delivery Attendants

Characteristics	Categories	Frequency (%)
Place of delivery (n= 380)	Home	205(53.95)
	Hospital/ Clinic	141(37.11)
	Health Post	19(5.00)
	Private Clinic	15(3.94)
Reasons for non-facility delivery (n= 205)	Delivery was abrupt	65(31.71)
	Not Necessary	39(19.02)
	Too Far	30(14.63)
	Too costly	38(18.54)
	No transportation	10(4.88)
	Fear of Operation	5(2.44)
	Staff not available and not friendly	11(5.37)
	Other	7(3.41)
Delivery Assistant (n= 380)	TBA	113(29.74)
	Midwife	103(27.10)
	Doctor	23(6.05)
	Family member	58(15.26)
	Nurse/ staff nurse	46(12.11)
	CHW	19(5.00)
	Self-Assisted	18(4.74)
Traditional Medicine to Aid Delivery (n= 380)	Yes	79(20.79)
	No	301(79.21)
Materials use during delivery (n= 380)	None	27(7.10)
	Home prepared clean materials	160(42.11)
	Wore gloves	149(39.21)
	Ordinary first aid kit	38(10)
	Raw hands	6(1.58)
Instruments Used during delivery (n= 380)	New razor blade	210(55.26)
	Scissors	100(26.32)
	Clipper	4(1.05)
	Other Instrument	66(17.37)
Cord cutting (n= 380)	Midwife	120(31.58)
	Nurse/CHW/PHO	65(4.21)
	TBA	118(31.05)
	Mother	26(6.84)
	Self	16(4.21)
	Doctor	13(3.37)
	Others	22(5.79)

More than half of the respondents 205 (53.95%) delivered at home, whilst the rest representing 46.05% of the total respondents gave birth to their babies in a health facility of a kind, which included both public and private facilities. The 205 mothers who reported delivery their babies' home were further questioned on the reason for making that choice. Of this number, 65 representing 31.71% reported delivery was abrupt, 19.02% of them thought it wasn't necessary to deliver at a health facility, 14.63% of the women indicated the health facility was too far from their residence whilst18.54% of the women indicated it was too costly to delivery at a health facility.

The question to explore if the women had any assistance during the birthing stage, came out with the following results; 29.74% of them acknowledged having had TBAs assistance, 27.11% of them were assisted by Midwives and 15.26% by family members whilst the remaining 4.74% of the women indicated they self-assisted themselves during delivery.

20.79% of the respondents who were delivered by TBA's responded 'Yes' to have been given traditional medicine to aid delivery. 35.26% of the women responded to 'No' to being given traditional medicine to aid delivery. 42.11% of the women indicated home prepared clean materials were used during the delivery, 39.21% said the attendant wore gloves during delivery and 1.58% indicated the attendants did not wear gloves. 55.26% of the women indicated that the attendant used a new razor blade in cutting the cord during delivery, with 26.32% of the respondents indicating scissors were used to cut the cord. 14.47% of the women said they did not know which instrument was used in cutting the cord. 31.05% of the women indicated the TBA's who assisted in delivery cut the cord with 31.58% indicating that the midwives who assisted in delivery cut the cord.

Prevalence of Unskilled/TBA delivery

The number of respondents utilizing TBA services and other unskilled deliveries was

computed as;

$$Unskilled\ Delivery = D_F\ +\ D_{SA}\ +\ D_{TBA}$$

Where

- $D_F\ =\ $ Deliveries done by family member

- $D_{SA}\ =\ $ Self-assisted delivery

- $D_{TBA}\ =\ $ Deliveries done by TBA

Total reported Unskilled Deliveries reported = 113+58+18 = 189.

$$Prevalence = {}^{189}/_{380} \times 100 =\ \ 49.74\%$$

Table 4.5   Practices after Delivery

Practices	Category	Frequency (%)
Period of seeking professional Care	After birth of Baby	114(30.00)
	Right after the labour pain	25(6.58)
	Did Not seek professional	36(9.47)
	help	12(3.16)
	During child birth	6(1.58)
	Before Birth	187(49.21)
	Not applicable	
Place of keeping baby after birth	Bath	132(34.74)
	With Mother	79(20.79)
	In cot	91(23.95)
	On mattress	13(3.42)
	On floor	50(13.16)
	Don't Know	15(3.95)
Do with Baby after Birth	Breastfed	180(47.37)
	Bathed	96(25.26)
	Let sleep	94(24.74)
	Don't Know	10(2.63)

Who made Decision about place of birth	Myself	240(63.16)
	Husband	26(6.84)
	Both Spouses	41(10.79)
	Health Professional	24(6.84)
	My Mother	28(7.37)
	Others	21(5.00)

The women who delivered at home or with TBA's (30.0%) indicated to seeking professional care after delivery. 9.47% of the women mentioned they did not seek professional help after delivery. 34.74% of the mothers indicated that the TBA's bath their babies after delivery. 20.79% of the mothers indicated the babies were given to them after delivery, and 23.95% of the women said the babies were put in the cot after delivery. 13.16% of the mothers said their babies were put on the floor after delivery. 47.37% of the mothers' breastfed their babies after birth, 24.74% of the women allowed the babies to sleep after birth. Majority of the women (63.16%) decided where to deliver their babies and 10.79% of the mothers indicated it was decided by both she and her husband where to deliver.

Table 4.6: Bivariate analysis on TBA utilization and selected independent variables.

Variables	TBA Utilization N (%)		*P*-value
	Non-Use	**TBA Use**	
Age			
16-25	54(28.27)	71(37.57)	0.039
26-35	103(53.93)	76(40.21)	
36-45	29(15.18)	39(20.63)	
46-55	5(2.62)	3(1.59)	
Age at first Birth			
10-15	11(5.76)	17(8.99)	0.002
16-21	111(58.12)	137(72.49)	
22-27	52(27.23)	27(14.29)	
28-33	17(8.90)	8(4.23)	
Marital status			
Married	114(59.69)	118(62.43)	0.470
Single	22(11.52)	22(11.64)	
Divorced	14(7.33)	11(5.82)	
Cohabitation	38(19.90)	30(15.87)	
Windowed	3(1.57)	8(4.23)	
Monogamous Household			
Yes	116(60.73)	105(55.56)	0.306
No	75(39.27)	84(44.44)	
Educational Level			
Primary	52(27.23)	69(36.51)	0.001
Middle/JSS/JHS	89(46.60)	66(34.92)	
SHS/SSS	15(7.85)	4(2.12)	
Tertiary	3(1.57)	1(0.53)	
No Formal Education	32(16.75)	49(25.93)	
Employment Status			
Formal employment	8(4.19)	5(2.65)	
Informal	140(73.30)	138(73.02)	0.671
Unemployed	43(22.51)	46(24.34)	
Religion			
Christianity	177(92.67)	169(89.42)	0.033
Islam	10(5.24)	6(3.17)	
Traditional	4(2.09)	14(7.41)	
History Miscarriage			
Yes	25(13.09)	39(20.63)	0.049
No	166(86.91)	150(79.37)	
History Child Loss			
Yes	34(17.80)	49(25.93)	0.055
No	157(82.20)	140(74.07)	

Parity

1-3 births	137(72.11)	111(58.73)	0.007
4-6 births	46(24.21)	59(31.22)	
9-11 births	7(3.68)	19(10.05)	
Distance to Health Facility			
Close	84(43.98)	68(35.98)	0.282
Far	77(40.31)	87(46.03)	
Very Far	30(15.71)	34(17.99)	
History of Traditional Medicine			
Yes	75(39.27)	96(50.79)	0.024
No	116(60.73)	93(49.21)	

Data are presented in frequency **(N)** and proportions **(%)**; *P*-value from fisher's exact test

The results from the bivariate analyses, as presented in the table revealed a statistical significant association at a 95% Confidence Level between TBA utilization with the age groupings of the respondents, their age distribution at first birth, the highest attained educational level at the time of the study, their professed religious status, reported history of miscarriage, parity and reported history on use of traditional medicine. However there was no observed statistically significant association between marital status, monogamous household, employment and distance to health facility.

**Table 4.6: Output of multiple logistic regression analysis of factors associated with unskilled delivery.**

Variables n=380	Categories	n (%)	*p-value*	OR (95% CI)	*p-value*	AOR (95% CI)
Age group	16-25*(Ref)*	125(33.9)		1.00		
	26-35	179(47.1)	0.01	0.56 (0.35,0.89)	0.01	0.47(0.27,0.81)
	36-45	68(17.9)	0.94	1.02 (0.56,1.86)	0.08	0.48(0.22,1.08)
	46-55	8(2.1)	0.29	0.46 (0.10,2.02)	0.05	0.15(0.02,0.96)
Age at first pregnancy	10-15yrs *(Ref)*	28(7.37)		1.00		
	16-21yrs	248(65.26)	0.58	0.79 (0.36,1.78)	0.84	1.09(0.47,2.55)
	22-27yrs	79(20.79)	0.02	0.34 (0.13,0.84)	0.51	0.72(0.27,1.92)
	28-33yrs	25(6.58)	0.04	0.30 (0.09,1.00)	0.52	0.65(0.18,2.39)
Educational level	High/SSS/SHS	19(5.00)		1.00		
	Middle/JHS/JSS	155(40.79)	0.08	2.78 (0.889,8.76)	0.04	3.69(1.05,12.97)
	None	81(21.32)	0.00	5.74 (1.75,18.87)	0.06	3.28(0.97,11.11)
	Primary	121(31.84)	0.01	4.98 (1.56,15.88)	0.20	2.18(0.66,7.23)
	University/ High	4(1.05)	0.86	1.25 (0.10,15.50)	0.69	1.69(0.12,23.21)
Religious Affiliation	Christianity *(Ref)*	346(91.05)		1.00		
	Islam	16(4.21)	0.38	0.63 (0.22,1.77)	0.40	0.63(0.22,1.85)
	Traditional	18(4.74)	0.02	3.67 (1.17,11.48)	0.11	2.61(0.79,8.51)
Miscarriage/ Abortion	No*(Ref)*	316(83.16)		1.00		
	Yes	64(16.84)	0.05	1.73 (0.99,2.99)	0.06	1.79(0.97,3.31)
Parity	1-3 births *(Ref)*	248(65.44)		1.00		
	4-6 births	105(27.70)	0.05	1.58 (0.99,2.51)	0.04	1.84(1.04,3.27)
	7+ births	26(6.86)	0.01	3.35 (1.34,8.38)	0.04	3.29(1.04,10.43)

From the adjusted model, it was observed that a woman within the age range 26 to 35 years has a lower odds; OR=0.47 (95% CI: 0.27-0.81) to deliver with a TBA compared to a colleague within the youthful age bracket. Also, there was a noticeable decrease in the odds of a woman using the services of a TBA in both unadjusted and adjusted models given that her first pregnancy came at an older age compared to those in the age group 16-25 years.

Using a Secondary level education as the reference, it was noted that women with No formal education, Primary and Middle/JHS education were 3.28 times, 2.18 times and 3.69 times respectively more likely to use TBA services for delivery adjusting for all other variables. There was however a slight decrease in the odds when the women tend to have a University level education (OR=1.69) controlling for all other covariates in the model.

There was a progressive and a statistically significant increase in the likelihood for women using the services of TBAs when they have four (4) more kids compared to their counterparts who have between 1-3 children. In the multiple logistic regression model, women with seven (7) and above children were 3.29 times more likely to deliver with TBAs as compared to those in the reference group (1-3) kids holding all other variables constant.

The Margins Plot in (**Figure 2)** shows the predictive probabilities of a woman using the services of a TBA holding all predictors constant in the model. The chances of a woman using TBA tend to be relatively lower when the expected mother has some form of formal education compared to one with none.
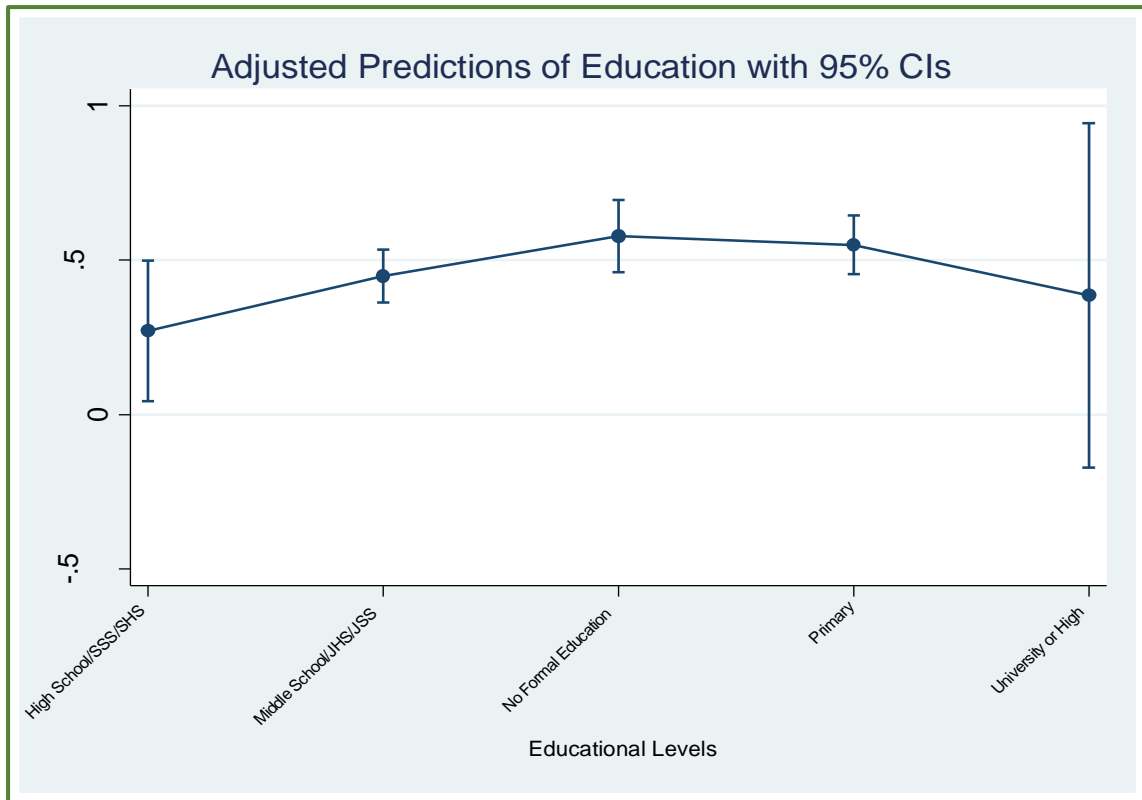
Fig. 2 showing a predictive probabilities of a woman using the services of a TBA.

CHAPTER 5

5.0 DISCUSSION

INTRODUCTION

The role of Traditional Birth Attendants (TBAs) in the delivery of maternity services cannot be underestimated. They have significantly contributed to healthcare delivery service for pregnant women in resource constraint environments more especially in the developing countries. However, with the training of more midwives and additional health facilities getting closer to the citizenry, it is anticipated that their services should be faced out with completely no patronage. This study investigated factors associated with unskilled delivery; an observation in the Obom sub-municipality in the Ga South District. This study discusses the vital findings in relation to the study objectives, literature review and the key variables. The discussions were based on the prevalence of unskilled delivery, socio-demographic background, and reasons for utilising unskilled delivery and presented as follows:

5.1 Prevalence of Unskilled delivery

From the study, the prevalence of the use of unskilled/TBA delivery was 49.74%. The trends in RCH coverage of Ga South District Annual Report from 2014-2016 indicated TBA delivery as follows: 1.0%, 0.9%, and 1.8% respectively (Ghana South District Annual Report). The prevalence obtained from this study was high compared to prevalence obtained from 2014-2016 in the district. This may be due to the fact that the Obom sub-municipal have more rural communities and a few peri-urban communities. Also, TBAs high thoughtfulness to socio-cultural customs together with a greater ability to integrate psychosocial care into their services compared to modern health facilities may be another factor (Hunt et al. 2002).

5.2 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Age and Age at first Pregnancy of Respondents

From the findings, it was observed that age was significantly associated with the use of TBA which is similar to findings from a study in Africa (Stephenson *et al.*, 2006). More of the women 37.57% within the age group 16-25yrs used the services of TBAs with 28.27% using health facility. The age group 26-35yrs had 40.21% using TBA services whiles 53.93% used health facility. Those within the ages 36-45yrs and 46-55yrs recorded 20.63% of the women using TBA with 15.18% using health facility and 1.59% using TBA with 2.62% using health facility respectively. Women within age group 36-45yrs were more likely to use TBA than women within the age 26-35, and that of age group 46-55yrs.

The age at which the women had their first pregnancy also was significantly associated with the use of TBA. Women getting pregnant at lower ages tend to be shy in going to antenatal clinics either for stigmatisation that they were going to have babies out of wedlock, hence they go undercover to use the services of TBA. If the woman is too young, there is the likelihood that her economic strength is going to be weak and for that reasons cannot afford the cost of going to the Health facility.

Educational level of Respondents

Assessing the association between Education level of the women and their use of TBA services, the data revealed a statistically significant association. Quite a number of the women have had some form of formal basic education. Despite this being a desirable observation, it still requires more to be done in relations to improving education for the girl child. For instance most of those who used unskilled delivery were within this educational status bracket.

Bulk of the women had primary levels of education out of which 36.51% delivered at home while (27.23%) delivered at the health facility. Women with Middle/JSS/JHS level education at the time of the study had 34.92 % of them delivering at home with 46.60% delivering at the health facility. For those who had no formal education, 25.93% delivered at home with 16.75% delivering at the health facility. Looking at this educational trend it can be deduced that perhaps a high proportion of the women in the municipality do not carry on with schooling after the primary and JSS/JHS/Middle level.

Similarly in relation to the findings of this study, those who attained the secondary and postsecondary levels though not many, used more skilled attendance. This endorses what was described in some studies done (Ahmed et al. 2010; Ensor and Copper 2004) who recognised an association between maternal education and usage of skilled delivery services and that it improves the individuals' ability to have an improved understanding into health issues.

Thaddeus and Maine recognised absence of appropriate health education as a primary factor hindering access to quality healthcare (Thaddeus and Maine, 1994). Lack of appropriate health education prevents the use of life saving services in many instances (Population Reference Bureau 2002).The probability that women with knowledge about risk factors were more likely to use health facilities for delivery is high as compared to those with no knowledge. Besides it is also likely that a well-versed individual is better placed to make rational decisions (Mpembeni *et al.*, 2007). During the multivariate analysis, women who had attained senior secondary education were less likely to use TBA than those with Junior Secondary/Junior High, University and Primary education.

Religious Affiliation

Majority of the women indicated they were Christians with 89.42% of them using TBA and 92.67% using health facility. Religious affiliations of the women were significantly associated with the use of TBA. This finding is consistent with the findings of a study carried out in Ghana by (Dako-Gyeke *et al.*, 2013). Generally, Some African culture views pregnancy as a possibly unsafe period that stresses spiritual protection (Dako-Gyeke *et al.*, 2013). Consequently, upkeep for pregnant women is well-thought-out to be multifaceted, involving the medical and also psychosocial, economic and spiritual support. The study also revealed that care-seeking behaviour of pregnant women is largely facilitated by socio-cultural influences that form individual perceptions of threats to pregnancy (Dako-Gyeke *et al.*, 2013).

Cultural beliefs and perceptions about pregnancy was identified as a principal factor in the use of antenatal services in developing countries (Simkhada et al. 2008). In an attempt to address social, cultural and spiritual concerns during pregnancy, modern Christian churches have found a new way for many pregnant women to seek out protection from the risks they perceive from the natural and supernatural forces such as witches, wizards, and sorcerers. Many women choose to deliver at prayer homes rather than in health facilities (Sackey, 2002).

History of Miscarriage/Abortion and Parity

About 20.63% of the women who had miscarriages/abortions used the services of TBA with 13.09% of them using health facility. From the multivariate analysis, it was observed that women with a history of miscarriage/abortion were more likely to use TBA. This may be due to the fact that most TBAs provide their clients with traditional medicine to help them become pregnant and for smooth delivery as well. The number of births the women have had was significantly associated to the use of TBA.

There was however no statistical association between Employment, Marital status, Monogamous household and Distance to Health facility. This findings (Distance to health facility) was in contrast to findings done by (Omotor 2011). During the 6th African population conference in Burkina Faso, He presented his paper which stated that use of maternal health facilities decreases as the distance increases (Omotor 2011). This verifies the fact that distance from health facilities affects the use of health services in these facilities (Omotor 2011). Studies conducted in rural Zambia by (Stekelenburg *et al.*, 2004) found that though 96% of respondents chose to deliver in a health facility, only 54% actually did, because of long distances and the lack of transport.

5.3 Reasons for utilising unskilled delivery

Certain reasons were identified to have prevented respondents from utilizing skilled delivery services. Transportation problems which are commonly due to its unavailability and or affordability in terms of cost may inhibit pregnant women from using skilled delivery services during labour. Commonly in rural areas, this serves as a major constraint to non-utilization of skilled delivery. In order to improve the financial status of women, it is imperative to engage the women in employable skills. Most women delay in accessing health facility due to problems or constraints that they face which is usually related to poor road and communication networks, distant health facilities and absence of transportation and inadequate community support (GHS, 2006). According to Borghi *et al.*, (2006) transport costs have been projected at half of total spending for a normal delivery and 25% for a complicated delivery in studies in Tanzania and Nepal. Studies conducted by (Titaley et al. 2010) also showed that distance and time to nearby health facilities influenced health service utilisation.

Studies have shown that many of the practices of TBA-provided maternal health care have adverse effects on the health of mothers, though it has been reported to be inexpensive, reachable and more culturally acceptable (Imogie et al. 2002). As the cost-benefit importance of TBA-

provided maternal health care is assessed, it is imperative to examine its effect on mothers and their children. The association between maternal mortality and TBA-provided maternal care has been explored and studies have shown that TBA-provided maternal health care poses a risk to maternal and child health as it increases vulnerability of pregnant women and or their newly-born to infections (Ofili and Okojie, 2005). Most possibly fatal complications during pregnancy and at delivery are not handled well by TBAs because they lack sufficient knowledge in obstetrics. TBAs are usually uneducated and may lack the ability to spot birth complications. Therefore, maternal health services provided by TBAs are unsafe to the well-being of mothers and the babies. Nonetheless, in developing countries where readiness and admittance to appropriate health care is lacking, the training of TBAs can be employed as an approach to improve maternal and child health care. The training of TBAs have not contributed directly to the reduction of maternal mortality, but seem to have improved their effectiveness in areas such as the decrease of neonatal tetanus, increasing the provision and use of antenatal care, and increasing referrals in case of complications (AMREF, 2015). These outcomes indicate that the importance of access to health service as well as the distribution of health service and workers, especially in rural areas should be a priority.

CHAPTER 6

6.0 CONCLUSION AND RECOMMENDATION

6.1 CONCLUSION

Utilization of unskilled birth attendants' services remains a big challenge to the attainment of quality reproductive health for all. The developing countries and more particularly the residents of the Obom sub-municipality in the Greater Accra Region of Ghana have particularly lagged behind in the quest to have all access quality reproductive health services and information. This project focused on exploring factors that associated with the use TBAs services by reproductive aged women among the studied participants.

In conclusion, we identified the usage of unskilled deliveries which include patronage of TBA services has a prevalence rate of 49.74% among the women. This will translate to mean that about five (5) out of ten mothers were not using services of trained personnel to aid the delivery of their babies. Probable factors influencing the high patronage of TBAs as found in this study included the Age of respondents; Age at first pregnancy; Educational level of respondents; Religious affiliation; whether the respondents have ever experienced Miscarriage/Abortion as well as Parity. Other reasons that motivated home delivery and thereby discourage institutional delivery were established to conclude that, transportation difficulties, high cost of care at health facility, abrupt delivery, the opinion that health facility delivery wasn't necessary and poor attitude and unavailability of health workers presented the greatest obstacles to the uptake of skilled attendance.

This information will contribute to preparation of interventions fixated on reducing neonatal and maternal mortality with short- and long-term perspectives. The key issues for sustainable effects are increasing information available for women at village level and in the long run trying to raise

the level of women's education with the establishment of a suitable and effective healthcare delivery system.

There were several strengths of and limitations to this study. The strengths include the fact that the data was collected by visiting the homes of the respondents which gives a true reflection of the situation in the various communities. Some limitation of the study may be that respondents were not entirely truthful. Another challenge may be recall bias from the respondents as some of the question request answers culminating from experience dated couple of months back. An improved approach of the study or further research would be a prospective study due to the high TBA/ Unskilled delivery in this sub-municipal.

6.2 RECOMMENDATION

6.2.1 Government

- An approach to increasing the availability and accessibility of health services should be a priority in the Obom sub-municipal considering findings from the study.

- The Ghana Education Service (GES) as well women's advocacy groups both locally and at the regional level must strengthen encouragement on educating the girl child and efforts made to enrol , as well as retain them in school to the tertiary level or train them in the attainment of vocational skills.

- Local political leaders must strongly address the poor road network problems in the sub-municipality.

- There is also need to adequately train TBAs, supervise their operations and possibly collaborate with them.

- TBAs should be supported both financially and materially by providing them with the necessities for their practice to reduce mortality.

- The occupation of TBAs should be acknowledged and record keeping for both birth and mortality encouraged.

6.2.2 Sub-municipal

- In areas where there are transportation difficulties, assemblymen, and Unit Committee Members can liaise with various transport unions such as the GPRTU to support women in labour with arrangements for transport.

- There is need for community awareness to be raised on maternal health seeking behaviour and families and community in general need to be prepared for means of transport or transport cost.

- There is the need for future research work including, the use of a qualitative study design to help tease out in-depth information from respondents and increase the scope of the study area to make room for generalisation.

REFERENCE

Addai, I. (2000) 'Determinants of use of maternal-child health services in Rural Ghana. J Biosoc Med.', p. 312:1–15.

Aguilar EJT, K. J. &Tiampo L. (1999) 'from traditional midwife to train to birth attendant in Cebu: magic, indigenous knowledge and western medical practices in the area of reproductive health. Philippine Quarterly Culture & Society', p. 27: 161-177.

Alkema, L., Chou, D., Hogan, D., Zhang, S., Moller, A. B., Gemmill, A., Fat, D. M., Boerma, T., Temmerman, M., Mathers, C. and Say, L. (2016) 'Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: A systematic analysis by the un Maternal Mortality Estimation Inter-Agency Group', *The Lancet*. World Health Organization. Published by Elsevier Ltd/Inc/BV. All rights reserved., 387(10017), pp. 462–474. doi: 10.1016/S0140-6736(15)00838-7.

AMREF (2015) 'AMREF ' s Position on the Role and Services of Traditional Birth Attendants', pp. 1–2.

Ana, J. (2011) 'Are traditional birth attendants good for improving maternal and perinatal health? Yes. BMJ.', p. 342:d3310. doi: 10.1136/bmj.d3310.

Anwar I, Sami M, Akhtar N, Chowdhury ME, Salma U, Rahman M, K. M. (2008) 'Inequity in maternal health-care services: evidence from home-based skilled-birth-attendant programmes in Bangladesh. Bull World Health Organ', p. 86: 252-9. doi: 10.2471/BLT.07.042754.

Asamoah, B. O., Agardh, A. and Cromley, E. K. (2014) 'Spatial Analysis of Skilled Birth Attendant Utilization in Ghana', 6(4). doi: 10.5539/gjhs.v6n4p117.

Asamoah BO, Moussa KM, Stafstrom M, M. G. (2011) 'Distribution of causes of maternal mortality among different socio-demographic groups in Ghana; a descriptive study. BMC Public

Health.', p. 11:159. Available at: CrossRefPubMedPubMedCentralGoogle Scholar.

Badan Pusat Statistik-Statistics Indonesia (BPS) (1997) 'National Family Planning Coordinating Board, Ministry of Health, ORC MacroIndonesia Demographic and Health Survey. 1998Calverton, MDBPS and ORC Macro'.

Bailey, E.P, Szasdi, A.J. & Glover, L. (2002) 'Obstetric complications: Does training traditional birth attendants make a difference? Rev Panam Salud Publica Washington.', 11.

Bell, J., L.curtis, S. and Alayon, S. (2003) 'Trends in Delivery Care in Six Countries. DHS Analytical studies No.7.', *ORC Macro Calverton, Maryland USA International.*, (7), pp. 1–62. Available at: http://www.dhsprogram.com/pubs/pdf/AS7/AS7.pdf.

Bergström S, G. E. (2001) 'The role of traditional birth attendants in the reduction of maternal mortality. Studies in HSO&P', p. 17:85–89.

Blanchet, N. J. and Fink, G. (2012) 'THE EFFECT OF GHANA ' S NATIONAL HEALTH INSURANCE SCHEME ON HEALTH CARE UTILISATION', 46(2).

De Brouwere, V., Tonglet, R. and Van Lerberghe, W. (1998) 'Strategies for reducing maternal mortality in developing countries: what can we learn from the history of the industrialized West?', *Tropical Medicine and International Health*, 3(10), pp. 771–782. doi: 10.1046/j.1365-3156.1998.00310.x.

Bryce, J , Daelmans B, Dwivedi A, Fauveau V, Lawn JE, Mason E, Newby H, Shankar A, Starrs A, W. T. (2008) 'Countdown to 2015 for maternal, newborn, and child survival: the 2008 report on tracking coverage of interventions', *The Lancet*, 371(9620), pp. 1247–1258. doi: 10.1016/S0140-6736(08)60559-0.

Bureau, P. R. (2002) 'Women of the World Data Sheet. Population Reference Bureau. Washington DC.'

Campbell, O. M. and Graham, W. J. (2006) 'Strategies for reducing maternal mortality: getting on with what works', *Lancet*, 368(9543), pp. 1284–1299. doi: 10.1016/S0140-6736(06)69381-1.

Chakravarty J, Bhattacharya S, Camey XC, et al (1996) 'Traditional birth attendants in Mexico: advantages and inadequacies of care for normal deliveries. Soc Sci Med', p. 43(2):199–207.

Collender, G., Gabrysch, S. and Campbell, O. M. R. (2012) 'Reducing maternal mortality: Better monitoring, indicators and benchmarks needed to improve emergency obstetric care. Research summary for policymakers', *Tropical Medicine and International Health*, 17(6), pp. 694–696. doi: 10.1111/j.1365-3156.2012.02983.x.

Dako-Gyeke, P., Aikins, M., Aryeetey, R., McCough, L. and Adongo, P. B. (2013) 'The influence of socio-cultural interpretations of pregnancy threats on health-seeking behavior among pregnant women in urban Accra, Ghana', *BMC Pregnancy Childbirth*, 13(1), p. 211. doi: 10.1186/1471-2393-13-211.

Darmstadt, G. L., Bhutta, Z. A., Cousens, S., Adam, T., Walker, N., Bernis, L. De, Neonatal, L. and Steering, S. (2005) 'Series', (panel 1), pp. 977–988.

Darmstadt GL, Hussein MH, Winch PJ, Haws RA, Gipson R, S. M. (2008) 'Practices of rural Egyptian birth attendants during the antenatal, intrapartum and early neonatal periods. J Health Popul Nutr', p. 26: 36-45. Available at: PubMedPubMed CentralGoogle Scholar.

Davis-Floyd, R. (2002) '"Anthropological perspectives on global issues in midwifery," Midwifery Today, vol. 2002', p. 1–12,200.

DG, O. (2011) 'Physical access and utilization of primary health care services in rural Nigeria. Sixth African Population Conference; Ouagadougou, Burkina Faso'.

Duong, D. V., Binns, C. W. and Lee, A. H. (2004) 'Utilization of delivery services at the primary health care level in rural Vietnam', *Social Science and Medicine*, 59(12), pp. 2585–2595. doi:

10.1016/j.socscimed.2004.04.007.

Ebuehi, O. M. and Akintujoye, I. (2012) 'Perception and utilization of traditional birth attendants by pregnant women attending primary health care clinics in a rural Local Government Area in Ogun State, Nigeria.', *International Journal of Women's Health*, 4, pp. 25–34. doi: 10.2147/IJWH.S23173.

Ensor T, C. S. (2004) 'Overcoming barriers to health service access: influencing the demand side. Health Policy and Planning', p. 19(2):69-79.

Falle TY, Mullany LC, Thatte N, et al (2009) 'Potential role of traditional birth attendants in neonatal healthcare in rural southern Nepal. J Health Popul Nutr', p. 27(1):53–61.

Faye, A., Niane, M. and Ba, I. (2011) 'Home birth in women who have given birth at least once in a health facility: Contributiory factors in a developing country". Acta obstetricia et gynecologica Scandinavica, 90(11)', pp. 1239–1243.

Fronczak, N., Arifeen, S. E., Moran, A. C., Caulfield, L. E. and Baqui, A. H. (2007) 'Delivery Practices of Traditional Birth Attendants in Dhaka Slums , Bangladesh', 25(4), pp. 479–487.

Gabrysch, S. and Campbell, O. M. R. (2009) 'Still too far to walk: literature review of the determinants of delivery service use.', *BMC pregnancy and childbirth*, 9, p. 34. doi: 10.1186/1471-2393-9-34.

GDHS (2008) 'Measure DHs. Ghana Demographic and Health Survey'.

Geurts, K. (1997) 'Well-being and birth in rural Ghana: local realities and global mandate. Paper prepared for the Fifth Annual African Studies Workshop "Cross-Currents in Africa," University of Pennsylvania, Philadelphia, PA,'.

Ghana Statistical Service (2012) '2010 Population and Housing Census', *Ghana Statistical Service*, pp. 1–117. doi: 10.1371/journal.pone.0104053.

Ghana Statistical Service (GSS), Ghana Health Service (GHS), and I. M. (2012) 'Ghana Demographic and Health Survey, ICF Macro Calverton, Maryland: GSS, GHS, and ICF Macro.'

Gloyd S, Florano F, Seunda M, Chadreque MA, Nyangezi JM, P. A. (2001) 'Impact of traditional birth attendant training in Mozambique: a controlled study. J Midwifery Womens Health', p. 46: 210–216.

GSS (2008) 'Ghana Statistical Service (GSS), Ghana Health Ser-vice (GHS) & ICF macro (2009); Ghana Demographic Survey. Accra & Calverton: GSS,GHS, and ICF Macro'.

GSS (2011) 'Multiple Indicator Cluster Survey with an enhanced Malaria Module and Biomarker 2011, Final Report. Accra, Ghana: Ghana Statistical Service'.

Hallstein L.O, Sara Hayden, J. E. B. (2010) 'Contemplating Maternity in an Era of Choice: Explorations. Amsterdam: Cenrais Publishers. Health Topics. (2012)'. Available at: www.who.int/topic/maternal_health/en/.

Haney, D. (2001) 'Midwifery Education'. Available at: http://haneydaw.myweb.uga.ed/twwh/midwifery.html.

Harvey, S. A., Ayabaca, P., Bucagu, M., Djibrina, S., Edson, W. N., Gbangbade, S., McCaw-Binns, A. and Burkhalter, B. R. (2004) 'Skilled birth attendant competence: An initial assessment in four countries, and implications for the Safe Motherhood movement', *International Journal of Gynecology and Obstetrics*, 87(2), pp. 203–210. doi: 10.1016/j.ijgo.2004.06.017.

Hull T, Widayatun , Raharto A, S. B. (1998) 'Some problems of the village midwife programme in eastern Indonesia. Australian Council for Overseas Aid Development Bulletin', p. 48.

Ifo, W. (2010) 'No Title'.

Imogie AO, Agwubike EO, A. K. (2002) 'Assessing the role of traditional birth attendants (TBAs) in health care delivery in Edo State, Nigeria. Afr J Reprod Health', p. 6(2):94-100.

Indonesia, B. P. S.-S. (BPS) (2007) 'No TitleNational Family Planning Coordinating Board, Ministry of Health, ORC MacroIndonesia Demographic and Health Survey. 1998Calverton, MDBPS and ORC Macro'.

Jemal, Y., Tedla, M., Tilahun, N. and Dawit, S. (2010) 'Revisiting the exclusion of traditional birth attendants from formal health systems in Ethiopia.', *AMREF Discussion Paper Series.*, 3(3), p. 3.

Koblinsky, M. A., Campbell, O. and Heichelheim, J. (1999) 'Organizing delivery care: What works for safe motherhood?', *Bulletin of the World Health Organization*, 77(5), pp. 399–406.

Koblinsky, M., Matthews, Z., Hussein, J., Mavalankar, D., Mridha, M. K., Anwar, I., Achadi, E., Adjei, S. and Padmanabhan, P. (2006) 'Maternal Survival 3 Going to scale with professional skilled care', pp. 1377–1386. doi: 10.1016/S0140-6736(06)69382-3.

Kruk, M. (2008) 'Using evidence for policies to reduce maternal mortality. 2008, woodrow Wilson International Center Global Health Intiative.'

Kwast, B. E. (1996) 'Reduction of maternal and perinatal mortality in rural and peri-urban settings: What works?', *European Journal of Obstetrics Gynecology and Reproductive Biology*, 69(1), pp. 47–53. doi: 10.1016/0301-2115(95)02535-9.

Kyomuhendo, G. (2003) 'Low Use of Rural Maternity Services in Uganda: Impact of Women's Status, Traditional Beliefs and Limited Resourcess. Reproductive Health Matters 2003', p. 11(21):16-26.

Lartson LI, Sodipe OA, Ebrahim GJ, A. R. (1987) 'Perspectives in primary care: the trained traditional birth attendant: a study of her role in two cultures. J Trop Paediatr.', p. 33:29–34.

Linda M. Hunt, N. M. G. & D. C. H. (2002) 'CHILDBIRTH CARE-SEEKING BEHAVIOR IN CHIPAS', 23, pp. 98–118. Available at: http://dx.doi.org/10.1080/073993302753428465.

Mahler, H. (1987) 'The safe motherhood initiative: a call to action. Lancet', p. ,1(8534):668-670.

Maine, D and Haddens, S. (1990) 'Too far to walk; maternal mortality in context. Findings from a multi-displicinary literature review.'

Maine, D. and Rosenfield, A. (1999) 'The safe motherhood initiative: Why has it stalled?', *American Journal of Public Health*, 89(4), pp. 480–482. doi: 10.2105/AJPH.89.4.480.

Makowiecka, K., Achadi, E., Izati, Y. and Ronsmans, C. (2008) 'Midwifery provision in two districts in Indonesia: How well are rural areas served?', *Health Policy and Planning*, 23(1), pp. 67–75. doi: 10.1093/heapol/czm036.

Millennium Villages, Bonsaaso, G. (no date) 'No Title'. Available at: www.millenniumvillages.org/the-villages/bonsaaso-ghana.

Ministry of Health, I. 2008 (2008) 'Maternal, Child and Reproductive Health Strategy in Iraq 2005–2008'. Available at: http://www.emro.who.int/iraq/pdf/Maternal_ChildHealth.pdf.

Montagu, D., Yamey, G., Visconti, A., Harding, A. and Yoong, J. (2011) 'Where do poor women in developing countries give birth? a multi-country analysis of Demographic and health survey data', *PLoS ONE*, 6(2). doi: 10.1371/journal.pone.0017155.

Mpembeni, R. N., Killewo, J. Z., Leshabari, M. T., Massawe, S. N., Jahn, A., Mushi, D. and Mwakipa, H. (2007) 'Use pattern of maternal health services and determinants of skilled care during delivery in Southern Tanzania: implications for achievement of MDG-5 targets', *BMC Pregnancy Childbirth*, 7, p. 29. doi: 10.1186/1471-2393-7-29.

Mrisho, M., Schellenberg, J. A., Mushi, A. K., Obrist, B., Mshinda, H., Tanner, M. and Schellenberg, D. (2007) 'Factors affecting home delivery in rural Tanzania', *Tropical Medicine and International Health*, 12(7), pp. 862–872. doi: 10.1111/j.1365-3156.2007.01855.x.

National Institute of Population Research and Training (2011) 'Bangladesh'.

NHIS (2009) 'Annual report 2009. 2009. 568. Blanchet NJ, Fink G, Osei-Akoto I. The effect of Ghana's National Health Insurance Scheme on Health Care Utilization. 2012 Ghana Med J', p. 46(2):76–84. Available at: PubMedPubMedCentralGoogle Scholar.

Ofili, A. and Okojie, O. (2005) 'Assessment of the role of traditional birth attendants in maternal health care in Oredo Local Government Area, Edo State, Nigeria', *Journal of Community Medicine and Primary Health Care*, 17(1), pp. 55–60. doi: 10.4314/jcmphc.v17i1.32428.

Okiwelu T, Hussein J, Adjei S, et al. (2007) '. Safe motherhood in Ghana: still on the agenda? Health Policy', p. 84:359-67. doi: 10.101 6/j.healthpol.

Oladeji, M. . (2008) 'The practice of traditional birth attendants and women's health in Nigeria. 25th Congress Medical Women's International Association.'

Paul, B.K. and Rumsey, D. J. (2002) '"Utilization of health facilities and trained birth attendants for childbirth in rural Bangladesh: an empirical study", Soc Sci Med, 54(12),' pp. 1755–1765.

Peltzer K, H. N. (2006) 'Traditional birth attendants, HIV/AIDS and safe delivery in the Eastern Cape, South Africa – evaluation of a training programme. S Afr J Obstet Gynaecol.', p. 12(3):140–145.

Pigg, S. L. (1995) 'Acronyms and effacement: Traditional medical practitioners (TMP) in international health development', *Social Science & Medicine*, 41(1), pp. 47–68. doi: 10.1016/0277-9536(94)00311-G.

Pigg, S. L. (1997) '"Authority in translation. Finding, knowing, naming, and training 'traditional birth attendants'," in Childbirth and Authoritative Knowledge, Cross-cultural perspectives, Nepal, Ed.,pp. 233-262, University of California Press, Berkley, California, USA, 19', pp. 233–262.

Ransom E, Y. N. (2002) 'Making motherhood safer; overcoming obstacles on the pathway to

care. USA: Population Reference Bureau'.

Rasch, V. (2007) 'Maternal Death and the Millennium Development Goals', *Dan Med Bull*, 54, pp. 167–9. Available at: http://www.danmedj.dk/DMB_2007/0207/0207-artikler/DMB3892.pdf (Accessed: 28 March 2017).

Ray, AM., Salihu, H. (2004) 'The impact of maternal mortality interventions using traditional birth attendants and village midwives. J Obstet Gynaecol.', pp. 5–11.

Ronsmans, C., Endang, A., Gunawan, S., Zazri, A., McDermott, J., Koblinsky, M. and Marshall, T. (2001) 'Evaluation of a comprehensive home-based midwifery programme in South Kalimantan, Indonesia', *Tropical Medicine and International Health*, 6(10), pp. 799–810. doi: 10.1046/j.1365-3156.2001.00780.x.

Ronsmans, C., Etard, J. F., Walraven, G., Hoj, L., Dumont, a, de Bernis, L. and Kodio, B. (2003) 'Maternal mortality and access to care', *Tropical Medicine and International Health*, 8(10), pp. 940–948. Available at: CH final.

Sachs, J. D. and McArthur, J. W. (2005) 'The Millennium Project: A plan for meeting the Millennium Development Goals', *Lancet*, 365(9456), pp. 347–353. doi: 10.1016/S0140-6736(05)17791-5.

Sackey, B. M. (2002) 'The African e-Journals Project has digitized full text of articles of eleven social science and humanities journals . This item is from the digital archive maintained by Michigan State University Library . Find more at : MATERNAL MORTALITY IN GHANA : THE', pp. 5–11.

Saifuddin Ahmed , Andreea A. Creanga , Duff G. Gilliespie, A. O. T. (2010) 'Economic status, education and empowerment: implications for maternal health service utilization in developing countries.', p. 5(6): e11190.

Shiffman, J. (2003) 'Generating political will for safe motherhood in Indonesia', *Social Science and Medicine*, 56(6), pp. 1197–1207. doi: 10.1016/S0277-9536(02)00119-3.

Sibley LM, S. T. (2006) 'Transition to skilled birth attendance: is there a future role for trained traditional birth attendants? J Health Popul Nutr.', p. 24(4):472–478.

Simkhada B, Teijlingen ER, Porter M, S. P. (2008) 'Factors affecting the utilization of antenatal care in developing countries: systematic review of the literature. J AdvNurs', p. 61 (3): 244–260.

Staugard, S. A. and F. (1998) '"Traditional midwives in Botswana. Strengthening links between women," Health Policy, vol. 3, no.1', pp. 40–47.

Stekelenburg, J., Kyanamina, S., Mukelabai, M., Wolffers, I. and Roosmalen, J. Van (2004) 'Waiting too long : low use of maternal health services in Kalabo , Zambia', 9(3), pp. 390–398.

Stephenson, R., Baschieri, A., Clements, S., Hennink, M. and Madise, N. (2006) 'Contextual influences on the use of health facilities for childbirth in Africa', *American Journal of Public Health*, 96(1), pp. 84–93. doi: 10.2105/AJPH.2004.057422.

Thaddeus, S. and Maine, D. (1994) 'Too Far to Walk : Maternal Mortality in Context IN', 38(September 2016), pp. 1091–1110.

Titaley, C. R., Dibley, M. J. and Roberts, C. L. (2010) 'Factors associated with underutilization of antenatal care services in Indonesia : results of Indonesia Demographic and Health Survey 2002 / 2003 and 2007'.

Titaley, C. R., Hunter, C. L., Heywood, P. and Dibley, M. J. (2010) 'Why don't some women attend antenatal and postnatal care services?: a qualitative study of community members' perspectives in Garut, Sukabumi and Ciamis districts of West Java Province, Indonesia.', *BMC pregnancy and childbirth*. BioMed Central Ltd, 10(1), p. 61. doi: 10.1186/1471-2393-10-61.

Tsui AO, Wasserheit JN, H. J. (1996) *Reproductive health in developing countries: Expanding*

dimensions, building solutions, *Reproductive Health*.

UNDP (2014) 'UNDP in Ghana: MDG Overview: Improve maternal health'.

UNFPA (1996) 'Evaluation findings; Office of oversight and evaluation. United Nations Population Fund; Issue 7, December.'

UNICEF (United Nations International Children's Education Fund (1997) 'Report on consultation attendance at birth: Community birth attendants. health sector, Programme Division, United Nation's Children Fund/New York'. Available at: Google Scholar.

United Nations (1996) 'Support Traditional Birth Attendants: Evaluation Findings.In United Nations Population Fund', (7). Available at: http://www.unfpa.org/monitoring/pdf/nissue7.pdf .

United Nations (2001) 'UN General Assembly', *Road map towards the implementation of the United Nations Millennium Declaration*, 52607(September), pp. 1–58. Available at: http://www.un.org/documents/ga/docs/56/a56326.pdf.

United Nations (2007) 'The Millennium Development Goals Report: Statistical annex'. Available at: http://www.un.org/millenniumgoals]Google Scholar.

UNPFA (2011) 'state of world population 2011 People and possibilities in a world of 7 billion'.

USAID (2009) 'Training traditional birth attendants educating pregnant women and mothers [web page on the Internet]. Washington DC: USAID'. Available at: http://www.usaid.gov/sl/sl_new/news/tba.htm. .

WHO (2004) 'Road Map for Accelerating the Attainment of the MDGs Related to Maternal And New born Health in Africa. African Regional Reproductive Health Task Force Meeting. In. Harare'.

WHO (2006) 'Factsheet Skilled attendant at birth 2006 updates Factsheet'.

WHO (2008) 'Proportion of births attended by a skilled worker'. Available at: http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/2008_skilled_att endant.pdf]Google Scholar.

WHO (2010) 'Classifying health workers. Geneva, WHO.'

WHO (2012) 'Maternal mortality'. Available at: http://www.who.int/mediacentre/factsheets/fs348/en/index.html (accessed 2nd October 2012)Google Scholar.

WHO (2014) 'Traditional birth attendants: a joint WHO/UNPA/UNICEF statement',. Available at: http://apps.who.int/iris/handle/10665/38994.

WHO, R. (2007) 'RHR Programme Budget'.

WHO UNICEF UNFPA and The World Bank (2012) 'Trends in Maternal Mortality 1990 to 2010', *World Health Organization*. doi: ISBN 978 92 4 150363 1.

WHO, 2011. Newborn death and illness. Available at: www.who.int.fs_newborndeath_illness. (updated september 2011).

WHO, 2015. Factsheet. Available at:

http://www.who.int/mediacentre/factsheets/fs348/en/index.html (accessed 2nd November 2015)Google Scholar.

Witter, S., Arhinful, D. K., Kusi, A. and Zakariah-Akoto, S. (2007) 'The Experience of Ghana in Implementing a User Fee Exemption Policy to Provide Free Delivery Care', *Reproductive Health Matters*, 15(30), pp. 61–71. doi: 10.1016/S0968-8080(07)30325-X.

QUESTIONNAIRE

Name of Community: _____

Date: _____

No:_____

Kindly answer the following questions. Do not write your name on this questionnaire. The Investigator would like to guarantee you that the information collected will be held with utmost confidentiality. Please be as honest as possible and answer the questions appropriately by putting a tick ( ) against the appropriate statement or by filling in the blank spaces provided**.**

PART 1

1. How old are you as at your last bithday? (more or less)

………………..

2. What is your marital status?
a) Married…………………………….. [ ]
b) Single…………………………….... [ ]
c) Widow………………………..…… [ ]
d) Divorced………………………… [ ]
e) Co-habiting……………………… [ ]

3. What is your religious belief?
a) Christianity………………………… [ ]
b) Islam…………………………….... [ ]
c) Traditional…….…………….……… [ ]
d) Other (Specify)………………………

4. Are you in a monogamous household?
a) Yes…………………………… [ ]
b) No ……………………..……... [ ]

5. What is your highest level of study?
a) Primary………………………… [ ]
b) Middle School………..…………..… [ ]
c) High School………..…………… [ ]
d) University or Higher ....…..…... [ ]
e) Other (Specify)………………………

6. How many pregnancies have you had?
……………………………

7. Have you experienced miscarriages or abortions?
a) Yes[] or No[ ]

b) If yes, how many

7. How many living children do you have?
……………………….

8. How many children have you lost?
……………………………

9. At what age did you have your first pregnancy?
…………………….

FAMILY AND SOCIAL SITUATIONS:

10. What work do you do?
a) Civil Servant……………………… [ ]
b) Trader..........………….….……… [ ]
c) Farmer......……………………… [ ]
d) Housewife………………………... [ ]
e) Other (Specify)………………………

11. What work does your husband do?
a) Civil Servant ……………………..... [ ]
b) Trader/Businessman …………..……[ ]
c) Farmer/Breeder ……………… ......[ ]
d) Unemployed ………………………[ ]
e) Other (Specify)………………………

12. Who gives the expenditures for the family?
a) Myself……………………………… [ ]
b) Husband…………………………… [ ]
c) Parents……………………..……… [ ]
d) Other (Specify)………………………

13. Who takes care of your children in your absence?
   a) Co-wife.………………………… [ ]
   b) Mother.……………………………. [ ]
   c) Step Mother.……………………… [ ]
   d) Sister/Brother.…………………... [ ]
   e) Older Children...………………… [ ]
   f) Neighbours/Friends.…………..... [ ]
   g) No one....................................…… [ ]

HEALTH (IN GENERAL):

14. How many kilometres is the health centre from your house?
   a) Close………………...…… [ ]
   b) Far…………………… [ ]
   c) Very far ……………………….. [ ]

15. Do you use traditional medicine when your child gets sick?
   a) Yes…………………………….. [ ]
   b) No…………………………….. [ ]

PART 2

PREFERENCE OF DELIVERY PLACE OF DELIVERY AND DELIVERY ATTENDANTS

16. Where did you give (NAME) birth? (If source is hospital, Dispensary or clinic, write the name of the place)
   Home
   a) Home……………….. [ ]   *Go to 17*
   b) Other (**Specify**)…………… *Go to 17*

   Health facility
   c) Hospital …………….[ ]   *Go to 18*
   d) Health post/Dispensary…. [ ] *Go to 18*
   e) Private Clinic ……………[ ] *Go to 18*
   f) Other specify………………………..

17. What made it difficult to seek delivery at a health facility?
   a) Too far……………………………. .[ ]
   b) Too costly………………………….[ ]
   c) Staff not friendly …………………[ ]
   d) Not necessary ……………………..[ ]
   e) Staff not available…………………[ ]
   f) Delivery was abrupt ………………[ ]
   g) No transportation………………… [ ]
   h) Other specify………………………..

18. Who assisted you with (NAME's) delivery?

   Health Professional

(Probe for most qualified person)
   a) Doctor……………………………. [ ]
   b) Midwife………………………….. [ ]
   c) Nurse/Staff nurse …………………[ ]
   d) Clinical Officer……………………[ ]
   e) PHO/PHT ……………………….. [ ]
   Other person

   e) TBA ……………….. [ ]   *Go to 19*
   f) CHW …………………. [ ]   *Go to 19*
   g) Family member specify...[ ]   *Go to 19*
   h) Quack …………………. [ ]   *Go to 19*
   i) None …………………. [ ]
   j) Other specify………………………..

19. Did the person who attend to you at home give you traditional medicine to aid you in contraction of the uterus?
   a) Yes……………………………. [ ]
   b) No ………………………..……... [ ]
   c) Don't know……………………… [ ]

20. What type of materials did your birth attendant use during your last pregnancy & delivery?
   a) Massage oils ……………………. [ ]
   b) Ordinary first aid kit ……………. [ ]
   c) Home prepared clean materials [Pieces of cloth, etc] ……………. [ ]
   d) Wore gloves …………………….. [ ]
   e) Other specify………………………

21. What was the instrument used to cut cord?
   a) New razor blade…………………. [ ]
   b) Other instrument specify……………

22. Who cut the cord?
   Health Professional
   (Probe for most qualified person)
   a) Midwife…………………. [ ] *Go to 23*
   b) Nurse ………………..... [ ] *Go to 23*
   c) Clinical Officer ……........ [ ] *Go to 23*
   d) PHO/PHT ………………. [ ] *Go to 23*

   Other person
   e) TBA ………………….. [ ]
   f) CHW……………….......... [ ] *Go to 23*
   g) Self ………………………..[ ] *Go to 23*
   h) Quack………………….. [ ] *Go to 23*
   i) Other specify…………… [ ] **Go to 23**

23. When did you seek professional help?
   a) Right after the labour pain……… [ ]
   b) During child birth ……………… [ ]
   c) After birth of baby……………… [ ]
   d) Other specify……………………….

24. Where was (NAME) put immediately after birth?
   a) With mother…………………… [ ]
   b) In cot ……………………………… [ ]
   c) On floor……………………….. [ ]
   d) Bathed………………………... [ ]
   e) Don't know……………………… [ ]
   f) Other specify………………………..

25. What did you do with (NAME) immediately after birth?
   a) Breastfed………………………... [ ]
   b) Bathed …………………………... [ ]
   c) Let sleep………………………… [ ]
   d) Don't know……………………..... [ ]
   e) Other [specify]……………………

26. Who made the final decision about where you would give birth?
   a) No one …………………………….[ ]
   b) Myself……………………………..[ ]
   c) Me & my husband……………… [ ]
   d) Husband………………………… [ ]
   e) My mother……………………….. [ ]
   f) My father…………………………. [ ]
   g) Mother-in-law……………………. [ ]
   h) Father-in-law ……………………. [ ]
   i) Sister/sister-in-law…………………[ ]
   j) Other member of my family ………[ ]
   k) Friend/neighbour…………………. [ ]
   l) Health professional……………….. [ ]
   m) TBA …………………………….[ ]
   n) CHW…………………………….. [ ]
   o) Other specify………………………..

THANKS FOR YOUR PARTICIPATION IN THE STUDY