SCHOOL OF PUBLIC HEALTH

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THE INFLUENCE OF FREE MATERNAL SERVICES ON SUPERVISED DELIVERY IN THE KADJEBI DISTRICT OF THE VOLTA REGION

BY

FRANK AKOTO

(10396900)

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DECLARATION

I hereby declare that apart from references to other peoples' work which have been duly acknowledged, this dissertation is as a result of my own independent work. I further declare that this dissertation has not been submitted in part or whole for the award of any degree in this institution or any other universities elsewhere.

……. **DATE**……

FRANK AKOTO

(STUDENT)

……. **DATE**……..

DR. MERCY M. ACKUMEY

(ACADEMIC SUPERVISOR)

DEDICATION

This work is dedicated to my lovely wife Fortune Deladem Asamoah, my dearest son John Joy Kafui Akoto, my siblings, the entire Asinyo family especially Victoria Emefa Asinyo and my lovely parents Elizabeth A. Quashie and Henry K. Akoto.

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I thank God almighty for bringing me this far and giving me the grace to complete this programme successfully.

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ABSTRACT

INTRODUCTION: Increasing the proportion of birth supervised by skilled birth attendants is an internationally agreed objective. However, available data indicate that little progress has been made in Ghana and the Sub-Saharan Africa. Though there is over 80% coverage of antenatal attendance in Ghana, there is a pervasive maternal services utilization that would result in an increase in skilled supervised delivery. Yet, there may be some mediating factors that are poorly understood.

OBJECTIVE: The main purpose of this study was to examine the extent to which the free maternal services have influenced skilled supervised delivery in the Kadjebi district of the Volta Region.

STUDY DESIGN: The study was a quantitative type involving a cross sectional survey where questionnaires were used to elicit responses from the respondents.

METHODS; A total of 250 people constituted the respondents. This included 50 health providers and 200 women between the ages of 15-49 and who gave birth between (2011-2012) and are residence of the district. Four out of ten health facilities were purposively selected for the study.

RESULTS: The result revealed that out of the 200 women who were sampled for the study, 175(87.5%) of them delivered at a health facility while 25(12.5%) delivered at home. The use of health facility for delivery supervised by skilled birth attendants rate was very high (87%), with regards to age, education and occupation showing significant relationships. On the whole, deliveries supervised by skilled attendants have increased tremendously in the district. The findings showed that, majority of the women were very satisfied with the kind of services received during antenatal visits, deliveries at the labor ward and postnatal clinics.

The results also suggested that, there are inadequate number of midwives and nurses to handle all the maternity cases in the district; this is represented by 72% of the total respondents.

CONCLUSIONS: To some large extent the free maternal services have positively influenced women decisions regarding seeking deliveries supervised by skilled birth attendants in the district. Meanwhile the supply of resources would greatly improve the quality of service delivery.

ACRONYMS/ABBREVIATIONS

ANC	-	Antenatal Care
CHPS	-	Community-based Health Planning and Services
GDHS	-	Ghana Demographic and Health Survey
MDG's	-	Millennium Development Goals
MOH	-	Ministry of Health
NDPC	-	National Development Planning Commission
NHIS	-	National Health Insurance Scheme
SBA	-	Skilled Birth Attendants
SPSS	-	Statistical Package for the Social Scientist
TBA	-	Traditional Birth Attendant
UNDP	-	United Nations Development Programme
UNFPA	-	United Nations Population Fund
UNICEF	-	United Nations Children's Fund
USAID	-	United States Agency for International Development
WHO	-	World Health Organization

CHAPTER ONE

1.1. BACKGROUND TO THE SYUDY

There is now a widespread consensus hence a growing movement, globally and specifically in the African continent, to reduce financial barriers to health generally. This consensus movement places special emphasis on high priority services and mostly the vulnerable groups in societies (Sophie, Sam, Armah-Klemesu & Graham, 2009). Hence countries across the globe are implementing policies and programs to improve the quality of health delivery so as to curb the high morbidity and maternal mortality reported cases of the world.

Report indicated that, approximately 53 million women worldwide give birth at home every year without the help of specially trained skilled attendant (UNICEF, 2009). In 2008, an estimated 342,900 women died in childbirth worldwide (Hogan et al, 2008). A vast global disparity exists with more than 99% of the maternal death taking place in low and middle- income countries. The maternal mortality ratio (MMR) represents the number of maternal deaths per 100,000 live births. Maternal mortality ratio has decreased in Asia and Latin America in the past two decades, but has remained near constant in Sub-Saharan Africa (WHO, UNICEF, UNFPA et al, 2012). But on the whole, giving birth at home is known to result in high maternal mortality and improving maternal health is one of the eight Millennium Development Goals five (MDGs 5) (WHO, UNFPA, WORLD BANK 1999; UNICEF, 2009). It is widely accepted that, the use of maternal health services help in reducing maternal morbidity and mortality (WHO, 2005). On health policy and advocacy, countries like, Botswana, Burundi, Senegal, Uganda and Zimbabwe have developed policies such as free delivery policy for pregnant women as a strategy to increase proportion of deliveries attended to at the health facilities (UNFPA, 2004).

In order to reduce maternal mortality, the Government of Ghana in September 2003 introduced the free delivery policy or exemption policy for users of maternity services from paying fees in the four most deprived regions of the country which are Central, Northern, Upper East and Upper West regions (MOH, 2005). The free delivery policy was later extended to the remaining six regions of Ghana in April 2005 with the aim of reducing financial barriers to using delivery services (MOH, 2005). The current data indicate that Ghana has persistently unacceptable high maternal mortality ratio ranging from 350 to 100,000 live births in 2012 (MOH, REPORT, 2012). The prospect of the free delivery policy or exemption policy is to increase in the use of skilled birth attendance for pregnant women during child birth especially in the health facilities and consequently to see a reduction in maternal and prenatal mortality rates and also to contribute to poverty reduction. In view of the above, this study was aimed at examining the extent of influence of the free maternal services on supervised deliveries.

1.2. STATEMENT OF THE PROBLEM

One of the key or critical elements in advancing maternal health is skilled supervised delivery provided by skilled professionals during pregnancy and childbirth. It is evidenced in Ghana that, three quarters of all maternal deaths occur during birth and the immediate post-partum period. However, 56.6% as the current rate of skilled birth attendance (SBA) or supervised delivery does not only remain low in Ghana, but also a significant equity gap exists across regions and within regions—urban and rural disparities (NDP & UNDP, GHANA, 2012). The last health survey, Ghana Demographic Health Survey (GDHS) report (2008), shows that, while 62 per cent of births were reported to occur in rural areas, less than half of births (43%) were assisted by SBA in rural areas, as against the national average of approximately 57 per cent of births.

In relation to regional variations, according to the GDHS (2008) report, the utilization of SBA ranged from a high of 84 per cent in the Greater Accra Region to a low of 27 per cent in the Northern areas in 2008. The disparities among the regions appear to be worsening as revealed by recent data on supervised delivery in 2010. That is to say, six of the country's ten regions improved coverage of supervised delivery between 2009 and 2010, with four regions, Western, Eastern, Greater Accra and Volta regions experiencing a drop in supervised deliveries .

Experts argue that at current pace, Ghana may not be able to achieve the MDGs in relation to maternal and child health by the year 2015 if there will not be an urgent redrafting of policy and the operational strategies with the view to reposition maternal and child health promotion issues in Ghana (Yamikeh, 2008). The extent of assistance a pregnancy woman receives has important health consequences or implications for both mother and the unborn baby. Traditionally, most pregnant women prefer home deliveries in Ghana (Bazzano, Kirkwood, Tawiah-Agyemang, Owusu-Agyei & Adongo, 2007). Meanwhile, home deliveries are often carried out with unprofessional attendants under unhygienic conditions, whereas births delivered at a health facility are more likely to be delivered by a skilled care worker who is adequately trained and equipped with standard instruments and midwifery skills.

In Ghana, several interventions targeting the reduction of maternal mortality have been implemented. Notable among these is the free delivery policy or user fee exemption policy instituted from 2003 to 2005 to exempt all pregnant women from paying for delivery costs at health facilities. Kadjebi district is a beneficiary of this social intervention program. Hence the reason for the choice of the district is that, no formal study has been conducted to ascertain how the free delivery policy influences skilled supervised delivery. It's of this regards that, the current study seeks to examine the extent

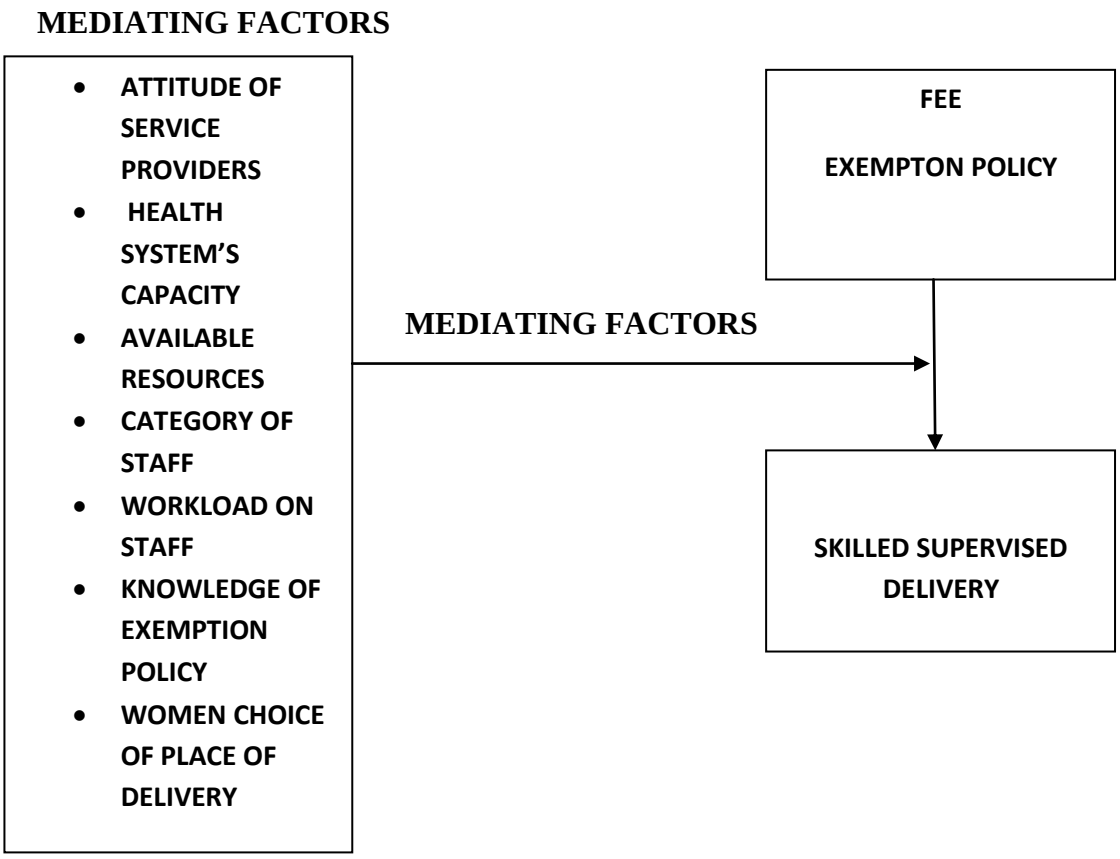
of influence of the free maternal services on supervised delivery in the Kadjebi district. Paramount to this study is the question, what is the influence of free maternal services on skilled supervised delivery?

1.3 CONCEPTUAL FRAMEWORK

This study will employ a conceptual framework for innovation in healthcare. This is as a result of the introduction of the free delivery policy which was adopted as an innovation in healthcare delivery in Ghana. Innovation in healthcare are related to product, process or structure (Varkey, Horn & Bennet, 2008).

Healthcare innovation is defined as the introduction of new concepts, idea, service, process or product aimed at improving treatment, diagnosis, education, outreach, prevention and research (Gupta, 2008). Therefore the introduction of the free delivery or the exemption police is in relation to innovation in health as envisaged by Varkey et al, 2008. The healthcare innovation framework diagram below shows how skilled supervised delivery being influenced by the fee exemption policy or free delivery policy which is an innovation in healthcare and some mediating factors. Mediating factors are factors that affect the operation of the free delivery policy which is aimed at promoting skilled supervised delivery. The model is looking at how the fee exemption policy influences skilled supervised delivery. There are mediating factors like, attitude of service providers, available resources, category of staff, and the health system's capacity that would either positively or negatively influenced skilled supervised delivery.

Figure 1.0 A conceptual framework on the conditions that would ensure skilled supervised delivery.



The arrows in the figure above show the direction of influence of factors. From the figure, mediating factors are in the left column and these factors can influence positively or negatively the operation of the fee exemption policy. Secondly, the introduction of the free delivery policy is to promote skilled supervised delivery among women.

1.4 JUSTIFICATION OF THE STUDY

Disparities occur among regions in relation to supervised delivery. The Volta region was cited among four other regions which recorded a drop in supervised delivery in 2010. In relation to this, the study is significant as this will in turn inform policy makers to propose appropriate interventions to enable the district and the country at large achieve the MDGs

five of attaining 90 percent supervised delivery targeted by 2015. It is in view of this that more rigorous examination of the extent to which the free maternal services influence skilled supervised delivery, is needed to strengthen the health system's capacity to deliver quality health services in Ghana. Even though experts envisaged the impossibility of Ghana not achieving the MDG 5 targeted by 2015, the researcher strongly believe that, the outcome of this study will put the district and the country in a better place to rethink of strategies to put Ghana on a higher pedestal to achieving MDG 5 by 2015.

The study will also contribute to knowledge of skilled supervised delivery and the need to encourage women on the benefits of institutional delivery since no such study has been carried out in the district.

CHAPTER TWO

LITERATURE REVIEW

2.1 OVERVIEW

The low and middle-income countries across the world continue to bear the larger portion of the problem of pregnancy related deaths. It is recognized that access to quality skilled delivery care will be a better contributing factor to reducing maternal mortality and morbidity. The importance of this situation is reflected in the Millennium Development Goal (MDG) five, aimed at reducing maternal mortality ratio by 75% by the year 2015 (Ghana Medical Journal, September 2007).

The available literature relating to maternal health services such as skilled supervised delivery has been organized in line with the objectives of the study. Therefore the literature was reviewed under the following headings as determinants of delivery place, skilled supervised delivery (skilled attendant), available resources and attitude of health staff that would ensure quality skilled supervised delivery.

2.2 FACTORS WOMEN CONSIDER IN CHOOSING DELIVERY PLACE

Women are expected to have a good experience and a positive view of the support provided through the three stages of maternity care, that is pregnancy, labour and birth and the postnatal period. Yet some women either had bitter experiences throughout these emotional moments' whiles others end-up losing their lives. Therefore the most prudent way to reduce maternal mortality is to encourage women to seek skilled birth attendant at health facilities (Campbell & Graham, 2006). Despite this, most women decision about the choice of place of delivery are influence by several factors. These factors normally range from demographic and cultural to socioeconomic circumstances that influence such decisions. A study conducted by Vanphanon et al, (2012) in Laos People's Democratic Republic revealed some obstacles that

were encountered by women for giving birth at health facilities. These obstacles include; the distance to the health facilities and the cost of getting there, attitudes of service providers, quality of care, lack of privacy and the inability of the health workers to allow the pregnant women to lie in their favorite position during delivery are among reasons why home delivery is preferred to institutional deliveries. Also most pregnant women prefer or wish to have their family members by their side during delivery while the presence of male staff also deterred them, hence choosing home delivery place over the health centers. It was further revealed that, traditional birth practices such as giving birth in a squatting position is most preferred by pregnant women but health providers would not allow them to do what they want. In the rural Lao People's Democratic Republic, the decision about where to give birth was commonly made by mothers' in-law or relatives, woman's husband in consultation with the woman herself.

In another study on geographical access to care at birth in Ghana, a third of women in Ghana live beyond the clinically significant two hour threshold from accessing health facilities that offer emergency obstetric and neonatal care which is far beyond the standard or acceptable distance (Gething et al, 2012). In the most remote regions, the distance is further away making it difficult in offering life-saving services such as blood transfusion and surgery for women in need of these emergency services (Gething et. al, 2012) Currently, the international benchmarks of maternal health care provision are inadequate for these purposes because they fail to take account of the location and accessibility of services relative to the women they serve in most part of the country (Gething et al, 2012).

A measure of the proportion of delivery assisted by skilled attendants is one of the indicators of progress towards achieving Millennium Development Goal (MDG) five, which aims at improving maternal health. A study aimed at establishing delivery practices and associated factors among mothers seeking child welfare services in some selected health facilities in

Nyandarua south district Kenya revealed that majority of women were delivered of babies by unqualified or unskilled birth attendants. Among the attendants were neighbors, relatives and TBAs. The most frequently mentioned reason for not delivering in a health facility were the perceived delays in being attended to, fear of episiotomy and distance to the health facilities, (Wanjira , Mwangi, Matheng & Mbugua, 2011).

Low maternal education, age, religion, unemployment among husbands, first pregnancies at less than eighteen years of age are among the possible reasons that increase the likelihood of home deliveries in Subuwar Unguwa, Magume district of Zaria (Iddrisu, Gwarzo, & Shehu 2006; Ekele & Tunau, 2007) on the determinants of place of delivery among women in semi-urban settlement in Zaria Northern Nigeria. It was concluded that, in order to encourage institutional delivery, girl child education, and income generating activities and training of TBAs could help reduce to the barest minimum the high rate of home deliveries and its consequences.

In another related study which is consistent with the already alluded facts is that, women to some large extent consider attitude of health providers, proximity of health centers, attendance of antenatal clinic (ANC) at site, availability of supplies and drugs were among other things that influenced women decision of their delivery choice,(Kkonde, 2010).

Understanding the utilization pattern of maternal health care services has been largely accepted as an important factor for reducing maternal deaths. A study which is consistent with this was the investigation of the effects of neighborhood and individual socioeconomic position on the utilization of different forms of place of delivery among women of reproduction age in Nigeria by Aremu, Lawoko & Dalal, (2011). The investigation unearthed that; the choice of delivery place varies across the socioeconomic strata especially in the low and the middle income countries of the world. The result of the multilevel discrete choice

model indicate that with every other factor controlled for, the household wealth status, and women's high level of education attainment and possession of health insurance were largely associated with the use of private and government health facilities for childbirth relative to home delivery. The result further proved that, high birth order and young maternal age were significantly associated with the use of home delivery. Hence living in a highly socioeconomic disadvantage neighborhood is associated with home deliveries as compared to patronage of government health facilities, (Aremu, et al, 2011).

2.3 SKILLED SUPERVISED DELIVERY

In every health facility, the presence of skilled or qualified health attendant during childbirth and immediate postpartum newborn period is essential in saving women and their babies from certain complications. They have the special skills necessary to deliver essential maternal and newborn care in many settings including home, the community health post and hospitals (Kinzie & Gomez, 2004).

One of the most important interventions recognized for reducing maternal death is access to skilled birth attendant. (D'Ambruoso, Abbey & Hussein, 2005). This is in line with a study conducted in Samra Sahari District, Ethiopia which revealed that, out of a total of women who participated in a qualitative survey; the proportion of women who received antenatal for their recent babies was much higher. The surprising issue is that, among those who attended antenatal, only a few of the mothers gave birth at health facilities and were assisted by skilled birth attendant. This was an indication of low supervised delivery despite the fact that a good number of women visited antenatal care; it does not necessarily influence or translate into institutional deliveries, (Yalem Tsegay, 2010). Also the fact that if women do not attend at

least one antenatal care session they would not be able to use the hospital for free if they have an emergency.

In 2007, a study on the evaluation of the delivery fee exemption policy in Ghana and population estimate of changes in delivery utilization in two regions was conducted by (Suzanne, Harrison, Jacqueline & Fitzmanrice, 2007). Their finding was that, after the implementation of fee exemption policy, the percentage of institutional deliveries alongside supervised delivery rose significantly in both Central and Volta regions. This is attributed to the impact of the social intervention which encouraged the poor to utilize health facilities for their deliveries, (Suzanne et al, 2007). In the same vein, there was a positive and a significant impact on the proportion of births supervised by trained medical professionals resulting from the exemption policy which is seen to be achieving its pro- poor objective,(Karen, 2009).

Progress in professionalization of maternity care has been held back by stagnation in rural areas, mainly in the Sub-Sahara Africa and South-eastern Asia (Koblinsky et al, 2006). To increase the supply of professional skilled birthing care, strategic decisions must be made by various governments in areas like training; deployment and retention of health workers in their respective countries as well as the willingness to serve in deprived areas of those countries. All women who want to have babies want to do so safely with reassurance and care throughout their pregnancy, during birth and postpartum period for themselves and their babies (Koblinsky et al, 2006). But the shortfall in professional skilled care providers such as doctors, nurses, midwives, obstetricians and anesthetists and particularly worker density can affect maternal mortality rates (W.H.O 2006; Anands, Baringhausen, 2004). Yet the gap in human resources and supportive infrastructure for maternal health is estimated to be large according to the World Health report (2005) calculations, nearly three times the current

number of health professionals (about 700,000) are needed for full coverage of women during childbirth from now till 2030(W.H.O, 2006). These estimations were based on new W.H.O benchmarks of the facilities and human resources that are needed to facilitate the coverage of births with essential first level and back-up care in 75 countries including Ghana. This underscore the need to document the supply and geographical distribution of professional skilled care providers and their required supportive infrastructure which would to some large extent contribute immensely to improving skilled supervised delivery (W.H.O, 2005).

Apart from the inadequacy of the trained and skilled personnel in providing skilled supervised delivery, there are some barriers as to why some women are not accessing the services of professional care givers. These barriers range from lack of availability of suppliers, equipment, electricity, water, proper washrooms, vehicles, dilapidated and unusable buildings, and lack of referral coordination. Others include culturally inappropriate care, user fees within facilities and delaying timely care, delays within the facilities, and lack of support for women from families, poor staff attitude, discrimination and abusive services by service providers (Koblinsky et al, 2006).

There is effort from public health advocates, educating and encouraging pregnant women to ensure that, they utilize clinics, maternity homes, hospitals among other things for their deliveries. The purpose is to increase skilled supervised delivery, but this cannot be effectively achieved if there are inadequate resources to support such vision.

2.4 AVAILABILITY OF RESOURCES

The availability and efficient use of standard resources in any health facility is a pre-requisite indication of ensuring skilled supervised delivery. The presence of qualified and skilled health personnel's become insufficient without the basic resources and infrastructure. One of such resources that ensure quality supervised delivery is the use of partogram.

In other literature reviewed by (Oye-Ita, Etuk, Ikpeme, Ameh & Nso, 2007) equipment, instruments and suppliers such as drugs (like misoprostol – a life saving drug and oral uterotonics), oxygen, water and ambulance for referral services in terms of emergencies have been identified as equally important for proper functioning and efficient management of maternal and newborn child units. Specifically, basic amenities such as water, good sanitation, and sources of power, sterilizers, and hand gloves among others are also essential in preventing infections during deliveries thereby protecting the mother and the new born baby (Oye- Ita, et al, 2007). It is becoming more evident that most maternal mortality cases are avoidable and avoidable loss of women's lives in pregnancy and childbirth in low and middle income countries has been a subject of investigation in the recent times. (Storeng, Murray, Akoum, Quattara & Filippi, 2010).

This is consistent with a study conducted on listening to women's voices: the quality of care of women experiencing severe maternal morbidity in Accra, Ghana. The study unearthed that, women perception of the quality of care expected or received at any health facility include the information, good communication and attitudes of health workers and more importantly availability of human resources (such as more doctors, midwives and nurses) and the presence of more physical resources such as beds, water and mosquito nets at the facility (Tuncalp, Hidin, Adu-Bonsaffoh & Adanu, 2012). Apart from having adequate resources to prevent infections during child birth and to enhance skilled supervised delivery, one very

important mediating factor that determines the success of skilled supervised delivery is the attitude of the service providers.

2.5 ATTITUDE OF SERVICE PROVIDERS

One may wander us to what attitude got to do with ensuring skilled delivery, but the researcher beg to differ that, since the health providers are dealing with human, then their attitude greatly count to ensure quality health delivery. In most part of the world, women describe health care providers as unkind, rude, brusque, unsympathetic and uncaring (Ogunlesi, 2005). In the face of such treatment, the use of formal health facility may be the last resort for most pregnant women across the world. In a study conducted in Tanzania for example, a significant number of women delivered at home even though they were aware that, institutional deliveries are safer (Muela, Mushi &Riberan, 2000). Pregnant women who are already experiencing a stressful condition would not like to be further abused by most at times a fellow woman by virtue of being a midwife or a nurse.

In a similar manner, other studies cited in Muela & Ribera, (2000) found that health providers especially those in the public institutions turned to be more hash. This was more evident with clients who have little or no education, whose appearances are not welcoming, and who is from different ethnic groups. However, they concluded that, in several cases, health provider's reaction and attitude reflect their own frustration with their work. Thus shortage of suppliers, excessive workload and poor infrastructure can make it difficult for them to provide what is perceived as good quality care. Late or non-payment of salaries and lack of supervision can also make health workers resentful and unmotivated thereby most at times averting their frustrations on clients, (Muela & Ribera, 2000).

Nevertheless, a good number of studies in Ghana cited poor attitude of health staff as perceived by mothers to be a significant factor influencing or determining their choice of place of delivery. Others also found staff behavior which was characterized as unfriendly as a significant factor influencing mother's access and utilization of maternal health services for deliveries in Ghanaian rural communities (D'Ambruoso, Abbey & Hussein, 2005; Jansel, 2006).

Health system do not operate in a vacuum rather overall health system characteristics affect how managers and health workers attitude or behavior is influence by salaries, scales, and suppliers. Dealing with this complex and layered performance issues requires approach focusing on individual health workers need to be complemented by efforts to strengthen the total management capacity (Koblinsky et al, 2006). Women have reported receiving poor quality of maternity care services. Studies in countries like Benin, Jamaica, Ecuador and Rwanda suggest that health professionals' knowledge and skills are inadequate as compared with international norms or standards (Gbangbade et al, 2003; McCaw-Binns et al, 2004; Harvey et al, 2004; Boucar et al, 2004). In Ghana only a few births in health facilities at the primary level met criteria of good clinical practice (Hussein et al, 2004). This goes to emphasis and expose that, even if more women are accessing care with health professionals in health facilities at childbirth units, few are receiving clinical care of an adequate standard.

A number of studies have revealed that, maternity services and their care providers can be disrespectful, inhumane and at times exploitative (D'Oliveira et al, 2002; Jaffer et al, 2004). Other acts that negatively affect the ethics of professionalism and quality of service rendered to women are the offensive and demeaning language by health personnel. They also go to the extent of ridiculing women's poverty, clothing, parity, smell, hygiene, cries of pain or desire to remain clothed is not only disrespectful but abusive (Harvey et al, 2005).

Procedures during labor can be undertaken with little discussion, but might be considered shameful or disgusting to women and unnecessary by international standards (Kabakian et al, 2000; Delvaux et al, 2005). The avoidance of the above is the reason why some women who can no longer bear this in their next delivery would choose to deliver at homes and with traditional birth attendants.

OBJECTIVES OF THE STUDY

2.6 GENERAL OBJECTIVE

The main purpose of the study was to examine the extent to which the free maternal services have influenced skilled supervised delivery in the Kadjebi district of the Volta region.

2.7 SPECIFIC OBJECTIVES

Specifically the study seeks;

1. To examine factors that influence pregnant women's decision to seek skilled supervised delivery after the free delivery policy or exemption policy.
2. To examine the quality of health care from the perspective of mothers on skilled supervised delivery during the operation of the exemption policy.
3. To identify resources available to facilitate skilled supervised delivery after the implementation of the exemption policy.
4. To examine the attitude of service providers after the exemption policy towards the skilled supervised delivery.

CHAPTER THREE

METHODS

3.1 INTRODUCTION

This chapter discusses the methods used for the study. It focuses on the study design, profile of the study area, study population, sampling and sample size, sampling procedure, data collection and method of analysis, ethical consideration, and pre-testing.

3.2 TYPE OF STUDY

This is a cross sectional survey using structured questionnaires to elicit responses from the respondents.

3.3 STUDY AREA/ LOCATION

The study was conducted in the Kadjebi district located in the lower middle belt of the Volta Region and forms part of the three (3) Upper Northern districts of the region. It is bordered to the north by Nkwanta South District, to the south by Jasikan District, to the west by Krachi East, to the south east by Biakoye District and to the east by the Republic of Togo. The district has a total land area of 949 square kilometers. The occupation of the people in the district is predominantly agricultural, whiles others also engage in petty trading. The district has ten (10) health facilities without a government hospital, but one mission or faith based hospital, six clinics, two CHPS zones and one maternity home. The population of the district as at 2010 estimation was 61,520. Female population stands as, 31,623 representing 51.4%. The number of doctors, nurses, midwives and medical assistances in the district stands at 110. The district was chosen because; Volta Region was cited as one of the regions which recorded a drop in skilled supervised delivery in 2010. Also the district is classified as

deprived therefore it is worth knowing what is happening in Kadjebi District in relation to skilled supervised delivery since no such study has been conducted.

3.4 VARIABLES

The study considered the following variables of interest,

DEPENDENT VARIABLE

- Skilled supervised delivery (skilled attendant).

INDEPENDENT VARIABLE

- Free maternal health policy, attitude of service providers, resource, category of staff and health system's capacity. Others are,
- Demographic characteristics: age, education, religion, marital status.

3.5 STUDY POPULATION

The study population comprised of two groups. The first study population was women aged (15 – 49) years. The chosen age group represents women in the reproductive age bracket. They delivered babies within twelve (12) months before the study and were living in the Kadjebi district. The second category of the study population was health workers in the Kadjebi district including, (Doctors, midwives, nurses and trained birth attendants).

3.6 SAMPLING SIZE

The sample size for the study was determined based on Krejcie & Morgan (1970) approach for determining sample size for research activities in educational and psychological measurements. The formula as published by the research division of the National Education Association in the United States of America for determining sample size is given by:

$s = X^2NP(1-P) \div d^2(N-1) + X^2P(1-P)$, where

s = required sample size;

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841);

N = the population size;

P = the population proportion (assumed to be 0.50 since this would provide the maximum sample size);

d = the degree of accuracy expressed as a proportion (0.05).

The size of the population and the amount of error determines the size of randomly selected sample. Therefore:

- If health workers population was 110, then the random sample size should be **46.**
- The population of women in the district was, **31,623**.
- But according to age population distribution, those between(15-49) years were **991** and they constitute reproduction group, hence the random sample size should be **203**
- Hence the total sample size for health workers was approximated to be **50.**
- Whiles the total sample size for mother was approximated to be **200.**

3.7 SAMPLING METHOD

The researcher conveniently selected four (4) out of ten (10) health facilities within the district. This was based on criteria of facilities that are well attended by clients in the judgment of the researcher considering the limited time available for data collection.

Purposive sampling was used to select service providers at those selected facilities. For the purpose of this study, specially trained birth attendants were required to ensure skilled supervised delivery (e.g. Doctors, midwives, nurses and other trained birth attendants), hence the reason for choosing the purposive sampling method.

3.8 DATA COLLECTION TECHNIQUE

Structured questionnaires were used to collect the data from mothers who visited the child welfare clinic or the postnatal clinic and the health workers who provide their services at the maternity ward.

3.9 QUALITY CONTROL

To ensure quality outcome of the study, the following were done;

1. Four research or field assistants who could speak the local language were recruited and trained to help with the data collection. They were trained and introduced to the topic, its objectives, rational and data collection techniques.

2. The data collected were analyzed by the researcher. Data cleaning and analysis was done using Statistical Package for the Social Scientist (SPSS).

3.10 DATA PROCESSING/ANALYSIS

SPSS program was used to analyze the data in two (2) main ways; first, frequency tables were used to present the various background variables. These variables included, age, marital status, occupation, educational status e.t.c. Secondly, Cross tabulation was used to determine the association between the dependent variable (skilled supervised delivery) and the independent variables which included free maternal health policy, attitude of service providers, resource, category of staff and health system's capacity. Other independent variables were demographic characteristics that included age, education, religion and marital status.

For Logistic regression

It is an approach to classification whereby all or some of the variables are qualitative. The dependent variable is dichotomous in the simplest form of the case of the regression. If the proportion of one of the dependent variables in the population is p, then the proportion of the other variable would be given as 1 – p. The odds ratio is given as $p/1 - p$. When the natural log of the odds ratio is taken, we get what is called the logit which is used in the logistic regression analysis. Thus the logit (p) is given as $\ln(p/1-p)$. The confidence interval enables to access the significance of the various terms in the model of the logit.

The logistic regression was used to measure the relationship between the categorical dependent variable and the independent variables. The logistic function is given as $P = \frac{e^{\alpha+\beta x}}{1+e^{\alpha+\beta x}}$ where P is the probability of a 1, e is the natural logarithm and α and β are the parameters of the model.

For Fisher exact test

It measures the exact probability value for the relationship between two dichotomous variables in a two by two contingency table. This test is useful when the expected values are small. It works in the same way as the Chi-square test for independence but the Fisher exact test is a better choice.

3.11 ETHICAL ISSUES

Ethical clearance was sought from the Ghana Health Service Ethical Review Board. Confidentiality and privacy were assured and consent form given to the participants to fill. Confidentiality and anonymity of respondents was also assured.

3.12 PRE-TEST

Pretesting of the test instrument was done at the Jasikan District Hospital. This was because the respondents there also have the same characteristics as those of the study area. The pretesting was done one month before the actual study. The reason for pre-testing of the test instrument was to ensure reliability and validity of the test instruments used.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

This chapter presents the major findings of the study. The results are described in two sections. The first describes the demographic characteristics of the respondents and the second section describes the findings from bivariate and multiple logistic regression analysis.

4.1 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

A total number of 200 women who gave birth or attended postnatal clinic in the Kadjebi district were interviewed. In all participants of the study completed the questionnaires. Table 4.1 summarized the background characteristics of the study sample. Their ages ranged from less than 20 to 40 years and above. The minimum age was 16 years and the oldest being 45 years. The mean age was 27 years with a standard deviation of 7 years. The majority of respondents (29%) were aged 25-29 years; whilst the age group with the lowest representation was 40 years and greater. Of the total respondents, Christians were 62%, those of Islamic faith were 36%, and traditionalists were about 3%. On the basis of ethnicity, 47% were Ewes, 21% Akan, 2% Ga-Adangbe and some 30% being from other ethnic groups.

Table 4.1 Demographic Characteristics of respondents

Demographic Characteristics	Frequency	Percent (%)	Cumulative Percentage (%)
Age			
Less than 20	21	10.5	10.5
20-24	52	26.0	36.5
25-29	58	29.0	65.5
30-34	37	18.5	84.0
35-39	20	10.0	94.0
≤ 40	12	6.0	100.0
Total	**200**	**100**	**100**
Education			
No education	35	17.5	17.5
Primary	32	16.0	33.5
Middle/JHS	79	39.5	73.0
SHS/Technical	30	15.0	88.0
Tertiary	24	12.0	100.0
Total	**200**	**100**	**100**
Marital Status			
Single	36	18.0	18.0
Married	160	80.0	98.0
Divorced	4	2.0	100.0
Total	**200**	**100**	**100**
Religion			
Christianity	123	61.5	61.5
Traditional	5	2.5	64.0
Islam	71	35.5	99.5
Other	1	0.5	100.0
Total	**200**	**100**	**100**
Ethnic group			
Ewe	94	47.0	47.0
Akan	42	21.0	68.0
Ga-Adamgbe	4	2.0	70.0
Other	60	30.0	100.0
Total	**200**	**100**	**100**
Occupation			
Professional	26	13.0	13.0

Skilled Labour	42	21.0	34.0
Unskilled Labour	75	37.5	71.5
Unemployment	57	28.5	100.0
Total	**200**	**100**	**100**

Source: Survey date, 2013.

4.2 FACTORS THAT INFLUENCE CHOICE OF PLACE OF DELIVERY

The relationship between demographic characteristics and supervised delivery was accessed using fisher's exact test; the results indicated that education, occupation and husband's education had significant relationship with supervised delivery. The trend of the results showed that generally as education, occupation and husband's education increased there was a corresponding increase in the number of pregnant women who sought supervised delivery (Table 4. 2).

Table 4. 2 A table showing the influence of Demographic Characteristics by supervised and unsupervised delivery

Demographic Characteristics	Skilled/ Supervised Delivery N=124 (%)	Unskilled/ Unsupervised Delivery N=74 (%)	P-values N=200
Age			
<20	7.6	3.0	0.090
20-24	20.7	5.6	
25-29	18.2	10.6	
30-34	10.1	8.6	
35-39	3.0	6.6	
40-44	2.5	2.0	
≥45	0.5	1.0	
Respondent's Education			
No education	14.1	3.0	**0.000**
Primary	12.1	4.0	
Middle/JHS	25.8	14.1	
SHS/Technical School	7.6	7.1	
Tertiary	3.0	9.1	
Marital Status			
Single	14.1	4.0	0.094
Married	47.5	32.3	
Divorced	1.0	1.0	
Marital Status			
Single	14.1	4.0	0.094
Married	47.5	32.3	
Divorced	1.0	1.0	
Occupation			
Professional	3.5	9.6	**0.001**
Skilled Labour	14.1	7.1	
Unskilled Labour	24.2	12.6	
Unemployed	20.7	8.1	

Source: Survey date, 2013. * Results are stated in percentages. Fisher's exact test was used for comparison between skilled supervised delivery and unskilled supervised delivery. Values in bold indicate statistical significance ($p \leq 0.05$).

Table 4. 3 Unadjusted analyses of demographic Characteristics of pregnant women with skilled supervised delivery and unskilled supervised delivery

Demographic Characteristics	Unskilled Supervised Delivery N=74	P-Values
	OR (95%CI)	
Age		
<20	Ref	
20-24	1.5 (0.47,4.74)	0.499
25-29	0.7 (0.23,2.04)	0.497
30-34	0.5 (0.15,1.48)	0.198
35-39	0.2 (0.48,0.72)	**0.014**
40-44	0.5 (0.10,2.53)	0.402
≥45	0.2 (0.02,2.64)	0.222
Respondent's Education		
No education	Ref	
Primary	0.6 (0.20,2.12)	0.467
Middle/JHS	0.4 (0.14,1.06)	0.064
SHS/Technical School	0.2 (0.07,0.72)	**0.012**
Tertiary	0.7 (0.02,0.26)	**0.000**
Occupation		
Professional	Ref	
Skilled Labour	7.0(2.46,19,71)	**0.000**
Unskilled Labour	5.2 (1.85,15.96)	**0.002**
Unemployed	5.2(1.93,14.06)	**0.001**
Marital Status		
Single	Ref	
Married	0.4 (0.18,0.98)	**0.045**
Divorced	0.2 (0.04,2.36)	0.286
Husband's Education		
No education	Ref	
Primary	0.7 (0.04,12.84)	0.788
Middle/JHS	0.3 (0.03,2.38)	0.246
SHS/Technical School	0.1 (0.02,1.59)	0.124
Tertiary	0.1 (0.01,0.63)	**0.017**

Source: Survey date, 2013. Odds ratios, confidence intervals and p-values for all variables included in the adjusted model are shown in the table. OR=odds ratio, CI=confidence interval. Values in bold indicate statistical significance (p≤0.05).

From (table 4.3,) after the relationship, the variables were then investigated using unadjusted analysis in order to build the multiple regression models. Respondents with Age group "35-39" had negative association with unskilled supervised delivery. (OR=0.2, CI 0.48, 0.72). This means it had a significant relationship with unskilled supervised delivery. SHS/Technical School and Tertiary also were the educational group that had significant association with unskilled supervised delivery. The association was negative with CI 0.07, 0.72 and 0.02, 0.26 respectively. (Table 4. 3)

In addition, the respondent's occupation had significant association with the delivery type. Respondents (mothers) with skilled labour were about 7 times more likely to use unskilled supervised delivery than the professional's worker. Also, unskilled and unemployed respondents were about 5 times more likely to use unskilled supervised delivery than professionals (Table 4. 3). Respondents whose husbands had attained tertiary education had a negative relationship with the use of unskilled supervised delivery (OR =0.1, CI 0.001-0.63) (Table 4.3).

Table 4.4 Multivariate Logistic Regression of Demographic Characteristics associated with Skilled and unskilled Supervised Delivery of pregnant Women

Demographic Characteristics	B	P-value	Odds Ratio	95 % CI
Age	-0.352	**0.015**	0.703	0.530-0.934
Education	-0.619	**0.003**	0.539	0.356-0.815
Occupation	-0.132	0.535	0.877	0.579-1.328
Marital Status	-0.604	0.220	0.547	0.217-1.377
Husband Education	-0.114	0.610	0.892	0.577-1.381
Constant	5.396			

Source: Survey date, 2013.

*Only variables with p-value <0.25 are shown in the table except Occupation, marital status and Husband education because it was included in the multivariate logistic regression model. Values in bold indicate statistical significance ($p \leq 0.05$). Finally, a multiple logistic regression model was built to access the overall effect of Demographic Characteristics on Supervised delivery. People who were more educated and older were less likely to use skilled supervised delivery. (They had OR 0.539, 0.703 respectively).

OTHER FACTORS THAT INFLUENCE CHOICE OF DELIVERY PLACE

Table 4.5 below shows that, women who decided on their choice of place of delivery by themselves were 89.6% and they actually delivered at a health facility, while 10.4% delivered at home. The percentage of women whose decisions were made by their mothers and delivered at a health facility was 88.5%, while 11.5% delivered at home. Those who delivered at a health facility with decision of choice by mother-in-law were 75.9%, while 24.1% delivered at home.

Women with health insurance coverage and who were reported to have been delivered at a health facility formed 90.6%, while 9.4% delivered home. Among the respondents who believed that the free maternal health policy influenced their choice of place of delivery at the hospital were, 95.2% while 4.8% delivered at home. A high number of the women 195 (97.5%) of them were reported to have attended ANC at least once during their pregnancy, and out of this 90.6% of them delivered at a health facility while 9.4% gave birth at home.

TABLE 4.6 OTHER FACTORS THAT INFLUENCE CHOICE OF DELIVERY PLACE

	Place of Delivery		
	At Home (%)	**At Health F (%)**	**Total (%)**
Decision of choice of place of delivery			
Myself	7(10.4%)	60(89.6%)	67(100%)
Husband	5(10.4%)	70(89.6%)	75(100%)
Mother	3(11.5%0	23(88.5%)	26(100%)
mother-in-law	7(24.1%)	22(75.9%)	29(100%)
Friends	1(100%)	0(0%)	1(100%)
Health Insurance coverage			
No	7(77.8%)	2(22.2%)	9(100%)
Yes	18(9.4%)	173(90.6%)	191(100%)
Free maternal health Policy			
No	17(23%)	57(77%)	74(100%)
Yes	6(4.8%)	118(95.2%)	124(100%)
Professional care			
No	14(41.2%)	20(58.8%)	34(100%)
Yes	11(6.6%)	155(93.4%)	34(100%)
Advised where to go for ANC during pregnancy			
No	3(60%)	2(40%)	5(100%)
Yes	20(9.4%)	175(90.6%)	191(100%)
Use of ANC			
Less than 5	18 (18.2%)	54(81.8%)	66(100%)
5 and above	6(4.8%)	120(95.2%)	126(100%)

Source: Survey date, 2013.

Table 4.7: Estimated unadjusted and adjusted odd ratios and 95% CI for Other factors that influence delivery place

Variables	Unadjusted OR (95% CI)	P value	Adjusted OR (95% CI)	P value
Decision of choice of place of D.				
Myself	1			
Husband	1.4(0.41,4.82)	0.594	0.46(0.08,2.66)	0.504
Mother	0.77(1.12,3.32)	0.723	0.24(0.02,2.64)	0.389
mother-in-law	0.31(0.10,1.04)	0.058	0.19(0.03,1.24)	0.245
Friends	0	1	0	0.084
Health Insurance coverage				1
No	1			
Yes	0.03(0.01,0.14)	0.00*	0.02(0.001,0.58)	0.023*
Free maternal Health Policy				
No	1			
Yes	7.04(2.47,20.03)	0.00*	0.115(0.024,0.55)	0.007*
Professional care				
No	1			
Yes	9.16(3.62,23.17)	0.00*	0.18(0.04,0.84)	0.03*
Advised where to go for ANC during pregnancy				
No	1			
Yes	15.27(2.38, 97.79)	0.004*	4.11E+08	0.999
Use of Antenatal ANC				
Less than 5	1			
5 and above	4.44(1.59,12.47)	0.005*	1.052(0.24,4.65)	0.946

* P-value significant at 0.05

Women whose decision for the choice of place of delivery was by their husbands are 1.4 times more likely to deliver at a health facility than those who decided by themselves, OR=1.4 (0.41 - 4.82). Among women whose decision for the choice of place of delivery was by their mothers are less likely to deliver at health facility OR=0.77 (1.12 - 3.32) than those who decided by themselves. Among those whose decision for the choice of place of delivery is by their mother-in-law are less likely to deliver at health facility OR=0.31(0.10 - 1.04) than those who decided by themselves. Decision of choice of place of delivery is significantly associated with delivery at health

facility when the values were unadjusted. Women with health insurance coverage are less likely to be attended to by skilled birth attendants at a health facility as compared to those who do not. OR = 0.03 (0.01 - 0.14). Health insurance is significantly association with delivery at health facility when the values were unadjusted. Women who were influenced by the free maternal health policy to choose a place of delivery are 7 times more likely to seek supervised delivery than those who did not OR = 7.04 (2.47 - 20.03). Women who were advised to go for ANC during pregnancy are 15 times more likely to deliver at a health facility than those who did not OR=15.27(2.38, 97.79). Advised as to go for ANC during pregnancy is significantly associated with delivery at health facility. Meanwhile women who used ANC 5 and above are 4 times more likely to deliver in a health facility than those who use it less than 5 times given by OR =4.44(1.59,12.47).

Table 4.8 Quality of health Care from Mothers Perspective

Quality of Health Care	Frequency	Percent
Determinants of quality of services		
comforting words	157	78.5
Insulting	10	5.0
not welcoming	2	1.0
Did not care	8	4.0
No response	23	11.5
Total	200	100.0
Satisfaction with services		
very satisfactory	43	21.5
Satisfactory	126	63.0
Dissatisfactory	6	3.0
very dissatisfactory	4	2.0
No response	21	10.5
Total	200	100.0

Source: Survey date, 2013.

Table 4.8 suggested that, most women were welcomed to the labour wards with comforting words which result into 157(79%), while 12% did not respond. The other result from table 4.8 showed that, expectant mothers were welcomed with insulting words, indicating 10 (5%), whilst those health providers who did not care represent 8 (4%) and those not welcoming 2 (1%). The results from table 4.8 suggest that, 63% of the expectant mothers would grade the satisfaction of the care received from health staff as satisfactory whilst others, 22% grade them as very satisfactory.

4.9 Other factors that determines quality of care from mother's perspective

The table 4.9 summarized showed that more of expectant mothers (80%) were congratulated after their delivery of their babies but the rest were not. Also, more of them were given formal education /counseling on themselves and child care before discharged from health center which

formed 75% of them. About half of the women (51%) claim the number of midwives/doctors/nurses was enough to ensure quality service delivery. A proportion of 58% agree that, during the labor and delivery they felt that the doctor/midwives spent enough time with them, while 19% said not really to this. Some women who were interviewed and already had a child (parity) are indicated by 33%, while some 32% have two children. Another 16% have three children. The rest (5% & 10% respectively) have four and five children respectively. Most of the women (68%) have never given birth before the implementation of the free maternal health policy (introduced around 2005).

Table 4.9: Other factors that determines quality of care from mother's perspective

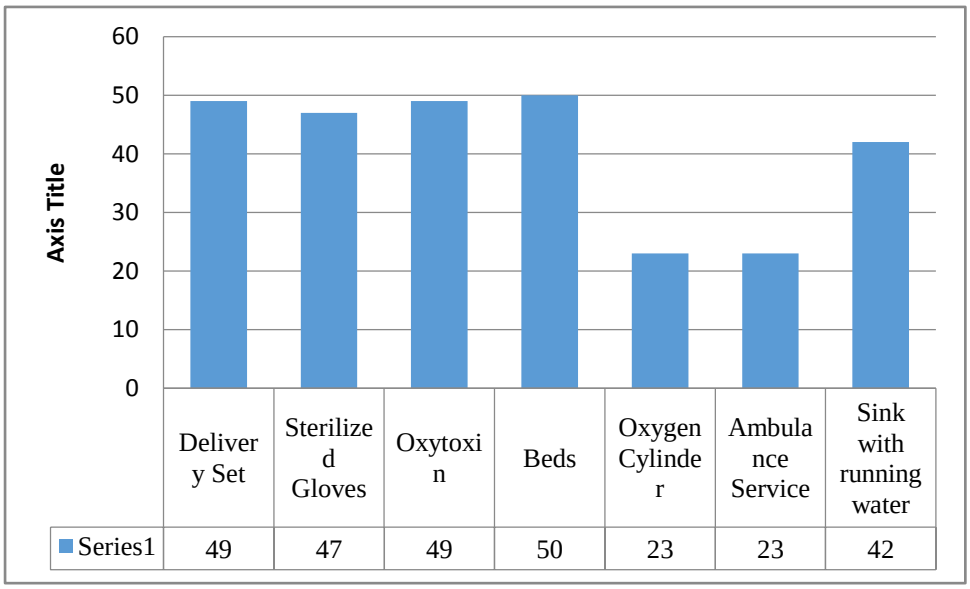
Determinants of care received	Frequency	Percent
Congratulated after delivery		
No	24	12.0
Yes	160	80.0
Any formal education/counseling		
No	17	8.5
Yes	149	74.5
Adequate number of skilled health staff		
No	81	40.5
Yes	102	51.0
Health staff relationship		
Excellent	26	13.0
very good	68	34.0
Good	81	40.5
Bad	7	3.5
No response	18	9.0
Quality of time spent		
No	64	35.6
Yes	116	64.4

Source; Survey date; 2013.

4.10 Resources available to facilitate skilled supervised delivery after the implementation of the exemption policy.

The findings suggested that, the most available resources the health facilities have were beds indicated by 18% as shown in figure 4.1. The next available resource was Oxytoxin (17%) and delivery set (17%), some 17% claimed sterilized gloves were available resources. The rest available resources are sink with running water (15%), Oxygen cylinder (8%) and Ambulance service (8%).

Figure 4.1: Resources available to facilitate skilled supervised delivery after the implementation of the exemption policy.



Source: Survey date, 2013.

Table 4.11: health provider's assessment of resources available to enhance supervised Delivery

Resources.	Frequency	Percent
Number of midwives/nurses enough		
No	36	72
Yes	14	28
Parthograph		
No	2	4
Yes	48	96
Labour chart		
No	2	4
Yes	48	96
Equipment or tools adequate		
very insufficient	9	18
Sufficient	23	46
Insufficient	18	36
Delivery set		
Yes	50	100
Oxygen cylinders at labor ward		
No	29	58
Yes	21	42
Availability of emergency drugs		
No	15	30
Yes	35	70
Ambulance services		
No	29	58
Yes	21	42
Enough beds		
No	31	62
Yes	19	38

Source: Survey date, 2013.

The results suggested the number of midwives and nurses were not enough to handle all the maternity cases everyday given by 72% to 28%. On the equipment or tools adequate in their quantity to ensure quality of services, most of them claim they are sufficient forming 46% of them. This is followed by 36% who think it is insufficient and 18% indicated it very insufficient. Hence on the whole the equipment or tools are insufficient (table 4.11).

All the health staffs have observed that, their facilities are having delivery sets. More of the health staff (52%) revealed that oxygen cylinders are not at the labor ward and the others say there are. The very high percentage of the health staffs (70%) indicated that there is availability of emergency drugs always in the labor ward, while the rest said no. Meanwhile 58% showed that there is no ambulance service available for emergency transfer of cases. The beds at the labor ward are not enough representing 62% of them (table 4.11).

CHAPTER FIVE

DISCUSSIONS

5.1 INTRODUCTION

The main aim of the study is to examine the extent to which the free maternal services have influenced skilled supervised delivery. This chapter discusses the results of the study.

5.2 FACTORS THAT INFLUENCE CHOICE OF DELIVERY PLACE

The findings suggest that pregnant women's decisions in relation to their choice of delivery place in the study area is greatly influenced by some demographic characteristics such as education, age, occupation, and marital status. This is in relation to specific objective one and the result proved that, a woman with a higher level of formal educational status stands a better chance of making good decision about her health and choice of delivery place than a woman with little or no formal education. Also, age, particularly (35-39) years has been found to have a significant influence on a woman's decision regarding her choice of place of delivery as in contrast to older women. This is consistent with findings of earlier studies (Iddrisu et al, 2006; Ekele & Tunau, 2007; Aremu et al, 2011).

In an earlier study in Ethiopia (Yalem Tsegay &Assfaw, 2010) the proportion of women who received antenatal for their recent babies was much higher. The surprising issue is that, among those who attended antenatal, only a few of the mothers gave birth at health facilities and were assisted by skilled birth attendant. On the contrary, this study unearths a higher ANC visits with a corresponding higher likelihood of the expectant mothers seeking supervised delivery in the study location. One outstanding factor that influenced women decision to deliver at any health post in the study location was as a result of the introduction of the free delivery policy. This is consistent with the aim of the introduction of the free delivery policy or exemption policy in the conceptual framework which is to promote the

usage of the maternal services such as the ANC and skilled supervised delivery. In sum, the free birthing policy in the study location has led to a very high number of women patronizing ANC services and thereby increasing institutional deliveries which is to ensure and promote skilled supervised delivery.

5.3 QUALITY OF CARE FROM MOTHER'S PERSPECTIVE

Study results suggest that the majority of the expectant mothers were welcomed to the health facilities with comforting words. This finding contradicts earlier studies (Ogunlesi, 2005; Muela et al, 2000) where health providers were unkind, rude and uncaring. The above confirmed and highlighted specific objective two and four and what the conceptual framework seeks to indicate that, the mediating factors such as attitude of service providers may either promote the use of maternity services or hinder its usage. Furthermore, study findings revealed that only 5% of respondents were insulted by health providers which are consistent with findings of other studies (D' Ambruoso, Abbey &Hussein, 2005; Jansel, 2006; Ogunlesi, 2005 & Muela et al, 2000). It can be inferred that, acts of this sought by services providers would be a hindrance to expectant mothers from seeking skilled supervised delivery.

5.4 AVAILABLE RESOURCES FOR SKILLED SUPERVIESD DELIVERY

The availability of both human and non-human resources ensures quality supervised delivery, the finding suggests that, a great number of expectant mothers (60%) believed that resources such as beds, water and wash room among others are adequate to ensure quality health delivery. Also, 72% of the respondents at the maternity wards (health providers) believed that, the available resources (human resource) are inadequate in their numbers to facilitate quality health delivery. As shown in the conceptual framework, the quantity and quality of

the resources both (human and equipments) as mediating factors would positively or negatively affect the success of skilled supervised delivery as confirmed by (Oye- Ita, et al, 2007 & Tuncalp et al, 2012).

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The main objective of the study was to investigate the influence of free maternal services on supervised delivery in the Kadjebi district of the Volta region. The sample size of 250 was selected to address the specific objectives of the study which revealed a number of significant findings. This chapter presents the conclusions drawn from the study and gives specific recommendations to policy makers for appropriate public health action that could lead to the overall improvement in supervised delivery in the district.

6.2 CONCLUSIONS ON SPECIFIC FINDINGS

The findings highlight how expectant mothers decisions in relation to their choice of delivery place in the study area has greatly been influenced by some demographic characteristics such as age, education and professional working class. High paternal education plays a positive role in influencing mother's decisions on choice of delivery place and also has the potential to mediate through other factors in reducing mothers risk or chances of home delivery and its consequences.

Majority of the women were very satisfied with the kind of services received during antenatal visits, deliveries at the labor ward and postnatal clinics. The findings again suggest inadequate human and material resources available to ensure quality service delivery in the district.

6.3 RECOMMENDATIONS

1. ANTENATAL ATTENDANCE

Although antenatal attendance is generally high, the number of visits is a major challenge to utilization of supervised delivery services in the district. There is therefore the need for Ghana Health Service to adapt fully WHO goal-oriented antenatal care package popularly known as focused ANC. Antenatal attendance should also be used as an entry point for a range of comprehensive integrated service delivery in order to increase coverage. There is the need to co-opt other critical actor's especially male partners in preparation for birth and readiness for possible complication.

2. COVERAGE OF NHIS

The coverage of NHIS on drugs and other consumables should be expanded to alleviate the burden on women and to encourage institutional delivery. Also the supply of equipment to the maternity wards would help facilitate supervised delivery in the district.

3. GOOD MOTIVATION AND REMUNERATION

Good remuneration and other risk allowances should be paid to health staff to ensure dedicated services from health staff and to limit the exploitation of poor mothers through the demand of gifts after deliveries as expressed by the women.

4. FORMAL AND NON-FORMAL EDUCATION

The district assembly in collaboration with major stake holders including religious organizations, traditional authorities and NGOs should as a long term measure attach special importance to education in general with emphasis on girl-child education through support package to needy children to enable them attain higher educational opportunities. Finally effective education both formal and non-formal is also a tool for empowerment that could

increase the income levels of women to enable them afford transportation cost as well as meet other expenses and delivery charges.

5. SUPPLY OF RESOURCES TO HEALTH CENTRES

The entire district lacked adequate number of health staff especially midwives and sometimes nurses who manage the maternity wards in the district and more seriously the deprived areas. Also the supply or the provision of more beds with mosquito nets, regular water supply and other equipment in the health centers would repose great confidence in women in seeking skilled supervised delivery.

6. NEED FOR FURTHER STUDIES

1. There is the need for further observational or cohort studies to clearly understand the role played by other factors especially economic and house hold factors that influence mothers in seeking supervised delivery in the district.

2. A study of this sought can also be conducted in the urban and semi-urban centers to see the influence of the tertiary education on skilled supervised since the study location had only few highly educated mothers respondents.

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APPENDICES

INSTITUTION: UNIVERSITY OF GHANA, SCHOOL OF PUBLIC HEALTH

COURES OF STUDY: MASTERS OF PUBLIC HEALTH

TOPIC: THE INFLUENCE OF FREE MATERNAL SERVICES ON SUPERVISED DELIVERY IN THE KADJEBI DISTRICT OF THE VOLTA REGION.

I am a student from the above named institution undertaking a study into maternal health services rendered during labor and delivery. The aim is to make recommendations to improve on maternal services and encourage skilled supervised delivery or institutional delivery.

The findings of the study will help district health planners to plan adequately for Reproductive health services in the district.

All information provided by the respondents during the study will strictly be handled as confidential information and anonymity is assured.

QUESTIONNAIRE FOR MOTHERS

Provide the necessary information in the dotted lines and indicate the correct responses where applicable by ticking in the boxes provided.

SECTION A

DEMOGRAPHIC INFORMATION/PROFILE

1. Name of your community…… ……..

2. Age……..

3. What is your religion? a. Traditional religion ☐ b. Christianity ☐

c. Islam ☐ d. Others…….. (Specify)

4. To which ethnic group do you belong? a. Ewe ☐ b. Akan ☐

c. Ga-Adangbe ☐ d. Others…… (Specify)

FACTORS THAT INFLUENCE CHOICE OF DELIVERY PLACE

5. What is your highest level of education? a. No education ☐ b. Primary ☐

c. Middle / J.S.S. ☐ d. S.H.S/vocational/technical school ☐ e. Tertiary Level ☐

6. What work do you do? a. Professional (doctor, nurse, accountant, teacher e.t.c) ☐

b. skilled labour (dressmaker, hairdresser) ☐ c. Unskilled labor (famer, trader, food vender) ☐ d. Unemployed ☐

7. What is your marital status?

a. Single ☐ b. Married ☐ c. Divorced/Separated ☐ d. Widowed ☐

8. What is your husband / partner highest level of education?

a. No education ☐ b. Primary ☐ c. Middle / J.S.S. ☐

d. S.H.S/vocational/ technical school ☐ e. Tertiary Level ☐

9. What work do your husband / partner mainly do? a. Professional (doctor, nurse, accountant, teacher e.t.c) ☐ b. skilled labour (dressmaker, carpenter, cobbler) ☐

c. Unskilled labour (famer, trader, food vender) ☐ d. unemployed ☐

10. Who decided for you the choice of place for your delivery?

a. Myself ☐ b. Husband ☐ c. Mother ☐

d. Mother in-law ☐ e. Siblings' ☐ f. friends ☐

11. Are you covered by the health insurance? 1. Yes ☐ 2. No ☐

12. Did the free maternal policy influence your choice of place of delivery?

1. Yes ☐ 2. No ☐

13. Other reasons for choosing hospital for delivery? Tick those that are applicable.

a. For professional care ☐ b. For safe delivery of baby and mother ☐

(c) c. For comfort ☐ d. Attendants friendly ☐

14. Did you incur any additional cost despite the free maternal health policy?

1. Yes ☐ 2. No ☐

15. If yes, on what did you incur cost, identify……

SECTION B

SOCIAL/BEHAVIOURAL FACTORS (Antenatal / Delivery Experiences)

16. Did you attend any antenatal care (ANC) during your last pregnancy?

1. Yes ☐ 2. No ☐

17. Why did you go for antenatal care (ANC)? Tick those applicable.

a. To get registration card ☐ b. To get injection ☐ c. To receive free medicine ☐

d. To know if the baby / fetus is healthy or alive ☐

e. because it is important ☐ f. Other reasons……

18. Where did you attend this antenatal care (ANC)? A. public hospital ☐

b. Private hospital ☐ C. Health Centre ☐

D. Maternity Home ☐ E. TBA (Traditional Birth Attendant) ☐

19. How many antenatal visits did you make during your last pregnancy?

a. 1 ☐ b 2 ☐ c. 3 ☐

d. 4 ☐ e. 5+ ☐

20. During your antenatal visits were you ever told of the date on which you were expected to deliver? 1. Yes ☐ 2. No ☐

21. Where did you give birth to your last child?

a. Home ☐ b. Health facility ☐ c. T.B.A ☐

22. Did you use public health facilities for your delivery services?

a. Yes ☐ b. No ☐

23. If yes, please give reasons…….

24. Why did you use public health facility? Tick those that are applicable.

I. Health facility is close (about 2km) ☐

ii .Presence of good doctor/ midwife. ☐

iii. Cost of services is affordable. ☐

iv. Cost of transport is affordable. ☐

v. Good reception from staff. ☐

vi. Compassion and support from staff. ☐

vii. Staff shows kindness, respect and politeness ☐

viii. Availability of drugs and other logistics ☐

QUALITY OF HEALTH CARE FROM MOTHERS PERSPECTIVE

25. What were your impressions about the service received? Tick those applicable.

a. Staff shows much respect ☐ b. Staff was caring ☐

c. Staff were disrespectful ☐ d. environment was clean ☐

e. Drugs and logistics available ☐ f. Drugs and logistics not available ☐

g. Waiting time to receive care was acceptable to me ☐

26. How did the staff welcome you to the ward?

a. With a smile and encouraging /comforting words ☐

b. Staff was shouting and often impolite/insulting ☐

c. Were not welcoming ☐

d. Staff were indifference or didn't care ☐

27. In your opinion, were you provided privacy while in labor?

1. Yes ☐ 2. No ☐

28. How would you grade the health staff with your satisfaction of care received?

a. Very satisfactory ☐ b. Satisfactory ☐

c. Dissatisfactory ☐ d. Very dissatisfactory ☐

29. Would you like to visit a public health center again? a. Yes ☐ b. No ☐

30. Please give reason(s) for your answer……..

……..

31. How would you describe the maternity ward environment? a. Very clean ☐

b. clean ☐ c. Dirty ☐ d. Very dirty ☐

32. How was the midwife / doctor's relationship with you during labor and after child birth?

A Excellent ☐ b. very good c. Good ☐ d. Bad ☐

33. If anything was not clear to you during delivery did the midwife / doctor / health staff answer your questions to your satisfaction? 1. Yes ☐ 2. No ☐

34. Were you congratulated after your delivery of the baby?

1. Yes ☐ 2. No ☐

35. Were you given any form of education / counseling on yourself and child care before discharged home? 1. Yes ☐ 2. No ☐

36. If yes, on what were you counseled on? Tick those that are applicable.

a. Exclusive breast feeding and nutrition ☐

b. Hygiene and immunization ☐ c. Breast feeding only ☐

d. All the above. ☐

37. Do you think the facilities such as beds; water, wash room etc are adequate for quality service delivery? 1. Yes ☐ 2. No ☐

38. Are the number of midwives / doctors / nurses enough to ensure quality service delivery? 1. Yes ☐ 2. No ☐

39. During your labor and delivery did you feel that the doctor / midwives spent enough time with you? a. Yes ☐ b. No ☐ c. Not really ☐

d. They were often too busy ☐

40. How many children do you have? A. One ☐ b. Two ☐ C. Three ☐

d. Four ☐ e. Five ☐

41. Have you ever given birth before the implementation of the free maternal health policy (Introduced around 2005)? 1. Yes ☐ 2. No ☐

42. If yes, can you compare the experiences of the two periods of deliveries before and after the implementation of the free maternal policy (parity)? .....

……..

43. What would be your suggestion to government on the free maternal health policy?

……

INSTITUTION: UNIVERSITY OF GHANA, SCHOOL OF PUBLIC HEALTH

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QUESTIONNAIRE FOR HEALTH STAFF

SECTION A

DEMOGRAPHIC/BACKGROUND INFORMATION

1. Name of facility…… 2. Sex…….. 3. Age……

4. Qualification / Rank…… ……. 5. Number of years in service……

SECTION B

RESOURCES AVAILABLE

1. What are some of the resources the facility has for delivery? Tick them

Delivery set ☐ sterilized gloves ☐ oxytoxin ☐ Beds ☐

Oxygen cylinder ☐ Ambulance service ☐ sink with running water ☐

Any comment……

7. How many midwives / nurses and any other group in total manage the labor ward?.....

8. Are the number of midwives / nurses enough to handle all the maternity cases every day?

1. Yes ☐ 2. No ☐

9. Are their services always available for 24 hours? 1. Yes ☐ 2. No ☐

10 How many midwives are at the labor ward?.....

11. How many are nurses but are in the labour ward?.....

12 Apart from midwives and nurses who else assist in delivery……

……How many are there?.....

13. What tools are available for monitoring labor? Tick those that are applicable.

a. Parthograph ☐ b. Labour chart ☐

c. none ☐ d. Others, specify…….

14. Are these equipment or tools adequate in their quantity to ensure quality delivery?

a. Very sufficient ☐ b. sufficient ☐

c. Insufficient ☐ d. Very Insufficient ☐

15. Is the facility having delivery set? 1. Yes ☐ 2. No ☐

16. If yes how many delivery set? a. One set ☐ b. Two sets ☐

c. Three sets ☐ d. Others specify……..

17. Do you have oxygen cylinders at the labor ward?

1. Yes ☐ 2. No ☐

18. If yes how many are they.....

19. If no, how do you cope with emergency situations?.....

20. Do you have emergency drugs always available at the labor ward?

1. Yes ☐ 2. No ☐

21. On average how many clients do you receive in a day at your facility?.....

22. Do you have ambulance service available for emergency transfer of cases?

1. Yes ☐ 2. No ☐

23. What type of gloves do you use in your facility? Tick those available.

a. Disposable gloves ☐ b. sterile surgical gloves ☐

c. re-usable gloves ☐ d. Others specify …….

24. Is infection a problem in this facility? 1. Yes ☐ 2. No ☐

25. Do you have disinfectants? 1. Yes ☐ 2. No ☐

26. Do you have enough beds at the labor ward? 1. Yes ☐ 2. No ☐

SECTION C: Other Social Issues that enhance quality of service

27. Do you think the free maternal health policy has led to increase number of clients at the facility? 1. Y☐ 2. No ☐

28. If yes, has it increased your workload? 1. Yes ☐ 2. No ☐

29. How has the free maternal care policy affected the quality of care? Tick those applicable.

i. Increase pressure on limited facilities ☐

ii. Unfriendly staff due to increase pressure ☐

iii. Inadequate manpower/health staff ☐

iv. Inadequate supply of resources and other logistics ☐

.v. insufficient supply of drugs ☐

vi. Reduce quality of time spent with clients ☐

30. Has the (NHIS) policy led to the supply of any resources at the maternity ward?

1. Yes ☐ 2. No ☐

31. If yes, identify them…….

32. Has any client ever complained about you exhibiting negative attitude towards her?

1. Yes ☐ 2. No ☐

33. Have you ever behaved towards a client that later you regret your action?

1. Yes ☐ 2. No ☐

33. How do you assess your performance at the ward?

a. Very good ☐ b. Good ☐ c. Satisfactory ☐

d. Not Satisfactory ☐

34. How many maternal death cases has your facility recorded between (2011-2013) or till now?.....

35. What would be your suggestion(s) to government on the free maternal health policy?

…….

…….

THANK YOU FOR YOUR TIME AND CO-OPERATION

FOR ANY FURTHER CLARIFICATION CONTACT GHANA ETHICAL REVIEW COMMITTEE ADMINISTRATOR ON (024-4712-919)

CONSENT FORM

1. CONSENT FORM

DATE……..

Project Title:

The influence of free maternal services on supervised delivery in the Kadjebi District of the Volta Region.

Institutional Affiliation: School of Public Health**, College** of health Sciences**, University** of Ghana, Legon.

Background

Personal Information:

The lead investigator is Frank Akoto, currently a master's student of the School of Public Health, Legon who is conducting a study on the influence of free maternal services on supervised delivery in Kadjebi district of Ghana. This study is for academic purpose and the requirement for the award of Master of Science Degree in Applied Health Social Sciences under the supervision of DR. Mercy Ackumey of the School of Public Health, University of Ghana, Legon.

Procedure:

Interview will be conducted using structured questionnaires

Risks and Benefits:

There is no reasonable foreseeable harm that may arise from participating in this research. Benefits that arise will contribute to the little literature available. It will also provide policy makers with better insight to the problems of people not seeking deliveries at health facilities which facilitate skilled supervised delivery.

Risks to refuse

Although there are no known risks associated with the research protocol, if you feel uncomfortable, you have the right to opt out. You are also at will to withdraw from participation if you desire to do so.

Anonymity and confidentiality:

Assurance is given that information collected will be handled with the strictest confidentiality. It will not be shared with third parties who are not directly involved in the research and will be used for purely academic purpose.

Before taking consent:

If you have any question, feel free to ask. If you have questions you wish to ask later, or anything you wish to seek clarification on regarding the research, please do not hesitate to contact the principal investigator (FRANK AKOTO) on; Telephone number: 0243271862

Email: macmalor2000@yahoo.com

The Academic Supervisor on; 0208200775

PARTICIPANT

I……..having been adequately informed about the purpose, procedures, potential risks and benefits of this study, I have Had the opportunity to ask questions which has been answered to my satisfaction. I know that I can refuse to participate in this study without any loss or benefit to which I would have been otherwise been entitled. Having gone through the consent form thoroughly, I agree to enroll in this study.

Name of Participant………

Signature or thumb print: ……

NAME OF

INTERVIEWER…….SIGNATURE……