

**SCHOOL OF PUBLIC HEALTH
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**SOCIO-CULTURAL FACTORS ASSOCIATED WITH MATERNAL
MORTALITY AND MORBIDITY IN THE AYAWASO SUB-
METROPOLITAN DISTRICT**

BY

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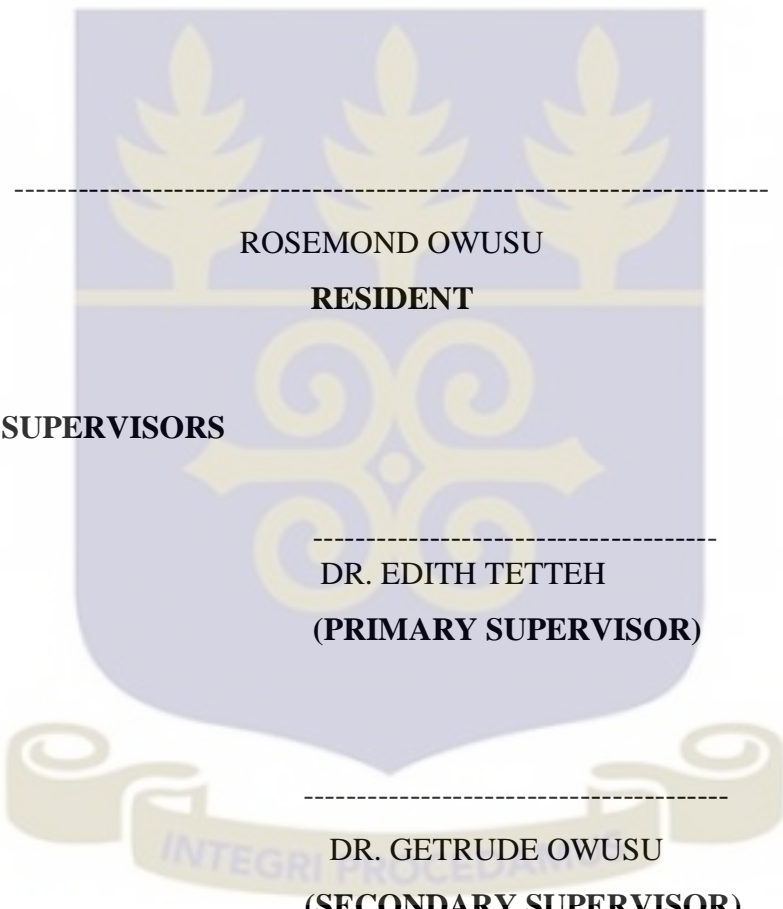
**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR AWARD OF A MASTER OF PUBLIC
HEALTH (MPH) DEGREE**

2008

DECLARATION

I, Rosemond Owusu, hereby declare that except for quotations and references to other works for which I have duly acknowledged and given credence, the work presented here is my own original research which has not been presented in any form elsewhere.

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DEDICATION

This work is dedicated to my husband, Mr. Kwasi Banin, my daughter, Ama Amankwah Banin, my mother, Madam Mary Bempong, my mother in-law, Mrs. Margaret Banin and to all who supported me.



ACKNOWLEDGEMENT

All praise to the almighty God for his grace throughout the program.

My sincere thanks go to my supervisors, Dr. Edith Tetteh, Dr. Gertrude Owusu, Dr. Matilda Pappoe, Dr. Margaret Gyapong, Dr. Aikins, Dr. Sackey, Mrs. Gertrude Voetagbe and all other lecturers of Behavioural Science Department, whose guidance gave me the insight to produce this work.

To Dr. Quansah Asare of Family Health Division (GHS), Mr. E. Owusu Ansah (GHS) Dr. Yabani (Accra Metro, GHS) and Dr. Bresse formally of Ayawaso Sub-Metro, I say a very big thank you for your academic, social and material support, without which the quality of this work could have been compromised.

My special thanks go to Prof Senah of sociology department, whose valuable comments helped to shape the write up.

Finally to the field team Mr. Amidu Sanda and Mohammed Adams, I truly appreciate your hard work which ensured that credible data was collected for the study and may God richly bless you.

ABSTRACT

Studying women within the socio-cultural context in which they live to identify factors influencing the level of maternal mortality and morbidity, constitute an important component of the effort to help minimize death or disability from complications of pregnancy and child birth. Maternal mortality in the Ayawaso Sub-Metro district increased from 4 in 2006 to 14 in 2007, pregnancy related complications rose from 817 in 2006 to 1521 in 2007(Annual Report of Ayawaso Sub-Metro, 2007). The study objective was to identify socio-cultural factors associated with maternal mortality and morbidity.

This cross sectional survey sampled 368 women aged 15-49 years. Structured questionnaire, In-depth interview (IDI) and Focus group discussion (FGD) were used as data collection techniques.

Some of the key findings were knowledge about causes of maternal mortality and these were (Haemorrhage (30%), retained placenta (25%), abortion complications (25%) and prolonged labour (20%)). Secondly, 84% of respondents were able to identify danger signs in pregnancy, delivery and after delivery. Some of the danger signs identified were: non movement of fetus, bleeding, abdominal pains, severe headache, hypertension, abdominal lie of fetus, multiple pregnancy and anaemia. In addition, beliefs and cultural practices play significant role in the community and this puts pregnant women at a higher risk, for instances prolonged labour is attributed to infidelity and curse, swelling in pregnancy traditionally signifies a baby boy and 70.4% of respondents mentioned this.

Similarly, a woman delivering at the health facility is expected to spend less time for (instance less than three hours) in order to prove that she is a real woman. Decision making in relation to reproductive health issues is solely the responsibility of the husbands and this was said by, 78.9 % of 151 married women. Also some of the cultural practices pertaining in the community were as follows: blowing a bottle to expel placenta, using concoctions to stimulate contraction and boasting HB levels, keeping mother and baby indoors for a period after delivery. Among 207 mothers who delivered at the health facility 40.5% did not visit the health facility for at least a two weeks and the reasons given were solely cultural practice. Poor attitude of health professionals was also identified to influence the decision to seek care. Diseases identified during pregnancy and after child birth were hypertension, infection, haemorrhage, anaemia and malaria.

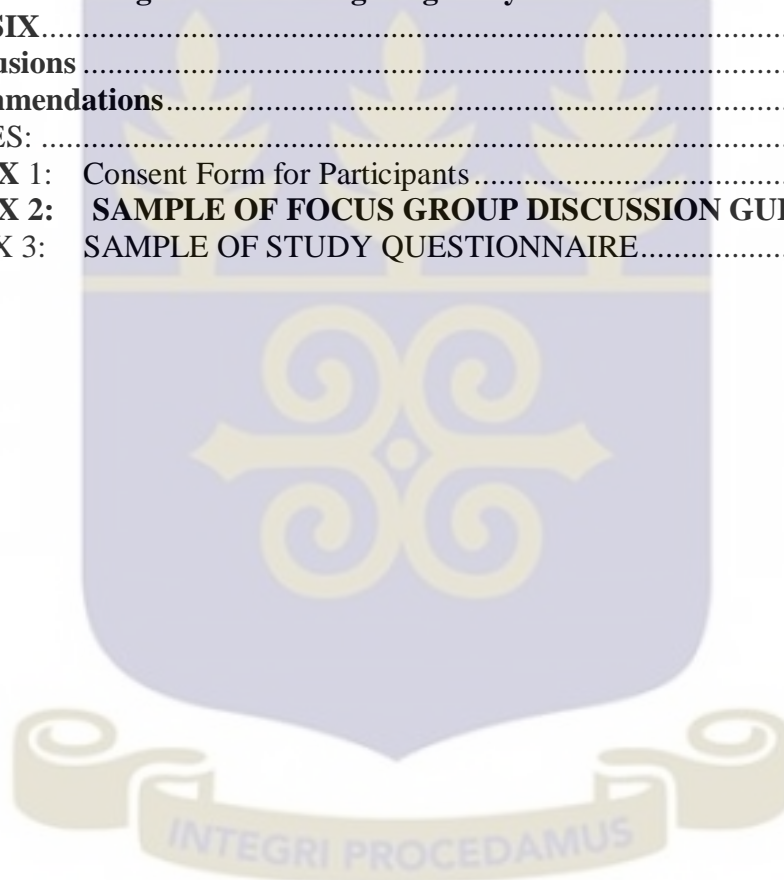
The study concluded that women's reproduction is influence by culture and traditional practices which puts them at a higher risk during pregnancy, delivery and after birth.

The study therefore suggests all hands on deck approach in reducing maternal mortality and morbidity, that is traditional leaders should help modify some cultural and traditional practices that might be harmful to pregnant women, community groups should encourage pregnant women to improve upon their health seeking behaviour by visiting the health facility whenever they identify danger signs and health professionals should make health facility customer friendly by being receptive and opening up to clients.

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ACRONYMS

DHMT – District Health Management Team

EOC- Essential Obstetric Care

FGD – Focus Group Discussion

GHS- Ghana Health Service

IDI- In-depth Interview

MDG -Millennium Development Goals

MMR – Maternal Mortality Ratio

MOH- Ministry of Health

PMM- Prevention of Maternal Mortality

RCH – Reproductive and Child Health

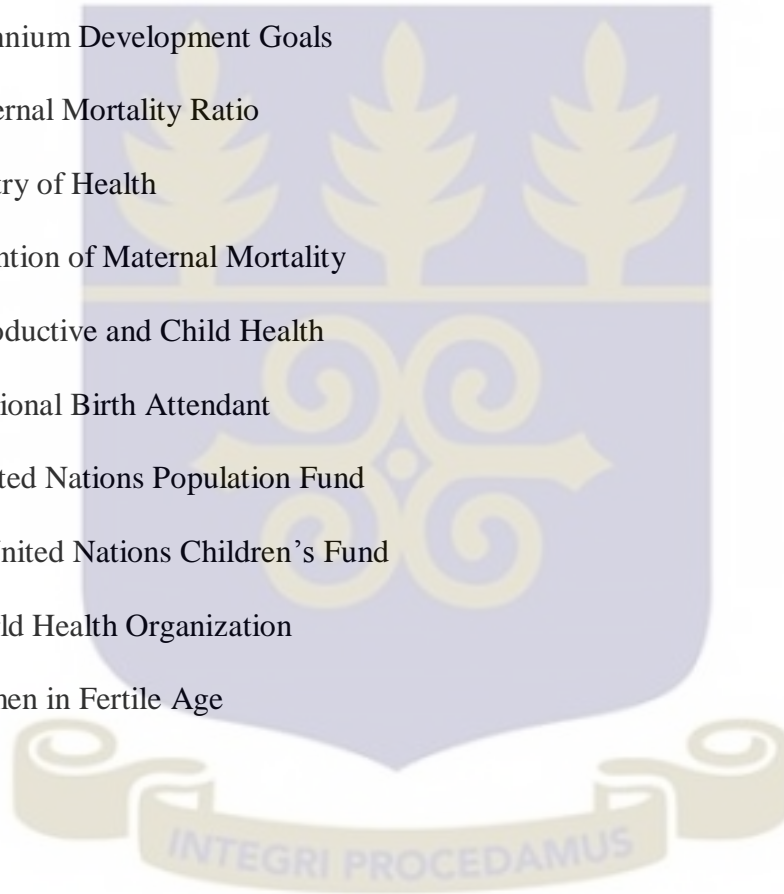
TBA – Traditional Birth Attendant

UNFPA- United Nations Population Fund

UNICEF – United Nations Children’s Fund

WHO – World Health Organization

WIFA - Women in Fertile Age



DEFINITION OF TERMS

Maternal Mortality: is the death of a woman while pregnant and within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy from any cause related to, aggregated by the pregnancy or its management but not from accidentals or incidentals or incidental causes.

Maternal Morbidity: is the diseases that affect women during pregnancy and childbirth but for the purposes of this study the definition is limited to the common diseases that affect pregnant women such as malaria, anaemia and hypertension etc.

Culture: is socially accepted behavior, value systems, beliefs and practical knowledge. This includes traditions, local practices, taboos, religious affiliations, gender roles, marriage and kinship patterns

Direct Obstetric Deaths: maternal deaths resulting from obstetric complications of the pregnant state (pregnancy, labour and puerperium); interventions, omissions or incorrect treatment; or a chain of events resulting from any of the above.

Indirect Obstetric Deaths: maternal deaths resulting from previous existing disease or disease that developed during pregnancy, which was not due to direct obstetric causes but which was aggravated by the physiologic effects of pregnancy.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Maternal mortality in Sub-Saharan Africa remains extremely high and Ghana's maternal mortality stands at 996 in 2007 (RCH annual report, 2007). The World Health Organization blamed the crisis on "unavailable, inaccessible and poor quality care" (WHO, 2006). Understanding the pathway of maternal mortality in Ghana is understanding the socio-cultural factors explaining poor maternal health outcomes.

1.1.1 Socio-Cultural Issues of Maternal Health in Ghana

Even though conception and delivery are biological events, cultural usages of many communities in Ghana significantly influence conception and delivery. In most Ghanaian communities, pregnant women are expected to observe societal/cultural norms in order to ensure safe delivery (Arhin, 2001). Also it is culturally regarded immodest in some Ghanaian societies for a pregnant woman to show early signs of pregnancy until it is visible (Arhin, 2001). The implication is that, most pregnant women postpone antenatal clinic visits to the second trimester but for effective antenatal care, it is ideal that services are initiated early in pregnancy and adequate number of visits made (at least 4 visits) for the woman to enjoy the full benefits of the package of services delivered under antenatal care. (RCH annual report, 2006)

1.1.2 Status of Women

Introduction of the Free Compulsory Universal Basic Education (FCUBE) and the Girl Child Education Programme have improved female enrolment in primary schools. However, female enrolment decreases by secondary level, which means that Ghanaian women are generally less educated than men, have limited access to economic opportunities, only few women are involved in national decision-making, experience various degrees of exclusion, have their lives and welfare dominated by tradition and also lack control of resources leading to increased poverty (Odoi Agyarko et.al, 2006).

In addition, the average Ghanaian woman marries at the age of 19 years, has her first child a year later and has an average of 4-5 children in her lifetime (DHS, 2003). Low status of women coupled with their health characteristics contribute to their poor health in general and to maternal ill health and death in particular. This poses a challenge to government and the nation as a whole to urgently address their needs.

1.1.3 Global Maternal Mortality and Morbidity

Maternal Mortality

In the contemporary world, maternal mortality is considered a violation of the rights of women and its rate is perceived as a critical index of the level of development of a country (Odoi Agyarko et.al, 2006). Globally, at least 585,000 women die each year from the complications of pregnancy and childbirth and almost 90% of these deaths occur in Sub-Saharan Africa. Women in northern Europe have 1 in 4,000 chance of dying from pregnancy-related causes; for those in sub-Saharan Africa the chance is 1 in 16.

Maternal Morbidity

In developing countries for every 300 women, about a quarter are victims of maternal morbidity (WHO/UNICEF/ UNFPA/ World Bank, 2007). For every maternal death that occurs, there are approximately 30 more women who would suffer short and long-term disabilities. These include chronic anaemia, infertility, stress incontinence, fistulae, chronic pelvic pain, emotional depression and maternal exhaustion (Odoi Agyarko et.al, 2006).

1.1.4 National and Regional Levels

The maternal mortality ratio in Ghana is 187.2 per 100,000 live births with a lifetime risk of 1 in 35 (RCH annual report, 2006). In terms of absolute figures there were as much as 912 and 997 institutional maternal deaths in 2006 and 2007 respectively. Greater Accra recorded 118 institutional maternal deaths in 2006 constituting about 12.3 % of all institutional deaths. The lifetime of dying from pregnancy in Ghana is 1 in 35 (RCH annual report, 2007).

1.1.5 District Level

Maternal mortality and morbidity continue to be high in Ayawaso Sub-Metro with absolute figure of 14 deaths in 2007 despite efforts to increase institutional care to promote safe motherhood. Very little is known of current factors associated with maternal mortality and morbidity at the district level and in order to assess the impact of safe motherhood measures, site specific information about how pregnancy complications are detected and managed at the community level is required. The study looks at possible

causes of maternal mortality and morbidity, clients' perception of symptoms, beliefs and practices which are prerequisite for the clients' decision making process.

1.2 Statement of the Problem

Health of mothers has long been acknowledged to be an important factor in public health and attention to unacceptably high levels of maternal mortality and morbidity has been a feature of global health and development discussions since the 1990s (Abou Zahr and Wardlaw, 2000). Maternal deaths recorded in Sub-Saharan Africa were 270,000 which accounted for 50.4% (536,000) of global maternal deaths (WHO/UNICEF/UNFPA/World Bank, 2007).

Ayawaso Sub-Metro recorded maternal deaths in absolute figures of 4, 3 and 14 from 2005 to 2007 respectively. Malaria/anaemia in pregnancy recorded from 2005 to 2007 were 458, 480 and 781 respectively. Pregnancy related complications from 2005 to 2007 were 394, 817 and 1521 respectively.

Even though the district has put in place various intervention programs to reduce maternal mortality and morbidity, such as improvement in quality of antenatal care (giving of iron tablets, anti-malaria treatment and tetanus injection), adequate essential obstetric care (EOC), intensified health education, training of traditional birth attendants, maternal mortality and morbidity keep on increasing instead of decreasing. In 2007, maternal mortality increased by four times that of last year. No systematic evidence exists to support the view that maternal mortality and morbidity levels can be reduced with the

approaches mentioned above. An important question that needs a response is why all these achievements have not translated into significant impact on the maternal mortality and morbidity situations in the Sub-Metro.

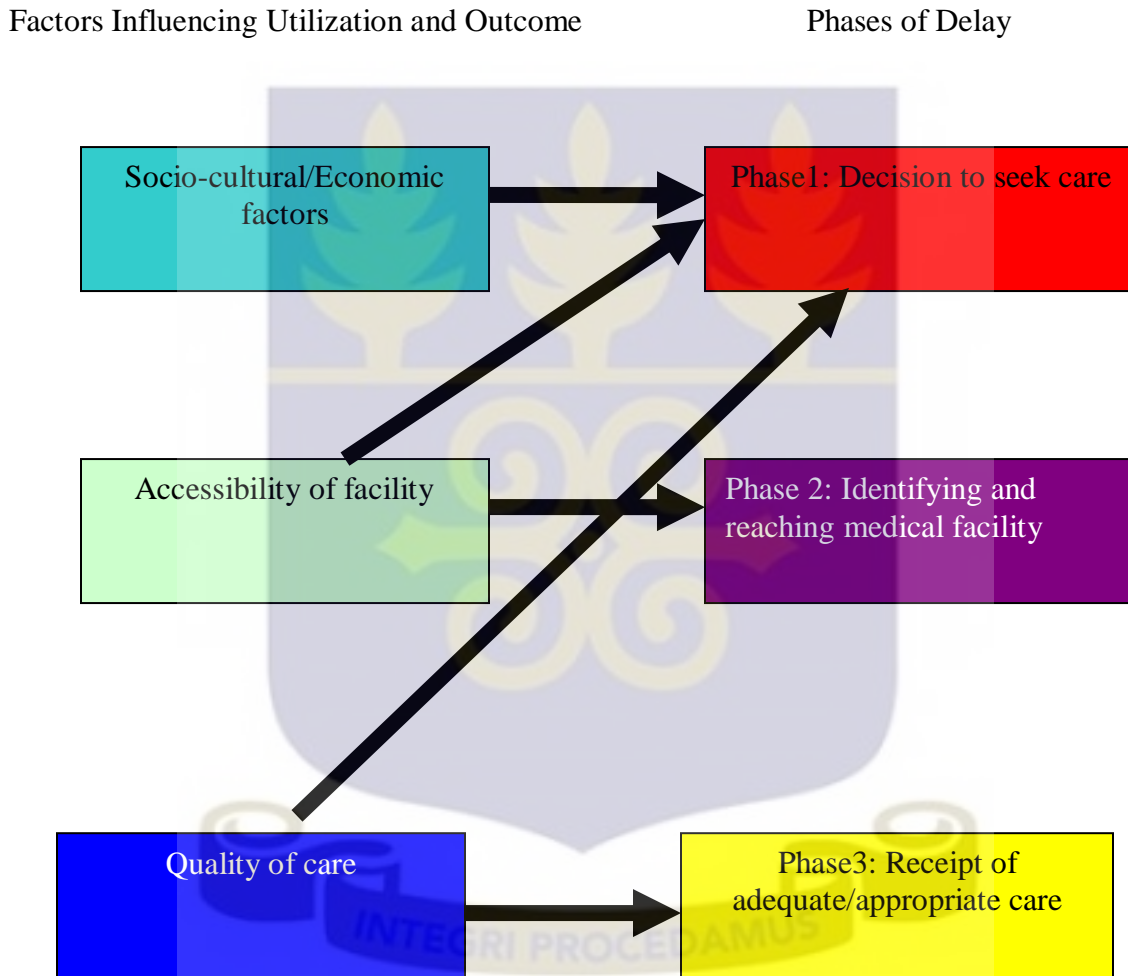
Studies have shown that socio-cultural factors play a significant role in determining the level of maternal mortality and morbidity (Walraven et al, 2000). It is therefore necessary to understand what society considers a maternal health issue and what is not, in order to understand traditional beliefs, practices and responses to various maternal health issues. That is, it is important to study women within the social context in which they live in order to find out factors that have significant impact on their reproductive health. Therefore, it is important to explore the non-medical factors in order to establish the socio-cultural factors associated with maternal mortality and morbidity at the district.

1.3 **Conceptual Framework**

The WHO standard definition for maternal mortality was used. It is defined as death of a woman while pregnant and within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy from any cause related to, aggregated by the pregnancy or its management but not from accidentals or incidentals or incidental causes (WHO, 2005). Thaddeus and Maine (1994) developed the “Three delay model” which views maternal mortality by taking into account community, services related and individual factors. The three delays are: delay in the home, delay in accessing the health facility and delay in receiving care at the health facility. The model was adopted to classify factors associated with maternal deaths in this study and this will help to identify

community and health service factors contributing to maternal deaths. A conceptual framework is presented in figure 1.

Figure 1: Conceptual Framework

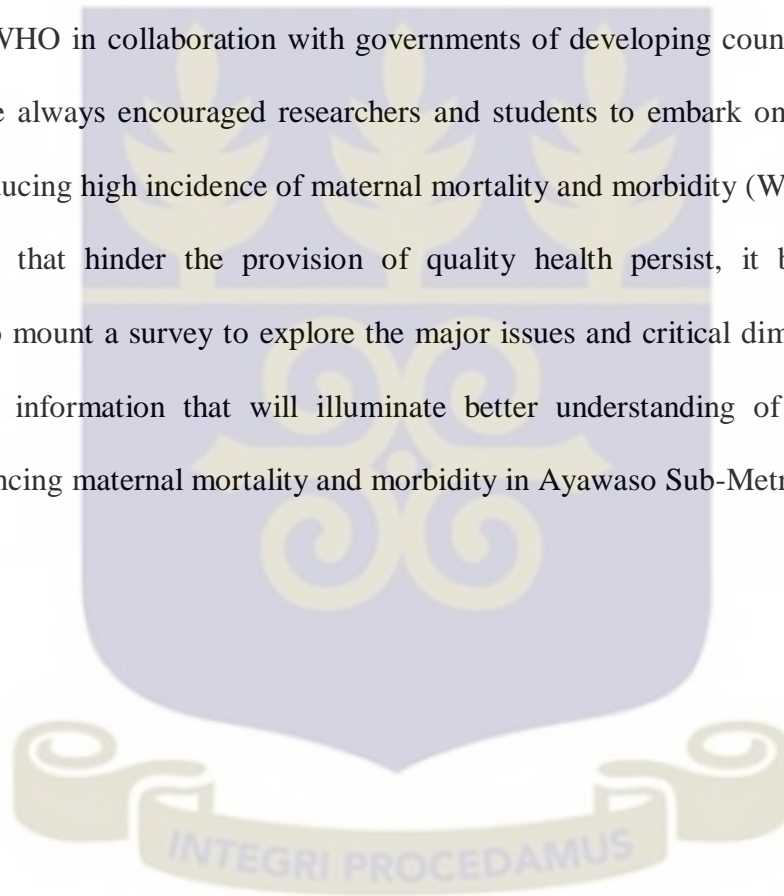


Adopted from Thaddeus and Maine, 1994

1.4 **Justification**

Ayawaso Sub-Metro had identified maternal mortality and morbidity as one of their major health problems, therefore if the factors influencing maternal deaths and ill health are identified and properly addressed, it would lead to a reduction in maternal mortality and morbidity in the Sub-Metro.

In addition, WHO in collaboration with governments of developing countries and other agencies have always encouraged researchers and students to embark on research with the aim of reducing high incidence of maternal mortality and morbidity (WHO, 2004). As the problems that hinder the provision of quality health persist, it becomes more compelling to mount a survey to explore the major issues and critical dimensions of the problems for information that will illuminate better understanding of socio-cultural factors influencing maternal mortality and morbidity in Ayawaso Sub-Metro.



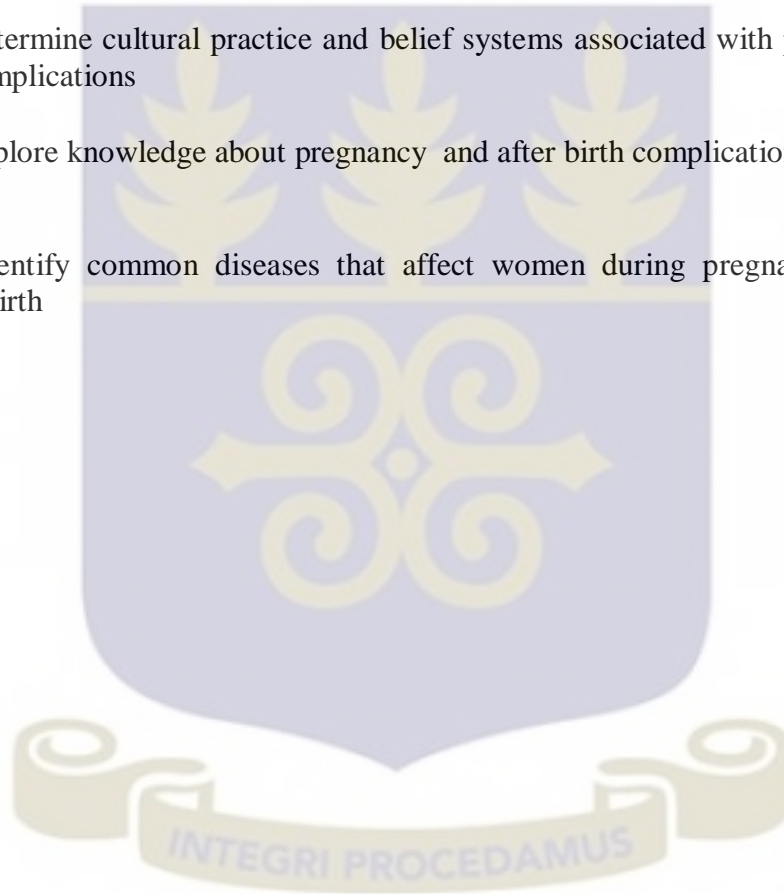
1.5 Objectives

1.5.1 General Objective

The general objective of this study is to identify the socio-cultural factors associated with maternal mortality and morbidity in Ayawaso Sub-Metro.

1.5.2 Specific Objectives

- To determine cultural practice and belief systems associated with pregnancy and its complications
- To explore knowledge about pregnancy and after birth complications
- To identify common diseases that affect women during pregnancy and after childbirth



CHAPTER TWO

2.0 LITERATURE REVIEW

Introduction

Several studies have reported on factors that influence maternal mortality and morbidity such as Chiwuzie et al, (2001); Cohen-Agudelo et al, (2000). It is of little use to stress that maternal mortality and morbidity are the result of complex interactions between biological and socio-cultural factors unless one organizes these factors in a meaningful way. The review of literature was conducted examining knowledge level, cultural and belief systems associated with the three delays (Thaddeus and Maine, 1994) and the common diseases that affect women during pregnancy and after child birth.

2.1 Causes of Maternal Mortality and Morbidity

Maternal death can be caused directly or indirectly. Direct causes such as severe bleeding, sepsis, eclampsia, obstructed and unsafe abortion account for 50-75% of maternal deaths and the remaining 25-50% is due to indirect causes (Ngom et al, 1999). Indirect causes have been identified as anaemia, malaria, tuberculosis, hepatitis and infections. The indirect causes are the result of a previously existing disease or a disease that developed during pregnancy and was aggravated by physiological effects/ complications of childbirth. The cascade of events could be associated with maternal age, parity, socio-economic conditions, antenatal care, traditional practices, accessibility and availability of referral and treatment systems within the healthcare system (Conde-Agudelo et al, 2000).

2.2 Factors Influencing Maternal Mortality and Morbidity

Preventing maternal death and illness is an issue of social justice and women's human rights. These include their rights to good-quality services and information during and after pregnancy and childbirth, their right to make their own decisions about their health freely without coercion or violence and the removal of barriers such as legal, political and health that contribute to maternal mortality and morbidity (Family Care International, 2006). Thaddeus and Maine, (1994) identified three types of delays as the major causes of maternal mortality and morbidity and these determine the outcome of pregnancy complications. The delays are in three phases: (a) delays in decision making (b) delays in reaching the facility (c) delay at the facility. Despite the growing concerns about maternal mortality and morbidity, it is difficult to influence the various factors that increase the risk of pregnant women. Also in the developing countries, systematic analyses of maternal deaths are hampered by scarce/incomplete data and lack of mechanisms for the notification of maternal deaths which are undermined by various socio-cultural reasons. For example a pregnant woman who dies at home has her death unregistered by the medical professional and civil authorities because the family members might choose not to report the death or religion demands that death bodies should be buried as soon as possible (Goyaux et al, 2001). Therefore information on maternal deaths that occur in the community is limited, perhaps due to under reporting and misclassification especially maternal deaths related to abortion complications. In Sub-Saharan Africa, where 58% of deliveries take place outside the health facilities, maternal mortality using health service data is underestimated and this does not give a true picture of the maternal deaths situation. (WHO/UNICEF/UNFPA/World Bank, 2007).

2.3 Health Systems Related -Factors

Most maternal and child health clinics operate within the officially stipulated working hours and do not have adequate number of obstetricians, gynecologists and anesthetists. Others do not have an ambulance, blood bank, regular supply of water and electricity among others. In addition, there are 13,971 nurses in the country with a nurse population ratio of 1 to 1,510. Out of 13,971 nurses 2,400 are practicing midwives (RCH Annual Report, 2005). This presents a serious challenge for safe motherhood services as the number of midwives are woefully inadequate to deal with the number of expected pregnancies which stands at 4% of the population (876,032 for 2005). There are great disparities in the availability and quality of maternal health services in the country. According to Murray and Pearson (2006) recognition of obstetric complications and instigation of appropriate emergency referral procedures are key skills required of frontline maternity care providers. Current Safe Motherhood Strategies emphasized the centrality of early identification of obstetric complications and local provision of appropriate medical and surgical care to respond to pregnancy complications (Family Care International, 2005; Maine et.al, 2001).

2.4 Decision Making

During pregnancy complications a lot of people are involved in the decision making process and this is mostly based on the level of knowledge about pregnancy complications. Knowledge about pregnancy, delivery and early complications of pregnancy influences delay arrival of pregnant women with complications to the health facility. Many individuals are not aware about danger signs when these danger signs

become life threatening. A community study in Guatemala found that most women could not recognize signs of life threatening complications (Kaune, 2000) and because of lack of knowledge, a considerable time is wasted before the appropriate care is sought. This problem is compounded when a pregnant woman has to consider the opportunity cost of seeking medical care and leaving the other children in the household in the hands of untrustworthy person.

Other contributing factors that delay decision making process during pregnancy complications are cultural factors. Traditional belief system delays decision making during pregnancy and pregnancy complications. Pregnant women who are able to recognize life threatening complications may delay decision to seek care because women do not make decisions alone; family members and members of the community or TBA have to be consulted (Arhin, 2001). A study conducted by Chiwzie et. al. (2001) found that the people have fairly good knowledge about haemorrhage but this is circumscribed by attitudes and practices and these situations keep women away from or delay the decision to seek care during emergency.

In addition, a study conducted in certain parts of Accra also found that in some Ghanaian communities where women are considered to be subordinate to men in decision making, pregnant women with complications have to wait for their husbands before deciding the choice of delivery (Thaddeus et.al, 1990). Certain traditions and cultures maintain that women must wait to seek approval from male relatives before deciding to seek for health care (Okong et al, 2004). This is confirmed by a study conducted in Uganda to examine

partner roles during pregnancy. It was reported that women have to be given permission from their spouses in order to access health care and this is mostly accompanied by financial obligations. Some spouses refuse to give money to their wives to pay for transport to the hospital (Okong et al, 2004; Mukhopadhyay et. al, 2004). Decision making within the household is always the responsibility of head of the household (man) and this tradition delays decision making when the need arises.

Delays in accepting an intervention is also a contributing factor to maternal mortality and morbidity. A study conducted in Nigeria by Ukwaja (2007) observed that one of the contributing factors to maternal mortality and morbidity in developing countries may be to the delay in accepting an intervention proffered by trained health personnel. It was observed that a woman in active phase of labor, who had survived the three delays and presented as an emergency to a facility for intervention to be performed, was held back by the refusal of her husband to give consent for surgery (Ukwaja, 2007). A woman was once heard making a comment “is it not more honourable to die peacefully at home than travel to the government hospital only for the doctors to watch you die.” (Ukwaja, 2007)

2.5 Community and Families’ Characteristics

Pregnancy outcomes are mostly dependent on families’ and community characteristics such as attitudes, perceptions, behaviour and decision making. In communities where much value is not placed on women, pregnancy complications are not attended to promptly (Odoi Agyarko et al, 2006). Maine et al (1994) argued further by saying that a person’s health could be determined by his/her social/family structure and income. It has

been suggested that low income/poverty could be constraints which could make it difficult for a person to acquire all the necessities in life; good nutritional intake, access to health services because of cost implication. The cost of purchasing blood for blood transfusion or medication especially in the developing countries where many people do not have regular income could hamper a women's decision-making process to seek for emergency obstetric care.

Access to funds during pregnancy and pregnancy-related complications has been found to be contributing factors for women to access health care in times of emergencies. Financial accessibility in the event of pregnancy complications remains a major factor which contributes to poor outcomes of the complications. Results of a survey of men's involvement in reproductive health programs in India, Pakistan and Bangladesh highlighted that men base their decisions on conventional ways of managing health care matters, such as economic assessment of the situation. (Piet-Polon et. al. 1999)

Cultural beliefs and practices, choices for traditional methods of healthcare as opposed to the conventional methods and conveniences of consulting a herbalist for maternal services could influence the client's decision in seeking healthcare promptly and consequently the outcome of the pregnancy. For example, Chiwuzie et al (2001) identified tradition beliefs and practices which had negative influence in the client's decision making process to recognize the severity of obstetric emergency and consequently the delay in seeking medical care. The main findings of the study were that

most of the subjects had the traditional belief that bleeding by pregnant women is caused by witchcraft, infidelity on the part of the woman as well as violating the cultural taboo.

It was also common knowledge that some traditionalists' believe that a little bleeding during childbirth is not dangerous to the extent that bleeding could be induced to help cleanse the womb after delivery. Food taboos also existed and forbidden practices were identified to have association with threatening situation. The implication of these beliefs and traditional practices is significant in affecting a pregnant woman and her family's decision-making process to seek for modern obstetric care during emergencies. These beliefs and attitudes could become obstacles to receive an appropriate care.

Most families in African communities are polygamous where the man has two or more wives, intense competition triggered among the wives as to who bears the most children. Similarly, in situations where a woman consistently bears female children, she may continue to have more and more pregnancies until she bears a male child. A study conducted by Rotary International (2007) in an Indian community found that because of societal preference for male children, there is competition among women for male child because the practice is connected to age-old cultural inheritance.

Social and cultural beliefs could shape the interpretations and meaning of pregnancy complications. A study conducted in northern Nigeria found out that it is a belief that a woman should conceal labour pains and plan to give birth alone at home. They have a saying that "a woman should deliver her baby as quietly as possible so as not to wake flies sleeping in her compound". As a result of the cultural belief, the prevalence of home

delivery is high and they present to the hospital in the case of emergency (Ukwaja, 2007). The use of herbs is also common during pregnancy and childbirth. A survey by Kyomunhendo (2003) stated that Ugandan pregnant women commonly use herbs with the belief that the herbs contain certain properties that can increase contraction and widening of the hips for easy birth.

2.6 **Unsafe Abortion**

Preventing unwanted pregnancy reduces recourse to abortion and contributes to a reduction of maternal mortality and morbidity (Ahiadeke, 2001). About 99% of abortion-related deaths and disabilities worldwide could be avoided if women who wish to avoid or postpone pregnancy had access to effective contraception. Of all unsafe abortions, 97% occur in developing countries, an estimated 68,000 women die each year and a further 5.3 million women suffer disabilities (www.unfpa.org/rh/planning.htm). People use different concoctions or may consult unskilled personnel for termination of the pregnancy (Varga, 2002). Untrained practitioners who are usually involved include traditional birth attendants, homeopaths, herbalists, religious healers, village doctors and relatives (Ahman and Shah, 2004; WHO, 2007). Although these methods can be effective, it may result in death or ill health of a woman. Abortion is the leading cause of maternal deaths in Ghana (Ahiadeke, 2001).

2.7 **National Policies**

For maternal health programs to succeed, it must have the full support from the national authority which would ensure efficient allocation of resources, development of

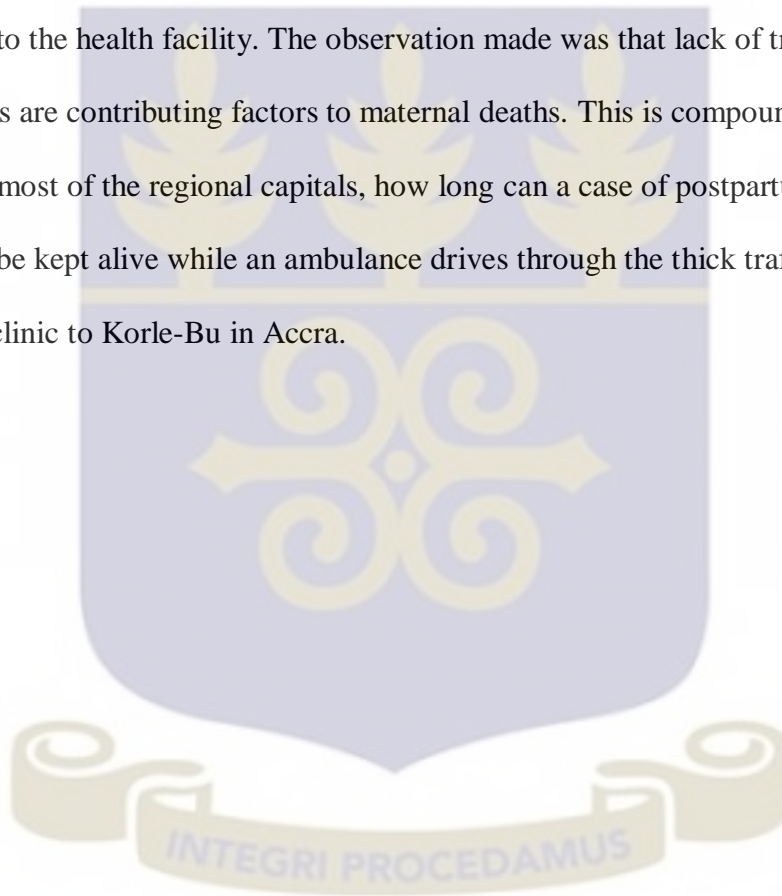
implementation strategies and improvement in infrastructure such as communication systems. The importance of maternal and neonatal health is recognized by Ghana Government and at the recent health summit, declared the high maternal deaths a “national emergency”. Based on this national emergency, Ghana has decided to consolidate its policy on free maternity services for pregnant women following the introduction of national health insurance scheme. Through the removal of one significant financial barrier to accessing skilled attendance at delivery, uptake is expected to increase significantly with a reduction in maternal mortality and morbidity. Safe motherhood services also form the basic package of health services recommended by the health sector of Ghana. This means service delivery whether in public and private institutions must offer safe motherhood as part of the basic minimum package of services for every community and health facility (Odoi Agyarko et al, 2006)

2.8 **Malnutrition and Infection**

Malaria and anaemia in pregnancy constitute important public health problems in Sub-Saharan Africa and continue to be the leading contributory factors of maternal death (Harrison K.A, 2001). Antenatal care provides effective intervention through facility based, outreach and mobile services. This is achieved through provision of intermittent preventive treatment (IPT), insecticide treated bed net (ITN) and iron supplementation. Poor accessibility and low coverage of health services mean that most women at high risk in rural Africa are seldomly reached and this poses challenges including safety in pregnancy. Also micronutrient deficiencies are prevalent in African women. Pregnancy aggravates the situation and increases vulnerability to opportunistic infection.

2.9 Transportation Factors

After a decision has been made to seek for health care, the next obstacle is transport to the health facility. In many African communities transport is scarce and coupled with high fares hinder many women from arriving in time to the health facility. A study on causes of maternal deaths at Tema General Hospital by Kumah (2000) revealed that a woman who died as a result of retained placenta had to wait for half an hour before getting a taxi to the health facility. The observation made was that lack of transport and increased fares are contributing factors to maternal deaths. This is compounded by heavy traffic within most of the regional capitals, how long can a case of postpartum haemorrhage be kept alive while an ambulance drives through the thick traffic from Nima Government clinic to Korle-Bu in Accra.



CHAPTER THREE

3.0 METHODS

3.1 Study Design

The design for the study was cross sectional.

3.2 Study Area

The Ayawaso Sub-Metro district is made up of seven zones namely: Accra Newtown, Nima, Kotobabi, Maamobi, Alajo, Legon and Westlands-West Legon. It is made up of different ethnic groups such as Ewes, Gas, Akans, different tribes from the Northern sector of Ghana and various tribes from the neighbouring countries (Nigeria, Niger, Burkina Faso, Mali and Togo). The languages spoken are Ga, Ewe, Kotokoli, Chamba, Dagbani, English and French. The main occupation of the residents is petty trading for both sexes and artisans for some of the males. Civil servants of low income group are found in Newtown, Nima, Kotobabi, Maamobi, Alajo and those from high income areas are Airport, Roman Ridge, Kanda and Legon. Religion is mostly Christians, Muslims and Traditional African religion with total population of 473,324. The population of women in fertile age (WIFA) is 132,909 representing 28.08% and expected pregnancy 18,933 representing 4% of the entire population and 14.25% of WIFA population.

3.3 Variables

Outcome variable is maternal mortality and morbidity.

Independent variables areas:

- Age, marital status, occupation, religion and parity (background)

- Knowledge of community members about pregnancy complications
- Cultural beliefs and practices influencing pregnant women decision to seek health care
- Common diseases that affect women during pregnancy and childbirth

Variable Definition

- Knowledge
 - Knowledge about danger signs in pregnancy.
 - Recognition of abnormal condition.
- Practices
 - What are the practices relating to obstructed labour
 - Use of alternative forms of treatment for pregnancy complications.
 - Decision-making in times of pregnancy complications?
- Beliefs
 - What are the cultural and religious beliefs concerning labour and delivery?
 - Beliefs about obstructed labour and community members' attitudes
- Maternal Morbidities
 - What common diseases affect women during and after pregnancy?

3.4 Study Population

Women in fertile age (WIFA) 15-49 were used for quantitative data.

3.5 Sample Size

Sample size determination for quantitative data collection

Sample size was determined by the formula below:

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

Where $Z=1.96$, $p=50\%$, $q=1-p=0.5$, $d=0.05$

$q = 1 - p$, $d =$ margin of error and $n =$ sample size

Assumption for estimating the sample size: prevalence unknown therefore 50% assumed and margin of error 5% accepted and q is probability.

$$n = \frac{(1.96^2)(0.5)(0.5)}{(0.05)^2} = 384.16$$

The sample size therefore is 384.

Sample size determination for qualitative data collection

For the qualitative aspect of the study, a total of nine (9) respondents were recruited for the focus group discussion and three women were purposively selected from each sub unit (Nima Boola, Nima Roundabout and Nima 441). FGD members were women within the reproductive age group. In addition, three (3) TBAs were also involved in the in-depth interview.

3.6 Sampling Method

Selection procedures

Stage one: one zone was selected from seven zones through simple random sampling. The names of the seven zones were written on a slip of paper and one zone was picked out (Nima). Stage two: the zone was divided into three sub units and these were Nima “Boola”, Nima Roundabout and Nima 441. Each sub unit was approximately of equal size. The households were selected by approximately locating the centre of each stratum, threw a pen and started from the direction of the tip of the pen. The first household was selected followed by every third house. The researcher came back to the centre and took the other direction to continue the interview. The same procedure was used for the other

strata. In a situation where there was more than one woman of child bearing age in a house, a simple random sampling was done to select one respondent, that is, all the women were made to pick a piece of paper and the person who picked a numbered paper was interviewed.

In the focus group discussion and in-depth interview participants were selected with the assistance of “women’s opinion leader”.

3.7 Data Collection Techniques and Tools

The data collection techniques and tools used were interview, focus group discussions (FGD) and in-depth interview (IDI). The tools used were structured questionnaire, FGD and IDI guides. One focus group discussion was conducted for women within Reproductive age group. This was led and moderated by a facilitator, tape recorded and notes were taken by recorders. Three in-depth interviews were also conducted for TBAs.

3.8 Quality Control

All tools were pre-tested in a community outside the study location before the actual work begun. The data collected was used to update the structured questionnaire. The instrument was pre-tested in Maamobi on the assumption that the community members have features similar to the selected community. Two days training was organized for the research assistants and all questionnaires were checked at the end of each day to make sure all questions were properly responded to. For the qualitative data, the transcription was done by two different people and the information was checked with the written notes in order to ensure quality work.

3.9 **Data Processing and Analysis**

Statistical analytical package Epi-info software was used for the data entry and analysis. Information derived from FGD was transcribed, coded and the results triangulated with coded information derived from the IDI and the results from the quantitative data.

3.10 **Limitations**

An important limitation of this study was the inability to review maternal death records in order to ascertain the causes, because at the time of the study maternal death audit had not been conducted. Also the men's FCD could not come off due to circumstances beyond my control and this may have led to loss of vital information.

3.11 **Ethical Issues**

Ethical clearance was obtained from Ghana Health Service ethical review committee, Accra and permission was sought from Accra Metropolitan and Ayawaso Sub-Metropolitan districts. Informed consent was obtained from all participants after the study had been thoroughly explained to them in a language they understand. Participants were assured that they could withdraw at any point in the investigation without any repercussions and were at liberty to answer or refuse to answer any question put to them.

CHAPTER FOUR

4.0 RESULTS

The results of the study had been triangulated (quantitative, focus group discussion and in-depth interview) and were presented under sub-headings in the following order: background characteristics, knowledge about danger signs, community/religious beliefs and practices, quality of care, transportation factors and diseases affecting women during pregnancy and after birth.

4.1 Socio Demographic Characteristics of Respondents

Information was obtained from respondents on their socio-demographic characteristics during the survey and these were: age, education, occupation, marital status and religion. The respondents in the survey were between 15 to 49 years with a majority of them between 20 to 24 years (30.7%) and the mean age was 27.9 years. The lowest and highest educational status attained by respondents were vocational/technical and JSS representing 3% and 36.4% respectively. The majority of the respondents are petty traders representing 58.7% and the dominant religion was Islam representing 76.1%. 41% were married, 44.3% were singles, 3.5% were divorced, 7.3% were separated and 3.8 were widows. 217 of the respondents representing 59% have children and 207 (56.3%) delivered at a health facility. Table 1 below gives additional information about the socio-demographic characteristics of respondents.

Table 1: Socio-Demographic Characteristics of Respondents

	Frequency N (%)
Age group	
15-19	57 (15.5)
20-24	113 (30.7)
25-29	85 (23.1)
30-34	55 (14.9)
35-39	30 (8.2)
40-44	13 (3.5)
45-49	15(4.1)
Total	368(100)
Marital status	
Single	163(44.3)
Married	151(41.0)
Divorced	13(3.5)
Separated	27(7.3)
Widow	14(3.8)
Total	368(100)
Level of Education	
None	83(22.6)
Primary	79(21.4)
JSS/MSLC	134(36.4)
SSS	36(9.8)
Vocational/Technical	11(3.0)
Tertiary/University	25(6.8)
Total	368(100)
Occupation	
Civil/Public Worker	28(7.6)
Trader	216(58.7)
Artisans	76(20.7)
Unemployed	48(13.0)
Total	368(100)
Religion	
Christian	88(23.9)
Moslem	280(76.1)
Total	368(100)

For the FGD, the women discussants were between 24 to 49 years, majority of them were petty traders (4), artisans (2) apprentices (2) and unemployed (1) and most of them were married with children. Also all the participants were Muslims and their education levels

were no education, primary education and JSS. The three TBAs ages were 56, 57 and 60. None of them had any formal education and were petty traders as well.

4.2 Knowledge about maternal mortality and danger signs

Respondents identified the main causes of maternal mortality to be haemorrhage (30%), abortion complications (25%), retained placenta (25%) and obstructed labour (20%). In the FGD, the women mentioned haemorrhage, retained placenta, prolonged labour and unsafe abortion as the main causes of maternal death. Also in the in-depth interview, the TBAs mentioned haemorrhage, unsafe abortion, retained placenta and prolonged labour as the causes of maternal death. One TBA mentioned that:

“As for abortion is killing a lot of our young girls because they use many herbal concoctions”.

Secondly, the women had high knowledge about danger signs in pregnancy, delivery and after delivery, 310 (84%) of participants were able to identify danger signs. Some of the danger signs identified were; non movement of fetus, bleeding, abdominal pains, severe headache, hypertension and anaemia. Also in the FGD, the women identified these danger signs: bleeding, severe headache, severe abdominal pains, abnormal lie of fetus, anaemia, non movement of fetus, hypertension and multiple pregnancy. In the in-depth interview, the TBAs also identified danger signs in pregnancy as: non movement of fetus, multiple pregnancy, anaemia, bleeding, prolonged labour, abnormal lie of fetus, severe headache, abdominal pains and hypertension.

The causes of maternal mortality and identification of danger signs by respondents and various age groups are presented in figure 2, table 2 and figure 3 respectively.

Figure 2: Perceived Causes of Maternal Mortality by Respondents

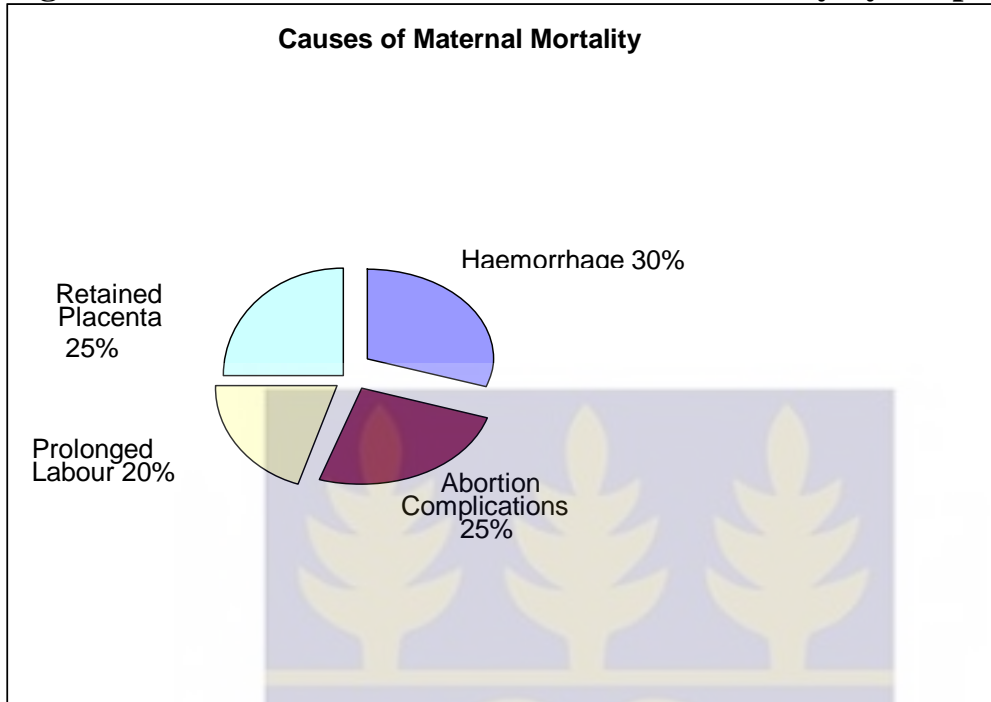
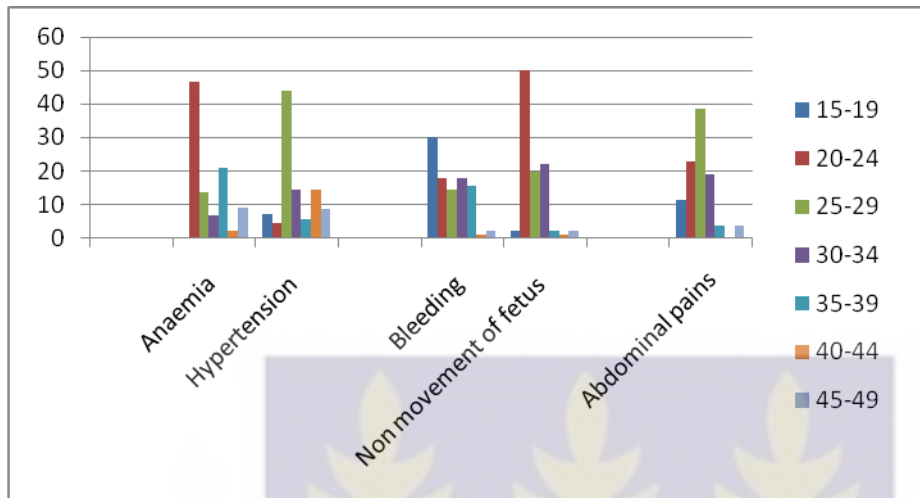


Table 2: Proportion of respondents who can identify danger signs

Variable	Frequency	Percentage (%)
Yes	310	84
No	58	16
Total	368	100

Figure 3: Identification of Danger Signs by Age Groups

4.3 Community Beliefs and Practices

An important cause of maternal deaths in most developing countries is obstructed labour which is a result of under nutrition in childhood resulting in small pelvis in women. From the study, the respondents had the belief that obstruction in labour is the result of infidelity on the part of the woman and a curse. Certain cultural practices therefore have to be observed before the woman is sent to health facility and these practices are: confession by the victim and rendering apology to the husband (this was said by 35.5% of the respondents) and in the curse situation, rituals are performed to cleanse and purify the woman involved before she is sent to the health facility (this was said by 20.5% of the participants). In the FGD, the discussants mentioned that women who experience prolonged labour are accused of being unfaithful to their husbands and are therefore requested to make a confession and render apologies to their husbands. A woman from “Nima Boola” said this in the FGD *“when a woman starts experiencing prolonged labour, they may say you have offended your husband or you have been unfaithful to your*

husband, therefore you have to make confessions and apologize to your husband before you can deliver. In such situations innocent women are forced to say things that are not true". Also, prolonged labour is attributed to a curse and victims have to be cleansed and purified through rituals. However, in-depth interviews (TBAs), women who experience prolonged labour, are given Cassava or "acheampong" leaves to chew or herbal concoctions to stimulate contraction. After the medicine is administered if the woman is still not delivering, then questions would be asked to find out if the woman had been unfaithful to the husband, if yes, she then has to confess and render apology to the husband.

In the case of expelling a retained placenta, 25.8% of respondents mentioned that a woman is required to blow a bottle, 3.5% said a calabash is placed on the woman's stomach and beaten a number of times depending on the sex of the baby, 3.5% also said a "banku" paddle is inserted in the mouth to induce vomiting and 5.4% said women are required to drink honey and water. This was confirmed in the FGD, the women also stated that the same ways of expelling a retained placenta: blowing a bottle, placing a calabash on the woman's stomach and beaten a number of times depending on the sex of the baby, "banku" paddle is inserted in the mouth to induce vomiting and drinking a mixture of honey and water. A woman from "Nima 441" had this to say *"I know a woman who died as a result of blowing a bottle to expel the placenta, she bled heavily and died before they arrived at the health facility"*.

Also, in the in-depth interview women who experience this situation are either given a concoction to drink or are required to blow a bottle. In addition, one of the TBA's

mentioned that a fetus which is not well positioned is placed in a proper position for delivery. The TBA said *“I sit in front of the pregnant woman and use both hands to remotely position the fetus”*.

Women also use various means of boosting HB levels during pregnancy and after delivery and the respondents mentioned a mixture of “milk and malt”, “tin tomatoes and coke” and “small green garden eggs” (locally known as “yaa asantewah”, “abedro” etc) for cooking. The women in the FGD also mentioned the same items for boosting their Hb level during pregnancy and these are: a mixture of “milk and malt”, “tin tomatoes and coke” and “small green garden eggs” (locally known as “yaa asantewah”, “abedro” etc) for cooking.

A question was asked about the implication of swelling of the feet/face during pregnancy. The women had the belief that, swelling in pregnancy is a sign of a baby boy, big baby, delivery time getting closer and a disease. Among 368 respondents, 70.4% have a belief that swelling in pregnancy signifies a baby boy, 19% mentioned twins, 3.5 % attributed it to a disease, 3.3% mentioned big baby and 1.6% said delivery time is closer. In the FGD, the women stated that swelling in pregnancy is used to determine the sex of the baby and to them this signifies a baby boy. Women who therefore wish to have a male child expect to swell up during pregnancy. A discussant from “Nima Roundabout” had this to say *“Swelling in pregnancy is never a sickness and women who swell up during pregnancy have baby boys at the end”*.

Also in the IDI, the TBAs stated that swelling in pregnancy traditionally signifies a baby boy or twins.

Percentage distribution of swelling in pregnancy is presented in table 5 below.

Table 3: Beliefs about swelling in pregnancy by Respondents

	Frequency	Percent
Baby boy	248	70.4
Twins	70	19
Disease	13	3.5
Big Baby	12	3.3
Don't know	8	2.2
Delivering time is closer	6	1.6
Total	368	100

Also it is a practice in the community that a woman and her child are expected to be kept indoors for a period. Among the respondents who delivered at the health facility (207), representing 40.5% did not report to the health facility during the first week of delivery and the reasons given were solely cultural practices where both mother and child are kept indoors for a period. This was confirmed in the FGD where the women mentioned that they are kept indoors for at least one week.

Decision making was also identified to influence the level of maternal mortality. In the survey respondents were asked about some factors that delay their decision to seek early care during pregnancy and labour. One of the factors was seeking permission from the

husband: among the respondents who are married (151), 78.9% said decision making during pregnancy is solely the responsibility of their husbands. This was confirmed in the focus group discussion where the women mentioned that they are their husbands' property, therefore their husbands make major decisions in their lives and even during emergencies. The TBA also mentioned that married women need to seek permission from their husbands before seeking care. One TBA mentioned that *“women who do not seek permission from their husbands before seeing her have to hide the medicine or keep the medicine at her place and comes on regular visit to take the medicine”*.

Another factor that came out was the rites performed for babies which delay the decision to seek care at the health facility. 146 of the respondents mentioned that two important rites that are performed for babies and these are bathing with herbs and giving drinking water. 58.1% and 41.9% mentioned bathing with herbs and giving of drinking water respectively as rites performed for babies immediately they are born. In the FGD, the women mentioned that bathing babies with herbs and giving of drinking water as soon as babies are born are very significant and have to be performed at all cost. These rites in a way delays decision to seek early care. A woman from “Nima Boola” had this to say *“babies’ rites are so important that some women do perform these rites secretly at the health facility and some women think through these rites carefully before choosing site of delivery”*.

The TBAs also mentioned the rites stated above and added that these rites delay the decision to seek care and choice of delivery since they play a significant role in the lives of babies.

Also in the FGD, it came that a woman is not expected to spend too much time at the health facility during delivery in order to prove that she is a real woman. Due to this, women intentionally delay the decision to seek early care in times of labour.

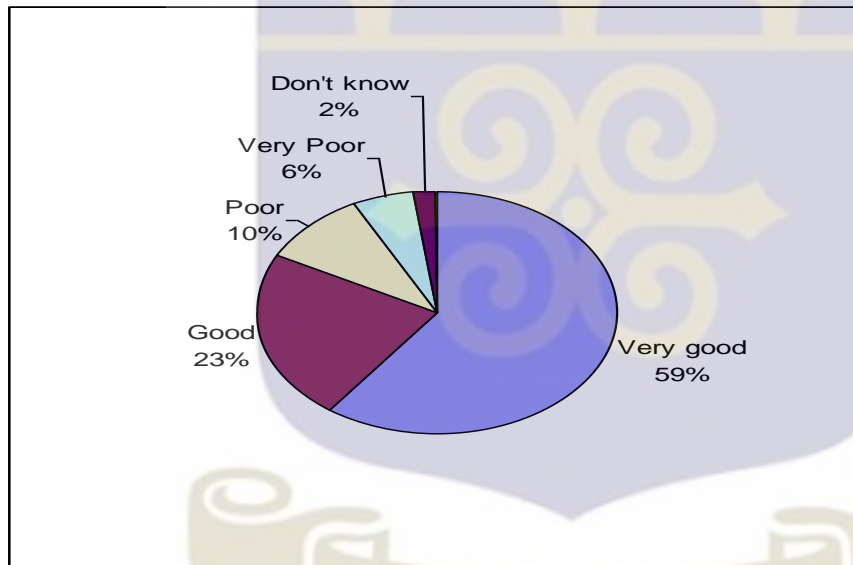
4.4 Quality of Care

The participants perceived treatment offered by the health professionals to be fairly good and services provided during ante natal included; nutrition education, clinical examinations, malaria prevention, information on breastfeeding and care of the newborn. Among 217 respondents who have children, 207 delivered at the health facility and also received ante natal services. 60% of 207 ranked the quality of services received (nutrition education, clinical examinations, malaria prevention, information on breastfeeding and care of the newborn) as very good, 22.7% ranked the services received as good and 15.3% ranked the services as poor and 2% responded do not know. In addition, insults received from the nurses/midwives were mentioned as dehumanizing factor that sometimes discourages women from assessing health care. Women also mentioned that nurses are not receptive and most often delay in attending to emergency cases. Women again complained (80% of 217) of a long list of items needed for delivery at the health facility (3 pieces of napkins, two towels, disinfectant, night dresses, baby cream/powder etc). Despite all these challenges facing women, women perceive quality of care at the health facility to be good since health facilities manage complications better and there is assurance of quick attention to complications. This was confirmed in the FGD, women stated that quality of care is the best at the health facility since complications can be managed better but the poor attitude of some health workers and the long list of items

(3 pieces of napkins, two towels, disinfectant, night dresses, baby cream/powder etc) to be provided for delivery are their major worries and because of these some women prefer to be delivered by TBAs.

However, the TBAs mentioned that women use traditional medicine along side orthodox medicine and that care at their place is equally. They believed that traditional medicine is very important when it comes to pregnancy issues. Percentage distribution of quality of care received at health facility is presented in figure 4.

Figure 4: Percentage Distribution of Quality of Care by Mothers



4.5 Transportation Factors

The study also looked at how transportation affects access to maternal health services during emergencies. According to the respondents, transport is always available at every point in time but the only problem is related to the way buildings are constructed in the community which prevents vehicle accessibility into some houses and traffic congestion

in the city. The majority of respondents 320 (87%) mentioned that it is always easy to get a vehicle and 13% responded said it is not easy. In the FGD, the women mentioned that transport is always available but because of the way their houses are constructed it makes it difficult for vehicles to enter their homes. The TBAs also mentioned that transportation is not a problem in the community.

4.6 Diseases affecting Women during Pregnancy and after Childbirth

Pregnancy-related maternal complications include: haemorrhage, infections, eclampsia and anaemia etc (WHO, 2004). For every woman who dies through pregnancy or delivery, about thirty suffer from a disease, a disability or a handicap caused by complications during pregnancy or delivery (WHO, 2004). From the study, the diseases identified were: haemorrhage, infections, anaemia, hypertension and malaria. This was confirmed in the FGD, that is the same diseases were identified (haemorrhage, infections, anaemia, hypertension and malaria). The TBAs also mentioned hypertension, malaria anaemia and infection. Information on diseases affecting during pregnancy and after birth is presented in table 4.

Table 4: Diseases affecting women during pregnancy and after birth as identified by Respondents

<i>Disease</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Hypertension	151	41
Infection	87	23.6
Haemorrhage	90	24.5
Anaemia	92	27
Malaria	183	49.7

CHAPTER FIVE

5.0 DISCUSSION

The preceding chapter presented the results of the study. This chapter therefore presents the discussion and analysis of information gathered from the women in the community. Health seeking behaviour among women in the community is very critical and may influence the level of maternal mortality and morbidity. Knowledge about maternal mortality includes causes, recognition of danger signs in pregnancy, delivery and after delivery. There are both individual and community factors, such as beliefs and practices, education and health service barriers including accessibility and quality of care, which can often delay or prevent a woman from seeking care. It is therefore important for women to have adequate knowledge about causes of maternal mortality, identify danger signs in pregnancy and the extent to which traditional beliefs and practices can influence the level of maternal mortality and morbidity.

5.1 Characteristics of Study Population

Education is a distant factor which offers the possibility of affecting the magnitude of maternal mortality in different ways. A well known effect of education is lowering fertility. If women get pregnant late and bear fewer children, they are less at risk of maternal death. Women's social status, self image and decision making powers may all be increased through education, which may be a key in reducing their risk of maternal death, resulting from early marriage and pregnancy or lack of information about health services. Young people in the world who can neither read nor write are girls

(Wall, 2004). In a survey carried out in Nigeria with 50 rural fistulous in-patients, 40% of women had no education (Wall, 2004). A study conducted in 2006 by Odoi Agyarko et. al, also revealed that female enrolment decreases by secondary level, meaning that Ghanaian women are generally less educated and have limited access to economic opportunities. Low level of education is a constraint to one's ability to compete in the job market. In this study, the majority of the respondents (134) is educated to JSS/MSLC level (36.4%), followed by no education (22.6%) and only few are educated to the tertiary/university level (6.8%) which supports the findings of the studies mentioned above. Also a higher proportion of the respondents were engaged in petty trading. Consequently, these women can not compete in the job market, may experience various degrees of exclusion, may have their lives and welfare dominated by tradition and also may lack control of resources leading to increased poverty. Therefore the findings of this study demonstrated that education level and occupation can operate through some immediate determinants that affect pregnancy and pregnancy outcome.

5.2 Knowledge about Danger Signs

It is estimated that 80% of maternal deaths is due to direct causes and 20% to indirect causes (WHO, 1996). The causes of maternal mortality at Ayawaso Sub-Metro were similar to the causes of maternal mortality globally (WHO, 1996). The most common causes of maternal mortality identified by the respondents were haemorrhage (30%), abortion complications (25%), retained placenta (25%) and obstructed labour (20%). Some contributing factors to maternal mortality and morbidity that were identified through analysis of the information gathered were cultural beliefs and practices and

understanding in recognizing the need to seek medical care earlier during obstetric emergency (Pathak et al, 2000).

For individuals to recognize signs of childbirth depends primarily on the individual woman and her family's assessment/perception of what constitutes normal and abnormal situation, how they perceive the severity of certain life-threatening conditions in childbirth and how pregnancy related complications can be prevented or treated to save women's lives (Maine et al, 1990). Inability to make the appropriate assessment of pregnancy related complications and any medical conditions could contribute to the delays in recognizing the danger signs in pregnant women. The results of this study shows that the women had adequate knowledge about danger signs and how fatal some danger signs can be, yet the women's attitude and community practices delay the decision to seek early care. For instances, oedematous pregnant women are said to be expecting twins or a baby boy when medically they may be at the verge of having pregnancy-induced hypertension, the implication is that the concepts of health and sickness are all cultural constructs and consequently may be reinterpreted to mask the element of medical danger, therefore, it is difficult to influence the various factors that increase the risk of pregnant women.

5.3 Community Beliefs and Practices

Socio-cultural beliefs and practices could shape the interpretations and meanings of medical conditions and consequently influence the actions taken by people to deal with the emergency situation. In the study area, certain medical conditions are associated with curses and infidelity, needing spiritualists' input. For instance, prolonged labour is linked

with the woman's infidelity, needing confessions and apologies (Chiwuzie et al, 2000). These beliefs and attitudes could become obstacles in receiving and acting on information regarding the risks associated with childbirth. This in turn could lead to the delay in recognizing the need to seek medical care during emergencies (Phase 1 delay) (Maine et al, 1990). Again the practice by women to boost their HB levels during pregnancy and after child birth by using different herbs can pose health hazards since these herbs have not been proved scientifically to contain nutrients that can boost HB levels. The concoctions include herbs, a mixture of "malt and milk", "tin tomatoes and coca coke" and use of "small green garden eggs" (locally known as yaa asantewah, abedru) for cooking. All these herbs and the various mixtures may be harmful to pregnant woman which may put them at a higher risk.

In addition, a pregnant woman is traditionally expected to prove that she is a real woman, this means that she is not supposed to spend long hours at the hospital before delivery. In the focus group discussion, the same issue was mentioned and because of this belief some women in labour intentionally arrive late at the health facility in order not spend long hours at the facility. This belief system poses danger to women during emergencies and put them at a higher risk. Coupled with this is the fact that the long list of items requested by the health facility influences women's decision to seek early care at the health facility. Women who are not able to buy all the items delay decision to seek early care because they are afraid of being insulted and this can be dangerous in times of emergencies.

Also in Africa, it is common for rituals to be performed in order to assist a woman in labour. Traditional birth attendants who carry out these rituals may have inadequate knowledge about aseptic techniques and may fail to wash their hands or sterilize their instruments. Amongst these dangerous practices are vaginal examinations during labour, use of unclean objects for cord-cutting and the application of cow dung (Ascadi, 1991). The ill effects of these practices include postpartum urinary infection, tetanus, genital infection and sepsis, thereby putting women at risk of maternal death and sickness. Treatment for obstructed labour by TBAs' is frequently dangerous. The findings of Ascadi's study is not different from the findings of this study where TBAs' give concoction to stimulate contraction, use of roasted grounded chalk and water for cord care and various means are used to expel the placenta. All these practices put women at a higher risk of maternal death and ill health.

Last but not the least, women's mobility in times of emergency may be limited by social restrictions on their movement. According to Maine et al many married women need to seek permission from their husbands before seeking care. Findings of this study is similar to the findings of Maine et al (1994) as many of the married respondents need to seek approval from their husbands before seeking health care. The beliefs and practices also offer an explanation to the maternal mortality and morbidity situation at the district. Thus, society plays a critical role in the promotion or reduction in the incidence of maternal morbidity and mortality.

5.4 **Quality of Care**

Widespread coverage of maternal health care services cannot combat maternal mortality and morbidity unless quality of care is improved and maintained. When women and communities perceive that quality of care is low at health facility, they may well decide not to use the services even if they are at risk. Seeking maternal healthcare should not be a dehumanizing experience and patients should be treated with respect and compassion by health professionals. Unfortunately, this is not the case in developing country health care systems (Sundari, 1992) where most patients complain of ill treatment by health professionals. In this study, a higher proportion of respondents perceive quality of care at the health facility to be very good but the women complained of insults received from nurses/midwives and poor reception accorded them by health professionals. Attitudes of health workers towards patients are a major influence on women's decisions about where to give birth. These factors contribute to delay arrival of women to the health facility during labour and this puts them at a higher risk. This could explain why some women arrive late at the facility. Despite all these challenges facing women, women perceive quality of care at health facilities to be good since health facilities manage complications better and there is assurance of quick attention to complications.

5.5 **Transportation Factors**

Maternal death is often a consequence of a long and complex chain of delays and one of the delays in transportation difficulties such as poor road condition and lack of readily available means of transport. Any one delay could be fatal to a woman with obstetrical complications. A study on causes of maternal deaths at Tema general hospital by Kumah

(2000) revealed that a woman who died as a result of retained placenta had to wait for half an hour before getting a taxi to the health facility. From the study transportation is not a problem for the women since transport is available at every point in time. The problem confronting women therefore is heavy traffic congestion within the city which may be dangerous during referral. For instance, how long can a case of haemorrhage either in labour or after birth be kept alive while a vehicle drives through the thick traffic from Nima government clinic to Korle-Bu? Transporting of emergency cases may be limited by heavy traffic congestion (Phase 2 delay) which may be a contributing factor to maternal mortality and morbidity. This could possibly explain why maternal mortality and morbidity is high at the district.

5.6 Diseases affecting Women during Pregnancy and after Childbirth

It is estimated that 99 % of maternal deaths occur in developing countries and for every woman who dies through pregnancy or delivery, about thirty suffer from a disease, disability caused by complications during pregnancy or delivery (WHO, 2004). Pre-eclampsia/eclampsia and sepsis account for 16.0% and 14.4% respectively of all causes of facility-based maternal death in Ghana (RCH annual report, 2006). Among the diseases affecting women during pregnancy and after pregnancy are: fistula, infection, hypertensive disorders, haemorrhage, sepsis and pre-eclampsia etc. In this study, the diseases affecting women during pregnancy and after childbirth are: haemorrhage, infections, anaemia, hypertension, convulsion and malaria and since these diseases are major causes of maternal mortality and morbidity, this could explain why maternal mortality and morbidity are high in the district.

CHAPTER SIX

6.0 CONCLUSIONS/RECOMMENDATIONS

6.1 Conclusions

Socio-cultural factors have a dramatic impact on the health of women especially pregnant women because of their specific health needs and the complications that may arise during pregnancy or the birthing process. Pregnant women who may be affected by these beliefs and practices may end up losing their lives or developing a preventable disease. The following factors were identified as influencing maternal mortality and morbidity.

- Low risk perception
- Harmful traditional practices
- Cultural beliefs
- Poor attitude of health professionals
- Poor health seeking behaviours

These findings therefore call for immediate attention, full community participation and government notice.

6.2 Recommendations

The Ghana Health Service has hinted that 12,000 women and one million more will suffer from disabilities if interventions are not put in place to curb the soaring numbers resulting from maternal deaths. This calls for an all hands on deck approach in reducing

maternal mortality and morbidity. The following are suggested recommendations for the various stakeholders involved in prevention of maternal mortality and morbidity.

6.1.1 Unit Committee Members/Assembly Woman & Man/Opinion Leaders/ Chiefs/Religious Leaders/Government Officials

Join in reducing maternal deaths by keeping pregnant women alive and creating wealth for the community. This can be done by:

- Organizing community durbars to discuss maternal health issues
- Help in modifying cultural and traditional practices that might be harmful to pregnant women
- Intensify education on harmful traditional practices and dangers of unsafe abortion

6.1.2 Community Groups

- Should encourage pregnant women to improve upon their health seeking behaviour by visiting the health facility whenever they identify any danger sign
- Should encourage pregnant women to take all medication (iron and folic acid tablets, SP3 times during pregnancy and vaccination against tetanus)

6.1.3 Pregnant Women

- o Visit the health facility when you identify danger signs of pregnancy and labour
- o Visit health facility after delivery

6.1.4 Health Worker

Health Workers must improve on their work by doing things differently by making health facilities customer friendly that is minimizing insults and being receptive and also must be prepared always for emergencies.

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APPENDIX 1: Consent Form for Participants

REQUEST FOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY

STUDY TITLE: Socio-cultural factors associated with maternal morbidity and mortality in Ayawaso Sub-Metro.

INTRODUCTION: A student from the School of Public Health, University of Ghana is conducting a research study in Ayawaso Sub-Metro to identify the socio-cultural factors associated with maternal morbidity and mortality.

Kindly read or have this consent form read to you before deciding whether to participate in the study. Kindly sign or thumbprint below if you agree to take part in the study. A copy of this consent form shall be provided to you.

STUDY PROCEDURE: You are being invited to answer a few questions relating to socio-cultural practices, beliefs and norms in the community relating to maternal morbidity and mortality. Your participation in this study will last for 10-15 minutes and will end in a day.

BENEFITS: You will not have direct benefit from the study for your participation, however, the information obtained will be used to improve maternal health care.

RISKS/DISCOMFORTS: The risks involved in taking part of the study include the inconvenience that the interview will cause you and the time you will spend answering questions. Some of the questions may be personal therefore embarrassing. The interview will be conducted by well trained research assistants and therefore minimize any of these risks.

CONFIDENTIALITY: All information that will be provided will be treated as confidential and reference would not be made to any participant by name.

CONTACTS: if you had any questions regarding the rights as a participant in this study, you may contact me the Director Ayawaso Sub-Metro or you may contact the principal investigator Miss Rosemond Owusu on mail mondowusu2002@yahoo.com.

Sign/Thumbprint..... Witness's Sign.....

Date..... Date.....



APPENDIX 2: SAMPLE OF FOCUS GROUP DISCUSSION GUIDE

Purpose of the study: to assess socio cultural factors associated with maternal mortality and morbidity.

Respondents: Women in the community

1. What are some of the health issues this pregnant woman can face? (probe to find out if maternal mortality and morbidity is a problem in the community)
2. What do pregnant women in this community do to become healthy?(Probe to ascertain where they go for ANC and specific things that prevents them from delivering at the health facility)
3. If a woman is pregnant, how would you know there is something wrong with the pregnancy? (Probe to ascertain knowledge about danger signs, beliefs about swelling in pregnancy)
4. What do you do in this community when a woman develops pregnancy complications? (Probe for quality of care and forms of treatment)
5. What do mothers and elders say about prolonged labour? (What practices are observed when prolong labour is attributed to infidelity, curse, witchcraft etc)
6. Where do women deliver in this community and who influences choice of facility for delivery? (If is not a health facility, probe for the risks for not delivering at a health facility and what do they do when there is a retained placenta)
7. Who is culturally permissible to conduct delivery?
8. How far is the community from the nearest health facility? (Probe to ascertain the nature of the road and means of transport, difficulties in transportation)
9. Mention three common diseases that affect women during and after pregnancy.

APPENDIX 3: SAMPLE OF STUDY QUESTIONNAIRE

PLACE INTERVIEW DATE RESPONDENT ID.....

NAME OF INTERVIEWER.....

SECTION A: BACKGROUND INFORMATION

1.1 Name of respondent:.....

1.2 Age in years

1.3 Marital status a. Single b. Married c. Separated c. Divorced
d. Widow e. Cohabiting

1.4 Religion? a. Christian b. Muslim c. Traditionalist
d. other (Specify)

1.5 Level of education? a. No education b. Primary c. JSS/MSLC
d. SSS e. Vocational/Technical f. Tertiary/University

1.6 Occupation? a. Civil/Public servant b. Petty Trader c. Farmer
d. Artisan e. Unemployed f. Other (specify)

1.7 Ethnicity a. Gonja b. Zamrama c. Ewe d. Chamba
e. Kotokoli f. Akan g. Wala h. Mamprusi
i. other.....

1.8 Do have a child? a. Yes b. No if no skip to Q8

1.9 If yes, how many are they? a. 1-2 b. 3-4 c. 5+ d. N/A

2. Did your last birth take place in a health facility? a. Yes b. No

3. If no, where.....

4. Did you report to the health facility after delivery during the first week? a. Yes

b. No If no why

5. Where did you receive antenatal services? a. Hospital b. Herbalist
 c. TBA d. other (specify)
6. How do you perceive services provided by health facility?
 a. Very good b. good c. poor d. very poor e. N/A
7. Who influences choice of facility for delivery? a. Husband b. Self
 c. Father/Mother d. In-laws if self, skip to q9
8. After your last birth, did you have a check-up within the first week? A. Yes b. No
9. Can you identify danger signs in pregnancy? a. Yes b. No if no skip to Q13
10. If yes, what are the danger signs?
- | | Yes | No |
|------------------------------|--------------------------|--------------------------|
| a. Vaginal Bleeding | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Severe headache | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Hypertension | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Anaemia | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Non movement of the fetus | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Severe abdominal pains | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Severe vomiting | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Other (specify) | | |
11. What are the causes of maternal deaths a. Bleeding b. Abortion complications
 c. Prolong labour d. Don't know e. Others
12. Who is culturally permissible to conduct delivery? a. Doctor b. Midwives
 c. TBA d. Other (specify)----- e. Don't know
13. What is belief about swelling face, joints, ankles and whole body in pregnancy?
 a. Baby boy b. Big baby c. Disease

d. Delivery time is getting closer e. Twins f. Don't know

14. What are the community's beliefs about prolong labour? a. Curse b. Witchcraft
c. Infidelity d. Normal e. don't know if not a, b,c or d skip Q13

15. What are some of the practices that are observed before a woman experiencing prolong labour at home is allowed to move to the health facility?

16. Are there any special rites performed on infant immediately after birth? a. Yes b. No

If no, Skip to Q17

17. If yes, what are the rites?.....

18. Does the rites prevent women from delivering at the health facility? a. Yes
b. No c. N/A

19. What are the risks of delivering elsewhere apart from the healthcare facility?

Yes No

a. Prolong labour

b. Death of the baby

c. Profuse bleeding

d. Death of the mother

e. other (specify).....

20. When a woman delivers at home and there is retained placenta, what does the community members' do to assist her?.....

21. Is it easy to get vehicle in times of need? a. Yes b. No

22. What is the nature of the road? a. Good b. Bad

23. What form of transport do you use to get to the health facility? a. Vehicle

b. Walk c. Motorbike d. Don't know

24. What diseases commonly affect women during and after pregnancy?

	Yes	No
a. Malaria	<input type="checkbox"/>	<input type="checkbox"/>
b. Anaemia	<input type="checkbox"/>	<input type="checkbox"/>
c. Fistula	<input type="checkbox"/>	<input type="checkbox"/>
d. Hypertension	<input type="checkbox"/>	<input type="checkbox"/>
f. Infection	<input type="checkbox"/>	<input type="checkbox"/>
g. Haemorrhage	<input type="checkbox"/>	<input type="checkbox"/>
h. Cardiovascular	<input type="checkbox"/>	<input type="checkbox"/>
i. don't know	<input type="checkbox"/>	<input type="checkbox"/>

25. Is information on maternal deaths routinely reported to the health facilities by community members? a. Always b. Sometimes c. Never
d. Don't know

26. What type of community safe motherhood education or outreach activities have there been in the past year? *Tick as many boxes as apply*

	Yes	No
a. None	<input type="checkbox"/>	<input type="checkbox"/>
b. Durbar	<input type="checkbox"/>	<input type="checkbox"/>
c. Role plays	<input type="checkbox"/>	<input type="checkbox"/>
d. Market activities	<input type="checkbox"/>	<input type="checkbox"/>
e. Home visiting by health workers	<input type="checkbox"/>	<input type="checkbox"/>
f. Radio or television	<input type="checkbox"/>	<input type="checkbox"/>
g. Others – (specify).....		

APPENDIX 4: SAMPLE OF IN-DEPTH INTERVIEW FOR TBA'S

<p>WE ARE CONDUCTING A SURVEY OF MATERNAL MORTALITY AND MORBIDITY IN THIS AREA, AND WOULD BE GRATEFUL IF YOU WOULD TAKE A FEW MINUTES TO ANSWER SOME QUESTIONS. ALL OF YOUR ANSWERS WILL BE HELD IN STRICT CONFIDENCE.</p>	
<p>Name of TBA: _____ Date: _____</p>	
<p>Q1 What are the causes of maternal death?</p>	
<p>Q2</p>	<p>When was the last time that you attended a birth?</p> <p><i>Tick one best response</i></p> <p><i>If TBA has never attended a birth, thank TBA and close interview.</i></p>
<p>Q2 What warning or danger signs during pregnancy would prompt you to refer a woman to a health facility?</p> <p><i>Listen carefully. Probe for multiple responses. Do not read out list. Tick as many box(es) as apply</i></p>	
<p>Q3</p>	<p>What warning or danger signs during delivery would prompt you to refer a woman to a health facility? <i>Probe for multiple responses and how they stimulate contraction.</i></p>
<p>Q4</p>	<p>What warning or danger signs after delivery would prompt you to refer a woman to a health facility? <i>Probe for multiple responses and how they expel retain placenta.</i></p>
<p>Q5</p>	<p>What do you use to cut the cord?</p>
<p>Q6 Do you ever use herbs during pregnancy? a. Yes <input type="checkbox"/> b. No <input type="checkbox"/></p>	
<p>Q7</p>	<p>If yes, what do you use the herbs for?</p>
<p>Q8</p>	<p>Under what circumstances do you refer patients to the health facility a. During pregnancy <input type="checkbox"/> b. During labour <input type="checkbox"/> c. After delivery <input type="checkbox"/></p>
<p>Q9</p>	<p>What information do you provide to the mother after birth? <i>Probe for multiple responses</i></p>
<p>Q10</p>	<p>Have you ever seen a woman with complications resulting from incomplete abortion before? If yes, when was the last time and did you do?</p>

Q12	Have you ever received training on maternal health care? If yes, when was the last time and what type of training did you receive?	
Q13	Do you receive supervision from health professional? If yes, when was the last time and how many times in a month?	

