CHAPTER 1

INTRODUCTION

1.1 Background

Women of reproductive age in developing countries face serious complications during child bearing. Some of these complications are sepsis, haemorrhage, aneamia, induced abortion, eclampsia and ruptured uterus. These later lead to maternal death. Maternal death as defined by the International Classification of Diseases (ICD), is "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes"(Nsemukila ,1994:9)

World wide, nearly 600,000 women between the ages of 15 and 49 years die every year as a result of complications arising from pregnancy and child birth. According to World Health Organisation (1999:4), "every minute of everyday somewhere in the world, a woman dies as a result of complications arising during pregnancy and child birth." Such deaths are avoidable if preventive measures were taken. Since 1940s, maternal deaths have become increasingly rare in developed countries which is not the same for developing countries like Zambia.

The World Health Organization, United Nations Children's Funds and United Nations Population Funds joint estimates are that, 515 000 women die each year of pregnancy related causes. Of these over half take place in Africa, 42% in Asia, 4% in Latin

America and Caribbean, and less than 1% in the more developed countries,(WHO, 1995). In other words over 99% of maternal deaths take place in developing countries. Of the estimated total of 536 000 maternal deaths

worldwide in 2005, developing countries accounted for 99% (533 000) of these deaths. Slightly more than half of the maternal deaths (270 000) occurred in the sub-Saharan Africa region alone, followed by South Asia (188 000). Thus, sub-Saharan Africa and South Asia accounted for 86% (459 000) of global maternal deaths (WHO,2007).

The call for the reduction of maternal mortality is an international development goal which stem from the Millennium Declaration that was signed by Heads of States, including the President of the Republic of Zambia, at the United Nations in New York in 2000, in which the world agreed to reduce maternal mortality by three-quarters among other key development areas (MOE, 2005: iii).

For Zambia, reduction of maternal mortality by three quarters by the year 2015 is a challenge. Maternal mortality levels have remained high, from 649 per 100,000 births in 1996 to 729 in 2002 and 591 maternal deaths per 100,000 live births in 2007 (CSO,MOH, 2007:259).

1.1 STATEMENT OF THE PROBLEM

The Zambian government in collaboration with donor countries has put up measures to reduce the impact of maternal mortality, such as free ante-natal services, upgraded training of traditional birth attendants especially in rural areas and

launched the Safe Motherhood Initiative. Other measures aimed at addressing the maternal health care include provision of voluntary counseling and testing services, free anti-retroviral therapy, establishment of adolescent sexual reproductive health programmes; and implementing prevention of malaria in pregnancy strategies that are targeting pregnant women under the Roll Back Malaria through provision of free anti-malaria drugs, and creation of the Insecticide Treated Nets. Despite all these efforts, Maternal Mortality levels have remained high; "in 1980 Maternal Mortality stood at 2000 deaths per 100,000 births, 649 in 1996, 729 in 2002 and 591 in 2007," (CSO, 2007:120). Detailed factors such as Socio-economic, cultural factors, Information Education and Communication have never been examined when analyzing maternal mortality. Also data on Maternal Mortality are not disaggregated by provinces and districts. This makes it difficult to assess factors determining Maternal Mortality at such levels.

This study attempted to assess the factors determining Maternal Mortality at a district level. Also levels and patterns of Maternal Mortality and provision of health services in Kafue have been examined.

1.2 GENERAL OBJECTIVES

i. To investigate the determinants, levels and patterns of maternal deaths in Kafue Urban District.

1.2.1 SPECIFIC OBJECTIVES OF THE STUDY

i. To examine the levels, and patterns of maternal mortality in Kafue Urban.
ii. To investigate the main determinants of maternal mortality in Kafue Urban.
iii. To assess the provision of maternal health services in Kafue Urban.

1.2.2 RESEARCH QUESTIONS

i. What are the major determinants of maternal mortality in Kafue Urban?
ii. What are the views of the community on the causes of maternal mortality?
iii. To what extent have the guidelines in managing pregnancy complications been implemented by health institutions?

1.3.1 SIGNIFICANCE OF THE STUDY

i. The study may inform the policy makers, health institutions and communities on factors causing high maternal mortality in Kafue Urban.
ii. The study will also assist in building up the gaps in best practices in the implementation of safe motherhood programmes at National level.
iii. The findings of this study might reflect the occurrences in other districts in Lusaka Province.

1.4 Conceptual Frame Work

There is no single conceptual framework that can be employed in analyzing the causes of Maternal Mortality. However, any detailed, meaningful and comprehensive analysis of factors determining maternal mortality can be made between two categories of determinants, the background (independent or explanatory) variables and the proximate (intermediate or dependent) variables.

The explanatory variables in this study have been grouped into four categories (Figure.1.1):

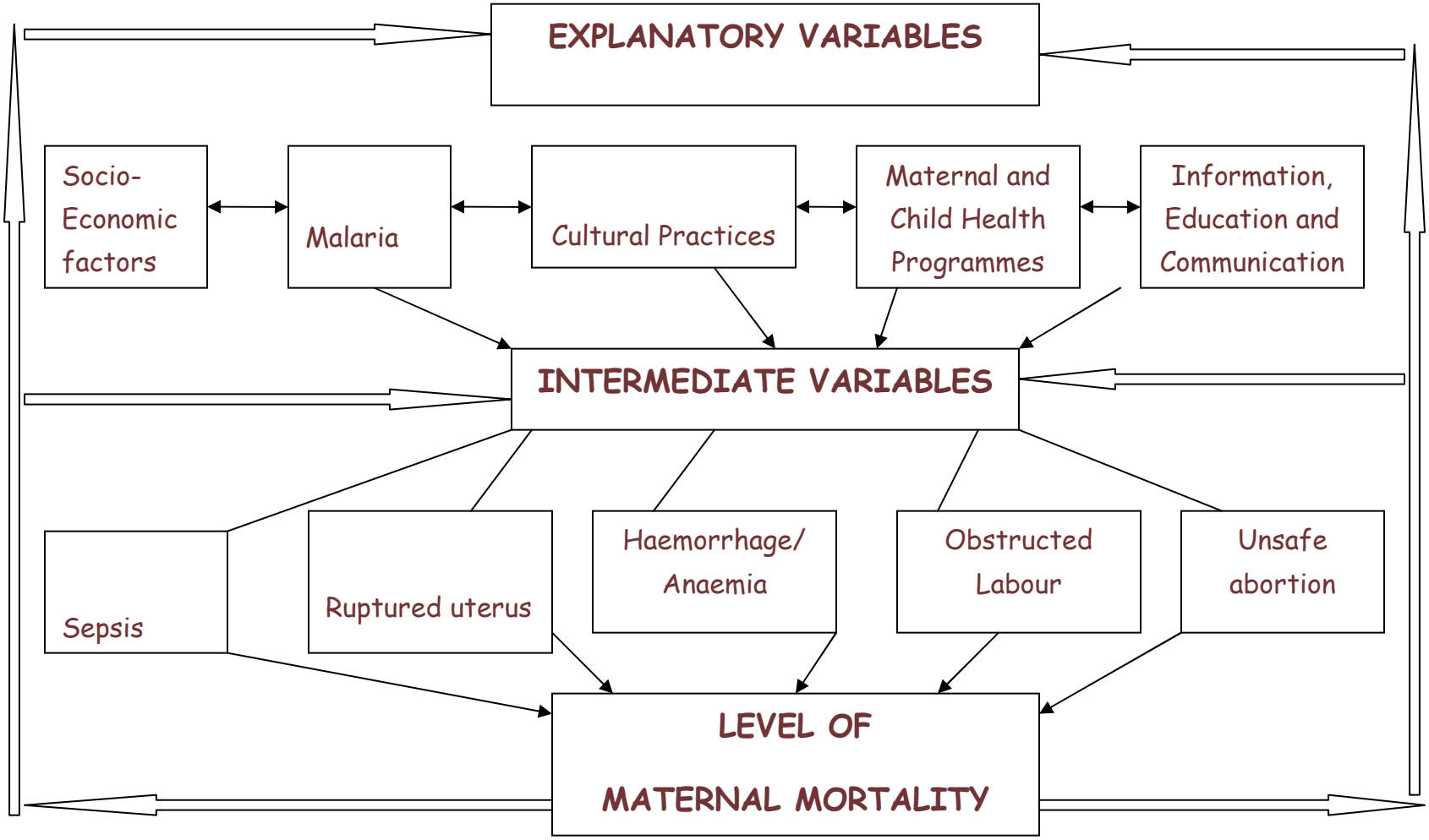
1. ***Socio-economic characteristics*** – covering economic, education and political aspects

2. **Cultural Practices-** covering taboos and beliefs followed.

3. **Maternal and Child Health programmes-** covering numerous programmes aimed at reducing maternal and child mortality.

4. **Information, Education and Communication** – covering all aspects of communication in the sensitization of maternal health, education of the woman and educating the community on maternal health awareness programmes. Communication here, postulates both informal and formal channels for disseminating maternal health information.

Figure 1.1 CONCEPTUAL FRAMEWORK



The explanatory and intermediate variables operate in various ways. For instance, some legislatures through maternal and child health programmes or the government may ban abortion (intermediate variable) which in turn would reduce the risk of maternal death. In this case, the explanatory variable, legislature has operated through the response variable unsafe abortion causing sepsis or haemorrhage.

Or a given political regime (socio-economic characteristic) or a traditional leader (cultural practices) may affect marriage practices by introducing liberal policies over age at first marriage. Such practices may increase the risky factors of maternal death especially if a woman conceives at early age.

The block arrows in the Figure 1.1 from the "Level of Maternal mortality", depict a situation in which a high rate exposure to risky factors of pregnancy complications and maternal illness prompts changes in the explanatory and intermediate variables. That is high risky factors should prompt socio economic and cultural changes in order to avert high rates of maternal mortality. For instance, abandonment of unsafe abortion may tend to reduce pregnancy complications and exposure to maternal death. Also, level of educational attainment (socio-economic characteristic) in a given society may determine the age of marriage and type of communication. A society with a high literacy rate, for example, may use more effective communicative channels, while one with lower literacy may rely on information from less effective mechanisms, such as friends. The situation may be worse in rural areas where most people do not usually listen to radio or watch television.

Figure 1.1 suggests that if women are not exposed to or do not experience any of the activities comprising the intermediate variable, the rate of maternal death will be reduced.

The intermediate variables are grouped into five categories: **sepsis, ruptured uterus, haemorrhage,anaemia,obstructed labour and unsafe abortion**. These variables mainly depict risk factors. Although marriage customs, patterns and practices are discussed in the thesis, they are only to help how such practices may expose a woman to high risk maternal death.

The explanatory variables, directly or indirectly, cause or influence the response variables to behave in a certain way which in turn affect the rate of maternal health and the maternal mortality rate. For instance, some communities might

come up with ideas or groups to sensitize the community on pregnancy risky factors and importance of going to the health institution early for pregnant mothers. This in turn would reduce the rate of maternal deaths. In this case the explanatory variable has operated through the response variable, education of the community, to ultimately reduce the rate of maternal death. Or a religious sect may affect marriage practices by introducing liberal policies over age at first marriage hence risking having pregnancies at early age.

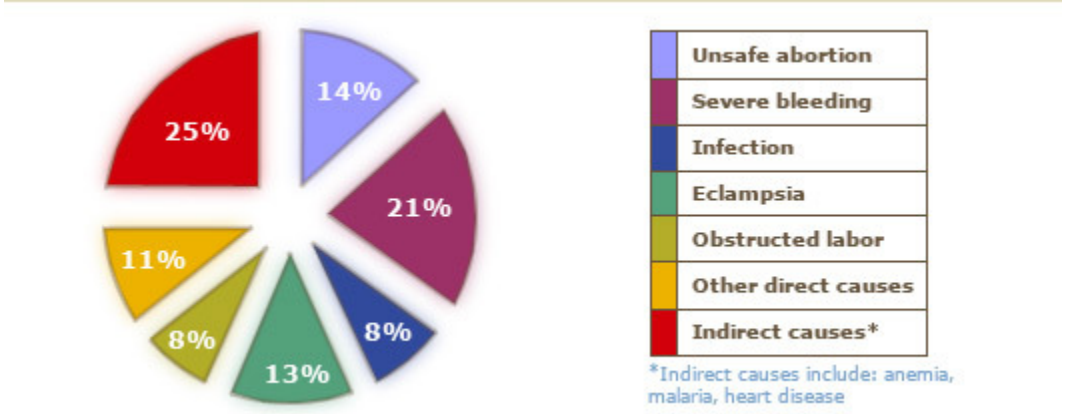
1.6. LITERATURE REVIEW

1.6.1 Introduction

The medical causes of maternal deaths are similar throughout the world. Globally around 80% of all maternal deaths are the direct results of complications arising during pregnancy and delivery (WHO, 1999).

More than 80 percent of maternal deaths worldwide are due to five direct causes:

Figure 1.2 (Estimates of Maternal Mortality, 2005: 182-193)



In Zambia, additional factors include socialization and cultural practices. For instance, women in labor detest to be attended to by men and family planning services, still target females only, leaving out men who are actually the decision-makers with regard to participation in sexual and reproductive health service activities. In case of Zambia, such things have been considered as taboo whenever a man attends to a pregnant woman. Especially in rural areas were no man can be considered to be a traditional birth attendant.More education is needed to sensitize the community.

Other factors include long distances and poor road network. For instance, a research done by World Vision in 2004 in Petauke district showed that women are mostly carried on bicycles and ox-carts to the district hospital which is more than 20km from most villages. Training more Traditional Birth Attendant (TBAs) can help alleviate this problem, since some pregnant women can be attended to by TBAs.

Poor nutrition has resulted in hemorrhage and obstructed labor which has also contributed to maternal mortality (Rush, 2000). Women need to attend Antenatal Care(ANC) so that they are told of what to eat, care for themselves, danger signs etc. This can help reduce complications. In cases where a case is complicated the trained TBAs are supposed to phone health centres for ambulances.

The Mongu study, however, found all women who delivered in health centres to have attended antenatal clinic at least once, and only 13 out of 93 women who delivered at home had never attended such services (Nsemukila, 1994). So this shows that those who never attended Antenatal Care were afraid of going to the hospital for fear of being shouted at since they never attended Antenatal Care.

Malaria has also contributed to maternal mortality especially in the first trimester of pregnancy. The HIV and AIDS pandemic has also had negative impact on maternal mortality. Since the first cases of HIV/AIDS in Zambia, the pandemic has impacted negatively especially on the health of women. Though full impact of HIV and AIDS on maternal death is difficult to determine HIV infection has a major impact on both direct and indirect causes of maternal death. This has contributed to an increase in the percentage of sepsis cases (Nsemukila et al, 1998:50).

Violence against pregnant women has increasingly been recognized as a significant factor contributing to maternal death. Research by Heise (2002) showed that one in four women who are physically or sexually abused during

pregnancy by an intimate partner die during pregnancy or child birth. Men need to be educated on the care that women need.

1.6.2 Levels of Maternal Mortality

Maternal mortality rates and ratios are difficult and expensive to obtain and are often inaccurate because of under-reporting and misclassification. Maternal mortality tends to be under-reported because people in developing countries often die outside the health system, which makes accurate registration of deaths difficult (www.immpact-international).

Maternal mortality is also misclassified, because health workers may not know why a woman died, or whether she was or had recently been pregnant. Deaths are sometimes intentionally misclassified, especially if they are associated with clandestine abortions.

Methods used to calculate maternal death rates are often complex and costly to use. The actual number of maternal deaths in a specific place at a specific time is relatively small. Therefore, very large populations must be surveyed in order to get accurate estimates, which is costly. The relative infrequency of maternal deaths over a short period also means that the rates will appear to jump around, making interpretation of trends over time difficult (WHO,2007). Addition, in Zambia most of the provinces/districts do not have provincial or district estimates of maternal mortality. There is need that each health centre keeps such data to be fed into Districts, Provincial and National data bank.

1.6.3 Safe Motherhood Initiative

The Safe Motherhood Initiative is a global initiative sponsored by a group of international agencies that includes United Nations Children's Fund, United Nations Fund for Population, the World Bank, World Health Organization, International Planned Parenthood Federation and the Population Council. This group is called the Safe Motherhood Inter-Agency Group, (WHO, 1994). The aim of the initiative was to draw attention to the dimensions on consequences of poor maternal health in developing countries, and to mobilize action to address the high rates of deaths and disability caused by the complications of pregnancy and childbirth. Safe Motherhood aims to ensure that all women receive the care they need to be safe and healthy throughout pregnancy and childbirth.

The four basic principles or pillars of safe motherhood are:

Family planning: to ensure that individuals and couples have the information and services to plan the timing, number and spacing of pregnancies;

Prenatal care: to prevent complications where possible and ensure that those of pregnancy are detected early and treated appropriately;

Clean and safe delivery: to ensure that all birth attendants have knowledge, skills and equipment to perform a clean and safe delivery and provide postpartum care to the mother and baby;

Emergency obstetric care: to ensure that essential care for high-risk pregnancies and those who develop complications is made available to all women who need it (Maine,1994:110).

The sad event of maternal deaths has multiple causes and must be confronted with a multiple strategy. These interventions stated above are needed to save and preserve the health of mothers and babies. They cannot be implemented in a vertical or in an uncoordinated fashion but must form part of a broad strategy to improve reproductive health through primary health care. This implies that safe motherhood interventions should be applied holistically within a general health context that promotes equity in access to, and quality of, care. The "Arch of safe motherhood" is built with many stones, among them prenatal care, nutrition, education, transport, identification of mothers at high risk for complications of pregnancy, skilled attendants, and home birth kits. But the arch will fall down – meaning that women will die – without prompt, adequate treatment when they suffer life-threatened complications during pregnancy, delivery or in the puerperium (Cham, 2003:22).

1.6.4 Human rights approach to Safe Motherhood

The death of a woman during pregnancy or child death is not only a health issue but also a matter of social injustice. Safe Motherhood is recognized under the basic human rights treaties and laws (WHO, 1998).Such treaties obligate governments to address the causes of poor maternal health which include maternal mortality. Approaching safe Motherhood from a human-rights perspective emphasizes that women have the right to receive comprehensive reproductive health care. Cook and Dickens (2002) emphasized that ensuring women's rights to life, liberty, health, maternity protection and non-discrimination would facilitate Safe Motherhood.

It has also been shown that women of low status who are married to men of high status in society have contributed highly to maternal mortality. A research done by Shen et al (1999) showed that women's status was a strong predictor of maternal mortality.

Therefore, it can be said that government can promote human rights approach to Safe Motherhood in many ways. If Safe Motherhood is to be used, discrimination against women's health should come to an end. In addition, there should be appropriate antenatal, delivery and postpartum care to all women. Above all, there should be access to family planning services and information to all women and adolescents of reproductive age (Shen et al, 1999).More sensitization messages on radio, television and drama need to be done on Safe Motherhood, the way messages of HIV/AIDs are done

A research done by World vision in 2004 in Petauke district showed that women are mostly carried on bicycles and ox-carts to the district hospital which is more than 20km from most villages. Other factors include long distances and poor network.

1.6.5 Safe Motherhood situation in Zambia

The right to life is a fundamental human right. Maternal death is a sad event for individual women, for families and for the communities. In 1987, the first International Safe Motherhood Conference was held in Nairobi with the goal of 50% reduction by the year 2000 in maternal mortality (WHO,1999).This goal was adopted by national governments. In the case of Zambia, Safe Motherhood Initiative was launched in the same year. The attention was directed towards

the issues surrounding maternal health with primary goal of reducing maternal mortality which is one of the most important indicators in assessing a country's safe motherhood performance.

In Zambia, various studies have shown high levels of maternal mortality. Some of these studies include the 1980 research done by Central Statistical Office which showed the maternal mortality to have been 2000 per 100,000 births, (CSO, 2000).

The Zambia Demographic and Health Survey showed a rate of 649 in 1996, while in 2002 it rose to 729. In 2005 and 2007 there was further reduction to 650 and 591 respectively (CSO et al, 2007)

According to Mhango et al (1986), one in five maternal deaths resulted from induced abortion. Other causes were sepsis, hemorrhage, eclampsia and ruptured uterus.

The 1996 Zambia Demographic and Health Survey indicated that 96% of the women attend Antenatal Care while 53% deliver at home and 47% in health institutions. The survey also showed that there was high maternal mortality in rural areas (800 per 100,000 births) than in urban areas (500 per 100,000 births).

1.6.6 Provision of Health Services

The World Health Organization study in 1999 indicated that in addressing Safe Motherhood delivery, the following factors needed to be observed: equip first referral health facilities; train midwives; nurses and doctors in management

measures; improve transport and communication and help pregnant women understand and respond to warning signs of birth complications.

The strategy adopted was to improve the quality of obstetric care at primary level health facilities and ensure supportive complementary care at second and tertiary level referral hospitals. In order to achieve this WHO in conjunction with UNICEF Zambia Country Programme drafted training modules on role of midwives, Antenatal Care (ANC) management of obstructed labor, malaria in pregnancy and Nutrition.

It is general medical knowledge that antenatal care is more effective when it is sought early in the pregnancy and continues through to parturition. One other interesting issue investigated in Mongu was women's preference for particular services. Majority of women preferred to be delivered by their relatives (87 out of 121), compared to 16 women who preferred a trained birth attendants and 18 who preferred to deliver at a health centre, among reasons given for such preference, were distance to health centres and transport problems (Kafuna, 1993).

1.6.7 Preventing Maternal Mortality

An annotated Review of Studies on Maternal Health Care have been carried out to come up with interventions which can best reduce maternal mortality. Efforts are also being made to close the gap between research and practice by advocating for evidence- based approach in the caring of pregnant women.

CHAPTER TWO

RESEARCH METHODOLOGY

2.1 Introduction: Theoretical Orientation

The research took a combination of phenomenological approach where the concept of trying to see what the believer sees (in this case the believers being the pregnant mothers and the midwives who participated in the research).The researcher tried to minimize preconceptions in order to try and get a fresh look at phenomena under study. The other approach was interpretive approach. From this approach, the researcher realized that research participants cannot be studied in isolation, so the Health Centres in Kafue district and the community were also involved.

2.2 Ethical and Methodologies Considerations

(i) Ethical considerations

During the research, certain ethical issues were looked at, including participants' rights to privacy, dignity, self-determination and the researcher's right to know. Participation to the study was completely voluntary and free from any form of coercion. Individuals or families approached to participate in the study were first fully briefed on the purpose of the study and as well as their roles. It was also explained to them that should they decide not to participate or decide to withdraw during the process no penalty was to be levied against them. All the explanations were done comprehensively in a language that the individual or family could speak or understand. Verbal consent from them was also sought. Respondents were also assured of their right to confidentiality and anonymity. The study was given a go ahead by the Kafue District Health Management Team.

(i) Quantitative Approach

The survey employed a combination of the two approaches; Qualitative and Quantitative. It should be mentioned that quantitative was dominantly used as compared to qualitative approach because data in form of tables, percentages, frequencies and graphs during data analysis were used to assess the determinants and levels of maternal mortality in Kafue district. This method relied mainly on questionnaires.

(ii) Qualitative Approach

In qualitative research, on the other hand, the process of collecting and reflectively analyzing the data triggers the leap of inductive thought. High quality qualitative data depends on the skills, vision and integrity of the researcher and not through the use of software package. The steps used in the analysis of the qualitative data can be summarized as:

1. Familiarization to the data by reading through the transcribed materials in order to list the key ideas,

2. Identifying the key ideas, issues and concepts and

3. Interpretation of data with a view to providing possible explanations for the finding.

The information from Focus Group Discussions (FGDs), observations, interviews and case stories were followed by commentary highlighting the themes and sub-themes of the importance of the study. This was followed by careful analysis and evaluation in light of the basic questions of the study before making conclusions.

The research was carried out over a series of visits at four health centres in Kafue District. The data was collected through questionnaires, Focus Group Discussion and interview guides. Individual interviews were carried out with some key informants like the In-charge of the four facilities visited in Kafue. These were used to identify supplementary information which was gathered by questionnaires and also to seek clarification on emerging issues. **Reproductive Age Mortality Studies** (RAMOS) was used so that the identification of the deceased addresses was easily known. This involves identifying and investigating the causes of all deaths among women within the reproductive age by use of multiple sources of information – civil registration, health facility records, community leaders and TBAs. During the interviews, the researcher also paid attention to non verbal language such as voice projection, facial expressions, gestures and hesitations in answering.

2.2.1 Study Population

2.2.1.1 Zambia

One of the developing countries found in Sub Saharan Africa is Zambia. The country is located in Southern Africa surrounded by eight neighbouring countries, namely: the Democratic Republic of Congo and Tanzania in the North; Malawi and Mozambique in the East; Zimbabwe and Botswana in the South; Namibia in the Southwest and Angola in the West. The country is divided into nine provinces which are further divided into seventy-two districts with a total of seventy- three ethnic and cultural groups (MOH,1998).

The national population in 2000 stood at 9.9 million having grown from 3.5 million in 1963 to 4.1 million in 1968 to 5.7 million in 1980 and 7.76 in 1990 though at declining rates. The annual population growth rate for inter-censual period of 1969-1980 was 3.1 percent, decreased to 2.7 percent between 1980-1990 and to 2.4 percent between 1990-2000 (CSO,2000:29)

The high population growth has been due to a number of factors such as high levels of total fertility rates ranging from 7.2 in 1980 to 6.7 in 1990 and from 6.0 in 2000 to 6.2 in 2007 (CSO, 2007:59). Early marriages, desire for large families, low education levels particularly among females, lack of family planning among the illiterates and high levels of infant and child mortality have also contributed to high population growth.

The majority of the Zambians live in rural areas though there has been a lot of rural-urban migration. For instance, the 2000 census indicated that two-thirds (65 percent) of the population lived in rural areas. The proportion of rural population has steadily increased during the last three decades, from 60 percent in 1980 to 62 and 65 percent in 1990 and 2000 respectively (CSO,2000:30).

2.2.1 Kafue District:

Lusaka Province has four districts; Chongwe, Kafue, Luangwa and Lusaka District. Of these, Kafue District was selected. According to the data gotten from Kafue District Health Management Board, the district has a population of 283,475 comprising of 137,741 males and 1445,735 females and the population for the reproductive age group of 15 – 49 of 62,365. For the purpose of obtaining a relatively comprehensive picture of the situation, four urban health centres within

the district were visited. The rationale behind confirming the study to only Kafue Urban was that the time and resources available would not have permitted to do a larger scale. Nonetheless, data on maternal deaths and institutional deliveries were gotten from all other centres in order to help with the correct estimation of maternal mortality ratio.

The study population was women who were pregnant or have been recently pregnant or delivered in the 12 months prior to the study. These were women living within Kafue Urban District. Since the majority of deliveries in Zambia take place in the homes (at least 53 percent of births), the entry point for this study was the community.

2.3 Sample Size and Selection

The targeted study sample was 110 respondents which included 10 individual cases of maternal deaths from Kafue community. Random sampling was used to select elements among the pregnant women. Qualitative data collection included: Semi-structured interviews with 10 respondents, 10 Focus Group Discussions with pregnant women attending antenatal services and women who delivered safely in the 12 months prior to the study between the ages of 15-49 (from the four health centres), and four Key in-depth interviews with key informants with the-in-charge of these centres.

The cases eligible for inclusion were those which:

Qualified to be classified as a maternal death or suspected maternal death according to the World Health Organization International Classification of Diseases tenth definition;

The death occurred in a health facility (hospital, health centre, dispensary), in the community or en route to a health facility;

The deceased must have been resident of Kafue town before her death;

The death must have occurred from Kafue District Health centre.

The exclusion criteria used was:

The death which do not meet the WHO definition of a "maternal death";

Death occurred out of the study area – Kafue District.

Deaths of women not resident within the study area was excluded from the study mainly because including them meant expanding the study area which would in turn demand extensive traveling for follow up. This would have been labor intensive, costly and may have made the study unmanageable.

2.4 Research Instruments

Different questionnaires were constructed to collect information. One for the relative of the deceased familiar with events leading to the death of the woman, one for the health staff, one for the women who delivered safely and one for the Focus Group. Once instruments were developed, the researcher pre-tested using similar environment at Chilenge Clinic in Lusaka District.

2.5 Data collection

A Verbal Autopsy Questionnaire was administered to the selected respondents. This allowed for a verbatim account on the events prior to death in order to reach a cause of death. The Confidential enquiry was administered to the key informants. This approach also helped to illuminate the health service factors related to the death and source valuable information about the deceased which may have been missed using another data source.

Data collected through questionnaires were entered using EPI-Data 3.01. This is because this program minimizes on the data entry errors, and then exported to Statistical Package for Social Sciences for descriptive statistical analysis.

To interview care providers most knowledgeable about the case, all the medical facilities the deceased sought care and the health facility where she finally died were visited. They were interviewed to illicit information on operational factors affecting the provision of care in individual cases being reviewed. The interviewees included nurses, TBAs, midwives or doctors. Interviews with health staff were carried out independently mostly in their private rooms.

2.6 Data Analysis

Data generated from interviews with the key informants – relatives and health care providers – were transcribed in full. The transcribed material were categorized and analyzed accordingly. An interpretation of the data with a view to provide possible explanations for the findings was performed. Data which was collected through interviews and Focus Group Discussions was coded into themes and grouped into categories. For quantitative data, the Statistical Package for Social Sciences (SPSS) was used to generate tables of frequencies and cross tabulations from data for final presentation.

CHAPTER THREE

BACKGROUND CHARACTERISTICS OF RESPONDENTS

3.1 INTRODUCTION

This chapter presents information related to background characteristics of pregnant women who delivered safely in the last 12 months prior to the study. Some of the information in this chapter includes age, marital status and educational attainment level of the respondents.

The table below shows the percent distribution of respondents by age

Table 3.1: Percent distribution of respondents by Age

Age	Number	Percent
15-19	18	16.4
20-24	31	28.2
25-29	24	21.8
30-34	15	13.6
35-39	14	12.7
40-44	6	5.5
45-49	1	0.9
Don't know	1	0.9
Total	110	100

The information in Table 3.1 shows that the largest proportion (28.4%) of the respondents' was in the age group 20-24. 22% of the respondents were in the age group 25-29.Slightly more than 16% of the respondents were in the age group 15-19. About 1% of the respondents belonged to the age group 45-49.

The table below shows the marital status of the respondents.

Table 3.2 Marital status of the respondents

Marital status	Number	Percent
Single/never been married	23	20.9
Married	83	75.5
Divorced/separated	4	3.6
Total	110	100

From the table above it can be seen that the minority (3.6%) of the respondents said that they were divorced/separated while 20.9% said that they were single/never been married. Most of the respondents (75.5%) said that they were married.

The percent distribution of respondents by level of education is shown in the table below.

Table 3.3: Education level of respondents

Educational level	Number	Percent
Never been to school	8	7.4
Primary	36	33.3
Junior secondary	29	26.9
Secondary	24	22.2
Tertiary	11	10.2
Not Applicable	2	_
Total	110	100

The table above reveals that a third of respondents (33.3%) reported to have attained Primary Education while slightly above one-quarter (26.9%) reported to have attained Junior Secondary Education. About one in ten (10.2%) of the respondents attained Tertiary Education. Only 7.4% of the respondents had never

been to school. WHO reports that the higher the level of education the woman has the more spaced the children and less the number of pregnancies they have (WHO,2007). In this, probably the 40% or so of respondents who have attained upto primary school level might be exposed to more child bearing experiences, thereby exposed to higher risk of maternal deaths.

Educational level of spouses was also investigated (see Table 3.4 below). This is so because these may have a bearing on the number of children a woman may have and the dissemination of information on family planning.

Table 3.4: Education Level of Spouses of the respondents

Educational level	Number	Percent
Never been to school	4	4
Primary	20	20.2
Junior secondary	20	20.2
Secondary	26	26.3
Tertiary	29	29.3
Not Applicable	11	_
Total	110	100

The respondents were also asked the educational level of their spouses; the largest percentage (29.3%) reported that their spouses had attained Tertiary Education while 26.3% attained Secondary Education. Four percent of the respondents reported that their spouses had never been to school. From the above information, this shows that more than 75% of the spouses have attained at least Junior Secondary School, which is a good sign where decision making on family planning and information on health matters is concerned.

Employment status of respondents was also examined (see Table 3.5).

Table 3.5: Percent distribution of respondents by employment Status

Employment status of ….	Number	Percent
Self employed	27	24.5
Central government employee	8	7.3
Local government employee	5	4.5
Parastatal	1	0.9
Private	2	1.8
NGO	3	2.7
Embassy employee	1	0.9
Household employee	22	20
Unpaid family worker	21	19.1
Not employed	16	14.5
Others	4	3.6
Total	110	100

Table 3.5 above indicates that about a quarter of the respondents were Self-employed (24.5%) whilst 19.1% were unpaid family workers. Slightly more than 14% of the respondents were not employed. About 1% of the respondents were Parastatal and Embassy employees, respectively.

The figure below shows the Percent distribution of respondents by type of residential place.

Figure 3.1: Percent distribution of respondents by type of residential place

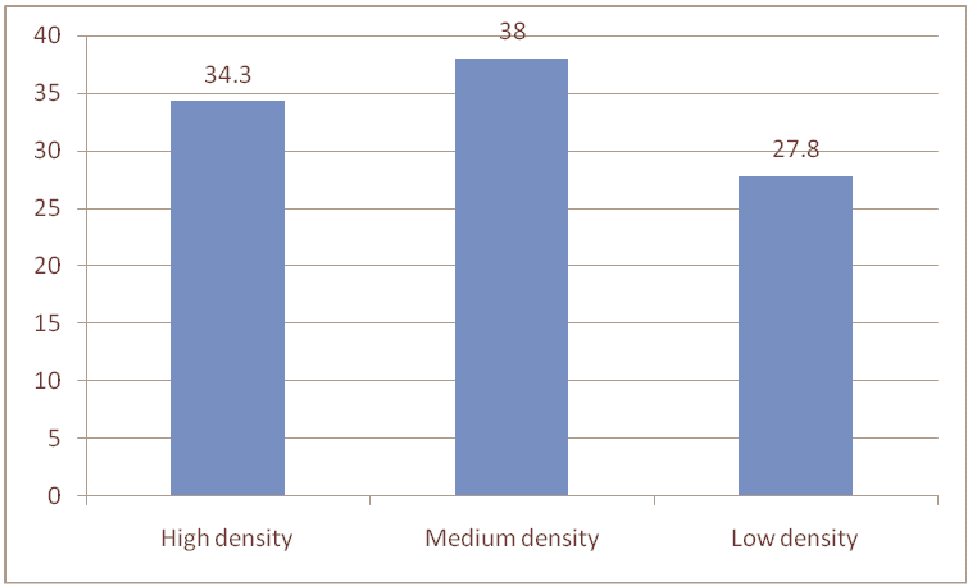


Figure 3.1 above shows that 38% of the respondents classified their residential place as medium density. Those who said their residential place was high were 34.3% while 27.8% of the respondents classified their residential place as low density. The high density areas in Kafue district live far from the health centres, and are the ones mostly likely to be disadvantaged when in labour because of the long distances to the health centres.

CHAPTER FOUR

PROVISION OF MATERNAL HEALTH SERVICES

4.1 Introduction

This chapter presents information related to the provision of maternal health services to pregnant women.

Among the issues looked at will be the programmes that are provided at each health centre, facilities available and referral system implemented.

4.2 Policies/Guidelines on maternal health

Policies and guidelines on maternal health are important if services are to be provided effectively. The health facilities in Kafue have put in place guidelines to manage maternal health. These include Prevention of Mother to Child Transmission, focused Antenatal Care and integrated management of pregnancy and child birth. Maternal health services are provided free of charge.

During antenatal clinics, expectant mothers are counselled and sensitized on Essential Obstetric Care and Prevention of Mother to Child Transmission. All mothers are advised to be screened for HIV and AIDs and all STIs including B/P and Blood sugar. If found HIV positive, they are further counselled and advised on ways to live and prevent MTCT during delivery.

During the focus group discussion at Railway clinic, the expectant mothers were found discussing roles that they were previously assigned by the midwives. Among the roles assigned were:

What are we expected to do if we are found to be HIV Positive?

How do we take care of our selves when we are pregnant?

What type of foods are we expected to eat and what type of work should we avoid?

What are some early signs of labour?

Are we supposed to take any herb to speed up labour? If yes why? If No why?

The responses were all similar to what was discussed in the other health centres as earlier alluded to.

4.3 Activities done by Health facilities on Maternal Health

A number of maternal health services are provided at Kafue health centres. These include trained TBAs assisting in outreach campaigns to educate women on the importance of Prevention of Mother to Child Transmission and benefits of ANC. During the post-natal and under five clinics, mothers are encouraged to start family planning. The health providers reported that they have enforced continuation on counseling of pregnant women on how to know the danger signs during pregnancy and also emphasis on the early reporting at clinics so that they prevent complications that arise during delivery.

Some of the challenges facing health institutions in Kafue included shortage of staff and supplies in the implementation of programmes like Prevention of Mother to Child, Antenatal Care and Postnatal Care.

4.4 Prevention of Maternal Deaths Programmes

The health workers indicated that educating pregnant women on the importance of delivering at institutional delivery was an important step in efforts to reducing maternal mortality in the country. This should be done through TBA's sensitization

of the communities on the benefits of antenatal and postnatal care. They also emphasized that pregnant women should be tested for HIV and STIs during antenatal care.

4.5 Referral Systems

A strong referral system- referring clients from community to health facility and vice versa is critical in management of maternal mortality. The referral chain in Kafue as is the case elsewhere in Zambia is from the community to the health center and onward to the district hospital. This relies heavily on patients to recognize complication and decide to seek care at the health center. Therefore the communities/families have to be aware of the complications or danger signs of pregnancy and seek care. In addition, the health workers have to be able to recognize and take timely action on any complications that arise.

At the health center again onward forward referral is dependent on the health workers' recognition of complications and timely referral. There are various barriers at this level;

The health personnel explained that even if they referred an emergency case to the hospital, it became difficult for the patient because the health centres have no ambulances and mostly patients use taxis to get to the hospital. In cases where they have no money, the chances to get to the hospital on time proved futile. (See also Figure 5:13 on transport systems used to visit the health facility).

From the key informant interviews, the barriers identified were as follows:

1. Lack of ambulance or transport, and poor communication between the health center and the district concerning use of ambulance.

2. Inadequate health facilities at clinics to aid emergency maternal cases.
3. Late arrival of patients with complications at health centres.

In spite of all these problems, the health centres have been referring patients to the district hospital with the help of TBAs where available.

CHAPTER FIVE

LEVELS AND PATTERNS OF MATERNAL DEATHS

5.1 INTRODUCTION

This chapter presents information on patterns of maternal deaths. In drawing such patterns, this chapter will look at education levels of the women who died from maternal complications, age, medical problem and institutions where the deceased sought treatment and period when the respondent died.

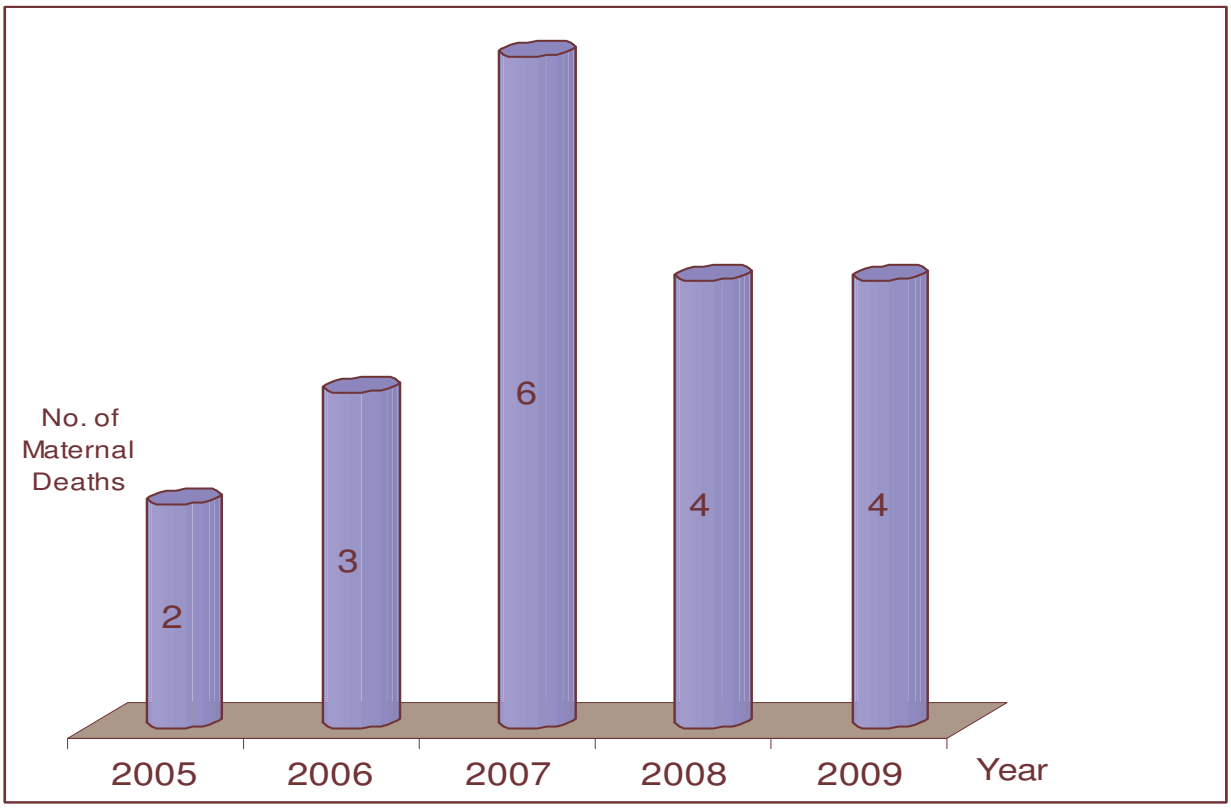
It must be mentioned that reliable and comparable data on maternal mortality are scarce. Although widely-used standardized definitions of maternal mortality exist, it is difficult to measure accurately the levels of maternal mortality in a population for several reasons. For example, estimates from hospital-based studies are not representative of the whole population, but only the population that sought care at the hospital. Regardless of how data on maternal deaths are gathered, such deaths are often misclassified and attributed to nonmaternal causes. For example, if a pregnant or postpartum woman dies in a hospital—but not in the obstetrics ward—her death is often not counted as a maternal death. Pregnancy can also be a sensitive issue that women or their relatives may not want to disclose to health care professionals or researchers. As a result, a pregnancy-related illness or death may be attributed to other causes. It is also challenging to identify maternal deaths precisely – particularly in settings where routine recording of deaths is not complete within civil registration systems, and the death of a woman of reproductive age might not be recorded. Even if such a death were recorded, the

woman's pregnancy status may not have been known and the death would therefore not have been reported as a maternal death even if the woman had been pregnant.

The table below shows the number of maternal deaths in Kafue urban district recorded at the hospital from the year 2005 to 2009.

5.2 Maternal Deaths

Figure 5.1 Number of maternal deaths recorded at Kafue District Hospital



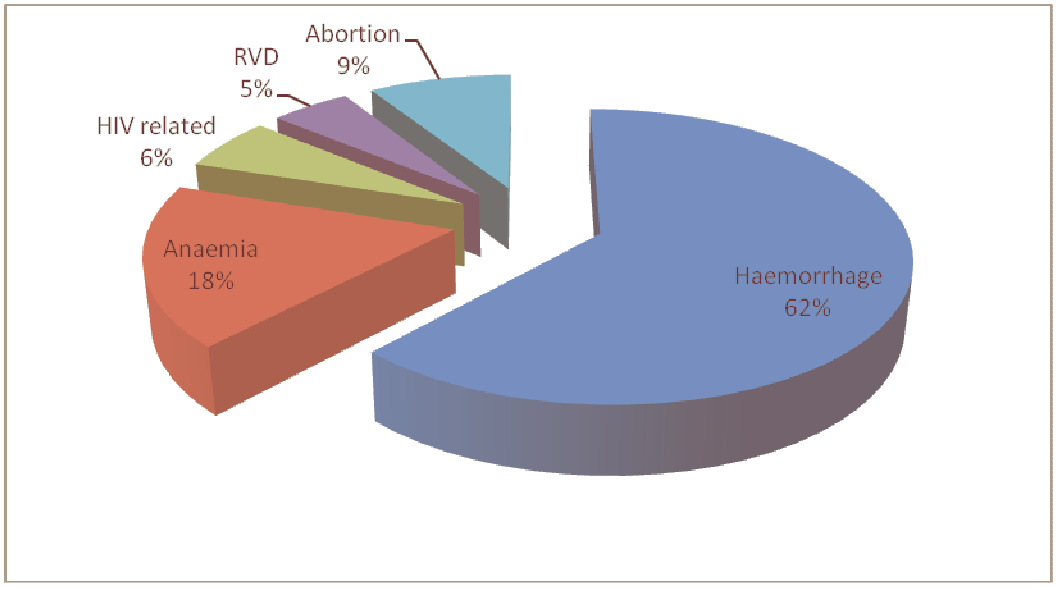
The figure shows that the levels of women who died due to maternal related illness in 2005 and 2006 were less compared to the levels from 2007 to 2009. When asked to comment on the number of deaths recorded from 2007 to 2009, a Traditional Birth Attendant mentioned;

Most pregnant women preferred delivering at home with the assistance of relatives since they were very few trained birth attendants (TBA). This caused a number of brought in dead but not classified as maternal deaths as such information was not always revealed. The number of deaths from 2007 to 2009 increased because the health personnel had put up programmes in re-enforcing maternal health programmes and sensitizing the community about early reporting to the hospital and advantages of delivering from the hospital. From 2007, most of the pregnant women now preferred delivering from the hospital as opposed to being assisted from home because they learnt about the health provision available at hospitals.

5.3 Causes of Maternal deaths

The statistics on causes of maternal mortality in Kafue urban district are as shown in the figure below.

Figure 5.2: Reported causes of maternal mortality in Kafue Urban District



The results in the figure above reveal that haemorrhage was the major cause of maternal deaths (68 %) in Kafue urban district followed by anaemia 18 %, Abortion

9 % and HIV- related complications 6 %. To avert more deaths, the health personnel said that they have put up programmes to try and reduce maternal deaths caused by haemorrhage and anaemia.

This study revealed that a total of 19289 institutional deliveries took place during the study period with the maternal mortality of 1.1/1000 births which is much lower than the national maternal ratio of 5.9/1000 births (CSO, 2007:120). The reason for this reduction might be the improvement of maternal health services in Kafue district and increase in the number of health deliveries. During the study period, nine delivery centres were operational in the district. Despite this reduction, the pattern of maternal mortality causes has not changed in relation to the national causes. Still the major causes of maternal mortality in Kafue was haemorrhage,aneamia and sepsis.

During the indepth discussion with relatives of the deceased, the following were some of their personal experiences:

> *"My sister was in grade 11 at Naboye secondary school. One day, she just came back complaining of stomach pains. I thought she had period pains, so I did not even bother to go to her room. Later, her friend followed me at the market that she needed to be taken to the clinic because she was bleeding very much. I rushed home, when we reached the clinic it was discovered that she had aborted a six months pregnancy. She was rushed to the hospital and the following day, she died because she had lost so much blood at home."*

One of the parents of the deceased commented:

> *"my daughter had Tuberculosis(TB) and was on medication.After completing her course she gained so much weight that people used to comment about her well being. She had an affair with a married man whose wife had earlier on had TB, this caused my daughter to have a relapse of TB and she started losing weight suddenly. She lost so much weight that by the time she was being taken to the hospital she was very weak. I blame the hospital personel for not counselling both my daughter and the community on HIV and AIDs issues. She could not deliver properly, so she bled to death. I wish someone had told her to do an HIV test, maybe she could not have become pregant."*

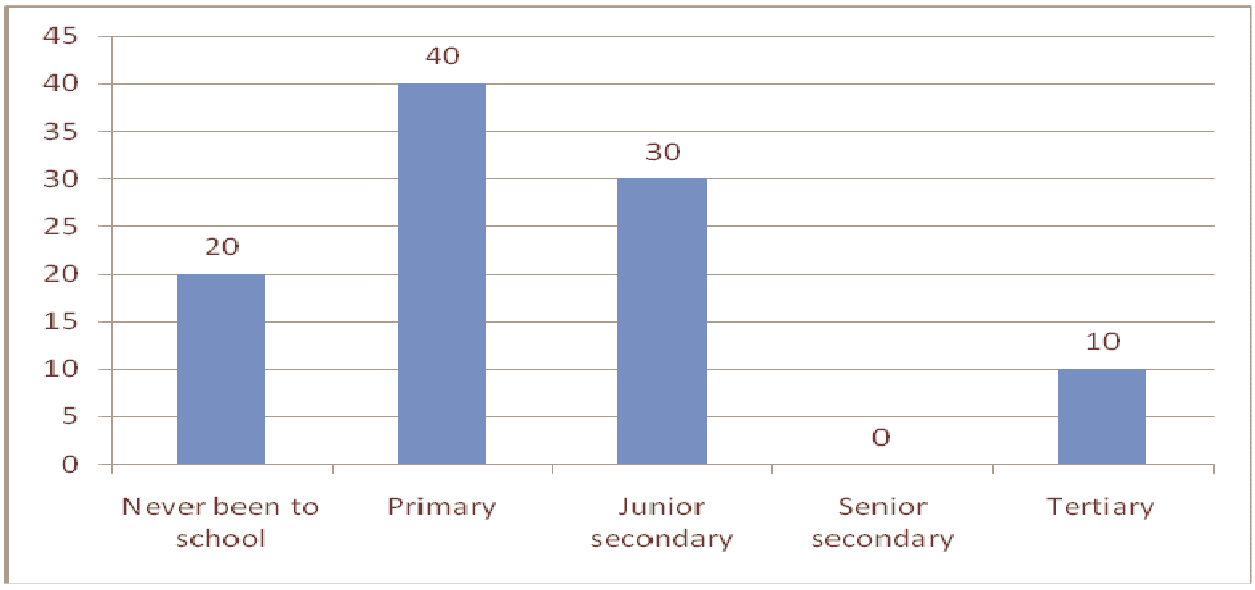
One of the husbands of the deceased narrated how he tried to rush his wife to the general hospital but all in vain:

> "My wife was due for antenatal the next week but labour began earlier. I was working night shift but I managed to rush home with the company vechicle. Our road is gravel and full of potholes, so it was a ruff ride for her. On the

way she started convulging .We tried to pour water on her but she continued on and off. When we reached the hospital, I was told that her B/P was very high. I was informed that they could not take her for an operation because the doctor had to decide since her case was 'special', I didn't understand what they meant. By the time the doctor was coming my wife had died."

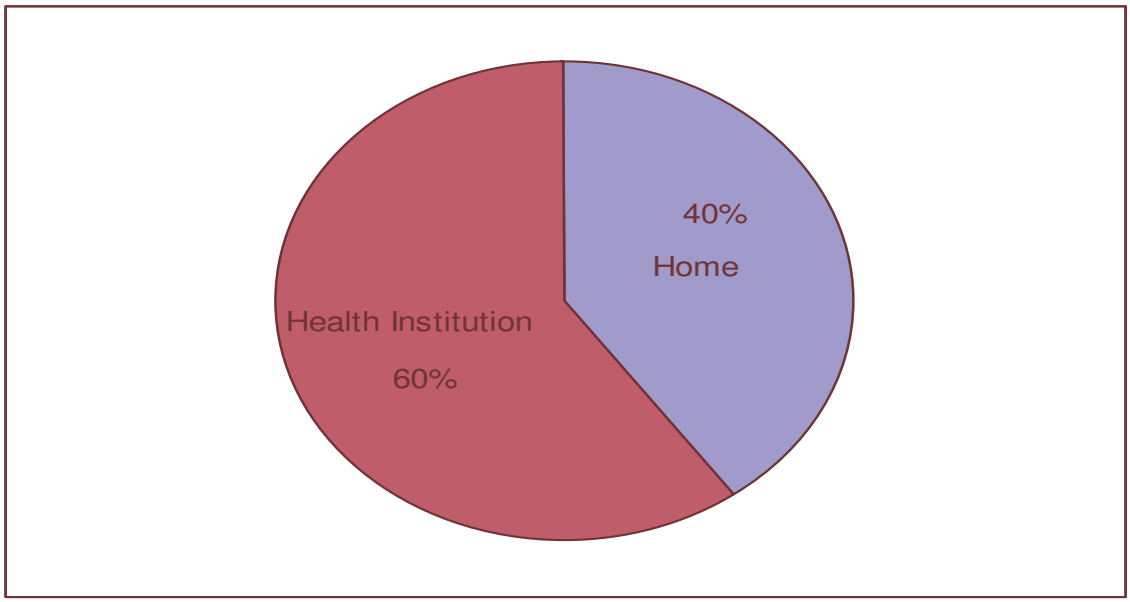
The figure below shows the percent distribution of deceased women by level of education.

Figure 5.3: Percent distribution of deceased women by education level



The figure above shows that a largest portion of deceased women (40 %) had attained only primary education. Thirty percent had gone up to Junior Secondary while 20 % had never been to school. Only 10 percent were reported to have gone up to tertiary education.

Figure 5.4: Percent distribution of deceased women by place of death



The findings in the figure above shows that the majority of the women (60%) who were reported to have died from maternal related complications had actually died from health institutions. But unconfirmed reports from TBAs showed that many women died in the year 2006 outside health facility. The TBAs also said that there had been improvement in the number of women visiting the health facility during labor from 2007 to 2009. It was also noted that the majority of pregnant women died with haemorrhage (68 %) followed by anaemia 18 %. This calls for more reinforcement in programs for pregnant women and also sensitization of the community. The pattern of women dying from 2005 to 2009 shows that the number of cases reported at the hospital was high in 2007 but started declining in 2008 through to 2009. The decline could suggest an improvement in the management of maternal cases. To prevent such deaths, adequate services should be provided in the facilities and also women should be encouraged to visit the facilities regularly when pregnant and report early when complications occur.

CHAPTER SIX

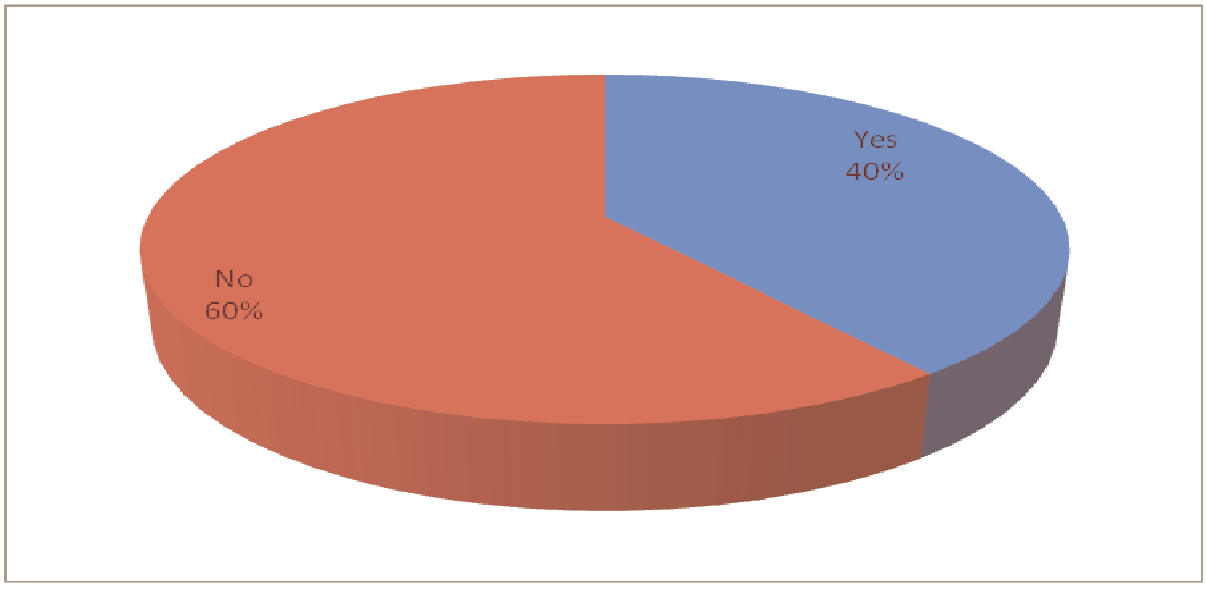
FACTORS INFLUENCING MATERNAL MORTALITY

6.1 INTRODUCTION

This chapter presents information on the factors influencing maternal mortality. The chapter discusses various issues including; medical problems faced by the respondents, any treatment sought by the respondents and where it was done. Type of contraceptive the respondents had been taking, time taken to deliver and the means of transport used to the delivery institution are also examined.

The figure below shows the percent distribution of respondents by having any medical problems before becoming pregnant.

Figure 6.1: Percent distribution of respondents having any medical problems before becoming pregnant



Sixty percent of the respondents reported that they had no medical problems before becoming pregnant. The forty percent that reported having problems before becoming pregnant are more prone to having medical complications during

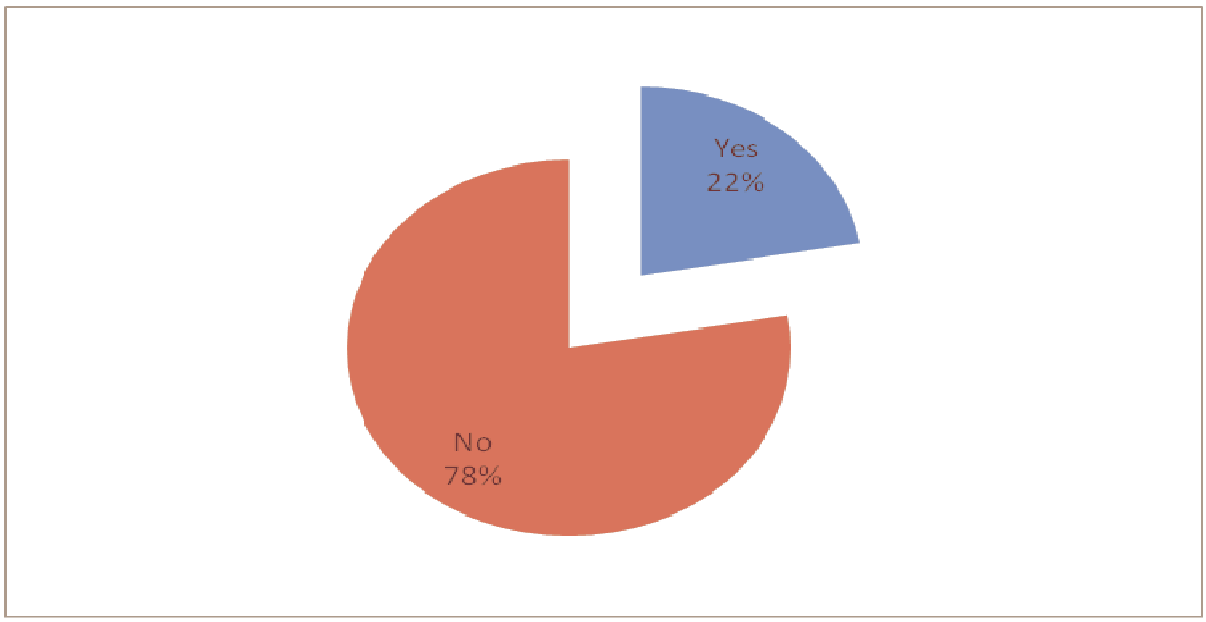
pregnancy than those who have had no problems. During the study, the health personnel indicated that they had advised mothers on the importance of monitoring pregnancy in relation to previous illness in order to prevent complications.

The percent distribution of respondents seeking treatment at any local health centre before pregnancy was investigated.

The results revealed that about three- quarters (72 %) of the respondents did seek treatment at a local health centre before they became pregnant while slightly more than a quarter (27.8 %) said they never sought treatment before becoming pregnant. This shows that 72% of the respondents were at one time administered by the health personnel on any medical problems before becoming pregnant. This result indicates the probable percentage likely to be faced with any complications depending on the results of their investigations.

The figure below shows the percent distribution of respondents who sought help from any other place.

Figure 6.2: Percent distribution of respondents who sought help from any other place



The respondents were asked if they sought assistance for any medical problem from any other place. More than three- quarters (78%) said they did not seek help from other places besides local clinic while less than a quarter (22%) said they did.

The table below shows the statistics of respondents by personnel where they sought assistance from.

Table 6.1: Percent distribution of respondents by personnel where they sought assistance.

Response	Number	Percent
Traditional healer	1	4.1
Private healer	6	26.5
Friends/neighbours	7	28.6
Trained TBAs	1	4.1
Relatives	9	36.7
Total	24	100

Approximately 37% of the respondents reported that their relatives gave them assistance and 28.6% reported to have sought assistance from friends/neighbours. Only 4.1% of the respondents reported that they sought assistance from traditional healers or trained birth attendants.

Respondents were asked if they sought assistance for any medical problem from any other place. The reports revealed that 56% of the respondents sought treatment from a local health centre during pregnancy while 44% responded that they did not seek treatment at any local health centre during pregnancy.

Table 6.2: Percent distribution of respondents who sought assistance from somewhere else during pregnancy.

Response	Number	Percent
Traditional healer	7	14.3
Private healer	14	28.6
Friends/neighbours	5	10.7
Trained TBAs	3	7.1
Non trained TBAs	2	3.6
Relatives	17	35.5
Total	48	100

From the table above it can be seen that the largest proportion (35.5%) of the respondents said that their relatives gave them assistance while 28.6% said that they sought assistance from traditional healers. The smallest proportion (3.6%) of the respondents said that they went to non trained TBA's.

The percent of respondents that sought help outside the health centre could be exposing themselves to high maternal risky factors as such sources may not be trained, thereby not credible.

The figure below shows the percent distribution of respondents who reported ever having had a surgery (caesarean section).

Figure 6.3: Percent distribution of respondents who reported ever having a surgery prior to this pregnancy.

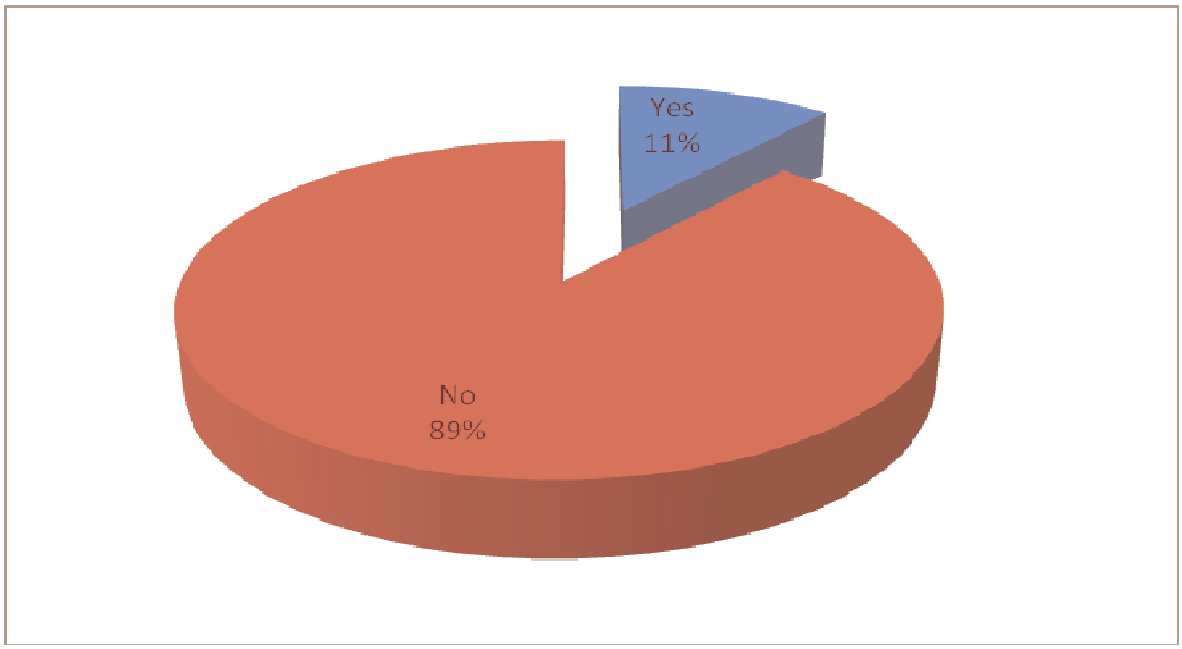


Figure 6.3 indicates that 89% of the respondents reported that they never had a surgery while 11% of the respondents reported that they had a surgery. The probability of having maternal complications arising due to effects of previous surgery was minimal as only 11% of the respondents had delivered through caesarean section in the previous pregnancies.

The table below shows the Percent distribution of respondents by type of contraceptive being used.

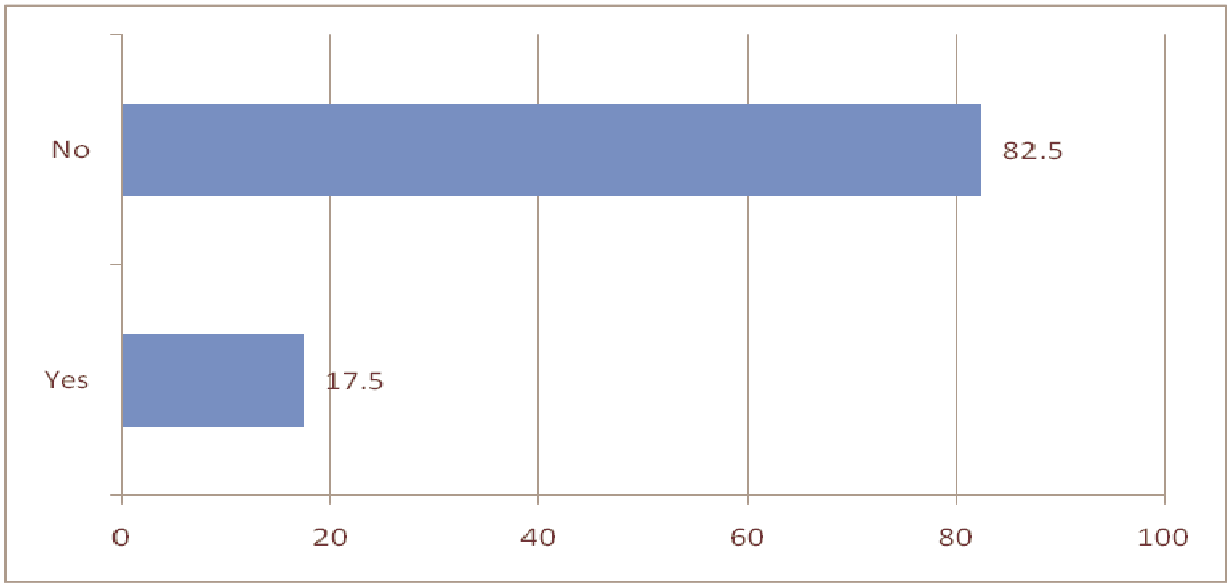
Table 6.3 Type of contraceptive used by respondents

Type of contraceptive	Number	Percent
Pill	41	37.2
Injectables	30	27.3
Implants	1	0.8
Male Condoms	1	0.8
Female Condoms	2	1.7
Traditional method	2	1.7
withdrawal	1	0.8
Not using any	32	28.9
Total	**110**	**100**

A good number (37.2%) of the respondents said that the type of contraceptive they had been taking was the pill. Nearly 29% of the respondents said that they had not been using any type of contraceptive while 27.3% were using injectables. Very few of the respondents (0.8%) were using male condoms, implants or withdrawal type of contraceptives. The 29% who had not been using any contraceptive but reproduce were likely to have many and unspaced children, hence increasing the risk of having complications caused by having many pregnancies.

Figure 6.4 below shows the percent distribution of respondents who reported ever having any miscarriages.

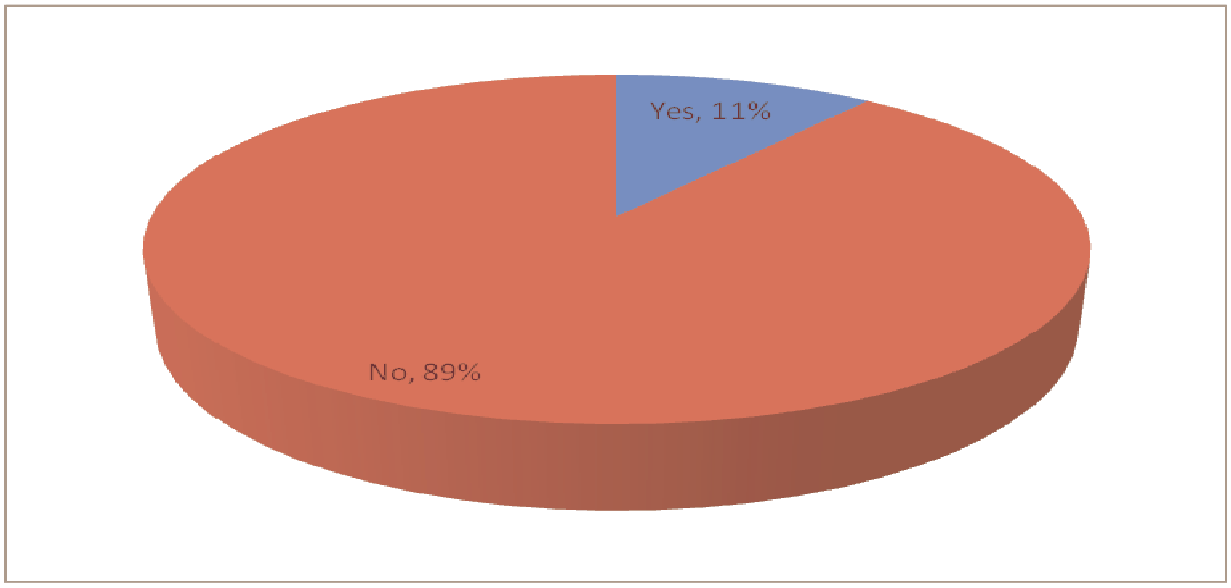
Figure 6.4: Respondents who reported ever having any miscarriages



The respondents were asked if at all they have ever had a miscarriage. Some 82.5% of them reported that they never had a miscarriage while 17.5% reported that they had had a miscarriage. The respondents that reported ever having miscarriage might have a higher chance of having pregnancy related complication than the others. The study discovered that the health personnel had put in place programmes for those who once had been affected by miscarriages in order to educate them to avoid similar occurrences.

Still birth was examined also. The following is the distribution of respondents who reported ever having any pregnancy which ended as a still birth.

Figure 6.5: Distribution of respondents who reported ever having a still birth.



The majority of the respondents (89%) said that they never had any pregnancy which ended as a still birth. The minority of the respondents (11%) said that they had some pregnancy which ended as a still birth.

The respondents reported having experienced different types of danger signs during pregnancy as outlined in Table 6.4.

Table 6.4: Percent distribution of respondents who reported the following danger signs during pregnancy

Danger sign	Percent
Swelling of legs	34.1
Swelling of face	8.0
High blood pressure	21.6
Bleeding from vaginal with pain	3.4
Fever	13.6
Weight loss	9.1
Diarrhoea	8
Chronic cough	2.3
Total	100

About 34% of the respondents reported experiencing swelling of legs while 21.6% experienced high blood pressure. Only 2.3% of the respondents had chronic cough during pregnancy.

The above information shows that swelling of legs and high blood pressure were among the highest danger signs experienced by the respondents. The health personnel during the study indicated that programmes had been put in place to sensitize pregnant women on danger signs and what to do to prevent such.

Place of delivery may have an influence on the health of pregnant women. Pregnant women who deliver at health institutions have a greater chance of surviving maternal deaths since they are attended to by skilled personnel. The information in the figure below shows that most women (60 %) had delivered from either a clinic or hospital while 40 % said they delivered at home. Some 18% of those that reported to have delivered at home, said they had no transport to take them to the nearest health institution. A key informant informed the study that:

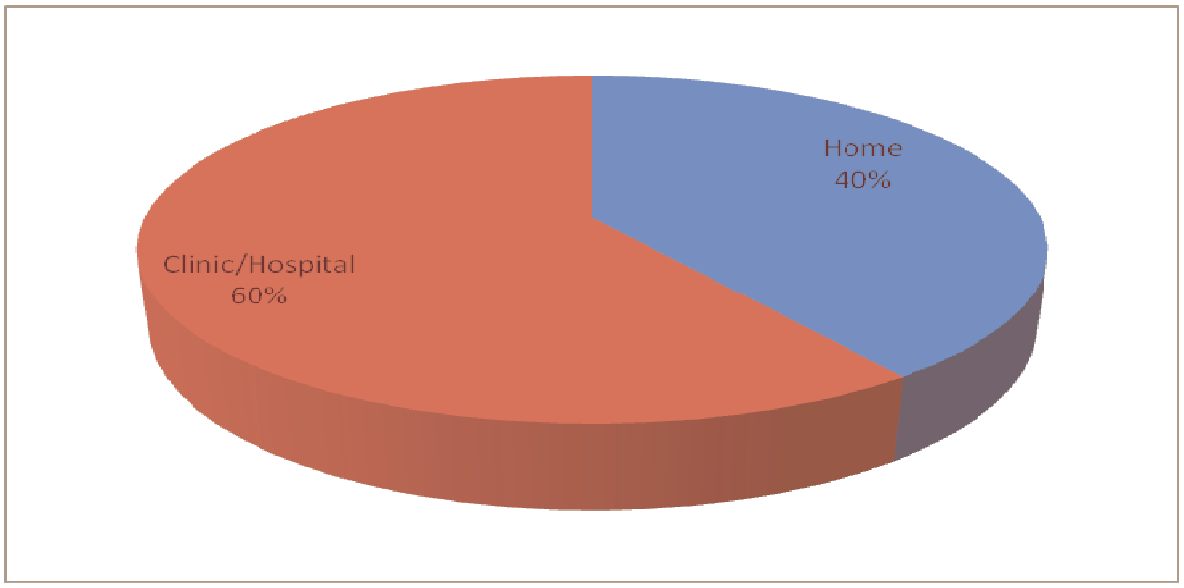
> *"most of the respondents that delivered at home ignored early signs of labour, thereby mostly delivering at home because mostly it would have become dark or unable to walk to the health centre"*

During the Focus Group discussion at Nangongwe Clinic one respondent explained that:

> *Her neighbour delivered at home because the herbs she was given by her grandmother to speed up labour and protect her from her husband's sexual activities caused her to deliver at home, because after twenty minutes of drinking the herbs she got into labour.*

The figure below shows the percent distribution of pregnant women by place of delivery

Figure 6.6: Place of delivery



This means that in Kafue district where most compounds are far away from delivery centre, the chances of having a safe delivery are compromised when one has no money to book a taxi or if labor begins late at night, when public transport is scarce.

Table 6.5 shows the Percent distribution of respondents by medical personnel who assisted them to deliver at a health facility.

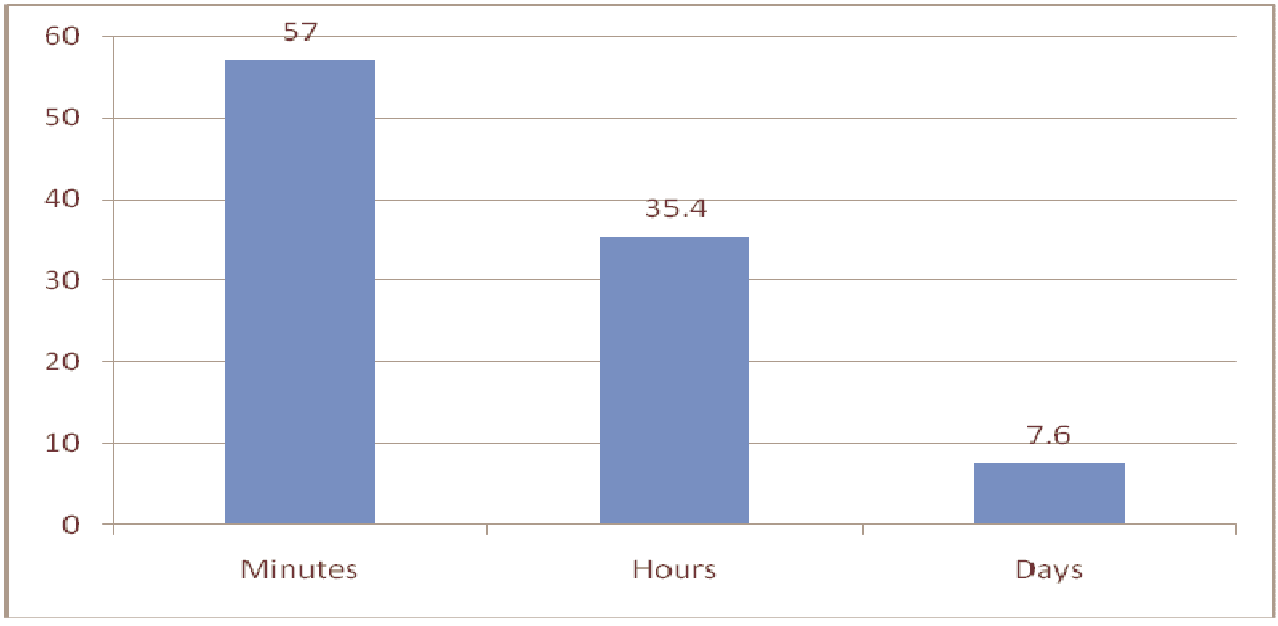
Table 6.5: Personnel who assisted to deliver at a health facility.

Response	Number	Percent
Doctor	20	20.8
Clinical officer	2	2.1
Midwife	63	65.6
Friends(on lookers)	1	1
TBA	10	10.4
Not Applicable	10	_
Total	110	100

The table above shows that only 1 of the respondents representing 1% of the total was assisted by a friend to deliver. About 21% of the respondents had Doctors assisting them to deliver. About two-thirds of respondents (65.6%) were assisted by midwives.

Figure 6.7 below shows the percent distribution of respondents and time taken to be attended to delivery.

Figure 6.7 Percent distribution of respondents and time taken to be attended to delivery.



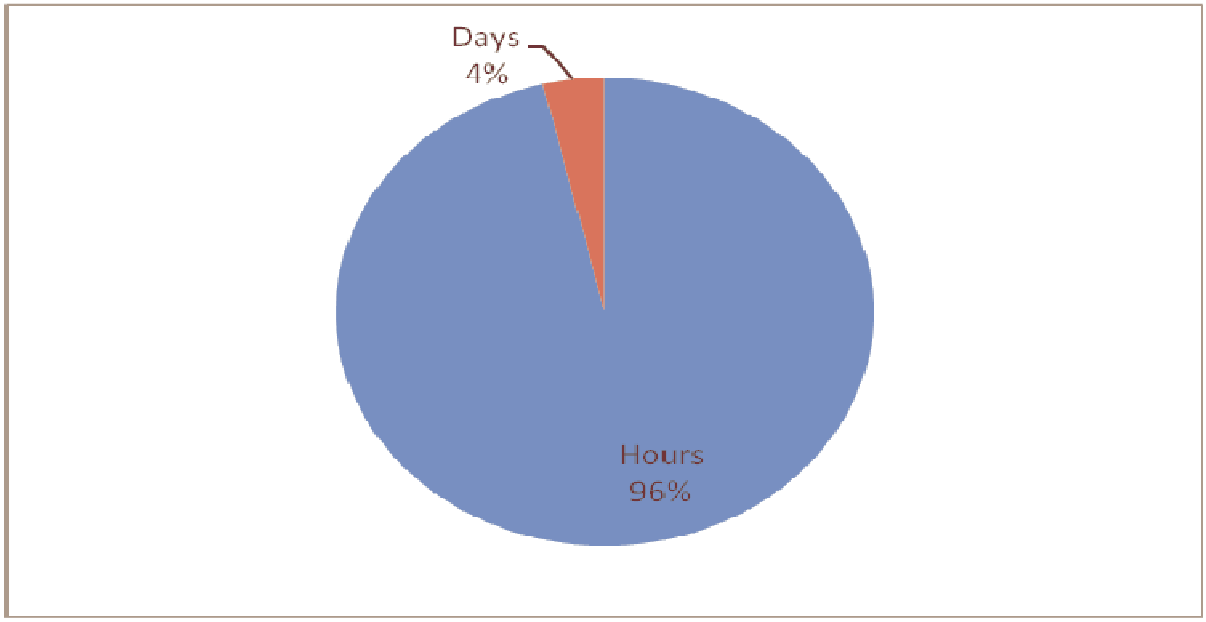
Fifty seven percent of the respondents said that it took minutes to be attended to by a health worker when they went to deliver at the health facility. More than one-third (35.6%) of them said that it took hours before they could be attended to. About 8% of the respondents said that it took days for them to be attended to at an institutional delivery. The health personnel explained that the 7.6 percent who were attended to after days were admitted in the general wards awaiting to be in labor and were only attended to in the labor ward when labor pains began. This indicates that this percent of women came early to the hospital to avoid unforeseen complications.

Time taken for placenta to be removed was also investigated.To find out the time taken for the placenta to be removed, respondents were asked how long after birth it took the placenta to be removed. Eighty six percent of the respondents reported that it took minutes for the placenta to be delivered. Some 14% reported that it took hours for the placenta to be removed.

The percent that expressed late removal of the placenta were highly exposed to risky factors. This is so because if the removal of the placenta is delayed, the patient is exposed to maternal complications which can lead to death or further complications associated with maternal health. Such delays in removing of placenta should be avoided if maternal deaths have to be averted.

Time taken to deliver was also investigated, (see figure 6.8)

Figure 6.8 Percent distribution of respondents by time taken to deliver.



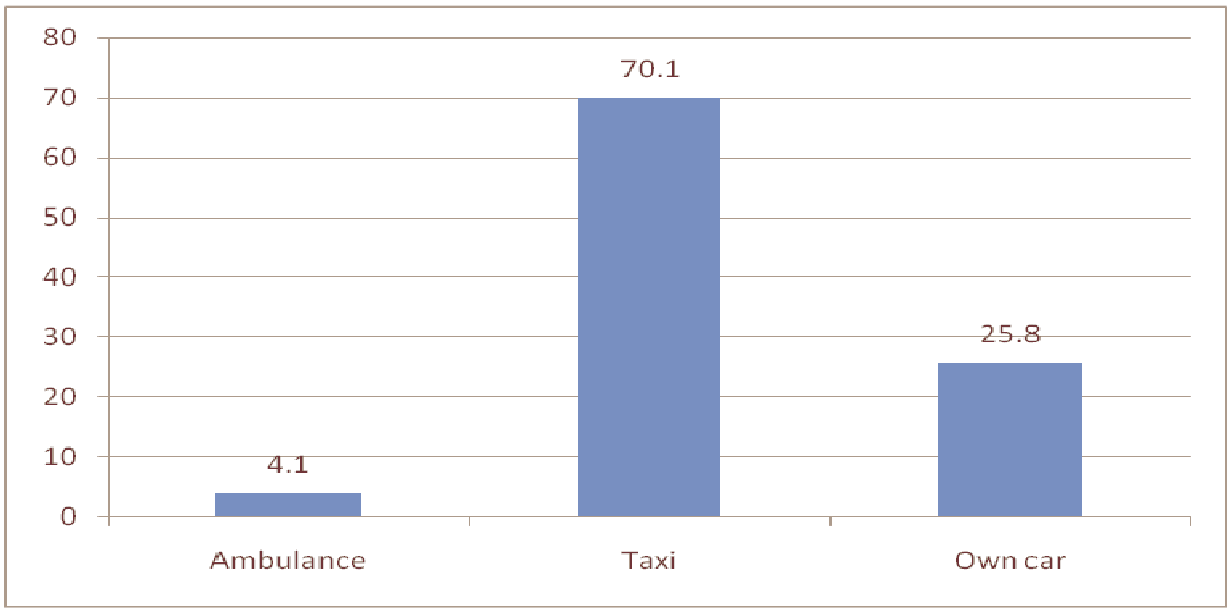
Very few of the respondents (4%) said that it took days for them to deliver while most of the respondents (96%) said that it took hours for them to deliver after onset of labour.

Illness during pregnancy was examined. Information from respondents about the type of illness during pregnancy and any visit to the local health centre during pregnancy (because of illness) was examined.

The investigation revealed that more than half (56%) of the respondents reported to have been to the local health centre while 43.9% reported not having gone to the local health centre for any illness during pregnancy.

The information in the figure below shows the percent distribution of respondents by means of transport used to get to the health institution.

Figure 6.9: Means of transport used to get to the health institution.



About 70% of the respondents reported that they used taxis to get to the delivery institution while 25.8% reported to have used own cars to get to the delivery institution. Only 4.1% of the respondents reported to have used the ambulance to get to the delivery institution. This shows that if patients have no money to book a taxi or purchase fuel into their car, they risk delivering at home. This figure also shows that the ambulance is rarely availed to patients. In Kafue district where most of the compounds are far away from the hospital, and pregnant women who are not in formal employment, transport to the health facility is a challenge.

The respondents who delivered safely in the 12 months prior to the study but never attended post-natal were asked to give reasons why they did not attend post-natal, this is what one said:

> *"After delivery, we become weak and the distance from home to the health centre is very far, so normally we decide to just miss the post-natal date"*

Information on treatment sought for any illness/disease at health facility during pregnancy by age group was obtained as presented in table 6.6.

Table 6.6: Seeking treatment for any illness/disease at local health centre

	Treatment at local health				
Age Group	**Number**	**Yes (%)**	**Number**	**No (%)**	**Total**
15-19	6	33.3	12	66.7	100
20-24	19	62.5	12	37.5	100
25-29	12	50	12	50	100
30-34	11	71.4	4	28.6	100
35-39	11	75	3	25	100
40-44	2	33.3	4	66.7	100
45-49	0	0	1	100	100
Totals	**61**		**48**		**109**

The table above shows the relationship between health seeking behavior of pregnant women by age. The findings reveal that two-thirds of the pregnant women aged 15-19 said that they did not seek treatment from local health centre during pregnancy. Slightly over 71 % of the pregnant women aged 30-34 years said they did seek treatment from the local health centre during pregnancy and three-quarters of those aged 35-39 also sought treatment from local health centre while 66.7 % of the women age 40-44 reported that they did not seek treatment from local health centre when they fell ill. According to TBA this was because they felt shy to go to hospital because of their age. They only preferred to deliver at Hospitals than being seen whilst pregnant. Generally, middle aged women (30-39 years) sought treatment for a disease during pregnancy.

Table 6.7 shows percent by Place of delivery during last pregnancy by age group.

Table 6.7: Place of delivery during last pregnancy by age group

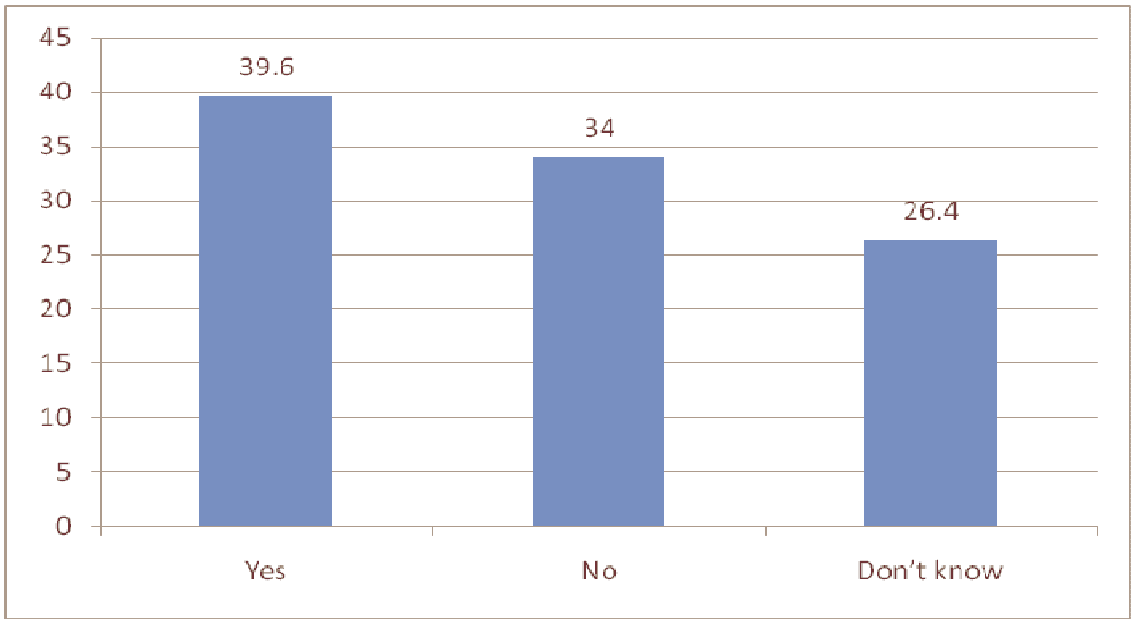
	Where did you deliver from		
Age Group	**Home**	**Clinic/Hospital**	**Total**
15-19	11.1	88.9	100
20-24	35.5	64.5	100
25-29	8.3	91.7	100
30-34	46.7	53.3	100
35-39	7.1	92.9	100
40-44	16.7	83.3	100
45-49	0	100	100

Table 6.7 shows that there were more pregnant women in the age groups 20-24 and 30-34 (35.5 % and 46.7 %) respectively; who delivered from home. However, the majority of the younger women aged 15-19 and older ones, over 35 years of age reported that they delivered from either a clinic or hospital during the last pregnancy. Delivering at home exposes women to higher risks of deaths if complications occur during delivery.

6.8 Traditional beliefs and Taboos

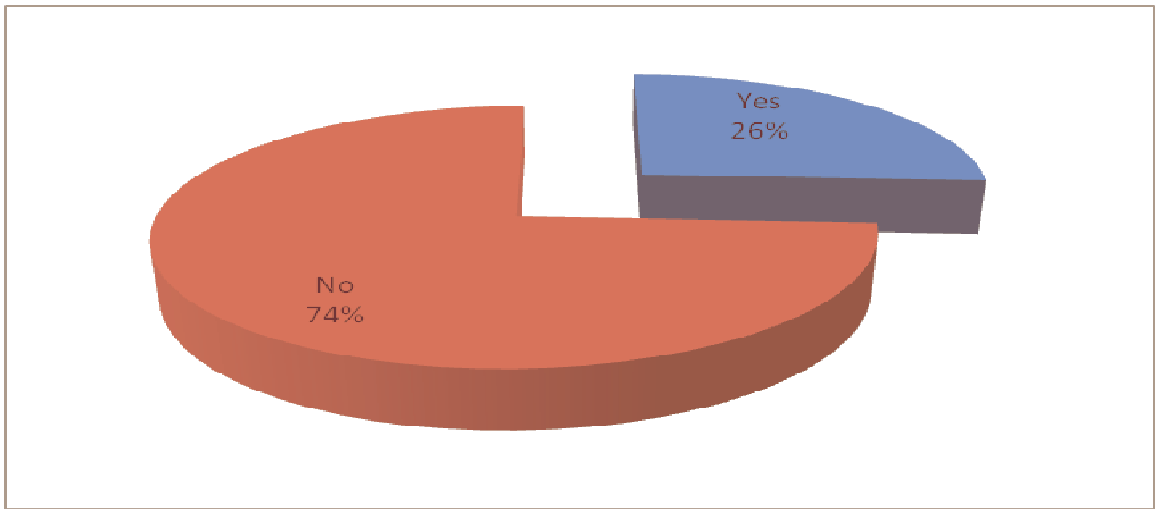
This is information related to community perceptions and attitudes towards traditional beliefs and taboos that are perceived to be among the causes of maternal mortality.

The Figure (6.10): Percent of respondents who know that they are traditional beliefs that women follow during pregnancy



The information in the table above reveals that 39.6 % of the respondents said they know of traditional beliefs that women should follow during pregnancy while 34 % of them expressed ignorance of existence of traditional beliefs that women follow during pregnancy and 26.4 % said they do not know if such beliefs exists or not.

Figure 6.11: Percent distribution of respondents who reported ever following traditional beliefs during pregnancy



The study has shown that the majority of women in the survey (74 %) reported that they have never followed any traditional beliefs during pregnancy while only 26 % of them agreed to having followed traditional beliefs during pregnancy.

These beliefs however, differ depending on the culture where someone belongs to. Some of the traditional beliefs and practice captured in the survey followed by pregnant women during pregnancy as well as after pregnancy in the community were as follows:

During pregnancy

> *"No eating certain foods e.g. chillies, sugarcane, eggs, no sex during pregnancy after 7 months"*
>
> *"Pregnant women are not supposed to sit on the door, they should not carry parcels on both hands and that they should not eat left over foods and eggs".*

Miscarriage

> *"Bath in herbs to protect people at home, no cooking or putting salt whilst attending monthly periods and no sleeping with hubby until herbs are given"*

During delivery

> *"Drinking herbs to deliver fast and prevent death caused by either spouse's extra marital sexual activities"*

After delivery

> "No touching of fire until baby's' naval drops and no holding of baby by other people"

Percent of women who ever followed taboos during pregnancy by age group are shown in Table 6.8.

Table 6.8: Percent of women who ever followed taboos during pregnancy by age group

	Ever followed taboos during pregnancy				
Age Group	**Number**	**Yes (%)**	**Number**	**No (%)**	**Total (%)**
15-19	3	18.8	15	81.3	100
20-24	8	26.9	23	73.1	100
25-29	4	17.6	20	82.4	100
30-34	7	45.5	8	54.5	100
35-39	5	33.3	9	66.7	100
40-44	1	20	5	80	100
45-49	0	0	1	100	100
Total	**28**		**81**		**109**

The findings reveal that nearly 46 % of the women aged 30-34 said that they did follow traditional beliefs during the last pregnancy. Slightly over 33 % of the pregnant women who delivered in the 12 months prior to the study agreed that they followed traditional beliefs during pregnancy. Most of the women in the ages 15-19 and 25-29 reported that they had never followed any traditional beliefs during pregnancy.

The table below presents percent of women who sought treatment at local health centre during pregnancy by education level.

Table 6.9: Education level of respondents who sought treatment at health facility

	Sought treatment at local health		
Education level	**Yes**	**No**	**Total**
None	50	50	100
Primary	47.1	52.9	100
Junior secondary	50	50	100
Senior secondary	66.7	33.3	100
Tertiary	100	0	100

The table above shows the relationship between health seeking behavior of pregnant women and education level. The findings reveal that half of the pregnant women with no education said that they did not seek treatment from local health centre during pregnancy. About 47 % of the pregnant women with primary education said they sought treatment from the local health centre during pregnancy and about 67 % with senior secondary education also reported to have sought treatment from local health centre. The pregnant women with tertiary education reported to have sought treatment at health centres. This is an indication that the higher the education of the woman the more awareness they become of health issues, thereby seeking treatment at local health facility. There is need to enhance educational messages on importance of visiting the health centres during pregnancy to the community.

Findings in relation to place of delivery and education level of the women

The findings revealed that pregnant women with higher education levels preferred delivering from established delivery institutions. Half of the women with no formal education reported that they delivered from home in the 12 months prior to the study, 79.2 % with secondary education said they gave birth from either a clinic or hospital. Nearly 91 % of the women who had attained tertiary education reported that they delivered from a delivery institution during the last time they were pregnant. Generally, the more educated women sought treatment at a local health facility than less educated ones.

Findings on women who ever followed taboos during pregnancy by education level

The results show the relationship between attitude of women towards traditional beliefs and education level. The findings show that women with higher education levels have a negative attitude towards use of traditional beliefs during pregnancy. For instance, while thirty percent of the women with primary education said they had followed traditional beliefs during pregnancy only 14.3 % of those with tertiary education reported that they had followed traditional beliefs during pregnancy.

Table 6.10 below, shows the Percent of women who followed taboos during last pregnancy by education level

Table 6.10:Followed taboos during last pregnancy and educational level					
Education level	**Number**	**Yes**	**Number**	**No**	**Total**
None	1	16.7	7	83.3	100
Primary	6	16.0	30	84.0	100
Junior secondary	7	25	22	75.0	100
Senior secondary	0	0	24	100	100
Tertiary	0	0	11	100	100
Total	**14**		**94**		**108**

The results in the table above show the relationship between attitude of women towards traditional beliefs and education level. The findings show that women with higher education levels were less likely to follow traditional beliefs during last pregnancy. Nearly 17 % and 16 % of the women with no education and those with primary education respectively said they had followed traditional beliefs during the last pregnancy and none of the women with tertiary education reported ever following traditional beliefs during last pregnancy.

During the Focus Group discussions at Railway and Kafue, the discussants, discussed the following on taboos followed during and after pregnancy:

> ***Discussant One:*** *When a woman is pregnant she is supposed to soak her husband's belt in water, and she should be drinking that water to prevent death caused by infidelity of the husband.*
>
> *A woman is not supposed to disclose her due date or let people know that she is pregnant if the pregnancy is not visible, that's why others go late for ANC.*

Discussant Two: *I have heard that a woman should take some herbs to deliver smoothly and fast, though I did not take some because I don't know those herbs.*

Some nurses are very cruel that's why some pregnant women die. They are neglected during labour.

Discussant Three: *Women are not expected to eat eggs or put salt in relish when they are pregnant because that will affect the new born baby. They should not even touch on the fire after deliver until they are given herbs to clean them.*

This shows that the women who followed the traditional beliefs are more likely to be exposed to maternal complications because of following traditional beliefs as opposed to medical theories.

6.2 Community views on factors affecting Maternal Mortality

The women who delivered in the 12 months prior to the study were asked to identify the major causes of maternal deaths in the community; among factors cited included;

i. Pregnant women not attending antenatal and post-natal care
ii. Pregnant women not following traditional beliefs
iii. High blood pressure
iv. Excessive bleeding

Some of these factors are due to socialization and beliefs. For instance, women believed that if a husband has had extra marital sex, the wife needed to follow some taboos in order to deliver safely failure to which she can fail to deliver and die. Also, family planning services still target females only, leaving out men who are actually the decision makers with regard to participation in sexual and reproductive health service activities. Other factors included long distances and poor communication network between clinics and district hospitals on availability of ambulance.

During the Focus Group discussions at Nangongwe and Estates, the discussants, speaking in turns covered a number of issues, including causes of maternal mortality, why women deliver at home and why other women don't like coming for antenatal care:

> ***Discussant one:*** *Death of a woman after deliver is caused by a husband when he sleeps with many women causing 'inshila'. The woman dies when she looks at her blood during delivery or might fail to deliver and die with pregnancy.*
>
> ***Discussant Two:*** *Women prefer to deliver at home especially young mothers because TBAs are motherly and they know after birth they will be given a token of appreciation so they are tender not rough.*
>
> ***Discussant Three:*** *Some women fear to go to the hospital because they would have not bought new clothes for the baby so they fear to be shouted at. Some it's because they are old so they don't want to give birth in the same room with young mothers.*
>
> ***Discussant Four:*** *My neighbour lost her husband last year, so this year she is pregnant she has vowed not to be seen in public because people will be talking about her behaviour. So she has asked a TBA to be checking on her.*

Some of the causes of maternal deaths cited by the medical personnel in kafue district included; late reporting to the delivery institutions by pregnant women, others cited HIV-AIDS related illnesses to be the major contributors to maternal deaths. The health personnel also cited lack of transport as a major cause for patients reporting late to the delivery centre:

> *"One patient we referred to the hospital arrived around 1645hours. She explained that she did not want to come early because her previous pregnancies have always been taking long, therefore, she thought the pregnancy was the same as others she has had. Unfortunately, she started bleeding and the baby was in breach position. Though we managed to reach the hospital before dark, she could not manage to deliver properly; she died before she could be operated on."*

The other problems that were mentioned by the health personnel as causes of maternal death were:

During Pregnancy: *hypertension,abortion,malaria,STIs/HIV, anaemia,abnormal presentation,lack of ANC, excessive bleeding and early pregnancies.*

During Labour: *Retained placenta, obstructed labour, excessive bleeding, ruptured uterus, hypertension and lack of ANC.*

After Delivery: *Sepsis, lack of PNC, anemia, AIDs related diseases and retained placenta.*

The health personnel also explained that:

> *Some women died because bleeding in pregnancy would begin at home, by the time they reached the hospital, the patient would have already died or at an advanced stage of illness. The other reason was due to lack of monitoring of pregnancy related illness and most patients who rarely visited the hospital when pregnant had no clue that they had developed B/P in pregnancy, since control of blood pressure during delivery has always been problematic, thereby pausing a danger to the patient.*

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1.0 SUMMARY

An emphasis on making maternal health care available to all women who develop complications is central in reducing maternal mortality. This is because all five of the major causes of maternal mortality – haemorrhage, sepsis, unsafe abortion, hypertensive disorders and obstructed labor – can be treated at a well-staffed and well-equipped health facility. Also, births should take place in appropriate health facilities, so that maternal complications and deaths can be prevented.

The health personnel in Kafue district felt that there was need to

Increase access to skilled delivery care. According to them, delivery is a critical time in which decisions about unexpected emergency complications must be made. Skilled attendants – health professionals such as doctors or midwives – can recognize these complications, and either treat them or refer women to health centers or hospitals immediately if more advanced care is needed. Women in rural areas live far distances from quality maternity care, so prevention of maternal mortality depends greatly on early recognition of complications, better provisions for emergency treatment, and improved logistics for rapid movement of complicated cases to district hospitals. Increased medical coverage of deliveries, through additional skilled staff and service points, are basic requirements for improving delivery care. Reliable supply lines and staff retraining programs are also critical.

The impact of training TBAs on maternal mortality appears limited and the greatest benefit may be improved referral and linkages with the formal health system.

This study has clearly demonstrated that most health centres in Kafue District lacked adequate delivery rooms or infrastructure for providing emergency obstetric care. Inadequate number of trained midwives at health centres hindered the smooth care for large number of emergency cases at most times. Lack of enough ambulances to be stationed at health centres forced pregnant women to be seeking transport of their own once referred to the hospital.

7.1.1 Health seeking Behaviour of Pregnant women

The findings reveal that about 67 percent of the pregnant women aged 15-19 did not seek treatment from local health centre during pregnancy. Slightly over 71 percent of the pregnant women aged 30-34 years did seek treatment from the local health centre during pregnancy and 75 percent of those aged 35-39 also sought treatment from local health centre while 66.7 % of the women age 40-44 reported that they did not seek treatment from local health centre when they fell ill.

7.1.2 Causes of High Maternal Mortality

The results of this study have also shown the relationship between attitude of women towards traditional beliefs and education level. The findings show that women with higher education levels have a negative attitude towards use of traditional beliefs during pregnancy. Thirty percent of the women with primary education said they had followed traditional beliefs during pregnancy and only

14.3 % of those with tertiary education reported that they had followed traditional beliefs during pregnancy.

7.1.3 Provision of Maternal Health Services

The health personnel in Kafue district felt that there was need to:

Provide prompt postpartum care, counseling, and access to family planning:

It is important to detect and immediately manage problems that may occur after delivery, such as hemorrhage, which is responsible for about 62 percent of maternal deaths in Kafue district since 2005. Postpartum care and counseling will help ensure the proper care and health of the newborn. Counseling should include information on breastfeeding, immunization, and family planning.

Improve postabortion care:

About 9 percent of maternal deaths in kafue district in the past 5 years have been due to unsafe abortion. Women who have complications resulting from abortion need access to prompt and high quality treatment for infection, hemorrhage, and injuries to the cervix and uterus.

Strengthen health promotion activities:

Mass media should be used to educate the public about pregnancy and delivery, and community-level organizations should assist this through systematic programs. An important step for health promotion, in order to prevent negative maternal health outcomes, is to have the Ministry of Health supply adequate educational materials regarding safe practices.

Increase access to reproductive health, sexual health, and family planning services, especially in rural areas:

Due to the lack of access to care in rural areas, maternal death rates was found to be higher in rural areas than in urban areas in Kafue district. In addition, many men and women in rural and urban areas lack access to information and services related to HIV/AIDS and other STIs.

Increase access to and education about family planning:

Another feature that relates closely to preventing maternal mortality is the provision of family planning. Family planning helps women prevent unintended pregnancies and space the births of their children. This reduces their risks of unwanted pregnancy, abortion, and childbirth. Reliable provision of a range of contraceptive methods can help prevent maternal deaths associated with unwanted pregnancies.

Increase access to high quality antenatal care:

High quality antenatal care includes screening and treatment for STIs, anemia, and detection and treatment of hypertension. Women should be given information about appropriate diet and other healthy practices and about where to seek care for pregnancy complications.

CONCLUSION

7.2.1 Conclusion:

This study came as an attempt to assess the determinants, levels and patterns of maternal mortality in Kafue Urban. The study also tried to investigate the provision of health services and collaborative networks of the community, Traditional Birth Attendants and the health institutions.

The survey began in February 2009. Both qualitative and quantitative methods were used to obtain the data. Various research instruments, namely, health facility questionnaires, questionnaires for relatives of the deceased, questionnaires for pregnant women, focus group and in-depth study guides were used to obtain data for the survey.

A total of 114 questionnaires for pregnant women and facility were successfully completed, entered and processed. A total of 04 focus group Discussion and 10 in-depth studies were obtained.

The study revealed that poor communication strategy for Safe Motherhood perpetuated lack of awareness on importance of early reporting to the health centre when labor began and early antenatal care led to lack of early detection of any danger sign hence exposure to high risk of maternal death during delivery. It was further discovered that some women had strong cultural beliefs (myths/taboos) which tend to prevent attendance of health facilities during pregnancy. These women had Strong cultural beliefs which affected their decisions on early ANC and institutional deliveries.

The study discovered that the referral system was not being effectively coordinated between health centres and the hospital in terms of referral movements.

The study has shown that the majority of women in the survey (74 %) reported that they never followed any traditional beliefs during pregnancy while only 26 % of them agreed to have followed traditional beliefs during pregnancy.

In this study 94% of the women who delivered safely in the 12 months prior to the study had used their own means of transport to get to the delivery centre. Most of the women who reported that they delivered from home during the last pregnancy said they did so because they had no transport to get to the delivery institution. The women who delivered safely in the 12 months prior to the study were asked to give reasons why they did not go for post-natal, most of them said the nearest clinic was too far from their homes.

According to this study the majority of pregnant women died with haemorrhage (68 %) followed by anaemia 18 %. This calls for more reinforcement in programs for pregnant women and also sensitization of the community. The pattern of women dying from 2005 to 2009 showed that the number of cases reported at the hospital was high in 2007 but declined in 2009. The decline could suggest an improvement in the management of maternal cases.

Maternal mortality can be prevented if all women can be encouraged to go for antenatal and post-natal and that they should be attended to by trained health staff. The women should seek medical advice quickly when they notice any danger signs.

Reducing maternal mortality requires strengthening of the health care system. This process takes time, and must be fueled by public commitment sustained by, say, maternal death reviews. One valuable entry point is the improvement of care of obstetric emergencies, but skilled attendance at birth in general also demands long term planning. Newer technical interventions need to be integrated into existing systems, while AIDS poses an increasing threat.

Since most maternal deaths occur during delivery and during the postpartum period, emergency obstetric care, skilled birth attendants, postpartum care, and transportation to medical facilities should be provided. These services are often particularly limited in health centres, so special steps must be taken to increase the availability of services in those areas. Efforts to reduce maternal mortality and morbidity must also address societal and cultural factors that impact women's health and their access to services.

RECOMMENDATIONS

In view of the foregoing, it can be recommended that:

1. Women should be encouraged to go for antenatal and post-natal early and regularly.

2. The pregnant women should seek medical advice immediately they noticed any danger signs.

3. Women and their spouses should be encouraged to go for voluntary counseling and testing (VCT) so that they can know their status before delivery.

4. Educational awareness on effects of following taboos when pregnant should be re-enforced.

5. Educating pregnant women on the importance of delivering at institutional delivery should be intensified if maternal mortality in the country is to be reduced. This could be done through Traditional Birth Attendants (TBA's) and other community based health workers.

6. More vehicles/mobile clinics should be purchased for use at health centres to assist in transporting pregnant women who live very far from the clinic/hospital.

7. The Government and cooperating partners should improve the quality of maternal mortality data by improving and standardizing guidelines/tools of maternal mortality.

8. Provide maternal mortality data at lower levels including districts and provinces not only at national levels. This will help in addressing maternal mortality in the most affected areas.

9. A two way referral system to the health facility from the community and vice versa should be improved and timely follow ups made in order to reduce further maternal mortality.

10. There is need to be re-training staff and retention of midwives at most health centres. This will help improve on the number of midwives stationed at health centres.

11. Re-enforcement of activities of both community and facility-based in maternal health programmes is needed. This may involve use of TBA and health promoters.

12. Documentation of Essential Obstetric Care data should be improved between the community and health centre levels. A system should be developed for recording cases from communities that go directly to referral hospitals when complications arise, in order to ensure that data is not lost at the nearby health centres and districts particularly when mortality occurs.

13. Infrastructure for deliveries should be refurbished and equipments and supplies be constantly restocked so that emergencies can easily be handled.

14. Maternal Health Programmes to involve communities and men in order to further reduce preventable maternal deaths in the district.

15. Existing facilities (health centres) should be upgraded to provide maternity care.

16. Harmful traditional practices that are detrimental to maternal health need to be discouraged through community sensitizations and Ante Natal Care and Post Natal Care meetings.

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APPENDICES

APPENDIX 1:**LIST OF SAMPLED HEALTH CENTRES IN KAFUE DISTRICT**

1. NANGONGWE CLINIC
2. RAILWAY CLINIC
3. ESTATES CLINIC
4. KAFUE DISTRICT HEALTH CENTRE

APPENDIX II: QUESTIONNAIRE 1

THE UNIVERSITYOF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL DEVELOPMENT STUDIES

DEMOGRAPHY DIVISION

Questionnaire Identification Number |___|___|___|

QUESTIONNAIRE 1: FOR THE RELATIVE OF THE DECEASED WOMAN

Dear respondent,

I am a student doing my Masters degree at the above institution. You have been selected to participate in their research. Please give your information as truthfully as possible for it will be considered as confidential and for academic purposes.

Is the respondent the household head? Yes 1 No 2

Name of residential place_____

DATE OF INTERVIEW: _____\ ____ \ _____

DATE CHECKED ___\ ____ \ _____

QUESTIONNAIRE OVERVIEW

Section 1: Background Information

Qs #	Question Description	Response Categories	Codes	Skip to
01.	Respondents Sex	Male 1 Female 2		
02.	How old are you?	_____ *(Enter age in completed years)* **I don't know 99**		
03.	What is your current marital status?	Single/ Never been married 1 Married 2 Divorced/separated 3 Widowed 4		
04.	What is your highest completed grade/ level at school?	Never been to school 1 Primary 2 Junior secondary 3 Secondary 4		

		Tertiary 5		
05.	What is your employment status?	Full Time Pensionable 1 Full Time Fixed Contract Period 2 Part time 3 Self employed 4 Temporarily/ Seasonally employed 5 Family worker 6 Not Employed 7 Other (Specify) _____88_		
06.	Type of residential place	High density 1 Medium density 2 Low density 3		

SECTION 2: INFORMATION ABOUT THE DECEASED

Q No.	Questions and Filters	Coding Categories	Skip to
06. .	When was the deceased born	_____	
07.	How were you related to the deceased?	_____	

Q No.	Questions and Filters	Coding Categories	Skip to
08.	What was her highest level of education?	Never been to school 1 Primary 2 Junior secondary 3 Secondary 4 Tertiary 5	
09.	**What was her marital status**	Single 1 Married 2	
10.	**What is the level of education of the spouse to the late**	Never been to school 1 Primary 2 Junior secondary 3 Secondary 4 Tertiary 5	
11.	**What was her employment status**	Not employed 1 Self employed 2 Employed 3	
12.	What was her main kind of work	_____	

SECTION 3: FACTORS INFLUENCING MATERNAL MORTALITY

Q No.	Questions and Filters	Coding Categories	Skip to
13.	How many maternal related deaths have you recorded in this household	☐☐	

Q No.	Questions and Filters	Coding Categories	Skip to
14.	Did she die from a pregnant related cause?	Yes 1 No 2 Don't Know 3	
15.	If Yes, did she suffer from any of the following **(Tick all that apply)**	Heart disease A Malaria B Anaemia C Hypertension D Diabetes mellitus E Hepatitis F Others specify G	
16.	Did she have any of the following during her last pregnancy	Swelling of the legs A Swelling of the face B High blood pressure C Bleeding from Vaginal with Pain D Fever E Yellow eyes F Chronic cough G Painful skin rash H	
17.	Did she have a caesarian section for her previous pregnancy?	Yes 1 No 2 Don't know 3	
18.	What was the problem with the pregnancy	_____ _____ _____	
19.	Where did she die from	Home 1 Health institution 2 On the way to Health Institution 3 Other specify	
20.	At what age did she die	☐☐	
21.	Did she have any of the following just before she died	Fever 1 Foul smelling discharge 2 Fitting 3 Excessive bleeding from virginal 4 Shortness of breath 5	
22.	Did she suffer from any of other disease(s) before she became pregnant?	Yes 1 No 2 Don't know 3	

Q No.	Questions and Filters	Coding Categories	Skip to

Q No.	Questions and Filters	Coding Categories	Skip to
23.	If yes, mention the disease(s)?	_____	**IF NO, SKIP To 33**
24.	Did she seek treat at any local health centre?	YES 1 NO 2	
25.	If yes, was she referred to UTH	YES 1 NO 2 Don't know 3	
26.	Indicate whether the following examinations where done (Circle all appropriate answers)	Blood pressure check 1 Presentation of foetus 2 Blood haemoglobin 3 Urine for albumn 4 Urine for sugar 5 Syphilis testing 6	
27.	How long did it take her to be referred to UTH	_____	
28.	Did the local health centre provide means of	YES 1 NO 2	**IF YES, ,**

Q No.	Questions and Filters	Coding Categories	Skip to
	transport for her?		**SKIP TO 35**
29.	If No, what means of transport did she use	Bus 1 Bicycle 2 Own car 3 Other (specify)_____ 88	

Q No.	Questions and Filters	Coding Categories	Skip to
30.	How many children did she have?	☐☐ DON'T KNOW 99	
31.	How many are alive?		
32.	Did she have any miscarriages?	YES 1 NO 2 DON'T KNOW 99	
33.	If yes, how many	_____ DON'T KNOW 99	
34.	How many still stillbirths did she have if any?	_____	
35.	Did she ever had surgery	YES 1 NO 2 DON'T KNOW 9	

Q No.	Questions and Filters	Coding Categories	Skip to
36.	State the length of the period that she died	Before labour 1 During labour 2 During delivery 3 After delivery 4	
37.	If after deliver, how long did it take before she died	_____	
38.	How long did it take for the placenta to come out?		
39.	Who assisted her to deliver?	Doctor 1 Clinical officer 2 Midwife 3 Friends (on lookers) 4 Others specify 5	
40.	How long did it take her to be attended to when she was taken to UTH	Minutes 1 Hours 2 Days 3	
41.	Did she attend Antenatal care during her pregnancy	YES 1 NO 2 DON'T KNOW 9	
42.	Why did she first attend ANC	She had a problem with the pregnancy 1 To check if everything was fine 2	

SECTION 4: COMMUNITY VIEWS ON ISSUES AFFECTING MATERNAL MORTALITY

Q No.	Questions and Filters	Coding Categories	Skip to
43.	Are there any taboos or traditional beliefs that women have to follow during pregnancy?	YES 1 NO 2	

Q No.	Questions and Filters	Coding Categories	Skip to
		DON'T KNOW	
44.	Are there any taboos or traditional beliefs that women have to follow during deliver?	YES 1 NO 2 DON'T KNOW 9	
45.	Are there any taboos or traditional beliefs that women have to follow after deliver?	YES 1 NO 2 DON'T KNOW 9	
46.	State any taboos or traditional beliefs follow during delivery, after delivery or during pregnancy	_____ _____ _____ _____	
36	What do you think are the causes of maternal death	During pregnancy_____ _____ During delivery_____ _____ After deliver_____ _____	
37	What do you think should be done to avoid maternal deaths	_____ _____ _____ _____ _____	

Thank Respondent and Close Interview Done

APPENDIX III: QUESTIONNAIRE 2

THE UNVIERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL DEVELOPMENT STUDIES

DEMOGRAPHY DIVISION

Questionnaire Identification Number |___|___|___|

QUESTIONNAIRE 2: FOR THE WOMAN WHO DELIVERED SAFELY IN THE LAST 12 MONTHS

Dear respondent,

I am a student doing my Masters degree at the above institution. You have been selected to participate in their research. Please give your information as truthfully as possible for it will be considered as confidential and for academic purposes.

Is the respondent the household head? Yes 1 No 2

Name of residential place_____

DATE OF INTERVIEW: _____\ ____ \ _____

DATE CHECKED ___\ ____ \ _____

QUESTIONNAIRE OVERVIEW

Section 1: Background Information

Qs #	Question Description	Response Categories	Codes	Skip to
47.	Respondents Sex	Male 1 Female 2		
48.	How old are you?	_____ ***(Enter age in completed years)*** **I don't know 99**		
49.	What is your current marital status?	Single/ Never been married 1 Married 2 Divorced/separated 3 Widowed 4		
50.	If married is it?	Polygamous 1 Monogamous 2		
51.	What is your highest completed grade/ level at school?	Never been to school 1 Primary 2 Junior secondary 3 Secondary 4		

		Tertiary 5		
52.	State the level of education of the spouse	Never been to school 1 Primary 2 Junior secondary 3 Secondary 4 Tertiary 5		
53.	What is your employment status?	Full Time Pensionable 1 Full Time Fixed Contract Period 2 Part time 3 Self employed 4 Temporarily/ Seasonally employed 5 Family worker 6 Not Employed 7 Other (Specify) _____88_		
54.	Type of residential place	High density 1 Medium density 2 Low density 3		

SECTION 2: FACTORS INFLUENCING MATERNAL MORTALITY

Q No.	Questions and Filters	Coding Categories	Skip to
55.	Did you have any medical problem before you became pregnant?	YES 1 NO 2 Don't know 3	**IF NO, SKIP To 15**

Q No.	Questions and Filters	Coding Categories	Skip to
56.	If yes, mention the problem)?	_____	
57.	Did you seek treat at any local health centre?	YES 1 NO 2	
58.	If yes, have you ever been hospitalized?	YES 1 NO 2	
59.	Have you ever had a surgery	YES 1 NO 2	
60.	For what reasons did you have the surgery	_____ _____	
61.	How many children have you ever had?	☐☐	
62.	Have you ever had any Miscarriages?	YES 1 NO 2	**IF NO , SKIP TO 18**
63.	If yes, how many?	☐☐	
64.	Did you have any pregnancy which ended as a still birth?	YES 1 NO 2	

Q No.	Questions and Filters	Coding Categories	Skip to
65.	Did any of the following happen to you during your previous pregnancy	Swelling of legs 1 Swelling of face 2 High blood pressure 3 Bleeding from vaginal with pain 4 Fever 5 Weight loss 6 Diarrhoea 7 Chronic cough 8 Painful skin rash 9	
66.	Where did you deliver from during the last pregnancy?	Home 1 Clinic/hospital 2	
67.	If home, why did you deliver from home?	_____	
68.	Who assisted you to deliver during the last pregnancy?	Doctor 1 Clinical officer 2 Midwife 3 Friends (on lookers) 4 TBA 5 Others specify_____ 6	
69.	How long did it take you to be attended to be attended to when you taken to UTH or any other institutional delivery	Minutes 1 Hours 2 Days 3	
70.	How long after birth was the placenta delivered?	Minutes 1 Hours 2 Days 3	
71.	How long did it take you to deliver	Hours 1 Days 2	
72.	Before coming to UTH, did you ever go the local health centre	YES 1 NO 2	
73.	What means of transport did you use to get the delivery institution	Ambulance 1 Taxi 2 Own car 3	

SECTION 3: UNDERLYING FACTORS AND HEALTH SEEKING BEHAVIOUR

Q No.	Questions and Filters	Coding Categories	Skip to
74.	Did you have any medical problems during your pregnancy?	YES 1 NO 2	
75.	What was the problem?	_____ _____	
76.	What did you do when the problem started?	_____ _____	
77.	Why did you take the action in **Q30**	_____ _____ _____ _____	
78.	Did you use to attend Ante-natal care during your last pregnancy	YES 1 NO 2	
79.	Where did you go for ANC?	_____	
80.	How many times did you go for ANC?		
81.	Why did you first attend ANC	I had a problem with pregnancy 1 To check if everything was fine 2	
82.	Indicate if the following examinations were done	Blood pressure check 1 Presentation of foetus 2 Blood haemoglobin 3 Urine for albumn 4 Urine for sugar 5 Syphilis testing 6	

Q No.	Questions and Filters	Coding Categories	Skip to
83.	Did you go for post natal care?	YES 1 NO 2	
84.	If No, why did you not go for Post Natal Care?	_____ _____	

SECTION 4: COMMUNITY VIEWS ON ISSUES AFFECTING MATERNAL MORTALITY

Q No.	Questions and Filters	Coding Categories	Skip to
85.	Are there any taboos or traditional beliefs that women have to follow during pregnancy?	YES 1 NO 2 DON'T KNOW	
86.	Are there any taboos or traditional beliefs that women have to follow during deliver?	YES 1 NO 2 DON'T KNOW 9	
87.	Are there any taboos or traditional beliefs that women have to follow after deliver?	YES 1 NO 2 DON'T KNOW 9	
88.	State any taboos or traditional beliefs follow during delivery, after delivery or during pregnancy	_____ _____ _____ _____	
36	What do you think are the causes of maternal death	During pregnancy_____ _____ During delivery_____	

Q No.	Questions and Filters	Coding Categories	Skip to
		_____ After deliver_____ _____	
37	What do you think should be done to avoid maternal deaths	_____ _____ _____ _____ _____	

Thank Respondent and Close Interview Done

APPENDIX IV: QUESTIONNAIRE 3:

THE UNVIERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL DEVELOPMENT STUDIES

DEMOGRAPHY DIVISION

Questionnaire Identification Number |___|___|___|

QUESTIONNAIRE A: FACILITY QUESTIONNAIRE

Dear respondent,

I am a student doing my Masters degree at the above institution. You have been selected to participate in their research. Please give your information as truthfully as possible for it will be considered as confidential and for academic purposes.

Name of Health Facility_____

District_____

Location 1_Urban 2_Rural

Type of Cadre

1. Doctor
2. Nurse
3. EHT
4. CDE
5. Laboratory technician
6. District Director of Health
7. Manager Planning
8. Mid-wife
9. Other specify

DATE OF INTERVIEW: _____\ ____ \ _____

DATE CHECKED _______ _____

QUESTIONNAIRE OVERVIEW

Section 1: Background Information

Qs #	Question Description	Response Categories	Codes	Skip to
89.	Respondents Sex	Male 1 Female 2		
90.	How old are you?	_____ ***(Enter age in completed years)*** **I don't know 99**		

91.	What is your current marital status?	Single/ Never been married 1 Married 2 Divorced/separated 3 Widowed 4		
92.	What is your highest completed grade/ level at school?	Never been to school 1 Primary 2 Junior secondary 3 Secondary 4 Tertiary 5		
93.	What is your employment status?	Full Time Pensionable 1 Full Time Fixed Contract Period 2 Part time 3 Self employed 4 Temporarily/ Seasonally employed 5 Family worker 6 Not Employed 7 Other (Specify) _____88_		

SECTION 2: MATERIAL HEALTH PROGRAMMES

Q No.	Questions and Filters	Coding Categories	Skip to
94.	Number of Maternal deaths in the past six months	_____	
95.	Number of maternal deaths by age-group?	15-19_____ 20-24_____ 25-29_____ 30-34_____ 35-39_____ 40-44_____ 45-49_____	
96.	What are the major causes of maternal deaths at your facility?	_____ _____ _____ _____	
97.	Do you think some of these deaths could be avoided?	Yes 1 No 2	
98.	Has your institution been involved in the maternal health programmes?	Yes 1 No 2	
99.	**What kind of activities?**	_____ _____ _____	
100.	**How do you conduct these activities**	_____ _____ _____	
101.	**What has your institutions been doing to avoid occurrence of maternal deaths?**	_____ _____ _____ _____	
102.	**How long has your institution been involved in the maternal program activities**		
103.	Does this facility have any safe motherhood Action group?	Yes 1 No 2	

Q No.	Questions and Filters	Coding Categories	Skip to
104.	Does this facility offer the following activities?	ANTENATAL SERVICES A DELIVERY SERVICES B POST NATAL SERVICES C VCT SERVICES D ART SERVICES E TREATMENT OF STIs F	
105.	What institutions are you collaborating with in these activities	1._____ 2._____ 3._____ 4._____	

SECTION 3: POLICY

Q No.	Questions and Filters	Coding Categories	Skip to
106.	Does your institution have existing policies on maternal health?	Yes 1 No 2	
107.	If yes, mention some?	_____ _____ _____	
108.	If no, explain why?	_____ _____ _____ _____	
109.	What are the policy guidelines on maternal health?	_____ _____ _____ _____	

Q No.	Questions and Filters	Coding Categories	Skip to
110.	Do you follow these policies	Yes 1 No 2	
111.	Does your institution have the capacity to handle maternal complications	Yes 1 No 2	
112.	Do you refer complication which can not be handled by your institutions to higher health institutions?	Yes 1 No 2	
113.	Where do you refer them to?		
114.	How far is the referral centre?		
115.	What are the challenges in following up with using maternal health policies?	_____ _____ _____ _____	
116.	What suggestions can you give to help improve the maternal health progammes?	_____ _____ _____ _____	

Thank Respondent and Close Interview Done

APPENDIX V: FOCUS GROUP SCHEDULE

FOCUS GROUP DISCUSSION SCHEDULE FOR PREGNANT WOMEN

ANTENATAL CARE:

What do you understand by the term anti-natal care?

Do women in your township attend Ante-Natal Care?

Why?

Do Men of your township have a role in Ante-Natal Care? If yes, state it. If No, why?

DELIVERY:

Where do women in your township deliver?

Why do they deliver from such places?

Who decides for them of where to deliver from?

Who helps them to deliver?

POST NATAL CARE:

What is it?

State your views about Postnatal Care?

Do women in your township attend Postnatal care? Why?/Why not?

When is postnatal care sought/

Who attends to them?