AN ASSESSMENT OF MATERNAL KNOWLEDGE ABOUT HEALTH IN PREGNANCY AND EARLY CHILDHOOD IN RURAL TANZANIA: CASE STUDY OF LINDI RURAL DISTRICT - TANZANIA

BY

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SEPTEMBER 2008
DECLARATION

I, Donat D. Shamba hereby declare that this is my own work and has never been presented in any institution or university for any academic award.

Signature: ........................................

DONAT D. SHAMBA

DATE 18-09-2008
APPROVAL

This dissertation is submitted to the faculty of social sciences of Kampala International University with my approval as the Supervisor.

SIGNATURE: ........................................

Ms. AZAH TAIBU

DATE: 18 - Sep - 2008.
DEDICATION

With great love, joy and honour, appreciation and thanks, consideration and remembrance, I dedicate this work to my parents Mr and Mrs Dominic Shamba, all my relatives, Mr and Mrs David Schellenberg, my friends; Catherine Makelemo, Emmanuel Smith, Immaculate Shija, Kizito Shirima and Donald Maeda for their support in my studies. Without them I would not have produced such a substantial work.
ACKNOWLEDGEMENTS

No idea can be said to be original, for every new idea is a development of countless ideas which have been discovered before. This book is merely an expression of the knowledge experienced and skills acquired during the author's lifetime of contact with other people. Firstly I want to record my thanks to almighty God.

I would also like to extend my appreciation to the staffs of IHRDC and IPTi Project, who were invaluable in guiding me through the inevitable obstacles that arose from time to time. My specific gratitude also goes to Ms Azah Taibu my Supervisor, and fellow students for their discussions corrections and contributions, village leaders, health workers and all the participants in this study.

No one can appropriately blame any of the above persons for whatever mistakes made in this research but much of the credit for whatever is good should be theirs. Accordingly, if there are any mistakes made in this piece of academic work, they are mine and if anything you read on these pages makes you angry, I am the person to blame.
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<td>Antenatal Care</td>
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<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<td>BCC</td>
<td>Behaviour change communication</td>
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<td>CORPs</td>
<td>Community Respected Persons</td>
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<td>FGD</td>
<td>Focus Group Discussion</td>
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<td>FWCW</td>
<td>Fourth World Conference on Women</td>
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<td>ICPD</td>
<td>International Conference on Population and Development</td>
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<td>ICD</td>
<td>International Classification of Diseases</td>
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<td>IHRDC</td>
<td>Ifakara Health Research and Development Centre</td>
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<td>IPTi</td>
<td>Intermittent Preventive and Treatment of malaria in infants</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MMR</td>
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<td>RAMOS</td>
<td>Reproductive Age Mortality Survey</td>
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<td>TAMWA</td>
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<td>UNICEF</td>
<td>United Nations International Children Emergency Fund</td>
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<td>UNFPA</td>
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ABSTRACT

This research was conducted to describe maternal knowledge about health in pregnancy and early childhood in rural Tanzania. It was also discovered that perceptions of risk during pregnancy shape behaviours in pregnancy and at childbirth, and influence pregnancy outcomes as well as neonatal health and survival. Identifying local understandings of obstetric risk is a key strategy for the development of appropriate behaviour change communication strategies to improve pregnancy and birth outcomes at the community level. I qualitatively analyzed the primary data from the field including interviews and focus group discussion I conducted with pregnant women, women with young children, community respected persons (CORPs) professional health workers from local communities and traditional birth attendants in Lindi rural district of southern Tanzania to explain local understandings of risks women face during pregnancy and behaviours traditionally practiced to minimize these risks. Women’s understandings of biomedical risk corresponded closely to common danger signs; however, social and spiritual factors were also perceived to place women and their developing babies at risk, and elaborate strategies were reportedly employed to preserve social harmony and protect against harm from malicious spirits or individuals. Using these findings, I identified opportunities for behaviour change communication strategies to improve maternal and neonatal health outcomes. Qualitative research such as this supports the development of behaviour change messages that link communities and health facilities to improve prenatal and obstetric care.

Generally, I would recommend that different bodies should combine efforts in order to make concrete policies, and any other effort needed to eliminate the problem of maternal and newborns mortality.
1.1 Background of the study

Increasing attention is being paid to the causes and context of maternal and newborn mortality in developing countries. The 4 million neonatal deaths that continue to occur each year account for an increasing share of deaths of children under five. Maternal mortality has recently been included among the Millennium Development Goals (MDG). [WHO, 2007].

In spite of national efforts, Tanzania has one of the highest maternal mortality ratios (MMR) in Sub-Saharan Africa, with national estimates as high as 1500 per 100 000 live births in 2007 [WHO UNICEF UNFPA, 2007]. Loudon (1992) noted how maternal deaths throughout history have been, and still are, devastating in a way that other causes of death are not. He emphasized how maternal care and maternal deaths cannot be divided into neat compartments categorised as social, political, economic, demographic, professional or clinical. His historical and statistical overview reveals the complexity and multi-factorial aspects of maternal mortality. Individual risk factors such as age, parity, and education, among others, may only be markers for groups of women at increased risk, rather than direct causes of poor outcome, and hence, poor predictors of risk [Carrolli G et al, 2001].

Presently, it is acknowledged that the ability to discriminate between women at high and low risk in all formal risk-scoring systems is poor. Consequently, all pregnant women are at risk of maternal death. Thus, some of the main international strategies to reduce
maternal mortality are operational rather than risk oriented, such as improving the quality and availability of emergency obstetric facilities and increasing the number of births attended to by a skilled attendant. In order to influence and develop public health strategies in the quest for reducing the high mortality rates in many developing countries, research on risk factors is still valid.

There is a beginning transition to the more "modern" society in some parts of the study area, bringing societal and cultural change. On the other hand, people in other parts of this area still adhere to a way of living that has been largely unchanged through generations, with the families being headed by male decision-makers, who have great influence on all matters related to pregnancy and childbirth.

1.2 Statement of the problem

With a population of about 37 million people and 1.4 million births per year, Tanzania has unacceptable maternal and neonatal mortality rates. Women with lower levels of education and those who live in poorer neighborhoods are more vulnerable to adverse birth outcomes. The maternal mortality ratio is reported to be around 1500per 100,000 live births, and babies face far greater risks than their mothers, as 29 per 1000 deliveries end in stillbirth and 32 of every 1000 live births die within the first 28 days. (WHO 2007)

It’s upon such a background that this study will be undertaken.
1.3 Objectives of the study

1.3.1 General objective

The general objective of the study is to investigate the status maternal knowledge about health in pregnancy and early childhood in rural Tanzania and describing how these understandings influence maternal and family behaviors during pregnancy and delivery.

1.3.2 Specific objectives will be to;

i) To establish the causes of maternal mortality in the Lindi community

ii) To establish barriers to accessing antenatal care services in Lindi District

iii) To establish the strategies used the preventing maternal mortalities in the community.

1.4 Research questions

What are the causes of maternal mortality in the Lindi community?

What are the barriers to accessing antenatal care services in Lindi District?

What are the strategies used the preventing maternal mortalities in the community?
1.5 Scope of the study

This study was conducted in two villages of Sudi and Mnolela in Lindi rural district in southern Tanzania. The study was limited to community members especially in the local community members including traditional birth attendants (TBAs), community respected persons (CORPs), pregnant mothers, mothers with children less than five years and professional midwives, doctors, and nurses who have experienced maternal mortality or those that have at least witnessed it. The study comprised 100 members of the community.

1.6 Significance of the study

This study will be of great importance both at the macro and micro level.

At the macro level, informed decisions in policy formulations and in the building of the institutions aimed at stopping the problem of maternal mortality basing on the findings from research.

At the macro level, a number of NGOs responsible for the fight against maternal mortality may adopt the recommendations put forth, and use the findings to address issues in the report.

The research will help researchers and academicians to increase on the available literature for further studies
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter reviews literature as an account of the knowledge and ideas that have been established by accredited scholars and experts in the field of study. It is guided by the objectives of the study outlined in chapter one.

2.1 Causes of Maternal mortality in Community

In developing countries, pregnancy and childbirth are the leading causes of death, disease and disability among women of reproductive age. They account for at least 18% of the burden of disease in this age group – more than any other single health problem. Factors that directly affect maternal health status include access to and availability of health facilities and services, the technical capacity of maternity care providers, and knowledge about pregnancy and childbirth among women and their families. (WHO, 1999)

Maternal health is a concern for a number of international organizations led by WHO and Gro Harlem Brundtland (2007) the WHO Director General, stated that mortality caused by reproduction is an indicator to assess not only women's health status but also the accessibility, sufficiency, and effectiveness of health facilities [WHO, 2007]. According to the Safe Motherhood Inter-Agency Group, complications of pregnancy and childbirth
are responsible for the deaths of 585,000 women globally every year. More than 90% of
the deaths are in developing countries (Hodgkin D, 1996).

2.1.1 Direct causes of maternal death

The International Classification of Diseases (ICD) defines direct obstetric deaths as those
resulting from obstetric complications of the pregnant state (pregnancy, labour,
puerperium), from interventions, omissions, incorrect treatment, or from a chain of events
resulting from any of the above. For example, haemorrhage, infection, preeclampsia /
eclampsia, obstructed labour, unsafe abortion, ectopic pregnancy, embolism, and
anaesthesia-related deaths. (Campbell O et al, 1995)

According to Campbell, (1995) the major causes of maternal deaths are Pregnancy
complications and circulation diseases, among the so many medical causes. Lack of
skilled personnel, poor integration of non government and private health service
providers, lack of integration of major vertical programmes (such as infrastructure
development, HIV/AIDS, Malaria and TB Programmes) into council health planning
have seen as the major causes of maternal deaths in the area. Other factors like little
knowledge about the danger signs of the pregnant mothers, the attitude of staffs in health
facilities, and long distance to the facilities made many pregnant mothers to opt
delivering at home where they face lots of complications and they die.
2.1.2 Indirect causes of maternal death

The ICD (2007) defines indirect obstetric deaths as those resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but was aggravated by the physiological effects of pregnancy. These tend to be fewer in number than direct causes. For example, hepatitis, anemia, malaria, heart disease, tuberculosis, AIDS and tetanus. Contributory factors include all the factors that influence the care sought and received during pregnancy, childbirth, and the postpartum period. (Campbell O et al, 1995)

They are less easy to classify than medical syndromes or diseases but include the following: delay in seeking care; delay in arriving at appropriate level of care; delay in receiving treatment/care at the health facility; the availability and quality of resources at the last level of the health services that was reached; and the availability and quality of the personnel at the last level of health services that was reached. (Campbell O et al, 1995)

Direct causes of maternal mortality make up 80% of global maternal deaths, and the most common cause of maternal death is haemorrhage (25%). The next most common is infection (15%), followed by unsafe abortion (13%) and hypertensive disease of pregnancy (pre-eclampsia and eclampsia) (12%) (See Figure 1). Approximately 5% of pregnant women – 7 million women – need surgery, most often a Caesarean section and many do not have access to emergency obstetric care. This unmet need results in 500 000 to 1 million women living with a painful disability. Only 58% of women in developing
countries deliver with the assistance of a health professional (a midwife or doctor), and only 40% give birth in a hospital or health centre. Most maternal deaths (61%) take place during delivery or in the immediate post-partum period. Some 3.4 million neonatal deaths occur within the first week of life. (Urassa et al, 1997)

**Figure 1: Direct and Indirect Causes of Maternal Death, global estimates**

![Figure 1: Direct and Indirect Causes of Maternal Death, global estimates](image)


More than 40% of all maternal deaths in the Western Pacific Region of WHO occur in just five countries, despite the fact that they only represent one tenth of the Region’s population. Whereas the estimated MMR in the Region as a whole is 120 per 100,000 live births, the MMRs for the five countries range from 150 to as high as 650 per 100,000 live births (National Safe Motherhood Action Plan 2001-2005, Western Pacific Regional Office, WHO, 2002).
In developed countries, the MMR is uniformly low. For example, the lifetime risk of maternal death is one woman in 3500 in the United States of America. Some developed countries in South-East Asia, such as Hong Kong, also have a low MMR (7 per 100 000) and the lifetime risk of maternal death in Hong Kong is one woman in 9200. Other countries in the Region, such as China, have also been very successful in reducing maternal mortality. The major direct cause of maternal deaths in China is haemorrhage, which is consistent with all other developing countries and accounts for 50% of the maternal deaths in rural areas and 25% in urban areas. Although a community-based research study conducted in 30 provinces of China in 1989 found that the national MMR was 95 per 100 000 live births, the MMR in urban areas was 50 per 100 000, and in rural areas was 115 per 100 000. (Mbaruku G, Bergstrom S, 1995)

This demonstrates that differences in access to quality maternity services can have a considerable impact on maternal mortality between different countries and even between different geographical regions within a country.

Evidence shows that maternal mortality can be reduced independently of achieving high levels of economic development. In fact, maternal mortality itself constrains economic development because of its severe impact on the lives of young children, the family and society in general. The single most critical intervention for safe motherhood is to ensure that a health worker with midwifery skills is present at every birth, and transportation is available to a more comprehensive level of obstetric care in case of an emergency. (Mbaruku G, Bergstrom S, 1995)
Fifteen per cent of all births are complicated by a potentially fatal condition, and women attended by trained attendants are more likely to receive treatment early, when the situation can still be controlled. Yet in the developing world today, only 58% of all deliveries take place with the assistance of a trained attendant. Experience shows, however, that the training of birth attendants needs to be part of a broader strategy, including functioning referral systems and professional support. Skilled attendants alone cannot reduce maternal mortality effectively – they need to be part of a larger health care system with the facilities, supplies, transport and professionals to provide emergency obstetric care when it is needed. (Walraven GE et al, 1994)

2.1.3 Other causes of maternal mortality among women

Delay in deciding to seek health care

Deaths of pregnant women and their babies can be prevented if they and their families understand that they need to be brought to health facilities in time for life-saving treatment to be successful. There are many reasons why the decision to access health care for pregnant women might be delayed, including lack of knowledge about complications and their indicators, attitudes of the husbands of pregnant women, and poor economic status. In 2001, for example in Mnolela village, there was a case of maternal mortality with an identified cause. The woman’s mother asked her to give birth at home without knowing her heart disease, and when there was complication her mother did not know what to do. When the family brought the woman to the dispensary, she was too weak to be saved (a case in Mnolela dispensary Lindi rural district).
Late arrival at health facilities on addition to the Conditions at health facilities is another factor to consider in maternal mortality. Delay in reaching health facilities can be due to several reasons, including distance, lack of first aid equipment and means of emergency transportation local traditions of self-care at home, and not going to health clinics for regular check-ups. Poor people are more likely to seek abortion at private health clinics, which tend to be poorly-equipped both in terms of medical equipment and the professional skills of staff. When complications of abortion occur, which happens more often in private clinics, the women are then referred to the Government health system, but by this time it may already be too late which some times leads to the death of both the mother and baby. In addition, the greatest difficulties facing many health clinics at present are the shortage of professional health workers, lack of medical equipment and medicines, and lack of specialty information to support treatment activities. These problems have a great impact on maternal and child health care activities, and are indirect causes of maternal mortality.

**Economic status**

Economic conditions have a great impact on health care in general and mothers in particular. Pregnant women need suitable working and nutritional conditions but many women, particularly in rural and mountainous areas, still work up to the time of delivery, transferring to lighter work if they are unable to continue their normal work. Nobody takes maternal leave. According to health workers in Mnolela dispensary:
Level of education

Level of education has a major impact on the lives of women. As society develops in developing countries Tanzania inclusive, the level of education is improving. However, the ratio of illiterate and well-educated women is still very low in comparison with men, particularly in rural and remote areas. Low education levels are associated with women having inappropriate perceptions of self-care. Health workers in many rural dispensaries all over Tanzania believe that pregnant women have limited knowledge of prenatal reproductive health care which in turn limits them from attending prenatal reproductive health care and thus increasing cases of maternal mortality.

Gender

Considerable progress on gender equality has been made in Tanzania in recent years by many stakeholders including the government through the ministry of Community Development, Gender and Children and Tanzania Media Women Association (TAMWA). Nevertheless, gender discrimination still exists in rural areas in relation to jobs, incomes, household work and child care. Every family wishes to have a son to continue the line, which can have a great impact on decisions about giving birth. Gender discrimination issues are often found in rural areas where life is based around agriculture and work and circumstances are hard. Some families treat sons very differently from daughters, taking greater care of the sons and their education. There are cases where the wife was rejected because she could not give birth to a son. A range of cultural factors and traditions affect the reproductive health care of women. In some rural areas it is traditional for a woman to have a diet of only vegetables and eggs after delivery. This can
lead to asthenia and increased susceptibility to disease, and their health can be badly affected. Some ethnic minority women do not let anyone in their family know of their pregnancy. (Campbell OM, Graham WJ 2006)

2.2 Barriers to the Use of Antenatal Care (ANC) Services in Communities.

There is a broad consensus on the value of ensuring that all women receive antenatal care from a professional health worker (such as midwife, nurse, or doctor) with midwifery skills during pregnancy and at the time of delivery, and experts from around the world have identified skilled attendance at delivery as a key intervention and key indicator in safe motherhood programmes. In mountainous and remote areas, the role of the traditional birth attendant in the process of pregnancy, delivery assistance and postnatal care needs to be considered since there are multiple factors as will be explored below that hinder women from accessing hospital antenatal care services among them is, (Harrison KA, 1985)

Poor communication between providers and clients:
There is poor communication between providers and their clients, as shown by the client’s lack of appropriate and sufficient understanding of the ANC services they receive. Many women do not know the purpose of the medications they are given when they attend ANC clinics, although this information is often written on the woman’s clinic card. Most recognize the white pills for preventing pregnant women from malaria as “SP,” (Sulfadoxine Permethine) though some think it was Panadol. Some claim they
were never told by the doctor/nurse while some claim they were afraid to ask. Bitter-tasting pills were commonly believed to cause miscarriage or abortion and elder women advise women not to take these pills for the sake of their pregnancy. While most think that one injection they are given (tetanus toxoid) protects fetuses from getting 'pepopunda' (tetanus) after birth, there are some women who don’t know the purpose of the immunizations, believing that they protect women from other diseases as well, including polio, measles, and TB. Some believe pills given to prevent or treat anemia (presumably iron-folate) are to “reduce tiredness,” which has some truth in it but is not entirely correct this among others hinders women from accessing antenatal care services.

Attitude of health workers to clients

This is yet another barrier to attending antenatal care services. Poor communication is linked to the attitude of health care workers to clients. Women in all study areas complained of verbal abuse at ANC clinics by nurses and doctors. They claim their intelligence is insulted; they may be refused care by doctors (who say “go find the nkungu (midwife) despite having arrived early and waited for 3-4 hours. The WHO (2007) in their report quoted one woman who reported that she was told she was late and denied services even though she arrived early. When the woman complained, the nurse responded, “you can’t fire me.” Some women reported being yelled at for missing an appointment they complained that they were yelled at if they lost weight between visits. Women in their fifth pregnancy and above were threatened, “If you don’t go to a major hospital, you will die, it is up to you.” Women complain they are “wasting their time” at
Atenatal Care while nurses avoid doing their work. "They spend their time unbraiding their own hair,"

Beliefs and Taboos

Cultural beliefs also hinder the use of Antenatal Care services. Women are discouraged to use ANC because of estimating the due date which is taboo: "you can’t predict the exact day because women believe it’s God’s plan" However, there are several potential explanations of the apparently increased risk of women and husbands who adhered to religions other than Christianity. Perhaps they all relate to culture, which again may be influenced by both religion, economy, ethnicity, and geographical location. In this society, people of all religions lived closely integrated, with intermarriage being common. If the husband had a traditional belief and the woman was a Christian, the husband would still probably be the decision-maker, making him the most influential as to health decisions. The hospital, health centre, and dispensaries in the study area are all part of the National Health plan and thus catered to all groups, regardless of belief. From my knowledge of the area, there is an extensive use of traditional medicine by all religious groups. Distance to a hospital may in itself be a risk factor, thus being a possible confounder to religion. When adjusting for ward, you can find that the risk persisted. In the wards with the highest risks, there are dispensaries and a health centre. These however do not offer comprehensive obstetric care. (MacLeod J, Rhode R 1998):

Availability of Antenatal Care services
In most health facilities in rural areas, Antenatal services are not available every day. Clinics are only open on certain days and sometimes nurses are not available, leading to overcrowding on the days when ANC services are offered. A great effort has been made to educate women about health matters through the antenatal clinics in many countries. In Lindi rural district of Tanzania, antenatal attendance is 60% at the time of the study, and lectures on health related matters are among the activities at the clinics. It is important that the women have separate settings where they can feel free to ask questions. However, there may be a case for educating males as well as women, in order to influence decisions related to health. Although many studies have measured the risk of maternal death in relation to formal school education, it's important for health workers to hold educational sessions on health-related issues, delivery- and complication-preparedness, since every pregnancy is potentially at risk of complications. Teaching by males for males is important at places where men gather, such as village meetings, and local clubs, in addition to an increased focus on making primary school education available to even more children, both females and males. (Alberti KG 2000):

**Traditional ANC services**

Several traditional practices were revealed that women use to protect and take care of pregnancies. Pregnancy is seen as an important and highly vulnerable time for both mother-to-be and developing fetus, so in the first few months, the pregnancy is usually revealed only to the husband or partner and possibly a few trusted relatives. Only when the pregnancy begins to show (around 5-6 months, perhaps after the greatest risk of pregnancy loss has passed) do neighbors realize a woman is pregnant. Women frequently wear a cord (*kamba*) made from a medicinal tree or other plant tied around their arm,
waist, or neck during pregnancy to make the pregnancy “take”. This is usually tied by an elderly member of the community (especially a woman’s own relative), her husband, or a traditional healer depending on the woman’s ethnic group, and taken off only after delivery. A string of white beads is often tied on women to indicate a first pregnancy. Women from some ethnic groups, particularly in the south, tie marijuana seeds around their wrist or upper arm with black rope to protect against nandenga (a kind of spirit that can cause pregnancy loss). All these practices aim to protect the pregnancy from perceived threats posed by pollution from extramarital sex, negative impacts of the jealousy of evil people, and the activity of malevolent spirits and animals that are attracted to pregnant women. These practices were reported more commonly in the south than in the north, which is in keeping with spirit cults and traditional animist beliefs being more important in this region, but it may also be due to the fact that data collection was not linked to the health system in the South.

Other practices include ‘Zinguo’, a traditional ceremony, including fruit, soda, and smoke, to appease or please spirits possessing the body. Ziguo is performed by traditional healers to protect the pregnancy or newborn baby against disease or destruction, particularly bad outcomes understood to be of spiritual origin, including degedege (fits) or paralysis. In Lindi rural district, Muslim women may consult a shehe (sheik) or a traditional healer to drink kombe, where Koranic verses are written on paper in red ink and then dissolved in water for the woman to drink, often on a weekly basis through her pregnancy.
Many women continue to do manual labour, including tasks such as fetching water and firewood, and pounding maize and cassava, until a few weeks before delivery, both from economic necessity and to avoid being viewed as lazy. However, there is widespread awareness that heavy labour during pregnancy poses a risk to the pregnancy.

2.3 strategies used in the prevention maternal mortalities

The global Safe Motherhood Initiative was launched in 1987 to improve maternal health and to reduce the number of maternal deaths by half by the year 2000. It is led by a unique alliance of cosponsoring agencies who work together to raise awareness, set priorities, stimulate research, mobilise resources, provide technical assistance and share information. Their cooperation and commitment have helped governments and nongovernmental partners from more than 100 countries take action to make motherhood safer. (Campbell O, Ronsmans C, 1995)

During the Safe Motherhood Initiative’s first decade, the partners developed model programmes, tested new technologies and conducted research in a wide range of countries and settings. These safe motherhood strategies and activities were reviewed at the Technical Consultation in 1997 (Sri Lanka), and the global partners that attended agreed on ten essential actions to improve maternal health over the next ten years. In addition, international commitments to safe motherhood have been made as part of seven global conferences and conventions held over the last decade, particularly the International Conference on Population and Development (ICPD Cairo 1994) and the Fourth World Conference on Women (FWCW Beijing 1995). Essential services to
achieve safe motherhood have been identified, and these should be readily available through a network of linked community health care providers, clinics and hospitals. The integrated services that policy-makers from around the world have pledged to provide include:

Community education on safe motherhood; antenatal care and counseling, including the promotion of maternal nutrition; skilled assistance during childbirth; care for obstetric complications, including emergencies; postpartum care; safe abortion, including management of abortion complications and post-abortion care; family planning counseling, information and services; and reproductive health education and services for adolescents. (Blystad A, 2000)

For developing or less developed countries such as Tanzania, reducing maternal mortality still presents many challenges. Long-term and sustainable strategies to reduce MMR include: providing continuous training for health workers to improve professional skills and treatment techniques in complicated cases; strengthening postpartum care services; setting up standards on maternal care; and providing health communication and education for women of reproductive age to encourage families to plan for delivery and care of the newborn. (Greenwood AM et al, 1987)

There is a broad consensus on the value of ensuring that all women receive care from a professional health worker (such as midwife, nurse, or doctor) with midwifery skills at the time of delivery, and experts from around the world have identified skilled attendance
at delivery as a key intervention and key indicator in safe motherhood programmes. In
mountainous and remote areas, the role of the traditional birth attendant in delivery
assistance and postnatal care needs to be considered. Traditional birth attendants have the
advantage of being close to women from the same community, both culturally and
geographically, and prices for services are reasonable and the payment method and
schedule is flexible. (Harrison KA, 1985)
CHAPTER THREE
METHODOLOGY

3.0 Introduction
This section highlights the overall plan for executing the study. It gives light to the research design, study population, data collection methods, sampling techniques, data presentation and analysis, and the limitations of the study.

3.1 Research design
The study used both qualitative and quantitative methods of data collection, analysis and presentation. In it a number of issues the study looked at them descriptively and analytically. This enabled the researcher to collect as much information as possible in reference to research questions and objectives of study. Given the duration of the study, the researcher felt that there was a deeper penetration of the problem if a case study was used.

3.2 Study Area and population
The study was carried out in Lindi rural district. This is because Lindi rural district is densely populated and so the area is very vulnerable to maternal mortality problem. This gave the study a broad coverage and made it representative enough. A total of 100 respondents was selected among which 16 respondents were Community Respected Persons (CORPs), 14 respondents were Professional Health care Providers and Traditional Birth attendants (TBAs), and 70 respondents were Pregnant mothers and mothers with children less than five years
3.3. Sampling design

Multiple sampling techniques were employed to ensure the validity and reliability of the research findings. Simple random sampling was employed to the mothers however; care was taken to ensure that there was a fair representation between the young and older mothers. Simple random sampling technique was also applied during the selection of the respondents from within the members of the general community were the mothers come from. Purposive sampling was used to the hospital medical staff and the staff in the district medical office because, this category of respondents was deemed to have information and are aware of the level of maternal knowledge about health in pregnancy and early childhood in the given areas of jurisdiction.

3.4 Data Collection Techniques

This study used both primary and secondary data. Primary data was collected using interview guides, which were carried out with the Health workers at health facilities and dispensaries, traditional birth attendants (TBAs) for the community level. Also focus group discussion using focus group discussion guides were held with pregnant mothers and women with children less that five years who came to visit the health centers and dispensaries where the study was carried out Secondary data was through Document analysis in forms of Reports, training manual, news papers, and journals for the period under study were read and the required data collected from them.
3.4.1 Instruments

**Group Discussion guide**

These were used to collect information from women and who were at the MCH clinic seek medical care and also used to collect information from community respected persons (CORPs) from the village offices.

**Interviews guides**

Interviews were held with Health workers at dispensaries and health facilities. The researcher held interviews also with traditional birth attendants (TBAs) from the community level.

**Observation**

This was done to get a better understanding of the problem under study.

3.5 Data processing and analysis

Qualitative data involved three sets of activities which include editing, coding and frequency tabulations. Editing was done by looking through each of the field responses from interview guides and focus group discussions ascertaining that every applicable question has an answer and all errors eliminated for the completeness, accuracy and uniformity. The researcher then proceeded on to coding the various responses given to particular questions that lack coding frames, he then established how many times each alternative response category was given an answer using tally marks which was later added up. Data was then presented in frequency tabulations rendering it ready for interpretation. Quotations and field notes made were also included.
3.6 Limitations of the Study

The researcher encountered the following problems:

The bureaucracy within some organizations since the study at certain point required to review of organizational documents. To minimize this problem, the researcher asked for permission from the authority of the organizations and also explains to the relevant officers the purpose of the research.

Since staffs from dispensaries and health facilities, with busy schedules were part of the respondents, the research did not get as much time from them as anticipated. This challenge was solved by seeking appointments with them at their convenient places and time.

3.7 Ethical Issues in the Study

Since the researcher attaches great significance to the uprightness of the study, ethical issues were rated highly from data collection, analysis, reporting and presentation of the research findings. Great attention was given to the different categories of the respondents to ensure that none was offended both during and after the entire process of study. To fellow researchers and academicians, the researcher took all measures to ensure that there are no intentions of "academic theft" in the process of study. Most importantly, the researcher also ensured that, to the best of her ability, she complied with the requirements of an objective academic study, while observing the guidelines stipulated by Kampala International University, the awarding Institution.
CHAPTER FOUR
PRESENTATION, INTERPRETATION AND DISCUSSION OF THE FINDINGS

4.0 Introduction

This chapter presents a discussion on findings received from respondents selected during the study. It introduces the results and interpretation of the study findings from both primary and secondary data. The results are presented and interpreted through the graphs, tables, and discussion as regards maternal knowledge about health in pregnancy and early childhood in rural Tanzania.

4.1 A Table Showing Causes of Maternal Mortality In Lindi District.

![Bar Chart]

Source; Primary Data
During the study 40% of the respondents reported that direct obstetric complications for example, haemorrhage, infection, preeclampsia / eclampsia, obstructed labour, unsafe abortion, ectopic pregnancy, embolism, and anaesthesia was a big factor in maternal deaths. Pregnancy complications and circulation diseases among the so many medical causes have proved a big factor as far as maternal mortality is concerned. Lindi being a rural District lacks the necessary health facilities on top of Lack of skilled personnel, yet complications may need surgery, most often a Caesarean section and many do not have access to emergency obstetric care. This unmet need results into millions of pregnant women losing their lives or living with a painful disability.

In Lindi rural district the population is characterized with low and middle income households however, the persistence of high levels of maternal mortality as a result of direct obstetric complications is symptomatic of a pervasive neglect of women's most fundamental human rights. Such neglect affects most acutely the poor, the disadvantaged, and the powerless. For more than half a million women a year, death is the last episode in a long story of pain and suffering; millions more women are left damaged and disabled by childbirth - many of them for the rest of their lives. The suffering often goes beyond the purely physical and affects women's ability to undertake their social and economic responsibilities and to share in the development of their communities. High levels of maternal mortality are not only a "woman's problem". Poor maternal health and its inevitable corollary - poor infant and child health - affect everyone.

During the study 35% of the respondents reported that the main cause of maternal mortality was indirect obstetric diseases resulting from previous existing disease or
diseases that developed during pregnancy and which was not due to direct obstetric causes, but was aggravated by the physiological effects of pregnancy for example, hepatitis, anemia, malaria, heart disease, tuberculosis, AIDS and tetanus was a major cause of maternal deaths. This could be as a result of the lack of proper health facilities and personnel to detect diseases and complications earlier adding to the problem of poor infrastructure which has greatly hindered pregnant women from accessing health centers easily leading to a high proportion of mortalities among the study group occurring at home, or mortality deaths occurring on the way to a higher-level health facility following referral.

While 25% of the respondents reported that other factors including little knowledge about the danger signs of the pregnant mothers, the attitude of staffs in health facilities, long distance to the facilities, believes and taboos among others proved a very big factor which made many pregnant mothers to opt delivering at home where they face lots of complications and they die hence increasing on the levels of maternal mortality.
During the study 30% of the respondents reported that poor communication between providers who are the medical personnel including nurses, midwives, doctors and pregnant women was a big factor in hindering pregnant women from accessing antenatal care services since they lack appropriate and sufficient understanding of the ANC services they receive. Many women reported that they do not know the purpose of the medications they are given when they attend ANC clinics, while others were of the view that the white pills for preventing pregnant women from malaria as “SP,” (Sulfadoxine Perithemine) was Panadol. Some claim they were never told by the doctor/nurse while some claim they were afraid to ask. Bitter-tasting pills were commonly believed to cause miscarriage or abortion and elder women advise women not to take these pills for the sake of their pregnancy which is a barrier as far as antenatal care services are concerned
While 10% of the respondents that their Cultural beliefs also barred them from accessing Antenatal Care services. Women are discouraged to use ANC because of estimating the due date which is taboo: one respondent reported that "you can’t predict the exact day because women believe it’s God’s plan" and yet 40% of the respondents opted for traditional antenatal care since they believed that the sprits are taking care of them. Pregnant Women reported that they frequently wear a cord (kamba) made from a medicinal tree or other plant tied around their arm, waist, or neck during pregnancy to make the pregnancy “take”. Women from some ethnic groups, particularly in the south, tie marijuana seeds around their wrist or upper arm with black rope to protect against nandenga (a kind of spirit that can cause pregnancy loss). All these practices aim to protect the pregnancy from perceived threats posed by pollution from extramarital sex, negative impacts of the jealousy of evil people, and the activity of malevolent spirits and animals that are attracted to pregnant women on addition to being cheap and nearer to the community. This attitude has escalated cases of maternal motality since during delivery some women get complication that emergency medical attention which the traditional healer lacks thus causing death.

While 20% of the respondents when asked to respond on the barriers of accessing antenatal care services reported that Antenatal services are not available every day. Clinics are only open on certain days and sometimes nurses are not available, leading to overcrowding on the days when ANC services are offered. This is a big factor in the sense that women have to walk for long distances to health centers to get antenatal services yet when they get their they end up waiting for long hours to get the services and
yet some instances they don’t get the services since the lines ore to long or the medical personnel are absent thus they opt to staying at home.

4.3 Figure Showing the strategies used in the prevention of maternal mortalities in Lindi District Tanzania

Source: Primary Data

The graph above shows respondents views on the strategies used in the prevention of maternal mortality and the research found out that when respondents were asked to comment on the above issue 10% Of the respondents were of the view that raising awareness which involves, setting priorities, stimulate research, mobilize resources, provide technical assistance and sharing information is very key in the prevention of maternal mortality. This is so in the sense that is believed that rural women do not know were and when to seek medical health considering that the majority still use the traditional healers during pregnancy and delivery which has led to the loss of many lives while 20% of the respondents reported that Community education that includes the
promotion of maternal nutrition; skilled assistance during childbirth; care for obstetric complications, including emergencies; postpartum care; safe abortion, including management of abortion complications and post-abortion care; family planning counseling, information and services; and reproductive health education and services for adults and adolescents mothers is the main factor in the prevention of maternal deaths.

While 20% of the respondents who mainly comprised of the health workers reported that providing continuous training for health workers to improve professional skills and treatment techniques in complicated cases; strengthening postpartum care services; setting up standards on maternal care; and providing health communication and education for women of reproductive age to encourage families to plan for delivery and care of the newborn so that women receive care from a professional health worker (such as midwife, nurse, or doctor) with midwifery skills at the time of delivery, and experts from around the world have identified skilled attendance at delivery is a major step in the prevention of maternal mortality.

Still during the study the majority 45% of the respondents reported that improving health facilities was a major factor in the prevention of maternal mortality in the since that health facilities in Lindi District are too poor, few and very far from the poor communities thus bringing these services closer to the communities will mean that many pregnant women will be able to access antenatal care services without walking for long distances or even lining up for long hours before being attended to. This will dramatically reduce the cases of maternal deaths in the area
Preconception Counseling was revealed by 5% of the respondents as an important factor in the prevention of maternal mortality and the role of the physicians, regardless of his or her specialty, should be to view every woman of reproductive age as a potential pregnancy. Opportunities for identifying at-risk women and providing the appropriate interventions exist in many medical settings. Ideally, the social, financial, and medical problems that can adversely affect a pregnant woman's health should be addressed prior to pregnancy. The preconception period was reported to be also the best time to deal with emotional issues surrounding past poor outcomes or difficult pregnancies. Evaluation for anxiety disorders, depression, and unresolved grief or anger is vital, and referrals to social services or psychiatry should be made as necessary so as to reduce the cases of maternal deaths.
CHAPTER FIVE

SUMMARY OF THE MAJOR FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.0 Introduction

This chapter is concerned with issues that have to be addressed in order to reduce maternal and childhood mortality. It is also concerned with what different bodies should do to help solve the problem. Also the conclusions from the study and the recommendations made are presented.

5.1 Summary

To a great extent the findings were in line with the study hypothesis and objectives of the study. This research was conducted to describe maternal knowledge about health in pregnancy and early childhood in rural Tanzania. During the study 40% of the respondents reported that direct obstetric complications was the biggest cause of maternal mortality. 35% of the respondents reported that the main cause of maternal mortality was indirect obstetric diseases resulting from previous existing disease or diseases that developed during pregnancy. While 25% of the respondents reported that other factors were the leading cause in the increase of the levels of maternal mortality.

When respondents were asked to give their views on the barriers to accessing antenatal care services 30% of the respondents reported that poor communication between providers who are the medical personnel including nurses, midwives, doctors and pregnant women was a big factor in hindering pregnant women from accessing antenatal
care services. While 10% of the respondents reported that their Cultural beliefs also barred them from accessing Antenatal Care services yet 40% of the respondents opted for traditional antenatal care since they believed that the spirits are taking care of them. While 20% of the respondents reported that Antenatal services are not available every day.

When respondents were asked about their views on the strategies used in the prevention of maternal mortality and the research found out that when respondents were asked to comment on the above issue 10% of the respondents were of the view that raising awareness is the main factor in the prevention of maternal deaths. While 20% of the respondents who mainly comprised of the health workers reported that providing continuous training for health workers to improve professional skills and treatment techniques in complicated cases; strengthening postpartum care services; setting up standards on maternal care; and providing health communication and education for women of reproductive age is a major step in the prevention of maternal mortality. Still during the study the majority 45% of the respondents reported that improving health facilities was a major factor in the prevention of maternal mortality Preconception Counseling was revealed by 5% of the respondents as an important factor in the prevention of maternal mortality

5.2 Conclusions

Maternal mortality remains an important indicator of the status of health care in developing countries like Tanzania. Many different factors interact in complex ways to increase a pregnant women’s risk for death. The focus must be on education, awareness
preconceptional care and counseling among others, rather than on attempting to minimize risk after the fact. Encouraging planned pregnancies and addressing racial and cultural disparities in medical and prenatal care are indispensable components in the care of pregnant women.

A delay in the decision to seek health care due to a lack of knowledge about pregnancy and childbirth, and a delay in reaching a health facility, accounted for the biggest percentage of reason. Other reasons were distance from health facilities, lack of means of transportation, and local people’s habits and customs in choosing to take care of the woman at home instead of going to a health care provider while Poor economic conditions also have an impact on maternal deaths. In addition, lack of information and insufficient information were a factor in some localities, particularly in remote and areas among other reasons. Apart from the above causes, cultural, traditional, family and other economic factors also hinder the access of women to reproductive health care services.

In conclusion, this maternal mortality study has shown that the pattern of maternal deaths in Tanzania is similar to that found in other developing countries. It has also highlighted the constraints of the official health information management system in accurately reporting and recording maternal deaths and obstetric complications. The results of this study provide a baseline national maternal mortality ratio against which to measure future progress.
5.3.0 Recommendations

5.3.1 Community mobilization: Strengthen information, education and communication for all women aged 9 to 49 years and their families to help them recognize the danger signs of complications during pregnancy, childbirth, and postpartum, and encourage them to attend an antenatal check-up at a health facility at least three times during pregnancy. Encourage women to give birth at a health facility or to have a health worker attend the delivery. Promote information, education and communication for women about safe motherhood and newborn care. The government and other stakeholders should also promote and encourage education for reproductive health care and family planning methods to girls from primary schools and at the community levels.

5.3.2 Political commitment: Promote the care of women before, during and after birth within their communities. Stimulate the necessary commitment from local authorities, non-governmental organizations and the health system to implement a safe motherhood programme to improve women’s reproductive health and the health of their babies. The programme should be based on local people’s needs and implementation should be with the active participation of the community.

5.3.3 Quality of maternity care services: Improve the counseling skills of maternity service providers, especially for first level staff. Strengthen the obstetric and midwifery skills and knowledge of staff at district and commune levels. Provide training in obstetric first aid, normal delivery, and timely referral for village health workers and Traditional Birth Attendants. Ensure all health facilities providing midwifery and obstetric services
have an adequate supply of essential equipment, medicines, and emergency surgical capacity. Promote timely referral of obstetric complications. Establish an obstetric best practice committee to review the evidence periodically.
REFERENCES


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APPENDIX A

GROUP DISCUSSION GUIDE; with pregnant women, women with young children and Community respected persons.

1. In maternal mortality cases, which factors, besides medical causes, cause maternal deaths?

2. Identify how the following factors affect the specific maternal death cases:
   - Late in making decision and accessing health care facilities
   - Relation between education, religion, and maternal mortality cases
   - Relation between household economy and women deaths and maternal deaths
   - Gender issues related to the maternal deaths
   - Difficulties in health facilities. Barriers to accessing reproductive health care services:
     - family factors/
     - Cultures and economic status of the community members
     - Information and sources of information on family planning and reproductive heath care

3. Interventions from health care facilities:
   - Availability of professional health care providers?
   - Availability of medical equipment/medicines to provide in time of emergency care?
   - Provision of information on health facilities?
4. Family’s subjective opinions about factors related to the maternal death:
   - Was it due to the lack of knowing dangerous signs?
   - Due to financial difficulty?
   - Due to family’s restrictions?
   - Refuse treatment or social reasons
   - Living far away from health facilities/difficult geographical location/transportation?
   - Lack of transportation means/ambulance to get in-time care?

5. Current status of the dead woman’s child?

6. To avoid such a regrettable consequence, what should the family and the pregnant women do?

7. To avoid such a regrettable consequence, what should health facilities do?

8. What can local authorities do to reduce difficulties for women at the health facilities?
APPENDIX B

IN-DEPTH INTERVIEW GUIDE WITH HEALTH CARE PROVIDERS

1 General situation of pregnancy care in the areas

2 Factors related to local women’s reproductive health care behaviours.

3 Causes of maternal deaths in the areas (medical causes: direct and indirect)
   Factors affecting maternal health:
   • Women themselves (ignorance)
   • Family decisions
   • Accessibility to health facilities
   • Transportation means
   • Professional level
   • Medicines
   • Hygiene
   • Health care provider’s attitudes...

4 What should health facilities do to prevent maternal mortality in the future?
   • Sufficient information provided at dispensaries/health facilities and health services which are available for all women
• Health education and communication to change incorrect health care behaviors
• Reducing home deliveries
• Reducing abortions
• Strengthening health care providers’ capacity

5 Role of traditional birth attendants
• Refresh training for grassroots health care providers
• Making reproductive health care services available: especially immunization and vaccines.
• Providing sufficient medical equipment and medicines for emergency care in health facilities
• Improve the quality of health service
• Ensure emergency transportation means/ambulance

6 What do local authorities and social mass organizations do?
• Participate in communication activities (i.e. community meetings, dialogues and other sensitization programmes)
• Support health facilities’ proposals
• Mobilize society’s participation in reproductive health care activities
APPENDIX C

LINDI
Liwale
Nachingwea

![Map of Lindi Region]

Legend:
- International Boundary
- Province Boundary
- National Capital
- Province Capital
- Other Cities
FACULTY OF SOCIAL SCIENCES

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

To .................................................................. ..

This is to introduce to you DONAT D. SHAMBA who is a bonafide student of Kampala International University. He/she is working on a research project for a dissertation, which is a partial requirement for the award of a degree. I here by request you, in the name of the University, to accord him/her all the necessary assistance he/she may require for this work.

I have the pleasure of thanking you in advance for your cooperation!

Yours sincerely,

Ms. Sidonia Angomi
Associate Dean

"Exploring the Heights"