

**UTILISATION OF MATERNITY CARE SERVICES OFFERED BY
TRAINED TRADITIONAL BIRTH ATTENDANTS IN
CHONGWE DISTRICT**

BY

262318

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**A dissertation submitted to the University of Zambia in partial
fulfilment of the requirements of the degree of Master of Public
Health (MPH)**

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December, 2002

STATEMENT

I hereby certify that this study is entirely the result of my own independent investigation. The various sources to which I am indebted are clearly indicated in the text and in the references.

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This dissertation is the original work of Alice Ngoma Hazemba. It has been prepared in accordance with the guidelines for MPH dissertations of the University of Zambia. It has not been submitted elsewhere for a degree at this or another university.

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Date:..... 9 June 2003

In remembrance of my late sister Margaret Ngoma Pula

DEDICATION

In remembrance of my late sister Margaret Ngoma Phiri.

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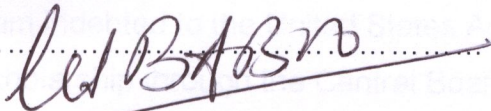
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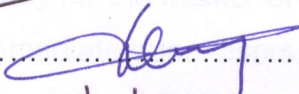
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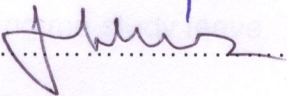
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ABSTRACT

It has been estimated that 53% of women in Zambia deliver outside the modern health care facilities. These deliveries were attended by either friends/neighbours, relatives and traditional birth attendants (TBAs), some of whom were trained. The training was intended to equip them with basic skills in providing clean and safe deliveries and subsequently contribute to a reduction in maternal mortality rate of 649/100,000 live births (ZDHS, 1996). However, the trained traditional birth attendants (TTBAs) were under-utilised. They attended only 5% of deliveries.

Objectives

- Determine the services offered by TTBAs
- Establish the level of utilisation of maternity care services offered by TTBAs
- Determine the factors associated with utilisation of maternity care services offered by TBAs
- Make recommendations for effective utilisation of TTBAs

Study Design

A cross sectional study was carried out.

Study Site

Chongwe District

Subjects and Sampling

A total of 140 practicing TBAs, both trained and untrained were included in the study in order to determine factors associated with utilisation of TTBAs. There were 44 TTBAs and 96 UTTBAs. In addition 250 mothers who were the recipients of the maternity care services offered by TBAs were interviewed.

About 13 mothers in the reproductive age range of 15-49 years, having delivered 6 months prior to the date of data collection from each of the health centres were interviewed.

Main outcome measure

Utilisation of maternity care services offered by trained traditional birth attendants.

Results

The study revealed that utilisation of the services offered by TTBAAs was at 17.6% based on their availability and accessibility.

Regarding the services offered, respondents who offered deliveries only were 77.0% less likely to be TTBAAs compared to respondents who offered antenatal care (ANC), deliveries and postnatal care (PNC). As regards deliveries conducted, compared to respondents who conducted more than ten deliveries, respondents who conducted between 5 and 9 were 82% less likely to be TTBAAs.

Further, women interviewed indicated that long distance (36.0%) and lack of trained staff to attend to obstetrical emergencies (45.6%) were some of the problems that made it difficult for them to access the services of skilled attendants. Among the mothers interviewed 23.2% accessed the services of TTBAAs and of those 75.9% utilised them because they were affordable (53.6%).

In the event of complications occurring it was revealed that respondents who encountered post partum haemorrhage and infections were 2.25 times more likely to be attended by TTBAAs. On further management 70%

of TTBAAs referred their clients to the health centres compared to 50% of UTTBAAs who used unconventional methods such as herbs and bathing the women in cold water.

The study further revealed that TTBAAs maintained contact with health centre staff. Half of the TTBAAs were visited by health centre staff while, 75.0% also indicated that they visited the health centres. In addition 70.5% received supplies to use when conducting deliveries, 59.1% had delivery kits and nearly 50% recommended that they should have been receiving supplies on regular basis. However, only 43.2% received remunerations, but they still felt that the community appreciated their services because they were affordable (45.5%) and the demand was high (40.9%).

In conclusion, TTBAAs were less utilised and their impact could not have been felt because they were less in number compared to the UTTBAAs. Training of TBAs should therefore, be part of a broader strategy because skilled attendants alone cannot effectively reduce maternal mortality. However, this should be supported by a functioning referral system, backup professional support, improved supervision and supplies as well as well arranged remunerations.

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ABBREVIATIONS

AAAAR –	Acceptable, Affordable, Accessible, Available and Reliable
ANC –	Antenatal Care
CSO _	Central Statistical Office
CHAZ-	Churches Health Association Of Zambia
CMAZ –	Churches Medical Association of Zambia
DHMT –	District Health Management Team
EOC –	Essential Obstetric Care
IMC –	International Medical Corps
MCA –	Maternity Care Services
NGO –	Non Governmental Organisation
PPAZ –	Planned Parenthood Association of Zambia
RESCUER –	Rural extended services and care for ultimate emergency relief
RPOC –	Retained Products of Conception
TBA -	Tradition Birth Attendant
TTBAs –	Trained Traditional Birth Attendants
UNICEF –	United Nations Children’s Fund
UTTBA –	Untrained Traditional Birth Attendants
WHO –	World Health Organisation
WVI –	World Vision International
ZDHS–	Zambia Demographic Health Survey

CHAPTER 1

INTRODUCTION

1.1 Background information

The vision of the Zambian government has been “to provide Zambians with equity of access to cost effective quality health care as close to the family as possible”(UNICEF, 1994). The National Reproductive Health policy adopted the views of the national health reform vision to develop a health care system that provides Zambians with equity of access to quality health care, at a minimal cost as close to the family as possible. The most crucial interventions for safe motherhood are to ensure skilled attendant at every delivery especially in the rural areas where, skilled attendants are neither available nor accessible. The government therefore, adopted the training of traditional birth attendants (TBAs) in order to provide maternity care services especially safe and clean deliveries as close to the family as possible. The training program was initiated in 1973 and the goal was to reduce maternal mortality rate, which is 649/100,000 live births (CSO, 1996).

The training program was supported by the United Nations Children’s Fund (UNICEF) and Non-governmental organisations (NGOs) such as Planned Parenthood Association of Zambia (PPAZ), Young Women Christian Association of Zambia (YWCA), Churches Medical Association of Zambia (CMAZ) now called Churches Health Association Of Zambia (CHAZ) and World Vision International (WVI). Apart from supporting training, these organisations provided TBAs with equipment such as delivery kits and bicycles to enable them function effectively in the community.

Approximately 3,000 TBAs were trained in the country by 1998 as reported by Maimbolwa (1998), however, the TBAs were not well distributed in the country. In Chongwe District which is situated 46 km

East of Lusaka and has a population of 145,000 people, 31,900 of whom are women in reproductive age range of 15-49 years, had 63 trained TBAs offering the services actively. In addition, 175 untrained TBAs were offering the services in the District. These TBAs were supported by 30 midwives spread out in 19 delivery sites out of the 24 rural health centres in the District. The highest referral facility in the District is Chongwe Rural Health centre, however, the centre does not offer essential obstetric care (EOC), because there is no operating theatre or Obstetrician to attend to obstetric emergencies. Mothers referred from health centres have to proceed to University Teaching Hospital in Lusaka. The journey that women with complications have to take is a risk in itself. Therefore, TBAs who were no real permanent substitute for skilled attendants were an interim measure for as long as the problem existed. They could play a role of quickening the identification of the complications and hasten the decision to seek care and refer to a higher level for specialised care.

1.2 Statement of the problem

It is estimated that about 53% of deliveries in Zambia occur outside modern health care facilities (CSO, 1996). The majority of these deliveries were attended to by relatives (41%), while trained traditional birth attendants (TTBAs) attended 5% and 7% delivered on their own. The figures show that TTBAs were under-utilised in the country.

The high proportion of women delivering at home is a source of concern because the relatives have not received any training in conducting clean and safe deliveries. It is a well-known fact that home deliveries are at higher risk of having a poor outcome for the mother and the child as shown by the rise in maternal mortality rate which is estimated at 649/100,000 live births (CSO, 1996).

In the event of complications, however, high maternal mortality rates can result unless women have access to essential obstetric care (EOC). Essential Obstetric Care can only be accessed from well-equipped health institutions and where Obstetricians are available, but the women in the rural areas do not access these.

The Traditional Birth Attendants (TBAs) have been a mainstay of the rural communities world wide especially the developing countries of Asia and Africa which account for 40% and 60% deliveries respectively (WHO, 1996).

In order to improve their skills in conducting clean and safe deliveries, many developing countries embarked on training of TBAs. In Zambia TTBAs are not adequately spread out across the country. Their training mainly focuses on Antenatal care (ANC), Labour and delivery, Care of the new born, Post natal care (PNC), care of the child and family planning. Emphasis on identification of obstetric complications and familiarisation to

the referral system are critical for effective TBA performance in the rural areas. Without a backup referral system the efforts of TBAs cannot be appreciated, neither can their impact be felt.

In order to address safe motherhood effectively certain areas need to be addressed. The needs of different communities need to be identified to guide the trainers of TBAs on how training needs are to be arranged. Training should be adapted to the specific needs of each area. Support in terms of equipment and supplies as well as supervision are a motivating factor. Familiarisation to the referral system and alert midwives to attend to complications referred by TBAs is always a must.

It is therefore, important to assess the training needs of TBAs in order to improve their knowledge and skills in identifying obstetric complications, management of pregnancy and conduct clean and safe deliveries. The quality of support from health centre staff and community as well as supervision should be properly arranged so that the trained traditional birth attendants (TTBAs) remain motivated to work. It is expected that the services they offer will be utilised by the women in the communities they serve. Therefore, the current study intended to determine the utilisation of maternity care services offered by TTBAs in Chongwe. The results of the study were used to recommend appropriate interventions to improve utilisation of maternity care services offered by TTBAs.

1.3 **Justification**

Safe motherhood includes the provision of essential obstetric care, ensuring that complications of pregnancy and labour are detected as early as possible and treated appropriately. It also ensures that all women experience a clean and safe delivery including postnatal care as this reduces the number of proportions of pregnancies that are high risk (WHO, 1996).

In the rural areas services of skilled attendants are not accessible. Therefore, training of TBAs was intended to provide clean and safe delivery services for women in the rural communities. Despite the availability of TBAs in the communities, maternal mortality is still very high. The study intends to determine the utilisation of trained TBAs by the communities in order for them to contribute to safe motherhood. Lessons learnt from the study will be used to recommend appropriate interventions to improve utilisation of maternity care services offered by TTBAAs. Ultimately the effective implementation of interventions and strategies will improve the lives of women in Chongwe District.

1.4. Objectives

1.4.1 General objective

To determine the utilisation of maternity care services offered by the trained traditional birth attendants.

1.4.2 Specific objectives

1. To determine the services offered by the TTBAAs
2. To establish the level of utilisation of the services offered by TTBAAs
3. To determine factors associated with the utilisation of the services offered by TTBAAs.
5. To make recommendations for effective utilisation of TTBAAs.

1.5 Statement of hypothesis

1. Trained traditional birth attendants are under-utilised.

1.6 Definition of terms

1. Traditional Birth Attendant (TBA)

A person, who assists a mother during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship to other TBAs, the untrained TBA falls in this category.

2. Trained Traditional Birth Attendant (TTBA)

A trained TBA is one who has received a short course of training through the modern health care sector to upgrade her skills in conducting clean and safe deliveries.

3. **Safe Motherhood**

Creating circumstances within which a woman will be able to choose whether she will become pregnant, and if she does, ensuring she receives care for prevention and treatment of pregnancy complications, has access to trained birth assistance, has access to emergency obstetric care if she needs it and care after birth, so that she can avoid death or disability from complications of pregnancy and child birth.

4. **Maternal Mortality**

The death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the duration and size, from any cause related or aggravated by the pregnancy or its management but not from accidental or incidental causes.

5. **Maternal Mortality Rate**

This is the number of maternal deaths per 100,000 women of reproductive age.

6. **Essential Obstetric Care**

The ability to carry out surgery, provide intravenous infusions and blood transfusion.

7. **Maternity Care Services**

These are services provided to the community that respond to the common needs of the women in maternal health.

8. **Skilled Attendant**

These are trained midwives, nurses, nurse/midwives or doctors who have completed a set course of study and are registered or legally licensed to practice.

9. **Affordable**

The ability to pay for a service or medications.

10. **Accessible**

This refers both to geographical and financial. Facilities that can be reached easily by public transport and be paid for are said to be accessible.

CHAPTER 2

LITERATURE REIVIEW

2.1 Introduction

Women are crucial to social and economic development. It is believed that their health and well-being matters to themselves, to their families and to communities. However, reproductive health services are not accessible to the majority of women in the reproductive age leading to high levels of maternal deaths. Ninety nine percent (99%) of all maternal mortality is in the developing countries. With limited resources and shattered economies it may take a long time for these countries to provide skilled attendants and back up structure to reduce high maternal mortality (Asghar, 1999).

2.2 Safe motherhood

To most of us, the first cries of a newborn child are a happy and joyous occasion, a time to celebrate and look forward to the future. Yet in developing countries this is far from being a reality. Pregnancy and child birth are the leading causes of death among women of child bearing age, taking the lives of over 1,600 women every day around the world i.e. a death every minute (Irwin, 2000). Therefore, safe motherhood has been a concern of many governments worldwide. The World Health Organisation's (WHO) study of maternal deaths in 1996 estimated that 585,000 per 100,000 live births of women on average die annually from pregnancy related causes worldwide. The same study indicated that the United States reported 12 deaths per 100,000 births; Norway, Sweden and Switzerland having very low rates showing t`hat only 1% of total maternal deaths occurred in developed countries. These differences are attributed to the fact that the modern maternity care services are not fully utilised especially by the rural women in the developing countries. Complications of pregnancy and childbirth are the leading causes of disability and death

among women between 15-49 years old in developing countries (Alleyne, 1998).

Maternal mortality represents one of the starkest and most unacceptable gaps between developed and developing countries. The expressed concerns should therefore prompt researchers to further explore immediate and available options in reducing maternal mortality among women in various communities.

In Africa, reports indicate that overall, the risk of death during pregnancy or childbirth is even higher than the estimated 870/100,000 live births (WHO, 1996). Africa accounts for 40% of all deliveries, out of which one in seven women have a chance of dying from pregnancy related complications (Abou-Zahr et al, 1996). Zambia has not been spared from these problems. The maternal mortality rate is estimated at 649/100,000 live births (CSO, 1996). The most affected are women from the rural communities where essential obstetric care services are not accessible.

This shows that women in most developing countries require a lot of assistance to receive quality health services. Both historical and contemporary evidence show that women can be spared from suffering the risk of death if they are assisted during childbirth by a person with necessary skills to manage normal deliveries safely and deal with complications as they arise. However, childbirth does not necessarily have to take place in a health care setting but access to one must be possible with a minimum of delay when complications occur.

To overcome some of the problems, developing countries embarked on recognising the services of the traditional birth attendants, because, 53% of women deliver at home (WHO, 1996). The TBA training program that was initiated was aimed at equipping TBAs with basic skills to enable them conduct clean and safe deliveries, in order to reduce the high maternal mortality rate in the home settings. Currently in most developing countries, many women are assisted only by untrained TBAs who include

relatives, neighbours/friends and in some situations unassisted. However, trained TBAs are no substitute for skilled attendants, although circumstances have forced a liaison between the two as an interim measure recognising the need for referral to the trained professionals (Alleyne, 1998). Since the majority of women cannot access the services of skilled attendants results of research studies should be able to assist policy makers address this daunting problem based on evidence available.

2.3 Traditional birth attendants (TBAs) training program

For many years, safe motherhood experts assumed that TBAs, particularly trained attendants, could provide the necessary services to the communities they live in. Most developing countries took up the initiative to develop and expand the training program. For instance, in developing countries such as India, Guatemala, Sri Lanka and most African countries, women chose the services of TBAs because they were often the only option. In some cases, even where facilities and personnel were available, it was common for women to choose TBAs for their culturally appropriate and respectful care (Mbizvo et al, 1993).

The World Health Organisation report of 1990 indicated that, TBAs would probably continue to be a mainstay of maternity services in rural areas of Nigeria. Therefore, the Nigerian government saw it fit to invest in the training of TBAs because their services were equally important. It was realised that failure to recognise their role in safe motherhood would be to deny the rural communities their right to medical services. Traditional Birth Attendants will therefore, continue to play an important role in safe motherhood for many years to come in the developing countries, until such a time when modern health care services will be accessed by all women.

The Zambian government initiated the TBA training program in 1973, whose goal was to reduce the maternal mortality rate. The government continued training TBAs with the hope of bridging the gap until all

Zambian women and children have access to professional health care services. Maternal health, child survival, basic principles of clean and safe delivery care and referral of obstetric complications have been included in the training curriculum as well as the task description of TBAs. The principle objective of the program was to increase the number of births attended by trained health care providers while the ultimate goal of the program was to reduce maternal and child mortality. This training curriculum met the WHO standard guidelines. However, the trained TBAs should not be considered as the ultimate solution to maternal mortality and safe motherhood as a whole (Blinkhoff, 1997).

The Asian and African countries that took up the TBA training initiative program believed that the TBAs would be readily accepted for the following reasons: -

- They are acceptable in the communities
- Trainable
- Accessible to women
- When appropriately trained and supervised, they can assume extra roles in immunization, family planning education and distribution of contraceptives and referral of various conditions.

Considering the varying expectations of TTBAAs by governments, it is important to note that the majority had set unrealistic objectives because health care is a team responsibility and evaluation is supposed to be based on team contribution.

2.4 Impact of the TBA training program

The report from the 1998 safe motherhood conference notes that training of TBAs "is perhaps the most hotly debated issue within the safe motherhood initiative." As one specialist observed, studies have shown that TBAs cannot prevent or treat most life threatening obstetric complications, so it is a waste of resources to train them (Dayaratna et al, 2000). Such sentiments are made in relation to the persistent increase in maternal mortality rates in

many developing countries such as Sri Lanka (830/100,000 births) and Zambia (649/100,000 births) etc.

Other researchers though, have a different view because they believe that TBAs can “contribute” to making motherhood safer, given training on clean and safe delivery practices, proper management of labour, early recognition of obstetric complications and referral strategies.

In order for the TBA program to have a positive impact on safe motherhood, there are issues to be considered. For instance, it is important that time and effort be allocated to assessing the training needs of TBAs, their knowledge of the management of pregnancy and delivery, and the quality of the support and supervision they receive. The community is expected to recognise the important role the TBAs play in the community and that their services need to be rewarded. On the other hand, the health centre staff should be able to develop a good working relationship as well as ensuring that supplies and equipment are available for TBAs whenever needed. Most of the entire program should be tailored according to specific needs of a given community based on what TBAs already know.

There are countries, which have experienced a negative impact of TBA training program on safe motherhood. In Guatemala, one year after the initiation of the TBA training program the impact was not felt especially in the recognition of danger signs of pregnancy and labour. Similarly Indonesia experienced a similar lack of success with respect to appropriate referrals generated by trained TBAs (Dayaratna et al, 2000). In Indonesia, other than poor recognition of the referral system the TBA training program placed emphasis on contraception thus radically reversing the function of TBAs. The community did not accept the transformation because it affected their traditional and religious beliefs. In order for the services of the TBAs to be utilised by the community a totally new approach was needed, for example supporting, rather than modifying

traditional concepts of the TBA in the community was paramount (Morelli et al, 1986). This shows that TBAs need to be familiar with the referral system in order for them to respond and make quick decisions in the event of complications occurring.

In India, the government introduced the TBA training program to reduce risks on the mother and baby. However, the program has been in operation for many years without bringing about the expected impact on maternal mortality, which continues to rise (Pratinidhi et al, 1985). One of the issues reportedly leading to the problems experienced in India was failure by women to call upon the TBA in time. The TBAs were only called upon when labour was difficult or abnormal. They formed a first referral level, which should not have been the case. Better health education of all women would ensure that the TBAs are invited to manage normal deliveries as well. This shows that if the community is not well informed even the most important programs can fail.

Also in Burkina Faso, and Nigeria the TBA training program has yielded very little impact on maternal mortality (WHO, 1990).

It is however interesting to note that there are countries that have benefited from the TBA training program. For example, Angola where the training of TBAs was initiated and sponsored by the International Medical Corps (IMC), maternal and child health practices were changing. Differences between the untrained TBAs and those with training were evident, showing that proper utilisation of trained TBAs can have a positive impact on safe motherhood in areas where the system is well established (Gerst, 2001).

The question is "Can maternal mortality be reduced using the strategy of training TBAs?" Others argue that, while TBA services can improve women's health, they will not lower the maternal mortality rate because the major causes of maternal deaths – emergency obstetric conditions-are

not preventable, nor are they predictable. For instance, most of the problems arise among women in the low risk group. Given these facts, some public health professionals contend that the only effective way to reduce maternal mortality rates is to improve the management of emergency obstetric complications in developing countries, where 99% of maternal deaths occur (Ghada, 1998). It is important to put in place factors that will ensure a successful program based on the actual needs of the country and the specific community.

In Zambia the TBA program has experienced a high dropout rate due to wrong selection criteria, lack of support, lack of motivation and poor recognition by the community (Blinkhoff, 1997). Training sponsors should consider alternative health investments and, where TBA training remains the intervention of choice, be realistic about expectations of impact. It is important to ensure that proper goals are set strategies and interventions responding to set goals are put in place as well as support and supervision of the TTBA's.

2.5 Gaps identified from the TBA training program

For the programs aimed at community involvement in the utilisation of a service, community co-operation is essential. Therefore, attempts to introduce some changes in the lives of the people in the community should be done only with voluntary participation. The community should be motivated in order for them to accept the TBA training program. There is no single formula that can be used in all situations, but guidelines have been put in place that will ensure successful utilisation of the TTBA's in communities. The World Health Organisation has guidelines on selection, training and supervision of TBAs. However, countries and communities have different needs that need to be addressed in their training programs because what works in one country or community cannot be used in another. It is important to make realistic assessments of health needs of women in the country or community and realistic goals before developing the training curriculum for TBA. When this is done, evaluation of the

impact of the program will be objective. On their own TBAs cannot be expected to reduce the maternal mortality rate. Efforts should be made to develop strategies that will help make the most effective use of maternity care services offered by trained TBAs. It is important to ensure that the TBAs are identified in all communities, trained, supported and supervised by health centre staff. However, the TBA cannot function effectively if the referral system is not properly arranged. It cannot help to identify the danger signs without having to refer the client to where appropriate management will be carried out in time. In many of the countries that have been running the program, this has been lacking and many governments have not addressed it. It is reported that “while a TBA herself generally cannot prevent death once a complication arises, she can contribute to making motherhood safergiven training on clean and safe delivery practices, proper management of labour, early recognition of complications and referral strategies.....ensuring TBAs are familiar with referral facilities (and that first referral providers {including midwives} understand the role of TBAs) is especially important (Dayaratna et al, 2000).”

On the other hand, while TBAs may not be able to do anything themselves to prevent or deal with an emergency, they may be able to hasten the decision to seek care by the family. This can help to reduce the three delays associated with seeking emergency obstetric care which are:-

- Delay in deciding to seek appropriate care;
- Delay in reaching the treatment facility; and
- Delay in receiving adequate treatment at the facility

Shortening these delays can make a difference between life and death.

The curriculum of TBA training should therefore, include and emphasize the importance of reducing the three delays. The presence of a TTBA may help reduce the first delay that involves the time between awareness of the life threatening complication in delivery and the decision to seek help and also to be able to refer to the next level.

It is also critical that the communities should be able to have confidence in the referral system for them to accept it. For example a recent study in maternal deaths in Haiti, found that “ a lack of confidence in available medical options was a crucial factor in delayed or never made decisions to seek care” (Dayaratna et al, 2000). Health care providers should therefore, be able to market their services by ensuring that the services they offer the community are of high quality.

In addition the high cost of hospital fees can be an important obstacle to the use of emergency obstetric care coupled with failure to pay transport costs and remuneration for the TBAs. The community should be economically empowered for them to be able to support themselves as well as be partners in health care.

The referral hospital where some of the maternal deaths occur should be equipped with personnel and equipment to urgently attend to referred cases by TBAs.

In view of the facts above the researcher intends to conduct a study to determine utilisation of the maternity care services offered by trained TBAs in Chongwe District. The study intended to answer whether trained traditional birth attendants were under-utilised.

The findings of the study have been used to recommend appropriate interventions to improve utilisation of maternity care services offered by TTBAAs in the district.

2.6 Variables of interest

Independent Variables

- Demographic data
- Availability of TTBAAs
- Availability of equipment – delivery kits and bicycles
- Referral system
- Supervision of TTBAAs
- Accessibility of TTBA services
- Motivation of TTBAAs – Remuneration
 - Working relationship with health centre staff
 - Training
 - Support by the community
 - Supervision
 - Provision of supplies

Dependent Variable: Utilisation of services offered by trained traditional birth attendants.

CHAPTER 3

METHODOLOGY

3.1 Study Design

Cross-sectional study

3.2 Data collection techniques

Structured questionnaires for TBAs and mothers were used. Both coded and open-ended questions were utilised to collect data.

3.3 Study site

The study was conducted in Chongwe District with assistance from Chongwe District Health Management Team (DHMT). The District was conveniently chosen because it is rural and had only 19 delivery sites and one referral rural health centre. The District had a ratio of one midwife to 1,063 women and 63 TTBAAs supported these midwives.

In addition DHMT continued training TBAs for sometime. Further, it was closer to Lusaka and most of the referral cases were brought to University Teaching Hospital. The district was equally accessible considering limited resources.

3.4 Study population

Traditional birth attendants

All practising TBAs (trained and untrained) were included in the study. These TBAs were registered and recognised by the DHMT.

Mothers

Mothers within the reproductive age range of 15-49 years, having delivered six months prior to data collection and attending Children's Clinic were recruited in the study.

3.5 Sampling

3.5.1 Sample size

Traditional Birth Attendants (TBAs)

All practising Traditional Birth Attendants (TBAs) were included in the sample (trained and the untrained) in order to determine factors associated with utilisation of TBAs. Therefore, a total number of 184 TBAs were recruited all representing each of the 24 health centres spread out in the district.

Mothers

Out of the total population of 145,000 people in the district 4% were children under 1 year giving a total of 5,800 children. Therefore, in a month it was estimated that there were going to be 483 children under 1 year giving a total study population of 1,450 children over a period of 3 months. To arrive at the sample size the formula by Kish and Leslie was utilised.

Formula: $n = \frac{n_0}{1 - (n_0 / \text{population})}$
 $n = \frac{z^2 [p(1-p)]}{D^2}$

With a population size of 1,450, assuming expected frequency of 50% $\pm 5\%$ and a 95% confidence level, the required minimum sample size was 304. Further more, with a 95% response rate the adjusted minimum sample size was 320.

Criteria for Selection of Mothers

A mother falling within the reproductive age range of 15 – 49 years having delivered within the last six months prior to the time of data collection and attending Children's Clinic was included in the sample.

3.5.2 **Sample selection**

Convenient sampling method was used to recruit the respondents. All registered and practising TBAs were selected. In addition, the first 13 mothers attending Children's Clinic on the day of data collection from each of the 24 health centres were selected. However, 4 health centres were not reached and in some centres only a few mothers attended the Children's Clinic thus reducing the sample size.

3.6 **Data processing and analysis**

The data were analysed with the use of epi-info statistical software. Raw data were first edited for completeness and accuracy. Most of the responses including open ended were categorised and suitable terms were formulated to bring all related data together. These were added and converted into actual numbers. Care was taken to maintain uniformity of information collected. Prior to analysis, cleaning of data was done by browsing and frequency range checks on the computer where errors were detected and updated. The statistical data were presented in table form, in an explanatory manner with all the percentages presented.

To determine the level of utilisation, all the data were used. Meanwhile, in order to determine factors associated with utilisation of TTBA's the information collected from TBAs (Trained and Untrained) were used.

To determine the relationship between variables the Pearson's Chi squared test was used. The step forward logistic regression analysis was conducted in order to adjust for confounding factors. A P-value of 0.05 or less was considered to be statistically significant.

3.7 **Ethical considerations**

Permission to conduct the study was sought from the District Director of Health for Chongwe District Health Management Team (DHMT). All respondents gave a written consent before participating in the study. Ethical clearance was granted by University of Zambia, Research Ethics Committee and approval to carryout the study was granted by the Directorate of Research and Graduate Studies.

3.8 **Pilot study**

A pilot study was done to ensure that the questions were clear, concise consistent as well as to refine the instruments in order to yield reliable and valid data. The data collection tools were pretested at Chawama Clinic, which was randomly selected among other clinics in Lusaka Urban. A total of 10 women meeting the selection criteria were included in the sample. Five (5) TBAs trained or not trained were interviewed. After the pre-test was done some questions were dropped because they did not directly answer the objectives.

3.9 **Data collection**

Data collection was carried out over a period of 5 months from January to May 2002. A structured interview schedule with both open and closed ended questions was used. Five qualified midwives were used as research assistants after having been trained together.

3.10 **Limitations of the study**

Considering the distances between health centres, there were 4 remotest parts of the district that were not reached because of long distance and the bad state of the roads. This led to a reduction in the sample sizes for both the TBAs and mothers.

With the response rates of 78.1% for mothers and 76.1% for TBAs, biases may have been introduced in the study findings. However, the researcher was unable to determine the magnitude of neither bias nor its direction so that the study findings could be adjusted. However, these biases could not have significantly altered the study findings.

Although the minimum required sample size of 320 for the mothers was not reached, the findings of the study show that the utilisation of TTBA should have been 17.6% instead of 50% that was used in the calculation of the sample size. Using this information the required minimum sample size should have been 193.

CHAPTER 4

RESULTS

4.1 Description of the sample

The findings of the study were based on the analysis of the responses from practicing traditional birth attendants and mothers. The expected sample for TBAs was 184, however, 140 were interviewed giving a response rate of 76.1%. Out of 140, 44 were trained, while 96 were untrained.

The expected sample for mothers was 320, however, 250 mothers were interviewed giving a response rate of 78.1%.

4.2 Shortfall in the sample sizes

The shortfall in the samples was due to the fact that some respondents could not be reached because of long distance and bad state of the roads.

4.3 Data on TBAs Interviewed

Table 4.3.1 Selected Socio-Demographic Characteristics for TBAs

Characteristics	TTBAs		UTTBA's		P-Value
	Frequency	Percent	Frequency	Percent	
<u>Age</u>					
20-39	15	34.1	31	32.3	0.976
40 – 49	14	31.8	43	44.8	
50+	15	34.1	22	22.9	
<u>Marital Status</u>					
Married	42	95.5	92	95.8	0.918
Single	2	4.5	4	4.2	
<u>Ability to read & Write</u>					
Able to Read & write	33	75.0	43	44.8	0.001
Unable to read & write	11	25.0	53	55.2	
<u>Religious Affiliation</u>					
Roman Catholic	36	81	31	32.2	<0.001
Protestant	8	18.2	65	32.2	
<u>Occupation</u>					
Employed/Business	6	13.6	13	13.5	0.011
Farmer	29	65.9	39	40.6	
Unemployed	9	20.5	44	45.8	
<u>Number of children</u>					
1 – 5	16	36.4	45	46.9	0.419
6 - 10	24	54.5	46	47.9	
11 – 16	4	9.1	5	5.2	
<u>Duration of stay in the community(Years)</u>					
≤ 5	5	11.4	20	20.0	0.174
> 5	39	88.6	76	79.2	

Table 4.3.1 shows the distribution of socio demographic characteristics between trained TBAs and untrained TBAs. The majority of TBAs interviewed were between 40-49 years old for both the trained (31.8%) and the untrained (44.8%). No association was observed between age and type of TBA (p=0.976).

Totals of 42 (95.5%) TTBA and 92(95.8%) UTTBA were married. No association was observed between marital status and type of TBA (p=0.918). The majority of TTBA (75%) were able to read and write while, the majority of UTTBA (55.2%) were unable to read and write (p=0.001). On the other hand the majority (65.9%) of TTBA were farmers, while the majority (45.8%) of UTTBA were unemployed (p=0.010). Almost all TBAs were affiliated to religion. Thirty six (81.0%) of TTBA were Roman Catholics, while 65 (32.2%) of UTTBA were Protestants (p=0.001). About half (54.5%) TTBA and 46 (47.9%) UTTBA had between 6 and 10 children. No association was observed between number of children and type of TBA (p=0.419). In both categories 39 (88.6%) TTBA and 76 (76.0%) UTTBA had lived within the same community for 5 years or more. *

Table 4.3.2 Services Offered by TBAs

SERVICES	TTBAs		UTTBAs		P-Value
	Frequency	Percent	Frequency	Percent	
Deliveries only	17	38.6	90	93.8	<0.001
ANC, Deliveries & PNC	27	61.4	6	6.2	
TOTAL	44	100	96	100	

Table 4.3.2 shows that 27 (61.4%) of TTBA offered all the major maternity care services and 90 (93.8%) UTTBA only conducted deliveries (P<0.001).

Table 4.3.3 Utilisation of Trained Traditional Birth Attendants (TTBAs)

Level of Utilisation	TTBAs (n=44)		UTTBAAs (n=96)		P-Value
	Frequency	Percent	Frequency	Percent	
<u>Deliveries conducted</u> <u>(Previous year)</u>					
1 – 4	34	77.3	80	83.3	0.005
5 - 9	4	9.1	15	15.6	
10+	6	13.6	1	1.0	
<u>Outcome of Deliveries</u>					
Had problems	17	38.6	20	20.8	0.027
No problems	27	61.4	76	79.2	
<u>Problems Encountered *</u>					
Bleeding-pregnancy/delivery/ Post delivery	7	-	11	-	0.034
Maternal distress	6	-	7	-	
Malpresentations	4	-	2	-	
<u>Further Management</u>					
Nothing done	2	11.8	1	5.0	0.009
Referred to RHC	12	70.6	9	45.0	
Other (unconventional methods e.g Herbs)	3	17.6	10	50.0	
<u>Have Bicycle</u>					
Yes	2	4.5	7	7.3	0.539
No	42	95.5	89	92.7	
<u>Way of reaching clients</u>					
Bus/Bicycle	4	9.1	7	7.3	0.713
Walking	40	90.9	89	92.7	

** Percentages were not reported because the denominator was less than 30.*

Table 4.3.3 shows that the majority of TTBA's (77.3%) and UTTBA's (83.3%) conducted less than five deliveries. However, 6 (13.6%) TTBA's conducted more than 10 deliveries. For the deliveries conducted, 17 (38.6%) TTBA's encountered problems while only 20 (20.8%) of UTTBA's did ($p=0.027$). On further analysis, both the TTBA's (7) and UTTBA's (11) encountered complications of bleeding. However, on further management 12 (70.6%) TTBA's referred clients to the RHC, while 10 (50.0%) UTTBA's used unconventional methods of treatment such as herbs and bathing the woman in cold water ($p=0.009$).

Table 4.3.4 Complications encountered by TBAs during their practice

Complications	TTBAs		UTTBAs		P-Value
	Frequency	Percent	Frequency	Percent	
<u>Pregnancy related</u>					
Bleeding	6	16.6	4	4.2	<0.001
Diseases e.g. Malaria	5	11.4	0	0	
Malpresentations	10	22.7	1	1.0	
Hypertension/fetal death	6	13.6	1	1.0	
None	17	38.6	90	93.8	
<u>Labour Related</u>					
Prolonged labour	20	45.5	24	25.0	0.079
Retained placenta	12	27.3	35	36.5	
Fetal complications	4	9.1	7	7.3	
None	8	18.2	30	31.3	
<u>Postnatal Related</u>					
PPH/Infection	17	38.7	15	15.6	0.011
None	27	61.4	81	84.4	

In relation to complications encountered by TBAs during their practice, Table 4.3.4 shows that for pregnancy related complications, TTBA's (93.8%) encountered almost all of them while 90 (93.8%) UTTBA's had none ($p<0.001$). However for labour related complications the majority of TTBA's (45.5%) encountered prolonged labour, while the majority of UTTBA's (36.5%) had

retained placenta. Further analysis showed that 17 (38.7%) TTBAAs encountered PPH/infections while 81 (84.4%) UTTBA had none (p=0.011).

4.4 Factors Associated with Utilisation of TBAs

Table 4.4.1 Remunerations (n=140)

Remunerations	TTBAs		UTTBAs	
	Frequency	Percent	Frequency	Percent
<u>Received</u>				
Yes	19	43.2	42	43.8
No	25	56.8	54	56.2
<u>Items Received*</u>				
Food	5	-	5	11.9
Money	7	-	20	47.6
Non food items such as <i>Chitenge</i> etc	7	-	17	40.5

**Percentages for TTBAAs not reported because denominator is less than 30.*

Table 4.4.1 shows that the majority (56.8%) of TTBAAs and 56.2% of UTTBAAs did not receive remunerations. However, those who received indicated that the common items received were money (36.8%) and non-food items such as *Chitenge* materials, cooking utensils (36.8%) etc.

Table 4.4.2 Provision of Supplies to (TTBAs n = 44)

Provisions	Frequency	Percent
<u>Delivery Kits</u>		
Had kit	26	59.1
Had no kit	18	40.9
<u>Received Supplies</u>		
Yes	31	70.5
No	13	29.5
<u>Frequency of re-supply</u>		
When necessary	25	80.6
Regularly	6	19.4

Table 4.4.2 indicates that 26 (59.1%) TTBAs had delivery kits and 31 (70.5%) received supplies while among those who did, 25 (80.6%) received whenever necessary.

Table 4.4.3 Supervision of Trained Traditional Birth Attendants (n=44)

Characteristic	Frequency	Percent
<u>Staff visiting TTBAs</u>		
Visited	23	52.3
Never visited	21	47.7
<u>TTBAs visiting Health centres</u>		
Visited	33	75.0
Never visited	11	25.0
<u>Purpose of visit by TTBAs</u>		
To participate in MCA*	19	57.6
To take returns and collect supplies	11	33.3
Other - sick	3	9.1

***MCA – Maternity care activities**

Table 4.4.3 shows that there was evidence of contact with TTBA's by health centre staff where, 23 (52.3%) of TTBA's indicated having been visited. Also 22 (75.0%) TTBA's visited the health centre to either participate in maternity care activities (57.6%) or to collect supplies (33.3%).

Table 4.4.4 Community appreciation of Services offered by TBAs.

Community Appreciation	TTBAs		UTTBAs	
	Frequency	Percent	Frequency	Percent
Affordable Services	20	45.5	45	46.9
Service demand was high	18	40.9	41	42.7
None/No appreciation	6	13.6	10	10.4
TOTAL	44	100	96	100

Table 4.4.4 shows that the TBAs felt that the community appreciated them because their services were affordable as reported by 20 (45.5%) TTBA's and 45 (46.9%) UTTBA's.

Table 4.4.5 Whether TBA training program should continue

TBA program to continue	TTBAs		UTTBAs	
	Frequency	Percent	Frequency	Percent
Yes	44	100.0	94	97.9
No	0	0	2	2.1
<u>Reasons for continuation</u>				
TBAs were accessible	7	15.9	24	25.0
TBAs attended the majority of deliveries	7	15.9	16	16.7
To be equipped with skills	30	68.2	54	56.3

According to Table 4.4.5, both the TTBA's (100%) and UTTBA's (97.9%) felt that the TBA training program should continue because it would equip them with skills

to conduct clean and safe deliveries as reported by 30 (68.2%) TTBA's and 54 (56.3%) UTTBA's.

Table 4.4.6 Recommendations from TBAs

Recommendations	TTBAs		UTTBAs	
	Frequency	Percent	Frequency	Percent
Provide equipment/supplies	18	40.9	26	27.1
Training/refresher courses	2	4.5	25	26.0
Community education	7	15.9	10	10.5
Improve referral system	4	9.1	13	13.5
None	13	29.5	22	22.9
TOTAL	44	100	96	100

Regarding recommendations, Table 4.4.6 indicates that 18 (40.9%) TTBA's would like an improvement in the provision of equipment and supplies while, 25 (26.0%) UTTBA's felt that they would like to be trained.

Data on Mothers Interviewed (n=250)

Table 4.5.1 Selected Social demographic characteristics for Mothers

Characteristics	FREQUENCY	PERCENT
<u>Age</u>		
15 – 29	145	58.0
30 – 44	90	36.0
45 – 59	15	6.0
<u>Marital status</u>		
Single*	40	16.0
Married	210	84.0
<u>Religion</u>		
Protestant	179	71.6
Roman Catholic	71	28.4
<u>Occupation</u>		
House wife	227	90.8
Employed	23	9.2
<u>Husbands' Occupation</u>		
Employed	74	35.2
Farmer	123	58.6
Unemployed	13	6.2
<u>Educational Level</u>		
None	80	32.0
Able to read and write	170	68.0

* Single included those who were divorced and widowed.

Table 4.5.1 shows that the majority (71.6%) of mothers interviewed were between 15 and 29 years of age (58.0%). The majority were Protestants (71.6%) and were married (84.0%). However, 90.8% were housewives. Also important to note was the fact that the majority (68%) were able to read and write. The husbands for the majority (58.6%) of mothers were farmers.

Table 4.5.2 Reproductive Health History for Mothers (n=250)

	Frequency	Percent
<u>Number of children</u>		
1 – 4	169	67.6
5 – 8	65	26.0
9 - 12	16	6.4
<u>Age of Last Child</u>		
1 – 3 months	135	54.0
4 – 6 months	115	46.0
<u>Place of confinement</u>		
Hospital	16	6.4
RHC	91	36.4
Home	143	57.2
<u>Choice of place of confinement</u>		
Husband	51	20.4
Referred to RHC	5	2.0
Relatives and others	22	8.8
Self	172	68.8
<u>Delivery Attended</u>		
UTTBA	91	36.4
TTBA	9	3.6
Self	35	14.0
Neighbour	8	3.2
Hospital/RHC	107	42.8

According to Table 4.5.2 most of the mothers interviewed (67.6%) had less than 4 children and for the majority (54%) the age of the last child was less than 3 Months. Also to note was the fact that the majority (57.2%) delivered at home and the choice of place of confinement was mostly by mothers themselves (68.8%). However, only (3.6%) deliveries were attended by TTBA's.

Table 4.5.3 Utilisation of TTBA's by Mothers

Utilisation	Frequency	Percent
<u>Availability of TTBA's</u>		
Yes	58	23.2
No	192	76.8
<u>Utilisation of TTBA's (n= 58)</u>		
Yes	44	75.9
No	14	24.1
<u>Attendance of deliveries in the absence of TTBA's (n=192)</u>		
UTTBA's	100	40
Neighbours/friends/relatives	113	45.2
No one	5	2
<u>Services offered by TTBA's (n=250)</u>		
ANC	27	10.8
Deliveries	239	95.6
PNC	31	12.4
FPS	25	10
<u>What should be done to improve utilisation of TTBA's (n=14)✓</u>		
Train more TBAs	9	-
Recognise them by community/government	7	-
<u>Whether TBAs attended most deliveries</u>		
Yes	143	57.2
No	107	42.8
<u>Reasons for TBAs attending most deliveries (n=143)*</u>		
Accessible	134	53.6
Lack of resources to go to hospital	29	11.6
Preference	21	8.4

**Percentages do not add up to 100 because of multiple responses.*

✓ Percentages were not reported because the denominator was less than 30.

According to Table 4.5.3 only 58 (23.2%) of mothers interviewed had TTBA in their community and (75.9%) of these mothers utilised the services of TTBA. Mothers interviewed indicated that TTBA mainly conducted deliveries (95.6%). In order to improve utilisation of TTBA, mothers felt that there was need to train more TBAs (64.3%) and that TTBA needed to be recognised by the community as well as the government because they attended to the majority of deliveries (57.2%). Also to note is the fact that mother felt that TBAs were accessible (53.6%).

Table 4.5.4 Utilisation of UTTBAs by Mothers/Community

Utilisation	Frequency	Percent
<u>Utilisation of UTTBAs</u>		
Yes	187	74.8
No	63	25.2
<u>Reasons for utilising UTTBAs (n=187)*</u>		
AAAAR	135	72.2
Experience	55	29.4
TTBAs cover large areas	25	13.4

** Percentages do not add up to 100 because of multiple responses.*

AAAAR = accessible, available, affordable, acceptable and reliable.

On further analysis Table 4.5.4 shows that in the absence of TTBA, mothers utilised the services of UTTBAs (74.8%). This is because they were accessible, available, affordable, acceptable and reliable (72.2%) as well as the fact that they were experienced (29.4%) and they helped TTBA who covered large areas (13.4%).

Table 4.5.5 Community support towards services offered by TBAs

Community Support	Frequency	Percent
<u>Support*</u>		
None	38	15.2
Money	127	50.8
Food	84	33.6
None food items (<i>Chitenge</i> materials, cooking utensils etc)	126	50.0
<u>If none what support is needed (n=38)</u>		
To be paid by government	28	73.7
Nothing	10	26.3

**Percentages do not add up to 100 because of multiple responses.*

As regards community support, table 4.5.5 shows that money (50.8%) and non-food items (50.0%) were the commonest means of support the mothers gave to TBAs after attending a delivery. However, those who felt that TBAs were not supposed to be supported by the community indicated that the government was supposed to pay them (73.7%), while 10 (26.3%) still felt that there was no need to pay TBAs anything.

Table 4.5.6. Common problems faced by women and recommendations for improvement in utilisation of TBAs (n=250)

Common problems and recommendations	Frequency	Percent
<u>Common problems*</u>		
Long distances to the RHC	90	36.0
Lack of trained staff to attend to obstetric complications	114	45.6
Lack of resources	19	7.6
No problems	84	33.6
<u>Recommendations*</u>		
Train more TBAs	135	54.0
Provide equipment, supplies, transport	99	39.6
Community education on importance of TBAs	9	3.6
No idea	7	2.8

** Percentages do not add up to 100 because of multiple responses.*

According to Table 4.5.6 the commonest problem women faced was lack of trained staff to attend to obstetric complications (45.6%), therefore, they recommended for training of more TBAs (54%) as well as providing equipment, supplies and transport (39.6%) in order to provide quality services.

Table 4.6 - Results of the multivariate analysis.

After considering the significant variables at bivariate analysis Table 4.6 shows the results of multivariate analysis.

VARIABLE	OR	(95%CI)
<u>Ability to read and write</u>		
Unable to read and write	0.54	(0.30, 0.99)
Able to read and write	1	
<u>Religion</u>		
Protestants	4.89	(2.31, 10.37)
Roman Catholics	1	
<u>Services Offered</u>		
ANC, Deliveries, PNC	0.23	(0.12, 0.44)
Deliveries only	1	
<u>Deliveries attended</u>		
1 – 4	0.32	(0.10, 1.06)
5 - 9	0.18	(0.04, 0.84)
10+	1	
<u>Postnatal Related complications</u>		
PPH/Infection	2.25	(1.16, 4.36)
None	1	

Respondents who were unable to read and write were 46% less likely to have been TTBA's compared to respondents who were able to read and write.

On religious affiliation Roman Catholics were 4.80 times more likely to be TTBA's than Protestants. Regarding services offered, respondents who offered deliveries only were 77% less likely to be TTBA's compared to respondents who offered ANC, Deliveries and PNC services. As regards deliveries conducted, compared

to respondents who conducted more than ten deliveries, respondents who conducted between 5 and 9 deliveries were 82% less likely to be TTBA's.

As regards complications encountered respondents who encountered PPH/Infection were 2.25 more likely to be trained compared to respondents who did not encounter any postnatal complications.

CHAPTER 5

DISCUSSION

5.0 Introduction

The study sought to determine the utilisation of maternity care services offered by trained traditional birth attendants (TTBAs) in Chongwe district. The chapter discusses the main findings from the study.

5.1 Characteristics of trained traditional birth attendants

The results of this study showed that the majority of trained traditional birth attendants (TTBAs) met some of the selection criteria prescribed by World Health Organisation (WHO). One criterion states that the candidate selected for training should be mature, preferably between 30 – 45 years of age. In this study the majority (65.9%) of TTBAs were aged above 40 years. It is believed that at this age, the women in the community would accept the services of the TTBAs because a mature TTBA will keep everything in confidence. In addition the candidate should be the one who had had delivered before, preferably of parity of 3 or more. The majority (47.9%) had between 6 and 10 children. It is known that when TTBAs themselves had gone through the process of pregnancy and delivery, it is easy for the women in the community to accept their services. Their previous experience will earn them respect and recognition by the community they serve.

Further, the results of this study showed that the majority of TTBAs (95.5%) were married. This made it easy for them to offer services to both the married and the single women in the communities they served. Expectedly, the majority (88.6%) of TTBAs had lived within the community for more than 5 years. For them to be recognised and selected by the community, their potential should have been observed by the women in

the community. Therefore, the years of stay in the community gave a chance for the TTBA's potential to be identified and respected.

One other criterion not to be overlooked was the caseload. It is expected that a TBA selected for training should have been one who prior to being trained should have conducted deliveries herself (that is, self taught) or learnt the art by observing other TBAs. As regards deliveries conducted, compared to respondents who conducted more than ten deliveries, respondents who conducted between 5 and 9 deliveries were 82.0% less likely to be trained TBAs. However, 93.8% of the UTTBAs conducted deliveries, and these were the potential candidates for future training.

According to WHO, training of TBAs is not an easy responsibility because the majority have no basic education. However, it is believed that they can learn new concepts, safe techniques and certain fundamentals if they are taught in a manner that is appropriate for illiterates which will enable them grasp important information. In this study the respondents who were unable to read and write were 46% less likely to have been TBAs. This implied that for the TBAs in Chongwe, grasping new concepts and documenting findings during their practice could not have posed any problem.

5.2 Characteristics of women who utilised the services of TTBAAs

The women interviewed for this study and who were the recipients of the services offered by TTBAAs fell within the high-risk groups. This implied that they required the services offered in the modern health care institutions and in this case, the majority did not have access, hence the need for them to utilise the services of TBAs who were the only option.

5.2.1 Age and Marital Status

The age at which childbearing begins has important demographic consequences for society as well as the mother and child (CSO, 1996). In this study 58.0% of women interviewed were between 15 and 29 years of age, while the rest were between 30 and 59 years. The study also showed that 84.0% of the women interviewed were married. There are health risks associated with teen and adolescent pregnancies as well as early marriages. Marriage before the age of 16 exposes the women to a higher risk of poor pregnancy outcome because of the biologically immature bodies (Shawky, 2000). Early marriage is also believed to lead to high fertility rates as reported by Shawky (2000). Considering the age of the majority of women in this study it was assumed that many had undergone early marriage. On the other hand women above the age of 35 years are known to suffer consequences of pregnancy such as pregnancy induced hypertension and eclampsia.

5.2.2 Source of Income

The study revealed that 90.8% of women interviewed were housewives. It is assumed in the Zambian society that such women are dependent on their spouses economically. The spouses in this study were mainly farmers (58.6%) whose earnings were dependent on many factors such as a good yield/harvest as well as the market for the produce.

5.3 Maternity care services offered by trained traditional birth attendants

In determining the services offered by trained traditional birth attendants, the study attempted to identify place of confinement, choice of place of confinement, who attended the delivery and then the services offered by the TTBAAs.

5.3.1 Place of confinement

The study revealed that 57.2% of women interviewed delivered at home compared to 6.4% who delivered at the hospital and 36.4% at the health centres. The results of the Demographic Health Survey (DHS) conducted in 1996 in Zambia equally revealed that 53% of deliveries took place outside the modern health care facilities in Zambia. The most affected were women in the rural areas where skilled attendants and professional care were neither available nor accessible. In the event of complications of pregnancy and delivery occurring such women are prone to complications and deaths. Women in the high-risk groups as is the case in this study always require reproductive health services that meet their immediate needs. These include life saving interventions collectively known as essential obstetric care, which should be available in any district hospital, many of which can be available lower down the health centres which are staffed by midwives.

5.3.2 Choice of Place of Confinement

This study revealed that 68.8% of women interviewed made their own choice of place of confinement. In many developing countries women choose the services of TBAs because they are the only option (Mbizvo et al, 1993). In the current study, there were only 30 midwives to attend to all deliveries and the majority of women could not access them.

5.3.3 Attendance at delivery

Studies have shown that having a skilled attendant at every delivery is one of the key interventions for reducing maternal and perinatal mortality (WHO, 1992). The current study revealed that only 42.8% of women interviewed delivered at the hospital, presumably by skilled attendants. However, 36.4% and 3.6% were delivered by UTTBAs and TTBAAs respectively. Regrettably, 14.0% deliveries were unattended. In 1991 Gunawan reported that, about 80% of women in rural areas of developing countries are delivered at home by TBAs, only some who are trained. The current study showed that a total of 100 (40.0%) women were attended by UTBAAs at home and only 3.6% were attended by TTBAAs. According to results of other studies, many women turn to TBAs because skilled attendants are not available, or cost too much, or TBAs are neighbours or friends who know local customs and respect women's needs (Fortney, 1998). This shows that in developing countries, especially the rural areas home birth is not an option, it is virtually inevitable for reasons ranging from economical, to the cultural as well as geographical. The consequences of home deliveries cannot be overemphasised. They range from unhygienic practices, harmful practices and failure to attend to obstetrical emergencies. Other researchers have reported that countries where skilled attendance at delivery is low tend to have higher rates of maternal deaths and disability (Ghada, 1998).

5.3.4 Services offered by TTBAAs

Regarding the services offered, respondents who offered deliveries only were 77.0% less likely to be TTBAAs compared to respondents who offered antenatal care (ANC), deliveries and postnatal care (PNC). Mothers interviewed also indicated that ANC (10.8%), deliveries only (95.6%), PNC (12.4%) and family planning services (10.0%) were the services offered by TTBAAs in the community.

Given that there were only 30 midwives spread out in 19 delivery centres to cater for a population of 31,900 women, TTBAAs played an important role in providing the much needed maternity care services. This was because the majority of women in the community could not access the services of skilled attendants.

In 1998, the report presented at the World Health Day by the Director of Pan American Health Organisation (PAHO), indicated that much of the maternal morbidity and mortality is a manifestation of the extent to which women are deprived of their basic rights (Alleyne, 1998). Given that it may take a long time for the developing countries to afford providing skilled attendants at every delivery, it is important to utilise the immense potential which lies in the community itself for providing “basic health care services” and this seemed a possibility in Chongwe. However, TBAs should not be considered as a “substitute for skilled attendants (WHO, 1992). Interventions should be put in place to ensure the presence of skilled attendants at each delivery especially in the rural areas. In other countries such as Mozambique who have not been spared by the problem of high maternal mortality, efforts have been made to make emergency obstetric care available at the lowest levels of the health system particularly in rural areas by training Nurse/Midwives to perform caesarean sections. This has achieved outcomes as good as those performed by specialist obstetricians (Gemine, 2002).

5.4 Utilisation of services offered by trained traditional birth attendants

Utilisation of any health service is dependent on its accessibility, availability, affordability and acceptability and these were considered in this study. At the time of conducting this study there were 63 TBAs in the district.

5.4.1 Access to trained traditional birth attendants

Among mothers interviewed 90 (36.0%) indicated that long distance and lack of trained staff (45.6%) as well as lack of resources (7.6%) were among the problems that made it difficult for them to access services of skilled attendants. This left them with the option of accessing the services of TBAs. However, the majority (95.4%) of TTBAAs had no bicycles, and when called upon by their clients, the majority (90.9%) reached them on foot.

The current study sought to determine utilisation of maternity care services offered by TBAs. Among the mothers interviewed 23.2% accessed the services of TBAs because they were within walking distance and of those that did 75.9% utilised them. Further, regarding the deliveries conducted, compared to respondents who conducted more than ten (10) deliveries, respondents who conducted between 5 and 9 were 82% less likely to be TBAs. The number of TBAs in the community was not adequate for effective coverage.

This study showed that when mothers are provided with an alternative service, there is evidence that they can utilise it. A study conducted in Mwense district (Zambia) indicated that mothers showed confidence in trained TBAs, which contributed to a reduction in maternal morbidity and mortality in the district (Sibanda, 2001).

On the other hand the results of the study indicated that 45.5% of TBAs felt that the services they offered were affordable in that remunerations were dependent upon the women's ability to pay. This led TBAs to attending the majority of deliveries because mothers felt that their maternity care services were accessible (53.6%) and were preferred (8.4%) by the women.

5.4.2 Problems encountered by TTBA's during their practice and further management

At the level of operation, TTBA's were expected to carry out only limited procedures such as examination of a pregnant woman, conducting a clean and safe delivery and examination of a new-born baby. In the event of complications occurring the results of this study showed that TTBA's could make a difference in saving the lives of women. Among the TTBA's 17 (38.6%) experienced problems compared to 20 (20.8%) UTTBA's. It is assumed that the mothers with complications sought the services of TTBA's and at the same time the TTBA's had the skill to make correct diagnoses, hence the increase in the number of problems during their practice. Respondents who encountered postpartum haemorrhage (PPH) and infections were 2.25 times more likely to be TTBA's compared to respondents who did not encounter any postnatal related complications. Bleeding generally occurring postpartum is the single most common cause of death accounting for a quarter of all maternal causes (Abouzahr et al, 1996).

On further analysis, the results of the current study showed that there was a significant difference in the management of complications encountered by the TBAs. Seventy percent of TTBA's referred their clients with complications to the Rural Health Centres, while 50.0% of the UTTBA's used unconventional methods of treatment such as herbs and bathing the women in cold water.

Given training TBAs could avoid harmful practices, that can endanger the lives of mothers and babies. The Mwense study revealed how a TTBA felt after training. She said, "There is a big difference between being trained and not being trained. We have learnt a lot like identifying complications which should be referred to the RHC or the hospital and monitor the health of the mother and baby" (Sibanda, 2001). While in Gujarat, a trained TBA

named Lakshmi was convinced that training made a difference in her performance. She narrated that, “I used to do many wrong things in the early days like pressing down the mother’s tummy. Now I don’t do that and I make sure that I use the right equipment like sterile blades and cord ties” (Irwin, 2000). Therefore, given training, TBAs can contribute to making motherhood safe because it helps them avoid harmful practices, recognise danger signs and refer the appropriate clients to the health centres for professional care. However, training TBAs without an emergency backup support (including referral) does not reduce the risk of women dying (Dayaratna et al, 2000). For the woman with complications to reach the health centre, transport should be readily available and the receiving health centre staff should be skilled enough to attend to the complications.

5.5 Factors associated with utilisation of traditional birth attendants

The study sought to establish factors associated with utilisation of TBAs. The results revealed that supervision, provision of supplies, remunerations, and community recognition/appreciation were some of factors associated with utilisation of TBAs.

5.5.1 Supervision

Supervision of TBAs constitutes the major link between them and the formal health care system. This study revealed that 52.3% of TTBAAs reported that health centre staff visited them. In addition 75.0% of TTBAAs also visited the health centres within their catchment area out of whom 57.6% visited in order to assist with provision of maternity care services and 33.3% visited to collect supplies.

The WHO training guidebook of 1992 reported that supervision promotes better understanding between the health centre staff and TTBAAs. It gives chance to detect and correct mistakes that may have occurred and hence

lead the TTBAAs back on the right track whenever necessary. Further, regular contacts with TTBAAs facilitate early detection of falling standards and make continuation of education realistic.

5.5.2 Provision of Supplies and equipment

The results of this study indicated that 59.1% of TTBAAs were supplied with delivery kits in which basic instruments such as aprons, gloves receivers, soap and soap holders were provided. In addition 70.5% indicated that they received supplies from health centre staff out of whom 80.6% received whenever necessary. Nearly 50% of TTBAAs recommended that provision of equipment and supplies should be continued and increased because it helped them conduct clean deliveries.

It is the responsibility of the supervising midwife to procure the needed equipment to ensure that the practices of TTBAAs were clean and safe. In Mozambique, it was observed that training TBAs and providing them with essential supplies and equipment were effective ways to lower maternal and infant mortality rates. The government provided kits that contained essential supplies that helped them provide clean birth conditions to women who delivered in the rural areas (Gemine, 2002).

In this study it was revealed that the TTBAAs and health centre staff developed a supportive relationship that enabled both parties work with minimum resources.

5.5.3 Remunerations

The study revealed that 43.2% of TTBAAs received remunerations after attending a delivery. The common items received included money, food and none food items such as cooking utensils and *Chitenge* materials. However, 73.7% of mothers interviewed expressed that government needed to pay the TTBAAs officially as they were considered part of the

health care system. Generally the community agreed that TTBAAs needed to be remunerated. If well planned for, remunerations are a motivating factor to the continuation of performance by TBAs.

5.5.4 Appreciation/Recognition of TTBAAs by the Community

Traditional birth attendants form a link between the community and the established health care system. Among the TTBAAs interviewed 45.5% felt that their services were affordable, while 40.9% said service demand was high. Very few felt that the community did not recognise or appreciate them. A study conducted in Ghana on the impact of TBA training showed that mothers felt that complications such as retained placenta reduced, referrals were high including reduced levels of post partum fever among TTBAAs and that it was most likely to refer difficult labours to TTBAAs (Smith et al, 2000).

Equally noted was the fact that the health centre staff recognised the role played by TTBAAs as evidenced by the supervisory visits conducted. Given that there were only 30 midwives spread out in 19 delivery centres to cater for 31,900 population of women, TTBAAs were used as an extension of maternity care services in the community. Traditional birth attendants will therefore, continue to be a mainstay of the rural communities until the government is able to provide skilled attendants at all deliveries.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This study sought to determine utilisation of maternity care services offered by trained traditional birth attendants (TTBAs). The results revealed that utilisation of the services offered by TTBAs by mothers was at 17.6%. At this rate the TTBAs were less utilised because they were less in numbers. However, antenatal care deliveries and postnatal care were the services that TTBAs offered for the women in their respective communities. As regards deliveries conducted, compared to respondents who conducted more than ten deliveries, respondents who conducted between 5 and 9 were 82% less likely to be TTBAs. In the event of complications occurring the current study showed that TTBAs could make a difference. Seventeen (38.6%) of TTBAs experienced problems compared to 20 (20.8%) UTTBAs. Concerning postnatal complications encountered during their practice, respondents who encountered postpartum haemorrhage/infections were 2.25 times more likely to be TTBAs compared to respondents who did not encounter any.

On further analysis the study showed that there was a significant difference in the management of complications between the two groups. Seventy percent of the TTBAs referred the clients to the Health Centres while 50% of the UTTBAs used unconventional methods of treatment such as herbs and bathing the woman in cold water. Given these results, it is important therefore, that training of traditional birth attendants be part of the broader strategy of the policy makers because skilled attendants alone cannot effectively reduce maternal mortality. However, this needs to be supported by a functioning referral system and backup professional support. Women from very far off distances could be supported by introduction of maternity waiting homes where women identified as high risk can wait in their last few weeks of pregnancy and receive medical supervision.

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The results also showed that the health centre staff recognised the role played by TTBAAs. Fifty two percent of TTBAAs indicated that health centre staff visited them. They equally visited the health centres for the purpose of participating in maternity care services, taking returns and collecting supplies. There should be improved supervisory visits and provision of supplies and equipment by health centre staff to ensure clean and safe deliveries.

However, there are factors associated with utilisation of TBAs. The current study showed that TBAs were remunerated after attending a delivery although some mothers felt that government needed to pay the TTBAAs. To achieve community cooperation in ensuring that TBAs are rewarded after conducting a delivery, there is need for an intensive education on the role of TBAs and the community in this regard. This could be arranged by health centre staff.

On the other hand, since government may not be able to pay TBAs there should be a deliberate policy to allow them and their close family members receive free medical services as a motivating factor. Further, the children of the TTBAAs could be assisted with free education from the schools within the communities.

At the rate of 17.6% TTBAAs were less utilised and thus their impact may not have been felt because they were few compared to the UTTBAAs. Therefore, continued training will improve their coverage and utilisation in the district.

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Appendix 1

QUESTIONNAIRE NO.

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF COMMUNITY MEDICINE

INTERVIEW SCHEDULE FOR TRADITIONAL BIRTH ATTENDANTS (TBAs)

**TITLE: UTILIZATION OF MATERNITY CARE SERVICES OFFERED
BY TRAINED TRADITIONAL BIRTH ATTENDANTS (TBAs) IN
CHONGWE DISTRICT**

LOCATION:.....

DATE:.....

NAME OF INTERVIEWER:.....

INSTRUCTIONS TO INTERVIEWER:

1. Introduce yourself to the respondents including the purpose of the interview
2. Obtain written/verbal consent from the respondent
3. Assure the client of confidentiality
1. Ask questions as phrased, only clarify where necessary without changing the complete meaning of the sentence
2. Please circle the right answer and write the comments in the spaces provided
3. Thank the respondent after the interview.

CONSENT

In view of the increasing maternal deaths in the country the government introduced the training of TBAs with the goal to reduce the problem. However, there is evidence that the services of TBAs are under-utilised. I am therefore, conducting a research to determine the utilisation of the maternity care services offered by TBAs in the district. I am requesting for your permission to participate in the study.

You are free to either accept or refuse to participate. However, your Withdrawal will not hinder the continuity of your practice as a TBA.

I understand the purpose of the study and agree to participate.

Signature of Respondents:.....

Signature of Interviewer:.....

Date:

DEMOGRAPHIC DATA

1. Age.....
2. Marital status
 1. Single
 2. Married
 3. Widowed
 4. Divorced/separated
3. Number of children.....
4. What is your religion?
 1. Roman Catholic
 2. Moslem
 3. Protestant
 4. Hinduism
5. What do you do for your living?
 1. House wife
 2. Unemployed
 3. Employed
 4. Farmer
 5. Business woman
6. How long have you been living in this community?
 - 1 Less than 5 years
 2. 5 years or more
- 7(a) What is your education level?
 1. Able to read
 2. able to read and write
 3. none
 4. Other (Specify).....
8. What maternity care activities are you involved in?
 1. antenatal
 2. post natal
 3. deliveries
 4. all the above
 5. Other specify.....

9(a) Are there other people who provide maternity care services in your Community?

- 1. Yes
- 2. No

9(b) If yes, mention them.....
.....
.....

10(a) Do you have a delivery kit?

- 1. Yes
- 2. No

10(b) If yes mention the items in the kit
.....
.....
.....

11(a) Do you have a bicycle?

- Yes
- No

11(b) If no how do you reach your clients whenever you are called upon.
.....
.....
.....

12. Are you a trained TBA?

- 1. Yes
- 2. No (To Q16)

13. How many deliveries have you attended in the previous one-year?
none

- 1 – 4
- 5 – 9
- 10 or more

- 14(a) Were any of the deliveries you attended had any problems?
- 1. Yes
 - 2. No (To question 18)
- 14(b) If yes mention them.....
.....
.....
- 14(c) If yes, what did you do?
- 1. nothing
 - 2. referred the woman to the RHC
 - 3. Other specify.....
15. During the period of practice, how often have you been visited by staff from the health centre.
- never
 - rarely
 - sometimes
 - regularly
16. How often do you visit the health centre?
- never
 - rarely
 - sometime
 - regularly
17. If you visit the health centre what is the purpose of your visit?
- to participate in the maternity care activities
 - to take the returns
 - to collect supplies
 - other specify.....
- 18(a) Do you receive remuneration after attending a delivery?
- 1. Yes
 - 2. No

18(b) If yes, what do you receive?

1. food
2. money
3. none food items (specify).....

19(a) Do you receive supplies for deliveries from the health centre staff.

1. Yes
2. No

19(b) If yes, how often?

regularly
rarely
whenever necessary

20. What obstetric complications have you encountered during your practice as a TBA.

a. Pregnancy related.....
.....

b. Labour related.....
.....
.....

c. Postnatal related
.....
.....

21. In which way do you think the community appreciates your work?

.....
.....
.....

22. If there are problems that you face, what recommendations would you give to solve them.

.....
.....
.....

23. Do you want the TBA training program to continue? If yes/no give reasons.

.....

.....

QUESTIONNAIRE NO.

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF COMMUNITY MEDICINE

INTERVIEW SCHEDULE FOR MOTHERS

**TITLE: UTILISATION OF MATERNITY CARE SERVICES OFFERED
BY TRAINED TRADITIONAL BIRTH ATTENDANTS (TTBAs) IN
CHONGWE DISTRICT**

LOCATION:.....

DATE:.....

NAME OF INTERVIEWER:.....

INSTRUCTIONS TO INTERVIEWER:

1. Introduce yourself to the respondents including the purpose of the interview
2. Obtain written/verbal consent from the respondent
3. Assure the client of confidentiality
4. Ask questions as phrased, only clarify where necessary without changing the complete meaning of the sentence
5. Please circle the right answer and write the comments in the spaces provided
6. Thank the respondent after the interview.

CONSENT

In view of the increasing maternal deaths in the country the government introduced the training of TBAs with the goal to reduce the problem. However, there is evidence that the services of TBAs are under-utilised. I am therefore, conducting a research to determine the utilisation of the

maternity care services offered by TBAs in the district.

I am here to find out from you about your views on the TBA programme.

I am requesting your permission to participate in the study. You are free to either accept or refuse to participate. However, your withdrawal will not hinder your accessibility to maternity care services offered in your area.

I understand the purpose of the study and agree to participate.

Signature of Respondent:.....

Signature of the Interviewer:.....

Date:.....

SECTION A

DEMOGRAPHIC DATA

- 1. Age.....
- 2. Marital status
 - 1. single
 - 2. married
 - 3. widowed
 - 4. divorced/separated
- 3. What is your religion?
 - Roman Catholic
 - 1. Moslem
 - 2. Protestant
 - 3. Hinduism
- 4. What is your occupation?
 - 1. housewife
 - 2. business woman
 - 3. formal employment
 - 4. commercial farmer
 - 5. other (specify).....
- 5. What is your husband's occupation?
 - 1. Businessman
 - 2. Farmer
 - 3. unemployed
 - 4. employed
 - 5. other (specify).....
- 6. What is your educational level?
 - able to read
 - 1. able to read and write
 - 2. none
 - 3. other (specify).....

REPRODUCTIVE LIFE

7. How many children do you have?.....
8. How old is your youngest child?.....
9. Where did you deliver your last child?.....
 1. RHC
 2. hospital
 3. home
 4. other (specify).....
10. Who made the choice where to go for ANC, delivery and PNC?
self
 1. husband
 2. relative
 3. referred to the RHC because of previous complications
 4. Other (Specify).....
11. If you delivered at home, who assisted the delivery?
 1. untrained TBA
 2. trained TBA
 3. self
 4. other (specify).....

AVAILABILITY OF MATERNITY CARE SERVICES IN THE COMMUNITY

- 12(a) Do you have trained TBAs in your community?
 1. Yes
 2. No
- 12(b) If no, who assists deliveries in your community?
 1. untrained TBAs
 2. neighbours
 3. relatives
 4. no one
 5. other (specify).....

- 13. Do you think that there are more women being delivered by TBA than health centre staff (nurses)
 - 1. Yes
 - 2. No
- 14. If yes, give reasons.
 -
 -

ACCESSIBILITY OF THE HEALTH SERVICES

- 15 If there is a trained TBA in your community are women utilizing the services?
 - 1. Yes
 - 2. No
- 16 If no, what should be done to ensure that the services provided by the trained TBAs are utilised by women in the community?
 -
 -
 -
- 17(a) If there is an untrained TBA in your community, are women utilising the services?
 - 1. Yes
 - 2. No
- 17(b) If yes mention reasons for utilising their services
 -
 -
 -

COMMUNITY SUPPORT TOWARDS SERVICES OFFERED BY TBAs

18(a) What support does the community give to the TBA after assisting a delivery?

- none
- 1. money
- 2. food
- 3. non food items
- 4. other (specify).....

18(b) If none, what support do you think TBAs need in order for them to continue offering the services in your community.

.....

.....

.....

SERVICES OFFERED BY TBAs IN THE COMMUNITY

19. What services do TBAs in your community offer?

- antenatal care
- 1. delivery services
- 2. post natal care
- 3. family planning services
- 4. other (specify).....

20. What problems do you face in utilizing the services of TBAs in your community.

.....

.....

.....

21. What common problems do women in your community experience during pregnancy, labour, delivery and postnatal that need urgent attention.

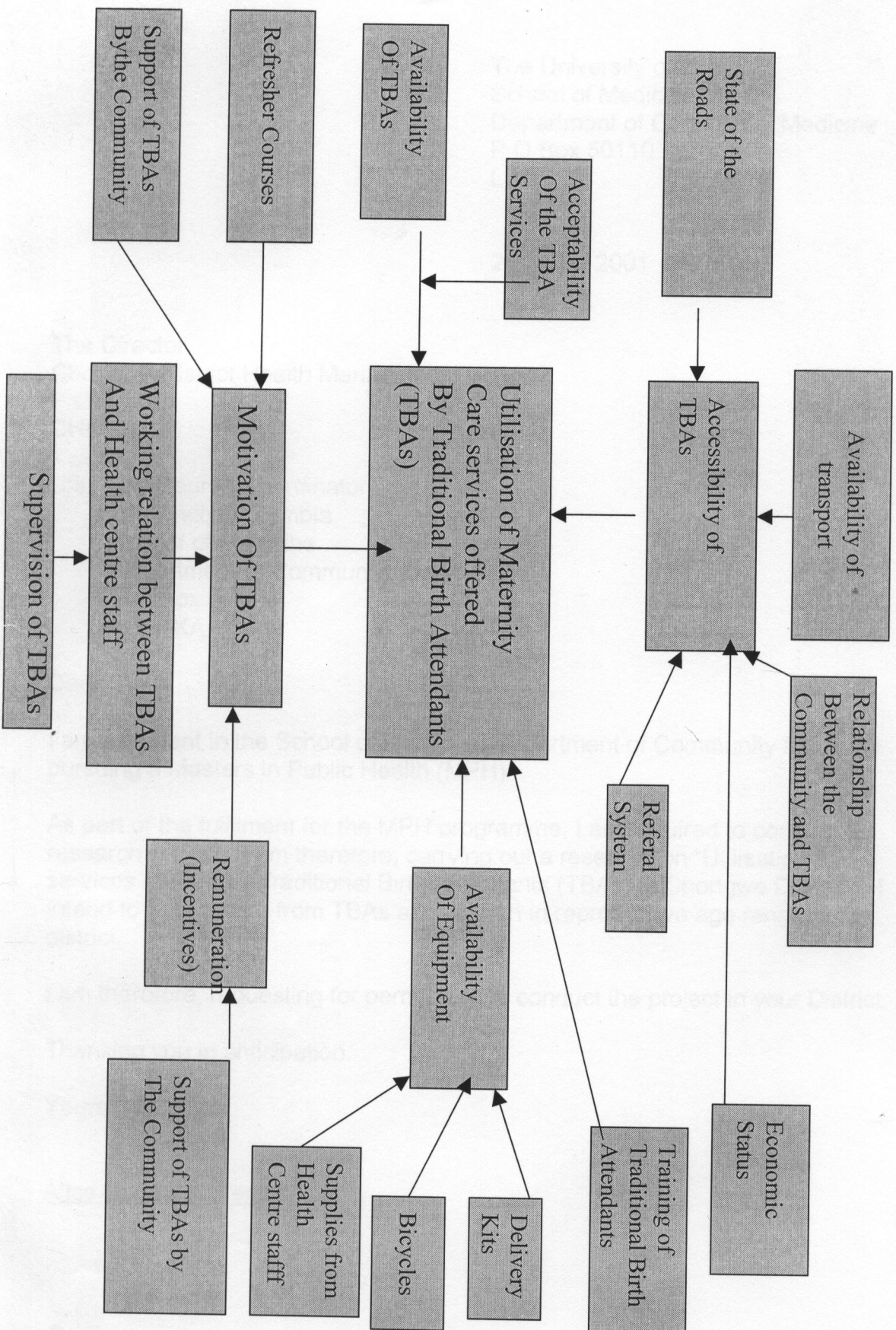
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22. What do you think should be done to improve the utilisation of services offered by TBAs in your community?

.....

CONCEPTUAL FRAMEWORK



Appendix 4

The University of Zambia
School of Medicine
Department of Community Medicine
P O Box 50110
LUSAKA

23rd July, 2001

The Director
Chongwe District Health Management Board
P.O Box 25
CHONGWE

Ufs: The Course Coordinator
University of Zambia
School of Medicine
Department of Community Medicine
P.O Box 50110
LUSAKA

Dear Sir

I am a student in the School of Medicine, Department of Community Medicine pursuing a Masters in Public Health (MPH).

As part of the fulfilment for the MPH programme, I am required to conduct a research project. I am therefore, carrying out a research on "Utilisation of the services offered by Traditional Birth Attendants (TBAs) in Chongwe District." I intend to collect data from TBAs and women in reproductive age range in the district.

I am therefore, requesting for permission to conduct the project in your District.

Thanking you in anticipation.

Yours faithfully

Alice Ngoma Hazemba



CHONGWE DISTRICT HEALTH MANAGEMENT TEAM

P. O. Box 25
Chongwe, Zambia

Tel: 620023
Fax: 233761

Your Ref:

Our Ref:

24th August, 2001

Alice Ngoma Hazemba
University of Zambia
School of Medicine
Department of Community Medicine
P O BOX 50110
LUSAKA

Dear Madam,

RE: RESEARCH PROJECT:

Refer to your letter dated 23rd July, 2001 regarding your conducting a research project in this district on the subject Utilization of the services offered by Traditional Birth Attendants.

The district has no objection to your request.

Wishing you all the best.

Yours faithfully

CHONGWE DISTRICT HEALTH MANAGEMENT TEAM

C. CHINYAMA (MR)
DISTRICT DIRECTOR OF HEALTH



THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE

Telephone: 252641
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753

Dean's Office
P.O. Box 50110
Lusaka, Zambia

10th December 2001

Ms Alice Ngoma Hazemba
Department of Community Medicine
UTH LUSAKA

Dear Ms Hazemba

The following Research Proposal was presented to the Research Ethics Committee on 28th of November 2001 and was approved. Congratulations!

Title of Research Proposal: **"Utilization of maternity care services offered by traditional birth attendants (TBAs) in Chongwe District, Zambia".**

Yours sincerely

Prof J T Karashani
CHAIRPERSON, RESEARCH ETHICS COMMITTEE



The University of Zambia

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Telephone: 290258/291777
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Fax: + 260 - 1 - 290258/253952
E-mail: DirectorPostgrad@postgrad.unza.zm

P O Box 32379
Lusaka, Zambia

Your Ref:
Our Ref:

2nd October 2002

Ms Alice Ngoma Hazemba
C/O Department Community Medicine
School of Medicine
UNZA

Dear Ms Hazemba

RE: MASTER OF PUBLIC HEALTH (MPH) RESEARCH PROPOSAL

Your research proposal for the Master of Public Health (MPH) entitled: *"Utilisation of Maternity care services offered by traditional birth attendants in Chongwe District"* was presented at the 72nd meeting of the Board of Graduate Studies held on 30th August, 2002.

I am pleased to inform you that the proposal was approved by the Board. You can proceed to Part II of the programme and your Supervisor is Dr S. Siziya and your Co-supervisor is Dr S. H. Nzala.

I wish you every success in your studies.

Yours sincerely

Professor Geoffrey Lungwangwa
DIRECTOR

cc Dean, School of Medicine
Head, Department of Community Medicine
Assistant Dean (PG), School of Medicine
Dr S. Siziya, Department of Community
Dr S. H. Nzala, School of Medicine

CHONGWE DISTRICT MAP

