COMPARISON OF CHARACTERISTICS OF WOMEN REQUESTING TERMINATION OF PREGNANCY AND THOSE PRESENTING THEMSELVES WITH INCOMPLETE ABORTION WITHIN THE UNIVERSITY TEACHING HOSPITAL

BY

Dorcas Siafwa Phiri – Hons Degree in Nursing, DNE, RM, RN

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

University of Zambia
(School of Medicine)
Department of Community Medicine
LUSAKA

December, 2002

DECLARATION

I hereby declare that the work presented in this study for the Masters of Public Health degree is my own work, and that it has not been submitted either wholly or in part for any other degree and is not being currently submitted for any other degree at this or another University.

Signed: ..... Date: 10/06/03

STUDENT

Signed:..... Prof. K.S Baboo, MBBS, MED, FRSH, DABTM

SUPERVISOR

DEDICATION

I dedicate this thesis to the Almighty God and to my late parents, who before their death inspired me to pursue further studies.

CERTIFICATE OF COMPLETION OF DISSERTATION

I DOREAS SIAFWA PHIRI hereby certify that this dissertation is the product of my work and in submitting it for my Master of Public Health degree programme, further attest that it has not been submitted in part or in whole to another university.

Signature..... Date: 10/06/03

Student

I/We Prof K. S. Babu having supervised and read this dissertation, am/are satisfied that this is the original work of the author under whose name it is being presented. I/We confirm that the work has been completely satisfactorily and is ready for presentation to the examiners. (Delete sections that are not applicable).

Signature:..... Date: 10/06/03

Supervisor

Chairman:..... Date: 9 June 2003

Department: Community Medicine

APPROVAL

This dissertation of Dorcas Siafwa Phiri is approved in partial fulfilment of the requirement for the award of the Master's of Public Health degree by the University of Zambia.

Signed:..... Date: 10.6.03

Examiner I

Signed:..... Date: 10.6.03

Examiner II

ABSTRACT

INTRODUCTION

Induced abortion poses a great public health concern especially when performed by unskilled health care providers. The study is comparing characteristics of women seeking termination of pregnancy (TOP) and those admitted for incomplete abortion. Understanding these characteristics of women in two groups will assist determine the group at risk and in turn help policy makers decide on strategies to reduce complications arising from abortions. This is in view of the fact that 30% of maternal mortality rate in Zambia is due to complications of abortion.

Objectives: To compare the sociodemographic characteristics, economic factors, obstetric characteristics, the proportion of women who knew the existence of the TOP Act of 1972 of the Zambian law and determine the reasons for inducing abortion between women who requested TOP (controls) and those who presented with incomplete abortion in the university teaching hospital (cases).

Study Design: Case control hospital based study carried out between February and May, 2002. Cases being women admitted for incomplete abortion and controls being women admitted to have a termination of pregnancy at UTH.

Setting: University Teaching Hospital in Ward CO3 (gynaecological ward), Lusaka, Zambia.

Subjects: All women 14-49 years admitted for abortion services at UTH

Main outcome measures – comparison of the level of knowledge on termination of pregnancy Act, 1972, the utilisation of family planning methods, methods used to induce abortion and number of attempts made to terminate pregnancy between women who seek TOP and those who are admitted for incomplete abortion in the University Teaching Hospital, Lusaka.

Results: A total of 212 subjects were recruited in the study, out of which 76 were controls and 136 were cases. The difference between the two groups were significant in the areas of residence where 62 (45.6%) cases lived in rural/high density areas while only 7 (9.2%) controls lived in the similar residential areas.of Lusaka. Most cases 53 (39%) had not been to school or attained up to primary level of education while most controls 64 (84.2%) had attained senior secondary education. Occupation of the two groups also showed significant difference in that 126 (82.1.%) of cases were either not working or in informal employment as opposed to 30 (39.5%) of the controls who worked as professionals. The income of the two groups was consumerate to their occupations 55 (66.9%) cases got below K300,000 and 44 (83%) controls got above K301,000. Most of those who were not working in both cases 26 (19%) and controls 25 (33%) were mainly students. It was clear that most cases (71.3%) claimed to have had a spontaneous abortion while the rest 28.7% had abortion performed by non health care providers, using unsafe methods such as ingestion of herbs, dilating cervix using sticks or probes etc. The picture was different with all the controls who got their abortion services from skilled health care providers using MVA or cytotec tables in the University Teaching Hospital. It was found that 13.9% of the cases had aborted more than once while only 3.9% of controls had done the same. There was however no significant difference between cases and controls in terms of age, marital status, parity, religion, distance to health centre and to post abortion care services offered.

The gestation period at which respondants aborted was above eight (8) weeks for cases (52.2%) and below eight (8) weeks for controls (75%) with most cases (71.3%) claiming to have aborted spontaneously and most controls (36.8%) to have aborted due to the desire to pursue further studies/careers. A total of 125 (92.6%) cases had one or more complications apart from having incomplete abortion, where as only 5.3% controls had complications of TOP. In view of the complications, cases stayed in hospital for an average of 24 hours in comparison to controls whose hospitalisation time was an average of one (1) hour. The cost of the services was higher than K30,000 for most controls and below K20,000 for cases. Most cases (92%) had no knowledge on the TOP Act. Most

controls heard about the TOP Act although the source was mostly from non medical persons.

Conclusion: In conclusion, the results show that there were significant differences in a number of characteristics between women seeking TOP and those admitted with incomplete abortion. Cases had inadequate knowledge of TOP and a number were not using family planning methods. Knowledge of TOP would help reduce the number of unsafe abortions arising from unsafe methods. It would therefore be necessary to get more people knowledgeable on the Act so as to make informed decisions on safe abortion. Increased utilisation of family planning would help reduce the number of unwanted pregnancy which finally result in abortions. Intensifying reproductive health education would also assist in the reduction of complications to abortions and to their recurrences. Reducing unsafe abortions requires a number of strategies and consented effort from all stakeholders.

ACKNOWLEDGEMENTS

My sincere gratitude go to Prof. K. S. Baboo for all his help, constructive criticisms, support, encouragement and his excellent supervision of this study from its origin to its completion.

I am grateful to Dr S. Siziya, my Co-Supervisor who continuously guided my study in the area of data analysis, without his help my results would not have been what they are.

I am greatly indebted to my sponsors USAID and my employers General Nursing Council of Zambia who made it possible for me to study the Master of Public Health Degree. I am also grateful to the Managing Director, The Head of Department, Obstetrics and Gynaecology for granting me permission to carry out the study and Nursing Manager CO3 ward at UTH where the study was carried out for their great assistance in enabling me interview the clients that took part in the study.

I am indebted to the respondents who participated in the study without whom this study would not have been possible.

My heartfelt appreciation goes to my husband Tom for his selfless support and to my children Mirriam, Masautso and Twaambo who were deprived of my attention as I concentrated on my assignments and other course work.

My other thanks go to my two research assistants Ms Felister Mashamba and Ms Jean Makeleta who unfailingly collected sensitive data with me from the study subjects. In addition I wish to thank Mrs Abita Siafwa for the meticulous secretarial work.

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF ABBREVIATIONS

GRZ	Government of the Republic of Zambia
FP	Family Planning
IPAS	International Projects Assistance Services
MR	Menstrual Regulation
MVA	Manual Vacuum Aspiration
PAC	Post Abortion Care
PID	Pelvic Inflammatory Disease
TOP	Termination of Pregnancy
UTH	University Teaching Hospital
WHO	World Health Organisation
USAID	United States of America for International Development
UN	United Nations
UNZA	University of Zambia

CHAPTER I

INTRODUCTION

1.1 BACKGROUND INFORMATION

Abortion is the expulsion of the products of conception before 28 weeks of gestation (Weller and Wells, 1996). It is divided into two, spontaneous and induced. 15% of all pregnancies end up in spontaneous abortion (Winkler, Oliver and Mcintosh 1995). Induced abortion may be defined as intentional ending of a pregnancy by the evacuation of the pregnancy, before the foetus, has a reasonable chance of survival (Marshall Gould and Roberts 1994). This procedure has been performed by millions of women who had unwanted pregnancies. It is further divided into two, legal and criminal abortion. It accounts for up to 60% of all abortions some of which are performed outside legal systems often by unskilled persons (Tadesse et al 2001). These end up in unsafe abortion due to complications, while those performed by skilled persons in a conducive environment are being referred to as safe abortions. These safe abortions are known as termination of pregnancy in this study.

The laws in most countries restrict induced abortion e.g Nigeria. In other countries termination of pregnancy is legal on broad medical and social grounds, which are very limiting as access is difficult e.g Zambia. The legal induced abortion services may be insufficient to meet the demand or are inadequately distributed even where induced abortion is legal. In addition to restrictive laws women may be unaware of the availability of the laws permitting legal abortion. Despite restrictive laws, women continue to terminate unwanted pregnancies, irrespective of the consequences that sometimes arise from this act.

There is a law on TOP in Zambia cited as termination of pregnancy Act, Cap 26, 1972. Zambia has provision to carry out TOP in almost all District hospitals. This TOP Act which appears to be easily accessible in fact is very restrictive and is beyond reach of many women seeking TOP. This results in incomplete abortions which are received in UTH as unsafe abortion. In Zambia maternal mortality rate stands at 649/100,000 live births (ZDHS 1996). Out of these deaths 30% are due to

complications of abortion (Kaseba et al 1998). These women who come in with complications of abortion may have resorted to seeking abortion services from unskilled providers for various reasons. This puts their health and lives at risk.

Induced abortion has been a hidden agenda in most countries, as a result it is difficult to obtain adequate information on the incidence and consequences of induced abortion (Kinoti et al 1995). There are many young women who suffer complications of unsafe abortion who never go or arrive at the hospitals but rather die en route or at home. Despite the under reporting on unsafe abortion, Noble et al (1996) report that in some countries complications from unsafe abortion are the leading cause of death among adolescent women such as in Chile and Argentina. He further stated that in a Uganda study it was found that almost 60% of abortion related deaths were among adolescent women. Complications of abortion were rated as the 3rd leading cause of maternal death. It is clear that women keep induced abortion as a secret even when it is legally done, posing a public health problem especially when it is done by unskilled providers.

A number of studies (Baboo et al, 1994, Abdella 1996) show that, lack of access to family planning services is a major contributor to unwanted pregnancies which result in termination of pregnancy. Many married women in developing countries often do not have access to contraceptives. The situation is worse for unmarried women particularly adolescents who rarely have access to reproductive health information and counselling and are frequently excluded from contraceptive services (WHO 1994). This is worse in a number of countries where the health care system demands a consent from a spouse to use family planning services as was in Zambia five (5) years ago.

U.T.H. is the largest hospital in Zambia, situated in Lusaka the capital city of Zambia. It has a bed capacity of 1,500 and serves as a referral center for all levels of care. U.T.H. obstetrics and gynaecology wards admitted an average of 10,847 patients for 2001 out of these admission 9503 were gynae cases admitted to C03 (UTH data 2001). Out of these gynae cases admitted, 4075 were abortion cases, 204 were those that came in for T.O.P. The number of TOPs had increased from

138 in 2000 to 204 in 2001, while the number of TOPs in 1996, 1997 and 1998 were 1570, 1661 and 840 respectively (UTH Annual Records) It is evident that, as the number of TOPs decreased the number of incomplete abortions increased (UTH Annual Statistics 2001). At the time when TOP were high, carrying out of TOP was not restricted as much and all that clients needed to do was pay for the service as demanded by the providers. Currently, the TOP procedure is carried out in ward CO3 using manual vacuum aspiration (MVA).

The study was carried out in the University Teaching Hospital (UTH), Ward C03. This ward is a gynaecological ward suitable for the study as it carters for both woman seeking T.O.P and those seeking Post Abortion Care (PAC) services following an incomplete abortion. It is in this ward that Manual Vacuum Aspirations (MVA) are done to completely evacuate the uterus of the products of conception. This procedure has been adopted in the Zambian PAC programme as it has been found to be safe and cost effective. The problem is that it is only provided in few health facilities in Zambia due to inadequate resources and skills among providers.

1.2 STATEMENT OF THE PROBLEM

No one can estimate with any precision the number of women inducing abortions, world over, because of the sensitive nature of the procedure. Most women prefer to keep abortion issues highly confidential. Even in hospitals some induced abortions are not recorded, as they are done privately without following the legal frame work in existence. Globally it is estimated that one unsafe abortion takes place for every seven births. It is further estimated that 55,000 unsafe abortions take place daily world over (WHO 1997). According to WHO, 500 women die daily from abortion related complications, 95% of these are in developing countries (WHO 1997). Zambia is one of the developing countries and therefore is no exception.

Though Zambia has a law permitting abortion, it is estimated that 30% of all maternal deaths are due to abortion related complications (Kaseba et al 1998). The Zambian law is said to be very liberal. Despite being liberal, access to the service is restrictive as the criteria spelt out are not met by many women seeking TOP. In

addition, hospitals may not have adequate human and material resources to meet the needs of women seeking TOP services. The law requires three (3) doctors to sanction a TOP but most district hospitals do not even have that number all round, making TOP inaccessible to women needing the service. The introduction of fee paying for health care could influence the choice of where an individual obtains abortion services. Women may resort to obtaining abortion services from unqualified practitioners risking their health in an effort to pay low charges, and overcome the criteria demanded by law through the TOP Act of 1972. These situations have resulted in women being exposed to unsafe abortions.

It has been noted that young women are more at risk of abortions due to several factors. Many younger women especially adolescents have poor access to family planning information and services. They also have fewer social contacts and less financial means to obtain an abortion safely. This results in self induction based on what they learn from their peers or by seeking help from colleagues or traditional herbalists who have no medical skills. This high MMR is also attributed to the high fertility (5.6) rate and economic low standand (ZDHS 2001-2002).

1.3 JUSTIFICATION OF STUDY

Abortion is a major public health problem as it remains a leading cause of maternal mortality in the sub Saharan Africa region (Jeppsson et al 1999). Pregnancy has become a casual affair among women of reproductive age despite campaigns for family planning. This has resulted in many unwanted pregnancies ending up into abortions especially among adolescents. Many of these adolescents have sought abortion services from indigenous local non health professional persons resulting into complications that have led to high maternal mortality rate (Baboo et al 1994).

Abortion is divided into three categories, legal, therapeutic and criminal. The number of women seeking therapeutic and legal abortion is very small compared to those that come in with incomplete abortion most of which is criminal abortion that ends up in deaths. In Ethiopia it was found that 54% of all obstetric deaths were consequences of unsafe abortion and that about 25% of all abortions and 30% of deaths occurred in the adolescent age group (Yusuf 2001).

Many researchers have worked on abortion, however in Zambia a comparative study of characteristics between women who seek TOP and those who seek PAC services due to incomplete abortion has not been conducted.

The study aims at comparing characteristics of women requesting for TOP and those presenting with incomplete abortion. The study was carried out because a comparative study of this kind has not been conducted in Zambia. A study on characteristics of women seeking TOP was done by Baboo et al (1994), and many have been conducted on incomplete abortions.

The information that will be derived from this study will be new as a study of this nature has not been investigated before. It is expected that the difference in characteristics of the two groups would perhaps be the clue in formulating strategies that would help reduce cases of un safe abortion.

The magnitude of the problem in terms of women affected and the severe consequences of abortion complications can no longer be ignored in Zambia. Therefore this study has shade more light on the characteristics of the clients with a view to address the risky issues.

1.4 OBJECTIVES

1.4.1 GENERAL OBJECTIVES

To compare characteristics of women requesting termination of pregnancy and those presenting with incomplete abortion, with a purpose of addressing the group at risk.

1.4.2 SPECIFIC OBJECTIVES

1. To compare the socio-demographic characteristics (age, residential areas, education, religion and marital status) between women who request for TOP and those presenting with incomplete abortion in UTH.
2. To compare the economic factors (income and occupation) between women requesting for TOP and those presenting with incomplete abortion.
3. To compare the obstetric characteristics (parity, gestational period and use of family planning services) between women requesting for TOP and those presenting with incomplete abortion.
4. To determine the proportion of persons who know the existence of TOP Act of 1972 between the two groups.
5. To determine the reasons for inducing abortion between women who seek TOP services and those presenting with incomplete abortion in UTH

1.5 HYPOTHESIS

There is no difference in the characteristics of women admitted for incomplete abortion from those of women seeking termination of pregnancy in the UTH.

1.6 OPERATIONAL DEFINITIONS

Women in reproductive age: Women between 14-49 years.

Health care provider: Any person having undergone formal training in reproductive health services e.g nurse/midwives, doctors.

Unsafe induced abortion: Any woman having aborted with complication outside hospital and having been attended by unskilled provider.

Safe induced abortion: any woman who has aborted intentionally under skilled competent hands of health care providers, in the UTH.

Adolescent: In the context of this study an adolescent includes those in the age group between 10-24 years.

Cases: These are women who have aborted and are admitted to UTH for incomplete abortion.

Controls: These are women who seek termination of pregnancy at the University Teaching Hospital.

Manual Vacuum Aspiration: A uterine evacuation technology consisting of a hand held vacuum syringe and plastic cannulae of various diameters.

Muti: Herbal preparation of non conventional medicine used to terminate pregnancy.

CHAPTER 2

2 LITERATURE REVIEW

2.1 INTRODUCTION

A lot of work on abortion has been carried out in Zambia, however most of the work has not been documented for publication. No study has been conducted to compare characteristics of women requesting for TOP and those who present themselves with incomplete abortion.

There is however some literature on studies done in many African countries and some Western countries. Most authors, in the literature reviewed, appear to support the fact that it is difficult to calculate the extent of the problem of abortion because most cases are never reported to health institutions. Jeppson (1999) states that accurate data are not available on the actual complications of abortion. This is due to fear of stigmatisation, in addition actual incidence of abortion is not precise due to poor recording. The most significant concerns of induced abortion are its complications especially when performed in unsafe conditions. A woman who is injured due to a performed clandestine procedure may be too ashamed or scared to seek appropriate care (Tadesse 2001). Governments around the world have recognised that unsafe abortion is a major public health issue. At the 1994 International Conference on population and development, they called for high quality medical services to prevent unsafe abortion and treat its complications. Participants also called for safe abortion services where it was not against the law (UN 1994). Researchers studying abortion through community based surveys or ethnographic interviews typically discover that women are reluctant to talk about abortion and are likely to under report their recource to it (Westoff 1998).

2.2 INCIDENCE

WHO estimates that 30 million legal abortions are performed each year out of which 20 million are unsafely induced. It further states that 55,000 unsafe abortion take place daily, 95% of which are in developing countries. It is stated that 15% - 20% of all pregnancies end as spontaneous abortion (WHO 1997). Despite the

above numbers the World Health Organisation (WHO) acknowledges that data on unsafe abortion are scarce and subject to substantial error due to methodological constraints inherent in abortion related research (WHO 1997). The figures shown are an under reporting since most cases never get to hospitals or health centres from which most of the records are found.

The magnitude of unsafe abortion and its complications is difficult to measure as most cases go unrecorded and a number of cases do not reach hospitals. It is however clear that unsafe abortion poses a major health concern (Kinoti, etal 1995). He further went on to say that few community based studies conducted in the region report even higher maternal mortality rates suggesting that hospital studies may reflect only the tip of the iceberg. In Ethiopia, it was found that 54% of direct obstetric deaths were consequences of unsafe abortion, hence abortion remains an important public health and medical issue (Yusuf and Sein 2001). The commonly used sources for measuring abortion rates are hospital admission records of complications of abortion. Every year approximately 50 million unwanted pregnancies are terminated. Some 20 million of these are unsafe. About 95% of unsafe abortion take place in developing countries, causing the deaths of at least 200 women each day (WHO, 1997).

Coerytaux (1988) in his study states that, despite sizable investment in family planning induced abortion continues to be widely practised in many developing countries (Salter, 1997, Henshaw, et al 1990 and Henshaw, 1999). There is unpublished data in Zambia showing that women of younger age group get pregnant on mutual arrangements with their male counterparts. These pregnancies are termed illegal because they are not approved by society. This leads to disputes and disagreements resulting into girls aborting most times in unsafe environments in an effort to conceal the activity.

In Zambia it is estimated that 30% of all maternal deaths are as a result of abortion complications (Kaseba et al 1998, UTH statistics 1993). As of 1990, for every legal abortion performed at UTH in Lusaka, Zambia five women were treated for complications of abortion. A study conducted by Baboo et al (1994) shows that the

women seeking induced abortion have a history of previous abortion. Kaseba, Baboo et al (1994) have further gone on to say majority of women having abortion are coming from younger age groups belonging to the category of single mothers aged 15-29 years. Of these young women 80% had full knowledge of family planning and had a minimum level of Grade 12 education.

2.3 REASONS FOR PROCURING INDUCED ABORTION

Studies on abortion have advanced several reasons why women procure abortions. Some of the reasons are, need to continue with education, impact of religion and premarital pregnancy, failure of family planning methods and non availability of family planning services. Where women have opportunities for education, employment and career development, younger and unmarried women are the most likely to want to postpone marriage or child bearing by obtaining an abortion when pregnancy occurs (Bankole, 1999). Alleyne (1998) in his presentation to World Health Day in 1998 stated that million of women each year turn to unqualified practitioners working in inappropriate settings to terminate unwanted pregnancy. They may not have been using a reliable method of contraception or method used may not have been reliable. They may have been forced into unwanted and unprotected sexual relations or they may simply have not known how to protect themselves from unwanted pregnancy. He further stated that whatever the reason they often risk their health and lives by resorting to abortion. In developed countries, women in employment tend to be more likely to obtain abortion than those who are not working (Agadjanian etal 1997). In many Sub Sahara African countries, a girl must leave school if she is pregnant and abortion tends to be most common among young unmarried women who wish to continue their education (Salter, 1997). IPAS, 1997 states that "young women resort to illegal unsafe abortion for a number of reasons some of which are:

- Fear of society and family expectation
- Strict anti abortion laws
- Desire to complete one's education
- Lack of education about sexuality and reproductive health. In line with the findings of studies done elsewhere Kaseba etal (1998) in a situation assessment of PAC services in Zambia stated that, due to high financial costs, most women resort to self induced abortions or obtain abortion from unskilled providers, who might be cheaper than the health care institutions.

2.4 METHODS AND PROCEDURES USED TO INDUCE ABORTION

Many methods are used to induce abortion. These methods are sought from friends, traditional healers, wise women or they take abortifacients of folklore or "muti" which may succeed or fail. Literature shows that most of the methods used are dangerous, some of which are:

- Inserting objects (stick, wires, knitting needles) into the cervix
- Drinking poisonous or harmful substances (herbs, bleach etc)
- Taking dangerous doses of medicines e.g chloroquine
- Douching with poisonous and caustic substances (bleach)
- Inflicting physical abuse (blows to belly) (Coeytaux 1993)

In addition to the method addressed above Noble et al 1996, states that "In attempting to abort, women may resort to taking a wide range of chemical agents.

Despite the dangers of all the above stated methods of inducing an abortion women go ahead. Tadesse et al (2001) states that "for most women the emotional mixture of shock, anger, fear, guilt that come with pregnancy makes the concern over access to quality and professional abortion services a secondary issue. Instead they opt for a back door abortion.

2.5 COST OF TREATING WOMAN WITH ABORTION RELATED COMPLICATION

Treatment of abortion complications often requires several days of hospitalisation and staff time, as well as blood transfusion, antibiotics, pain control medications and other drugs (WHO 1997).

Coeytaux, 1993 states that in some hospitals in developing countries, treating of complications of unsafe abortion consumes as much as 50% of the total budget. This observation is concurred by Yusuf (2001) who states that in Kenya, the management of abortion demands the lion's share of hospital resources consuming up to 50% of the budget.

2.6 BARRIERS TO SAFE INDUCED ABORTION

Many studies on abortion have cited several barriers to safe abortion services. In many developing countries, health workers, doctors and nurses do not have adequate training, or equipment to provide safe induced abortions. Some, refuse to perform abortions because they do not understand the laws or because they personally do not support abortions (Stimeso conference 1997). Highly restrictive abortion laws force many women with unwanted pregnancies to seek termination services from unqualified providers practising in unsafe conditions (Jeppson 1999). In the Dominican Republic, termination of pregnancy is illegal under any conditions even when a woman's life is at risk. In 1992, 16.500 women were hospitalised for abortion complications (Dinys, 2000). Although Zambia has one of the most liberal abortion laws in the sub Saharan Africa, access to safe abortion services is currently severely limited (Kaseba et al 1998). The act stipulates that a Registered medical doctor may lawfully terminate pregnancy if two other medical doctors certify in good faith one of the following opinions.

1. That the continuance of the pregnancy would involve risk to the life of the pregnant woman greater than if the pregnancy were terminated
2. That it would involve risk of injury to the physical or mental health of the pregnant woman greater than if the pregnancy were terminated
3. that it would involve risk of injury to the physical or mental health of any existing children of the pregnant woman's family
4. That there is a substantial risk that if the child was born it would suffer from such physical or mental abnormalities as to be seriously handicapped (TOP Act 1972).

Bradley et al (1991) in their study found that in Zambia where induced abortion is legally available it remains accessible mostly to wealth women in urban areas because of cost and procedural restrictions e.g requiring three (3) medical doctors to confirm the opinion and other material resources. Laws and policies that restrict abortion generally have the effect of creating barrier to safe abortion related care.

2.7 COMPLICATIONS OF ABORTION

Medical care is needed for complications of abortion. It is estimated that between 10-50% of all women who undergo unsafe abortions need medical care for complication (WHO, 1997). In the same study it was revealed that the most frequent complications of unsafe abortion are incomplete abortion, sepsis, haemorrhage, injury to internal organs, such as puncturing the uterus. The long term health problems include chronic abdominal pain, pelvic inflammatory disease (P.I.D.) and infertility.

In many African countries, up to 70% of women treated for abortion complications are younger than 20 years (WHO 1993). These young women are also most likely to delay pregnancy termination until late in pregnancy when risk of complications is higher. This is due to failure/difficulty in finding a provider obtaining financial resources for the procedure and denial or lack of recognition of early signs of pregnancy.

In Nigeria for example 50-70% of women hospitalised for complications of induced abortion were younger than 20 years. In this review it was found that complications from unsafe abortion were responsible for 72% of maternal deaths among women under 19 years at one university hospital (Uniugbe, 1988).

CHAPTER 3

3.0 METHODOLOGY

3.1 Study Design

A case control research design was used. This design was used because it was suitable for evaluation of a wide range of etiological exposures as well as the inter relation among factors. It is also able to give a number of outcomes.

In this study the subjects were women selected on the basis of attending UTH for incomplete abortion called cases or for attending UTH to have a TOP referred to as controls.

3.2 Study Site

The study was conducted at the UTH, CO3 ward. The setting was selected because it registers a high number of abortions. An average of about 320 cases of incomplete abortion and 18-20 TOP per month are attended to. UTH is a national referral hospital though it also offers low level services such as Provincial and district level. The hospital offers legal abortion care services as it meets the criteria for offering TOP services as spelt out in the TOP Act of 1972 of the Laws of Zambia. Marjority of abortion services are offered at UTH therefore the rationale for selecting the study site.

3.3 Study Population

The study population comprised women in the reproductive age of between 14 – 49 years attending UTH for abortion services. Cases were women attending UTH for incomplete abortion. Controls were women seeking TOP services.

3.4 Study Subjects

It was difficult to capture women who sought induced abortion services from unskilled persons as most women did not disclose and preferred to keep it confidential. This being the case, all women with complication of abortion were considered for this study as having had unsafe induced abortion, though women were asked to verify the nature of

abortion to which some did. Girls below 15 years who had an abortion were excluded.

To ensure uniformity/comparability cases and controls answered to the same interview schedule and Research assistants were two nurses working in CO3. These were trained prior to collecting data with me to ensure uniformity of data collection. Nurses working in the ward were more accepted by clients.

3.5 Sample Size

The initial decision in determining sample size was to use Pococks formula as follows: $n = \frac{p1q1+p2q2x7.85}{(p1-p2)^2}$

However, during the pilot time adequate subjects could not be recruited. Personal investigation showed that in the previous year's record an average of 18 TOPs were conducted per month and therefore, for the study, all women requesting TOP were recruited. A total of 72 controls were expected for the study. This number could be achieved with the available resources. In order to increase the power of the study, two cases were selected for each control. The number of cases was anticipated to be 144.

3.6 Sampling Method

Cases were selected using simple random sampling of 1 in every 10 admissions for incomplete abortion. The numbers that were finally captured in the study were 76 controls and 136 cases. The total number of TOP done in the period of study was 86 with a response rate of (86%). 136 cases responded out of 152, a response rate of 89.5%. The difference arose from clients who declined to be interviewed and were dropped. Most of those who declined to take part in the study were school girls among both cases and controls.

3.6 Data Collection Techniques

An interview schedule which was used had both open and closed ended questions. A retrospective review of patients record was done to help assess the magnitude of the abortion problem and help determine the sample size.

Both closed and open ended questions were coded for visibility purposes. Open ended ones were post coded before the data could be entered.

3.8 Ethical Considerations

The study involved human subjects, therefore clearance was obtained from the ethical committee of the school of medicine at UNZA. Permission was sought from the Managing Director and Head of Department, UTH Board to carry out the study. Above all written consent was obtained from each participant, after explaining to them fully the purpose of the study. Those that declined were omitted and the next candidate was included.

3.9 Pilot Study

Pretest of the interview schedule was done in the same ward to determine the validity of questions. The outcome of the pilot study helped refine the instrument before the actual full study. A few questions were rephrased for clarity. Subjects who were interviewed during pilot study were not included in the main study.

3.10 Data processing and Analysis

Data collected was entered into the computer using Epi-Info. Data was analysed using the same package. The chi-square test was used to determine associations between exposure and outcome. A P value of 0.05 or less was considered statistically significant. Only P values were reported in the associations at Bi-variate analysis. Results of logistic regression were not reported because the estimates were not precise. The study did not adjust for confounding and therefore further studies should take this into account.

Prior to analysis, cleaning of data was done by browsing and frequency range checks, on the computer where errors were detected updates were done. In addition, before data entry each questionnaire was checked for completeness.

CHAPTER 4

4.0 PRESENTATION OF FINDINGS

4.1 Introduction

A total of 212 study subjects with abortion were interviewed, out of which 76 were women who had requested for TOP and 136 were women with incomplete abortion. Most of these women were from within the urban areas of Lusaka 210 (99%), with only two (2) (1%) coming from Lusaka Rural.

4.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS

Table I shows that the age distribution between cases and controls was similar (p=0.334), however the number of cases was higher (50%) in the age group 15-24 while the number was higher (48.6%) in age group 25-34 for the controls.

There was a significant difference (p= 0.001) between the cases and the controls in relation to the residential areas. A high number of cases (45.6%) resided in the high density and rural areas, as opposed to the majority (90.8%) of controls who resided in low and medium density areas as shown in table I.

The study showed that there was no significant difference between the cases and controls (p = 0.078) in relation to marital status. In both groups the married had a high abortion rate (64.7%) cases and (51.3%) controls.

There was no significant difference in the number of children between the two groups (p= 0.239). Both cases and control groups had abortion rates of (58.1%) and (59.2%) respectively in the group of women with 1-5 children.

The educational attainment for women admitted for abortion services, showed a high significant difference between cases and controls. The majority of controls (84.2%) attained senior secondary education, while only (39%) of cases attained the same level of education.

The findings in the study showed that there was no statistical significant difference between cases and controls in relation to religion (p=0.146). It is clear that the majority of women in both cases and controls were protestants in rates of 64% and (51.3%) respectively. The number of Roman Catholics was at (35.6%) for controls and (23.5%) for cases.

The distribution of respondents by occupation was significantly different between the two groups (P <0.001). The majority (50.7%) of cases were house wives while the (39.5%) of controls were professionals. Among women who sought abortion services were students, (19.1%) being cases and (32.9%) controls.

There was a statistical significant difference between the income of cases and that of controls (p<0.001). Among the 82 cases who knew the family income, (42.6%) of them received between K150,000 and K300,000 as opposed to the majority (83.1%) of controls whose income is above K300,000. Majority of those who did not know the family income were students and dependants. Among cases that did not know the income were 56 (39.7%) and among the controls it stood at 23 (30.2%).

CHARACTERISTICS WITH SIGNIFICANT CHI-SQUARE SOCIO DEMOGRAPHIC CHARACTERISTICS

Table 1: Social Demographic Characteristics

Characteristics	Cases		Controls		Totals	P Value
Age Group	n	%	n	%		
15-24	68	50	30	39.4	98	
25-34	54	39.7	37	48.6	91	0.334
35+	14	10.3	9	12	23	
Residential Area						
High density/rural area	62	45.6	7	9.2	69	
Low/medium density area	74	54.4	69	90.8	143	0.001
Marital Status						
Married	88	64.7	39	51.3	127	
Unmarried	48	35.3	37	48.7	85	0.078
Parity						
No children	43	31.6	28	36.9	71	
1-5 children	79	59.1	45	59.2	124	0.239
Above 5 children	14	10.3	3	3.9	17	
Level of Education						
Never been to school and lower primary	21	16.5	2	3.3	23	
Upper Primary 5-7	32	22.5	1	1.3	33	
Lower Secondary 8-9	30	22	9	11.2	39	<0.001
Senior Secondary 10-12	53	39	64	84.2	117	
Religion						
Other	17	12.5	10	13.1	27	
Protestant	87	64	39	51.3	126	
Roman Catholic	32	23.5	27	35.6	59	0.146
Occupation						
House wife	69	50.7	12	15.8	81	
Professional	10	7.4	30	39.5	40	
Self employed	31	22.8	9	11.8	40	<0.001
Student	26	19.1	25	32.9	51	
Family Income						
Below K150,000	20	24.3	0	0	20	
K150,000-K300,000	35	42.6	9	16.9	44	
K301,000-K600,000	23	28.2	31	58	54	<0.001
K601,000+	4	4.9	13	24.7	17	

* The unmarried category comprised of single, divorced, widowed and separated women.

4.3 ACCESSIBILITY TO REPRODUCTIVE HEALTH SERVICES

The distances from the nearest health centres are reflected in Annex 5 which is a road map of Lusaka District. The distance covered by both the cases and the controls was not significantly different ($p = 0.064$). Majority (50.7%) of cases and majority of controls (65.8%) lived in the radius of 1-4 kms.

The study showed that all controls got abortion services from GRZ health institution (UTH) while 47 % of cases got abortion services from other non medical persons and (14.7%) from private clinics. This showed a significant difference ($p<0.001$) between cases and controls in relation to the providers of abortion services.

The results showed a significant difference in the periods at which the cases and controls had their abortion ($p= 0.002$). Most (52.2%) of cases aborted well above 8 weeks with (29.4%) being after 12 weeks. Meanwhile 75% controls aborted before 8 weeks.

Many different methods were used to terminate pregnancies between the cases and the controls. These were categorised into medical, non medical and spontaneous. There was a notable significant difference ($p<0.001$) in the methods used to terminate pregnancy between the two groups. All except 1.5% of cases either aborted spontaneously (66.9%) or used non medical methods 31.6 while all, controls used medical interventions such as menstrual regulation (MR) and prostaglandin

Table 2: HEALTH CARE ACCESSIBILITY CHARACTERISTICS

CHARACTERISTIC	Cases		Controls		Total	P Value
Distance to nearest health centre	**n**	**%**	**n**	**%**		
Below 1 km	26	19.1	7	9.2	33	
1 to 4 km	69	50.7	50	65.8	119	
Above 4 km	41	30.2	19	25	60	0.064
Providers of abortion services						
GRZ health institution	52	38.2	76	100	128	
Non medical healer	64	47	0	0	64	<0.001
Private clinic	20	14.8	0	0	20	
Gestation Period						
Below 8 weeks	65	47.8	57	75	122	
8-11 weeks	31	22.8	10	13.2	41	
12 weeks+	40	29.4	9	11.8	49	0.002
Activity						
Paid attention	4	3	41	53.9	45	
Maintained confidentiality	3	2.2	6	7.9	9	
Maintained privacy	7	5.1	26	34.2	33	<0.001
Referred to UTH	122	89.7	3	4	125	

4.4 REASONS FOR ABORTION

Many reasons were advanced on why women terminated their pregnancies. The study showed that there was a statistical significant difference ($p<0.001$) in the reasons why women aborted between cases and controls. The majority (71.3%) of cases aborted spontaneously while the majority (36.8%) in the control group aborted due to the fact that they wanted to pursue further studies or to further their careers. (table 3).

Table 3: Reason for Abortion among the Respondants

Reasons for Abortion	Case		Control		Total
	n	%	n	%	
HIV Status	0	0	5	7	5
Desertion by Partner	10	6.7	9	11.8	19
Family planning failed	1	0.7	12	15.7	13
Other	0	0	7	9	7
Spontaneous	97	71.3	0	0	97
Parity	9	7.3	15	19.7	24
Work/School	19	14	28	36.8	47
TOTAL	136	100	76	100	212

4.5 COMPLICATIONS OF ABORTION

The study showed that (92.6%) of all cases had complications while (94.7%) of controls had no complications at all. Among cases severe haemorrhage was the commonest complication which accounted to (76.5%). (Table 4).

Table 4: Complications arising from Abortions by Respondants

Complication	Case		Control		Total
	n	%	n	%	
Severe haemorrhage and sepsis	8	5.9	0	0	8
Severe Haemorrhage and depression	3	2.2	1	1.3	4
No complication	10	7.4	72	94.7	82
Septicaemia	11	8.0	0	0	11
Severe haemorrhage	104	76.5	3	4	107
Total	136	100	76	100	212

Most cases 135 (99.3%) were referred to UTH for further treatment from the local health centre or private clinics. The majority 67 (88.2%) of controls were advised on the importance of keeping the pregnancy by health care providers when they requested for TOP at UTH.

There was significant difference ($p < 0.001$)in the perception of the cases and controls in their feeling towards the providers keeping confidential information shared with them. A total of 123 (90.4%) cases did not know if information would be kept confidential and 73 (96.1%) of controls were confident of information being kept confidential.

There was no statistical significant difference (p=0.107) between the two groups in relation to whether the clients were attended to in a conducive environment. Altogether 129 (94.9%) cases and all (100%) controls confirmed that they were attended to in a conducive environment.

Table 5: Activity conducted by provider towards respondents to show they created a conducive environment

Activity conducted	Case		Control		Total
	n	%	n	%	
Paid attention	4	2.9	41	53.9	45
Maintained confidentiality	3	2.2	6	7.9	9
Maintained privacy	7	5.1	26	34.2	33
Referred to UTH	122	89.8	3	4	125
Total	136	100	76	100	212

Table 5 shows that there was a significant difference ($p< 0.001$) in activities conducted by the providers to make the environment conducive. Majority (89.8%) of cases said the environment was conducive because they were referred to UTH for further management while (53.9%) of controls considered a conducive environment as one where the provider was attentive to them as they spoke.

4.6 KNOWLEDGE OF AVAILABILITY OF TOP ACT OF 1972

The majority (67.6%) of cases had not heard of the TOP Act while (97.4%) of controls had heard. The source of information was different between cases and controls (p=0.008) as seen in table 6. Out of the 44 cases who had heard about the Act (92%) heard from non health care providers while (74%) of control group also heard from non health care providers.

Table 6: Source of information to clients on existence of TOP

Source	Case		Control		Total
	n	%	n	%	
Close friend	17	38.6	22	29.7	39
Health care provider	4	9.2	19	25.6	23
Other	6	13.6	1	1.4	7
Relative	17	38.6	32	43.3	49
Total	44	100	74	100	118

Table 7: Knowledge of TOP

Knowledge about TOP	Case		Control		Total
	n	%	n	%	
Does not know	126	92.6	42	55.2	168
Legal abortion	10	7.4	34	44.8	19
Total	136	100	76	100	212

Table 7 shows the knowledge of TOP Act of 1972 among the respondents. There was a significant (p<0.001) difference between the two groups in relation to the knowledge of TOP Act of 1972. The majority (92.6%) of cases did not have the knowledge of the TOP Act, but only 44.8% of controls new what the Act was all about.

There was significant difference ($p<0.001$) between cases and controls on how much the knowledge on TOP influenced where they obtained their induced abortion. Out of 44 cases, 65% were not influenced by the knowledge they had. However 75% of controls made decision on where to get the abortion services based on the knowledge they had on TOP.

Table 8: Choice of Provider for Abortion Service

Choice of provider	Case		Control		Total
	n	%	n	%	
No knowledge	19	44.3	3	5.3	22
Other	10	23.2	8	13.7	18
Safety in hospital	0	0	47	81	47
Spontaneous	14	32.5	0	0	14
Total	43	100	58	100	101

The choice of provider significantly differed ($P< 0.001$) between cases and controls. Most (44.3%) cases did not have an explanation because they aborted spontaneously. The majority (81%) of controls went to UTH because of its safety on carrying out the abortion procedure.

There was a significant difference ($P< 0.001$) in the length of hospitalisation between cases and controls. The majority (74.4%) of cases were hospitalised for an average period of about 24 hours while the majority (82.2%) of controls were hospitalised for a period below 1 hour.

Table 9: Length of Hospitalisation by Client

Length of Hospitalisation (In hours)	Case		Control		Total
	n	%	n	%	
Below 1	0	0	62	81.6	62
2 – 24	101	74.4	10	13.1	111
25 – 48	31	22.7	4	5.3	35
Above 48	4	2.9	0	0	4
Total	136	100	76	100	212

Table 10 shows that there was a significant difference ($p<0.001$) in the cost for abortion services between cases and controls. The majority (86.8%) of controls paid more than K30,000 for abortion services while majority of cases paid less than K30,000. A number of women (29.4%) did not pay for the services as they were received as emergencies.

Table 10: Cost of Abortion Services

Cost	Case		Control		Total
	n	%	n	%	
Did not pay	40	29.4	5	6.7	45
Below K10,000	20	14.7	1	1.3	21
10' to K19,999	15	11	0	0	15
20' to K29,999	19	13.9	4	5.2	23
More than K30,000	42	31	66	86.8	108
Total	136	100	76	100	212

Table 11: Post Abortion Care Services received by women.

Total controls = 76. Total Cases = 136.

Post abortion care services received by women	Case		Control		P Value
1. Post abortion counselling	n	%	n	%	
Yes	136	100	74	97.3	0.127
2. Family planning services					
Yes	125	91.9	74	97.3	0.142
3. Other					
Linked to clinic	54/136	39.7	5/76	6.5	0.001
Linked to RHS	5/136	3.6	1/76	1.3	

Table 11 shows the post abortion care services provided to women.. There was no significant difference in post abortion counselling and family planning services between the two groups (p=0.127) and (p=0.142) respectively. A high (39.7%) percentage of cases were linked to clinics for further management. This was significantly different between the two groups (P<0.001)).

There was statistical significant difference (P< 0.001) in the utilisation of family planning methods between cases and controls. The percentage of cases that did not use family planning methods was 55% as opposed to 26% of controls.

Table 12: Number of Abortions per Client

Frequency of Abortions	Case		Control		Total
	n	%	n	%	
First time	117	86.1	73	96.1	190
Twice or more	19	13.9	3	3.9	22
Total	136	100	76	100	212

Table 12 depicts the number of times a respondant has had an abortion. There was significant difference (p=0.039) in the number of abortions the cases and

controls have had. The number of cases that were having an abortion for the first time was 86.1% while that of controls was 96.1%.

Table 13: Recommendations to make safe abortion services more Accessible
Total cases = 136, total controls = 76

Recommendations	Cases		Controls		P.Value
Adequate information on TOP	62	45.5	22	28.9	0.026
No restriction to abortion	57	41.9	24	31.5	0.004
Increase FP Services	28	20.5	2	2.6	<0.001
Increase IEC on RHS	57	41.9	4	5.2	<0.001
Improve provider attitude	51	37.5	30	39.4	0.900
Other	6	4.4	0	0	0.154

On asking the subjects to make recommendations, 45.5% of cases recommended that adequate information on TOP should be given to clients. In the same group 41.9% recommended an increase in IEC on reproductive health services. A further 41.9% recommended no restrictions to abortions while 31.5% and 39.4% of controls recommended that there should be no restrictions to abortions and improving of provider attitude while more cases than controls recommended an increase in IEC on reproductive health services no restriction to abortion (table 13). Equal proportion of cases to controls recommended improving provider attitude to make safe abortion services more accessible.

Table 14: Eligibility for Abortion

Eligible	Cases		Control		P. Value
	n	%	n	%	
Any woman seeking abortion service	102	75	73	96	<0.001
Married woman with more than five children	29	21.3	0	0	<0.001
School girls	15	11	2	2.6	0.058
Victims of rape/incest	13	9.5	1	1.3	0.042
Girls below 16 years	10	7.3	1	1.3	0.101
Other	8	5.8	73	96	0.749

More controls (96%) than cases (75%) said any woman seeking abortion services should be eligible for abortion. Meanwhile significantly more cases said married women with more than five children and victim of rape/incest should be eligible for abortion (Table 14).

CHAPTER 5

5.0 DISCUSSION OF FINDINGS

5.1 INTRODUCTION

This study was hospital based, as it is in most abortion studies in Africa (Tadess et al 2001). Our study shows some differences in characteristics of the controls and cases in a number of areas as demonstrated by the findings. The study subjects were mainly from Lusaka urban although 2(1%) of case came from rural areas of Lusaka. The rural clientele may have been so few because of the health facility not being easily accessible. The rural women may have decided to go to term irrespective of the consequences of pregnancy. The rural women are most likely to accept to go to term as having children is an accepted role in the community as one reaches puberty. The social support system also helps them manage the children especially when very young. This therefore means that the number of rural clients would be few. In addition transport to get them to hospital is another barrier for admission to UTH.

5.2. AGE

There was no significant difference in the age distribution between the cases and controls, the rate of abortion was highest in adolescents 15-24 years among controls and cases. The high incidence of abortion among these adolescents is an indication that these young women indulge in early sexual activity and unprotected sex exposing them to HIV and STIs (Baboo et al 1994). This is supported by a study which stated that "adolescents 15-24 years old form an extremely high risk group for newly acquired HIV infection (AIDSCAP, et al 1996). This is also in line with studies that state that unsafe abortion is common in adolescents (Yusuf and Zein 2001). The high rate of abortion among adolescents may be attributed to lack of awareness on availability of family planning and the strong desire to continue school. However the fact that these adolescents and young women needed services for abortion was a sign of unmet needs in reproductive health services.

To reduce the number of abortions among adolescents there is need to intensify education on reproductive health issues and the TOP Act. These could be tackled in both schools and other areas where adolescents can be reached.

5.3 RESIDENTIAL AREA

There was significant difference in residential areas for cases and controls. The study showed that the majority of the controls were from the low and medium density areas of Lusaka such as Woodlands and Kabulonga etc while majority of cases were from the high density and 2(1%) from rural areas of Lusaka. Some of the high density areas were Misisi and Garden, Chawama etc. This difference can be attributed to the fact that most controls appear to have been educated well enough to accord them the residential areas where they were coming from and that these were or their parents were educated enough to know the existence of the TOP Act . They could have also been able to pay for TOP services compared to their counterparts who were not empowered enough with information and financial resources to pay for the TOP services.

5.4 MARITAL STATUS

This study demonstrated that there was no significant difference between the controls and the cases with regards to marital status. Among the controls half of the clients were married, while cases also had a high rate of abortions among married women. This probably would be attributed to the fact that the women were using abortion as a means of family planning. The high rate of abortion in both groups among the married women, could be due to satisfied parity as abortion is also higher in women with 1-5 children. Some could have aborted spontaneous due to STIs. It is clear in a number of studies done before that 15-20% of all pregnancies end up as spontaneous abortion (Yusuf et al 2001 and Tadesse et al 2001). The number of spontaneous abortions could also have been blown up by women who used abortion as a means of family planning but failed to own up to self induced abortion for fear of repurcation.

5.5 PARITY OF CLIENTS

The study demonstrated that there was no significant difference between cases and controls in relation to parity though the number of women with no children was high among controls while that of cases was much lower. This outcome was mostly likely due to the fact that those with no children could have been school girls and college students. This is supported by the finding in a study carried out in Zambia (Benon et al 1994). However, the percentage of cases and controls was more or less the same for women with 1-5 children. The percentage was high raising an assumption that these women could have had satisfied parity as most families are now reducing their family sizes. The number of cases were higher in the multiparous clients suggestive of spontaneous abortion due to age. It is said that the rate of abortions is higher amongst the multiparous women (Yusuf 2001).

5.6 EDUCATION OF RESPONDENTS

The significant difference in education levels between cases and controls was evident. Most controls had attained senior secondary education while the cases were mainly among those who attained primary education with a few having never been to school. Lack of education including sex education, poor access to contraceptives and other reproductive health services may be some of the reasons for a high number of unwanted pregnancies which ended as abortions. The assumption in this finding is that most controls were educated and therefore had the knowledge of the existence of the TOP Act and also because of their educational background were in professional jobs enabling them to pay for the services. A campaign to raise awareness among the less educated must be intensified on the existence of the TOP Act, and family planning services.

5.7 RELIGION OF CLIENTS

There was no significant difference between cases and controls in relation to religion, it just reflected the general religious profile of the population. Abortion among cases and controls was high among protestants. This could be attributed to the fact that protestant is a group of varied denominations. Maybe the picture would have been different had the study considered individual denominations. The study shows that abortions among Roman Catholic is relatively low, but in actual

fact it is high considering that this is one denomination. Roman Catholics restrict the use of artificial methods of family planning and strongly advocate for natural family planning whose failure rate is high thus exposing women to dangers of unwanted pregnancy. The method accepted requires total commitment from both partners in a relationship. This method is hard to sustain as our women folk in our communities are less empowered to demand for safe sex due to culture.

5.8 OCCUPATION

In looking at occupation the study demonstrated a significant difference between cases and controls. The high number of cases was seen in the category of housewives. This is suggestive of a possible high level of STI and failure to pay for the services, as opposed to the high number of controls among the professionals who could pay for the services. Among the self employed the number of cases was high suggestive of low income on self help basis. It was evident that the number of controls was high among students compared to the number among cases. This could be attributed to these students being knowledgeable of the existence of the Act and having some form of support from families/friends, more so when they get pregnant from older men.

5.9 FAMILY INCOME

It is evident that significant difference between cases and controls was noted in relation to family income whose family income was below K300,000 rarely requested for TOP while most of those who got above K300,000 came in as controls. This trend can be attributed to the knowledge levels and availability of funds among controls.

The highest number of clients who did not know their family income were mostly dependants/students.

5.10 DISTANCE TO NEAREST HEALTH CENTRE

There wasn't much difference between cases and controls in accessing health facilities due to distance. Most controls and cases in the study had access to health facilities in terms of distance. This is because the majority of respondents were

from Lusaka urban where the distribution of health centres is close to residential areas. UTH is also centrally placed for most residential areas within 10 km radius.

5.11 PROVIDERS

All controls who went to the GRZ health institutions were possibly knowledgeable of the existence of the Act and had the means to pay for the services. The 52(38.2%) of cases who went to GRZ health institutions could possibly have been spontaneous and needed immediate help. The majority of the cases went to non medical healers and a few to private clinics despite health facilities being within their reach. This is an indication that these women could have been concealing their abortions or did not have the right criterion to access TOP services. The latter may have the belief that the private clinics would offer better services. In addition those that went to non medical personnel could have had financial constraints, to pay for hospital services.

5.12 GESTATION PERIOD

The number of cases aborting after 12 weeks was high an indication that these women could not have had any professional help before the 12^{th} week of gestation prompting those with unwanted pregnancy to seek help elsewhere. These come in later as incomplete abortion. The possible refusal by health care facility is in line with studies that state that TOP after 12 weeks is not acceptable as it has lots of complications and manual vacuum aspiration cannot be done. Baboo et al (1994) states that "it becomes more difficult and risky to perform pregnancy termination of 12 weeks gestation.

Most of the controls requested for abortion services within the first 8 weeks of gestation. This is indicative of the fact that these women sought confirmation of pregnancy early to seek help. Their knowledge of the existence of the Act helped make decision in good time. Intensified reproductive health education could help the most disadvantaged women in raising awareness on available abortion services to avoid women seeking abortion services late.

5.13 METHOD USED FOR ABORTION

The actual methods used to induce abortion are difficult to determine as patients tend to conceal information on abortions. This is in line with other studies (Mutenukile and Ndulo 1994). In this study all controls had medical intervention using the menstrual regulation (MR) for majority however 15 of the clients who terminated pregnancy did it after 12 weeks and prostaglandin PGM2d was used. The delay in taking TOP could be attributed to the advice by health providers to clients to keep the pregnancy. This delays TOP intervention which finally has to be done late depending on reason for TOP or the woman seeking help from other sources.

Majority (71.3%) of the cases aborted spontaneously, while (31.6%) aborted using non medical methods, predisposing them to complications associated with the different unsafe methods. The high percentage of spontaneous abortion in this study compared to other studies could be attributed to some of the women concealing the methods used for fear of repurcation. Those women who used non medical methods ingested herbs, inserted either sticks or metal probes into the cervix and some took high doses of chloroquine, while some ingested high doses of contraceptive pills.

5.14 REASONS FOR ABORTION

On analysing reasons women gave for aborting, it showed that the most common cause among cases is spontaneous abortion which stood at (71.3%) while in the controls the reasons advanced were women wanted to pursue studies or their careers (36.8%) followed by failed family planning, satisfied parity with a few terminating pregnancy for being HIV positive (7%).

It is assumed that those controls who terminate pregnancies to pursue studies and careers do that for socio economic reasons. Raising of a child calls for an interruption of her education or work (Bankole et al 1998). Though Zambia has a return to school programme after delivery, it was not clear how many girls successfully do that. In Botswana out of 15% school girls who got pregnant less than 1/5 returned to school (Ralhakrishna 1997).

Some controls had been using family planning to delay or stop child bearing altogether. The use of family planning, satisfied parity and knowledge of HIV positive status are indications that made women not to want to have children and when they became pregnant they resort to abortion. Majority of controls were educated and would have had an opportunity to learn about reproductive services and therefore sought Termination of pregnancy when pregnancy occurs.

Among cases the commonest reason for abortion was cited as spontaneous. It was assumed that some of those that came in with spontaneous abortion could have concealed having tempered with the pregnancy by themselves or having secured help from unskilled person. This is because in this study spontaneous abortion was very high compared to world average which is at 15-20%. These ended up with incomplete abortion needing evacuation in hospital. RadhaKrishna et al 1997 stated that, the younger the woman the greater the chance that abortion will occur after 1st trimester with a non medical provider or that it will be self induced.

5.15 COMPLICATIONS

The fact that almost all cases had complications was an indication that the abortion services are not accessible and that methods used were unsafe. This was lower among controls whose complication rate was at 5%. Those that had complications among the controls were women who had TOP done later than 12 weeks gestation, a period when MVA is prohibited. It was clear that despite the risks that exist in procuring abortion, women with unwanted pregnancy will fight to terminate. The fact that almost all cases were referred to UTH for services is a sign that the facilities were inadequate for the required PAC services, in both infrastructure and human resource. To reduce the incidence of complications among cases the health sector will require, intensified IEC in reproductive health and bringing facilities for PAC services to health centres to avoid wastage of time in referring patients to UTH. Information on availability of TOP Act among

the poor and disadvantaged must be advocated for because those that had TOP did not have a lot of complications.

5.16 ABORTION SERVICES

99% of the cases were referred to UTH for further management irrespective of cause of abortion. This is a sign that services are not decentralised to meet the Health Reform policy of bringing the services as close to the family as possible. (Health Reform document 1991). It appears that most of the health centres did not handle MVA, a procedure said to be relatively safe. Contrary, to the cases, abortion services for controls were directly carried out in UTH where the service was available. The additional service for controls was advise on the importance of keeping the pregnancy. This advice could have contributed to delays in abortion and to increased incidence of cases who could have failed to secure TOP services from hospital, therefore resorted to unsafe abortion. Health care providers could also have judged women and based on their moral grounds delayed the abortion hoping the pregnant women would give up and finally go to term.

5.17 CONFIDENTIALITY OF HEALTH CENTRE PROVIDERS

Confidentiality is essential in the health care provision. In this study cases and controls had different perception towards the providers keeping information shared with them. 90.4% of cases did not know whether information shared with them would be kept confidential. This perception could be due to the fact that all those who came as cases had not much time to discuss with health care providers as they came to hospital in critical condition, needing resuscitation. In addition these were being interviewed when in hospital and therefore could have been scared to say the truth. This was not the same with controls, (96.1%) of them were confident that what ever was shared with health care providers would have been kept confidential. The possibility of this outcome would be attributed to the fact that most of those that came for TOP had time to discuss and be counselled. In addition the providers of TOP services are trained to handle clients and are trained to keep issues confidential.

Confidentiality must be kept at its highest to enable women access TOP services from health care facilities. Most of the young ones are scared to get these services for fear of disclosure to their parents and guardians.

5.18 CONDUCIVE ENVIRONMENT

A conducive environment is necessary for clients satisfaction. In this study both the cases and controls felt that their health care environment was conducive. Their perception about environment being conducive was however different between the two groups. Cases indicated the conducive environment as one where the providers quickly referred them for further management from the clinic to UTH. While for controls a conducive environment was one where the provider was attentive as they spoke to them. The difference in the perception could be as a result of cases needing emergency care as most of them were being referred from health centres to UTH where as controls were not emergencies and these clients needed sympathy and a listening ear to arrive at making an informed decision to terminate the pregnancy.

5.19 ACT

Despite the liberal law on TOP in Zambia, many incomplete abortions are still received in hospitals. Many of which are induced illegally, under unhygienic environments, coming in as incomplete abortions with a small percentage of spontaneous abortions. This picture is similar to experiences in other countries in the region (Lassey 1995).

The Zambian TOP Act of 1972, was not widely published and hence most cases did not know of its existence (Kaseba, et al 1998). In addition most providers were not conversant with the law to offer informed choices to clients (Kaseba, et al 1998). Contrary to the cases most controls had attained senior secondary education and because of the education level, it is likely that the group was aware of the termination Act and all other termination facilities than those in the group of cases whose education level was less and resorted to illegal abortions that ended as incomplete abortions.

It is in view of the above findings that a vigorous education campaign on reproductive health services including the TOP Act should be extended to communities and other places for the less educated. (Baboo et al 1994).

5.20 SOURCE OF INFORMATION ON TOP

Source of information determines the action that one takes. Correct precise information would enable one make an informed choice. In this study it showed that the source of information on TOP for 40 (90.8%) of cases was from non health care providers. A less percentage (72.4%) among controls got their information on TOPs from non health care providers. The discrepancy could be due to the fact that even health care providers are uncomfortable to discuss issues surrounding TOP and that majority of those that heard could have had inadequate information to make informed decisions especially among the cases who despite having heard about TOP some of them still procured unsafe abortion.

5.21 DEFINITION OF TOP AND THE INFLUENCE THAT KNOWLEDGE HAD ON CHOICE OF TERMINATION

Knowledge of a particular issue influences ones choice. In this study it has been revealed that most cases were not influenced by the knowledge of TOP because they did not know of its existence, while, 75% of controls made decisions based on informed choice and in this case they chose safe methods of terminations. The knowledge level and high educational levels among controls as demonstrated by the results could have influenced their decision as to where these women obtained abortion care services. Affluent women understand what is a conducive environment of care and are empowered to stand well on a clear decision based on their perception on what they consider to be a conducive environment.

Most controls (81%) confirmed that they went to UTH for TOP as it was a safe method using MVA and that some of them had their previous abortions in UTH safely. They still assumed that UTH would continue to offer a safe environment.

5.22 COST OF ABORTION SERVICES - LENGTH OF HOSPITALISATION

Medical costs cover a range of payments such as drugs and salaries for hospital personnel. The length of hospitalisation contribute to this cost. The longer one is hospitalised the higher the cost. The total average duration of hospitalisation time for cases was 24 hours while that of controls was 3.6 hours. This means that the cases stayed a period 6 times more time than the controls. Comparing costs in terms of time and other costs would help in decision making for choice of good and rational use of scarce resources. The longer the patient stayed in hospital the longer the Nurse/Doctor time worked. This therefore means more money for salaries. This was echoed by Magotti et al (1995) in their study. It is clear that the longer patients stay in hospital the higher the budget. It is estimated that 50-60% of hospital budgets goes towards managing abortions alone (Magotti 1995).

In this study the time was longer for cases since most of them came in with complications needing resuscitation before an MVA could be done. Some required antibiotic coverage while those who came in for TOP were physically fit needing very little for MVA.

In this study the health personnel were less involved in terms of time when attending to TOPs compared to those who came in with incomplete abortion, consequently less hospital costs were incurred for TOPs.

Majority (86.8%) of control in this study paid more than K30,000 with a few quoting figures as high as K250,000 or more. Most of those who sought abortion services from Private clinics paid up to K500,000 for inducing abortion, after which they were referred to UTH for completion of the abortion.

Majority of cases paid less or nothing in hospital fees since they came as emergencies having tempered with their pregnancies away from hospital setting. This exposed them to complications which increased the hospital and personal bills. As reported by Baboo et al (1994), women will resort to termination despite enormous economic and personal risks. In order to reduce the problem of unsafe abortion for the helpless women who cannot afford to pay more than K30,000 for

abortion services, it is important to improve reproductive health services that would lessen the risks of unwanted pregnancies and increase the use of family planning services.

5.23 PAC SERVICES

It is clear that in this study cases and controls received more or less adequate PAC services. This is an indication that the PAC programme is functional in UTH. This however might not be representative of the entire country since most places are still using E & C and staff are not yet trained in PAC services. PAC training and services must be decentralised to health centres and more health care providers trained if we have to cover many women and reduce complications of abortions. The current PAC services are cost effective and relatively safe and therefore must be made easily accessible. This is supported by many studies that support the use of MVA for incomplete abortion and for menstrual regulation.

In a previous study by Baboo et al (1994) it was clear that PAC services were in adequate to an extent of 5% TOP clients having had their 2nd termination and 1% had their third termination. In this study the impact of PAC services had not been felt in the sense that (3.9%) of controls had had abortions more than once. While in the group of cases the recurrent abortions was at (13.9%). Possibly in this group abortion is being used as a method of family planning. Since family planning usage was very low among them.

5.24 FAMILY PLANNING

In order to reduce the number of unwanted pregnancies contraceptive usage is very vital. In this study most cases (55%) were not using any form of family planning method before the pregnancy just aborted. Many of them might have perceived themselves as not being sexually active to require contraceptives. Some women may have used abortion as a method of family planning. As demonstrated by other studies before, the level of knowledge family planning is high (92%) in Zambia but its utilisation remains as low as 16-20% among women in reproductive health phase (DHS 1996). The low usage of family planning could be as a result of poor health provider attitude towards clients especially adolescents even though contraceptives

are free in Zambia. Rogos (1999) states that shortage of family planning methods was the cause of TOP. This is not the case in Zambia since family planning services are provided free of charge.

Advocating utilisation of family planning services will help reduce unsafe abortions by reducing unwanted pregnancies (Baboo et al 1994). In addition a few controls terminated pregnancy for failed family planning. This means that there is need for adequate IEC when offering family planning services, especially to students.

The study did not elicit the methods of family planning used. It is clear that most cases did not use contraceptives especially the condom which has dual protection against STIs/HIV
and pregnancy. With the advent of HIV and AIDS it is hoped that more will turn to the condom for protection as well as contraceptive method (Baboo et al 1994).

5.25 NUMBER OF ABORTIONS PER CLIENT

Frequency of abortions is a sign of unmet Reproductive Health needs. If however the abortion is due to unwanted pregnancy it would be advisable for the health care provider to offer post abortion counselling to avoid recurrence of abortions.

In this study, it shows that there was more recurrent of abortions in cases than in controls. It is however clear in the findings that in both cases and controls majority of women were having an abortion for the first time. This picture may not be a true reflection of what had transpired since women could have concealed the frequency of abortions especially among cases who used unsafe methods of aborting.

5.26 RECOMMENDATIONS TO MAKE ABORTION SAFE

To ensure participation in the reduction of abortion complications, study subjects were requested to make recommendations on how to make abortion services safe. It is clear from the results that both cases and controls recommended improved provider attitude. This recommendation is a proof that there is a possibility of women in reproductive age fearing to access abortion services on account of health care providers negative attitude. It has been cited in a number of studies that the

health care providers negative attitude is a big hinderance to women seeking help prior to going to unqualified unskilled people. (45.5%) of cases and (41.9%) of the same group recommended adequate information on TOP and no restriction to abortion respectively. This picture demonstrates that the study group could have had very little or inadequate knowledge on TOP.

5.27 ELIGIBILITY FOR ABORTION

The right to quality health care is for every one. This therefore means that women in reproductive phase have a right to reproductive health services. The study showed that most controls (96%) supported the fact that any woman seeking abortion must be given the service following counselling. The fact that a high number of cases (75%) also indicated that abortion services should be provided to any woman seeking abortion services. This picture shows that the desire for eliminating unwanted pregnancies cuts across the social strata. In this study Alleyne (1998) stated that "to reduce maternal mortality it is necessary to address the causes and consequences of abortion by ensuring that all women have access to family planning information services and compassionate care including post abortion family planning" services.

5.28 LIMITATIONS OF THE STUDY

The subject understudy is very sensitive, to an extent that some of the questions affected the interview process leading to respondents concealing some information. During the study period, Doctors went on go slow for five days. This meant that no TOPs were done during this time.

CHAPTER 6

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study has shown a significant difference between characteristics of women who are admitted for incomplete abortion and those who request for TOP in areas of residential areas, educational levels, family income, occupation, providers of abortion services, gestational periods at time of abortion, method used in terminating pregnancy, complication arising from abortion and reasons for abortion.

The cases were more at risk in all these areas and were more disadvantaged compared to controls. The incidence was higher among cases whose background was that of poverty. This is in line with a study by Abouzahr (2002) who stated that more maternal deaths and disabilities are concentrated among the poor. He said more than 4 out of 10 maternal deaths occur in poor est. There was also an inter relationship between the variables started above e.g cases were less educated, which led to poor job opportunities, low income forcing women in this category to seek abortion methods that were cheap, and most often from unskilled providers. The low education levels also led to low awareness of TOP and family planning services, posing a barrier in accessing safe abortion practice.

Many factors would be needed to reduce complications of abortions, to empower women with knowledge of TOP and reproductive health. This empowerment would help reduce the chances of unsafe abortion among women of child bearing, by seeking safer abortion services through informed choices.

There is need to intensify IEC in areas of family planning, TOP Act and other reproductive services in the community. This will involve increasing access to safe abortion care by decentralising of care to persons lowest down the system so that they can offer abortion services competently.

6.2 Recommendations

1. A study of this nature to be conducted on a wider scale in the country to involve other hospitals especially rural areas whose environment is different from Lusaka setting.
2. An intensive awareness campaign to be initiated on the TOP Act of 1972.
3. Intensify reproductive health education in schools especially secondary schools with emphasis on adolescent family planning to reduce unwanted pregnancy
4. Raise awareness among school girls and the community on the return to school regulation for pregnant girls after delivery. This might help girls carry their pregnancies through to term but later go back to school.
5. Conduct a nation wide community based survey on abortion related issues whose results will be used in planning national prevention programmes
6. Intensify PAC services and increase access to reduce complications of abortion and counselling to prevent recurrent of abortion
7. The identified high risk groups should be given special attention such as adolescents and the poor communities in issues of abortion.
8. Expand the TOP services and increase accessibilities by those seeking the abortion service considering that the current Act is restrictive to some extent as shown by health care providers who sent women back.

REFERENCES

Abdella A. Characteristics, socio economic profile and contraceptive behaviour in patients with abortion at Jimma hospital Ethiopia. *East African Journal* 1996 **73 (10.)** 660-663.

Abouzahr C. *Promotion of Maternal Health and Reduction of Maternal* Mortality. UNAIDS, Geneva, 2002.

Agadjanian Victor Quasi-Legal "Abortion service in a sub Saharan setting, user profele and motivations, *International Family Planning Perspective* 1998; **24**: (3) 111-116.

Ahmend K M, Raliman M, Gunnelien J Induced Abortion in Matlab, Bangladeshi: Trends and determinants. *International Family Planning perspectives* 1998 **24**, (3)128-132.

Alleyne G.A.O. – World Health Day. "*Safe Motherhood*". Washington D.C., PAHO, 1998.

Baboo K S, Ahmed Y. siziya S and Bulaya R A K. Characteristics of women terminating pregnancies at University Teaching Hospital, Lusaka Zambia: *Central African Journal of Medicine* 1994; **40(5)**: 110-113.

Bankole A, Singh Susheela and Taylor, Haas, Reasons why women have induced abortions; Evidence from 27 countries. *International Family Planning Perspective* 1998; **24** (3): 117-127.

Bankole A, Singh Susheela and Taylor Haas, characteristics of women who obtain induced abortion: A world wide review. *International Family Planning Perspective* 1999; **25** (2): 66-77.

Billings D L, Baird T L and Hord C E, Advancing the role of Midlevel Providers in Abortion and Post Abortion Care – A Global Review and Key Future Action. *Issues in abortion Care* 1999; **6**: IPAS. 1-10.

Bradley J, Sikazwe M, Healy J, Improving abortion care in Zambia. *Studies in Family Planning*, 1991; **22** (6): 433-437.

Coeytaux F.M. "Abortion", The Health of Women. A global perspective Oxford: *West View Press*. Oxford. 1993.

Dinys Luciano Ferdinard Reproductive Rights and Abortion in the Dominican Republic; lost battles and lesson learned. *Sexual health exchange,* 2000; **4** (6).

Greenslade F.C. Gringle R, E and Radhakrishina, Identifying the intersection: Adolescent unwanted pregnancy, HIV/AIDS and unsafe abortion *issues in abortion care* 1997; **4**: 6-9.

Henshaw S and Morrow E, Induced Abortion: *A World Review, Supplement Table 4 Newyork*; The AGI; 1990.

Henshaw S.K, Singh S and Haas T, the incidence of abortion worldwide. *International Family Planning perspective*, 1999; **25**th supplement. S 30-S38.

Jeppson A. Tesfu M and Bohmer L, Magnitude of abortion related complications in Ethiopian Health facilities: A national assessment. *East African Medical Journal* . 1999; **76**: (10) 547-551.

Kaseba C, Phiri D, Chibuye P , *Situation of Post Abortion Care Services in Zambia*; An Assessment and Recommendation 1998.

Kinoti S.N. Gaffikin L. Benson J, and Nicholson L.A. *Monograph on complications of unsafe abortion in Africa.* Arusha Common Wealth Regional Health Community Secretariat for ECSA. 1995.

Lassey, AT Complications of induced abortions and their prevention in Ghana *East African medical journal.* 1995; **72** (12) 774-776.

Lukman HY and Pogharian D Management of incomplete abortion with manual vacuum aspiration in comparison to sharp metallic curette in an Ethiopian setting. East African medical journal 1996; **73** (9). 598-603.

Magotti RF, Mujinja, PGM, Lemma RSM, Ngwalle E K, Cost effectiveness of managing abortions: Manual vacuum aspiration (MVA) compared to evacuation by curettage in Tanzania. East African medical journal 1995; **72** (4): 248-251.

Marshal S.L Gould D and Rober J Nurse attitude towards TOP. *Journal of Advanced Nursing* 1994; 567-576. Blackwell Science Publication.

Mutungi AK, Karanja JG, Kimani VN, Rogo KO, and Wango EO Abortion knowledge and perceptions of adolescents in two districts in Kenya. *East African medical journal* .1999; **76** (10) 556-561.

Pocock S J. Statistical aspect of clinical trial design. The statistician, 1982; 31(1).

Population Council, Care for Post Abortion Complications: Saving women's lives. *Population report* series 1997; 24. (2).

Rogo KO Induced abortion in sub-saharan Africa. *East African Medical Journa.l* 1993; **70** (6) 386-395.

Rogo KO, Bohmer L and Ombaka C . Developing community based strategies to decrease unsafe abortion: Pre intervention report. *East African Medical Journal* 1999; **76** (11) S1-S4.

Salter C. Johnson H. B and Hengen N Care for Post Abortion complications: Saving women's lives *population report series* L 1997;. 10.

Tadesse E, Yoseph S, Gossa A, Muletta E, Pogharian D, Ketsella K and Hawaz *East African Medical Journal* 2001; **78**: (1) 25-28.

Unuigbe J. A. et al. Abortion related mortality in Benin City, Nigeria, *International Journal of gynaecological and obstetric.* 1998; **26**: 435-439

United Nations, *Report of the International Conference on population and Development.* Newyork. 1994.

Weller and Wells *Baillier's Nurses Dictionary*, 21st Edition. 1992.

Westoff C.F. Sharmanov A.T and Sullivan J.M. The replacement of abortion by contraception in three Central Asian Republic *Population Research*, USA, 1998.

Winkler, J, Oliveras, E and Mcintosh, M. Postabortion Care: A reference manual for improving quality care. Baltimore, MD Post abortion care consortium. 1995.

WHO, The Health of young people. A challenge and a promise. Geneva. 1995.

WHO, Abortion: A tabulation of available information 3rd edition. Geneva in press. 1997.

Yusuf L and Zein Z.A, Abortion at Gondar College Hospital, Ethiopia: *East African Medical Journal* . 2001, **78**: (5) 265-268.

Zambia Health Information Digest, *Maternal mortality in Africa Magnitude of unsafe abortion.* UNZA 1996; **4**(1) 41-56.

Zambia Demographic Health Survey, 2001-2002.

Appendix 1

INTERVIEW SCHEDULE

TITLE: A STUDY TO COMPARE CHARACTERISTICS OF WOMEN REQUESTING TERMINATION OF PREGNANCY AND THOSE PRESENTING THEMSELVES WITH INCOMPLETE ABORTION

RESPONDENT NO:.....

STUDY LOCATION:.....

INTERVIEW DATE:.....

INTERVIEWER:.....

INSTRUCTIONS TO RESEARCH ASSISTANTS

1. Always introduce yourself to respondant.
2. Explain the purpose of the study and ask for permission to do the interview
3. Request the respondant to sign consent before you start
4. If the respondant declines to take part, do not force them
5. Do not write names of respondants on the questionaire
6. Circle the numbers corresponding to the answers given by respondant

SECTION A

SOCIO DEMOGRAPHIC DATA

1. Age at last birthday .....
2. Residential address:-
    1. Low density area
    2. Medium density area
    3. High density area
    4. Rural setting
3. Marital status
    1. Married
    2. Single
    3. Widowed
    4. Divorced
    5. Separated
    6. Other (Specify) .....
4. How many children do you have? .....
5. Completed years in school.....
6. Which religion do you belong to?
    1. Protestant
    2. Roman Catholic
    3. Hindu
    4. Moslem
    5. Buddism
    6. Others (specify).....
7. Occupational status
    1. Housewife
    2. Professional
    3. Self employed
    4. Student
    5. Other (Specify).....
8. How is your family income per month.

1. Below K150,000
2. K150,000 – K300,000
3. K301,000 – K600,000
4. K601,000+
5. I do not know

SECTION B

ACCESSIBILITY TO REPRODUCTIVE HEALTH SERVICES

9. How far is your home to the nearest health centre/hospital?
   1. Below 1 km
   2. 1 – 4 km
   3. 5 – 9 km
   4. 10 km and above
10. Where did you receive your abortion services?
   1. GRZ health institution
   2. Private clinic
   3. At home
   4. Traditional/non medical healer
   5. Other (Specify).....
11. How many weeks pregnant were you at the time of inducing an abortion.
   1. Below 4
   2. 4 – 7
   3. 8 – 11
   4. 12+
12. What method was used to induce your abortion.
   1. Drunk herbs
   2. Inserted a probe to dilate cervix
   3. Inserted a stick to dilate cervix
   4. Inserted herbs into vagina
   5. Took contraceptive pills
   6. Cytotic tablets
   7. Spontaneous
   8. Other specify.....

9. Menstrual regulation

13. What reasons/factors have led you to carry out an induced abortion.

1. Still in school
2. Desertion by spouse
3. Fear of parents
4. Too many children
5. Failure of family planning method
6. Others (Specify) spontaneous.....
7. Man friend married
8. Nursing small baby
9. HIV positive

14. What complications arose as a result of this abortion.

1. Severe haemorrhage
2. Depression following abortion
3. Septicaemia
4. Other (Specify) None.....
5. 1 + 3
6. 1 + 2

15. When you sought abortion services what did the health care provider do?

1. Require you to get consent from your parents/guardian
2. Require you to get spousal consent
3. Delay the provision of a service by giving you a new date
4. Remind you the importance of keeping the pregnancy
5. Other (Specify) Refer to UTH

16. Did you feel confident that the information shared with the provider on your intention to terminate your pregnancy was going to be kept confidential?

1. Yes
2. No
3. N/A

17. Did the provider create a conducive environment when you sought abortion services?

1. Yes
2. No

18. If the answer to question 15 is Yes what did she actually do?

    1. She maintained privacy
    2. There was prior evidence of confidentiality
    3. She paid a lot of attention as I spoke
    4. Any other (Specify) Referred to UTH

SECTION C

KNOWLEDGE OF AVAILABILITY OF TERMINATION OF PREGNANCY ACT OF 1972

19. Have you heard about TOP Act?

    1. Yes
    2. No

20. If your response to question 19 is Yes, state your source of information.

    1. Health care provider
    2. Relative
    3. Close friend
    4. Other (Specify).....
    5. N/A

21. What is the TOP Act.....

    .....

    .....

20. Did your knowledge of the existence of the TOP Act of 1972 have a bearing on where you obtained your induced abortion.

    1. Yes
    2. No
    3. N/A

23. Explain your answer to the above question.....

    .....

    .....

    .....

SECTION D

COST OF ABORTION SERVICES

24. Length of hospitalisation ..... Hrs.

25. How much has the abortion service costed you?

    1. Below K10,000
    2. K10,000 – K19,999
    3. K20,000 – K29,999
    4. K30,000+
    5. Did not pay

26. What post abortion care services were available to you?

    0. No services/no response
    1 Post abortion counselling
    2. Family planning services
    3. Other (Specify).....
    4. Linked to nearest clinic
    5. Linked to other reproductive services

27. Were you using a form of family planning before this abortion.

    a. Yes
    b. No

28. How many abortions have you had, inclusive of this one.

    1. once
    2. twice
    3. thrice
    4. four or more times

SECTION E

RECOMMENDATION/INTERVENTION

29. In your view how can the health system make safe abortion services more accessible.

    1. Adequate information on T.O.P
    2. No restrictions in securing abortion services
    3. Increased access to family planning services

4. Increase Information Education Counselling (IEC) on Reproductive Health Service to the community
5 Improve provider attitude towards clients seeking abortion services
6. Other (Specify) .....

30. Who should be eligible for abortion?
1. Any woman seeking abortion services
2. married women with more than five children
3. school girls
4. victims of rape/incest
5. girls below 16 years of age
6. Other (Specify).....

31. Type of abortion
1. Control
2. Case

Appendix 2

The University of Zambia
School of Medicine
P.O Box 50110
LUSAKA

1st August, 2001

Dear Respondent

RE: PERMISSION FOR YOUR INCLUSION IN THE STUDY

I am carrying out a study to compare characteristics of women who request TOP and those who present with incomplete abortion. This study will in turn enable, policy makers and health care providers determine strategies to reduce the occurance of unsafe induced abortion which predisposes patients to complications, that may even lead to death.

I am therefore requesting you to take part in the study. The information obtained will be treated with strict confidentiality. You have a right to withdraw from the study at anytime. Your decision to withdraw will not hinder you from obtaining treatment.

A agree to be interviewed

Signature.....

I refuse to take part in the interview

.....

Signature of Interviewer:.....

Appendix 3

University of Zambia
School of Medicine
P.O Box 50110
LUSAKA

1st July, 2001

The Managing Director
University Teaching Hospital
P.O Box 50001
LUSAKA

Dear Madam

RE: PERMISSION TO CONDUCT A RESEARCH STUDY AT THE GYNAECOLOGICAL WARDS AT U.T.H

I am a student at the University of Zambia pursuing a Masters of Public Health Degree. Part II of the Masters' programme requires me to produce a dissertation over a period of three months.

I have decided to work in the area of Reproductive Health and in particular on abortions. The aim of the study is to compare the characteristics of women who request for TOP to those who present with incomplete abortion, with a view of making appropriate recommendations for possible intervention to reduce the impact of abortion complications.

My decision to conduct the study in UTH is based on the fact that UTH qualifies to conduct legal abortions and attends to patients presenting with incomplete abortion.

I am therefore requesting for permission from your office to conduct my research in the gynaecology, ward CO3 of UTH.

Your favourable response and assistance would be highly appreciated.

Yours faithfully

Dorcas Siafwa Phiri (Mrs) (MPH Student)

cc Head of Gynae & Obstetric Department – UTH

CHAPTER 304

TERMINATION OF PREGNANCY

26 *of* 1972
13 *of* 1994

An Act to amend and clarify the law relating to termination of pregnancy by registered medical practitioners; and to provide for matters incidental thereto and connected therewith.

[13*th October*, 1972]

Short title

1. This Act may be cited as the Termination of Pregnancy Act.

Interpretation

2. In this Act, unless the context otherwise requires—

"hospital" means any institution run as such by the Government or any other institution approved in writing for the purposes of this Act by the Permanent Secretary, Ministry of Health;

"the law relating to abortion" means sections *one hundred and fifty-one, one hundred and fifty-two* and *one hundred and fifty-three* of the Penal Code, and includes any written law or rule of law relating to the procurement of abortion; Cap. 87

"registered medical practitioner" means a medical practitioner registered as such under the provisions of the Medical and Allied Professions Act. Cap. 297

Medical termination of pregnancy

3. (1) Subject to the provisions of this section, a person shall not be guilty of an offence under the law relating to abortion when a pregnancy is terminated by a registered medical practitioner if he and two other registered medical practitioners, one of whom has specialised in the branch of medicine in which the patient is specifically required to be examined before a conclusion could be reached that the abortion should be recommended, are of the opinion, formed in good faith—

(*a*) that the continuance of the pregnancy would involve—

(i) risk to the life of the pregnant woman; or

(ii) risk of injury to the physical or mental health of the pregnant woman; or

(iii) risk of injury to the physical or mental health of any existing children of the pregnant woman;

greater than if the pregnancy were terminated; or

(*b*) that there is a substantial risk that if the child were born it would suffer from such physical or mental abnormalities as to be seriously handicapped.

(2) In determining whether the continuance of a pregnancy would involve such risk as is mentioned in paragraph (*a*) of subsection (1), account may be taken of the pregnant woman's actual or reasonably foreseeable environment or of her age.

(3) Except as provided by subsection (4), any treatment for the termination of pregnancy must be carried out in a hospital.

(4) Subsection (3) and so much of subsection (1) as relates to the opinion of two registered medical practitioners, shall not apply to the termination of a pregnancy by a registered medical practitioner in a case where he is of the opinion, formed in good faith, that the termination of pregnancy is immediately necessary to save the life or to prevent grave permanent injury to the physical or mental health of the pregnant woman.

Conscientious objection to participation in treatment

4. (1) Subject to subsection (2), no person shall be under any duty, whether by contract or by any statutory or other legal requirement, to participate in any treatment authorised by this Act to which he has a conscientious objection:

Provided that in any legal proceedings the burden of proof of conscientious objection shall rest on the person claiming to rely on it.

(2) Nothing in subsection (1) shall affect any duty to participate in any treatment which is necessary to save the life or to prevent grave permanent injury to the physical or mental health of a pregnant woman.

(3) In any proceedings before a court, a statement on oath by any person to the effect that he has a conscientious objection to participating in any treatment authorised by this Act shall be sufficient evidence for the purpose of discharging the burden of proof imposed upon him by subsection (1).

Regulations

5. (1) The Minister may, by statutory instrument, make regulations for the better carrying out of the provisions of this Act and, without prejudice to the generality of the foregoing, such regulations may make provision for—

(*a*) anything which is to be or which may be prescribed under this Act;

(*b*) requiring any such opinion as is referred to in section *three* to be certified by the registered medical practitioner concerned in such form and at such time as may be prescribed by the regulations;

(*c*) the preservation and disposal of certificates made pursuant to the regulations;

(*d*) requiring any registered medical practitioner who terminates a pregnancy to give notice of the termination of pregnancy and such other information relating to the termination of pregnancy as may be prescribed;

(*e*) prohibiting the disclosure, except to such persons or for such purposes as may be prescribed, of notices given or information furnished pursuant to the regulations.

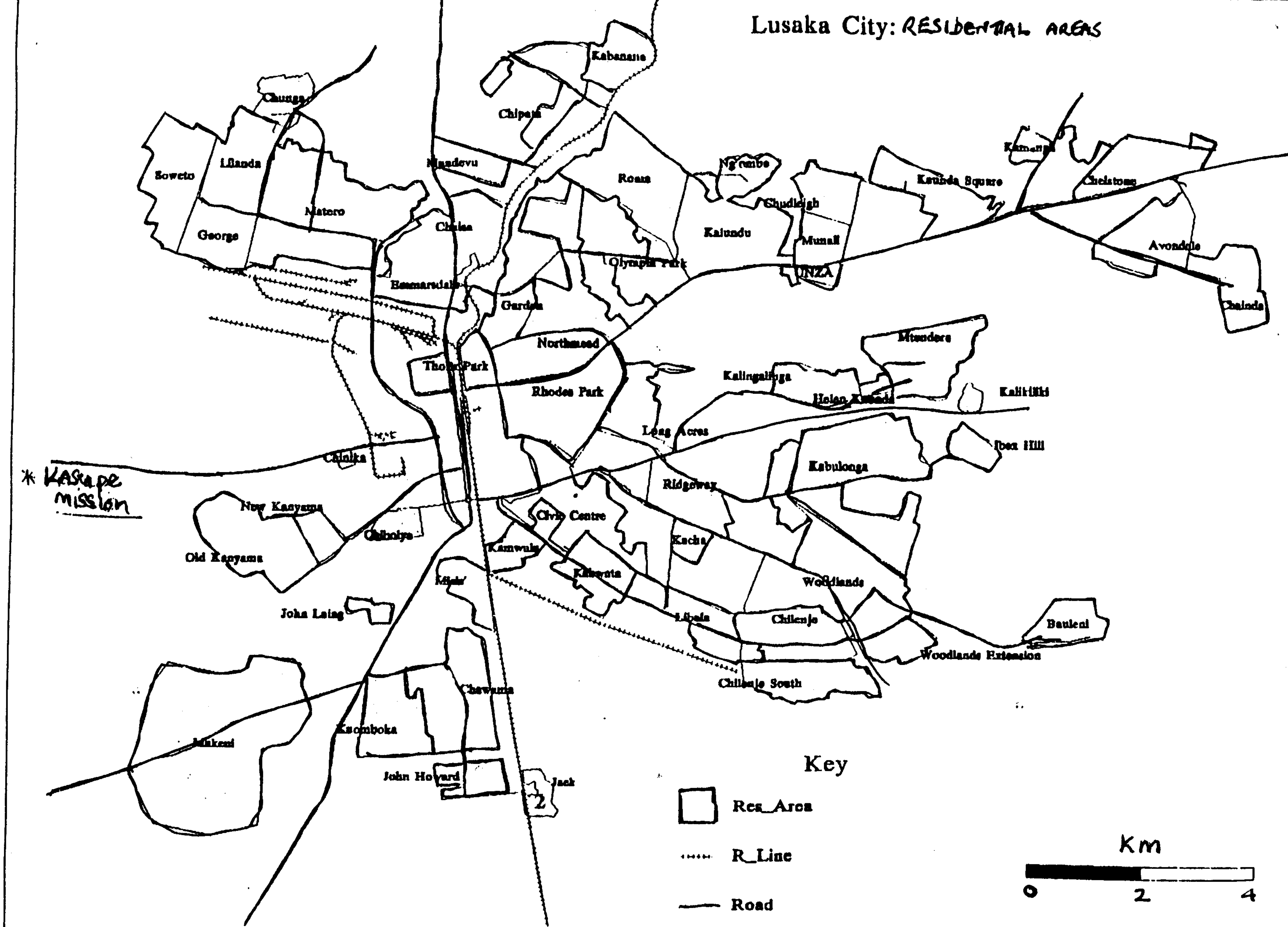
(2) The information furnished in pursuance of regulations made by virtue of paragraph (*d*) of subsection (1) shall be notified solely to the Permanent Secretary, Ministry of Health.

(3) Any person who wilfully contravenes or wilfully fails to comply with the requirements of regulations made under subsection (1) shall be guilty of an offence and on conviction shall be liable to a fine not exceeding two thousand penalty units.

(*As amended by Act No.* 13 *of* 1994)

Supplementary provisions

6. For the purpose of law relating to abortion, anything done with intent to procure the miscarriage of a woman is unlawfully done unless it is done in accordance with the provisions of this Act.


Lusaka City: RESIDENTIAL AREAS
Kabanana
Chunga
Chipata
Kamanga
Soweto
Lilanda
Mandevu
Ng'ombe
Roma
Kaunda Square
Chelston
Matero
Chudleigh
Chaisa
Kalundu
Munali
George
Avondale
Olympia Park
UNZA
Bauleni
Chainda
Garden
Mtendere
Northmead
Thorn Park
Kalingalinga
Kalikiliki
Rhodes Park
Helen Kaunda
Long Acres
Ibex Hill
Chinika
Kabulonga
* Kasupe mission
Ridgeway
New Kanyama
Civic Centre
Chibolya
Kamwala
Kacha
Old Kanyama
Kabwata
Woodlands
John Laing
Libala
Chilenje
Woodlands Extension
Chilenje South
Chawama
Kuomboka
Makeni
Key
John Howard
Jack
2
Res_Area
R_Line
Road
Km
0
2
4

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 Dorcas S Phiri
Department of Community Medicine
UTH LUSAKA

Dear Ms Phiri

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

Title of Research Proposal: **"Comparison of characteristics of women who obtain safe and unsafe induced abortion: A comparative study at the University Teaching Hospital, Lusaka, Zambia".**

Yours sincerely

Prof J T Karashani
CHAIRPERSON, RESEARCH ETHICS COMMITTEE

The University of Zambia

DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Telephone: 290258/291777
Telegrams: UNZA LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260 - 1 - 290258/253952
E-mail DirectorPostgrad@postgrad.unza.zm

P O Box 32379
Lusaka, Zambia

Your Ref:
Our Ref:

4th November 2002

Mrs Dorcas Siafwa Phiri
C/o Department of Community Medicine
School of Medicine
UNZA

Dear Mrs Phiri

RE: MASTER OF PUBLIC HEALTH RESEARCH PROPOSAL

Your research proposal for the Master of Public Health entitled: ***"Comparison of characteristics of women requesting termination of pregnancy and those presenting themselves with incomplete abortion in the University Teaching Hospital, Lusaka"*** was presented at the 73rd meeting of the Board of Graduate Studies held on 1st November, 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 Prof. K. S. Baboo and your Co-supervisor is Dr S. Siziya.

I wish you every success in your studies.

Yours sincerely

Professor Geoffrey Lungwangwa
DIRECTOR

cc Dean, School of Medicine
Assistant Dean (PG), School of Medicine
Head, Community Medicine Department
Prof. K. S. Baboo, School of Medicine
Dr S. Siziya, School of Medicine