CHAPTER ONE

INTRODUCTION

1.1 GLOBAL PERSPECTIVE OF CERVICAL CANCER

Cervical Cancer (CC) is a major public health problem in most countries of the world. It is regarded as a silent killer in most of the continents, including sub-Saharan region of Africa, where Zambia is located (Zyambo et al. 2004).

CC has been found to be the second-commonest reproductive cancer after cancer of the breast. The cervix is the lower part or neck of the uterus (womb). Although most cancers are rated silent killers, CC is usually not given the attention it deserves at early stages of infection and detection. However, after screening and confirming that one has tested positive for Human Papilloma Virus (HPV), eventual prophylaxis is done to help reduce mortality (GLOBOCAN, 2008).

In most instances, because of late detection, the disease burden spreads since there is no timely intervention by way of instituting prophylactic treatment which reduces mortality. Bergstrom (1999) argues that most national screening programmes in Sweden have had an impact on the decline in the incidence of invasive cancer of the cervix in many developed countries. Most individuals who test positive in the early stages are able to have access to early treatment and hence avoid premature deaths.

At global level, it is estimated that there are 12.7 million new cases of all cancers and 7.6 million cancer deaths recorded annually. Based on the above statistics, it has been noted that 56% of all new cancer cases and 63% of deaths have been recorded from developing countries (GLOBOCAN, 2008).

1.2 REGIONAL PERSPECTIVE OF CERVICAL CANCER

The regional perspective of CC is quite alarming. Curado and others (2007) revealed that cancer of the cervix is the most common cancer in Africa, with an estimated 79, 000 new cases occurring each year (70,700 in sub-Saharan Africa, constituting 25.4% of cancers in females. The incidence of cervical cancer in Africa is highest in eastern and southern Africa (30–40 per

10^5 females); the rest of sub-Saharan Africa has a lower incidence (20–30 per 10^5 females), and north Africa has the lowest incidence (12 per 10^5 females on average) (Curado et al. 2007).

According to a report by the World Health Organization(WHO), 2008, there are more than 530 000 new cases of cervical cancer worldwide and 275,000 deaths. Over 90% of them were recorded in developing countries. Further more, the WHO African region, recorded 75,000 new cases of CC and 50,000 deaths annually (WHO,2008).

The WHO report further argues, that high incidences of cervical cancer are reported in Africa at rates exceeding 50 per 100,000 population and age-standardized mortality sometimes exceeding 40 per 100,000 populations. Nairobi hospital records upto the year 2000, showed that cervical cancer accounted for 70%–80% of all cancers of the genital tract and 8%–20% of all cancers (WHO,2008).

It is worth noting that the majority of CC cases, accounting for 80%, occur in developing countries where women have little or no access to screening and effective treatment (De Sanjose et al. 2010).

1.3 NATIONAL PERSPECTIVE OF CERVICAL CANCER

The World Health Organization (WHO), from their 2010 report, revealed that there were growing concerns on the number of women (1,839) dying due to CC in Zambia on an annual basis. Most of these cases were purely as a result of ignorance on the part of the patients, mostly women in the reproductive age group because of the myths and misconceptions surrounding CC. These women were unable to access screening services due to the surrounding negative factors once they test positive for the HPV (WHO, 2010).

In a further research conducted by the World Health Organization (2010) and the Information Centre on HPV(ICO) 2010, it revealed that in order to help facilitate administration of drugs, sensitization of women on possible screening for the HPV and HIV/AIDS be done quickly for them to access cervical cancer screening and further reduce the burden of disease.

It is important to note that from the study undertaken by WHO and ICO (2010), HPV which is the virus that eventually causes CC is spread primarily through sex with a partner infected with the virus. HPV infection around the genitals is common, although most people have no symptoms. Some people with HPV infection will have visible genital warts. They are raised, flesh-colored soft growths that may occur singly or in clusters. Clinical evidence shows that about 90% of the HPV cases are HIV/AIDS-related. Several studies reveal poor knowledge about cervical cancer screening of the general population (WHO et al. 2010).

1.4 SCREENING OF CERVICAL CANCER IN AFRICA

Cervical Cancer in africa is being exacerbated by the lack of reproductive health information for women, and also delayed access to treatment in most rural areas. CC is detectable and preventable through cervical screening for pre-cancerous lesions (Papanicolaou smear). Such screening has been effective in preventing CC in industrialized countries, where adequate health infrastructure, human and financial resources are available to ensure high quality and good coverage. However, this has largely failed in most developing countries, where appropriate infrastructure is not available (Denny L et al. 2006).

Africa has demonstrated a lot of challenges in terms of resources to screen for HPV, hence cheaper but effective screening measures have been sought using the VIA (Visual Inspection with Acetic Acid) or VILI (Visual Inspection with Lugol's Iodine), which are less infrastructure-dependent and have been advocated as screening alternatives. Various evaluation studies in sub-Saharan Africa have shown visual inspection screening methods, coupled with cryotherapy treatment for those who screen positive, to be effective for primary screening (Blumenthal PD et al. 2007; Denny L et al. 2005; and Pfaendler KS et al. 2008).

Cryotherapy treatment destroys the abnormal tissue on the cervix, which temporarily appears white when exposed to the acetic acid, by freezing it. However, these techniques are still prone to subjectivity, requiring good provider training and sustained quality assurance in order to achieve substantial gains in the prevention of CC in routine settings (Quentin W et al. 2011).

It is worth noting that the screening techniques that have been adopted in Africa by the developing countries is the naked-eye visual inspection (VIA/VILI) because of various benefits

such as the immediate diagnostic and possibility to treat, no complex infrastructure requirements and no highly skilled personnel required for the poor and developing countries. Although VIA/VILI is being used currently, it may lack sensitivity (range 60–94%) or specificity (range 74–94%), thus having limited impact on real morbidity and mortality (Sankaranaravanan R et al, 2004).

Denny and others (2002), also revealed in a study undertaken that there is lack of specificity in HIV-positive women because of their susceptibility to genital tract co-infection. However, VIA/VILI remain the best technologies to use with the challenges developing countries report.

1.5 SCREENING OF CERVICAL CANCER IN ZAMBIA

White and others (2011) state that Invasive Cervical Cancer (ICC) is the second most commonly diagnosed malignancy worldwide, and approximately 85% of the disease burden occurs in underdeveloped countries, where Zambia has not been an exception. A growing body of evidence has demonstrated that women can be effectively screened and clinically managed for ICC using non-cytological modalities.

In 2006, the Zambian government launched a Cervical Cancer Screening (CCS) programme within primary health clinics using VIA, coupled with same-day treatment via cryotherapy. CC is potentially preventable, and effective screening programmes can lead to a significant reduction in the morbidity and mortality associated with this cancer (White et al. 2006).

Zambia, being a developing country, has adopted the cheaper but effective technologies for screening of CC, in order that the disease burden be curbed. VIA or VILI have been adopted in the "see and treat" methods that are less infrastructure-dependent. These have indicated notable benefits to both the patients and clinicians attending to them. There is a recorded immediate diagnostic and possibility to treat patients,with very few/less skilled clinicians, while screening continues.

The debate now is whether, having launched the screening programme, mostly in the peri-urban areas, this has impacted on the general population who are in the reproductive age group (i.e. Women aged between 15 and 49) in responding to the actual accessing of these public health clinic centers providing CCS services.

1.6 STATEMENT OF THE PROBLEM

CC is a leading cause of most deaths among women in Zambia with up to 23.5% mortality rate. (Cancer Registry - 2004).

Regionally, 33.6% of women in the general population are estimated to harbour HPV infection at any given time. However, in Zambia, there are about 3.21 million women aged 15 and older who are at risk of developing CC. Current estimates indicate that every year, 21% of women are diagnosed with CC and 19% die from the disease. CC ranks as the most frequent cancer among women aged between 15 and 49 in Zambia (WHO et al. 2010).

Further findings by Mwanahamuntu and others (2006) established that of the 439,799 population of women in the reproductive age group in Lusaka Urban District, only 20% of them have been screened. There remains a stigma surrounding the actual Cervical Cancer Screening (CCS) even after a lot of advocacy, which could be attributed to a number of factors, such as lack of knowledge about CC, negative attitude towards CC screening due to their socioeconomic status, lack of interest to undergo medical checkups, use of traditional medicines inserted in the vagina for pleasurable dry sex, any sickness, multiple births for women who start bearing children as early as 12, lack of trained health personnel in the actual screening and the non-availability of screening facilities.

The factors contributing to the low coverage and or usage of CCS among women in their reproductive age group can therefore be classified into four categories as follows:

- Service-related Factors (Denny et al.2006)
- Screening of Cervical Cancer (CC)-related Factors (Wong et al. 2009)
- Behavioral Factors (WHO,2010)
- Socioeconomic Cultural Factors (WHO et al. 2010)

The problem analysis diagram on page 6 in Fig. 1.6.1 is simply a conceptual framework to highlight the magnitude of the problem regarding cervical cancer screening in Lusaka District which has only recorded a dismal 20% and is based on the Health Belief Model by Glanz et al (2002)which helps show the perceptions, severity, and the cost associated with the health seeking behaviors of Cervical Cancer Screening (CCS). Lusaka District has recorded at least 14 cervical

cancer screening centres. However, it became apparent that all possible relationships and possible factors leading to the low coverage/usage of the CCS centers among women who are in their reproductive age group in Lusaka District, be explored in order to find a lasting solution and curb the deadly but silent number one killer of women in the world , CC.

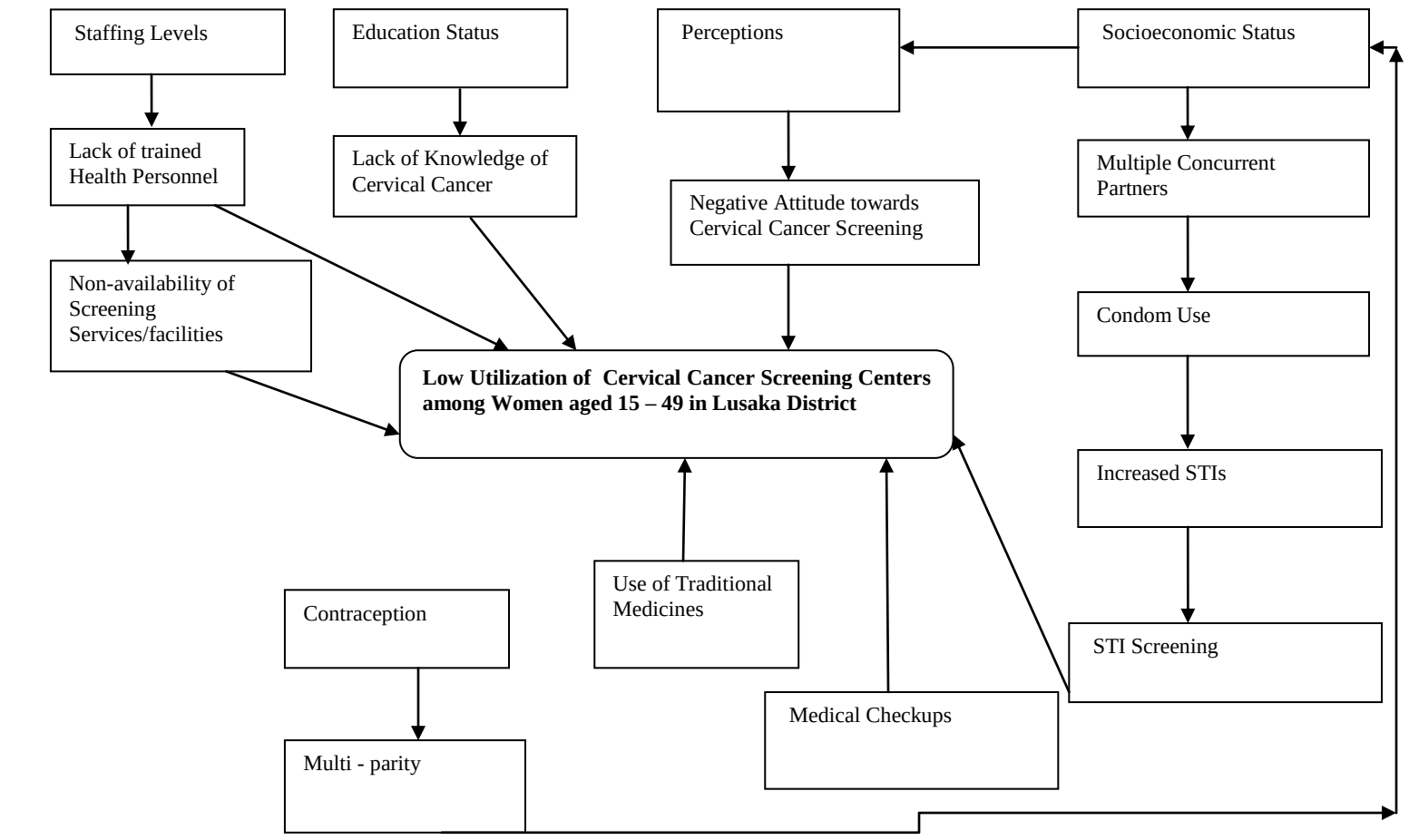

Figure 1.6.1: Problem Analysis Framework

1.6.1 SERVICE-RELATED FACTORS

1.6.1.1 Staffing Levels

CC screening is a very specialized area that requires staff in all publicly-operated clinics that are able to 'see and treat' patients immediately when they visit the health facility. However most publicly-operated clinics have very few staff on board, thus affecting the actual uptake of individuals who may want to find out about their status (Denny et al.2006).

1.6.1.2 Lack of trained Health Personnel

CC is a new phenomenon that requires well trained staff. Of course, Lusaka has trained personnel who seem to be over-stretched with the population that desires to be screened. The health sector in Zambia is understaffed and operating at nearly one-third capacity. This lack of trained health personnel deters progress in achieving greater coverage and may compromise usage of these facilities as well as the quality of service provided (Sankaranaravanan et al.2004).

1.6.1.3 Non-availability of screening services/facilities

Inadequate CCS services/facilities throughout the country compromises the actual usage on the few available facilities. This may compromise the actual benefits of CCS and its roles in the prevention of the spread of HPV from males to females and thus increasing the number of people actually shunning the procedure since CCS may not be an immediate need for them. It is therefore imperative to ensure proximity of these facilities to lessen the burden on the population who are willing to undertake screening (White et al,2006).

1.6.2 SCREENING OF CERVICAL CANCER - RELATED FACTORS

1.6.2.1 Education Status

Education status may compromise the knowledge an individual has, and the lack of knowledge of CC may result in having a negative attitude towards CCS itself. This has an adverse effect on women accessing health facilities for CCS as inadequate knowledge impacts negatively on the actual utilization of CCS centers (Wong et al. 2009).

1.6.3 BEHAVIORAL FACTORS

1.6.3.1 Negative attitude towards Cervical Cancer Screening

Women's attitude and mindset is one of the major determinants of the utilization of health facilities. Perceived women's negative attitude towards CCS deters them from accessing the service. Other issues are the myths and misconceptions surrounding the screening itself, which bear negatively on their minds. However, a positive attitude would definitely encourage women to utilize the health services (WHO, 2010).

1.6.3.2 Medical Checkups

Generally, it has not been common practice for women or any other population in Zambia to proactively undergo a medical checkup unless there is a major problem with their health. This means that if one does not readily a medical facility for a checkup, they may be endangering their lives. It should therefore be encouraged that medical checkups be made policy in order to try and save productive lives in the early stages of any infection (WHO, 2010).

1.6.4 SOCIOECONOMIC AND CULTURAL FACTORS

1.6.4.1 Socioeconomic Status

It should also be noted that this negative attitude could be due to some women predisposing themselves to multiple concurrent partners due to their low socioeconomic status, which puts them at risk if they indulge in indiscriminate sex (WHO, 2010).

1.6.4.2 Multi parity

The fear to have periodic medical checkups results in usage of traditional medicines. Early marriages and multiple births are among the direct reasons for the low coverage of CCS practices among women (CSO, 2003).

1.6.4.3 Use of Traditional Medicines

Traditional medicines are usually a source of consolation to the women who do not patronize the medical facilities. However, these may not have the best effect or healing properties and effectiveness in dealing with the disease. Over 90% of the women using traditional herbs have ended up with complications, hence the need to sensitize communities on the dangers of using these herbs (WHO et al. 2010)

It was therefore, imperative that the rationale be analyzed to substantiate the reason for undertaking the study.

1.7 STUDY JUSTIFICATION

CC remains a silent threat to the women if not arrested at an early stage. It has been projected that by 2030, 73% of deaths will be due to cancers if the trend is left as it is in Africa. Treatment will become extremely expensive, especially if the problem is not dealt with early. CC is affecting many women in their reproductive age without them realizing that the absence of effective screening and the introduction of HPV vaccination for young girls who are not yet sexually active shall be causative factors of deaths.

However, it does become expensive to deal with the disease at a later stage because the number of new cases (incidence) and the disease burden itself will have increased. This implies that if measures were put in place early enough, productive lives would be spared, and there would be enormous saving on resources. Screening of CC should be encouraged as an ongoing exercise so that the incidence and the burden of disease may be drastically reduced and eventually curbed. Early diagnosis of HPV in women implies that essential and productive lives will be spared (Ferlay et al. 2008).

However, there is also an important aspect of the non-marketing or effective health promotion of CC in some cases causing the perpetuated lack of knowledge among most of the sexually active women in the reproductive age group not being interested in undergoing screening. This may also suggest that having so many centers for CCS does not in itself reduce the disease burden because the screening is not an immediate need for most women in most developing countries (Bessler et al 2007).

There has been a negative attitude developed by the women in the reproductive age group towards the CCS uptake, because of the myths and misconceptions surrounding the screening procedure itself. This has been as a result of women interacting with the few who have been screened giving them wrong or incomplete information about the screening procedure deemed as a scary process.These women eventually are unable to access screening services due to the surrounding negative factors once they test positive for the HPV they may be discriminated (WHO, 2010).

Several studies have shown that certain practices that women indulge in, could be the inhibititing factors causing them not to access the health facilities such as the usage of herbs to insert in the vigina for either sexual satisfaction or taken in place of conventional medicines when ill. Most African women practice dry sex which is reported in many countries among women with low educational level as they do not know the effects of herbs (Morar, 2006).

On the other hand, because of perineal muscles becoming loose after delivery, as a result most women do not perform perineal exercises after delivery hence usage of herbs has been proven to assist to aid this. This has allowed these practices to continue without women seeing long term effects and consequences (Verralls, 1993).

From all studies evaluated in this literature review, it is evident that more emphasis should be placed on health promotion in order that all women in the reproductive age group, who are sexually active, be made aware of the dangers of developing CC and also that it is possible that a lot of productive life could be protected and spared for the benefit of the country.

It is envisaged, therefore, that the findings from this study will provide scientific knowledge on the perceptions and traditional practices of women aged between 15 and 49 since CC continues to be the number one killer of women in Zambia. It is also important that critical analysis be done to necessitate the establishment of awareness of the high risk disease burden. This will help ensure that all women in the reproductive age group are screened for CC annually and also add to the body of knowledge for organizations seeking to mitigate the high disease burden and prepare better strategies for future generations.

If women in this age group had early access to detection centers for the screening process, it would bring the disease burden down by over 80% by the year 2011 (MoH, 2010). This would help in formulating guiding policy on further campaign to promote CCS program implementation.

1.8 OPERATIONAL DEFINITION OF TERMS

In the study under research there were many operational terms used, however, for the readers' understanding, the operational definition of terms has been put in a table.

Table 1.8.1: Operational Definition of Terms

Operational Terms	Description of Terms
Cervix	The neck of the uterus
Cancer	A growth which is malignant
FGDs	This is a focused group discussion that communes to converse intimately/spiritually to help bring out views from 6 – 12 individuals to enable solutions to a particular problem to be arrived at
Gynaenocological	Condition that pertains to women's reproduction system
Health Facility	An institution that offers healthcare services to the people. This could be a health post, health centre or hospital
Invasive	The ability of something to infiltrate the surrounding tissue and destroy it
Knowledge	What one knows and understands about a certain phenomenon
Malignant Tissues	Abnormal tissue growth which spreads to surrounding areas or parts of the body
Outpatient Department	A clinic providing "outpatient service" as listed on the hospital's general acute-care license issued by the State Department of Public Health, where anyone who is unwell will first be attended to by a health worker
Perception	Manner of feeling, attitude and or behavior towards a particular thing
Practice	The ability to put something into action habitually
Reproductive Age Group	These are women who are aged between 15 and 49 who are mostly sexually active, reached marital age and are reproductive
Staff	Healthcare providers who offer a service to client/patient
Women's Decisions	Empowerment of women being able to make final decisions regarding their health status/uncertainty

The next chapter tries to examine and review literature of other studies that have been done elsewhere in relation to the research study, to try and help determine the best practices that could be incorporated as a way of finding a lasting solution to the existing problem of low usage of the CCS centers and helping to change the mindset of the women in the reproductive age group most affected.

CHAPTER TWO

LITERATURE REVIEW

2.1 COVERAGE/USAGE OF CERVICAL CANCER SCREENING CENTERS

In response to the urgent call to reduce on morbidity and mortality cases of CC in Zambia, Mwanahamuntu and others (2006) established 18 sites (fourteen in Lusaka and four in rural areas) which are integrated into government-operated clinics. So far in Zambia, CCS coverage is at 20% and the usage of centers by women who are at risk of getting HPV (aged 15 – 49) is still low. Further studies around the world and the sub-Saharan region, have indicated that there is very little information about CCS trickling down to the women in the reproductive age group, especially in Third World countries, hence the high mortality rate. Zambia has been rated the second-highest in the world, with up to about 23.6% mortality rate due to cervical cancer. Further investigations have shown that CC becomes more pronounced in HIV-positive women, whose immunity would have been compromised, and they become susceptible to any disease/infection (Cancer Register, 2004).

Center for Infectious Disease Research in Zambia (CIDRZ) reports that there have been deliberate efforts put in place to mitigate CC by screening both HIV-positive and non-HIV-infected female patients. CIDRZ further reports that by 2005, about 27,000 out of the 101,000 women infected with cervical cancer in Zambia had been screened and received possible medical attention (IUHPE, 2009).

Mwanahamuntu et al (2009), further confirms that Zambia has so far screened about 90,000 women using the 'see and treat' method by non-physicians, accounting for the 20% of the half a million women (439,799) in the reproductive age group (15 – 49 years). They argue that this approach circumvents the critical in the event of shortage of physicians by training nurses to use a low-cost digital camera with an attached magnifying lens.

IARC (2005) suggests that well-organized CCS programmes or widespread good quality cytology can reduce CC incidence and mortality. It also recognizes that the introduction of HPV vaccination could effectively reduce the burden of CC in coming decades. In addition to all

these, male circumcision and the use of condoms have shown a significant protective effect against HPV transmission and may offer an alternative preventative strategy (IARC, 2005).

The proven benefit of male circumsion applies to men . It is unclear whether it can also reduce HIV/HPV transmission from an infected circumcised man to a woman. However, if men are protected, then later on women may stand lesser chances of being infected. In a report by WHO (2007), it was recommended that male circumcision is an important strategy in the reduction of HIV/HPV transmission from infectected men to women. It has been proven that the efficacy of male circumcision in HIV/HIP prevention is beyond doubt (WHO/UNAIDS, 2007).

2.2 KNOWLEDGE OF CERVICAL CANCER SCREENING

In most developed countries like the United States of America (USA), level of knowledge suggests that women are more empowered over life-saving decisions which enable them to access centers of screening for CC early enough. However, about 11,000 new cases of invasive CC are diagnosed each year in the U.S, while the number of new CC cases has been declining steadily over the past decades . Although it is the most preventable type of cancer, each year cervical cancer kills about 4,000 women in the U.S. and about 300,000 worldwide. In the United States, CC mortality rates plunged by 74% from 1955 – 1992 and have drastically reduced since then due to increased screening and early detection with the Pap smear test.

It is arguable that increased knowledge and educational levels may have prompted every woman in the reproductive age group to undergo screening annually. The high literacy level has brought about sensitization in most women in the reproductive age group, thus bringing about lasting changes in the lives of most women.

According to the recent World Health Organization (2010) statistics, Zambia is rated second to Tanzania in sub-Saharan Africa for high incidence of cervical cancer cases. There is still a challenge due to the myths and misconceptions surrounding CCS as well as the HIV/AIDS pandemic which develops as a result of an individual's immunity being compromised. Many women die due to lack of knowledge as well as their negative attitude towards centers, which would offer them immediate response and help. The women would rather use traditional medicines either to drink or insert into the vagina when they are sick (i.e. for vaginal

itching/discharges) instead of visiting a health facility for proper checkups. These women also tend to shun proper medical checkups due to poor knowledge and also their low socioeconomic status, which makes them indulge in unprotected sex usually with multiple concurrent partners. This is all done in the quest to earn a living, thereby making them susceptible to the HIV and the HPV infection (WHO, 2010).

However, in most developed countries like the US, the incidence of cervical cancer is very low due to the early introduction of screening services and vaccines for the disease. Usually, women in the reproductive age group are educated and therefore knowledgeable enough to access CCS services early (ACS, 2002).

2.3 WOMEN'S DECISIONS

Bessler and others (2007) stated that there were a number of factors that influenced the Jamaican women's decisions to go for CCS in the cross-sectional study undertaken involving 367 clinic-attending women between ages of 25 and 54 in the Parish of Trelawney from May to July of 2005. The clinical diagnosis by the clinicians and recommendations for annual medical checkups prompted the women to make decisions for a Pap smear.

The findings showed that 11% of the women had never had a Pap smear and only 38% had a Pap smear test within the last year. The differences observed were that if a big proportion of women, say nearly 70%, were able to visit a medical facility annually, this would result in a health provider having a strong influence on the women's decisions to regularly screen for CC. This also prompted the health providers to positively recommend initial receipt of a Pap smear as well as continued regular screening from just the initial visit.

Further, Bessler and others outline that a smaller proportion of 30% was unable to undergo a Pap smear simply because they did not see the importance or rather were unaware about the Pap smear and consequently screening. These women failed to make a decision for Pap smear and screening due to not visiting a health facility at least once a year. It is arguable that programmes that promote annual health checkups encourage consistent provider recommendations and emphasize screening as a preventive measure and might influence women's decisions positively to screen for cervical cancer. However, weaknesses observed in this study were that there was

no attempt in marketing the product of screening to the general public so that they could be encouraged and therefore see the need to undergo CCS at least once a year.

2.4 PERCEPTIONS OF CERVICAL CANCER SCREENING

Wong and others (2009), report that the qualitative study undertaken using face-to-face in-depth interviews to investigate the moral values, traditional practices, attitudes and beliefs on CCS of twenty Malaysian women aged 21–56, who had never had a Pap smear test, revealed that over 90% of the women in the study lacked knowledge on CC and the need for a Pap smear test. They also state that merely having in place a center for screening CC does not influence women to have a positive approach to undergoing a Pap smear since the women do not have a clear understanding of the meaning of an abnormal cervical smear, and the need for early detection of CC. These women thought that the purpose of the Pap smear test is to detect existing CC, leading to the belief that Pap smear screening is not required because the respondents have no symptoms (Wong et al. 2009).

Wong et al (2009), further state that despite considerable awareness of a link between CC and sexual activity as well as the role of a sexually-transmitted infection, none of the respondents had heard of the Human Papilloma Virus. The findings highlight the importance of emphasizing accurate information about CC and the purpose of Pap smear screening when designing interventions aimed at combating CC among Malaysian women.

It is quite evident that the study showed a lack of knowledge by the women to continue to indulge in indiscriminate sex which predisposes them to the HPV, resulting in Cervical Cancer. The study emphasized that merely having centers for screening CC does not suggest that there will be a reduction in the occurrence of the burden of disease because it's just not an immediate need for women as observed by the researcher.

2.5 PRACTICES OF CERVICAL CANCER SCREENING

Practice is something that is usually or regularly done often as a habit, tradition or custom (Walter, 2006). In this case the practice of women towards CCS could be considered good or bad. Mbewe (2008) reports from a study done at St Francis hospital in Katete district of the

Eastern Province of Zambia on the knowledge and practices towards CC revealed that most participants had inadequate knowledge on CC due to the low educational level and cultural practices. It was emphasized that health education on CC be provided to the women whenever they attend gynae, family planning and children's clinics. The major finding was that women needed to be discouraged from bad practices such as insertion of vaginal herbs, and encouraged to reduce the number of births to four per woman as well as reduce the number of sexual partners.

Mbewe further states that 80% of the 50 respondents interviewed indicated that they were using herbs to insert in the vagina to maintain dryness before sexual intercourse, but a smaller proportion (51%) of the respondents was uneducated and only about 28.2% had reached fourth grade in primary school. Dry sex is reported to be practiced in many countries among the women with low educational level as they do not know the effects of herbs (Morar, 2006).

Another notable thing in the study was that 46.1% of the older women felt that their vaginal orifice was enlarged after so many pregnancies, and they therefore needed to use herbs to tighten the vagina for supposedly enjoyable intercourse. On the other hand, perineal muscles become loose after delivery because most women do not perform perineal exercises after delivery (Verralls, 1993).

However, nearly 98% of the respondents had never had a Pap smear test done due to lack of services for detection. Therefore, even if some women were willing to have the test done, it was not available. Currently in Zambia, only 14 centers are available in the capital, Lusaka, and only 4 in the rural setting of the country are integrated into government-operated clinics (MoH, 2006).

In another study done at the University Teaching Hospital (UTH) in Lusaka, dry sex was being promoted mostly by married women in order to secure their marriages and increase their partners' sexual enjoyment. The study showed that marital status had an influence on the practices women would engage in. It showed that 35.9% out of the 51% of women who were using herbs were married. Practicing dry sex (inserting herbs in the vagina) by most women is normal, in order that their men have dry sex (Sandala et al. 2006).

The World Health Organization report for 1992 also revealed that 64% of women in Zambia have their first child at the age of 12, which then predisposes them to multi parity, putting them at higher risk of developing CC compared to women who indulge in sexual intercourse after the age of 20 and bearing children then (CSO, 2003).

According to the annual aggregates of cancer cases for 2006 in Zambia, CC was found to be the highest among all cancers (Zambia National Cancer Registry 2007).

Mbewe (2008) recommended in the study that the Ministry of Health (MoH) should work towards making the pap smear services available to most health facilities so that once the women are aware of CC and how it can be detected, they may make informed choices either to go for the test or not. Early detection and treatment of CC would reduce the incidence among women.The follow-up studies ought to be done in Lusaka, where CCS facilities are available, to help determine the actual coverage/usage of these CCS centers.

2.6 CONCLUSION

From the literature reviewed, it is evident that women's high educational levels in some developed countries such as the US have prompted those in the reproductive age group to go for screening on an annual basis, while low literacy levels in developing countries cause women not to prioritize CCS because of lack of understanding of the importance of screening, thus leading to underutilization of the Pap smear centers.

The literature reviewed suggests that most developing countries have a role to play in the women's decisions, considering their low educational levels, low socioeconomic status, their use of traditional medicines, lack of regular medical checkups, multiple births by those exposed to child bearing early and lack of screening centers for CC. It is therefore, important to state that all these factors in the developing countries have orchestrated the low coverage/usage of CCS centers among women in their reproductive age group, where Zambia has not been an exception. It is therefore imperative that on-going sensitization continues as merely providing these CCS centers is not a solution because CCS for most women in developing countries is not an immediate need.

2.7 RESEARCH QUESTIONS, GENERAL AND SPECIFIC OBJECTIVES

2.7.1 RESEARCH QUESTIONS

The study sought to answer the following questions:

- What is the level of knowledge relating to Cervical Cancer among women in the reproductive age group in Lusaka District?

- In what way have women's decisions, perceptions and practices contributed to accessing CCS services among women in the reproductive age group in Lusaka District?

2.7.2 RESEARCH OBJECTIVES

2.7.2.1 General objective

To determine knowledge, perceptions, practices and access to CCS among women in the reproductive age group in selected clinics of Lusaka District.

2.7.2.2 Specific objectives

- To determine the views on utilization of CC screening among women in the reproductive age group.
- To explore the level of knowledge of CC among women in the reproductive age group.
- To determine the association between perceptions and CCS among women in the reproductive age group.
- To identify practices associated with screening amongst women in the reproductive age.
- To establish the motivators/barriers of CCS among women in the reproductive age group.

CHAPTER THREE

METHODOLOGY

This chapter describes the research methodology in relation to the objectives of the study, which mainly looked at determining the knowledge, perceptions, practices and access to CCS among women in the reproductive age group in selected clinics of Lusaka District.

In order that these objectives are met, there was need to analyze the variables and their measurements. This chapter will also discuss the study design, study setting, study population, sample selection, sample size, sample selection methods, data collection techniques and tools, plan for data capture, pilot study and ethical consideration of the study.

3.1 VARIABLES AND THEIR SCALES OF MEASUREMENT

Table 3.1.1: Variables and Measurement

Variable Type	Indicators	Operational Definitions	Scale of measurement
DEPENDENT VARIABLE			
Knowledge of Cervical Cancer	Proportion of knowledgeable women who have screened in relation to the total population betwee 2008 - 2012	Women screened to rule out Cervical Cancer by Pap smear	Percentage (%)
INDEPENDENT VARIABLES			
1. Demographic Characteristics • **Age**	Age at last birthday		**Mean**
• **Marital Status**	• Single • Married • Divorced • Separated • Widowed		**Proportion**
• **Parity**	Number of children ever borne by		**Median or Mean**

	women		
• **Religion**	Type of religion categorized as: • *Moslem* • *Buddhist* • *Christian*		**Proportion**
• **Educational Level**	• *Primary* • *Secondary* • *College* • *University* • *None*		**Proportion**
2. Level of knowledge on Cervical Cancer Screening	Correct responses to questions aggregated as *1. Poor, 2. Moderate 3. High ;about the Cervical Cancer Screening*		**Rating scale using** *Poor (0 – 3)* *Moderate (4 – 7)* *High (8 – 12)*
3. Perceptions	Negative and positive reasons for Cervical Cancer Screening		**Proportion**
4. Belief Systems	Type of belief shown as: • *Religious* • *Traditional*		**Proportion**
5. Decision-Making	Type of decision shown as: • *Individual decision* • *Family decision* • *Partners reasons*		**Proportion**

3.1.2 VARIABLES

3.1.2.1 Dependent Variable

Knowledge of Cervical Cancer

Knowledge on the benefits of health services has a significant impact on the utilization of health services. However, individuals empowered with CC knowledge may take advantage of the services being offered at the screening facilities. It is also important to note that knowledge may sometimes impact positively or negatively for a possible response as it may not be an immediate need for individuals.

3.1.2.2 Independent Variables

Demographic Characteristics

Usage of CCS centers is likely to be influenced by several factors: age, marital status, parity, religion, educational level, level of knowledge on CC , perceptions, belief systems and decision-making are likely to be the most important factors that may prompt an individual to undertake CCS voluntarily or decide not to.

Perception on Cervical Cancer Screening

The mindset of any individual is a significant determinant for them ultimately making a decision to either utilize or shun available services in a health facility. CC is a very sensitive subject that may have either negative or positive response from individuals. Myths and misconceptions have been a major setback preventing a lot of women from undertaking CCS. Sometimes the women's partners could be a hindrance to their participation.

Practices about Cervical Cancer

Women's decision-making could play a big role in utilization of the CC centers due to the various practices that women engage in such as the use of traditional medicines as opposed to accessing a health facility for any problem they may be having. Usually, individuals tend to trust those people they live close to within the community and may confide in them for assistance. Accessing herbs from a native doctor to assist them when ill over an extended period of time may predispose these women to CC as they would only satisfy their partners sexually.

3.2 STUDY DESIGN

This study espoused a cross-sectional design, which employed a mixed methods (quantitative & qualitative) approach. However, by employing a cross-sectional study design, it ensured that data was collected at one goal. Firstly, information was collected using FGDs (Qualitative) and in-depth interviews which helped to come up with a standard questionnaire for hypothesis testing where necessary. It focused on the factors influencing the uptake of CCS.

3.3 STUDY SETTING

The study was done from three selected health centers in Lusaka District (Ng'ombe & Kalingalinga clinics, and the University Teaching Hospital (UTH). The inhabitants of Ng'ombe and Kalingalinga are mostly traders with low educational and social status while the other area, UTH, has middle-class people. These areas were purposively selected because they offer screening facilities for CC and are easily accessible.

Lusaka District is located in the capital city of Zambia and has an annual growth rate of 4.9%. As a result of this growth rate, Lusaka Province has a population of 2,198,996 (CSO, 2010). Half of this population comprises children and women (1,099,498), of which 40% are women in the reproductive age group, who are susceptible to the HPV infection, influenced by their sexuality, fertility and traditional behavior.

According to the Cancer Registry (2004), Zambia has been rated the second-highest in the world, with up to about 23.6% mortality rate due to cervical cancer. To date, it has only recorded 20% of women who have been screened, even with most of the screening centers being located in Lusaka. The figures are quite alarming and represented a suitable site for the study.

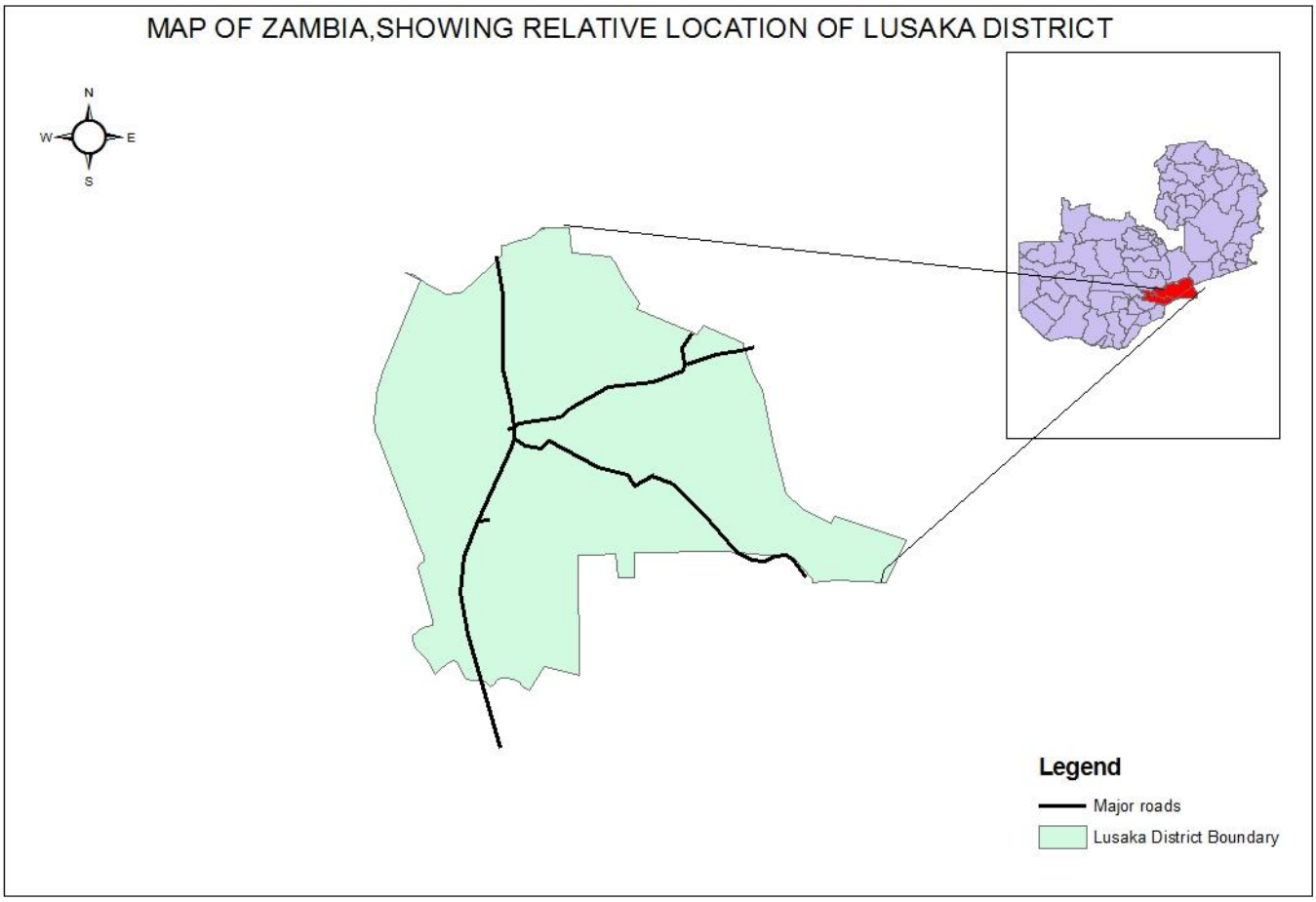

Figure 3.3.1: Map of Zambia Showing Relative Location of Lusaka District：(CONTRAST GIS NODE,UNZA, 2013)

3.4 STUDY POPULATION

In this study, the study population comprised only women in the reproductive age group living in Lusaka District. The female population between the ages of 15 and 49 were estimated at 439,799 (CSO, 2010).

3.5 SAMPLE SELECTION

The three areas where the samples were drawn are Ng'ombe and Kalingalinga Clinics, and the University Teaching Hospital (UTH), which are highly populated and have CCS facilities within the vicinity.

3.5.1 Inclusion Criteria

The study participants included only women aged between 15 and 49 years, accessing any service at a health facility. Women at these ages would have already become sexually active, and whose risks are at the highest of marriage and or multi-parity.

3.5.2 Exclusion Criteria

Those women who consented but later withdrew and those who were not resident of the study area for atleast one year.

3.6 SAMPLE SIZE

A total sample size of 474 women was selected to participate in the study. To arrive at the above sample size, the formula below was used. Calculations are as follows:

$$SE = \sqrt{\frac{P\,(Q-P)}{n}}$$

$$= \frac{20 \times (100-20)}{439799}$$

$= 3.6$

Using Confidence Interval of 95%

$20 \pm (2 \times 3.6)$

$20 \pm 7.2 = 12.8$ to 27.2

The width of confidence interval is ½ of 14.4

$= 7.2$

$$n = \frac{Z^2P\,(Q-P)}{e^2}$$

Where:

Z = 1.96

P = Expected Coverage of the CC screening up to 2011(Mwanahamunthu et al. 2009)

Q = (100 - Expected Coverage of 20% according to the (Mwanahamunthu et al. 2009)

e = Standard Error at 3.6%

$$n = \frac{(1.96^2)\ (20)\ (80)}{3.6^2}$$

$$n = \frac{6\ 146.56}{12.96}$$

$n = 474.27$

~ 474

3.7 SAMPLE SELECTION METHODS

The sample selection was carried out within Lusaka District because most of the screening facilities were launched there and thus it would have no consequence if done out of Lusaka due to the limited CCS centers in the country. A total of 474 participants were recruited into the study. Three health centers from the 14 CC screening centers in Lusaka District were selected randomly using the cluster sampling method.

A total of 158 respondents from each health facility were recruited into the study using systematic sampling method, where every 10^{th} woman coming to the health facility for any services became a respondent out of an average of 200 people who attended clinic every day at each center. A minimum of 53 respondents over a period of one week were collected at each center.

The whole process was conducted by the principal investigator, working with three research assistants i.e. each one administering 18 questionnaires on a particular day. Out of the 474 respondents, 16 respondents from two different health facilities were then randomly selected (using the simple random method) and delayed after accessing their services so that they could be engaged in a focused group discussion if they consented.

3.7.1 DATA COLLECTION TECHNIQUES AND TOOLS

This research study involved two data collection techniques: the structured interview schedule and a focus group discussion guide. Data was collected over a period of two months starting from the second week of April to June 2013.

3.7.2 FOCUSED GROUP DISCUSSION (QUALITATIVE METHOD)

The Focused Group Discussion(FGD) comprised 8 persons each and were guided by a facilitator. The facilitator led the discussions and was assisted by a recorder and secretary to take down the pertinent points in the appropriate languages. Each FGD lasted for 45 minutes. The facilitator ensured that participants in the FGDs were homogeneous.

This was achieved by getting information prior to the discussions. The background information of the participants included age, educational level, marital status, religion, and their socioeconomic status. Participants of similar background were invited to discuss the knowledge/ perception and practices of CCS in Lusaka District. The participants were delayed after attending clinic sessions for a discussion. Two focused group discussions were conducted. The participants were stratified into two groups of younger women ≤ 29 and the older women ≥ 30 up to 49 years to see if age had an impact on knowledge.

The research team ensured that the participants were made to be at ease by allowing them to introduce themselves, stating the purpose of the discussions, the kind of information needed and how the information would be used later. The participants were then allowed to sign consent forms in order to be enrolled into the study, and then given an opportunity to express their views to avoid the discussion being dominated by one individual. The discussions were audio-taped verbatim, transcribed and translated after each discussion.

3.7.3 STRUCTURED INTERVIEW SCHEDULE (QUANTITATIVE METHOD)

In this study, a structured interview schedule was used to collect the quantitative data. The interview schedule captured the following data; Demographic Data, Knowledge on CC, Perception about CCS and the Practices about CCS among women in the reproductive age group. The interview schedule had both open and closed-ended questions. The open-ended questions permitted the respondents to provide responses in their own words and to verbally express themselves. Closed-ended questions helped to capture specific and guided responses. The questions on the interview schedule were translated into various local languages to accommodate respondents who were not conversant with the English language.

3.7.4 VALIDITY

In order to ensure validity, all the variables under study were covered in the interview schedule and Focused Group Discussion Guide (FGDG). The questions were clearly and articulately constructed to avoid any traces of ambiguity. The instruments were pre-tested before embarking on the actual Study to ensure that they capture the required information and to also deal with any possible flaws. Selection bias was avoided by making sure that proper sampling techniques were used.

3.7.5 RELIABILITY

Reliability of the instrument was measured during the pilot study conducted at the end of the interviews. During the pilot study, the respondents were asked for any questions that they did not understand clearly, and appropriate adjustments were made.

3.8 PLAN FOR DATA COLLECTION

Structured Interviews and Focused Group Discussions were used as data collection procedures. Data collection was done with the help of trained research assistants. The purpose of the study was explained to the respondents and permission was sought from them for the research team to conduct interviews of Focused Group Discussions.

During the interview, privacy and confidentiality was maintained. Firstly, the respondents were interviewed one at a time and in a secure and convenient environment. Confidentiality was assured by concealing respondents' names and using assigned numbers instead.

Each respondent was interviewed for approximately 10 – 15 minutes. Each research assistant was asked to interview at least 18 people per day. This allowed them to concentrate and avoid making mistakes due to exhaustion and cross-checking by the principal investigator after each day's work. The data was collected over a 6-week period, with an average of at least 158 women being interviewed in total for each of the three research sites (Ng'ombe & Kalingalinga Clinics and University Teaching Hospital (UTH). The total number of participants recruited into the study was 474.

3.9 PILOT STUDY

The essence of the pilot study was to ascertain the validity and reliability of the instruments. It also helped to determine the best time to collect data and the duration each interview took. The pilot study was done at Chainama Hills Hospital in the Mother and Child Health (MCH) department, where 20 questionnaires were administered using the structured interview schedule. These women in the reproductive age group were randomly selected because it was representative of a cross-section of people regardless of their background, as long as they were accessing a health facility. Only 5.2% of the sample size was interviewed during the pilot study.

3.10 ETHICAL CONSIDERATION

In African setting, issues to do with sex are regarded as taboo. It was therefore, prudent to consider the confidentially of the participants recruited into the study. Permission was sought from all the 474 participants who were recruited into the study by signing a consent form, in order to establish whether they would like to participate in giving information on both the questionnaire guide and the FGDs on the sensitive subject of CCS. The research also included an assent form for participants below the age of 18 and an informed consent for the recording especially when carrying out the FGDs in order that only those in agreement participate. For purposes of their personal identities, participants' names were concealed by way of using numbers as primary keys to identify each of the respondents, who were immediately informed.

Participants were informed that in the event of not being satisfied with the questioning, they could withdraw without any repercussions . Participation in this study was on voluntary basis and that there would be no personal benefit apart from adding value to the body of knowledge.

Permission was also sought from the Bio-ethics Committee of the University of Zambia for ethical clearance since the research was ethically and culturally acceptable. Then permission to carry out the study was also sought from the School of Medicine (SoM), Ministry of Health (MoH), DHMT , University Teaching Hospital (UTH), Chainama Hills Hospital and CIDRZ officials so that they are informed on the significance of the study since they are the sole implementers of the screening of CC in Zambia at the moment.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 DATA PROCESSING AND ANALYSIS

This chapter discusses the actual processing of data having critically looked at the methodology. The study used a mixed method approach considering the specific objectives of the study which were to: determine the views on utilization of CCS, exploring the level of knowledge of CC, determining the association between perceptions and CCS, identifying practices associated with screening and establishing the motivators/barriers of CCS among women in the reproductive age group. The study employed two methods in analyzing the data being quantitative data (i.e. structured interview guide) and the qualitative data (i.e. Focused Group Discussion - FGD).

4.1.1 QUANTITATIVE DATA ANALYSIS

Following the data collection that was conducted, every day after returning from the field the structured interview schedules were first sorted out and edited for internal consistency, legibility and completeness. This was done to ensure quality control at every level. The closed-ended responses were coded to ensure accuracy and easy data entry in the computer software. The open-ended responses were categorized and then assigned suitable codes suiting their different themes. These codes were later entered and analyzed using Epi – Data version 3.1 and later analysed using STATA version 11.0 software packages.

4.2 DATA PRESENTATION

4.2.1 QUANTITATIVE DATA ANALYSIS

The responses have been presented according to the layout of the questions and various sections of the interview schedule. Some of the responses have been grouped together to show an overall picture. However, all the findings have been presented using tables, bar charts, pie charts and cross tabulations. The tables are easy to read and understand. The bar charts and pie charts just provide alternative ways of presenting the findings and also prevent the monotony of presenting data using tables. Cross tabulations are useful in showing relationships between the variables (i.e. dependent and independent variables).

4.2.1.1 SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

This section shows the frequencies of all the socio-demographic characteristics that were discussed in the study research (i.e. age, marital status, level of education, religion, Christian denomination, occupation and partner's occupation as displayed in Table 1 as follows: (Some tables do not show 100% response due to some missing data and or no response).

Table 4.2.1.1.1: Socio-Demographic Data

Variable	Frequency	Percentage
Age Distribution		
15 -19	51	10.8
20 – 24	125	26.4
25 – 29	135	28.5
30 – 34	82	17.3
35 – 39	42	8.9
40 – 44	20	4.2
45 – 49	19	4.0
Total	**474**	**100**
Marital Status		
Single	79	16.7
Married	371	78.3
Separated	10	2.1
Divorced	7	1.5
Widowed	7	1.5
Total	**474**	**100**
Level of Education		
Primary	155	34.0
Secondary	240	52.6
Tertiary	61	13.4
Total	**456**	**100**
Religion		
Christian	468	98.7
Other	6	1.3
Total	**474**	**100**

Christian Denomination		
Pentecostal	155	32.7
Seventh Day Adventist	62	13.1
Roman Catholic	76	16.0
Reformed Church of Zambia	14	3.0
United Church of Zambia	47	9.9
Jehovah's Witness	31	6.5
New Apostolic	46	9.7
Other	43	9.7
Total	**474**	**100**
Occupation		
Not in gainful employment	150	31.7
Employed	79	16.7
Housewife	130	27.4
Business	111	23.4
Farming	2	0.4
Other	2	0.4
Total	**474**	**100**
Partner's Occupation		
Unemployed	12	2.5
Employed	306	64.6
Business	76	16.0
Farming	6	1.3
Other	74	15.6
Total	**474**	**100**

Age

Table (4.2.1.1.1) shows the distribution of respondents by age with more than half (54.9 per cent) of respondents were in the age group of 20-29 years.

Marital Status

Table (4.2.1.1.1) also shows that three quarters of the respondents, accounting for 78.3 per cent, were married.

Level of Education

According to Table (4.2.1.1.1), over half of the respondents had reached secondary school level and accounted for 52.6 per cent with a third reaching only upto primary.

Religion

In addition, Table (4.2.1.1.1) also shows that 98.7 per cent of the respondents were Christians.

Christian Denomination

As shown in Table (4.2.1.1.1), a third of the respondents belonged to the Pentecostal denomination and accounted for 32.7 per cent.

Occupation

Table (4.2.1.1.1)show that the majority of the respondents were either not in gainful employment or were housewives and accounted for 31.7 per cent and 27.4 per cent, respectively.

Partner's Occupation

Finally, Table (4.2.1.1.1) indicates that 80.6 per cent (three quarters) of the respondents' partners were either in gainful employment/doing some business..

Generally, from the frequencies gathered, more than half (54.9 per cent) of the respondents were aged between 20 and 34 years and that three quarters were married (78.3 per cent) while 16.7 per cent were single with a minority who were separated, divorced or widowed (5.1 per cent) . Over half had attained up to secondary level of education (52.6 per cent). Almost all of them were Christians (98.7 per cent) with only about a per cent (1.3 percent) being Muslims, Buddhist, Hindus and or Earthiest.

PARITY: Table 4.2.1.1.2: Parity of the Respondents

Parity	Frequency	Percentage
0	82	17.3
1	123	26.0
2	116	24.5
3	70	14.8
4	40	8.4
5	22	4.6
6	10	2.1
7	9	1.9
9	2	0.4
Total	**474**	**100**

Table 4.2.1.1.2 shows that more than half of the respondents had up to two children.

4.2.1.2 SECTION B: KNOWLEDGE ABOUT CERVICAL CANCER (CC)

This section describes the various factors that suggest whether the respondents who participated in the study had knowledge about CC and also their sources of information about CC. It also tabulates their actual responses on symptoms and causes of CC as elaborated in form of Tables Bar-charts and Pie-charts as follows: (Some tables do not show 100% response due to some missing data and or no response).

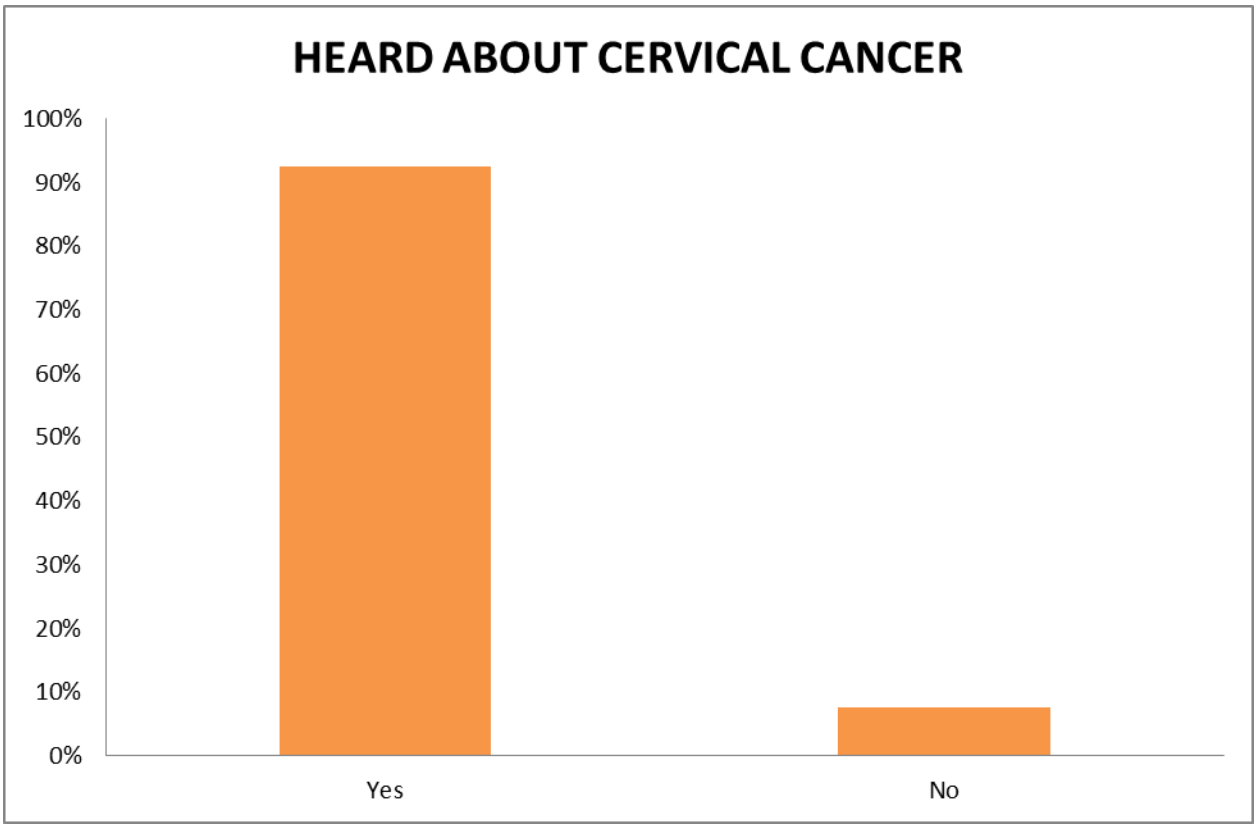

Figure 4.2.1.2.1 Bar-Chart: Showing percentage of respondents who had heard about CC

Figure 4.2.1.2.1 shows that almost all (92.4 per cent)) of the respondents had heard about Cervical Cancer while a minority of about 7.6 per cent had never heard of CC.

Table 4.2.1.2.1: Sources of information about CC

Information source	Frequency	Percentage
Family Friends	107	24.4
Clinic/Hospital	241	55.0
Sensitization:Radio Programme/Television & Health Promotion	90	20.6
Total	**438**	**100**

As shown in Table 4.2.1.2.1, the commonest source of information about CC was the clinic/hospital, which accounted for 55.0 per cent of the respondents, while 24.4 per cent accounted for family and friends. In addition to this, 20.6 per cent accounted for Radio /Television and health promotion/sensitization programmes.

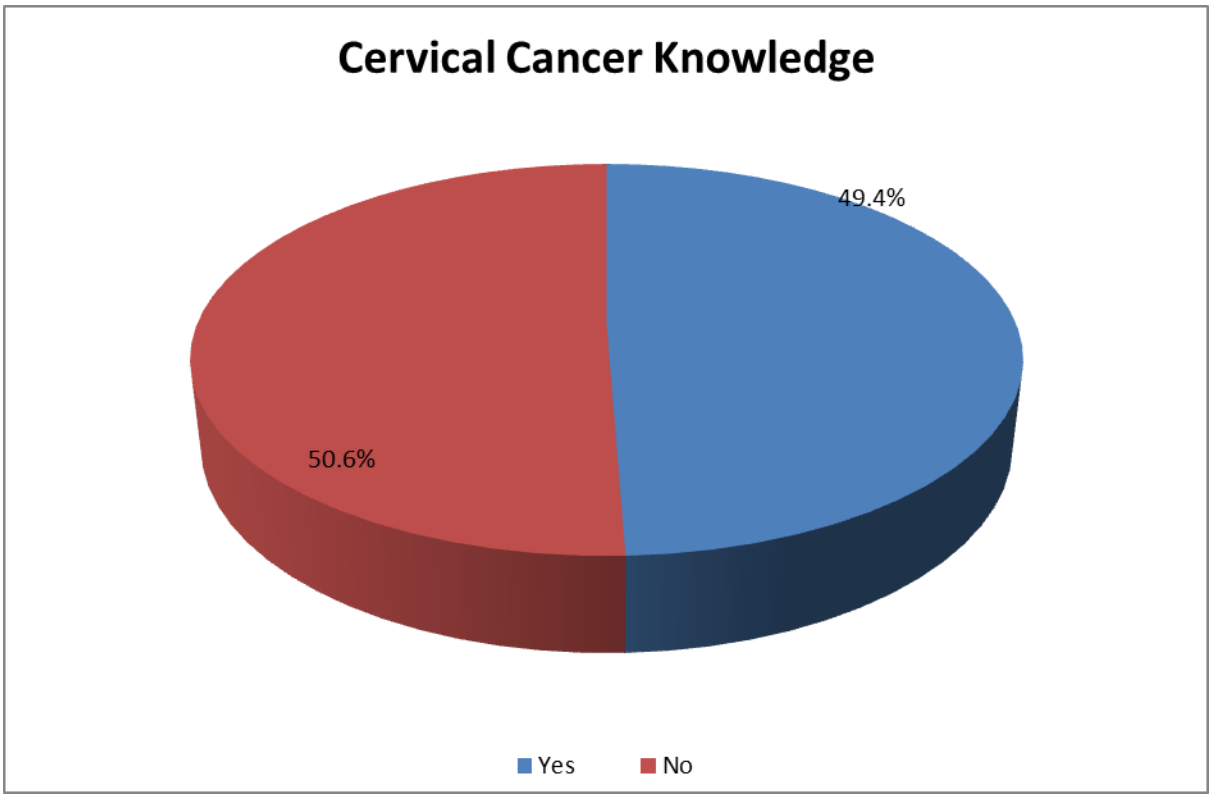

Figure 4.2.1.2.2 Pie-Chart: Showing percentage of repondents with knowledge about CC

Women were asked about what they know about Cervical Cancer (CC). The findings in Figure 4.2.1.2.2 show that over half (50.6 per cent) of the respondents didn't know what CC was and how it could affect a person. It further indicates almost half (49.4 per cent) had a slight idea of what CC is and stated that it as, having a growth in the vagina.

Table 4.2.1.2.2: Responses to the Causes of CC

Causes of CC	Frequency	Percentage
Oral contraception pills	10	8.0
Low fruit & vegetable diet	9	7.2
Chlamydia infarction	1	0.8
Immunosuppression/use of traditional herbs	24	19.2
HPV infection through sex	81	64.8
Total	**125**	**100**

Table 4.2.1.2.2 further showed the responses that the women gave regarding what they thought were the possible causes of CC. The findings as elaborated in Table 4.2.1.2.2 showed that most of the respondents (64.8per cent) said that CC was caused by having unprotected sex with several sexual partners (i.e. who may pass on the HPV). Then about 19.2 per cent indicated that CC could be as a result of Immosuppression through use of traditional herbs which are inserted in the vagina when the women are sick, while 15.2 per cent thought that CC was caused by excessive intake of oral contraception pills or having a low fruit and vegetable diet. The minority (0.8 per cent) thought that it could be caused through chlamydia infarction.

Table 4.2.1.2.3: Signs & Symptoms of CC

Signs & Symptoms	Frequency	Percentage
Swollen limb/back pain	3	3.3
Fatigue/weight loss/loss of appetite	1	1.1
Pelvic Pain	29	31.5
Contact Bleeding	24	26.1
Vaginal bleeding/smelly vaginal discharge	35	38.0
Total	**92**	**100**

The findings after asking women what they thought the signs and symptoms were of CC are indicated in Table 4.2.1.2.3 which show that 38.0 per cent of the respondents knew that vaginal bleeding/smelly vaginal discharge was the commonest sign/symptom of CC, while 31.5 per cent related CC to pain in the pelvic region. Over a quarter, 26.1 per cent, said that it could be contact bleeding especially during sexual intercourse. Some of the respondents, accounting for up to 3.3 per cent, related CC as displaying a swollen limb/back pain. The least group accounting for just about a per cent (1.1) thought that if one is fatigued, loss of weight drastically or experiences loss of appetite, then they could have CC.

4.2.1.3 SECTION C: SOCIO-CULTURAL BELIEFS: PERCEPTION OF CERVICAL CANCER SCREENING

This section shows clearly the sociocultural beliefs and the perception of women who responded in the study regarding cervical cancer screening, that is what their thoughts were when asked to undertake CCS: either negative or positive. Some tables do not show 100% response due to some missing data and or no response.

Table 4.2.1.3.1: Fear of undergoing CCS

Afraid to screen	Frequency	Percentage
Yes	65	13.7
No	409	86.3
Total	**474**	**100**

Women were asked if they were afraid of undergoing CCS. The findings as indicated in Table 4.2.1.3.1 show that the majority (86.3 per cent) of the respondents said they were not afraid of undergoing the CC screening but there was still a 13.7 per cent who were afraid to undergo screening of cervical cancer.

Table 4.2.1.3.2: Reasons for being afraid of undergoing CCS

Reason	Frequency	Percentage
I do not want to ever participate	15	23.5
I don't want a man seeing my nakedness	3	4.7
It's a very scary procedure	46	71.9
Total	**64**	**100**

After most women indicated that they were not afraid to undergo CCS in Table 4.2.1.3.1 although they hadn't made the decision yet to go, the findings in Table 4.2.1.3.2 show that 71.9 per cent of the respondents were still afraid of undergoing CCS because it was perceived to be a very scary procedure requiring one to be placed under floodlights and a big object being inserted into one's vagina. It further showed that 23.5 per cent did not just want to undergo CCS or they thought that it was not necessary at all. The least category in Table 4.2.1.3.2 accounted for 4.7 per cent, who thought CCS would compromise their dignity because they did not want a man especially seeing their nakedness.

Table 4.2.1.3.3: Socialization of respondents on CCS information

Willingness to socialize	Frequency	Percentage
Yes	194	40.9
No	280	59.1
Total	**474**	**100**

The findings when women were asked on whether they normally would socialize with their friends and or family in their various communities regarding CCS, Table 4.2.1.3.3 shows that almost 60 per cent of the respondents did not share information about CC screening with others, while over 40. 9 per cent did intimate that they did share information with both friends and relations.

Table 4.2.1.3.4: Reasons for socializing with friends/family on CCS information

Reason	Frequency	Percentage
It is my responsibility	181	93.3
No reason at all	13	6.7
Total	**194**	**100**

The findings according to Table 4.2.1.3.4 show that 93.3 per cent of the respondents felt that it was their responsibility to tell others about CCS while the 6.7 per cent saw no specific reason of sharing information with the friends and/family.

Table 4.2.1.3.5: Reasons for CCS of all women

Reason	Frequency	Percentage
To know my status	457	96.4
Told to do so	3	0.6
I don't know	14	3.0
Total	**474**	**100**

When asked about the reasons every woman should be screened for CC, the findings, according to Table 4.2.1.3.5, showed that almost all (96.4 per cent) of the respondents knew the reason for screening for CC (i.e. to know one's status). About 3.0 per cent didn't have any idea why they should screen for CC while, 0.6 per cent of the respondents said they were just told to do so.

4.2.1.4 SECTION D: CULTURAL PRACTICE OF CERVICAL CANCER SCREENING

This section mainly looks at what the cultural practices are that women indulge in, other than going to the clinic/hospital for cervical cancer screening when they are ill. Some tables do not show 100% response due to some missing data and or no response.

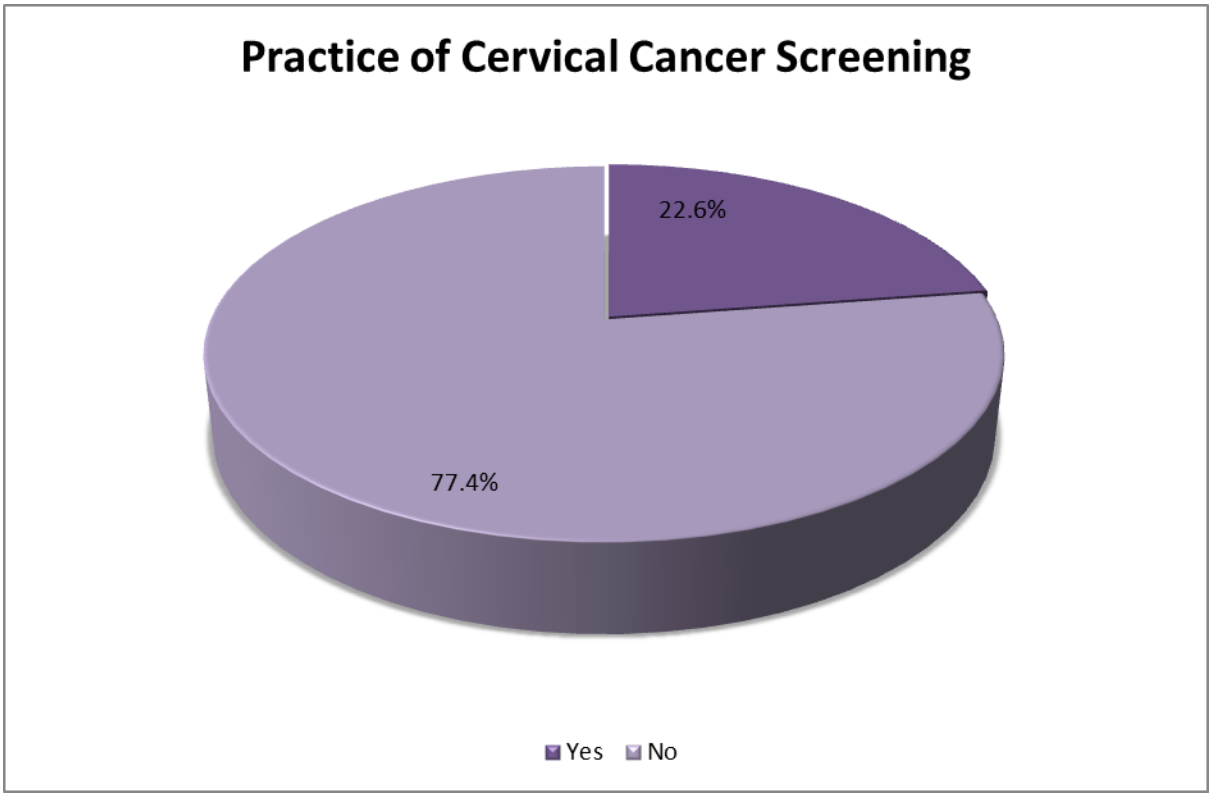

Figure 4.2.1.4.1 Pie-Chart: Showing percentage of respondents screened for CC

The findings of the women's practices they indulge in is indicated in Figure 4.2.1.4.1. It shows that the majority (77.4 per cent) of the respondents had never ever been screened before for CC for various reasons, while 22.6 per cent of the women had actually undergone their first or second screening for CC.

Table 4.2.1.4.1: Duration of CCS

Duration	Frequency	Percentage
Twice	21	19.8
Once	85	80.2
Total	**106**	**100**

However, the findings of the women who participated in the screening of CC is indicated in Table 4.2.1.4.1, which shows that the majority (80.2 per cent) of the respondents had only been screened once for CC in the past year, while only 19.8 per cent had been screened twice mainly because the clinic/hospital asked them to go back for a second screen for verification. It is evident that most of the women who had done screening were educated enough to be convinced to screen for CC. Otherwise, most did not see the need for a second screen as it is not an immediate need as observed by the researcher.

Table 4.2.1.4.2: Response to voluntarily screening for Cervical Cancer

Response	Frequency	Percentage
Yes	466	98.3
No	8	1.7
Total	**474**	**100**

After the women were asked whether they would voluntarily screen for CC, having acquired some knowledge about it, Table 4.2.1.4.2 indicated in the findings that the majority (98.3 per cent) of the respondents would voluntarily undergo CCS because they were sure of what it was as well as its benefits.

However, Table 4.2.1.4.2 also showed 1.7 per cent of the respondents still refusing to voluntarily undergo CCS. This clearly shows that women need to be informed about CCS by continued community sensitization programmes as well as using IEC materials to display messages that are eye-catching (i.e. translated into local dialects) or conducting door-to-door campaigns that communicate correct messages to the right population as observed by the researcher.

Table 4.2.1.4.3: Willingness to advise friends/relatives to go for CCS

Willing to adive	Frequency	Percentage
Yes	193	40.7
No	281	59.3
Total	**474**	**100**

Women were asked about their willingness to advise friends/family to undergo CCS. Table 4.2.1.4.3 shows that over half (59.3 per cent) of the respondents indicated that they would not

advise their women friends or relatives to go for CCS while, 40.7 per cent indicated that they would advise others to undergo CCS because CC was a very deadly disease and since they found out that it could be avoided, they were willing to do so thereby making sensitization of the community imperative.

Table 4.2.1.4.4: Ever Used Traditional Medicines

Ever Used	Frequency	Percentage
Yes	156	32.9
No	318	67.1
Total	**474**	**100**

The findings according to Table 4.2.1.4.4 show that the majority (67.1 per cent) of the respondents indicated that they had never used traditional medicines in preference to CCS, while a third of the respondents had used traditional medicines and still thought they were very important to any woman practicing sex or having other complications.

Table 4.2.1.4.5 : Reasons for preference of herbs

Reasons	Frequency	Percentage
Influenced by friends	29	18.5
They cure faster than conventional medicines	11	7.0
To keep the vagina tight	31	19.8
To reduce water content in vagina/keep body very warm for enjoyable sexual intercourse with partner	81	51.6
All the above	5	3.2
Total	**157**	**100**

Women gave reasons for preferring traditional herbs to CCS. The findings as shown in Table 4.2.1.4.5 indicate that (71.4 per cent)) of the respondents used traditional herbs to keep their bodies warm and reduce vagina lubrication for enjoyable and satisfactory dry sex with their husbands, while on the other hand, 21.7 per cent were coerced by friends/family. About 7.0 per cent of the women thought that herbs cured faster than the conventional medicines.

Table 4.2.1.4.6: Duration of usage of Herbs

Duration	Frequency	Percentage
One week	72	45.9
Two weeks	11	7.01
One month and above	74	47.1
Total	**157**	**100**

As shown in Table 4.2.1.4.6, the findings of the results show that 47.1 per cent of the respondents indicated that they had used traditional herbs for over a period of one year while 45.9 per cent used them for a week.This shows clearly that women still indulge in risky practices such as inserting herbs in the vagina when sick and also mainly for enjoyable

Table 4.2.1.4.7: Willingness to reveal HPV status to partner/family

Reveal HPV Status	Frequency	Percentage
Yes	470	99.2
No	4	0.8
Total	**474**	**100**

Finally, women were also asked to state whether they would be willing to reveal their HPV status, if found positive, to either friends/family. As indicated in Table 4.2.1.4.7 the findings show that almost all (99.2 per cent) of the respondents indicated that they would reveal their status to their partners or family in order that they get support either financially, emotionally and or physically, while about 1 per cent (i.e. 0.8 per cent) were not willing to reveal their status because they were afraid of losing their marriages due to threats by their spouses as well as mothers-in-law.

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4.2.1.5 SECTION E: SOCIO-DEMOGRAPHIC CHARACTERISTICS BY KNOWLEDGE OF CERVICAL CANCER

This section identifies the associations that may be existing between the socio-demographic characteristics and having knowledgee about CC.

Table 4.2.1.5.1 : Socio Demographic Characteristics by Knowledge of Cervical Cancer

	Knowledge About Cervical Cancer						
	Yes		No		OR (95% CI)	X^2/Fisher's	P-Value
Variable	**n**	**%**	**n**	**%**			
Age (In years)							
15 - 19 years	7	3.26	33	15	0.26 (0.13, 0.51)		
20 - 24 years	47	21.86	63	28.64	0.91 (0.62, 1.32)		
25 - 29 years	69	32.09	58	26.36	1.45 (1.02, 2.07)		
30 - 34 years	47	21.86	31	14.09	1.85 (1.21, 2.82)		
35+ years	45	20.93	45	15.92		1 22.8	**0.001**
Marital Status							
Single	29	13.5	40	18.2	0.80 (0.52, 1.23)		
Married	175	81.4	169	76.8	1.14 (0.80, 1.62)		
Separated/							
Divorce & widowed	11	5.1	11	5.0		**1** 1.80	**0.406**
Level of Education							
Primary	54	26.1	86	40.8	0.49 (0.35, 0.67)		
Secondary	105	50.7	112	53.1	0.72 (0.54, 0.97)		
Tertiary	48	23.2	13	6.2		**1** 27.59	**0.001**

Occupation								
Not in gainful employment	61	28.4	72	32.7	0.82 (0.60, 1.11)			
Housewife	51	23.7	68	30.9	0.72 (0.52,0.999)			
Business/farming/other	54	25.1	52	23.6		**1**	9.05	**0.029**
Partners' Occupation								
Unemployed	45	20.9	38	17.3	1.12 (0.80, 1.57)			
Employed	132	61.4	148	67.3	0.84 (0.65, 1.10)			
Business/farming/other	38	17.7	34	15.5		**1**	1.67	**0.434**
Christian Denomination								
Pentecostal	70	32.6	74	33.6	0.97 (0.68, 1.40)			
Seventh Day Adventist (SDA)	28	13.0	25	11.4	1.15 (0.68, 1.94)			
Roman Catholic	34	15.8	35	15.9	1.00 (0.62, 1.60)			
Reformed Church of Zambia (RCZ)	7	3.3	7	3.2	1.03 (0.40, 2.62)			
United Church of Zambia (UCZ)	25	11.6	16	7.3	1.61 (0.89, 2.90)			
Jehovah's Witness	12	5.6	18	8.2	0.69 (0.35, 1.34)			
New Apostolic	20	9.3	23	10.5	0.89 (0.51, 1.58)			
Other	19	8.8	22	10.0		**1**	3.84	**0.798**
Parity								
0	36	16.7	33	15.0	1.08 (0.72, 1.64)			
1	49	22.8	61	27.7	0.80 (0.56, 1.13)			
2	51	23.7	57	25.9	0.89 (0.63, 1.26)			
3	37	17.2	31	14.1	1.19(0.78, 1.80)			
4+	48	19.5	38	17.3		**1**	3.46	**0.484**
Fear of undergoing CCS								
Yes	34	15.81	25	11.36	1.20 (0.92, 1.60)			
No	18	84.19	195	88.64		**1**	1.84	**0.175**

Ever been screened								
Yes	72	33.5	32	14.5	1.72 (1.36, 2.18)			
No	143	66.5	188	85.5		**1**	21.45	**0.001**
Voluntary CCS								
Yes	210	97.7	218	99.1	0.62 (0.27, 1.42)			
No	5	2.3	2	0.9		1		**0.28**
Willingness to advise on								
CCS								
Yes	210	97.7	218	99.1	1.51 (1.24, 1.83)			
No	5	2.3	2	0.9		1		**0.28**
Ever used Herbs								
Yes	81	37.7	66	30.0	1.19 (0.97, 1.45)			
No	134	62.3	154	70.0		1	2.86	**0.091**
Confirmed HPV status								
Yes	81	37.7	66	30.0	1.19 (0.97, 1.45)			
No	134	62.3	154	70.0		1	2.86	**0.091**

Table 4.2.1.5.1 shows that there was a very strong association between age of respondent (p-value of 0.001), level of education (p-value of 0.001), occupation (p-value of 0.029), ever been screened (p-value of 0.001) and having knowledge about CC .

Table 4.2.1.5.1 further indicates that the older respondents were 15 per cent more likely to be knowledgeable about CC compared to the younger ones who were 74 per cent less likely to have knowledge about CC. This also impacted greatly on their level of education which brought out very significant results on their knowledge about CC. Most of the repondents who participated in being screened had had prior knowledge about CC either through interaction for those who were

either self-employed or formally employed.. Furthermore, it also shows that those working were 31 per cent more likely to have had knowledge about CCS compared to housewives.

In addition to this, the table also shows that marital status, partner's occupation,Christian denomination, parity, fear of undergoing CCS,voluntary CCS, willingness at advise friends on CCS, ever used hearbs, and confirmed HPV status showed no significant difference hence were not associated with having knowledge about CC.

It is very plausable to state that there was an association between the repondents' age, level of education, occupation and ever been screened with them having knowledge about CC. There was a significant difference between the variables.

Table 4.2.1.5.2 : Multivariate Logistic Regression for Age, Education and Ever Being Screened

Factor	Adjusted odds ratio (95% Confidence Interval(CI))
Age (years)	
15-19	0.32 (0.16, 0.63)
20-24	0.90 (0.60, 1.35)
25-29	1.41 (0.97, 2.05)
30-34	1.78 (1.12, 2.81)
35+	1
Education	
Primary	0.45 (0.32, 0.62)
Secondary	0.85 (0.62, 1.16)
Tertiary	1
Ever been screened for CC	
Yes	1.62 (1.25, 2.09)
No	1

Age

Table 4.2.1.5.2 shows that respondents in the 15-19 years age group were 68 per cent less likely to have knowledge about CC compared to those in the 35 years and above age group.

It is further indicated in Table 4.2.1.5.2 that there was no difference in levels of knowledge on CC between the respondents in the 20-24 years age group and those above 35 years.

Table 4.2.1.5.2 further shows that there was no difference in levels of knowledge on CC between the respondents in the 25-29 years age group and the 35 years and above age group. In addition,

Table 4.2.1.5.2 indicates that respondents in the 30-34 years age group were 1.78 times (22 per cent) more likely to have knowledge about CC compared with respondents in the 35 years and above age group.

The conclusion is that age was found to be very significant in relation to women undergoing the CCS. It means that the older the women grow, the more they get exposed to information and have a clearer understanding of issues pertaining to their health.

Level of Education

Table 4.2.1.5.2 further shows that the respondents with primary level education only were 55 per cent less likely to have knowledge about CC compared with those who had attained tertiary education.

According to Table 4.2.1.5.2, there was no difference in the level of knowledge on CC between respondents with secondary level education and those that had attained tertiary education.

Level of education was also found to be very significant in the sense that the higher the women get in their education, the more likely they are to have access to information on subjects like CCS as they have a better understanding.

Ever been screened for CC

Table 4.2.1.5.2 finally shows that respondents that had been screened before were 1.72 times (28 per cent) more likely to have had knowledge about CC compared with those who had never been screened for CC.

Furthermore, for most of the women who had undergone CCS, chances of them having prior knowledge about CC were very high compared with those who had never gone for CCS. Therefore, having ever been screened for CC was found to be very significant.

In summary after carrying out a further test of Logistic Regregression, only the respondents' age, level of education and ever been screened were found to be statistically significant.

4.2.2 QUALITATIVE DATA

A report was prepared which reflected the discussions of the two FGDs held. The participants' own words were reflected; the key statements were also listed, including their ideas, emotions and attitudes expressed. Statements for each topic were categorized. The researcher read through all the data in order to obtain the general meaning of the information obtained. Content analysis and summary of narratives was done using NVIVO version 9.0. The responses from the two FGDs were then compared.

Data obtained from the FGDs has been presented in narratives. The findings were interpreted and some quotations have been recorded verbatim, then interpreted and the most useful quotations that emerged from the discussions illustrated the main ideas using the matrices, then conclusions drawn and final recommendations were made having taken consideration of the specific objectives that looked at coverage/utilization of the CCS centers, association between perceptions and women's decisions on the uptake of CCS, practices influencing women in shunning CCS and also the factors that would motivate women to undertake CCS among women aged between 15 and 49 years.

4.2.3 FOCUSED GROUP DISCUSSION (FGDs)

The focused group discussions were composed of younger women ≤ 29 years and older women aged ≥ 30 years. Table 4.2.3.1 illustrates the composition of the participants who were in the two FGDs by area, type (i.e. sex), number of FGDs conducted and the total number of participants in each FGD.

Table 4.2.3.1: Composition of participants by area, type of participant, number of FGDs conducted and number of participants in each FGD

Area	Type of Participant	Number of FGDs conducted	Number of women in the FGD	Total
Ng'ombe Clinic	Women	1	8	9
Kalingalinga Clinic	Women	1	8	9
Total		2	16	18

4.3 DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

The participants were from two areas of Lusaka District, a highly populated area with a high prevalence of CC. Two Focus Group Discussions were conducted. Each FGD comprised eight participants.

The first group (i.e. from Ng'ombe clinic) comprised younger women aged between 18 and 29 years, mostly single mothers who had attained their senior secondary education. While none of them were in formal employment, they were all Christians by faith mostly from the Pentecostal denomination and culturally diverse.

The second group (i.e. from Kalingalinga clinic) comprised older women aged between 30 and 49 years. All the participants in this group were married and had an average of five children each. They all had done their secondary education. Half of them were engaged in some business, while the other were housewives. This group was ethnically diverse and all of them were Christians by faith. All the participants in both FGDs belonged to a low socioeconomic group.

The three main themes identified during data analysis were:

- Knowledge about cervical cancer
- Perceptions about cervical cancer screening
- Practices of cervical cancer screening

4. 3.1 KNOWLEDGE ABOUT CERVICAL CANCER

The findings of the focused group discussion have been illustrated using matrices that have been analyzed for both the younger women ≤ 29 years old and the older women ≥ 30 years old in the following matrix:

Matrix 1: Knowledge about Cervical Cancer

Age Group	Understanding CC and its Terminology	Causes of CC	Signs & Symptoms of CC
Younger Women ≤29 years old	• Half said it was a disease • Half did not know what CC is • Most of the participants did not know about the virus that caused CC	• sleeping with an uncircumcised man without a condom • Inserting fingers in the vagina	• Infected the vagina • Severe backache and weight loss • Smelly yellowish discharge from the vagina • Pulling pain in the vagina • Pain during sexual intercourse
Older Women ≥ 30 years old	• Most of the participants said that CC was a disease that affects the cervix or womb • Most of the participants knew the virus causing CC	• unprotected sex with many men • indulging in sex as early as 12 years • Unprotected sex with a penis that has dirt on its foreskin that looks like dandruff • The virus that causes CC is HPV alluded to by one of the participants	• Sores found in the vagina • Sores on the cervix • Severe abdominal pain close to the bladder • Heavy monthly periods with a very strong scented odor • Watery discharge from the vagina

Understanding Cervical Cancer and its Terminology

Women were asked what they thought CC was and what their views were on the CC terminology. The results of the findings as observed by the researcher are that half of the younger women (≤29 years) generally had a slight idea about CC. They related CC to being just a disease while the other half did not know what CC was. In comparison, to the older women (≥30 years),showed more knowledge by describing CC as a disease which affects the cervix or the neck of the womb. This shows that the difference in opinion was based on their ages as indicated in Table 4.2.1.5.1 Pg.45, which showed that the older women generally had more knowledge than the younger ones.

Causes of Cervical Cancer

When the women were asked what they thought causes cervical cancer, most of the younger women (≤29 years) stated that it is caused by sleeping with an uncircumcised man without a condom although a few of them indicated that CC was caused by merely inserting fingers in the vagina while the older women also had a similar opinion that CC was caused by having unprotected sex with several sexual partners. They further elaborated that CC was also caused by the HPV. One woman (≥30 years) even gave an example of a confirmed CC case and emphasized that:

> *It is a cancer that affects the cervix which is roundish and feels like lips, when I insert fingers in the vagina to clean myself when bathing in the morning and the HPV is the main cause. This HPV is passed on to the next person by sleeping with an uncircumcised man without a condom. The dirt is usually harboured in the foreskin around the head of the penis and it looks just like dandruff .*

The older women also indicated that CC could be acquired by being exposed to sex at an early stage as demonstrated in the WHO (1992) report, Pg.18 which revealed that 64% of women in Zambia have their first child at age 12, predisposing themselves to multi-parity and putting them at risk of developing CC.

Signs and Symptoms of Cervical Cancer

All of the the women in both groups indicated similar opinions about what they thought were the signs and symptoms of CC. They said that one who may have CC would experience pain during sexual intercourse, loss of weight and appetite, produce a smelly yellowish discharge, sores on the vagina and inside, suffer from sever backache, severe abdominal pain and heavy monthly periods. This clearly showed that despite the age differences, they had similar opinions about the signs and symptoms of CC.

In conclusion, the findings showed that although some of the younger women (≤ 29 years) had heard about CC as demonstrated in Figure 4.2.1.2.1 , Pg.35 , which showed that about 92.4 per cent of the respondents had heard of CC, there was still a minority of 7.6 per cent that had not heard about CC hence a lack of knowledge compared to the older women ≥ 30 who had higher knowledge about CC. This is clearly illustrated on Pg.45 in Table 4.2.1.5.1 , whose results

showed that there was a very strong relationship between age of the respondent and having knowledge about CCS with a P-value of 0.001 which was highly and statistically significant.
This showed that the older one grows, the more knowledgeable they ought to be as demonstrated in this study. It is therefore imperative that continued community sensitization programmes be done to improve the knowledge status of the women.

4.3.2 PERCEPTIONS ABOUT CERVICAL CANCER SCREENING

The findings of the focused group discussion have been illustrated using matrices that have been analyzed from the results of the younger women aged ≤ 29 years and the older women aged ≥30 years old in the following matrix:

Matrix 2: Perception about Cervical Cancer Screening

Age Group	Understanding the importance of CCS	Willingness to socialize about CCS
Younger Women ≤29 years old	• Ignorance • Very painful procedure lasting for over 2 weeks • Television/Radio health promotion not taken seriously • Laziness • Insufficient information about CCS • Compromises privacy of participant • HPV positive status can cause marital dispute • Males thought it was a hindrance to sexual life when/if partner is found with HPV • Male partner thinks real women use herbs and not going to the hospital to try new phenomenon • Men said huge instruments are used on the woman's vagina thus compromising their enjoyment. It's just not necessary	• Never because Cervical Cancer is regarded a very difficult subject • Men are a hindrance to this, hence need to be brought on board and taught on reproductive health issues (i.e. men's ignorance)
Older Women ≥30 years old	• Compromises privacy • Silent killer and so ignorance keeps them at home instead of going for screening • It's not women who carry the HPV so men should take responsibility by getting circumcised • Men view it as a last resort when the woman is sick hence stop their partners from screening • Men view screening as a source of their partners vagina becoming big • Fear of the unknown	• They were more willing to discuss with their women folk • Sensitization should be taken to the villages where witcraft is practiced

Understanding the importance of Cervical Cancer Screening

When women were asked about how they feel to participate in the actual uptake of cervical cancer screening, most of the women from both groups (i.e.≤29 and ≥30 years old) said that it was extremely imperative that screening be taken very seriously and should be done at all costs. They shared some very vital views on the reasons most women shun the screening centres leading to the low utilization of the CCS centres such as: ignorance as it is a silent killer and takes long to show signs and symptoms, CCS perceived as a very painful procedure, compromises on privacy, men stop their wives to go for screening until its rather too late as a last resort, vagina enlarges as perceived by their menfolk and fear of the unknown as women have been told of CCS as being a very scary procedure and television/radio health promotion not taken seriously.One of the women emphasized and stated:

> *I can't allow a male doctor to see my nakedness"* and another *one* said that "*I can't afford to lose my husband as men are hard to come by these days because if am screened and they find me positive with HPV it would be a great risk.*

Socializing with others over the Cervical Cancer Screening subject

Women were asked about how they felt sharing information over the CCS subject with others in the community. Most of the younger women(≤ 29 years) said that CCS was a new subject and they could not easily discuss with others. The younger women felt that the sole perpetrators of shunning of CCS by the women in the centres were men's ignorance. The women concluded by stating that in order for a solution to be arrived at, men should be brought on board and educated on issues of reproductive health, including the tough subject of CC and screening.

However, half of the older women aged ≥ 30 said that researching further on this very critical subject of cervical cancer screening would be good because the more women (i.e.sexually active) discuss CCS openly within their communities, the more productive lives would be saved. One of the older women had a totally different view she said :

> *It would be better for the one who carries the Human Papilloma Virus (men) to eventually get sick and die and not only the woman to be involved. This in my view would make screening irrelevant forever*.

In comparison to the younger women (≤29 years), the older women thought that there are a lot of misconceptions going on in the community and causing fear such that more women shun going for CCS .They discussed CCS openly and felt that more community sensitization ought to be done, especially in villages, where witchraft is rife.

The conclusion is that while both the younger women ≤ 29 and older women ≥ 30 think CCS is a very good initiative to have women screened for CC, it is imperative that community health sensitization programmes continue as demonstrated in Table 4.2.1.5.1 , Pg.47, which shows that there was a very strong association between practice of CCS of the respondents and having knowledge about CC with a P-value of 0.001. This result was very significant and clearly it indicates that you can only screen for CC if you have the knowledge about it.

It is also important to note that both groups thought that the menfolk are a hindrance to women going for CCS and should equally be taught about CCS and also the dangers of their partners (the women) not screening for CC emphasised. It was also demonstrated in the study that men should also be encouraged to go for circumcision as a preventive measure according to a report by WHO/UNAIDS (2007) on Pg.14, which noted that there would be less chances of being infected.

4.3.3 PRACTICES OF CERVICAL CANCER SCREENING

The findings of the focused group discussion have been illustrated using matrices that have been analyzed from the results of the younger women aged ≤ 29 years and the older women aged ≥30 years old in the following matrix:

Matrix 3: Practices of Cervical Cancer Screening

Age Group	Availabilty of the CCS Services in the community	Understanding what would motivate the women to screen for cervical cancer	Health Seeking Behavior
Younger Women ≤29 years old	• Ignorance of the facilitie's availability • Laziness to access any health facility.	• Being knowledgeable would prompt women to go for CCS • Community health sensitization programmes are imperative • Outreach door to door campaigns	
Older Women ≥30 years old	• Ignorance • Laziness of accessing the facility • Fear	• Ongoing community health promotion • More knowledge on CCS would prompt women to screen without any persuasion • Television/Radio programmes that are more community-based in local languages • Brochures, leaflets and booklets that are translated into local languages and then distributed into the communities • Adverts that are more eye-catching and relay the right information • Policy being brought on board to empower every woman with information on the dangers of CC thus the need for CCS • Ministry of Health to put in place policy that every woman in the reproductive age group attending clinic should be screened at least once a year	• Consulting the traditional healers within the community for traditional herbs to insert in the vagina or for drinking when sick and for sexual satisfaction by their husbands • Visiting grandmothers and older friends for advice on home remedies to make vagina tight for enjoyable sex • Going to church to be prayed for by a pastor or the clergy

Availabilty of the CCS Services in the community

All the participants in both groups of the the younger women ≤29 years and older women ≥30 years expressed ignorance of the facilities' availability, fear of the unknown and mere laziness to access the facility. One of the participant in the younger women's group ≤29 years said: *Why should I go to the clinic and screen when I am feeling absolutely alright, because I am not sick.*

Understanding what would motivate the women to screen for cervical cancer

Women were asked what they thought were the motivators to screening for cervical cancer. The younger women aged ≤29 years thought that the motivators for women undergoing CCS would be imparting knowledge through community sensitization programmes and door to door campaigns while the older women aged ≥30 years had a different view that a lot more needed to be done to persuade more women to come on board and screen for CC such as preparing television adverts and radio programmes that were more eye-catching and convincing, consistent community sensitization programmes, distributing brochures, leaflets and booklets that are translated into local languages, Ministry of Health (MoH) to put deliberate policy for every woman in the reproductive age group attending clinic to be screened at least once a year and also creating structures in the clinics that would also accommodate men to come on board to encourage their womenfolk. While both groups were enthusiastic about community sensitization, the older women brought out more objective reasons to motivate and encourage more women screening for cervical cancer.

Health Seeking Behaviour

When women were asked about their health seeking behavior, Most of the younger women ≤29 years had very little or nothing to say on their health seeking behavior as compared to the older women ≥30 years, who thought that it was very important to be honest about the practices women indulge in that may perpetrate their non-attendance and uptake of CCS when sick. These practices could include consulting with their own community traditional healers who provide herbs to use instead of conventional medicines, usage of traditional herbs to insert in vagina or drink to make it tight for purposes of dry sexual enjoyment with their partners. They also felt that attending church to be prayed for by the clergy was a practice that may hinder women from accessing the clinic. There was one woman who stressed that:

> *Most women in the community where I live have been told that immediately you feel sick, if you visit the church and the pastor(clergy) prays for you, then you are healed immediately. It will now no longer be necessary to go to the hospital for any medication or help hence the shunning has continued.*

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 SUMMARY OF FINDINGS:

This is the final chapter of the dissertation. It summarizes the findings of the study and consolidates the main objective of the study, which was to determine the Knowledge, Perceptions and Practices of Cervical Cancer Screening among women aged between 15 and 49 years in selected clinics of Lusaka District with specific objectives being coverage/utilization of the CCS centers, association between perceptions and women's decisions on the uptake of CCS, practices influencing women in shunning CCS and also the factors that would motivate women to undertake CCS in order that the coverage/utilization in the centers is eventually improved. Data was collected using a Structured Interview Schedule and two Focused Group Discussions (FGDs).

The findings of the study showed that three quarters of the respondents, who accounted for 78.1 per cent, were married. However, only half of the respondents in the FGDs were married. It further indicated that almost all of the respondents were Christians, accounting for 98.7 per cent, with a third of them attending church with the Pentecostal denomination. In addition to this, a third of the respondents were housewives, whose partners' were either in gainful employment or doing some business to sustain their families.

Furthermore, the study showed that 50.4 per cent of the respondents had one or two children, and from the interviews held including in the FGDs, and had started giving birth from as early as the age of 12 . This is supported by a WHO (1992) report on Pg.18, which revealed that 64 per cent of women in Zambia, have their first child at the age of 12, which then predisposes them to multi-parity and puts them at more risk of developing CC compared to women who indulge in sexual intercourse after the age of 20 (CSO,2003). Finally, the findings showed a 50.6 per cent prevalence on knowledge levels among the women in the reproductive age group in Lusaka district.

Generally, the findings from the discussion show that there was a statistical difference and very strong association between the respondents' Age, Level of Education, having Ever Been Screened for CC and having knowledge about CC, resulting in the eventual uptake of screening for CC.

5.2 DISCUSSION OF FINDINGS:

5.2.1 DEMOGRAPHIC CHARACTERISTICS OF CERVICAL CANCER SCREENING

The majority of the respondents in the study were aged between 20 and 34. A similar age distribution was reported in South African (Natal) women, Ugandan African women, Malaysian women (Wong et al. 2009) and Jamaican women (Bessler et al. 2007). The study showed that the highest specific age rate of respondents was between ages 25 and 29. However, they study showed that the respondents in the 15-19 age group,were 68 per cent less likely to have knowledge about CC compared with those respondents in the 35 years and above age group. The conclusion from the FGDs is that the younger women ≤29 years had a general idea of what CC is but very little knowledge of CC, its causes and symptoms. Although some knew as demonstrated in Figure 4.2.1.2.1, Pg.35 where about 92.4 per cent of the respondents had heard about CC, while there was still a minority of about 7.6 per cent that had not heard about CC. It is therefore imperative that continued community sensitization programmes be done to improve the knowledge status of the women.

In comparison with other studies that have been discussed elsewhere, this age group (30 – 34 in Zambia) was the most knowledgeable group because by this age, they would have at least completed secondary school education and would thus be more informed about CC through reading and having access to available Information Education and Communication (IEC) materials on CC screening, hence the importance of the age group. This was clearly demonstrated in the FGDs held that most of the participants in the older women ≥30 years group revealed that when a woman is older and sexually active, they would definitely show interest in finding out about CCS and eventually undergo the screening when they have been informed.

It is, therefore, evident also that the older women ≥30 in the FGDs had higher knowledge about CC compared with the younger women ≤29 years. This is clearly illustrated on Pg.45 in Table 4.2.1.5.1 and Pg.51-53 in Matrix 1, whose results showed that there was a very strong

relationship between age of the respondent and having knowledge about CC with a P-value of 0.001, which was highly significant. This also showed that the older one grows, the more knowledge they ought to have as demonstrated in the study. However, it was also noted from the study that the 20-29 years age group recorded no significant difference with the 35 and above age group.

Finally, it is arguably possible that respondents in the 30-34 age group were 22 per cent more likely to have knowledge about CC as also displayed in the FGDs in the ≥30 age group, who showed more knowledge compared to respondents in the 35 years and above age group according to the results of the study. It is, therefore, evident that there is a strong association between the age of the respondents and having knowledge about CC.

5.2.2 KNOWLEDGE ON CERVICAL CANCER SCREENING

The study showed that the majority of respondents (92.4 per cent) had heard about CC and that the commonest source of information was the clinic/hospital, which accounted for 55 per cent as demonstrated in Figure 4.2.1.2.1, Pg 35 and Table 4.2.1.2.1 on Pg.36. Over half of the participants in the FGDs described what cervical cancer was, although almost all of them did not have an idea what virus caused it. Most of the respondents with only Primary level education were 55 per cent less likely to have knowledge about CC, compared with the respondents who had acquired tertiary level education. This means that the respondents who had had a form of education of up to secondary school level would be prompted to access the other services at the health facility in addition to what they had an appointment for (i.e. if one had a headache, they would actually access CCS, given the opportunity). This shows that the uptake of cervical cancer screening is still low in Lusaka District, and the lack of knowledge on CCS is a prime reason.

The study findings further illustrate that both participants who had either completed secondary school education or had obtained/received tertiary level education showed no significant difference. This confirms that education had a very important and significant role to play with regard to their knowledge about CC and the eventual uptake of CC screening.

Furthermore, studies have shown that in most developed countries such as the US, most of the women in the reproductive age group are educated early enough and are therefore knowledgeable enough to access CC screening services early (ACS, 2002) on Pg.15. It has also

been argued in a report (WHO, 2010) on Pg.15, that there have been a lot of myths and misconceptions surrounding CC screening due to lack of knowledge as well as negative attitude towards centers which would offer them immediate response and help. These claims have been demonstrated in the study, which showed that almost all the participants in the FGDs who showed a lot of ignorance of knowledge about CCS, fear of going to be screened were due to mere laziness and fear of the whole CCS procedure as narrated by friends who had been screened before and had not gone far with their education as shown in Matrix 3 on Pg. 57-58.

The conclusion is that while both the younger women ≤ 29 and older women ≥ 30 think it is a very good initiative to have women screened for CC, it is imperative that community health sensitization programmes continue as demonstrated in Table 4.2.1.5.1, Pg. 47, which shows that there was a very strong association between practice of CCS of the respondents and their knowledge about CCS with a P-value of 0.001. This result was very significant and clearly indicated that you can only screen for CC if you have the knowledge about it.

It is also important to note that both groups of women ≤ 29 and ≥ 30 years old in the FGDs thought that the menfolk were a hindrance to women going for CCS. They emphasized that men should equally be taught about CCS and the dangers of their partners not screening for CC as demonstrated in the study that showed that men should be encouraged to go for circumcision as a preventive measure, according to a report by WHO/UNAIDS (2007) on Pg.14.

Other studies done by Mwanahamuntu and others (2009) revealed that Zambia has screened up to 90,000 women using the "see and treat" method by non-physicians, accounting for 20 per cent of the half a million women in the reproductive age group. This study revealed a 22.3 per cent participants response plus only one participant from the FGDs who had actually undergone CCS. This finding further, as demonstrated on Pg.13, gives an impression that although there has been seemingly high publicity on CCS through various media (IUHPE, 2009), there still seems to be apathy at CCS centers for the actual uptake.

This study found that there is a very strong association between level of education of the respondents' and having knowledge about CC.

5.2.3 WOMEN'S DECISIONS ON THE UPTAKE OF CERVICAL CANCER SCREENING

The findings from this study indicated that respondents that had been screened before were 1.72 times more likely to have had knowledge about CC compared to those who had never been screened. It was quite evident that most of the participants in the FGDs demonstrated ignorance, laziness, CCS regarded as a scary procedure and indulging in the usage of traditional herbal medicines when sick. About 86.3 per cent were afraid to undergo CCS due to a number of reasons (i.e. 71.9 per cent had heard that the procedure was scary), while the remaining 23.1 per cent either did not think it was a necessary procedure or they did not want a male health practitioner to see their nakedness. Others said that they weren't ready at the time. There were other claims that the FGDs brought out from the study and that was, although CCS was advertised on radio and television, the procedure was still not clear as its importance was not stressed.

The findings from this study were consistent with a cross-sectional study undertaken in the Parish of Trelaweny in Jamaica (Bessler et al. 2007) on Pg.15. It revealed that 30 per cent of the 367 clinic-attending women in the reproductive age group of 25 to 54 were unable to undergo a Pap smear simply because they did not attach any importance to it. They were unknowledgeable about the screening procedure as demonstrated in Matrices 2 and 3 on Pgs. 54 – 58. Most participants in the FGDs had similar reasons for not undergoing CCS except one participant who had actually been screened.

It was brought out in the study that 96.4 per cent of the 474 participants in Lusaka District wanted to screen voluntarily so they could know their status compared to the 22.6 per cent who had actually undergone CCS in the past year as shown in Figure 4.2.1.4.1 on Pg.41.

Another notable thing in the FGDs was that after the interviews and information sharing, almost all of the respondents agreed to voluntarily screen for CC, including those that had been screened before, with special emphasis on knowing their status. These results were also consistent with the findings by (Bessler et al, 2007) on Pg.15, who reported that of the 367 clinic-attending women, 38 per cent had screened for CC within the past year. This was clear indication that health programs that promote annual health check-ups and persistent recommendations and emphasis

on screening as a preventive measure by physicians, would positively influence women's decisions to screen for CC.

Wong and others (2009) on Pg.16, carried out a qualitative study using face-to face in-depth interviews to investigate the moral values, traditional practices, attitudes and beliefs on CC screening of twenty Malaysian women aged 21–56, who had never had a Pap smear test done. Results of that study revealed that there was a 90 per cent prevalence of knowledge about CC as demonstrated in the study that showed that 77.4 per cent of the participants did not undergo CCS in Figure 4.2.1.4.1 on Pg. 41. Furthermore, the findings showed that almost all the participants in the FGDs had not undergone CCS either. It was also observed by the researcher that merely having a center for CCS in place, does not influence women to have a positive attitude towards CCS and actually having a Pap smear done.

Another notable thing in the study is that, a third of the respondents used traditional herbs instead of accessing a health facility for any service, including CCS. This was also noted from the FGDs that half of the participants (i.e.those ≥30 years) preferred traditional herbs to accessing any health facility as demonstrated in Matrix 3 on Pg.57-58. About 71.4 per cent (i.e.Table 4.2.1.4.5 on Pg.43) who had used traditional herbs by inserting them in the vagina for one reason or the other indicated that herbs cured gynecological problems faster than the conventional medicines. There were other claims by all the participants of the traditional herbs having an effect of reducing water content in the vagina/body for enjoyable dry sex with their husbands/partners. Almost half of the participants had used traditional herbs for over a period of a month.

This use of herbs is supported by (Mbewe, 2008) study on Pg.17, which revealed, that 80 per cent of the (50 respondents who participated in his study) had also used herbs to insert in the vagina before sexual intercourse to maintain dryness for sexual pleasure with their husbands/male partners. Of these respondents, 51 per cent were uneducated and only 28.2 per cent had actually reached their fourth grade. This was clearly shown in the study that 34 per cent of the participants had only gone up to primary level education while the rest of the participants in the FGDs had barely reached secondary school. This compromised their ability to appreciate CCS as a phenomenon that would avert the current situation of cervical cancer being a silent killer of most women who are sexually active. In addition, dry sex is reported to be practiced in

many countries among women with low educational level as they do not know the effects of the herbs they use (Morar, 2006) as demonstrated in Table 4.2.1.5.1 on Pg. 47, which concludes by showing that there was a very strong association between practice of CCS of the respondents and having knowledge about CC with a P-value of 0.001. This result was very significant and clearly indicated that you can only screen for CC if you have knowledge about it.

In conclusion, this clearly shows that though the uptake of CC screening is still very low in Lusaka District, most women (92.4 per cent) as shown in Figure 4.2.1.2.1 on Pg.35, have heard about it but may not fully appreciate CC as a silent killer because CCS appears not to be an immediate need for them as observed by the researcher.

5.3 LIMITATIONS OF THE STUDY

The following were the limitations of this study:

- ✓ The study area was only limited to publicly-operated health centers that also offer cervical cancer screening centres . It did not include clinics that do not offer CCS.

- ✓ The study was only done in Lusaka District, and 474 respondents were interviewed, which makes it difficult to generalize the findings to cover other parts of Zambia. However, the study has brought out relevant information which is key to CCS and can be replicated at national level.

5.4 CONCLUSION AND RECOMMENDATIONS

This study shows that the utilization of the cervical cancer screening centres was generally low among the women. Findings of the study show that there is also low knowledge on cervical cancer. The study revealed that older women where more knowledgeable than the younger ones. This clearly shows that age had an impact on knowledge. Furthermore,findings of the study showed that there was no association between perceptions, practices(such as health seeking behaviours) and the actual cervical cancer screening uptake. However, according to the findings, the possible motivators of the women undergoing CCS is community sensitization. The conclusion and recommendation is that there is need for continued and consistent sensitization, to help change the mindset of the women who have a negative perception about CCS and also indulge in inhibitive cultural practices.

During the multivariate analysis only, age, level of education and having ever been screened were found to be statistically significant.

Based on the findings of the study, it is recommended that:

- ✓ Information; Education and Communication strategies be strengthened by the MoH – MCDMCH bodies, placing emphasis on the public health benefits of early annual CCS and prevention of sexually transmitted illnesses.

- ✓ It is also imperative that acceptability and decision making by the women and men be increased by increasing their knowledge levels. This may entail the MoH and other stakeholders like CIDRZ going into partnership and translating leaflets into local dialects to accommodate various women in communities across the board.

- ✓ The MoH to institute a mandatory policy for every woman in the reproductive age group attending any health facility for any service to be screened for CC in order that they increase coverage using the "see and treat" method by non-physicians. This process should also include counsellors who should encourage women in the reproductive age group to voluntarily screen for CC.

- ✓ Although currently, the MoH, is administering vaccines on girls between the ages of 9 to 14 years as a way of mitigating CC from developing before they (girls) become sexually active. It is highly recommended that further research be conducted to ascertain the extent of disease burden over time for those who eventually become sexually active.

- ✓ Finally, that the MoH through DHMT to develop a well-structured and comprehensive CCS programme in all health centers to maximize access to all women and eventual usage of the CC screening centers countrywide and avoid unnecessary deaths of women in the reproductive age group.

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APPENDIX I: INFORMATION SHEET & CONSENT FORM

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF COMMUNITY MEDICINE

INFORMATION SHEET & CONSENT FORM FOR CERVICAL CANCER SCREENING STUDY

TITLE: KNOWLEDGE, PERCEPTION AND PRACTICES (KPP) OF CERVICAL CANCER (CC) SCREENING OF WOMEN AGED BETWEEN 15 AND 49 IN SELECTED CLINICS OF LUSAKA DISTRICT.

SECTION A:

I am a Master of Public Health – Population Health Studies (MPH - PHS) Student in the School of Medicine - University of Zambia. I am conducting a survey on Knowledge, Perceptions and Practices of Cervical Cancer Screening among women in the reproductive age group of 15 to 49 years in selected clinics of Lusaka District.

It has been discovered that a lot of women in the reproductive age group are dying young due to Cervical Cancer (CC) even when their lives could be spared if they went early to the hospital for screening.
The objectives of this study are to: (i) determine the views on utilization of CC screening among women (ii) explore the level of knowledge of CC among women (iii) determine the association between perceptions and CC screening among women (iv) identify practices associated with screening amongst women (v) establish the motivators/barriers of CC screening among women .

The study involves asking a series of questions from a questionnaire as well as conducting focused group discussions, which will be based on the objectives stated above. There will also be use of a tape recorder in the case of the Focused Group Discussions (FGDs) for easy transcribing of important information to help find a lasting solution to this problem. The information collected will be treated as confidential and used to prepare reports after analysis without including any specific names. There are no risks involved for taking part in this study.

The results obtained in this study will (i) contribute to the understanding of why there has been low usage in the screening centers for CC and thus enhance participation (ii) help identify if there is any association between perceptions and practices in determining the actual screening to help formulate policy and

influence women's willingness to be screened (iii) contribute through improved knowledge on screening among women towards more effective control measures of the disease.

Participation in this research is voluntary. The participants are free to ask any questions and if they feel dissatisfied, they are free to decline participation without any repercussions. No women will be charged anything to the participate in this study.

SECTION B: CONSENT FORM

The purpose of this study has been adequately explained to me and I understand the aim, benefits and confidentiallity of this study. I further understand that if I agree to take part in this study, I can withdraw at any time without having to give an explanation and that taking part in this study is purely voluntarily.

If you are willing to participate in the study, please do so by signing below.

Thanking you in anticipation and for your valuable time.

Sign: ……
(Please use respondent's right thumb print for signature)

Date: ……...

Witness: …….
(i.e. a relative or interviewer)

If you need any further clarifications even after our discussion, you can contact the Principal Investigator /Principal Supervisor and or the chairperson of the ethics committee. Thanking you in advance for your time.

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APPENDIX II: TRANSLATION OF THE INFORMATION SHEET & CONSENT FORM

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF COMMUNITY MEDICINE

TRANSLATION OF THE INFORMATION SHEET & CONSENT FORM FOR CERVICAL CANCER SCREENING STUDY

TITLE: KNOWLEDGE, PERCEPTION AND PRACTICES (KPP) OF CERVICAL CANCER (CC) SCREENING OF WOMEN AGED BETWEEN 15 – 49 IN SELECTED CLINICS OF LUSAKA DISTRICT

SECTION A: INFORMATION SHEET

Ine ndine mwana wasukulu wamapunzilo abantu bambili kupyolera mumoyo wachipata chamaphunzilo akuya cha University of Zambia. Pakalipano ndili kufunafuna nzelu, kapena maganizo ndi machitidwe kuti ndionesteste pamatenda amenewa achizimai amene amaononga ku ukadzi kupyolela kuzichinto zadama pakati pa adzimai akalikubala kuchokela pazaka kumi ndizisano (15) kufikila makumi anai ndizisano ndizinai (49). Izi zizachitika muzipatala zogawika gawika mumuzinda wa Lusaka.

Zapezeka kuti, pakati pa azimai akali kubala akumafa ambili akali ang'ono, chifukwa chamatenda amenewa a Cervical Cancer (CC) angakhala omoyowao ungapewedwe ndimatenda amenewa ngati angapite kuchipatala mwamusanga kukapimidwa ndi akatswili ku ukadzi. Malinga ndimaphunzilo amenewa akufufuzafufuza kuti tionesteste zantenda ya CC .

- ✓ Tifuna kuti tione maganizo azimai pakhani yopita kuka pimidwa ndifufuza zamatenda amenewa a CC
- ✓ Tifunakuziwa kuti nzelu za azimai zafikapati pakhani yamatenda a CC
- ✓ Tifunakuziwa ngati palikugwilizana pamaganizo amuzimai aliyense ndikupita kuka pimidwa pakhani yamatenda a CC
- ✓ Kuyesa kupeza machitidwe azimai amene angalese kupita kukapimidwa
- ✓ Kuonesta zintu zimene zingastistimuste kuti akapimidwe ndiponso zingaleste kuti asakapimidwe phakhani yamatenda a CC

Maphunzilo amenewa alindimafunso ambilili molingana ndizimene zalembedwa mumundandanda umenewo. Pazafunika chojambulila kuti zomwe tichita zisungike kuti musogolo tizapeze njila motandizila anthu ali ndimatenda amenewa. Nkhani zamene tizatenga kuli inu zizasungadwa mwachintsitsi molingana ndikukhonza mundandanda kosaika zina lamunthu aliyense. Palibe cho opyesa mukuphunzila kumeneku.

Zimene tizapeza mumaphunzilo amenewa choyamba, zizathandiza kuti azimai ambili apite kukapimidwa pamatenda a CC. Chachiwili zizatithandiza kuti tizindikile zamaganizo azimai ndi machitidwe awo amene angate kutithandiza kupanga malamulo yotsitsimusa azimai kuti akapimidwe. Chachitatu ngati azimai akhala ndi nzelu pakhani yamatendawa, azakhala ndichilakulaku chozi chinjiliza pamatenda amenewa.

Kufuna kunkhala mumaphunzila amenewa ndikuzipeleka chifukwa kuliba malipilo. Anthu amene azakhala mumusonkhano umenewo, akhala omasuka kufunsa mafunso alionse ngati siokutistikha ndizomwezi akozakuleka ndikuchoka kopanda vuto iliyonse. Kulibe malipilo kapenanso kulipilidwa kulianthu amene azakhala mumusonkano umenewo.

SECTION B : CONSENT FORM

Maphuzilo amenewa ndayamvetsesa pazonse zimene zifunikila, zabwino zamene zilimo, ndi chitsitsi chamane chili musonkano umenewo. Ndipo ndimvetsesa kuti ngati ndavomela kukhala pamusonkano umeneu, ndiponso ndimvetsesa kuti ndinga chokemo mumusonkano umenewo palibe chokamba chilichonse, chifukwa kutenga mbali pamusonkano umenewa ndikuzipheleka.

Ngati mufuna kutenga mbali pamusonkano umenewo, mulembe zina lanu pansi apa.

Zikomo panthawi yanu yabwino imene mwaika padela kuti mutimvele zakhani yatu imeneyi.

Sign: ……
(Chonde mugwilitse nchito chikumo chikulu chazanja lamanja)

Date: ……...

Oyimilila: …….
(i.e. mubale angakhale wamene akukambitsani)

Ngati mulindizo onjezelapo ndi mafuso mungauze akumphando akuluakulu pakhani imeneyi. Kopeza anthu amenewa mundandanda ndizimene ndalemba pansi apa. Zikomo kwabili panthawi yanu, imene mwasankha kukhala ndi ine.

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APPENDIX III: ASSENT FORM FOR RESPONDENTS BELOW 18YRS

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF COMMUNITY MEDICINE

ASSENT FORM FOR RESPONDENTS BELOW 18YRS FOR THE CERVICAL CANCER SCREENING STUDY

TITLE:KNOWLEDGE, PERCEPTION AND PRACTICES (KPP) OF CERVICAL CANCER (CC) SCREENING OF WOMEN AGED BETWEEN 15 AND 49 IN SELECTED CLINICS OF LUSAKA DISTRICT

I, _____ understand that my parents/guardian have/has given permission for me to participate in this study concerning Cervical Cancer (CC) under the direction of _____.

My participation in this research is voluntary and I have been told that I may stop my participation in this study at any time without penalty and loss of benefit to myself.

Thanking you in anticipation and for your valuable time.

Signature/thumb print ……
(Please use respondent's right thumb print for signature)

Date: ……...

Witness: …….
(i.e. a relative or interviewer)
If you need any further clarifications even after our discussion you can contact the Principal Investigator /Principal Supervisor and or the chairperson of the ethics committee. Thanking you in advance for your time.

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Telephone: +260211252641
Telegrams: UNZA, LUSAKA
E-mail: **likwa.ndonyo@unza.zm /drndonyo@yahoo.com**
Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

The Principal Investigator
Telephone:+260955880402
Telegrams: UNZA, LUSAKA
E-mail: **nomvuyotembo@yahoo.com**
Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

APPENDIX IV: INTERVIEW/QUESTIONNAIRE GUIDE

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF COMMUNITY MEDICINE

INTERVIEW/QUESTIONNAIRE GUIDE FOR CERVICAL CANCER SCREENING STUDY

TITLE:KNOWLEDGE, PERCEPTION AND PRACTICES (KPP) OF CERVICAL CANCER (CC) SCREENING OF WOMEN AGED BETWEEN 15 AND 49 IN SELECTED CLINICS OF LUSAKA DISTRICT

Dear Respondent,

I am a Master of Public Health – Population Health Studies (MPH - PHS) Student in the School of Medicine - University of Zambia. I am conducting a survey on Knowledge, Perceptions and Practices of Cervical Cancer Screening among women in the reproductive age group of 15 to 49 years in selected clinics of Lusaka District.

It has been discovered that a lot of women in the reproductive age group are dying young due to Cervical Cancer (CC) even when their lives could be spared if they want early to the hospital for screening.

The main objectives for my study are as follows:

- ✓ (i)To determine the views on utilization of CC screening among women
- ✓ (ii)To explore the level of knowledge of CC among women
- ✓ (iii)To determine the association between perceptions and CC screening among women
- ✓ (iv)To identify practices associated with screening amongst women
- ✓ (v) To establish the motivators/barriers of CC screening among women

You have been randomly selected to assist in this study. Your participation in this research is voluntary. Please note that your views in this interview shall not be, in any way, used for any purpose other than the advancement of this study. You are therefore assured that your views shall not be used in any way that might damage/destroy your reputation as an individual or otherwise compromise your integrity or emotions as the information provided will be treated with a high level of confidentiality.

Your cooperation in this exercise will be highly appreciated.

Yours Sincerely,

Nomvuyo Dadirai Tembo

KNOWLEDGE, PERCEPTION AND PRACTICE OF CERVICAL CANCER SCREENING INTERVIEW QUESTIONNAIRE GUIDE FOR WOMEN BETWEEN THE AGES OF 15 AND 49 YEARS

Questionnaire Number…… [ ][ ][ ][ ]

Code

Respondent's Identification

Residence: Urban [ ] [ ]
Province: Lusaka [ ] [ ]
District: Lusaka [ ] [ ]

Recruitment Center: Health Facility [ ] [ ]

Hospital/Clinic (state name)……. [ ]

Age of Respondent…… [ ][ ] [ ]

Marital status: 1. Single [ ] 2. Married [ ] 3. Divorced [ ]
4. Separated [ ] 5. Widowed [ ] [ ]

Number of children living (specify number in box)…… [ ][ ] [ ]

Age of woman at first birth of child…… [ ][ ] [ ]

Education: 1. No education [ ] 2. Primary [ ]
3. Secondary [ ] 4. Tertiary (college and above) [ ] [ ]

Occupation: 1. Unemployed [ ] 2. Employed [ ]
3. Self-employed [ ] [ ]

Religious Affiliation: 1. Christian [ ] 2. Moslem [ ]
3. Buddhist [ ] [ ]

Interviewer's Identification

Interviewer's Name……. [ ]

Hospital/Clinic (specify name)……

Date of Interviews…… [ ][ ][ ][ ][ ][ ]

Day Month Year

QN		
	Now, I would like to ask you a few questions about yourself. Please feel free to answer the questions. Your name will not appear on this paper. The paper is intended to improve the health status of women in the country especially in your area.	
Q1	**A. Background Information** When were you born? (Specify year born in boxes)……. ☐☐ ☐☐ ☐☐ **Day Month Year** (indicate unknown in dotted space if date of birth is not known)	☐
Q2	How many children do you have living? (specify number)…… ☐☐	☐
Q3	How old were you when you had your first child? 1. 14 – 16 years [ ] 2. 17 – 19 years [ ] 3. 20 – 22 years [ ] 4. 23 and above [ ]	☐
Q4	Are you in marriage relationship or single or separated or divorced or widowed? 1. Single ……..... [ ] 2. Married…….. [ ] 3. Separated…….. [ ] 4. Divorced……... [ ] 5. Widowed……... [ ] ✓ **{Tick once where applicable}**	☐
Q5	Have you ever attended school? 1. Yes [ ] 2. No [ ]	☐
Q6	If yes to Q5, what is your highest level of education 1. No education ……..... [ ] 2. Primary……. [ ] 3. Secondary……..……. [ ] 4. Tertiary (college and above)……...[ ] 5. Widowed……... [ ] ✓ **{Tick once where applicable}**	
Q7	What do you do for your living? 1. Not in gainful employment ……..... [ ] 2. Employed…….. [ ] 3. I am a housewife……..……..…….. [ ] 4. Business…….……... [ ] 5. Farming……..…… [ ] 6. Other, specify…… [ ] ✓ **{Tick once where applicable}**	☐

Q8 If married or living with a partner, what does your partner do to support you and family (if any)?

1. Unemployed……..……..... .[ ]
2. Employed…….. ..[ ]
3. Business…….……..... [ ]
4. Farming…….…….. [ ]
5. Other, specify…….. [ ]

✓ **{Tick once where applicable}**

Q9 What is your religious affiliation?

1. Moslem…….……..... [ ]
2. Buddhist..……....[ ]
3. Christian…….…… [ ]

Q10 If Christian, which denomination do you belong to:

1. Pentecostal ……. [ ]
2. Seventh Day Adventist (SDA)……[ ]
3. Roman Catholic……...[ ]
4. Reformed Church in Zambia (RCZ)……. …….[ ]
5. United Church of Zambia (UCZ)……[ ]
6. Jehovah's Witness……...[ ]
7. New Apostolic ……[ ]
8. Other (Specify……)

✓ **{Tick once where applicable}**

Knowledge of Cervical Cancer

The following questions will relate to the knowledge that you have about Cervical Cancer. Please feel free to say whatever you know.

Q11 Have you ever heard about Cervical Cancer?

1. Yes [ ] 2. No [ ]

Q12 If Yes to Q11, where did you hear about Cervical Cancer?

1. Family/friend…….. [ ]
2. Clinic/Hospital……. [ ]
3. Health Magazine……. .[ ]
4. Radio programme……..[ ]
5. Internet…… [ ]

	6. Television…….[ ] 7. Health promotion sensitization…….[ ]	
Q13	If yes to Q11, may you explain what Cervical Cancer is in your own Words? …… …… …… ……	☐
Q14	If Yes to Q11, do you know the predisposing factors regarding Cervical Cancer? 1. Yes [ ] 2. No [ ]	☐
Q15	If Yes to Q14, kindly mention the predisposing factors you know? .....…… …… ……	☐
Q16	If Yes to Q14, mention signs and symptoms of Cervical Cancer. .....…… …… --- **Perception of Cervical Cancer** --- My next questions relate to what you think and the attitude you have towards Cervical Cancer screening. What has been your personal experience? Please feel free to say anything.	☐
Q17	Are you afraid of undergoing screening for CC? 1. Yes [ ] 2. No [ ]	☐
Q18	If Yes to Q17, then explain the reasons why . ……..... ……..…….. ……...……	☐
Q19	Are you open to discuss Cervical Cancer screening? 1. Yes [ ] 2. No [ ]	☐

Q20 What made you tell others about Cervical Cancer screening?

1. It is my responsibility……[ ]
2. No reason at all……..[ ]

Q21 What do you think could be the reason every woman should be screened for Cervical Cancer?

1. To know their status……[ ]
2. Told to do so……....[ ]
3. I don't know……[ ]

✓ **{Tick once where applicable}**

Practice towards Cervical Cancer

My next questions are concerned with what other practices you indulge in or do apart from Cervical Cancer screening. Please feel free to express yourself.

Q22 Have you ever been screened before?

1. Yes…….. [ ]
2. No……... [ ]
3. I don't know…… [ ]

Q23 How many times in a year do you get screened?

1. Twice……..[ ]
2. Once ……..[ ]
3. Not at all……. [ ]

Q24 Would you like to be screened voluntarily?

1. Yes…… [ ]
2. No…… [ ]
3. I don't know ……. [ ]

Q25 If no to Q24, give reasons.

.……..

……..

……..

Q26	Have you ever advised anyone to go for Cervical Cancer Screening? 1. Yes [ ] 2. No [ ]	☐
Q27	Have you ever used traditional medicines to insert in your vagina for any reasons? 1. Yes [ ] 2. No [ ]	☐
Q28	If Yes to Q27, give reasons why you prefer traditional medicines to the Pam smear test. …… …… ……	☐
Q29	How long do you use the herbs for any vaginal irritation, if any? 1. One week……... [ ] 2. Two weeks……. [ ] 3. One Month and above …….. [ ]	☐
Q30	If found positive with the HPV virus that causes Cervical Cancer, would you easily share this information with your family? 1. Yes [ ] 2. No [ ]	☐
Q31	If No to Q31, give reasons why you won't be open about your status of Cervical Cancer screening results to your family. …… ……	☐
Q32	Any comments or questions you would like to say or ask me about my interviews with you today? …… …… …… (Interviewer, please **thank** the respondent for the interview and **her** time)	☐

APPENDIX V: FOCUSED GROUP DISSCUSION GUIDE

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF COMMUNITY MEDICINE

FOCUSED GROUP DISSCUSION GUIDE FOR CERVICAL CANCER SCREENING STUDY

TITLE:KNOWLEDGE, PERCEPTION AND PRACTICES (KPP) OF CERVICAL CANCER (CC) SCREENING OF WOMEN AGED BETWEEN 15 AND 49 IN SELECTED CLINICS OF LUSAKA DISTRICT

Dear Respondent,

I am a Master of Public Health – Population Health Studies (MPH - PHS) Student in the School of Medicine - University of Zambia. I am conducting a survey on Knowledge, Perceptions and Practices of Cervical Cancer Screening among women in the reproductive age group of 15 to 49 years in selected clinics of Lusaka District.

It has been discovered that a lot of women in the reproductive age group are dying young due to Cervical Cancer (CC) even when their lives could be spared if they went early to the hospital for screening.

The main objectives for my study are as follows:

- ✓ (i)To determine the views on utilization of CC screening among women
- ✓ (ii)To explore the level of knowledge of CC among women
- ✓ (iii)To determine the association between perceptions and CC screening among women
- ✓ (iv)To identify practices associated with screening amongst women
- ✓ (v) To establish the motivators/barriers of CC screening among women

You have been randomly selected to assist in this study. Your participation in this research is voluntary. Please note that your views in this interview shall not be, in any way, used for any purpose other than the advancement of this study. You are therefore assured that your views shall not be used in any way that might damage/destroy your reputation as an individual or otherwise compromise your integrity or emotions as the information provided will be treated with a high level of confidentiality.

Your cooperation in this exercise will be highly appreciated.

Yours Sincerely,

Nomvuyo Dadirai Tembo

Dear Respondent,

1. In your own opinion explain Cervical Cancer?

2. Is it necessary to go for Cervical Cancer screening?

3. Why do you think it is important for women in the reproductive age group to have open discussions amongst themselves on Cervical Cancer screening?

4. In your own words, explain the problems that women face when accessing Cervical Cancer screening.

5. Explain what motivates women to undertake Cervical Cancer screening.

If you need any further clarifications even after our discussion, you can contact the Principal Investigator /Principal Supervisor and or the chairperson of the ethics committee. Thanking you in advance for your time.

The Chairperson Biomedical Ethics Committee
Telephone: +260211256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-211-250753
E-mail: unzarec@zamtel.zm

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

The Principal Supervisor
Telephone: +260211252641
Telegrams: UNZA, LUSAKA
E-mail: **likwa.ndonyo@unza.zm /drndonyo@yahoo.com**

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

The Principal Investigator
Telephone:+260955880402
Telegrams: UNZA, LUSAKA
E-mail: nomvuyotembo@yahoo.com

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

APPENDIX VI: GANTT CHART

Task performed	Responsible person	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
Finalize and hand in proposal	Student						↔				
Literature Review	Student										
Field testing of tools/Pilot study	Student						↔				
Data Collection	Student								↔		
Data Analysis	Student									↔	
Report Writing	Student										↔
Submission of draft report	Student										↔
Submission of results	Student										↔
Dissemination of results	Student										↔
Monitoring & Evaluation	Student										

APPENDIX VII: BUDGET

Budget Category	Unit Cost	Quantity	Total (Kwacha)
1. STATIONARY			
(a) Printer	5,000 = 00	*1	5,000 = 00
(b) Bond Paper	35 = 00	*20	700 = 00
(c) Pens	2= 00	*20	40 = 00
(d) Pencils	1 = 00	*20	20 = 00
(e) Erasers	1 = 00	*20	20 = 00
(f) Tippex(Correction fluid)	35 = 00	*4	140 = 00
(g) Note Books	20 = 00	*5	100 = 00
(h) Staplers	60 = 00	*3	180 = 00
(I) Staples	20= 00	*1	20 = 00
(j) Scientific Calculator	150 = 00	*1	150 = 00
(k) Bag for interview schedules	150 = 00	*4	600 = 00
(l) Flash Disks	200 = 00	*1	200 = 00
(m) Toner for printer	800 = 00	*2	1,600 = 00
SUBTOTAL			**8,770 = 00**
2. SERVICES			
(a) Ethics Committee	500 = 00	*1	500 = 00
(b) Data Entry	800 = 00	*2	1,600 = 00
(c)Data Analysis (Statistician)	3,000= 00	*1	3,000 = 00
(d) Binding	100 = 00	*5	500 = 00
(k) production of publication	180 = 00	*20	3,600= 00
(l) **Meeting for dissemination of results from the findings**			
*** Venue**			
*** Teas**	200 = 00	*2	400 = 00
*** Lunch**	12 = 00	*20	240 = 00
*** Mineral Water**	40 = 00	*20	800 = 00
*** Soft drinks**	3 = 00	20* 6	360 = 00
	3 = 00	20*2	120 = 00
SUBTOTAL			**11,120 = 00**
3. PERSONNEL			
(a) Lunch Allowance			
* Principal investigator	50 = 00	1* 42 days	2 100 = 00

* Research Assistants	50 = 00	3* 42 days	6,300 = 00
(b) Transport Allowance			
* Principal investigator			
	30= 00	1* 42 days	1,260 = 00
* Research Assistants			
	20 = 00	3* 42 days	2,520 = 00
SUBTOTAL			**12,180 = 00**
TOTAL			32,070 = 00
CONTINGENCY 10%			3, 207 = 00
GRAND TOTAL			**35, 277 = 00**

APPENDIX VIII: BUDGET JUSTIFICATION

STATIONERY

The twenty reams of bond paper will be used for the research proposal development and the research report. The rest of the papers will be used for the questionnaires to cater for the 474 respondents as well as the distribution of 30 copies of the proposals to the Graduate Proposal Presentation Forum before presentation.

The flash disk will be used for copying, storage and safe keeping of data. The other accessories such as pens, pencils, erasers, and calculator will be used for routine data collection

However, the purchase of a printer and toner is to avoid any printing being done outside, thus cutting on unnecessary costs such as photocopying for the duplicate copies of both the report and the questionnaires for presentation to the Grand Round as well the Ethics Committee.

PERSONNEL

Data collection will be done in places where the Principal Researcher and Assistants do not reside. This entails need for transport and allowances to cater for their meals during the entire period of data collection.

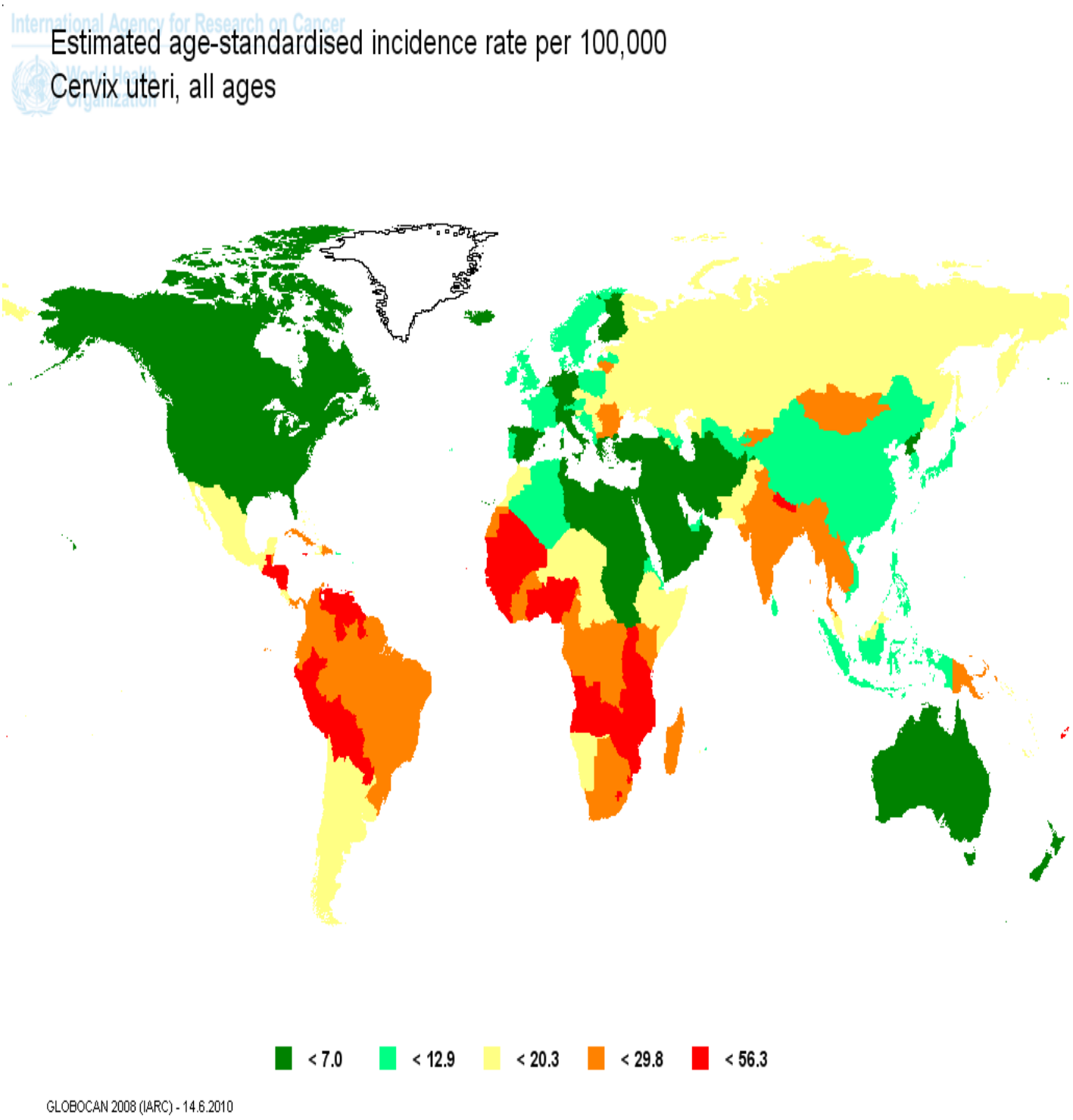
SERVICES

The Researcher will need funds for data entry, data analysis, typing services, photocopying services and contribution towards the Ethics Committee. Twenty five copies of the proposal will be produced and submitted to the Post Graduate Committee.

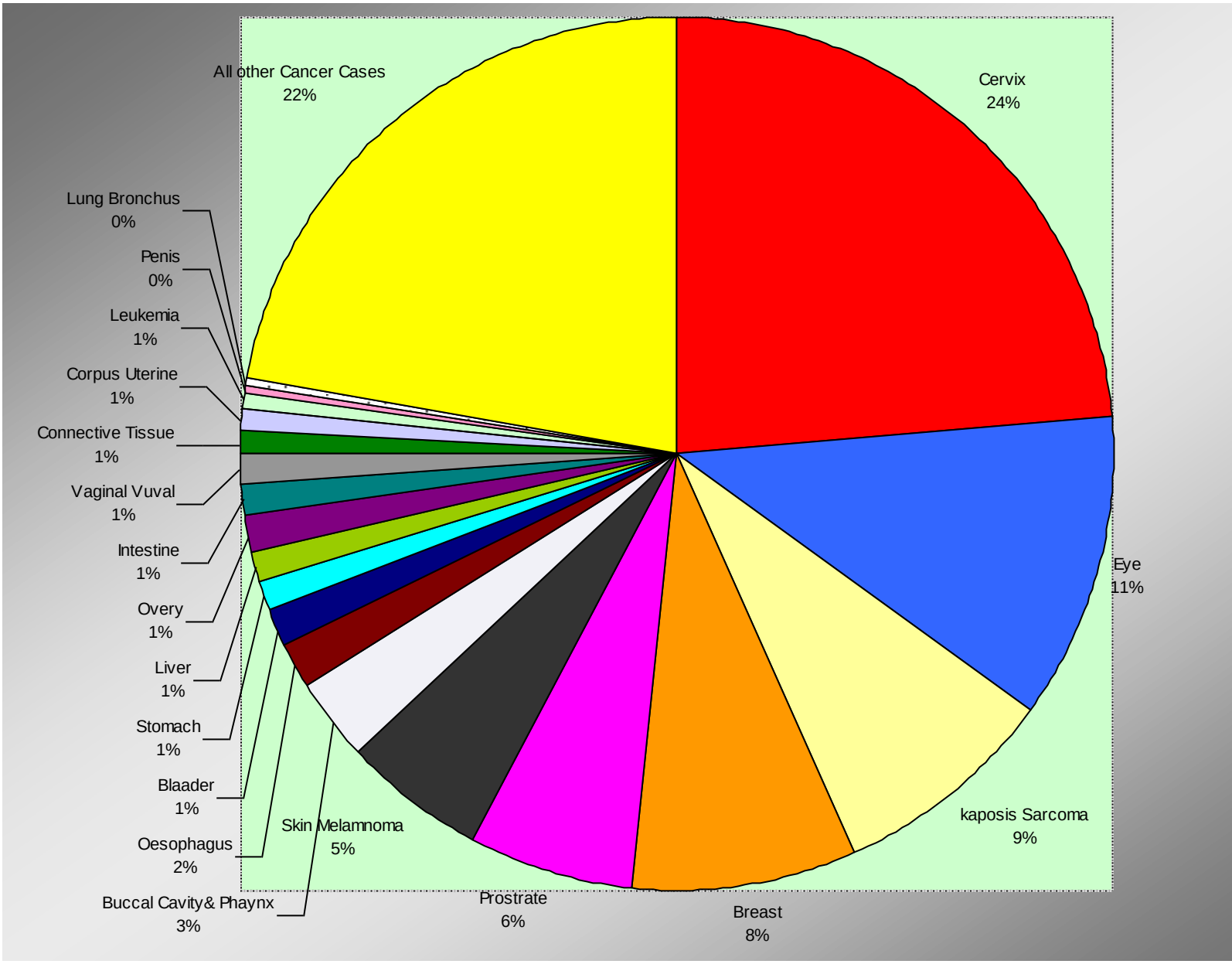
CONTINGENCY

The contingency fund has been put at 10% of the budget to cover for the extra costs due to inflation and other eventualities.

APPENDIX IX: CERVICAL CANCER INCIDENCE BY COUNTRY

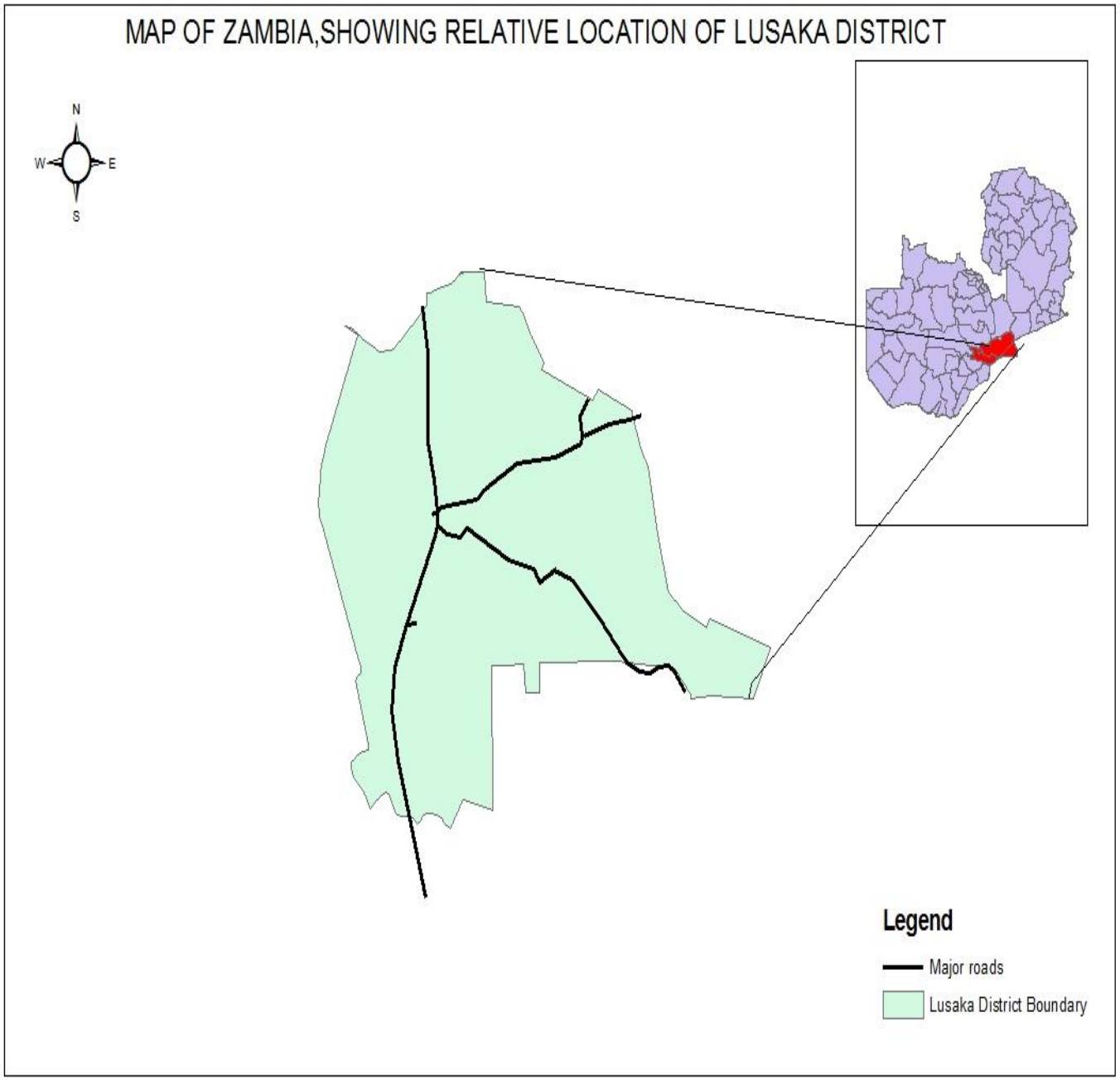


APPENDIX X: ZAMBIA NATIONAL CANCER REGISTRY ANNUAL AGGREGATES FROM 1999 TO 2004



(ZNCR, 2004)

APPENDIX XI: MAP OF ZAMBIA SHOWING RELATIVE LOCATION OF LUSAKA DISTRICT



(CONTRAST GIS NODE OF ZAMBIA, 2013)

THE UNIVERSITY OF ZAMBIA

BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@unza.zm
Assurance No. FWA00000338
IRB00001131 of IORG0000774

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

12th April, 2013.

Your Ref: 011-12-12.

Ms. Tembo Nomvuyo Dadirai
Farm 609/72 Sub "E"
Chudleigh B
Lusaka

Dear Ms. Tembo,

RE: RE-SUBMITTED RESEARCH PROPOSAL: **"KNOWLEDGE, PERCEPTIONS AND PRACTICES OF CERVICAL CANCER SCREENING AMONG WOMEN AGED BETWEEN 15 AND 49 YEARS IN SELECTED CLINICS IN LUSAKA DISTRICT"** (REF. NO.:011-012-12)

The above mentioned research proposal was re-submitted to the Biomedical Research Ethics Committee with recommended changes on 4th April, 2013. The proposal is approved.

CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.
- Please note that when your approval expires you may need to request for renewal. The request should be accompanied by a Progress Report (Progress Report Forms can be obtained from the Secretariat).
- **Ensure that a final copy of the results is submitted to this Committee.**

Yours sincerely,

Dr. J.C Munthali
CHAIRPERSON

Date of approval: 04 April, 2013 Date of expiry: 03 April, 2014

All Correspondence should be addressed to the Permanent Secretary
Telephone: +260 211 253040/5
Fax : +260 211 253344

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH

In reply please quote:
MH/101/17/6
No.....

NDEKE HOUSE
P. O. BOX 30205
LUSAKA

22nd May, 2013

Dr. H. Halwiindi
Postgraduate Coordinator
The University of Zambia
School of Medicine
Department of Public Health
Lusaka
Zambia

Dear Dr. Halwiindi,

Re: Request for Authority to Conduct Research: Nomvuyo Dadirai

The Ministry of Health is in receipt of your request authority, for the above named student, to conduct a study titled, **"Knowledge, Perceptions and Practices (KPP) of Cervical Cancer (CC) Screening among Women aged between 15 and 49 years in Selected Clinics of Lusaka".** I wish to inform you that following submission of your research proposal to my Ministry, our review of the same and in view of the ethical clearance, my Ministry has granted you authority to carry out the study on condition that:

1. The relevant Provincial and District Directors of Health where the study is being conducted are fully appraised;
2. Progress updates are provided to MoH quarterly from the date of commencement of the study;
3. The final study report is cleared by the MoH before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the MoH, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, and all key respondents.

Yours sincerely,

Dr. G. Syakantu
Acting Permanent Secretary
MINISTRY OF HEALTH

P.O. Box 50827
Lusaka
Tel: +260-211-235554
Fax: +260-211-236429

In reply please quote
No.....

Republic of Zambia

MINISTRY OF HEALTH
LUSAKA DISTRICT HEALTH MANAGEMENT TEAM

To the sister in charge
Ngombe clinic
Lusaka.

Dear sir/madam,

REF: PERMISSION TO COLLECT OF DATA

Reference is made to the above captioned matter.

Permission has been granted to the student to collect data at your centre on knowledge perceptions and practices of cervical cancer screening among women aged between 15 and 49 years.

We are therefore, requesting you to allow the student carry out the research.

Your assistance will be highly appreciated.

Yours faithfully,

DR. MATIMBA CHIKO.
ACTING DISTRICT MEDICAL OFFICER

Received by: N.S. Mabuba (RN)
(for-in-charge)

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH
LUSAKA DISTRICT MEDICAL OFFICE
21 MAY 2019
IN-CHARGE'S OFFICE
NGOMBE HEALTH CENTRE
P.O. BOX 50827, LUSAKA, ZAMBIA

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

Telephone: 252641,
Fax: + 260-1-250753,
e-mail: commed@unza.zm

P.O. BOX 50110,
Lusaka, Zambia.

==========

8th May 2013

The District Medical Officer,
Lusaka District Health Office,
LUSAKA.

Dear Madam,

Re: **REQUEST FOR PERMISSION FOR MPH STUDENT TO CONDUCT THE RESEARCH STUDY-NOMVUYO TEMBO**

The Department of Community Medicine is kindly requesting for permission for Ms. Tembo, who is currently studying for her Masters of Public Health in Population Studies to collect data from N'gombe and Kalingalinga Clinics. This data will help her on her proposal on:

"Knowledge, Perception and Practices (KPP) of Cervical Cancer (CC) Screening among Women aged between 15 and 49 year in Selected Clinics of Lusaka Urban District".

We appreciate your support to our MPH programme and the student.

Yours Faithfully,

UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

Dr H Halwiindi,
POSTGRADUATE COORDINATOR.

cc: The Sister In-charge, N'gombe Clinic ✓
The Sister In-charge, Kalingalinga Clinic

P.O. Box 50827
Lusaka
Tel: +260-211-235554
Fax: +260-211-236429

In reply please quote
No.....

Republic of Zambia

MINISTRY OF HEALTH
LUSAKA DISTRICT HEALTH MANAGEMENT TEAM

To the sister in charge
Kalingalinga clinic
Lusaka.

Dear sir/madam,

REF: PERMISSION TO COLLECT OF DATA

Reference is made to the above captioned matter.

Permission has been granted to the student to collect data at your centre on knowledge perceptions and practices of cervical cancer screening among women aged between 15 and 49 years.

We are therefore, requesting you to allow the student carry out the research.

Your assistance will be highly appreciated.

Yours faithfully,

DR. MATIMBA CHIKO.
ACTING DISTRICT MEDICAL OFFICER

NO objection
Mrs
In-charge

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH
LUSAKA DISTRICT MEDICAL OFFICE
13 MAY 2013
IN-CHARGE'S OFFICE
KALINGALINGA HEALTH CENTRE

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

Telephone: 252641,
Fax: + 260-1-250753,
e-mail: commed@unza.zm

P.O. BOX 50110,
Lusaka, Zambia.

==========

8th May 2013

The District Medical Officer,
Lusaka District Health Office,
LUSAKA.

Dear Madam,

Re: **REQUEST FOR PERMISSION FOR MPH STUDENT TO CONDUCT THE RESEARCH STUDY-NOMVUYO TEMBO**

The Department of Community Medicine is kindly requesting for permission for Ms. Tembo, who is currently studying for her Masters of Public Health in Population Studies to collect data from N'gombe and Kalingalinga Clinics. This data will help her on her proposal on:

"Knowledge, Perception and Practices (KPP) of Cervical Cancer (CC) Screening among Women aged between 15 and 49 year in Selected Clinics of Lusaka Urban District".

We appreciate your support to our MPH programme and the student.

Yours Faithfully,

UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

Dr H Halwiindi,
POSTGRADUATE COORDINATOR.

cc: The Sister In-charge, N'gombe Clinic
The Sister In-charge, Kalingalinga Clinic

30-10-12
1. AMEU (Internal)
2. OBGY
3. Surg. (Casulty)
Find the attached an approval from SMS's office for the student to interview patients.
Gift Muyombo

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF COMMUNITY MEDICINE

P.O. BOX 50110,
Lusaka, Zambia.

==

23rd October 2012

The Senior Superintendent
University Teaching Hospital
LUSAKA

REPUBLIC OF ZAMBIA
SENIOR MEDICAL SUPERINTENDENT
2 OCT 2012
UNIVERSITY TEACHING HOSPITAL
PRIVATE BAG RW1X, LUSAKA

Approved
SS Andy

Dear Sir/Madam,

Re: **REQUEST FOR PERMISSION FOR MPH STUDENT TO CONDUCT THE RESEARCH STUDY-NOMVUYO TEMBO**

The Department of Community Medicine is kindly requesting for permission for Ms. Tembo, who is currently studying for her Masters of Public Health in Population Studies to collect data from your Hospital. This data will help her on her proposal on:

"Knowledge, Perception and Practices (KPP) of Cervical Cancer (CC) Screening among Women aged between 15 and 49 year in Selected Clinics of Lusaka Urban District".

We appreciate your support to our MPH programme and the student.

Yours Faithfully,

DEPT. OF COMMUNITY MEDICINE
SCHOOL OF MEDICINE
UNIVERSITY OF ZAMBIA
P.O. BOX 50110, LUSAKA.

Dr H Halwiindi,
POSTGRADUATE COORDINATOR.

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

Telephone: 252641,
Fax: + 260-1-250753,
Email: commed@unza.zm

P.O. BOX 50110,
Lusaka, Zambia.

==========

22nd April, 2013.

The Senior Medical Superintendent
Chainama Hills Hospital
LUSAKA

Head Training Please let her get access to the Teaching Area 3/5/2013

Dear Madam,

Re: **REQUEST FOR PERMISSION FOR MASTERS STUDENT TO COLLECT DATA– CHAINAMA HILLS HOSPITAL-NOMVUYO DADIRAI TEMBO**

The Department of Public Health is kindly requesting for permission for Ms Tembo, who is currently studying for her Masters of Public Health in Population Studies to collect data from your Centers. This will help on her Research study on:

"Knowledge, Perceptions and Practices (KPP) of Cervical Cancer (CC) Screening among Women aged between 15 and 49 years in Selected Clinics of Lusaka".

We appreciate your support to our MPH programme and the student.

Yours Faithfully

RT
Facilitate
HT
03/05/2013

UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF PUBLIC HEALTH

Dr H Halwiindi,
POSTGRADUATE COORDINATOR

REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH
REGISTRAR
- 3 MAY 2013
CHAINAMA COLLEGE OF HEALTH SCIENCES
P.O. BOX 33991, LUSAKA

03.05.13
Proceed

Clinic SR i/c | HOD
Proceed
RT