

**BARRIERS TO CERVICAL CANCER SCREENING PROGRAMS  
AMONG URBAN AND RURAL WOMEN IN BLANTYRE  
DISTRICT, MALAWI**

BY:

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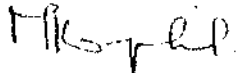
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March, 2009

## DECLARATION

I hereby declare that this dissertation titled "*Barriers to Cervical Cancer Screening Programs among Urban and Rural Women in Blantyre District, Malawi*" is my original work and that I have not submitted it or any part of it for a degree at any other university within or outside Africa. All the sources I have used or quoted have been acknowledged by means of references.

Student's Signature :  Date: 27.03.2009

Supervisor's Signature :  Date: 24<sup>th</sup> March, 2009

Co-supervisor's Signature :  Date: 25/03/2009.

## **DEDICATION**

This study is dedicated to all women, especially those in developing countries who have been struck with the preventable disease - cervical cancer and to those unfortunate women who have died from the disease.

This work is also dedicated to all people, who with love, continue to give their best to fight against this deadly disease.

## **ACKNOWLEDGEMENTS**

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- All the women who participated in the study and for agreeing to be part of this study.
- Finally to my family, beloved husband Billy, our twin children Barbara and Brenda for their prayers and encouragement.

**May God Bless You All.**

## ABSTRACT

Despite the availability, accessibility and affordability of cervical cancer screening (CCS) in Malawi, many women do not utilize the CCS services. This research was conducted in Blantyre district, Malawi. The main objective of the study was to identify factors that act as barriers to the uptake of cervical cancer screening programs among urban and rural women in the Blantyre district of Malawi.

A quantitative design was used and convenience sampling was applied in selecting a sample of 196 women from the population of women aged 18 and over in two Reproductive Health clinics, one urban clinic at Queen Elizabeth Central Hospital and one rural clinic at Mlambe hospital in Blantyre district, Malawi. A structured questionnaire was used to collect data. The questionnaire was translated from English into the local Chichewa language so that respondents were interviewed and responded in a language that they were able to comprehend.

Analysis and discussion of findings are presented in five sections. Data were processed into numeric values using SPSS version 15.0 and Microsoft Excel to give meaning to the findings of the study. In order to test for statistically significant associations between variables, the Pearson correlation was applied.

The study revealed that the main barrier to CCS was that women lack knowledge and information about cervical cancer and there is a lack of publicity about CCS services.

Lack of knowledge was found in relation to - risk factors, prevention of, detection of and benefits of cervical cancer screening with a greater knowledge deficit being found in the rural women. Higher levels of education in both the urban and rural groups did not have a positive influence on the screening behaviours of the women.

Commencing sexual intercourse at ages 15 to 19 years and having multiple sexual partners were the main risk factors to cervical cancer among the women in the study. It was also found that although rural women perceived themselves being very likely to be at risk of cervical cancer, this perception did not translate into CCS behaviour.

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## **ABBREVIATIONS**

ACS	American Cancer Society
ASR	Age Standardized Rate
CCS	Cervical cancer Screening
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
HOPE	Health Opportunities for People Everywhere
HPV	Human Papilloma Virus
JHPIEGO	Johns Hopkins Program for International Education in Gynecology and Obstetrics
NCCC	National Cervical Cancer Coalition
NGO	Non Governmental Organization
Pap	Papanicolaou
PATH	Program for Appropriate Technology in Health
VIA	Visual Inspection using Acetic Acid.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Cervical cancer is one of the reproductive health problems faced by women. Worldwide, it is the second most common form of cancer in women and the leading female cancer in sub-Saharan Africa, Central and South America and Southeast Asia (Boyle et al, 1998; Denny, 2005). Cervical cancer causes an estimated 275,000 deaths in the world annually with the highest prevalence being in the developing countries (Parkin, et al 2005). A recent compilation of global data indicated that an estimated 466,000 new cases of cervical cancer occur annually among women worldwide of which 80% of these occur in the developing countries (Program for Appropriate Technology in Health (PATH), 2000).

In South Africa, cervical cancer is the second most common cancer affecting women with an overall age standardized incidence rate (ASIR) of 30 per 100,000 per year. It is differentially distributed in the various population groups (12, 26, 11 and 35 per 100,000 per year for the white, colored, Asian and black populations respectively) (Bradshaw, et al, 2008). In Malawi, between 2001 and 2002, cervical cancer accounted for approximately 28% of all female cancers nationally (JHPIEGO, 2007).

Cervical cancer occurs when normal squamous cells mutate in the cervix to carcinogenic cells, grow erratically and multiply out of control (Vuhahula, 2004). Cervical cancer is a preventable disease if detected early. It takes about ten years, on

average, for the disease to progress from moderate to severe precancerous cells and finally to invasive cancer (National Cervical Cancer Coalition, 1997-2007).

The Human Papilloma Virus (HPV), a sexually transmitted infection, is the most significant determinant and risk factor for cervical cancer causation. It is now established that HPV is usually present in approximately 99% of cervical cancers (Walboomers, et al, 1999). However the Alliance for Cervical Cancer Prevention (ACCP) (2004) argues that the HPV infection is a necessary but not solely sufficient cause of cervical cancer. This is because the vast majority of women infected with an oncogenic HPV type, never develop cervical cancer and therefore this suggests that additional factors are necessary to act synergistically with HPV to influence the risk of disease development (Cancer Research United Kingdom, 2007).

In addition, a relationship between HIV and cervical cancer has been identified. Research has indicated that HIV positive patients have higher odds for cervical cancer development than HIV negative women (Parham et al, 2006). A study conducted in Zambia by Parham et al, (2006) showed that women with HIV are more likely to be infected with the HPV, and develop squamous intraepithelial lesions (SIL), or precancerous cell changes than HIV-negative women. The study also found that HIV positive women demonstrate a faster rate of progression from pre-clinical stages to an advanced stage of cancer, and are more likely to experience recurrence of cervical cancer after treatment, than HIV negative women (ibid, 2006).

Moreover, reduction in the human immunity due to HIV infection enables the human papilloma virus to invade the epithelium of the cervix, causing mutation of the

squamous cells which are precursors of cancerous cells. HIV infection damages the body's immunity thereby enhancing the growth and spread of cancer cells (ACS, 2007). This would imply that the prevalence of HIV in Malawi (14%) would serve to increase the already alarming rate of cervical cancer which is currently at approximately 28% of all female cancers nationally (Malawi HIV & AIDS Monitoring and Evaluation Report, 2005).

Apart from the HPV and HIV, other factors that put women at risk of developing cervical cancer include sexual intercourse at an early age, multiple sexual partners, long-term oral contraceptive use, tobacco smoking, low socio-economic status, infection with *Chlamydia trachomatis*, micronutrient deficiency and a diet deficient in vegetables and fruits (Ferency & Franco cited in Sankaranarayanan, 2002).

## **1.2 Study Setting**

This research study was conducted in two reproductive health clinics, one urban clinic at Queen Elizabeth Central and Mlambe rural hospitals in Blantyre district, Malawi.

## **1.3 Problem statement**

Through screening, cervical cancer can be detected early before it progresses to invasive cancer. Various screening procedures have been developed to detect the precancerous cells such as Visual Inspection with Acetic acid (VIA), and cytological tests such as the Pap smear (Vuhahula, 2004). Organized CCS programs especially in developed countries have resulted in a decline in cervical cancer incidence and mortality (Cronje, 1995). In contrast, cervical cancer is a problem in developing countries like Malawi because of ineffective or absent CCS programs

(Sankaranarayanan et al. cited in Moodley et al, 2006). Lack of early detection of cancer of the cervix, means that women often access the health services when the disease is at an advanced stage. A survey in Malawi on the cervical cancer morbidity 28% showed that of the women who sought help between 2001 and 2002, 80% were at an inoperable stage and were in the terminal stages of the disease when they reached the health facility. Only 15 % of women seek help in early, treatable stages (National Cervical Cancer Coalition, 1997-2007).

In Malawi, cervical cancer is one of the leading cancers affecting women (Banda et al, 2001). The researcher has observed that there has been a constant increase in the number of women entering hospital settings when the disease is already in the invasive stage. According to the Malawi Cancer Registry (2002), cervical cancer is a treatable and preventable disease if cell changes are detected at an early stage. Malawi, a developing country with limited resources and a stunted health care system does not have the capacity to offer treatment for more advanced cases of cervical cancer such as radiation combined with chemotherapy. Moreover, referral to other countries outside Malawi for specialized care is difficult due to the high travel and treatment costs involved (Vuhahula, 2007). This implies that preventive measures against cervical cancer are the only logical options.

In acknowledging the extent and impact of cervical cancer in Malawi, the Government through the Ministry of Health incorporated CCS into its National Reproductive Health Policy in 2002. Visual Inspection using Acetic Acid and cryotherapy were endorsed as appropriate approaches to cervical cancer prevention in Malawi (JHPIEGO, 2007). VIA was known to have a sensitivity and specificity of up

to 96% and 97% respectively and was therefore thought to be an effective screening method in developing countries (Vuhahula, 2004). Currently there are 22 health facilities offering CCS and treatment for pre-cancerous lesions using VIA. Cervical-cancer screening strategies incorporating VIA in one or two clinic visits are cost-effective alternatives to conventional three-visit cytology-based screening programs in resource-poor settings (Goldie et al, 2005). In addition, with the support from JHPIEGO, the Ministry of Health introduced a single visit approach which links screening with VIA. The aim of this approach is to detect cervical cancer at an early stage so that treatment can be instituted early.

Despite the availability, accessibility and affordability of CCS in Malawi, the researcher has observed that many women do not utilize the CCS services. Factors that hinder CCS uptake are not known due to a lack of published evidence. This has necessitated the need to institute an enquiry into the barriers to CCS programs among women of reproductive age in Malawi. The question that may be posed is “what are the possible barriers that prevent women in Malawi from utilizing these programs?”

#### **1.4 Purpose of the Study**

The purpose of this study is to explore factors that act as barriers to the uptake of CCS programs among urban and rural women in the Blantyre district of Malawi.

#### **1.5. Research Objectives**

The specific research objectives are:

1. To assess rural and urban women’s knowledge of cervical cancer - causes, risk factors and early detection.

2. To assess women's perception of their susceptibility to cervical cancer.
3. To establish the utilization of CCS programs by both rural and urban women in Blantyre, Malawi.
4. To identify factors that operate as barriers to the utilization of CCS programs in both rural and urban women.
5. To assess relationships between demographics, knowledge, barriers, and screening behaviour.

## **1.6 Research Questions**

### **Objective 1**

1. What knowledge of cervical cancer do urban and rural women in Blantyre district have?
2. Are the women aware of preventive strategies of CCS?
3. Are the women aware of how often they should be screened for cervical cancer?

### **Objective 2**

4. What are the women's perceptions about their susceptibility to cervical cancer?

### **Objective 3**

5. What are the women's practices regarding CCS?
6. Was there any indigenous knowledge linked to the prevention of cervical cancer?
7. What do the women perceive as the benefits of CCS test?

### **Objective 4**

7. Why would women take a CCS test?
8. What are the reasons for non utilization of programs?

### **Objective 5**

9. What type of relationship exists between demographics, knowledge, perceptions,

education and screening behaviour?

### **1.7 Operational Definitions**

For the purpose of this study, the following definitions will be applied and used within the context in which they are explained:

- **Cervical cancer-** means a disease in which cancer cells grow in the cervix. (ACS, 2007).
- **Cervical cancer screening** – means any procedure used to detect abnormal cells of the cervix. In this study, screening procedures refer to VIA or a Pap smear.
- **Rural women** - means those women staying in any area outside Blantyre city, in the Blantyre district.
- **Urban women** - means those women staying in any area within Blantyre city boundaries in the Blantyre district.
- **Reproductive health clinics-** means Family Planning and Sexually Transmitted Infection clinics
- **Barriers** mean anything that acts as a hindrance to CCS uptake by urban and rural women in Blantyre district.

### **1.8 Significance of the Study**

It is hoped that the findings of the study will contribute towards recommendations to improving the use of CCS programs by women in Malawi. The study will possibly identify barriers to programs and these will be communicated to the relevant authorities so that women's health issues are addressed. In addition findings from the

study will be published in a peer reviewed journal and may be used to enable initiation, evaluation or improvement of screening programs.

### **1.9 Conclusion**

This chapter has outlined the background, purpose, significance and objectives of the study. Cervical cancer is a major cause of morbidity and mortality among women worldwide. Various risk factors that predispose to cervical cancer have been identified and described. In addition measures to detect cervical cancer early have also been discussed.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

In this chapter, discussion will focus on a general overview of cancer, prevalence of cervical cancer, risk factors to cervical cancer, prevention of cervical cancer, barriers to CCS and factors influencing access to CCS services. In addition a theoretical framework will be utilized to guide the study.

##### **2.1.1 General Overview of Cancer**

Cervical cancer is a disease that has been known and documented for many years (CANSAs, 2005). It is a preventable disease as long as it is detected early, although it can be a serious illness if it progresses to invasive carcinoma (Sankaranarayanan, 2002). Due to improved technology, treatment of cervical cancer has improved and the survival rate of women with the disease has been greatly enhanced.

Global statistics in 2002 indicated that there were 10.9 million new cases, 6.7 million deaths, and 24.6 million persons living with cancer worldwide (Parkin et al, 2005). Of these, cervical cancer accounts for 371,000 cancers and is the third most common type of cancer after lung and breast cancers respectively and is the leading cause of death from cancer among women in the developing countries (Pisani, 1998 cited by Sherris, 1999). Worldwide, more than 500,000 women are diagnosed with cervical cancer each year (Ashford & Collymore, 2005).

### **2.1.2 Prevalence of Cervical Cancer**

Cervical cancer is a significant reproductive health problem with close to 200,000 women dying from the disease each year. Approximately 370,000 new cases of cervical cancer identified each year, 80% occurred in the developing countries: 184,000 in Asia, 60,000 in Latin America and the Caribbean, and 48,000 in Africa (Pisani, 1998 cited by Sherris, 1999). The incidence of cervical cancer is generally low in the developed countries, with age standardized rates being less than 14.5 per 100,000.

According to the Malawi Cancer Statistics, cervical cancer is the most common cancer in Malawi and accounts for nearly 80% of female cancers (NCCC, 2007). Many Malawian women do not know about cervical cancer as a disease and many are not even aware what the cervix is (NCCC, 2007). Prevalence of cervical cancer is said to be high in Malawi because of the presence of many risk factors, such as the human papilloma virus - a sexually transmitted disease; human immunodeficiency virus (HIV); poor nutritional status and certain hormonal factors, as well as use of oral contraceptives (NCCC, 2007). Cultural factors that give rights to men to have multiple partners and at the same time give women little power to negotiate sex, place even lower risk monogamous women at risk for the disease.

### **2.1.3 Risk Factors**

Several factors have been attributed to predispose women to cervical cancer. These factors are sexual and reproductive factors, life style and socio-economic factors and infections. These factors are discussed as follows.

### **2.1.3.1 Sexuality and Reproductive Health Factors**

The age of sexual debut has a bearing on the development of cervical cancer in women. Cuzick et al, (1996) found that the younger the woman at first intercourse the higher her risk for developing cervical cancer. This is thought to be due to the mutation of metaplastic squamous cells which become dysplastic as a result of exposure to carcinogens through early sexual intercourse. In addition, since the carcinogens are likely to be transmitted sexually, risk for cervical cancer rises with an increase in the number of sexual partners. Moreover, women who use combined oral contraceptive pills for a long period of time tend to have an increased incidence of cervical cancer due to estrogen which stimulates metaplasia (ACCP, 2004).

Findings from studies (ACS, 2007) have suggested that the number of live births that a woman has is a consistent risk factor for cervical cancer. ACS (ibid, 2007) further explains that the theory behind this is that some women may have had a higher exposure to HPV.

### **2.1.3.2 Lifestyle and Socioeconomic Factors**

Tobacco smoking has a direct carcinogenic action on the cervix. Nicotine metabolites can be found in the cervical mucus of women who smoke (ACS, 2007). It is believed that these substances damage the deoxyribonucleic acid (DNA) of cells in the cervix and may contribute to the development of cervical cancer.

Low social economic status predisposes low income women to cervical cancer because of lack of accessibility to CCS services (ACS, 2007). Wellensiek et al (2002) conducted a study on knowledge of CCS and use of cervical cancer screening facilities among women from various socioeconomic backgrounds in Durban,

Kwazulu Natal, South Africa. The study was conducted among women from low, middle and upper social/financial backgrounds. Questionnaires were used to collect data. Findings from the study revealed that the majority of the patients from lower socio-economic circumstances were prone to multiple risk factors were not aware of CCS or facilities available for this purpose. However, in spite of knowledge of CCS and the availability of such services, the majority of the women (87%) from the higher social and educational backgrounds did not undergo cervical screening. The researchers concluded that mere provision of a CCS service is not sufficient to ensure successful uptake since screening is a multifaceted entity.

#### **2.1.4 Prevention of Cervical Cancer**

Cervical cancer can be primarily prevented by avoiding cigarette smoking; long term use of combined oral contraceptives and avoiding early sexual intercourse (Grimes & Economy, 1995 cited in Vuhahula, 2004). PATH (2007) adds that avoiding exposures to the virus through abstinence from sexual activity or through mutual monogamy, provided both partners are consistently monogamous, and were not previously infected prevents infection. Correct and consistent use of the male latex condom can reduce the risk of sexually transmitted diseases including the HPV when used all the time (Centers for Disease Control, 2008)

According to the Food and Drug Administration (FDA) (2006), a new vaccine was discovered by Merck and Company and was approved by the Food and Drug Administration in June, 2006. Only females aged 9 - 26 years will access this vaccine. Young girls and uninfected women are the only ones to benefit from this vaccine because the vaccine does not work against infections that are already present. By

simple probability, the younger a woman or girl is, the greater the chance that she isn't already infected with HPV. Gardasil is effective in patients who are virus free (Senay, 2007).

There has also been a considerable achievement in the reduction of cervical cancer incidence and deaths in developed nations due to systematic cytological smear screening programs (Elovainio et al, 1997 cited by Mutyaba et al 2006). Sankaranarayanan (2002), states that improving the stage at presentation, by awareness programs and accessibility to diagnostic and treatment services may achieve a significant reduction in deaths from cervical cancer. He further states that VIA is the test that has been established as a promising test for the detection of neoplasia. It can easily be performed by a well trained nurse in a village where there is a health care facility (Vuhahula 2004). Tiffen & Mahon (2006) report that most organizations recommend initial Pap screening three years after the onset of vaginal intercourse or by the age of 21, whichever comes first. They further report that the American Cancer Association recommends that women older than 70, stop screening if only they have had normal results for the past ten years.

## **2.1.5 Barriers to Cervical Cancer Screening**

### **2.1.5.1 Social and Personal Barriers**

Several factors hinder women from accessing CCS services. Markovic et al (2005) investigated knowledge of and perceived barriers to CCS for women in Serbia in order to understand their health needs. Nine focus group discussions with 62 women from diverse socio-economic backgrounds were conducted. Findings from the study revealed that the most important barriers to screening were inadequate public health

education, lack of patient-friendly health services, socio-cultural health beliefs and gender roles.

In the study, poor knowledge about CCS was a predominant theme in all the focus group discussions. Participants felt that in the absence of adequate knowledge, women are not likely to present for CCS. In line with this, (Agurto et al 2005) state that short term and pressing issues linked to women's low incomes along with lack of information, may prevent them from being concerned about or taking preventive action for an asymptomatic disease that develops over a long period of time.

However different findings were revealed in a similar study that was conducted in Nigeria, (Gharoro and Ikeanyi, 2006) where 195 female health workers were interviewed to identify factors that could influence the awareness and utilization of the Pap smear as a screening test for cervical cancer. It was found that 65.2 % of the female health workers were aware of the disease cervical cancer and 64.7 % were aware of the Pap smear as a screening test for cervical cancer. They were also aware of the availability of the Pap smear test in the hospital (ibid, 2006). This study revealed that a large number of the female health workers were aware of cervical cancer and yet the screening uptake was poor. It was therefore concluded that accurate knowledge of the risk factors for cervical cancer may not be a guarantee for screening service uptake; it may inadvertently work against service uptake (ibid, 2006).

Another study was conducted by Basu et al (2006) on women's perceptions and social barriers as determinants of compliance to cervical cancer screening in India. This study was done in order to identify the immediate social and cultural barriers that

prevent women from attending CCS facilities. A sample size of 500 randomly selected non-compliant and compliant women to a community based cervical screening facility were interviewed. They found that, non compliant women had a significantly lower literacy rate compared to the compliant women (OR=2.25; 95% CI: 1.23-4.13). The study further found that though women were willing, they could not attend because of an inability to leave household chores, preoccupation with family problems and lack of approval from their husbands. Some had opted to stay away from the program because they had no symptoms of disease (ibid, 2006).

#### **2.1.5.2 Health Professionals' Attitudes and Cervical Cancer Screening**

Attitudes of health workers have also been identified as one of the factors hindering women from accessing CCS services (Mutyaaba et al 2006). A descriptive cross – sectional study conducted in Uganda involving 310 medical workers including nurses, doctors and final year medical students, revealed that 65% of the female participants did not think that they were susceptible to cervical cancer themselves, while 60% of the males thought that their partners were susceptible. Most nurses and midwives thought that speculum examinations and Pap smears were procedures to be done by doctors only; while 22% of the medical students thought they were for senior doctors only. Doctors in disciplines other than gynecology thought that the speculum examination was an activity for gynecologists only (ibid, 2006).

#### **2.1.5.3 Education and Cervical Cancer Screening**

Education has also been found to be a factor that determines women's participation in the programs. Nene et al (2007) conducted a randomized control trial to determine the factors associated with participation in CCS programs and follow-up treatment. The

trial was initiated to evaluate the efficacy and cost effectiveness of VIA, cytological screening and testing for the human papilloma virus, in reducing the incidence of and mortality from cervical cancer in Maharashtra, India.

Between October 1999 and November 2003 women aged 30–59 years were randomly allocated to receive one of the three tests or to a control group (Nene et al, 2007). Participation was analyzed for all three intervention arms. The differences between those who were screened versus those who were not, were analyzed according to the socio-demographic characteristics of the 100,800 eligible women invited for screening. Those who were treated versus those who were not, were analyzed according to the socio-demographic characteristics of the 932 women diagnosed with high-grade lesions. Participation in screening and compliance with treatment were also analyzed according to the type of test used. The study found that screened women were younger (aged 30–39), better educated and had used contraception. A higher proportion of screened women were married and a lower proportion had never been pregnant compared to women who were not tested. Of the 932 women diagnosed with high-grade lesions or invasive cancer, 85.3% (795) received treatment. Women with higher levels of education, who had had fewer pregnancies and those who were married were more likely to comply with treatment. There were no differences in rates of screening or compliance with treatment when results were analyzed by the test received.

#### **2.1.5.4 Factors Influencing Access to Cervical Cancer Screening Services**

Dabash, et al (2005) conducted a study on a strategic assessment of cervical cancer prevention and treatment services in three districts of Uttar Pradesh, India. The study

was designed to evaluate the quality and accessibility of cervical cancer prevention and treatment services.

Over a six month period in 2004, the available literature was reviewed and field data were collected during three consecutive weeks by a multi-disciplinary team of 30 stakeholders. These stakeholders included the Directorate General of Family Welfare, policy makers, administrators, statisticians, social scientists, gynecologists, pathologists, public health specialists, cytotechnicians, nongovernmental organization representatives and community advocates.

The study found the following to be factors that influence access to services:

Firstly, a limited number of highly centralized services were available and where they were offered, there was poor organization of the services in the public sector, which were often dependent on a single provider's presence, resulting in women having to make numerous visits and therefore increasing the likelihood of loss to follow-up. Secondly, costs of services, which varied considerably by site and sector, and in the public sector, consultation fees coupled with the often high indirect costs of having to seek services such as transportation, lost wages, and long waits were reported to negatively influence access. Thirdly, negative perceptions by the community and clients of the quality of the public sector services were also reported to discourage clients from attending, especially in the absence of symptoms. Fourthly, confidentiality and privacy were not just barriers to women using screening services but also contributed to their loss of dignity when their diagnosis of cervical cancer was being discussed in the presence of other relatives such as their sons.

Dabash, et al (2005) further add that women's knowledge and perceptions, men's knowledge, awareness among community leaders, providers' knowledge and practices, training and professional development of health care providers, quality improvement and quality assurance and information systems and cancer registries all influence access to CCS programs.

### **2.1.7 Theoretical Framework**

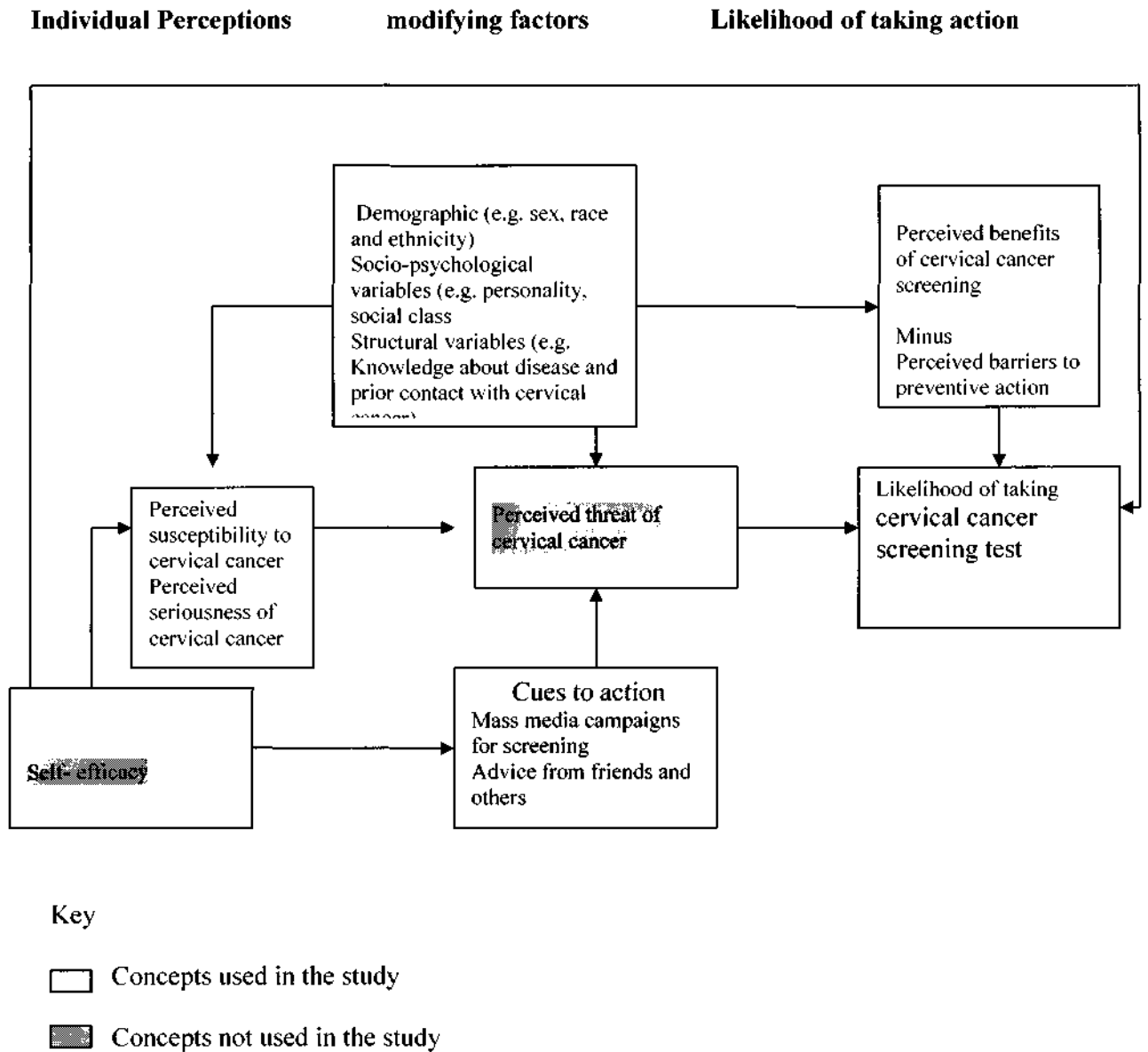
The Health Belief Model (HBM) by Rosenstock and colleagues will inform the theoretical framework of this study (Becker, 1974). This is a social-cognitive model which was developed in the 1950's by the United States Public Health Services. This model is often used to predict a variety of preventive health behaviours where perceived risks are studied.

The HBM stipulates that people are likely to engage in preventive health behavior for four reasons. Firstly, if they perceive that they are susceptible to the potential problem (perceived susceptibility). Secondly, if they perceive that the problem has serious consequences (perceived severity). Thirdly, if they perceive few barriers to taking the preventive action (perceived barriers) and fourthly, if they believe that the preventive action will be effective in minimizing the risk (perceived benefits) (Croyle, 2005). In ensuing years, researchers expanded upon this theory, eventually concluding that six main constructs influence people's decisions about whether to take action to prevent and screen for, and control illness. They argued that people are ready to act if they are exposed to factors that prompt action (e.g. a television advert or a reminder from one's physician to have a mammogram (cue to action). Confidence in their ability to successfully perform an action (self efficacy) may also influence action (ibid, 2005).

### **2.1.6.1 Application to the Study**

This model was identified as suitable for this study as the key concepts used are applicable to the focus of this study on cervical cancer screening. The key variables that will be used in the study are demographic variable (see research question 9), knowledge variable (see research questions 1, 2, and 3), perceived susceptibility to disease (see research question 4), perceived benefits of CCS (see research question 6 and 7), perceived barriers to CCS (see research question 8) and likelihood of CCS uptake (see question 5). Perceived susceptibility in relation to the Health Belief Model suggests that knowledge and awareness about cervical cancer may not necessarily result in women going for CCS. If knowledge of CCS is to be translated into action, (woman going for CCS), the woman must perceive that she is susceptible to developing cervical cancer (perceived susceptibility). Secondly, the woman must perceive that cervical cancer is a serious condition (perceived severity of cervical cancer disease) e.g. that cervical cancer is not easily treatable. Thirdly, she must perceive that there are benefits (perceived benefits) to CCS such as early detection and treatment of cervical cancer. Finally, the woman must also perceive that the potential barriers to taking preventive actions, for example costs are outweighed, by potential benefits to taking preventive action such as early detection and treatment of cervical cancer.

**Figure 2.1 Diagrammatic Representations of the Concepts of the HBM and its Application to the Study**



**Source:** Nies & Mc Ewen (2001:54). *Community Health Nursing: Promoting the health of populations*, 5<sup>th</sup> Edition. Saunders Company. United States of America

### **2.1.7 Conclusion**

This chapter has discussed issues pertaining generally to cervical cancer. There is a vast amount of literature and research external to Africa on cervical cancer. However, not many studies were found on cervical cancer in African women. This chapter provides a brief overview of cervical cancer, including its prevalence, risk factors, prevention, and barriers to CCS and factors influencing access to CCS services. Barriers to CCS include inadequate health education, lack of friendly health services, socio-cultural beliefs and gender roles, low income, low literacy rates, household chores, preoccupation with family problems, lack of approval from husbands and lack of disease symptoms. However there is no documented evidence of these barriers in Malawi.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

A survey in Malawi on the cervical cancer morbidity 28% showed that of the women who sought help between 2001 and 2002, 80% were at an inoperable stage and were in the terminal stages of the disease when they reached the health facility. Only 15 % of women sought help in early, treatable stages (National Cervical Cancer Coalition, 1997-2007). Similarly, the researcher observed that there had been a constant increase in the number of women entering hospital settings when the disease was already in the invasive stage.

This chapter outlines the methods that were used to execute the study. The purpose of the study was to identify factors that act as barriers to the uptake of CCS among urban and rural women in the Blantyre district of Malawi. In this chapter, the study design, setting, sample size and sampling procedure, data collection procedure and data analysis are discussed. Included also in this chapter is the measure to test validity and reliability of the instrument as well as the ethical considerations.

#### **3.2 Research Design**

According to Polit & Hungler (2004) a research design is the overall plan for obtaining answers to the research questions. A quantitative descriptive survey design was used in this study. A quantitative research design spells out the strategies the researcher plans to adopt to collect and present information that is accurate and

interpretable (Gerrish & Lacey, 2006). Quantitative studies derive data through the measurement of variables and measurement involves the assignment of numbers to represent the amount of an attribute present in an object or person, using a specified set of rules (Polit & Beck, 2003). The advantages of quantitative studies are that resulting information tends to be objective, precise and more accurate (Polit & Beck, 2003). In this study a quantitative descriptive research design was the most appropriate because the study described a phenomenon.

### **3.3 Study Population**

Study population refers to a subset of the target population from whom the sample is taken (Gerrish & Lacey, 2006). It is a complete set of persons or objects that possess some common characteristic that is of interest to the researcher. The study population for this study was women aged between 18 and 55 years attending reproductive health clinics in Blantyre district, Malawi. Women from age 18 years were appropriate because they were adults and able to consent to participation in the study and are in the reproductive age group and therefore could be utilizing the clinics.

### **3.4 Study Sites and Settings**

Sites are overall locations for the research, and settings are the more specific places where data collection will occur (Polit & Beck, 2003). This study was conducted in Blantyre - one of the districts in the southern region of Malawi. Blantyre is a district where the commercial city of Malawi is located. It comprises both urban and rural areas. Women of diverse social, economic and ethnic backgrounds reside in this city. Blantyre has one public hospital-Queen Elizabeth Central Hospital and 18 health centers offering reproductive health services. In addition some private hospitals also

offer reproductive health services. The research was conducted in two reproductive health clinics, one urban clinic at the Queen Elizabeth Central Hospital and Mlambe rural hospital in Blantyre district, Malawi.

Queen Elizabeth Central Hospital is a referral hospital in Malawi situated in Blantyre. It also serves as the teaching hospital for the Malawi College of Medicine and Kamuzu College of Nursing of The University of Malawi. Queen Elizabeth Central Hospital serves referrals from nearby hospitals as well as the local population especially those who are in Blantyre city and who do not need to be referred. The reproductive health clinic in the out patient department is the first point of contact for the patients. It is here that patients are screened to determine the management required.

Queen Elizabeth Central Hospital was chosen because there was a higher probability that the sample could easily be obtained. The study was done in two sites in order to get a larger and diverse sample of study participants. The two sites would also enable the researcher to compare responses by urban and rural women.

These hospitals are two of the public health facilities where JHPIEGO, working together with the Ministry of Health, had implemented the single visit approach since 2004, (Bradley, Coffey, Arrossi et.al, 2006). On a routine basis, health education on CCS is given to all women attending out patient departments so that they are aware of cervical cancer and screening.

### **3.5 Sample and Sample Size**

A sample is a subset of the population used in a study (Polit & Beck, 2003). It is more practical and less costly to collect data from a sample than from an entire population (Polit & Beck, 2003). Initially, the researcher had intended to use a systematic random sampling method to obtain the sample. However, after the research proposal was submitted to Kamuzu College of Nursing Research and Publications Committee a recommendation was made to use convenience sampling. Convenience sampling was therefore applied in obtaining a sample from the population of women attending family planning and STI clinics at Mlambe and Queen Elizabeth Central Hospital clinics in Blantyre district. These included both those women who wanted cervical cancer screening and those who did not. Only women aged between 18 and 55 years were included in the study

According to data gathered by the National Cervical Cancer Coalition in Malawi, only 16% of the eligible women are accessing CCS. Considering this as the prevalence level nation wide, and assuming a margin of error of 3% with a confidence level of 95%, the sample size required for this survey was 544 women. However, if the margin of error was 5%, the sample size was reduced to 196 women at the same level of confidence. Considering time and resources, 196 women were interviewed. This sample was distributed between the rural hospital (66) and the central hospital (130) proportional to the number of patients seen with cancer at these centers.

As advised by the Malawi, Kamuzu College of Nursing Research and Publications Committee and due to time constraints, a convenience sampling method was used to obtain participants from the queue of women who were waiting to receive a service at

the family planning clinics at Queen Elizabeth Central Hospital and Mlambe hospital reproductive health clinics. A total sample of 196 participants was interviewed, one third (66) of the women were from Mlambe rural hospital clinic while two thirds (130) were from Queen Elizabeth Central Hospital.

### **3.6 Data Collection**

#### **3.6.1 Research Instrument**

Polit & Beck (2003) define a research instrument as a device used to collect data, for example, a questionnaire, test, or observation schedule. For the purposes of this study, a structured questionnaire was used. Polit & Beck (2003) further explain that in the absence of an already existing instrument, researchers need to develop their own instruments. The researcher, assisted by the research supervisor, developed a questionnaire (See appendix A). The instrument was divided into five sections. The first section (Section A) of the questionnaire focused on socio-demographic data, while the second section (Section B) focused on knowledge of cervical cancer and section C focused on risk factors to cervical cancer. Finally, section D focused on reproductive health behaviour while section E focused on barriers to CCS programs. Closed ended questions were used to collect the data. Open ended questions were converted to close ended questions on the recommendations of the Kamuzu College of Nursing Ethics Committee. The research instrument was translated from English into the local Chichewa language so that respondents would be interviewed and answer questions in a language they would comprehend.

### **3.6.2 Data Collection Process**

Quantitative data was collected from women aged between 18 and 50 years who were attending family planning at the Queen Elizabeth Central Hospital and Mlambe rural hospital clinic in Blantyre district, Malawi. Due to time constraints the data was collected by a research assistant and the researcher herself. The research assistant was a Registered Nurse/Midwife with basic knowledge and experience in data collection. Prior to commencement of data collection, the principal researcher trained him and orientated him to the research instrument to ensure consistency in data collection. The research assistant was also involved in the pilot study. This provided him opportunity to become familiar with the research tool.

In order to prevent disruptions in the rendering of care and to prevent delaying clients in their visit to the clinic a number system was used. All women in the queue were given a number. The woman who was sampled would then be able to return to her position in the queue on completion of the interview.

The questionnaires were administered by the researcher and the research assistant in two of the rooms within the health facilities to ensure privacy. During the administration of the questionnaire, the researcher or research assistant communicated verbally with participants by asking them questions in order to elicit information or opinions (Oso & Onen, 2005). The researcher administered questionnaires were the most appropriate method of data collection because some of the participants were illiterate. Data were collected over a period of two weeks during the month of January, 2008.

### **3.7 Data Analysis**

Data were analyzed using a quantitative approach. SPSS version 15 and Microsoft Excel were used in the analysis of the findings. Appropriate coding was allocated to the various groupings. Where appropriate, the Pearson correlation coefficient test was applied in order to establish relationships between variables.

### **3.8 Presentation of Results**

Data are presented using tables and bar graphs in order to facilitate interpretation of the findings.

### **3.9 Reliability and Validity**

#### **3.9.1 Reliability**

Quality control refers to the validity and reliability of instruments (Ono & Onen, 2005). Polit & Beck (2003) define an instrument's reliability as the consistency with which it measures the target attribute and / or concerns a measure's accuracy.

In order to ensure reliability, questionnaires were used so that all respondents were asked the same questions in the same order. A pilot study is another means of ensuring reliability of the instrument. This involves testing the actual tools on a small sample taken from the sample population under study (Bless, et al 1995). A pilot study was therefore conducted a week before the actual study was conducted to ensure that administration of the questionnaire would collect the desired data and that the questionnaires were clear.

During the pilot study, a sample of five women was selected from Mlambe hospital. After analyzing the data from the pilot study, no major problems were encountered

except for questions 32a, 32b, 32c, and 32d which needed probing to generate the appropriate response. The questions were therefore rephrased to ensure that appropriate responses were obtained.

### **3.9.2 Validity**

Validity of an instrument concerns the extent to which the research measures what it purports to measure without bias or distortion (Gerrish & Lacey, 2006). The greater the validity of an instrument the more confidence one can have that the instrument will obtain the data that will answer the research question or test the research hypothesis. To test the validity of the instrument a copy of the questionnaire was submitted to the research supervisor who is a subject expert to examine it. The content expert also checked if the number and type of items in the questionnaire were adequate to measure the concept or construct of interest (content validity). Questions were developed based on findings from previous studies and the literature reviewed.

## **3.10 Ethical Considerations**

### **3.10.1 Study Permission**

Permission to conduct this study was sought from the following:

- University of KwaZulu-Natal Ethics Committee (See Appendix C )
- University of Malawi College of Medicine Research and Ethics Committee (COMREC) (See Appendix D) after review of the proposal by the Kamuzu College of Nursing Research and Publications Committee
- The Director of Queen Elizabeth Central Hospital (See Appendix E)
- The Hospital Director of Mlambe Hospital (See Appendix F)
- The Participants (See Appendix G and I).

### **3.10.2 Informed Consent**

Participants were informed about the nature of the study and their role in the study before they were interviewed. Both verbal and written informed consent was sought from the participants to gain their approval for participation. Participation in the study was made voluntary and no coercion was used. The respondents were free to terminate the interview or to decline to answer any question as they deemed fit and were assured of no ill effects.

### **3.10.3 Confidentiality**

To ensure audio and visual privacy, the interviews were conducted in two specially designated rooms in the health centre where the respondent was alone with the researcher or the research assistant and where the answers to the questions were not overheard by anyone else. Data collected was kept under lock and key accessible to the researcher only.

Codes were assigned to all data stored on the computer using a pass word known only to the researcher. No information was divulged to any other person in any way that could lead to identification of the source, in order to safeguard the participants involved in the study.

A number system was used to ensure that participants do not lose their place in the queue and to ensure that work in the clinic is not disrupted. Interviews were also conducted in a manner that did not interfere with work at the clinic.

#### **3.10.4 Data Management, Handling and Storage.**

Once the research had been conducted, all questionnaires used were collected by the principal researcher and were taken to her place of work, Kamuzu College of nursing in a bag. These were then kept under lock and key in a filing cabinet. No one apart from the researcher had access to the materials that were used for the research. All transcripts and questionnaires will be kept in a locked filing cabinet in the Faculty of Health Sciences, School of Nursing for a period of five years. The research assistant signed a statement of confidentiality.

#### **3.11 Limitations of the Study**

The change in the sampling method from systematic random sampling to convenience sampling may have affected the findings of the study. Converting the open to closed ended questions gave respondents limited options for response and therefore respondents' own opinions were not obtained. As a result rich and valuable data may not have been obtained. The change in the sampling method from systematic random sampling to convenience sampling may have also contributed to the findings of the study.

#### **3.12 Conclusion**

This chapter provided an overview of the research method, research design and the process used for data collection. The method of data analysis and limitations of the study have also been highlighted. Findings of the study and a discussion of the findings will be presented in chapters four and five.

## CHAPTER FOUR

### DATA ANALYSIS AND PRESENTATION OF FINDINGS

#### 4.1 Introduction

This chapter presents the findings of the study. Analysis of data into numeric values was facilitated by SPSS version 15.0 and Microsoft Excel to give meaning to the findings of the study. In order to test for statistically significant associations between variables, the Pearson correlation coefficient was applied. The Pearson correlation coefficient measures the degree to which two variables are related. The results obtained after the Pearson correlation is applied shows whether the level of significance obtained is greater or less than the alpha level. The alpha level used in this analysis is 0.05. If after manipulation of the Pearson correlation the results obtained are less than the alpha level, this situation means that the result is significant. This situation also shows that a relationship exists between the variables. On the other hand, if the results obtained are greater than the alpha level, this situation means that the result is insignificant and also shows that a relationship does not exist between the variables (Polit & Beck, 2008).

Section A of this chapter describes the socio-demographic data of the sample. Section B presents findings on the knowledge of cervical cancer while section C presents risk factors to cervical cancer. Finally, section D presents reproductive health behaviour while section E presents barriers to CCS programs.

## **4.2 Section A - Socio-Demographic Data**

### **4.2.1 Description of the Sample**

This study focused on 196 women who were attending reproductive health clinics at Queen Elizabeth central and Mlambe rural hospitals respectively. Of the total sample, 130 women were from the urban hospital while 66 were from the rural hospital. The study included women aged 18 to 55 years. Table 4.1 presents a review of the socio-economic characteristics of the respondents at Queen Elizabeth central and Mlambe rural hospitals.

#### **4.2.1.1 Age**

Table 4.1 indicates that the percentage distribution of respondents in the different age groups was not equal except in the 23-32 year age groups where there was some similarity. Generally the percentage of respondents decreased with increasing age category in each site. The majority of the women interviewed in the two sites were relatively young. In both sites, the majority of the women sampled were aged between 18 and 37 years. Urban women aged between 18 and 37 years constituted 84.7% while rural women of the same age range constituted 91.7%. In the two sites, the percentage of women aged from 38 to 55 years was low compared to the other age groups. This was so because women in this age group are beyond the child bearing age of 35 years and therefore rarely visit reproductive health clinics.

#### **4.2.1.2 Marital Status**

Table 4.1 also presents the distribution of percentages of marital status of respondents in the sample. The majority of the women from both the urban and rural areas were married, with 85.4% in the urban area and 80.3% in the rural area. Being married indicates that marriage is significant and still highly valued in Malawi. Table 4.1 also indicates that there were

more unmarried women in the rural area than in the urban area and these constituted 12.1% while they constituted 6.2% in the urban area. Very few women in the samples were divorced, widowed or living with a partner.

#### **4.2.1.3 Educational Level**

Education is a key determinant of the life style and status an individual enjoys in a society. It affects many aspects of life, including health behaviour. Table 4.1 also shows that more women in the rural area had primary education. The percentage of rural women with primary education constituted 40.9%, while it constituted 27.7% of the urban women. Table 4.1 further shows that 40% of urban women had completed secondary education compared to 33.3% of the rural women. This means that urban women were more educated than rural women. This finding is a true reflection of the education status in Malawi where overall education attainment is higher in urban areas than in rural areas (National Statistics Office (NSO) Malawi & ORC Macro, 2005). A total of 7.7% of the urban women had completed tertiary education while 4.5 percent had attended tertiary education in the rural area.

#### **4.2.1.4 Employment**

Percentage distributions of employment status of urban and rural women are also presented in Table 4.1. Of the total sample of women interviewed, the majority (80.1%) were unemployed, while only 19.9% were employed. More women in the urban area (26.9 percent) than in the rural area (6.1 percent) were employed. Unemployed women constituted 73.1% and 93.9% in both the urban and rural areas respectively. This finding can be attributed to the lack of employment opportunities in the rural areas of Malawi (NSO, Malawi & ORC Macro, 2005). None of the women from either the urban or rural areas smoked cigarettes. Only 1.5 percent of the women from the urban areas drank alcohol. None of the rural women drank alcohol.

**Table 4.1 Percentage Distribution of Socio-demographic Characteristics of the Sample (n=196)**

Background Characteristics	Urban (n=130)		Rural (n=66)	
	n	%	n	%
<b>Age Category</b>				
18-22	24	18.5	27	40.9
23-27	33	25.4	18	27.3
28-32	30	23.1	13	19.7
33-37	23	17.7	6	9.1
38-42	10	7.7	1	1.5
43-47	4	3.1	1	1.5
48-52	5	3.8	0	0.0
53-55	1	0.8	0	0.0
<b>Marital Status</b>				
Never Married	8	6.2	8	12.1
Married	111	85.4	53	80.3
Widowed	5	3.8	2	3.0
Divorced	4	3.1	1	1.5
Living together	2	1.5	2	3.0
<b>Education levels</b>				
No schooling	6	4.6	2	3.0
Primary	36	27.7	27	40.9
Junior Secondary	26	20.0	12	18.2
Senior Secondary	52	40.0	22	33.3
College/University	10	7.7	3	4.5
<b>Employment</b>				
Yes	35	26.9	4	6.1
No	95	73.1	62	93.9

### **4.3 Section B - Knowledge of Cervical Cancer**

#### **4.3.1 Ever heard About Cervical Cancer**

Analysis of the responses from the women shows that the majority of the women had heard about cervical cancer. 96.9% of urban women had heard about cervical cancer compared to 87.9% of those in the rural areas. Small percentages of women from the two areas had not heard about cervical cancer with the number being greater in the rural areas (12.1%) compared to the urban areas (3.1%)

#### **4.3.2 Knowledge of the Causes of Cervical Cancer**

Analysis of the data from the study shows that the majority of the women in the two sites did not know the causes cervical cancer. In each site women who did not know the cause of cervical cancer constituted 98.5% respectively. Only 1.5% of the women in each site knew what causes cervical cancer. Table 4.2 shows that more women in both urban and rural sites had no knowledge of causes of cervical cancer despite their level of education. In the urban area, only 10 and 2.8% of the women with primary and university education respectively, had knowledge of causes of cervical cancer. In the rural area, only 4.5% of the women with higher education had knowledge of cervical cancer.

The results obtained after the Pearson correlation was applied shows that the levels of significance 0.71 and 0.730 for urban and rural women respectively are greater than the alpha level of 0.05. Thus there is no relationship between level of education and knowledge of the causes of cervical cancer.

**Table 4.2 Percentage Distribution of Knowledge of Causes of Cervical Cancer by Education Level (n=196)**

Education level	Urban (n=130)		Rural (n=66)	
	Had Knowledge of Causes of Cervical Cancer	Had no Knowledge of Causes of Cervical Cancer	Had Knowledge of Causes of Cervical Cancer	Had no Knowledge of Causes of Cervical Cancer
No schooling	0	100	0	100
Primary school	2.8	97.2	0.0	100
Junior secondary	0	100	0	100
Senior Secondary	0.0	100	4.5	95.5
University/college	10.0	90	0.0	100

#### 4.3.3 Respondents' Knowledge of Risk Factors to Cervical Cancer

Table 4.3 shows that knowledge of risk factors of cervical cancer was generally poor amongst urban and rural women. Almost half the women in the total sample did not know any risk factors to cervical cancer. Urban women who did not know the risk factors constituted 47.7% compared to 51.5% from rural areas. Twenty nine percent of the total sample knew that multiple sexual partners were a risk factor to cervical cancer. Knowledge of risk factors was poorer among rural women than among urban women. While 11.5% of urban women knew that early sexual debut is a risk factor to cervical cancer, only 1.5% of the rural women were aware of this. Furthermore, only 1.5 percent of rural women knew that HIV was a risk factor to cervical cancer compared to urban women knew absolutely nothing about the risk factors. Considering accessibility and a higher degree of education amongst the urban women

a surprising small percentage of the urban women, 0.8% felt that poor personal hygiene was a risk factor to cervical cancer.

**Table 4.3 Percentage Distribution of Respondents' Knowledge of Risk Factors (n=196)**

<b>Risk Factors</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
Early sexual debut	11.5	1.5
Multiple sexual partners	15.4	13.6
Multiparity	3.8	1.5
Low social economic status	0.8	0.0
HPV infection	1.5	0.0
HIV Infection	0.0	1.5
Smoking	2.3	3.0
Poor personal hygiene	0.8	0.0
Don't know	47.7	51.5
Others	13.8	21.2

#### **4.3.4 Knowledge of Prevention of Cervical Cancer**

Table 4.4 shows that both urban and rural women generally had poor knowledge about the prevention of cervical cancer. More than half of the urban women and almost half of the rural women did not know how they could prevent cervical cancer. Of these, urban women constituted 55.4% while rural women constituted 48.5%. While 26.2% of urban women knew that being faithful to one sexual partner was a preventive measure to cervical cancer, only 12.2% of the rural women were aware of this. Knowledge of the prevention of cervical cancer amongst rural women in the same categories was better than that in the urban women. This was evidenced by

many aspects of knowledge on prevention of cervical cancer being higher amongst rural than urban women. These aspects included using condoms, not smoking, faithfulness to one sexual partner which constituted 4.5, 4.5 and 12.1 percent respectively. Better knowledge on prevention of cervical cancer among the rural women can be attributed to guessing or chance.

**Table 4.4 Percentage Distribution of Knowledge on Prevention of Cervical Cancer (n=196)**

<b>Prevention of Cervical Cancer</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
Avoiding early sexual intercourse	4.6	4.5
Being faithful to one sexual partner	26.2	12.1
Using condoms	1.5	4.5
Not smoking	0.8	4.5
Being faithful to one sexual partner and avoiding traditional herbs	0.0	4.5
Avoiding early sexual intercourse and being faithful to one sexual partner	2.3	1.5
Avoiding early sexual intercourse, being faithful to one sexual partner and not smoking	0.0	3.0
Don't know	55.4	48.5
Others	9.2	16.7

#### 4.3.5 Knowledge of Detection of Cervical Cancer

Table 4.5 shows that both urban and rural women did not know how cervical cancer is detected. More than three quarters of the total sample did not know of any CCS methods. Only 26.2% urban and 10.6% rural women knew about VIA as one of the methods of detecting cervical cancer.

**Table 4.5 Percentage Distribution of Cervical Cancer Detection Methods (n=196)**

<b>Detection Method</b>	<b>Urban(n=130)</b>	<b>Rural (n=66)</b>
Visual inspection with Acetic Acid	26.2	10.6
Pap smear test	0.8	1.5
HIV testing	0.0	1.5
Don't know	73.1	86.4

#### 4.3.6 Knowledge of Benefits of Cervical Cancer Screening

Table 4.6 shows that almost half of the women in the two sites said that one benefit of CCS is that cancer is discovered early. The table shows variations in the women's knowledge about the benefits of CCS. While 23.1% of the urban women mentioned that one gets peace of mind, only 4.5% of rural women felt the same way. Early treatment of cancer was mentioned by 14.6% urban and 18.2 percent of the rural women. Almost the same percentages (13.1 and 12.1%) of urban and rural women did not know the benefits of CCS. A small percentage (3.0%) from the rural sample said that CCS did not have any benefit at all. Almost one-fifth (18.2%) of the rural women mentioned early treatment.

**Table 4.6 Percentage Distribution of Knowledge of Benefits of Cervical Cancer Screening (n=196)**

<b>Benefits of Screening</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
One gets a peace of mind	23.1	4.5
Cancer is discovered early	47.7	48.5
No benefit at all	0.0	3.0
Early treatment	14.6	18.2
Don't know	13.1	12.1
Other	1.5	13.6

#### 4.3.7 Knowledge of Benefits of Cervical Cancer Screening by Level of Education

Table 4.7 shows that both urban and rural women with higher educational level generally had poor knowledge about the benefits of CCS. Table 4.7 further shows that a majority of rural women 66.7%, with primary education knew that having peace of mind is a benefit of CCS compared with 4.0% of the urban women with higher education. The results obtained after the Pearson correlation was applied shows that the levels of significance, 0.097 and 0.968, for urban and rural women respectively are greater than the alpha level of 0.05. Thus there is no relationship between level of education and knowledge of the benefits of CCS.

**Table 4.7 Percentage Distribution of Knowledge on Benefits of CCS by Level of Education (n=196)**

Benefits of Cervical Cancer Screening	Urban (n=130)					Rural (n=66)				
	Education Level									
	No sch	Prim ary	Jun sec	Sen Sec	Univ	No sch	Primary	Jun sec	Sen Sec	Univ
One gets peace of mind	13.3	2.0	26.7	4.0	-	0.0	66.7	33.3	0.0	-
Cancer is discovered early	3.2	29.0	22.6	38.7	6.5	6.3	43.8	15.6	28.1	6.3
No benefit at all	-	-	-	-	-	-	50	50	-	-
One is treated early	-	100	0.0	0.0	0.0	-	14.3	14.3	57.1	14.3
Early discovery and treatment of cancer	-	22.2	11.1	38.9	27.8	-	40.0	20	40	0.0
Don't know	-	41.2	11.8	41.2	5.9	-	37.5	37.5	25	0.0
Other	-	0.0	0.0	100	-	-	44.4	11.1	44.4	-

- means no data is available.

#### 4.4 Section C - Risk Factors to Cervical Cancer

##### 4.4.1 Age at First Sexual Intercourse

The younger the woman at first sexual intercourse, the higher her risk of developing cervical cancer (Cuzick et al, 2006). Table 4.8 presents the percentage distribution of urban and rural women by age at first sexual intercourse. The majority of the women in both the urban and rural sets had commenced sexual intercourse between the ages 15 to 19 years, with the number in the rural set being greater. This reveals an early age of initial sexual intercourse overall. Furthermore, 10.4% of the urban and 3.0% of the urban women had their sexual debut as early as 10-14 years. This means that these women exposed themselves to the HPV at a tender age. Women who had their sexual debut at 20-24 years in the urban area constituted 24.6% while those in the rural area constituted 15.2 percent. Only 2.3% of the urban women had their sexual debut as late as 25-29 years. None of the women in the rural area had initiated their sexual intercourse at 25-29 years. Overall, this means that women in the rural area are engaging in sexual intercourse at an earlier age.

**Table 4.8 Percentage Distribution of Age at First Intercourse (n=196)**

<b>Age</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
10-14	10.4	3.0
15-19	62.3	81.8
20-24	24.6	15.2
25-29	2.3	0

#### 4.4.2 Number of Sexual Partners

Table 4.9 presents the percentage distribution of number of sexual partners by location of women. A larger percentage of women in the rural site had had 2-3 sexual partners. The percentage of rural women who had had 2-3 sexual partners constituted 59.1% while it constituted 49.2% of the urban women. Those with 4-5 sexual partners constituted 10.8% in the urban sample and 3.0% in the rural sample. Having more than one sexual partner implies that the woman has an increased exposure to the HPV, therefore increasing her risk to cervical cancer. In both sites, the percentages reduced as the number of sexual partners decreased. Only 1.5% in each group had 6-10 sexual partners. Only 0.8% of the urban women had had more than 10 sexual partners. Those who had had only one sexual partner constituted 37.7 and 36.4% of the urban and rural women respectively. Just over a third of each sample had had one sexual partner.

**Table 4.9 Percentage Distribution of Number of Sexual Partners (n=196)**

<b>Age</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
1	37.7	36.4
2-3	49.2	59.1
4-5	10.8	3.0
6-10	1.5	1.5
More than 10	0.8	0.0

#### 4.4.3 Number of Pregnancies

Table 4.10 shows that the majority of the women in both sites had had between one and three children, with urban women constituting 63.8 percent and rural women constituting 71.2 percent. In the urban area, women with 4-6 pregnancies constituted 31.5 percent while those women in the rural area constituted 24.2 percent. This demonstrates the high percentage of women who had been exposed to the HPV. The American Cancer Society (2007), reports that the number of live births that a woman has is a consistent risk factor for cervical cancer in many studies.

<b>Number of pregnancies</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
1-3	63.8	71.2
4-6	31.5	24.2
7-10	3.1	3.0
Never been pregnant	1.6	1.4

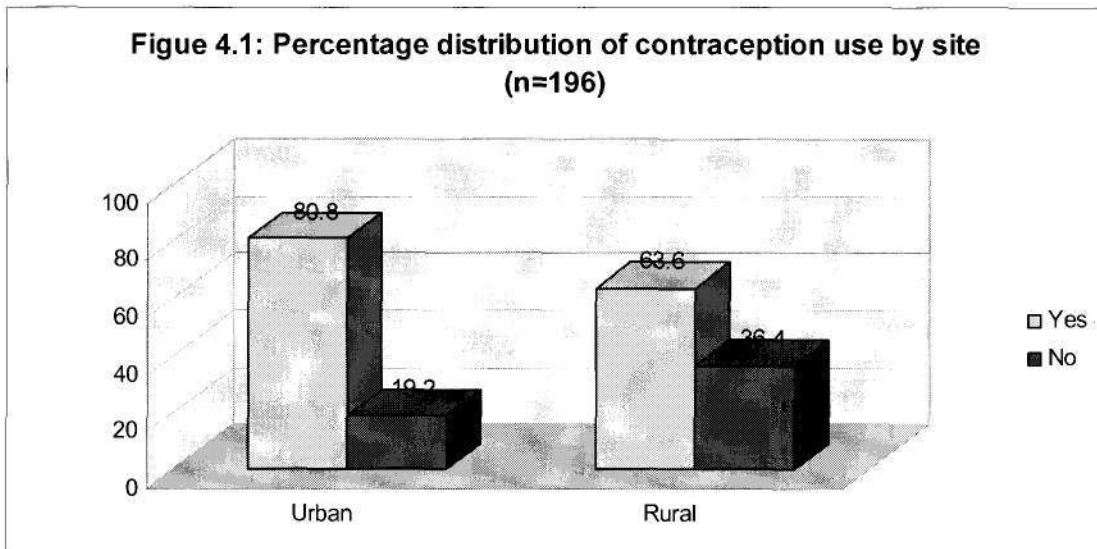
#### 4.4.4 Number of Pregnancies by Educational level

Table 4.11 shows that in the urban area, the higher the level of education of a woman, the fewer the number of pregnancies. For example 16.7% of urban women with no schooling had 7-10 children as compared with none from the college group having 7-10. Half of the urban women with no schooling had had 4-6 pregnancies constituting 50%. In the rural area the trend was slightly different with a larger percent of women with no schooling having had 1-3 pregnancies.

Education level	Urban (n=130)				Rural (n=66)			
	Number of Pregnancies							
	0	1-3	4-6	7-10	0	1-3	4-6	7-10
No schooling	0	33.3	50.0	16.7	0	100	0	0
Primary	0	52.8	38.9	8.3	0	44.4	48.1	7.4
Secondary	3.8	53.8	38.5	3.8	0	83.3	16.7	0
High	0	75.0	25.0	0	4.5	95.5	0	4.5
College/University	0	90.0	10.0	0	66.7	33.3	0	0

#### 4.4.5 Use of Contraceptive Methods

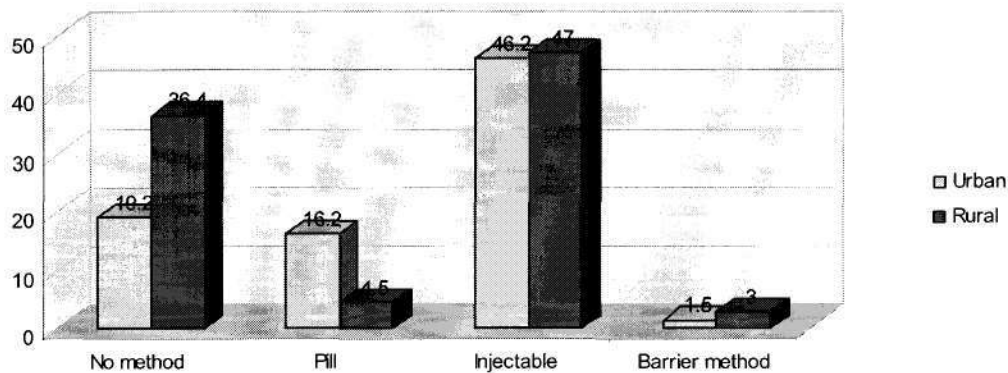
Figure 4.1 presents the percentage distribution of contraceptive use. The majority of the women in both the urban (80.8 percent) and rural (63.6 percent) sites had used contraceptives



#### 4.4.6 Type of Contraceptive/s used

Figure 4.2 demonstrates that the injectable contraception was the most common method used by both urban and rural women. The percentage of urban and rural women who had used injectables was relatively the same, although they were slightly higher in the rural group. Rural women who used injectables constituted 47% while urban women constituted 46.2%. A higher percentage of 16.2% of urban women had used oral contraceptives, compared to only 4.5% of rural women. Use of other contraceptive methods was generally low in both the urban and rural women. Women who used barrier methods, which after probing, turned out to be condoms constituted 1.5% in the urban area and 3.0% in the rural area. Those who used injectables and condoms as methods constituted 3.1 and 3.0% in the urban and rural areas respectively. This implies that many women in both sites were exposing themselves to HPV which causes cervical cancer.

Figure 4.2: Percentage Distribution of Contraceptive Methods (n=196)



#### 4.4.7 Duration on Oral Contraceptives

Table 4.12 shows that the greater percentage of women from both sites did not use oral contraceptives. A higher percentage, 22.3 percent, of urban women and only 3.0% of rural women had used oral contraceptives for 1-2 years. Table 4.12 further shows that the percentage of women using oral contraceptives reduced as the duration increased. Only 2.3 percent of the urban women reported using oral contraceptives for 3-4, 5-6 and 7-8 years respectively. The percentage of urban and rural women who had used oral contraceptives for 10 and above years constituted 1.5 and 1.0 percent respectively. Use of oral contraceptives for short periods implies that these women are not exposed to risk for cervical cancer. Use of combined oral contraceptive pills for a long period of time tends to have an increased incidence of cervical cancer due to oestrogen which stimulates metaplasia (Alliance for Cervical Cancer Prevention (ACCP), 2004).

**Table 4.12 Percentage Distribution of Period on Oral Contraceptives (n=196)**

<b>Duration</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
1-2	22.3	3.0
3-4	2.3	4.5
5-6	2.3	0
7-8	2.3	0
10	1.5	1.0
Never used the method	69.2	90.9

#### **4.5 Section D - Reproductive Health Behaviour**

##### **4.5.1 Ever had Cervical Cancer Screening**

Table 4.13 shows that the majority of both the urban and rural women have not had a CCS test with there being more unscreened women in the rural area. Unscrened women in the urban area constituted 73.8% while those in the rural area constituted 92.4%. More urban women than rural women had taken CCS test. The urban women constituted 26.2% while rural women constituted 7.6% only. This could be attributed to both urban and rural women not being well informed about CCS programs.

**Table 4.13 Percentage Distribution of Cervical Cancer Screened Respondents (n=196)**

<b>Cervical Cancer Screening</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
Yes	26.2	7.6
No	73.8	92.4

#### **4.5.2 Women's Probability of getting Cervical Cancer**

Table 4.14 shows that all of the urban women who had perceived themselves to be very likely to get cervical cancer had taken CCS. Unlike the urban women, all the rural women who had perceived themselves to be very likely to get cervical cancer had never had a CCS test. Furthermore, over three quarters of the sample who had perceived themselves to be likely to get cervical cancer did not take screening test. These constituted 73.3 and 86.7% of urban and rural women respectively. Overall, this means that perceived susceptibility to cervical cancer did not influence rural women to engage in preventive health behaviour. This finding is not consistent with the Health Belief Model which stipulates that people are more likely to engage in preventive behaviour if they perceive themselves to be susceptible to the potential problem (Croyle, 2005). More (42.9 percent) urban than rural women (6.3%) felt they were unlikely to get cervical cancer had had a CCS test. All rural (100%) and half (50%) of the urban women who felt very unlikely to get cervical cancer had had CCS.

**Table 4.14 Percentage Distribution of CCS by Susceptibility to Cervical Cancer (n=196)**

<b>Probability of getting Cervical Cancer</b>	<b>Urban (n=130)</b>		<b>Rural (n=66)</b>	
	<b>Had Cervical Cancer Screening</b>	<b>Never had Cervical Cancer Screening</b>	<b>Had Cervical Cancer Screening</b>	<b>Never had Cervical Cancer Screening</b>
Very Likely	100	0	0	100
Likely	26.7	73.3	13.3	86.7
Could not Say	8.3	91.7	3	97
Unlikely	42.9	57.1	6.3	93.7
Very Unlikely	50	50	100	0

### **4.5.3 Cervical Cancer Screening by Education level**

Table 4.15 shows that a higher level of education did not necessarily have a positive influence on CCS behaviour of the women. The largest percentage of urban women, who had had a CCS test, had had no schooling. These constituted 50%. The lowest percentage of urban women who had CCS done had university education, and these constituted 10% only. There is no difference in the screening behaviour of rural women with no schooling and those who had had some formal schooling. Less than 10% of those who had completed primary, secondary and higher education had CCS test done respectively. None of the rural women with college schooling had had CCS. A total of 8 and 13 rural women had no schooling and college educational levels respectively. The results obtained after the Pearson correlation was applied shows that the level of significance, .354 and .974, for urban and rural women are greater than the alpha level of 0.05. Thus there is no relationship between level of educational and CCS behaviour.

**Table 4.15 Percentage Distribution of Cervical Cancer Screening by Education level (n=196)**

Education level	Urban (n=130)		Rural (n=66)	
	Had Cervical Cancer Screening	Never had Cervical Cancer Screening	Had Cervical Cancer Screening	Never had Cervical Cancer Screening
No schooling	50.0	50.0	0	100
Primary	22.2	77.8	7.4	92.6
Junior Secondary	34.6	65.4	8.3	91.7
Senior Secondary	25.0	75.0	9.1	90.9
College/University	10.0	90.0	0	100

#### 4.5.4 Cervical Cancer Screening by Age Category

Table 4.16 shows that the largest percentages of women who had CCS test were from the urban area and were aged between 38-42 and 43-47 years. These constituted 80 and 75% respectively. In the rural area, the largest group of women who had CCS was aged 33-37 years and these constituted 33.3%. With advancing age, the percentages for CCS were increasing.

**Table 4.16 Percentage Distribution of CCS by Age Category (n=196)**

Age Category	Urban (n=130)		Rural (n=66)	
	Had Cervical Cancer Screening	Never had Cervical Cancer Screening	Had Cervical Cancer Screening	Never had Cervical Cancer Screening
18-22	20.8	79.2	0.0	100
23-27	12.1	87.9	0.0	100
28-32	30	70	23.1	76.9
33-37	17.4	82.6	33.3	66.7
38-42	80	20	0.0	100
43-47	75	25	0.0	100
48-52	20	80	-	-
53-55	0.0	100	-	-

- means no data available.

#### 4.5.5. Cervical Cancer Screening by Knowledge

Table 4.17 shows that the majority of the women with knowledge of causes of cervical cancer did not have CCS with all the rural women never having had a test. The number of rural women who had not had a test was twice the number of urban women. This scenario can be attributed to variations in the distribution of women's knowledge about benefits of CCS shown in 4.3.6 above. It is also shown that a minority of the urban and rural women with no knowledge of the causes of cervical cancer had had a screening test done. Urban women constituted 25.8% while rural women constituted 7.7% only. This means that knowledge about cervical cancer is an important prerequisite to CCS.

**Table 4.17 Percentage Distribution of Screening by Knowledge of Causes of CC (n=196)**

Knowledge	Urban (n=130)		Rural (n=66)	
	Had Cervical Cancer Screening	Never had Cervical Cancer Screening	Had Cervical Cancer Screening	Never had Cervical Cancer Screening
Have knowledge of causes of Cervical Cancer	50.0	50.0	0	100
Have no knowledge of causes of Cervical Cancer	25.8	74.2	7.7	92.3

#### 4.5.6 Relationship between Marital Status and Cervical Cancer Screening

Table 4.18 shows that more (50%) widowed women from the urban site had had a CCS test compared with the rural women. However, there were only five (urban) and two (rural) widowed women in each site. It is also shown that women appeared to be more likely to have had a CCS test if they were married, with 27.9% of the married urban women having had CCS and 7.5% of the married rural women.

**Table 4.18 Percentage Distribution of CCS by Marital Status (n=196)**

	Urban (n=130)		Rural (n=66)	
	Had Cervical Cancer Screening	Never had Cervical Cancer Screening	Had Cervical Cancer Screening	Never had Cervical Cancer Screening
Single	0	100	0	100.0
Married	27.9	72.1	7.5	92.5
Divorced	20	80	50	50
Widowed	50	50	0.0	100.0
Living with a partner	0.0	100	0.0	100.0

## 4.6 Section E - Barriers to Cervical Cancer Screening

### 4.6.1 Health Education Factors

Table 4.19 shows that overall, slightly more than half of the sampled women; felt that “women being less knowledgeable about cervical cancer” is one of the health education related factors that would prevent utilisation of CCS programs. Urban women constituted 50 percent and rural women constituted 59.1%. Analysis also shows that the majority of the sample indicated that lack of publicity about CCS services would prevent utilisation of CCS programs. Urban women constituted 50% and rural women constituted 40.9%.

**Table 4.19 Percentage Distribution of Factors related to Health Education (n=196)**

<b>Health Education Factors</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
Women being less knowledgeable about cervical cancer	50	59.1
Lack of publicity about cervical cancer screening services	50	40.9

#### 4.6.2 Health Facility Factors

Table 4.20, shows that the majority (68.4%) of the urban women indicated that none of the health facility related factors would prevent women from utilizing CCS programs while 57.6% of the rural women were in agreement. A greater percentage (22.7) of rural than (10.8%) urban women felt that lack of patient friendly services was one of the factors that described the health facility. More urban, (11.5 percent) than rural women, (4.5%) felt that unavailability of CCS services is another health facility factor that could prevent women from utilising CCS services. Approximately 9.1% of the rural women and 3.8% of the urban women noted the health workers' attitude as a factor. Distance from the health care facility was mentioned by 6.1 and 5.4% of rural and urban women respectively.

**Table 4.20 Percentage Distribution of Factors related to Health Facility (n=196)**

<b>Health facility Factors</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
Lack of patient friendly services	10.8	22.7
Long distance from health care facility	5.4	6.1
Unavailability of cervical cancer screening services	11.5	4.5
Health workers' attitude	3.8	9.1
None of the above	68.4	57.6

### 4.6.3 Personal Difficulties

Table 4.21 shows that a large percentage of urban women felt that none of the personal difficulty factors prevented them from utilizing CCS programs. These women constituted 82.4% percent, in comparison to 59.2% of the rural women. Many rural women (33.3%) stated that fear is a factor that would prevent women from utilizing CCS services. However 95.5% of the rural women had no knowledge of the causes of cervical cancer. Almost equal percentages (7.6 and 7.5) of urban and rural women respectively mentioned embarrassment as one of the personal factors that would prevent them from going for CCS test.

**Table 4.21 Percentage Distribution of Personal Difficulties Factors (n=196)**

<b>Personal Difficulties</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
Embarrassment	7.6	7.5
Fear	9.2	33.3
Pain	0.8	0.0
None of the above	82.4	59.2

#### 4.6.4 Family problems

Table 4.22 shows that more urban women than rural women felt that none of the factors related to family problems would prevent them from utilizing CCS programs. Urban women constituted 88.5 percent in comparison to 54.6% from the rural area. More rural women (13.6%) than urban women (3.1%) felt that lack of approval by husband was a barrier to CCS programs.

**Table 4.22 Percentage Distribution of Family Problems Factors (n=196)**

<b>Family problems</b>	<b>Urban (n=130)</b>	<b>Rural (n=66)</b>
Caring for children at home	2.3	1.5
Attending to the sick and the aged	0.8	4.5
Attending to the house chores	0.8	6.1
Lack of approval by husband	3.1	13.6
Absence of disease symptoms	2.3	6.1
Don't have time	1.5	3.0
Caring for children at home, attending to house chores and lack of husband approval	0.0	4.5
Caring for children at home and attending to house chores	0.8	1.5
Caring for children at home and other	0.0	4.5
None of the above	88.5	54.6

#### **4.7 Conclusion**

This chapter has presented a comprehensive review of the findings obtained from the analysis of data obtained from Queen Elizabeth Central and Mlambe rural hospitals. The main findings in relation to knowledge of cervical cancer, risk factors to cervical cancer, reproductive health behaviour and barriers to CCS programs have been analysed.

## CHAPTER FIVE

### DISCUSSION OF FINDINGS, SUMMARY AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter discusses the main findings of the study. It starts by summarizing the main findings. Socio-demographic data of the respondents, knowledge of cervical cancer, risk factors to cervical cancer, reproductive health behaviour and barriers to CCS are discussed. Thereafter recommendations are made based on the discussion.

#### 5.2 Discussion

##### 5.2.1 Section A - Socio-Demographic Findings

Socio-demographic indicators such as age, marital status and employment, alcohol and smoking are relevant in studies associated with cervical cancer (Coughlin et al, 2006). The randomized control trial conducted in Maharashtra, India by Nene et al (2007) to determine the factors associated with participation in CCS programs and follow-up treatment, found that screened women were younger (aged 30–39), better educated and a higher proportion of screened women were married.

Similar to the findings from the Maharashtra Indian study, the majority of the women interviewed in the two sites were relatively young. In both the urban and rural sites, the majority of the women belonged to age groups 18 to 37 years. In the two sites, the percentage of women aged between 38 and 55 years was low compared to the other age groups. This shows that it is mainly women of child bearing age who attend reproductive health clinics. The majority, 85.4% and 80.3% of both urban and rural

women respectively, were married. This finding agrees with findings of a study conducted in Malawi which found that the majority of the women (67%), in the reproductive age group are married (NSO, Malawi & ORC Macro, 2005). This situation suggests that marriage is still highly valued in Malawi. More rural women (40.9%) than urban women (4.6%) had not had any formal schooling. Women with higher education were more likely to be found in the urban area (40%) as compared with the rural area (4.5%). This finding is a true reflection of the education status in Malawi where the attainment of an education is higher in urban areas than in rural areas (NSO, Malawi & ORC Macro, 2005).

Overall, few women in the sample were educated. This correlates with the fact that 30% of female household members in Malawi have never been to school (NSO, Malawi & ORC Macro, 2005). Education is a key determinant of the life style and status an individual enjoys in a society. It affects many aspects of life, including demographic and health behaviour (NSO, Malawi & ORC Macro, 2005). However, in this study educational level did not necessarily have a positive influence on CCS behaviour.

Findings of the study show that the majority (80.1%) of the women were unemployed, while only 19.9% were employed. More rural women (93.9%) than urban women (73.1%) were unemployed. This finding can be attributed to the lack of employment opportunities in the rural areas in Malawi (NSO, Malawi & ORC Macro, 2005). This implies that more rural women were of low socio-economic status. None of the women smoked cigarettes. This finding is consistent with the culture of the women in Malawi.

### **5.2.2 Section B - Knowledge of Cervical Cancer**

The study revealed that the majority of both urban (96.9%) and rural (87.9%) women had heard about cervical cancer. However, despite the fact that almost all the women had heard about cervical cancer, their knowledge of cervical cancer was poor. This was evidenced by the majority (98.5%) of both urban and rural women being ignorant of the causes of cervical cancer. This finding is in line with findings from other studies. Dabash et al, (2005) in their study found that women who were undergoing treatment for early and late stage cervical cancer were often unaware of their exact diagnosis or if aware, did not know the cause of the disease for which they were being treated. In the absence of adequate knowledge, women are not likely to present for screening, or may do so when cervical cancer can no longer be prevented or effectively treated.

Both urban and rural women had poor knowledge about the risk factors to cervical cancer. This was evidenced by only a few (11.5%) urban and rural women (1.5%) knowing that early sexual debut is a risk factor to cervical cancer. Knowledge of significant risk factors such as multiple sexual partners and smoking was also very poor among both the urban and rural women. This finding concurs with findings from a study conducted on knowledge of cervical cancer and screening among women in east-central England that found that women put undue emphasis on genetic influence, than the HPV as posing more of a risk factor to cervical cancer (Philips et al, 2005). The study findings are also consistent with findings of a similar study conducted among medical workers of Mulago Hospital, Uganda where less than 40% knew risk factors for cervical cancer. Poor knowledge could be attributed to the lack of formal education amongst the majority of the women, especially those from the rural area

(See Table 4.1). The level of education did not have an influence on the knowledge of cervical cancer. There was no significant difference between education levels and the knowledge of causes of cervical cancer.

A lack of knowledge about the prevention of cervical cancer was also revealed in the study. This was evidenced by more than half (55.4%) of the urban and almost half (48.5%) of the rural women not knowing how they could prevent cervical cancer. In addition, few urban (26.2%) and rural (12.1%) women knew that being faithful to one sexual partner could help to prevent cervical cancer.

Rural women were found to be more knowledgeable about the prevention of cervical cancer than urban women. This was evidenced by many aspects of knowledge on the prevention of cervical cancer being higher amongst the rural than the urban women. These aspects included use of condoms and not smoking which constituted 4.5% respectively, and avoiding early sexual intercourse (3.0%). This could be attributed to guessing or chance. This finding is consistent with findings of a study conducted among women diagnosed with and treated for cervical cancer at one institution in the USA, which found that about one-third of African-American (32.8%, n=37) and White-American (35.2%, n=75) women had reported that cervical cancer cannot be prevented (Stark et al, 2008).

The majority of the urban (73.1%) and rural (86.4%) women had a poor knowledge about the detection of cervical cancer. Slightly more than a quarter of the urban women knew that VIA was one of the methods of detecting cervical cancer. On the other hand, only a small number (10.6%) of their rural counterparts knew about this.

This was unexpected since VIA is currently the most advocated screening technique in Malawi. Contrary to findings in this study, a study conducted in Uganda at Mulago hospital found that most participants knew that Pap smear screening could detect early cervical lesions (Mutyaaba et al, 2006). Interestingly, a few (1.5%) rural women said that HIV testing was a test for detecting cervical cancer. Very few urban and rural women knew that the Pap smear was a method used to detect cervical cancer.

The majority of the rural women (66.7%), with primary education knew that having peace of mind is a benefit of CCS as compared with 4.0% of the urban women with higher education. Almost half of the women knew that one benefit of CCS is that cervical cancer is discovered early. However, very few women knew that early treatment is one of the benefits of CCS. Overall, there was variation in women's knowledge of the benefits of CCS, implying that the women had partial or incomplete information about the benefits of CCS. The finding on the aspect of having peace of mind as a benefit of CCS is similar to study findings obtained from a qualitative study conducted in Latin America that found that peace of mind was one of the benefits of CCS (Agurto et al, 2004).

### **5.2.3 Section C - Risk Factors to Cervical Cancer**

Age at first sexual intercourse was identified as a risk factor for both the urban and rural women, with more than half of both the urban and rural women having sexual intercourse at ages 15 to 19 years. This finding is consistent with findings obtained in a similar study conducted among female health workers at the University of Benin Teaching Hospital, where a minority (39.7%) of the respondents, had their sexual debut before the age of 20 years (Gharoro & Ikeanyi, 2006). The low percentage can

be attributed to the study context and socio-demographic background of the respondents. In addition, more rural women than urban women had initiated sexual intercourse at ages 15 to 19. Some women, in both the urban and rural areas, had had their sexual debut as early as 10-14 years. This early sexual exposure during the teen age period means that they had exposed themselves to the HPV. The literature reports that the younger the woman at first sexual intercourse, the higher her risk for developing cervical cancer (Cuzick et al, 2006).

Half of the urban women and more than half of the rural women had had 2-3 sexual partners. Few (17.8%) of the women had had 4-10 sexual partners. This finding is consistent with those obtained in a study on risk factors for invasive cervical cancer conducted among young women in Whittington Hospital, London that found age at first intercourse and life time sexual partners to be the most important risk factors (Cuzick et al, 1996). Having multiple sexual partners implies that the woman has an increased sexual exposure to the HPV which is a major risk factor for the development of cervical cancer (National Cancer Institute, 2007).

The majority of the women had had several pregnancies, with 63.2% of urban and 71.2% of rural women in the sample having had 1-3 pregnancies. Urban women with 4-6 pregnancies constituted 31.5% while those women in the rural area constituted 24.2%. Very few urban (3.1%) and rural (3.0%) women had 7-10 children. The study further revealed that women with higher levels of education had fewer pregnancies. For example 16.7% of urban women with no schooling had 7-10 children as compared with none from the college group having 7-10. Half of the urban women with no schooling had had 4-6 pregnancies constituting 50%. In the rural area the

trend was slightly different with a larger percent of women with no schooling having had 1-3 pregnancies. Multiparity implies that the woman has an increased exposure to the HPV. The American Cancer Society (2007) suggests that the number of live births that a woman has is a consistent risk factor for cervical cancer.

More urban (80.8%) than rural (63.6%) women had used contraceptives. Rural women who had not used contraceptives were almost double the number of urban women who had not used contraceptives. The slightly lower use of contraceptives in the rural site can be attributed to Mlambe rural hospital being a Catholic health facility which does not advocate for contraception. This could also be attributed to women's failure to pay for the services since a small fee is charged in order to get services from the hospital.

Less than half of the total sample (urban – 47% and rural - 46.2%) had used the injectables as their contraceptive method with there being slightly more in the rural area. More (16.2%) urban women had used oral contraceptives, than rural women who comprised only 4.5 percent. A study conducted in Zambia (Parham et. al, 2006) has shown that HPV is more prevalent in HIV positive women. In this era of HIV and AIDS condoms are advocated to prevent transmission. Surprisingly, in this study, use of condoms was very low among the women with only 3.0 % and 1.5% of urban and rural women using them respectively. This implies that overall; women were exposing themselves to the HPV and HIV virus which causes cervical cancer.

The results also showed that a small percentage of both urban and rural women had used oral contraceptives. However, the women who took oral contraceptives took

them for a short period of time. Only 22.3% of urban women who used oral contraceptives took them for 1-2 years, while only 3.0% of rural women took them for 1-2 years. Use of oral contraceptives for short durations implies that women had not been exposed to increased oestrogen levels which cause cervical cancer. It is believed that the use of combined oral contraceptive pills for a long period of time increases the incidence of cervical cancer due to oestrogen which stimulates metaplasia (ACCP, 2004).

#### **5.2.4 Section D – Reproductive Health Behaviour**

The majority of the respondents in the study had never been screened for cervical cancer. More rural (92.4%) than urban women (73.8%) were unscreened. This finding is similar to the findings of a Ugandan study, where 81 percent of the respondents had never been screened (Mutyaaba et al, 2006). The high rate of unscreened respondents in this study could be attributed to both the urban and rural women not being aware of CCS programs. As expected, all the urban women who felt very likely to get cervical cancer had undergone CCS. However none of the rural women who felt very likely to get cervical cancer had had a CCS test. This finding can be attributed to chance.

Unexpectedly, all rural women who felt very unlikely to get cervical cancer had had a CCS test while only half of the urban women who felt very unlikely to get cervical cancer had had a CCS test. This could mean that those women who did not take the test were afraid to go for the test. A survey conducted in Nicaragua found that 21.1 percent of the respondents mentioned fear of the examination as the reason for not being screened (Claeys et al, 2002).

It is believed that education is one of the factors that determine women's participation in CCS programs (Nene et al, 2007). The results in this study seem to be consistent with this belief as many rural women, who were not educated, had not had a CCS test. Higher education levels also did not have a positive influence on CCS behaviour as the majority of the women with higher education levels had not had a CCS test.

This finding is also similar to findings of a study conducted in South Africa where in spite of knowledge of CCS and the availability of facilities for this purpose, the majority of the women (87%) from the higher social and educational backgrounds had not undergone cervical screening (Wellensiek et al, 2002). Therefore it can be concluded that mere provision of a CCS service is not sufficient to ensure successful uptake since screening is a multifaceted entity. However contrary to this finding the study conducted in India found that screened women were better educated (Nene et al, 2007).

More urban women aged 38-42 and 43-47 years and rural women aged 33-37 had had CCS tests. This could be attributed to the fact that CCS programs mostly target women aged 30 years and above. This implies that women of the other age groups are left out in the screening programs yet they are equally at risk of developing cervical cancer.

Overall, the study findings demonstrated that knowledge relating to the causes of cervical cancer did not have a positive influence on the screening behaviour of the women. Not much difference was observed in the screening behaviour of women with knowledge of causes of cervical cancer and those without knowledge of causes of

cervical cancer. Marital status had an influence on the screening behaviour of the respondents. This was evidenced by the majority of both married urban (72.1%) and married rural women (92.5%) not taking CCS test. This suggests that women are more unlikely to have a CCS test if they are married. This finding can be attributed to a lack of approval by the husband as discussed below. However this finding is contrary to findings from a study conducted in India where it was found that a higher proportion of screened women were married (Nene et al, 2007)

#### **5.2.5 Section E – Barriers to Cervical Cancer Screening**

Barriers to CCS programs were classified into factors related to health education, health facility, personal difficulty and family problems. Surprisingly, the majority of the respondents indicated that factors related to the health facility (urban -68.4 percent and rural -57.6%) personal difficulties (urban -82.4% and rural -59.2%) and family problems (88.5% rural and 54.6 % urban) were not barriers to CCS programs. This could be attributed to guessing or chance.

Literature reports that cervical cancer and Pap testing awareness positively influenced the utilisation of CCS services (Gharoro and Ikeanyi, 2005). Analysis of the responses from the study sample indicates that more rural than urban women felt that “women being less knowledgeable about cervical cancer” is one of the health education related factors that would prevent utilisation of CCS programs. These constituted 59.1 and 50% respectively. Fifty percent of urban and 40.9 % of rural women indicated lack of publicity about CCS services as a factor preventing utilisation of CCS programs. The finding on the aspect of “women being less knowledgeable about cervical cancer” is

consistent with findings of a study conducted in Nicaragua which found that lack of knowledge is one of the reasons for not being screened (Claeys et al, 2002).

This finding is also consistent with the findings from a South African study which found that the majority of the patients from the lower socio-economic circumstances with multiple risk factors were not aware of CCS or facilities available for this purpose (Wellensiek et al, 2002). The lack of knowledge about cervical cancer possibly explains the poor CCS rates in both the urban and rural women. Poorer knowledge about cervical cancer in the rural women could be attributed to the inequality in the distribution of resources between the urban and rural areas, resulting in rural women having less access to health information. A study conducted in Latin America reported that one of the barriers related to the provision of health services was accessibility to health care centers and availability of quality services for example, women living in rural areas reported having to travel long distances to get to the facility (Agurto et al, 2004).

The study revealed that a greater percentage (22.7%) of rural than (10.8%) urban women felt that lack of patient friendly services was one of the factors that described the health facility. Lack of patient friendly services may prevent women from accessing CCS services by keeping women away. More urban, (11.5%) than rural women, (4.5 %) felt that unavailability of CCS services is another health facility factor that could prevent women from utilising CCS services. This could be attributed to the fact that not all health facilities in Blantyre district offer CCS services and there is a shortage of trained staff to offer the service. For the past decade Malawi, like many other countries in Africa, has experienced a shortage of nurses due to many

nurses leaving their countries for greener pastures abroad. This has created great staff shortages in health institutions hence less priority is given to some services such as CCS.

Approximately 9.1% of the rural women and 3.8% of the urban women noted the health workers' attitude as a barrier. Long distances from the health care facility were found to be a barrier as mentioned by 6.1 and 5.4% of rural and urban women respectively. Long distances, coupled with low socio-economic status of most of the women in the sample, may be a barrier to CCS as they may not be able to afford to pay for transportation to the nearest health institutions.

In this study, similar to findings from other studies, fear and embarrassment were identified as barriers to CCS programs. More rural women (33.3%) than urban (9.2%) women regarded fear as a factor that would prevent women from utilizing CCS services. Less than 10% of the urban and rural women regarded embarrassment as a barrier to CCS. A study conducted by Agurto et al, (2004) found that women reported not having a Pap smear because of embarrassment and fear of knowing.

Interestingly, some rural (13.6%) and urban (3.1%) women felt that lack of approval by the husband to have a test to CCS was a barrier. This difference could be due to rural women being less empowered than urban women in making own decisions including those pertaining to health seeking behaviour. This finding is similar to findings from a study conducted in India that found that 26.5% of women failed to have a CCS test because their husbands would not allow them to go to the health facility (Basu et al, 2006). Most women in Malawi especially those of low socio-

economic status have poor social empowerment and are excluded from making their own decisions. Usually they consult their husband to decide for them where and when to seek help including preventive health behaviour.

### **5.3 Summary**

#### **5.3.1 Summary of Socio-Demographic data**

The demographic figures indicate that the majority of the women in the study were aged between 18 and 37 years. The majority of the women were married. More urban women than rural women were educated. Few women in the study were employed however, more urban than rural women were employed.

#### **5.3.2 Summary of Knowledge about Cervical Cancer**

The majority of the women in the study had heard about cervical cancer. However it was interesting to note that many of the women did not know the causes of cervical cancer. Generally, knowledge about cervical cancer was poor among the urban and rural women. The majority of the women had poor knowledge about risk factors, prevention, detection and benefits of cervical cancer screening. A greater knowledge deficit was observed in the rural women. Knowledge of cervical cancer was low despite the increasing level of education in both the urban and rural groups. Therefore, level of education was not related to knowledge of CCS both in the urban and rural women.

#### **5.3.3 Summary of Risk Factors to Cervical Cancer.**

Age at first sexual intercourse and number of sexual partners are the major factors in determining risk of developing cervical cancer (Cuzick et al, 2006). This study

revealed that both urban and rural women had commenced sexual intercourse at early ages of 15 to 19 years. The study further revealed that both urban and rural women were having sexual intercourse with 2-3 sexual partners. However very few women, 11.5% of the urban and 1.5% of the rural women knew that early sexual debut is a risk factor to cervical cancer.

Injectables were used by the majority of the women while condom use was very low among the women. The study also revealed that the majority of the women had used oral contraceptives with increased use in the urban women. Many urban women (22.3%) had used oral contraceptives for 1-2 years thereby reducing their exposure to oestrogen which predisposes one to cervical cancer.

#### **5.3.4 Summary of Reproductive Health Behaviour.**

The majority of both the urban (73.8%) and rural (92.4%) women had not had a CCS test, with the number being greater amongst the rural women. The majority of the women who had taken a CCS test belonged to the age group 38-47 years. The results also showed that a higher level of education did not have a positive influence on CCS behaviour as the majority of the women with higher educational levels had not had a CCS test. This means that level of education was not related to CCS uptake behaviour. Results also showed that rural women's perceptions of themselves being very likely to get cervical cancer did not translate into CCS behaviour.

#### **5.3.5 Summary of Barriers to Cervical Cancer Screening**

It was felt that women being less knowledgeable about cervical cancer and lack of publicity about CCS services were the health education related factors that would

prevent women from accessing CCS services. Interestingly, the results also showed that the majority of both urban and rural women felt that none of the factors related to health education, health facility, personal difficulties and family problems would prevent them from attending CCS programs.

In relation to health facility factors preventing women from accessing cervical cancer screening services, few urban (10.8%) and rural (22.7%) women mentioned lack of patient friendly services. Slightly over 11% of rural and 4.5% of urban women mentioned unavailability of CCS services. Long distances were mentioned by 5.4% of urban and 6.1% of rural women. Barriers related to personal difficulties by the rural women included fear. Very few women mentioned embarrassment. Lack of approval by husbands was mentioned by 3.1% of urban and 13.6% of rural women as a family problem preventing women from accessing CCS services.

## **5.4 Recommendations**

### **5.4.1 Increase Accessibility and Coverage of CCS Programs**

Findings in this study have shed more light on the issues contributing to women's uptake of CCS programs. The demographic figures indicate that the majority of the women in the study were aged between 18 and 37 years. The reason for this is that in Malawi, CCS services are integrated with family planning and postnatal services and therefore are only accessible to women of child bearing age who visit these clinics. As a result the older age group may be missed. Thus there is need to find ways to ensure that these services and programs are accessible to everyone, especially at local levels. More effort is still needed to increase coverage so that CCS programs are available to

all women including those in the rural areas, where family planning and post-natal clinics are not easily accessible.

#### **5.4.2 Male Involvement in Sexual and Reproductive Health Issues**

The majority of the women in the study were married. However, in this study, married women were found to be more likely to have a CCS test. On the other hand, this study has also found that “lack of approval by husband” was considered to be a barrier to CCS. This implies that men have an important decision making role in the family, therefore their involvement in sexual and reproductive health issues should be encouraged at all levels so that they can help motivate their partner to attend CCS programs (Claeys et al, 2002).

#### **5.4.3 Improve Girl - Child and Adult Woman Literacy**

In this study few women were educated with more urban than rural women being educated. Education is a key determinant of the life style and status an individual enjoys in a society. It affects many aspects of life, including demographic and health behaviour (NSO, Malawi & ORC Macro, 2005). The Malawi government should therefore emphasize education for the girl child and put in place adult literacy programs for the older woman. However, in this study level of education did not necessarily have a positive influence on CCS behaviour.

#### **5.4.4 Women Empowerment**

The majority (80.1%) of the women were unemployed with more rural than urban women being unemployed. This implies that more rural women were of low socio-economic status which poses financial challenges for women who seek access to CCS

services. Programs to empower women both educationally and economically should therefore be established, especially for women in the rural areas.

#### **5.4.5 Youth Friendly Reproductive Health Services**

The study also revealed that both urban and rural women had commenced sexual intercourse at early ages and had had multiple sexual partners. In view of this, the government of Malawi should introduce and promote reproductive health programs to young people so as to educate them on safe behaviour such as safe sex which will reduce the incidence of sexually transmitted infections including HPV.

#### **5.4.6 Improve Nurse/ Midwife Training and Increase Awareness**

The study demonstrated that many women had heard about cervical cancer yet the majority of the women had a poor knowledge in many aspects of cervical cancer. Variations were also observed in the knowledge of cervical cancer by the women. In view of the knowledge deficit about cervical cancer in the women, there is need for the Ministry of Health to intensify training programs and in-service education so that nurses update their knowledge of cervical cancer and screening so that they disseminate the same type of information. In Malawi, health education is mostly done by nurses therefore nursing curricula must include information on CCS methods. Nurses and midwives need to use every health service / visit opportunity to provide information to women about cervical cancer. The creation of a Women's Health Awareness Day could also go far in spreading information and empowering women in health related matters. Men should be included in such an endeavour.

#### **5.4.7 Further Research**

Further research needs to be undertaken to identify the most effective ways to improve cervical cancer awareness among young girls and women.

#### **5.5 Conclusion**

CCS is very important in the prevention of cervical cancer. This study has demonstrated that the majority of the women did not take up opportunities for CCS tests. This study has also shown that the major barrier to CCS is women's lack of knowledge about cervical cancer and the lack of publicity about CCS services.

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**STRUCTURED INTERVIEW SCHEDULE**

**Section A: Socio-Demographic Data**

1. Tell me how old you are, please. \_\_\_\_\_ (Years)

2. What is your marital status?

**Coding**

Single	<input type="checkbox"/>	1
Married	<input type="checkbox"/>	2
Divorced	<input type="checkbox"/>	3
Widow	<input type="checkbox"/>	4
Living with partner	<input type="checkbox"/>	5

3. Are you employed?

Yes	<input type="checkbox"/>	1
No	<input type="checkbox"/>	2

4. If employed state what type of employment?

Employed full time	<input type="checkbox"/>	1
Unemployed	<input type="checkbox"/>	2
Employed part time	<input type="checkbox"/>	3
Retired/Boarded off	<input type="checkbox"/>	4
Housewife	<input type="checkbox"/>	5
Self employed	<input type="checkbox"/>	6

5. What is your highest level of education?

No Schooling	<input type="checkbox"/>	1
Primary school	<input type="checkbox"/>	2
Junior Secondary school	<input type="checkbox"/>	3
Senior Secondary School	<input type="checkbox"/>	4
University	<input type="checkbox"/>	5

6. To which religion do you belong?

- |                          |                          |         |
|--------------------------|--------------------------|---------|
| Christianity             | <input type="checkbox"/> | 1       |
| Muslim                   | <input type="checkbox"/> | 2       |
| Others (please indicate) | <input type="checkbox"/> | 3 _____ |

**Social Habits**

7. Do you smoke?

- |                               |                          |             |
|-------------------------------|--------------------------|-------------|
| Yes                           | <input type="checkbox"/> | 1           |
| No                            | <input type="checkbox"/> | 2           |
| Stopped smoking<br>ago? _____ | <input type="checkbox"/> | 3 (how long |

8. Do you take any alcohol?

- |   |                          |             |
|---|--------------------------|-------------|
| Yes                                     | <input type="checkbox"/> | 1           |
| No                                      | <input type="checkbox"/> | 2           |
| Stopped drinking alcohol<br>ago?) _____ | <input type="checkbox"/> | 3 (how long |

**Sexual history**

9. How old were you when you had sexual intercourse for the first time?

- |                       |                          |    |
|-----------------------|--------------------------|----|
| 5-9 years             | <input type="checkbox"/> | 1  |
| 10-14 years           | <input type="checkbox"/> | 2  |
| 15-19 years           | <input type="checkbox"/> | 3  |
| 20-24 years           | <input type="checkbox"/> | 4  |
| 25-29 years           | <input type="checkbox"/> | 5  |
| 30-34 years           | <input type="checkbox"/> | 6  |
| 35-39 years           | <input type="checkbox"/> | 7  |
| 40-44 years           | <input type="checkbox"/> | 8  |
| 45-50 years           | <input type="checkbox"/> | 9  |
| Never had intercourse | <input type="checkbox"/> | 10 |

10. Could you please tell me how many sexual partners you have had in your life?

- |              |                          |   |
|--------------|--------------------------|---|
| 1 only       | <input type="checkbox"/> | 1 |
| 2-3          | <input type="checkbox"/> | 2 |
| 4-5          | <input type="checkbox"/> | 3 |
| 6-10         | <input type="checkbox"/> | 4 |
| More than 10 | <input type="checkbox"/> | 5 |

### Reproductive Health History

11. How many times you have been pregnant? \_\_\_\_\_

### Contraception history

12. Have you ever used any contraception method?

- |     |                          |   |
|-----|--------------------------|---|
| Yes | <input type="checkbox"/> | 1 |
| No  | <input type="checkbox"/> | 2 |

13. If yes what type? Indicate all that apply

- |                           |                          |   |
|---------------------------|--------------------------|---|
| Oral contraceptive pills. | <input type="checkbox"/> | 1 |
| Injectables               | <input type="checkbox"/> | 2 |
| Norplant                  | <input type="checkbox"/> | 3 |
| Barrier methods           | <input type="checkbox"/> | 4 |
| Other specify _____       | <input type="checkbox"/> | 5 |

14. If the response to the above question is 1, for how long did you use oral contraception? \_\_\_\_\_ Years

15. Are you currently using oral contraception?

- |     |                          |   |
|-----|--------------------------|---|
| Yes | <input type="checkbox"/> | 1 |
| No  | <input type="checkbox"/> | 2 |

**Section B: Knowledge about Cervical Cancer**

16. Have you ever heard about cancer of the cervix?

- |     |                          |   |
|-----|--------------------------|---|
| Yes | <input type="checkbox"/> | 1 |
| No  | <input type="checkbox"/> | 2 |

17. Do you know what causes cervical cancer?

- |     |                          |   |
|-----|--------------------------|---|
| Yes | <input type="checkbox"/> | 1 |
| No  | <input type="checkbox"/> | 2 |

18. If yes, please indicate what may cause it (you may give more than one answer).

- |                        |                          |   |
|------------------------|--------------------------|---|
| Wart virus             | <input type="checkbox"/> | 1 |
| HIV virus              | <input type="checkbox"/> | 2 |
| Germs                  | <input type="checkbox"/> | 3 |
| Unknown cause          | <input type="checkbox"/> | 4 |
| Don't know             | <input type="checkbox"/> | 5 |
| Others (specify) _____ | <input type="checkbox"/> | 6 |

19. Can you name anything that may put you at risk of getting cancer of the cervix? (You may give more than one answer).

- |                            |                          |   |
|----------------------------|--------------------------|---|
| Early sexual debut         | <input type="checkbox"/> | 1 |
| Multiple sexual partners   | <input type="checkbox"/> | 2 |
| Multiparity                | <input type="checkbox"/> | 3 |
| Low social economic status | <input type="checkbox"/> | 4 |

Human papilloma virus infection	<input type="checkbox"/>	5
HIV infection	<input type="checkbox"/>	6
Smoking	<input type="checkbox"/>	7
Alcohol	<input type="checkbox"/>	8
Age	<input type="checkbox"/>	9
Poor personal hygiene	<input type="checkbox"/>	10
Doesn't know	<input type="checkbox"/>	11
Others	<input type="checkbox"/>	12

20. How can you prevent yourself from getting cervical cancer?

Avoiding early sexual intercourse	<input type="checkbox"/>	1
Being faithful to one sexual partner	<input type="checkbox"/>	2
Using condoms.	<input type="checkbox"/>	3
Not smoking	<input type="checkbox"/>	4
Eating a lot of fruits and vegetables	<input type="checkbox"/>	5
Doesn't know	<input type="checkbox"/>	6
Others (specify) _____	<input type="checkbox"/>	7

21. Which of the following are the ways of detecting cervical cancer early? (Name these tests and get responses).

Visual Inspection with acetic acid	<input type="checkbox"/>	1
Pap smear test	<input type="checkbox"/>	2
Biopsy (surgical operation)	<input type="checkbox"/>	3
HIV testing (VCT)	<input type="checkbox"/>	4
Doesn't know	<input type="checkbox"/>	5

22. What are the benefits of cervical cancer screening?

One gets peace of mind	<input type="checkbox"/>	1
Cancer is discovered early.	<input type="checkbox"/>	2
No benefit at all	<input type="checkbox"/>	3

Other (please specify)  4

**Section C: Behaviour**

23. Have you ever had cervical cancer screening done on you?

- Yes  1  
No  2

24. If yes, when last did you have a test? \_\_\_\_\_ year

25. What are the reasons why you took a screening test?

- To have peace of mind  1  
Because of heavy bleeding  2  
My husband told me to do so  3  
The nurse told me to take a test  4  
Other (please specify) \_\_\_\_\_  5

26. Would you have it done again?

- Yes  1  
No  2

27. If yes why?

- It is a good practice  1  
To promote my personal health  2  
Other ( specify) \_\_\_\_\_  3

28. If no, why?

- I do not have disease symptoms  1  
My husband does not approve  2  
It is an embarrassing test  3  
It is a painful test  4  
Other (Specify) \_\_\_\_\_  5

29. What was your experience of the test?

- |                      |                          |   |
|----------------------|--------------------------|---|
| Painful              | <input type="checkbox"/> | 1 |
| Painless             | <input type="checkbox"/> | 2 |
| Embarrassing         | <input type="checkbox"/> | 3 |
| Other (Specify)_____ | <input type="checkbox"/> | 4 |

30. How likely or unlikely do you think you are to get cervical cancer?

- |                         |                          |   |
|-------------------------|--------------------------|---|
| Very likely             | <input type="checkbox"/> | 1 |
| Likely                  | <input type="checkbox"/> | 2 |
| Neither / could not say | <input type="checkbox"/> | 3 |
| Unlikely                | <input type="checkbox"/> | 4 |
| Very unlikely           | <input type="checkbox"/> | 5 |

31. What are the factors that would encourage you to go for cervical cancer screening?

- |  |                          |   |
|--|--------------------------|---|
| Friendly health personnel                | <input type="checkbox"/> | 1 |
| Less waiting times                       | <input type="checkbox"/> | 2 |
| Availability of resources                | <input type="checkbox"/> | 3 |
| Availability of services all times       | <input type="checkbox"/> | 4 |
| Female health personnel providing        |                          |   |
| Services                                 | <input type="checkbox"/> | 5 |
| Awareness                                | <input type="checkbox"/> | 6 |
| Knowledge of benefits of cervical cancer |                          |   |
| Screening                                | <input type="checkbox"/> | 7 |
| Other (Specify)_____                     | <input type="checkbox"/> | 8 |

**Section D: Barriers to cervical cancer screening**

32a. Which factors related to health education would prevent you from utilizing cervical cancer screening programs?

- |  |                          |   |
|--|--------------------------|---|
| Women being less knowledgeable about cervical cancer       | <input type="checkbox"/> | 1 |
| Lack of publicity about cervical cancer screening services | <input type="checkbox"/> | 2 |
| Other (specify)  | <input type="checkbox"/> | 3 |

32b. Which factors related to personal difficulties would prevent you from utilizing cervical cancer screening programs?

- |                      |                          |   |
|----------------------|--------------------------|---|
| Embarrassment.       | <input type="checkbox"/> | 1 |
| Fear                 | <input type="checkbox"/> | 2 |
| Pain                 | <input type="checkbox"/> | 3 |
| Other (specify)_____ | <input type="checkbox"/> | 4 |

32c .Which factors related to preoccupation with family problems would prevent you from utilizing cervical cancer screening programs?

- |                                     |                          |   |
|-------------------------------------|--------------------------|---|
| Caring for children at home         | <input type="checkbox"/> | 1 |
| Attending to the sick and the aged. | <input type="checkbox"/> | 2 |
| Attending to house chores.          | <input type="checkbox"/> | 3 |
| Lack of approval from husband       | <input type="checkbox"/> | 4 |
| Absence of disease symptoms         | <input type="checkbox"/> | 5 |
| Gender roles                        | <input type="checkbox"/> | 6 |
| Don't have time                     | <input type="checkbox"/> | 7 |
| Other: specify_____                 | <input type="checkbox"/> | 8 |

32d. Which factors related to health facility would prevent you from utilizing cervical cancer screening programs?

- |  |                          |   |
|--|--------------------------|---|
| Lack of patient friendly services                    | <input type="checkbox"/> | 1 |
| Long distances from health care facility             | <input type="checkbox"/> | 2 |
| Unavailability of cervical cancer screening services | <input type="checkbox"/> | 3 |
| Erratic services                                     | <input type="checkbox"/> | 4 |
| Health workers attitude                              | <input type="checkbox"/> | 5 |
| Don't have time                                      | <input type="checkbox"/> | 6 |
| Other (specify)_____                                 | <input type="checkbox"/> | 7 |

STRUCTURED INTERVIEW SCHEDULE

Section A: Socio-Demographic Data

1. Kodi inu muli ndi zaka zingati? \_\_\_\_\_ (Zaka)

2. Kodi muli pa banja?

Coding

- |               |                          |   |
|---------------|--------------------------|---|
| Wosakwatiwa   | <input type="checkbox"/> | 1 |
| Wokwatiwa     | <input type="checkbox"/> | 2 |
| Banja linatha | <input type="checkbox"/> | 3 |
| Wamasiye      | <input type="checkbox"/> | 4 |
| Tidangolwana  | <input type="checkbox"/> | 5 |

3. Kodi mumagwira ntchito?

- |      |                          |   |
|------|--------------------------|---|
| Inde | <input type="checkbox"/> | 1 |
| Ayi  | <input type="checkbox"/> | 2 |

4. Ngati muli pa ntchito fotokozani ntchito yake

- |                                 |                          |   |
|---------------------------------|--------------------------|---|
| Ndimagwira ntchito              | <input type="checkbox"/> | 1 |
| Sindigwira ntchito              | <input type="checkbox"/> | 2 |
| Ndimagwira ganyu                | <input type="checkbox"/> | 3 |
| Ndinapuma /anandichotsa ntchito | <input type="checkbox"/> | 4 |
| Ndine mayi wa pa khomo          | <input type="checkbox"/> | 5 |
| Ndimachita bizinesi yanga       | <input type="checkbox"/> | 6 |

5. Sukulu munalekeza kalasi lanji?

- |                   |                          |   |
|-------------------|--------------------------|---|
| Sindinaphunzire   | <input type="checkbox"/> | 1 |
| Pulayimale sukulu | <input type="checkbox"/> | 2 |
| Folomu 1 ndi 2    | <input type="checkbox"/> | 3 |
| Folomu 3 ndi 4    | <input type="checkbox"/> | 4 |
| Yunivesite        | <input type="checkbox"/> | 5 |

6. Kodi inu muli mpingo uti?

- |                     |                          |   |
|---------------------|--------------------------|---|
| Mkhirisitu          | <input type="checkbox"/> | 1 |
| Msilamu             | <input type="checkbox"/> | 2 |
| Ina_____ (Tchulani) | <input type="checkbox"/> | 3 |

**Social Habits**

7. Kodi mumasuta fodya

- |                       |                          |   |
|-----------------------|--------------------------|---|
| Inde                  | <input type="checkbox"/> | 1 |
| Ayi                   | <input type="checkbox"/> | 2 |
| Ndinasiya kusuta      | <input type="checkbox"/> | 3 |
| (Munasiya liti?)_____ |                          |   |

8. Kodi mumamwa mowa?

- |                       |                          |   |
|-----------------------|--------------------------|---|
| Inde                  | <input type="checkbox"/> | 1 |
| Ayi                   | <input type="checkbox"/> | 2 |
| Ndinasiya kumwa mowa  | <input type="checkbox"/> | 3 |
| (Munasiya liti?)_____ |                          |   |

**Nkhani za mbanja**

9. Chonde mungandifotokozere kuti munayamba kugonana ndi mwamuna muli ndi zaka zingati?

- |                             |                          |    |
|-----------------------------|--------------------------|----|
| 5-9                         | <input type="checkbox"/> | 1  |
| 10-14                       | <input type="checkbox"/> | 2  |
| 15-19                       | <input type="checkbox"/> | 3  |
| 20-24                       | <input type="checkbox"/> | 4  |
| 25-29                       | <input type="checkbox"/> | 5  |
| 30-34                       | <input type="checkbox"/> | 6  |
| 35-39                       | <input type="checkbox"/> | 7  |
| 40-44                       | <input type="checkbox"/> | 8  |
| 45-50                       | <input type="checkbox"/> | 9  |
| Sindinagonanepo ndi mwamuna | <input type="checkbox"/> | 10 |

10. Nanga mwagonana ndi amuna angati mmoyo wanu?

- |                  |                          |   |
|------------------|--------------------------|---|
| Mmodzi yekha     | <input type="checkbox"/> | 1 |
| 2-3              | <input type="checkbox"/> | 2 |
| 4--5             | <input type="checkbox"/> | 3 |
| Kupitilira asanu | <input type="checkbox"/> | 4 |
| Kupitilira khumi | <input type="checkbox"/> | 5 |

**Nkhani za uchembere**

11. Kodi nanga mungandifotokozere kuti mwayimapo mimba maulendo angati? \_\_\_\_\_

**Nkhani ya kulera**

12. Kodi munayamba mwagwiritsako ntchito njira yolera?

- |      |                          |   |
|------|--------------------------|---|
| Inde | <input type="checkbox"/> | 1 |
| Ayi  | <input type="checkbox"/> | 2 |

13. Ngati anagwilitsako, njira zake ziti? Tchulani zonse

- |                  |                          |   |
|------------------|--------------------------|---|
| Mapiritsi        | <input type="checkbox"/> | 1 |
| Jakisoni         | <input type="checkbox"/> | 2 |
| Norplant         | <input type="checkbox"/> | 3 |
| Barrier methods  | <input type="checkbox"/> | 4 |
| Njira zina _____ | <input type="checkbox"/> | 5 |

14. Ngati munagwiritsako mapiritsi ngati njira yolera, munagwiritsa ntchito nthawi yaitali bwanji? \_\_\_\_\_ ( Tchulani zaka)

15. Kodi panopa mukugwiritsabe ntchito njira ya mapiritsi?

- |      |                          |   |
|------|--------------------------|---|
| Inde | <input type="checkbox"/> | 1 |
| Ayi  | <input type="checkbox"/> | 2 |

**Section B: Nkhani zokhudzana ndi matenda a khansa**

16. Kodi munamvapo za matenda a khansa ya khomo la chiberekero cha amayi?

- Inde  1  
Ayi  2

17. Kodi mumadziwa chimene chimayambitsa khansa ya chiberekero?

- Inde  1  
Ayi  2

18. Kodi chimayambitsa Khansa ya khomo la chiberekero ndi chiyani?

- Kachilombo koyambitsa njerewele  1  
Kachilombo ka HIV  2  
Majeremusi  3  
Chimene chimayambitsa sichidziwika.  4  
Sindikudziwa.  5  
Zina (Tchulani) \_\_\_\_\_  6

19. Kodi ndi zinthu ziti mwa izi, zimene zingapangitse kuti mai akhale ndimatenda a khansa ya khomo la chiberekero mosavuta?

- Kuyamba kugonana ndi mwamuna uli ndi msinkhu wochepea  1  
Kugonana ndi anthu ochuluka  2  
Kubereka kwambiri  3  
Umphawi  4  
Kachilombo ka Human papilloma virus  5  
Kachilombo ka HIV  6  
kusuta fodya  7  
Kumwa mowa  8  
Zaka  9

- Kusowa ukhondo wa pathupi  10  
 Sindikudziwa  11  
 Zina (tchulani) \_\_\_\_\_  12

20. Kodi mungapewe bwanji matenda a khansa ya khomo la chiberekero?

- Posagonana msanga ndi amuna.  1  
 Kukhala wokhulupilika kwa mwamuna mmodzi  2  
 Pogwiritsa ntchito ma kondomu  3  
 Posasuta fodya  4  
 Kudya masamba ndi zipatso  5  
 Zina (tchulani)  6

21. Kodi ndi njira ziti zimene zingapangitse kuti khansa yakhomo la chiberekero idziwike mwa msanga?

- VIA  1  
 Pap smear test  2  
 Opaleshoni  3  
 Kuyezetsa matenda a HIV  4  
 Zina Tchulani  5

22. Kodi phindu loyezetsa kuti udziwe ngati uli ndi khansa ya khomo la chiberekero ndi liti?

- Munthu umakhala ndi mtendere  1  
 Khansa imadziwika msanga.  2  
 Palibe phindu lenileni  3  
 Zina tchulani  4

### Section C: Behavior

23. Kodi munayamba mwayezetsapo kuti mudziwe ngati muli ndi khansa ya khomo la chiberekero?

- Yes  1  
 Ayi  2

24. Ngati munayezetsa, munayezetsa liti komaliza? \_\_\_\_\_

25. Chifukwa chiyani munayezetsa ?

- |   |                          |   |
|---|--------------------------|---|
| Kuti ndikhale ndi mtendere              | <input type="checkbox"/> | 1 |
| Chifukwa ndimasamba kwambiri            | <input type="checkbox"/> | 2 |
| Amuna anga anandiuza kuti ndikayezetse. | <input type="checkbox"/> | 3 |
| Anesi anandiuza kuti ndikayezetse       | <input type="checkbox"/> | 4 |
| Zina tchulani                           | <input type="checkbox"/> | 5 |

26. Kodi mudzayezetsanso?

- |      |                          |   |
|------|--------------------------|---|
| Inde | <input type="checkbox"/> | 1 |
| Ayi  | <input type="checkbox"/> | 2 |

27. Ngati mudzayezetsanso, fotokozani chifukwa chiyani

- |                                  |                          |   |
|----------------------------------|--------------------------|---|
| Ndichizolowezi chabwino          | <input type="checkbox"/> | 1 |
| Kuti ndikhale ndi moyo wa thanzi | <input type="checkbox"/> | 2 |
| Zina (tchulani) _____            | <input type="checkbox"/> | 3 |

28. Ngati simudzayezetsansodzayezetsanso, fotokozani chifukwa chiyani? \_\_\_\_\_

- |                                    |                          |   |
|------------------------------------|--------------------------|---|
| Ndiribe zizindikiro za matendawa   | <input type="checkbox"/> | 1 |
| Amuna anga samandiloleza kuyezetsa | <input type="checkbox"/> | 2 |
| Ndizochititsa manyazi              | <input type="checkbox"/> | 3 |
| Ndizopweteka                       | <input type="checkbox"/> | 4 |
| Zina ( tchulani) _____             | <input type="checkbox"/> | 5 |

---

29. Kodi inu pamene munapita koyezetsa khansa yak homo la chiberekero , zinayenda bwanji?

- |                       |                          |   |
|-----------------------|--------------------------|---|
| Zopweteka             | <input type="checkbox"/> | 1 |
| Zosapweteka           | <input type="checkbox"/> | 2 |
| Zochititsa manyazi    | <input type="checkbox"/> | 3 |
| Zina (tchulani) _____ | <input type="checkbox"/> | 4 |

30. Fotokozani za mmene inu mumaonela ; Kodi mumaona kuti mukhoza kudwala matenda a khansa ya khomo la chiberekero kapena ayi?

- |                                  |                          |   |
|----------------------------------|--------------------------|---|
| Ndikhoza kudwala                 | <input type="checkbox"/> | 1 |
| Mwina ndikhoza kudwala           | <input type="checkbox"/> | 2 |
| Sindingathe kunena maganizo anga | <input type="checkbox"/> | 3 |
| Mwina sindingadwale              | <input type="checkbox"/> | 4 |
| Sindingadwale                    | <input type="checkbox"/> | 5 |

31. Kodi ndi zinthu ziti zimene zingalimbikitse amai kuti akayezetse

- |  |                          |   |
|--|--------------------------|---|
| khansa ya khomo la chiberekero?                | <input type="checkbox"/> | 1 |
| Azaumoyo akakhala asangala                     | <input type="checkbox"/> | 2 |
| Nthawi yodikirira chithandizo ikakhala yochepa | <input type="checkbox"/> | 3 |
| Kupezeka kwa zida zogwilitsira ntchito         | <input type="checkbox"/> | 4 |
| Chithandizo chikamapezeka nthawi zonse         | <input type="checkbox"/> | 5 |
| Ngati dotolo oyeza ndi wamkazi.                | <input type="checkbox"/> | 6 |
| Ngati amai ali ndi chidziwitso cha matendawa   | <input type="checkbox"/> | 7 |
| (Tchulani) _____                               | <input type="checkbox"/> | 8 |

**Section AD : Zinthu zomwe zingalepheretse mai kukayezetsa khansa ya mchiberekero**

32a. Kodi ndi zinthu ziti zokhudzana ndi maphunziro a zaumoyo zimene zingakulepheletsani kuti mukayezetse kuti mudziwe ngati muli ndi matenda a khansa ya khomo la chiberekero ?

- |                           |                          |   |
|---------------------------|--------------------------|---|
| Kusadziwa za matendawa    | <input type="checkbox"/> | 1 |
| Kusowa otuza za matendawa | <input type="checkbox"/> | 2 |

32b. Kodi ndi zinthu zANJI zokhudzana ndi zovuta za inu mwini zimene zingakulepheletseni kuti mukayezetse kuti mudziwe ngati muli ndi matenda a khansa ya khomo la chiberekero ?

- |                 |                          |   |
|-----------------|--------------------------|---|
| Manyazi         | <input type="checkbox"/> | 1 |
| Mantha          | <input type="checkbox"/> | 2 |
| Ululu           | <input type="checkbox"/> | 3 |
| Zina (tchulani) | <input type="checkbox"/> | 4 |

32c. Kodi ndi zinthu zANJI zokhudzana ndi zovuta za m'banja zimene zingakulepheletseni kuti mukayezetse kuti mudziwe ngati muli ndi matenda a khansa ya khomo la chiberekero ?

- |  |                          |   |
|--|--------------------------|---|
| Kusamalira ana pa khomo                  | <input type="checkbox"/> | 1 |
| Kusamalira matenda ndi okalamba pakhomo. | <input type="checkbox"/> | 2 |
| Kugwira zintchito za pa khomo            | <input type="checkbox"/> | 3 |
| Amuna anga sandiloleza kukayezetsa       | <input type="checkbox"/> | 4 |
| Ndiribe zizindikiro za matenda           | <input type="checkbox"/> | 5 |
| Ntchito zina za mzimayi                  | <input type="checkbox"/> | 6 |
| Ndiribe nthawi yokayezetsa               | <input type="checkbox"/> | 7 |
| Zina (Tchulani)_____                     | <input type="checkbox"/> | 8 |

32d. Kodi ndi zinthu ziti zokhudzana ndi chipatala zimene zingakulepheretseni kuti mukayezetse kuti mudziwe ngati muli ndi matenda a khansa aya khomo la chiberekero ?

- |   |                          |   |
|---|--------------------------|---|
| Achipatala alibe chikondi ndi odwala awo.     | <input type="checkbox"/> | 1 |
| Zipatala zili malo akutali                    | <input type="checkbox"/> | 2 |
| Tilibe malo amene tikhoza kukayezetsako       | <input type="checkbox"/> | 3 |
| Chithandizo sichipezeka nthawi zonse          | <input type="checkbox"/> | 4 |
| Mtima wosafuna kugwira ntchito wa achipatala. | <input type="checkbox"/> | 5 |



RESEARCH OFFICE (GOVAN MBEKI CENTRE)  
WESTVILLE CAMPUS  
TELEPHONE NO.: 031 - 2603537  
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9 SEPTEMBER 2008

MRS. M KAMPHINDA-BANDA (207520929)  
NURSING

Dear Mrs. Kamphinda-Banda

**ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0704/07M**

I wish to confirm that ethical clearance has been approved for the following project:

*"Barriers to cervical cancer screening uptake among urban and rural women in Blantyre District, Malawi"*

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years

Yours faithfully

  
.....  
**MS. PHUMELELE XIMBA**

cc. Supervisor (Prof. P McInerney)  
cc. Mr. S Reddy



UNIVERSITY OF MALAWI

Principal  
Faculty of Health Sciences  
Blantyre

Dr. M. M. M. M.  
Blantyre  
Malawi

20th February 2008

Mrs. M. M. M. M.  
Blantyre

Dear Mrs. M. M. M. M.

RE: P.12/07/003 – Barriers to cervical cancer screening among urban and rural women in Blantyre district, Malawi

I write to inform you that the Faculty of Health Sciences has approved your application for admission to the Faculty of Health Sciences with a view to pursuing a PhD in January 2008.

As you are familiar with the stipulations of your study, it would be for you to take note that the requirements of the college are fulfilled as indicated on the attached page.

Please note that the above information has been received by the Faculty of Health Sciences.

Yours faithfully,  
  
Dr. M. M. M. M.  
CHAIRMAN COMREC

Telephone: (265) 01 874 333 / 677 333  
 Facsimile: (265) 01 876928  
 Email: [queenshosp@globemw.net](mailto:queenshosp@globemw.net)



In reply please quote **No.**

QUEEN ELIZABETH CENTRAL HOSPITAL  
 P.O. BOX 95  
 BLANTYRE  
 MALAWI

All communications should be addressed to:  
 The Hospital Director

**Ref : QE/TR/11**

4<sup>th</sup> January, 2008

TO : Mary Kamphinda - Banda  
 Kamuzu College of Nursing  
 P.O. Box 415,  
**BLANTYRE.**

Dear Sir,

**PERMISSION TO CONDUCT RESEARCH AT THE QECH CHATINKHA  
 MATERNITY WING**

With reference to your letter dated 3<sup>rd</sup> January, 2008 in which you requested for permission to conduct a study on barriers to cervical cancer screening programs among urban and rural women in Blantyre District, Malawi

I would like to inform you that we have no objection for you to conduct the mentioned study.

Report to the Matron In-charge of Chatinkha Maternity wing Department.

We will appreciate if a copy of your findings is shared with the hospital.

All the best in your studies

Yours faithfully,

A handwritten signature in black ink, appearing to read 'T.N. Soko'.

T.N. Soko (Mrs)

**CHIEF NURSING OFFICER**



Tuesday, January 22, 2008

MRS MARY KAMPHINDA - BANDA  
C/O KAMUZU COLLEGE OF NURSING  
P.O. BOX 415,  
BLANTYRE

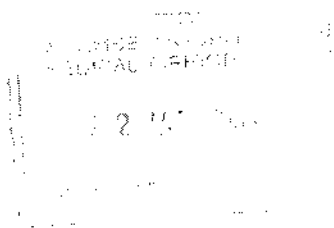
Dear Sir,

**LETTER OF ACCEPTANCE FOR DATA COLLECTION TOWARDS AN MSc  
IN NURSING**

With reference to your letter dated 7<sup>th</sup> January, 2008 concerning the above subject, I am pleased to inform you that you have been accepted to collect data at Mlambe Hospital towards your Master of Science (MSc) degree in Nursing on barriers to Cervical Cancer Screening Programmes.

Yours faithfully,

**DR. M. D. CHIRWA**  
**MEDICAL DIRECTOR**



## APPENDIX G

### **Participant Information Sheet**

**Study Title:** Barriers to cervical cancer screening programs among rural and urban women in Blantyre district, Malawi

#### **Investigator:**

Mrs. Mary Kamphinda-Banda, DipN, UCM, BScN

#### **Supervisor:**

Professor Patricia McInerney, PhD  
University of KwaZulu-Natal, Howard College Campus, Faculty of Health Sciences,  
4041 Durban, South Africa  
Telephone: +27-031-260-2497  
Email: [mcinerneyp@ukzn.ac.za](mailto:mcinerneyp@ukzn.ac.za)

I understand that I have been invited to participate in a study that is being conducted by Mary Kamphinda-Banda a student at the University of KwaZulu Natal, Durban, South Africa. This study is exploring barriers to cervical cancer screening among rural and urban women in Blantyre district, Malawi. This study is being conducted in fulfilment of her Masters Degree program.

I also understand that I have been selected to participate in the study because of my attendance at the reproductive health clinic. My role in this study is to participate in a face to face interview which will last for about 20 to 30 minutes and my responses will be written down on paper with my permission

I have been assured that all measures will be taken to ensure that all information that will be gathered from the interview will be kept confidential. In addition, information collected will be kept securely in locked filing cabinets where no one else apart from the researcher and her supervisor will have access. Codes instead of names will be used on the questionnaires. The conduct of this research will be implemented according to the requirements of the University of KwaZulu Natal Ethics Committee and the College of Medicine Ethics Committee, Malawi.

I also understand that my participation in this research is entirely voluntary. I have the right to decline to participate and this will not affect me in any way. I am free to withdraw from the study at any time or to withdraw any statement provided before data are analysed and to decline to respond to any question I do not wish to answer. If I discontinue my participation in the study, I will continue to be treated in the usual and customary fashion at the clinic.

I am aware that some questions may be too sensitive however, I have been assured that no information will be divulged to other people.

I understand that there are no direct benefits in participating in this research. However, findings of this study will broaden your understanding of the problems women face in seeking cervical cancer screening programmes.

I have also been informed that if I am not convinced with the conduct of the study I can present my complaints to the Chairperson, College of Medicine Research and Ethics Committee (COMREC). I have also been informed that if I need further information or clarification I can contact the researcher at the following address: Kamuzu College of Nursing, Blantyre Campus, P.O. Box 415, Blantyre, Telephone Numbers: 01675341(0), 08821905 (Mobile). Email address: [mkamphinda@kcn.unima.com](mailto:mkamphinda@kcn.unima.com) or [207520929@ukzn.ac.za](mailto:207520929@ukzn.ac.za)

## APPENDIX H

### PARTICIPANT INFORMATION SHEET

**Mutu wa kafukufuku:** Kafukufuku wofufuza zinthu zimene zimalepheretsa amai kupita kukayezetsa khansa ya khomo la chiberekero pakati pa amai a mtauni ndi a mmidzi mboma la Blantyre, ku Malawi

**Mkulu wa kafukufuku:**

Mary Kamphinda-Banda, DipN, UCM, BScN

**Mkulu woyang'anira kafukufuku:**

Professor Patricia McInerney, PhD

University of KwaZulu-Natal, Howard College Campus, Faculty of Health Sciences  
4041 Durban, South Africa

Telephone: +27-031-260-2497

Email: [mcinerneyp@ukzn.ac.za](mailto:mcinerneyp@ukzn.ac.za)

Ine ndi kuvomereza kutenga nawo mbali pa kafukufuku amene cholinga chake ndi kufufuza zinthu zomwe zimalepheretsa amai kuti akayezetse khansa ya khomo la chiberekero. Ndikuzindikira kuti kafukufukuyi ndi gawo limodzi la maphunziro amene Mary Kamphinda-Banda akuchita ku sukulu ya ukachenjede ya KwaZulu Natal ku South Africa.

Ine gawo langa pakafukufuku ameneyi ndi kukhala nawo pazokambirana za mmodzi mmodzi. Ndafotokozeredwa kuti zokambirana zathu zidzatenga nthawi yokwanira mphindi makumi awiri kapena atatu ndiponso kuti ngati nditagwirizana nazo

zokambirana zimenezi zidzalembedwa pa pepala pofuna kuthandizira kuti zokambiranazi zisayiwalidwe.

Ine ndatsimikirizidwa kuti zokambirina zathuzi zikhala zachinsinsi. Amene akuchita kafukufukuyi sadzawulula zokambirana zathuzi kwa munthu wina aliyense, ndiponso adzawonetsetsa kuti dzina langa silinalembedwe pena paliponse. Mmalo mwake nambala idzagwiritsidwa ntchito pazolembe zina ziri zonse. Adzawonetsetsanso kuti zolembedwa zonse zokhudzana ndikafukufukuyi zikusungidwa pamalo obisika, mukabathi momwe wina aliyense sangatsegule kupatulako iwowo ndi amene akuwayang'anira. Kuwonjezera apo kafukufuku ameneyu adzatsatira ndondomeko zonse zovomerezeka ndi bungwe loyang'anira kafukufuku wa zaumoyo lakuno kwathu ngakhalenso lakusukulu kumene akuphunzira mogwirizana ndi ndondomeko yakafufuku zimene zimayang'anira ndi kuteteza ufulu wa anthu amene akutenga nawo mbali pakafukufuku.

Ine ndikudziwa kuti sindili wokakamizidwa kutenga nawo mbali pakafukufuku ameneyu. Ndili ndi ufulu wonse wakukana kapenanso kuvomera kutenga nawo mbali. Kukana kwanga kapena kuvomereza kwanga kutenga nawo mbali sikudzapangitsa kusintha kwa mmene ine ndimalandilira thandizo ku chipatala chino. Komanso ndiri ndi ufulu wotha kusintha maganizo anga a kutenga nawo mbali ngakhale nditavomereza kale kutero, ngakhalenso kusintha zina titakambirana kale. Ndilinso ndi ufulu wokana kuyankha funso lina lirilonse limene sindilikumasuka nalo ndikufunsitsa pamene sindikumvetsa bwino.

Ine ndikuzindikira kuti kafukufukuyi ndiwopanda phindu lenileni kwa ineyo koma ndikudziwa kuti zotsatira zakafukufukuyi ziwonjezera kuzindikiritsa anthu ndi boma za zosowa/zovuta zimene zimalepheretsa amayi kukayezetsa khansa ya pa khomo kapena njira ya chiberekero. Ine ndikudziwanso kuti mafunso ena ndiwokhudza zinsinsi za moyo wanga. Izi zidasungidwa mwachinsinsi ndithu.

Ine ndapatsidwanso adiresi ya iwo amene akuchita kafukufukuyi kuti ngati ndingakhale ndi mafunso ena kapena nditafuna kudziwa zina zochuluka ndingathe kuwafunsa kapena

kuwapeza kusukulu ya anamwino ya Kamuzu College of Nursing, Blantyre Campus, P.O. Box 415, Blantyre. Telephone Numbers: 01675341(0), 08821905 (Mobile). Email address: [kamphinda2000@yahoo.co.uk](mailto:kamphinda2000@yahoo.co.uk) or [mkamphinda@kcn.unima.mw](mailto:mkamphinda@kcn.unima.mw)

Ine ndatsimikirizidwanso kuti ngati sindikukhutira ndimmene kafukufukuyi akuyendera ndikhale omasuka kukapereka zodandaulazo kwa mayi Address Malata amene akundiyang'anira kuti kafukufukuyi ayende bwino komanso mutha kudziwitsanso komiti ya ethics (COMREC).

**APPENDIX I**

**CONSENT FORM**

I .....hereby confirm that I understand the contents and the nature of this document and the nature of the research project, and I consent that you interview me.

I understand that I am at liberty not to answer some questions or withdraw from the study at any time, should I so desire.

Signature of participant: \_\_\_\_\_

Date: \_\_\_\_\_

**THANK YOU FOR PARTICIPATING IN THIS STUDY**

## APPENDIX J

### KALATA YA CHILOLEZO

Ine .....ndikutsimikiza kuti ndamvetsetsa ndondomeko yonse imene yafotokozeredwa yokhudzana ndi kafukufukuyu. Komanso ndikuzindikira kuti ndiri ndi ufulu kusayankha ena mwa mafunso amene ndingafunsidwe.Ndikuzindikiranso kuti ndiri ndi ufulu kutuluka mukafukufukuyu ngati nditafuna kutero.

Posayina mai: \_\_\_\_\_

Tsiku: \_\_\_\_\_

**ZIKOMO CHIFUKWA CHAKUTENGA NAWO GAWO MU KAFUKUFUKUYU.**