

**FACTORS INFLUENCING UTILIZATION OF  
CERVICAL CANCER SCREENING SERVICES BY  
WOMEN AT SELECTED CLINICS OF LUSAKA  
URBAN DISTRICT OF ZAMBIA**

A Dissertation submitted to the university of Zambia in partial fulfilment of  
the requirements for the master of science degree in community health  
nursing sciences

by

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**NOVEMBER, 2017**

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I, Wanga Zulu, declare that this dissertation is my own work and that all the sources I have quoted have been indicated and acknowledged using complete references. I further declare that this dissertation has not been previously submitted for a diploma, a degree or any other qualification at this or any other university. It has been written in accordance with the guidelines for masters of Science in nursing degree dissertation of the University of Zambia.

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## **CERTIFICATE OF APPROVAL**

The University of Zambia approves this dissertation of Wanga Zulu on factors influencing utilization of cervical cancer screening services by women at selected clinics of Lusaka urban district in partial fulfilment of the requirements for the award of the degree of Master of Science in Community Health Nursing.

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## ABSTRACT

Zambia has one of the highest cervical cancer incidence and mortality rates in the world due to under-utilization of cervical cancer screening service (CCSS). Lusaka urban district is privileged to have a lot of screening centres, yet the debate is whether, having the screening programme, has impacted on all women aged 18 years and above, as low utilisation rates have been recorded. It is evident from the statistics that women in Lusaka have not been utilizing the service, as the number of women who so far have accessed the service is still very low, at about 3% coverage. The aim of this study was to evaluate the factors that influence utilization of cervical cancer screening services by women in Lusaka urban district.

This study was a non-interventional, descriptive cross-sectional study comprising of 368 respondents from four clinics. A multi stage sampling technique was used where the study population of women were chosen using the simple random sampling technique. The clinics were chosen using the fishbowl technique of sampling. The data was collected using a semi structured interview schedule. Data was processed and analysed using Statistical Package for Social Sciences (SPSS) version 22. Descriptive statistics was used to describe data. Furthermore, chi-square test was used to test associations between the outcome variable (utilisation) and other independent variables. The statistical significant level was set at confidence interval of 95%. Logistic regression analysis was also performed. The study, established that most respondents, 313 (84.6%) had heard of cervical cancer screening before but only 26% out of the 84.6% knew what it was. However, 148 (40%) had utilised the service before, of these 7 (5%) respondents went for screening willingly and 141 (95%) screened after observing a problem. In-line with attitudes 250 (67.9%) respondents were not interested in screening. Cultural beliefs, busy schedules and fear were the most common reasons women gave for not screening.

There was an association found between utilisation and social demographic characteristics such as education level, age and employment status, with p values of 0.05, 0.008 and 0.003 respectively.

Possible interventions included, good prompt and creative health education as important activities that should be rendered to all women. However, the study discovered that the knowledge levels of the women were low in relation to the utilization levels. There is need, therefore, to intensify efforts on promoting awareness towards cervical and screening of cervical cancer. When cervical cancer is found early, it is highly treatable and associated with long survival and good quality of life.

**Keywords:** Attitude, Cervical cancer screening, Knowledge, Utilization and Women.

## DEDICATION

This dissertation is dedicated to my husband Maron Mubanga who has always encouraged me to work hard in my postgraduate studies and for the financial support he offered. I also dedicate it to our daughters and son; Mulenga, Musonda and Maron for their moral support.

My mum, Phoebe Katana, who educated and taught me to give my best in all that I do in life however difficult.

To my only brother Godfrey Zulu, my sisters Susan Zulu, Posile Zulu, and Namwila Nalomba I say ‘thank you’ immensely I know you are very proud of my achievements.

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## LIST OF ABBREVIATIONS

CC	Cervical Cancer
CCSS	Cervical Cancer Screening Services
CDC	Centre of Disease Control
CIDRZ	Centre for Infectious Disease Research in Zambia
CIN	Cervical Intra Epithelial Neoplasm
HPV	Human Papillomavirus
ICC	Invasive Cervical Cancer
MoH	Ministry of Health
NGO	Non-Governmental Organization
PRRR	Pink Ribbon Red Ribbon
VIA	Visual Inspection with Acetate
WHO	World Health Organization

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

This study focuses on factors influencing utilization of cervical cancer screening services by women at selected clinics of Lusaka urban district. Cervical cancer screening involves testing apparently healthy women for signs indicating the development of cancer of the cervix (World Health Organisation (WHO), 2014; Centre for Infectious Disease Research in Zambia (CIDRZ), 2014). This explains that cervical screening is a way of preventing cervical cancer by finding and treating early changes in the cervix. This chapter will look at the background information, Statement of the problem, study justification, theoretical/conceptual frame work, research objectives, research question, study hypothesis, conceptual definition of terms, operational definition of terms, literature review and variables and cut off points.

### **1.2 Background Information**

Cervical cancer is the easiest gynaecologic cancer to prevent, with regular check-ups, screening tests and follow-ups (Centre of Disease Control (CDC), 2013). Cancer of the cervix is the major gynaecological health problem that has been on the increase and remains a leading cause of death among all cancers (WHO, 2013).

Cancer of the cervix is staged from 0 to IV, the lower the number, the less the cancer has spread. Stage 0 is the precancerous, Stage I (one) is the earliest stage and is the easiest to cure while stage IV (four) is the most advanced stage indicating that the cancer has spread to other parts of the body. The cure rate for stage I cancer is 85% to 90%, while the cure



rate for stage IV cancer is only 5% to 10%. Invasive cancer of the cervix is treated with surgery, or radiation therapy and chemotherapy (Chirenje et al., 2012).

A growing body of evidence (Balogun et al., 2012; WHO, 2013) has demonstrated that women can effectively be screened and clinically managed for cervical cancer using non-cytological modalities. Several screening tests exist and these include, conventional cytology, liquid-based cytology, Human Papilloma Virus (HPV) Deoxyribonucleic Acid (DNA) testing and the Visual Inspection with Acetate (VIA) (WHO, 2014; CDC, 2014). Visual inspection test includes naked eye inspection with or without acetate, visual inspection using magnification devices or after the application of Lugols iodine respectively (WHO, 2014). Zambia, being a developing country, has adopted a cheaper but effective techniques for screening of cervical cancer called Visual Inspection with Acetate. VIA has been adopted in the “see and treat” methods that are less infrastructure-dependent (Balogun et al., 2012; WHO/ICO, 2013). Cervical cancer screening services in Zambia were initially meant for Human Immuno-Deficiency Virus (HIV) positive women but due to the increased burden the service has been made available for every woman who needs to screen yearly (CDC, 2014). VIA is a recommended immediate diagnostic method to treat patients in a country with very few and less skilled clinicians (WHO, 2010). The debate now is whether, having launched the screening programme in most peri-urban areas has been utilised by women in a reproductive age group (between 15 and 49 years old) in responding to actual accessing of the CCSS (WHO, 2010). A world-wide pandemic of underutilizing cervical cancer screening services especially in developing countries has been established by various studies (WHO, 2010; CDC, 2012; CIDRZ, 2014).

Globally, an estimated 500,000 women are diagnosed with cervical cancer and over 250,000 die from it each year, more than 80% of women residing in resource-limited settings that have access to less than 5% of global health resources (Balogun et al., 2012; WHO/ICO, 2013). Zambia has the second highest incidence of cervical cancer globally (Bateman et al., 2015). Cervical cancer ranks as the most frequent cancer among women between the ages

of 15 and 44. In Zambia, current estimates indicate that every year 1,839 women are diagnosed with cervical cancer and 1,276 die from the disease (WHO/ICO, 2010).

In order to mitigate the impact of CC, Lusaka urban district under MOH and the Centre for Infectious Disease Research in Zambia (CIDRZ) have undertaken measures such as training of Health workers to diagnose, treat CC and developed community programmes to educate the community about CC (CIDRZ, 2014). Amongst the notable achievements done towards the CCSS were; Zambia introduced free CCSS in January, 2006, construction of referral hospital for Cancer Disease and Pink Ribbon Red Ribbon (PRRR) in December 2011 with a vision to ensure that all women and girls have access to high quality prevention for CC (CIDRZ, 2014; CDC, 2014; CDC, 2013).

While access to effective and affordable screening and treatment services is of central importance in the prevention of cervical cancer, most African countries have recorded the lowest utilization rates of CCSS. The barriers to cervical cancer screening in Africa vary between and within countries. Sub-Saharan Africa hosts 12% of the world's population but accounts for 20% (57,000) of estimated cervical cancer-related deaths (CIDRZ, 2014). It is believed that Sub-Saharan Africa has some of the highest cervical cancer-related mortality rates in the world (Campos et al., 2012).

Like most African countries, Zambia experiences the same barriers other countries are experiencing (Balogun et al., 2012; WHO/ICO, 2013). The few screening programmes available are only confined to a few districts, making it difficult for other women especially those in hard to reach places to access, even though they are aware of this service. Women's knowledge of cervical cancer as a disease and cervical cancer screening has been found to influence the decision to be screened. Previous report showed that the greatest risk for cervical cancer was the women's lack of knowledge on prevention methods and ability to recognize the signs of the disease (Campos et al., 2012). Furthermore, the report stated that no women can prevent any disease and use available screening opportunities if she does not know about the disease (Maree, et al., 2012). Lack of awareness and deep-seated stigma associated with the disease also poses significant barriers to accessing this service (WHO,

2013). Unfortunately, due to lack of knowledge and a lot more barriers, only 5% of women in developing countries undergo screening for cervical cancer compared to over 40% in developed countries, and 70% or higher in countries that have shown marked reduction in incidence and prevalence of cervical cancer (CDC, 2013; Balogun et al., 2012; WHO/ICO, 2013). Thus, it can be speculated that there are a number of factors that may influence a woman's ability and desire to participate in cervical cancer prevention programmes, and has an impact on a woman's decision-making process. It is therefore essential that cervical cancer prevention efforts eliminate the most critical barriers that influence women's participation, as well as identify and foster conditions that support their use of services.

### **1.3 Statement Problem**

Reports from Ministry of Health (MOH) and its collaborative partners such as CDC have shown that the incidence and prevalence of cervical cancer are on an increase at about 82% and most women report late for treatment. Screening program utilisation can be improved with adequate emphasis on the sensitisation and aggressive marketing of the service (Zvavahera *et al.*, 2012; WHO, 2012). WHO has shown that in Zambia the mortality rate of cervical cancer stands at 38.6 per 100,000, though; clinically the death rate is even higher with 1,600 deaths out of 1,800 new cases of cervical cancer every year. In 2010, the Zambian female population was 6,600,000 and in 2010 to 2015 only about 189,000 Zambian women had utilised CCSS country wide (WHO, 2013). Table 1.1 below shows the population of women in Lusaka urban district from study sites 194789 (Lusaka district health office, 2015). In 2013 only 2,896 (1.486%) of women screened for cervical cancer In 2014, 6,665 (3.422) women, and in 2015, 2,609 (1.339%) of women screened for cervical cancer.

**Table 1.1 Showing number of women from Kanyama, Kalingalinga, Mtendere, and Chawama who were screened for Cervical Cancer - 2013-2015**

<b>Year</b>	<b>Total Study Site Pop</b>	<b>Total Study Site Screened</b>	<b>Percentages (%)</b>
2013	194789	2896	1.5
2014	194789	6665	3.4
2015	194789	2609	1.3
<b>Total</b>	194789	12170	6.2

Source: Lusaka District Medical Health Information System (LDMHIS), 2015.

Table 1.1 shows low utilisation (12,170 /194,789 (6.2%) of CCSS between 2013- 2015. Between 2014 -15, the coverage varies from 1.5% to 3.4%. Every woman (above 15 year of age) is supposed to utilise the service since every woman has a potential risk of developing CC. Not utilising this service result in women reporting late or with advanced cancer of the cervix which is very difficult to cure.

The above statistics has shown that most of the women in Zambia have not been utilizing CCSS. However, the proportion of women who accessed the service is still very low at about 3% of the women population in Lusaka district. Despite Lusaka district having 14 cervical cancer screening centres, women utilising these services remain low.

#### **1.4 Study Justification**

Cervical cancer screening is an important determinant of cervical cancer prevention (WHO, 2010). Numerous tools and technologies exist to prevent cervical cancer but these interventions remain largely inaccessible to girls and women who need this service (WHO,

2013). Countries which effectively use CCSS have shown a decrease in cervical cancer cases. Britain is one of the countries with effective screening that prevents around 4,500 cervical cancer cases annually when it is still easily treatable (WHO, 2012). However, the current coverage in Zambia is low at about 5% (MOH, 2010). Cancer Diseases Hospital (CDH) has recorded 491 new cervical cancer cases for the period between 2013 and 2015, and more than 50% of these clients presented in either the 3rd or 4th stage of the disease.

Therefore, screening of cervical cancer should be encouraged as an ongoing exercise so that the disease burden may be drastically reduced and eventually curbed. Early diagnosis of cervical cancer in women is paramount in the prevention of disease (Zvavahera *et al.*, 2012). The previous studies (Mkumba *et al.*, 2013, Mulonda, 2013 WHO/ICO, 2013) have shown that they are gaps on the factors influencing utilization of CCSS coupled with scarce information on this area of study. Therefore, this study will assist to generate data as a basis for subsequent studies and interventions by health care workers and Non-Governmental Organizations (NGO) to identify various factors that hinder women from utilizing CCSS. The information that will be collected in this study will further help reduce mortality among women as it will inform the policy makers on how to increase women's and the community's knowledge on CC (Balogun *et al.*, 2012; WHO/ICO, 2013).

## **1.5 Conceptual Framework / Theoretical Framework**

The researcher used the health promotion model.

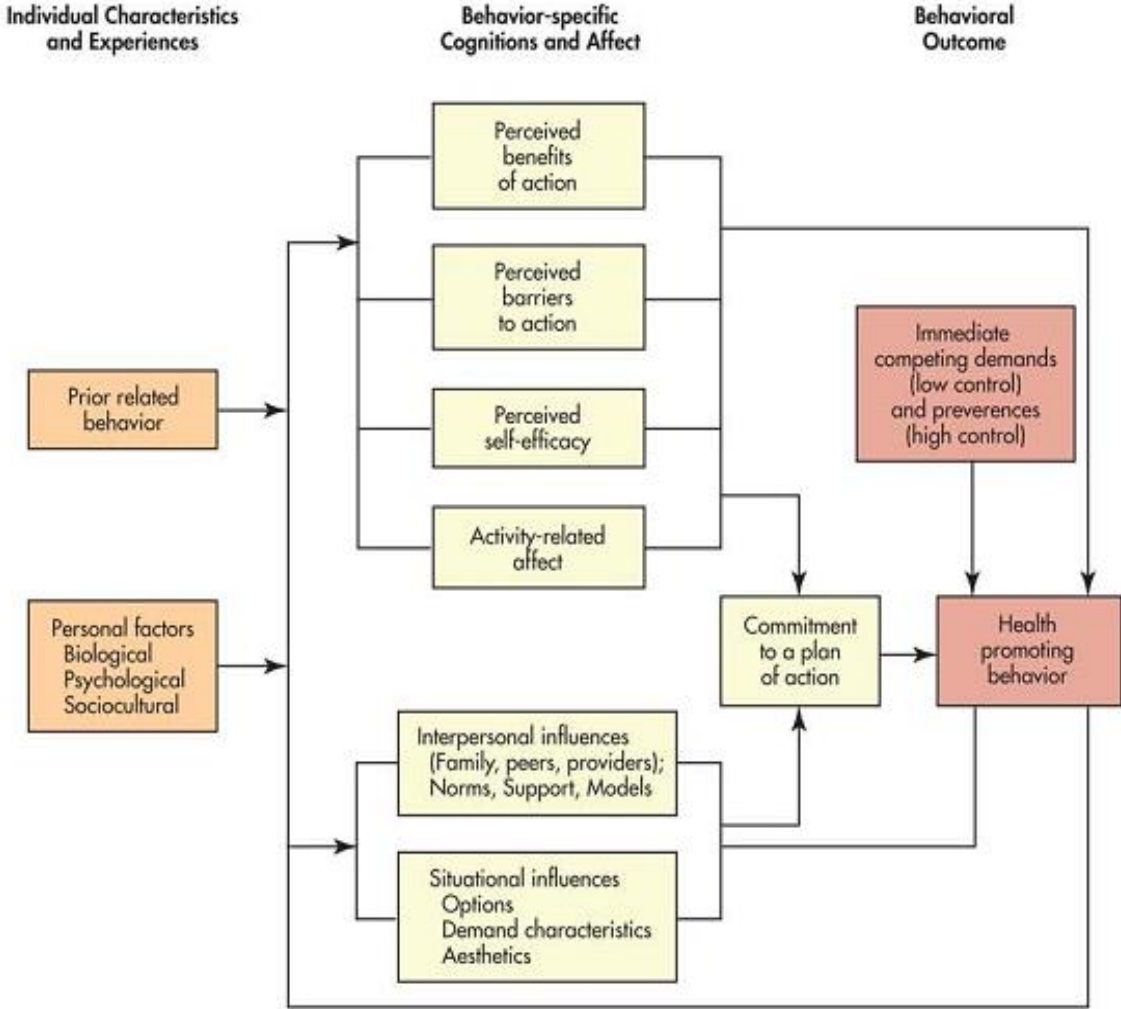
Pender's Health Promotion Model (HPM) (first formulated in 1982 and then revised in 1996) is an explanatory model of health behaviour that emphasizes the role of expectations in the shaping of behaviour (Pender, 1996; Pender *et al.*, 2006). The greater a person's self-efficacy or perceived competence for a behaviour, the more likely the person will commit to action and actually carry out this behaviour (Peterson & Bredow, 2008). The Health Promotion Model is widely used in nursing to guide individual as well as societal behaviours toward healthy lifestyles (McCullagh, 2009). The model has direct applicability for

integrating individuals, communities, and public policies in the promotion of health (Pender, Murdaugh, & Parsons, 2011).

The HPM allows nurses to explore “the complex bio psychosocial processes that motivate individuals to engage in behaviours directed toward the enhancement of health” (Pender et al., 2006: p. 47). The HPM focuses on three areas: individual characteristics and experiences; behaviour-specific cognition and affect; as well as behavioural outcomes (Pender, 1996). The set of behaviour-specific variables, which constitutes a critical “core” of the intervention, can be modified through nursing actions. These six variables are: perceived benefits of action, perceived barriers to action, perceived self-efficacy, and activity related affect, interpersonal influences, and situational influences.

These variables are elaborated further in table 1. “Measuring changes in these variables is essential to determine if such changes actually result from the intervention and, in turn, influence changes in commitment or in the occurrence of health-promoting behaviour” (Pender et al., 2006: p. 52). The model also includes the concepts of “adherence to the action plan” and “meeting the urgent requests and preferences” (Pender et al., 2006). In the HPM, nurses play a central role in helping clients to “shape a positive behavioural history for the future by focusing on the benefits of a behaviour, teaching clients how to overcome hurdles to carrying out the behaviour, and engendering high levels of efficacy and positive affect through successful performance experience and positive feedback” (Pender *et al.*, 2006: p. 52). The model is based on the premise that unique and dynamic interactions of the individual and their environment affect one’s holistic state of health. Health is conceptualized along a continuum, with interventions having the capacity to either promote health or detract from it. The best methods for promotion of health on an individual level take into consideration the unique aspects of the individual and their environment (McCullagh, 2009).

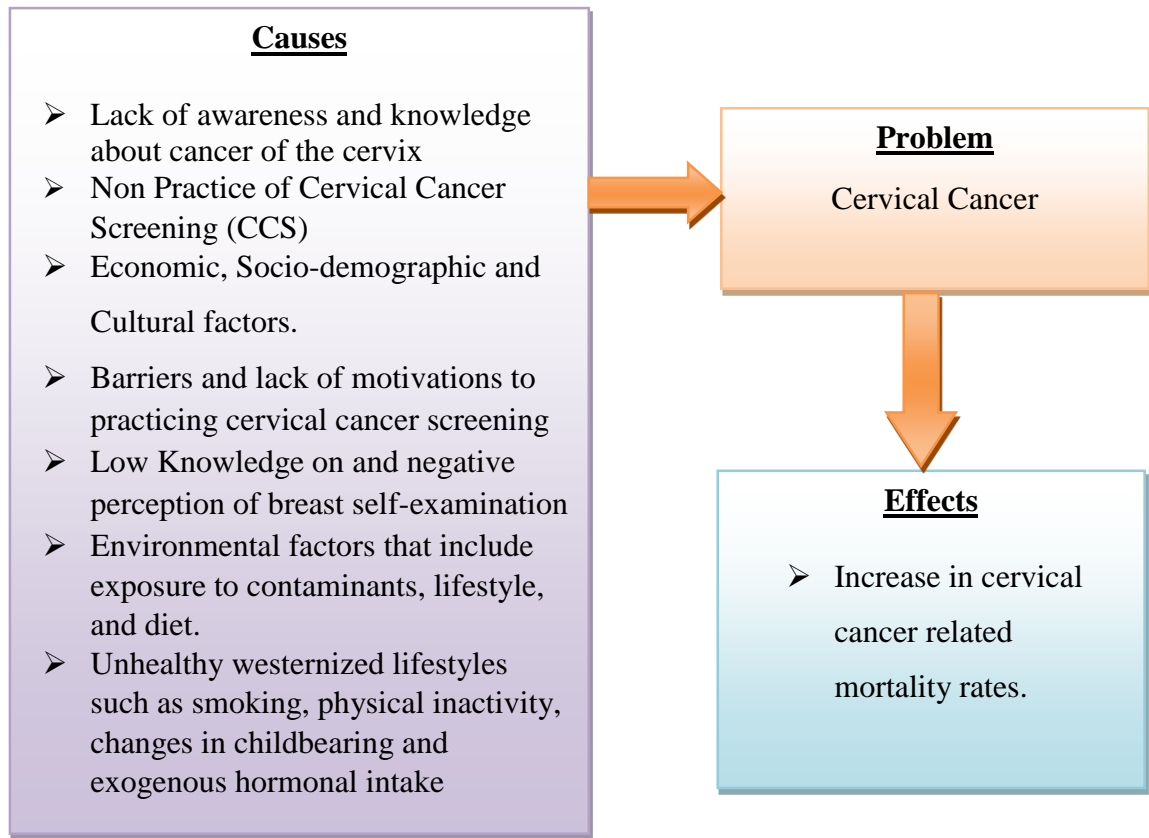
**Figure 1.1 Conceptual Framework**



Source: Pender (2009)

### 1.5.1 Modification of the Pender Health Promotion Model

Figure 1.2 Modification of the Pender Health Promotion Model



### 1.5.2 Application of the Health Promotion Model

The Health Promotion Model (HPM) provided the theoretical framework for this study. The three components of the model guided this research during questionnaire formulation, relevant concepts helped to explain the phenomenon of behaviour surrounding cervical cancer screening and promote healthy behaviours. The three components included: individual characteristics and experiences; behaviour-specific cognition and affect; as well as behavioural outcomes. Penders health Promotion Model is applicable to this study in regards to the focus on health as opposed to illness along with the inclusion of the perspective of the individual in regards to the meaning of health (Agency for Healthcare



Research and Quality, 2012). Primary prevention includes educational interventions to improve beliefs and attitudes toward habits of preventative health. Secondary prevention is exemplified through early detection of cervical cancer via cervical cancer screening. A positive cervical cancer screening result should not be considered a shift to illness or lack of health, but rather, an extension of health that necessitates alternative interventions and draws upon the resources and capabilities of the individual. McCullagh, 2009 indicates that adherence to cervical cancer screening recommendations is strongly influenced by the attitudes and input of family, spouse, and friends. This is congruent with Pender's model, which addresses the importance of satisfying relationships and maintaining harmony with the environment as well as health promotion toward the family and the community for successful outcomes

The assumptions and propositions of the Health Promotion Model are relevant to cervical cancer screening in that many of the barriers limiting screening are validated by the theoretical assumptions described by Pender. An important component of adherence to cervical cancer screening entails understanding the process and implications of the screening. In congruence with this factor, the HPM incorporates Bandura's (1986) social cognitive theory and self-efficacy (McCullagh, 2009). According to Pender, self-efficacy, or the perceived ability to perform a behaviour, has a direct correlation with that particular behaviour being carried out (McCullagh, 2009). Therefore, if a woman understands the process and implication of cervical cancer screening and can fore see participating in this examination, the likelihood of adherence will increase. The HPM does not focus on threat of disease as a powerful motivator of action, but focuses rather on self-actualization and wellness (McCullagh, 2009). Salient concepts of Pender's Health Promotion Model related to cervical cancer screening include behaviour-specific cognitions as motivators for behaviours of health promotion. Pertinent components include, "perceived benefits of action, perceived barriers to action, perceived self-efficacy, activity-related affect, interpersonal influences, and situational influences. Individual characteristics and experiences included in the model include prior related behaviour and personal factors" (McCullagh, 2009, p. 294). "The additional concepts of the model include immediate

competing demands and preferences, commitment to a plan of action, and health-promotions behaviour” (McCullagh, 2009, p. 294). In addition to health-promoting behaviours, incorporation of individual characteristics such as prior behaviour and personal demographic data facilitate tailoring of interventions and personal empowerment toward self-care (McCullagh, 2009). Tailoring implies shaping the message or the delivery of the message in a way that is congruent with the audience (McCullagh, 2009). These measures not only increase the perceived applicability for the individual but also increase effectiveness (McCullagh, 2009). Similar characteristics or behaviours may be present within a subset of a population thereby enabling tailoring based on core characteristics, such as lack of understanding of the cervical cancer screening procedure or unfamiliarity with the implications of screening results. Success of interventions can be measured by increased adherence to cervical cancer screening recommendation. The humanistic perspective of the Health Promotion Model stresses the value of each individual, who empowered, has the ability to change behaviour (McCullagh, 2009).

## **1.6 Research Objectives**

### **1.6.1 General Objective**

To evaluate the factors that influence utilization of cervical cancer screening services by women in Lusaka urban district.

### **1.6.2 Specific Objectives**

1. To determine the utilization of CCSS by women.
2. To determine the levels of knowledge on CCSS among women.
3. To identify the association between the socio demographic characteristics and utilization of CCSS.
4. To assess women’s attitude towards utilization of CCSS.
5. To identify the barriers to CCSS utilizations?

## **1.7 Research Question**

How do social demographic characteristics, women levels of knowledge and women's attitude affect utilization of CCSS?

## **1.8 Study Hypotheses**

Null hypothesis

There is no relationship between a woman's level of knowledge and their likelihood to utilise cervical cancer screening services.

## **1.9 Conceptual Definitions of Terms**

**Utilization:** Making use or participating in an existing service (Cormack, 2014)

**Screening:** A test or testing carried out routinely on supposedly healthy people in order to establish, as early as possible, whether or not they have an illness or disease (Cormack, 2014)

**Knowledge:** What one knows and understands about a certain phenomenon (Bosch, 2011).

**Cancer of the cervix:** This is a malignant disease that occurs when the cells of the cervix proliferate to abnormal cells and can affect deeper cell layers or spread to other organs and cause damage (James, 2008).

**Communication:** Refers to the exchange of information on cervical cancer from one person to another (Lim, 2012).

**Women:** Females aged 15 years and above (Lim, 2012).

## 1.10 Operational Definition of Terms

**Utilization:** The act of using a service.

**Knowledge:** General awareness or possession of information on cervical cancer or what one knows and understands about it.

**Screening:** Being checked by a medical practitioner to rule out development of a disease.

**Cancer of the cervix:** This is a malignant disease that occurs when the cells of the cervix proliferate to abnormal cells and can affect deeper cell layers.

**Communication:** Means of disseminating health information for the purpose of initiating change in behaviour

**Women:** A woman is an adult female human being with the age between 15 years and above.

**Table 1.2 Variables and Cut - Off Points:**

VARIABLES	INDICATORS	CUT OF POINTS	QUESTION NUMBER
<b><i>DEPENDENT VARIABLE</i></b>			
<b>Utilization</b>	Poor	Never done cervical cancer screening or did cervical cancer after observing signs and symptoms and is able to score 0-3 correct responses to utilisation questions.	17 – 23
	Good	At least done a cervical cancer screening even once in their life time and is able to score 4-6 correct responses to utilisation questions.	17 – 23
	Very Good	Goes for cervical cancer screening regularly as advised by the care provider and is able to score 7-10 correct responses to utilisation questions.	17 – 23
<b><i>INDEPENDENT VARIABLES</i></b>			
<b>Knowledge about cervical cancer screening,</b>	Low	If the participants has no, little or scanty knowledge on cervical cancer screening and is able to score 0-4 correct responses to knowledge questions.	11 – 16
	High	If the participant has knowledge on cervical cancer screening services and is able to score 5-10 correct responses to knowledge questions.	11 – 16
<b>Attitude</b>	Bad	They have no interest and they don't feel like going for cervical cancer screening services. and is able to score 0-4 correct responses to attitude questions.	31 – 34
	Good	They have interest and they feel that they should go for cervical cancer screening regularly i.e. once a year or half yearly and is able to score 5-10 correct responses to attitude questions.	31 – 34
<b>Economic status</b>	Low	Monthly income of k 1000 and below and are able to score 0 – 3 correct responses to economic status questions.	24 – 30
	Medium	Monthly income of above k 1000 but up to k 3000 and are able to score 4 – 6 correct responses to economic status questions.	24 - 30
	High	Monthly income of above k 3000. and are able to score 7- 10 correct responses to economic status questions	24 – 30
<b>Distance</b>	Far	Distance of more than 5km to the health facilities.	28 – 30
	Near	Distance of less than 5km to the health facilities.	28 – 30
<b>Health care system</b>	Good	if the health facility has adequate equipment and trained personnel.	31– 34
	Poor	if the health facility has inadequate equipment and trained personnel.	31 – 34

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Studies have been conducted worldwide on the factors influencing utilization of cervical cancer screening services, but very few studies have been conducted in Zambia. Literature review for this study focused on published studies and the process of reviewing the literature was done to identify scientific, evidence based literatures that would add value to the study. Scientific studies were searched electronically from HINARI, CINAHL, PubMed, and Science Direct. Other literature sources included international and local publications and books. Literature was selected if it was not older than ten years. The key words used during the search were: “cervical cancer screening utilisation”, “knowledge on cervical cancer screening services”, “social economic factors influencing cervical cancer screening services”, “attitude of women towards cervical cancer screening services”. The selected literature in this chapter is discussed under the following headings: overview of cervical cancer screening utilisation, knowledge, social economic, attitude and finally a conclusion was drawn.

#### **2.2 Overview of Cervical Cancer Screening**

Cancer of the cervix uteri is a preventable disease and second most common cancer among women in the world and the most common in the developing countries accounting for more than 80% of all cases worldwide (Carrozzi et al., 2013; Ezech *et al*, 2014). Globally, it is estimated that half a million cases are detected and over a quarter million women die from cervical cancer each year (Carrozzi *et al.*, 2013). Screening programme performance can

improve with adequate emphasis on training, quality control, and telemedicine-support for nurse-providers in clinical decision making (Ezech et al, 2014).

### **2.3 Utilization**

A world-wide pandemic of underutilizing CCSS especially in developing countries has been established by several studies. (CDC, 2013; WHO, 2010; CIDRZ, 2014). Several studies have shown that developed countries have a better utilization levels than developing countries. Previous study reported that 76% of the women in the study had a Pap smear in the previous 24 months among native (Ezech et al, 2014, CDC, 2013; WHO, 2010). Therefore, a decline in CC incidence and deaths has been observed in the developed world over the past 20 years (Ebu et al., 2014). Recent report has shown that only about 5% of women in developing countries had been screened for cervical cancer compared with 40% to 50% of women in developed countries (Almobarak et al., 2016; Chirenje et al., 2012),

A study among Italian women showed that 77% of the 25-64 year-old women had Pap smear or HPV test in the three years before the interview (Carrozzi *et al.*, 2013). It was further observed that in northern regions, the proportion of women who performed the test within a screening programme was higher than in the southern regions, this variation was attributed to the availability of CCSS, particularly the spontaneous testing that was predominant in the north (Chirenje et al., 2012). This shows that the level and commitment to utilize the CCSS depends mostly on the awareness, availability of screening services and knowledge levels (Chirenje et al., 2012),

Screening rates in sub-Saharan Africa for cervical cancer remain very low despite of the existence of proven simple screen and treat approaches to cervical cancer prevention (Mwanahamuntu et al., 2011). In high resource settings where cervical screening is routine care, early screening prevents about 80% of potential cervical cancer mortalities (Finocchiaro-Kessler et al., 2016). This suggests that with increased screening, the huge mortalities related to cervical cancer in sub-Saharan Africa are avoidable. A review of published research into cervical cancer screening and treatment in sub-Saharan Africa

(Finocchiaro-Kessler et al., 2016) found that different research from different countries report different levels of efforts towards combating cervical cancer. There is evidence of primary prevention efforts mainly HPV vaccination initiatives, and secondary prevention which is underpinned by early diagnosis, commonly called screen and treat (Khozaim et al., 2014). There are also tertiary prevention efforts which consist of treatment opportunities (Finocchiaro-Kessler et al., 2016) for those who are diagnosed with cervical cancer early enough and have access to effective treatment.

However, about 267.9 million women above the age of 15 years old living in Africa are at risk of developing cervical cancer if CCSS remain underutilized (Chirenje et al., 2012). Over 80, 000 African women are diagnosed with cervical cancer annually with 75% (60, 000) mortality rate, and mostly of these deaths are found in sub-Saharan Africa that consists of 47 countries including Zambia (Denny and Anorlu, 2012). However, Zimbabwe has more than 95% of the care institutions with basic infrastructure to conduct CCS but the absence of clear policy framework has affected the utilization of CCSS (Ibu *et al.*, 2015). The incidence of cervical cancer in sub-Saharan Africa is relatively high with an incidence rate of 50 per 100 000, and average age standardized rate (ASR) of 31 per 100 000 women across the whole region due to underutilization (WHO, 2012). In several sub-Saharan African nations such as Kenya, underutilization of CCSS makes cervical cancer the second most frequent cancer after breast cancer and accounts for an average of 2000 deaths per year (WHO, 2011).

Democratic Republic of Congo (DRC) had a better CCSS coverage (20.2% and 14%) in both urban and rural areas with worst recorded coverage of 1.6% and 0.4% for urban and rural in Ethiopia (Lim and Ojo, 2016). If this under-utilization remains unchecked, irrespective of population dynamics and changing risk factors, the future burden of cervical cancer is projected to rise to almost 120 000 incidence cases annually by 2025; an increase of 67% from 2002 (Denny *et al.*, 2009; Almobarak et al., 2016).

The ASR varies in the sub-Saharan countries with the least found in the Central African countries (about 28) in which Zambia lies. Zambia has one of the highest cervical cancer



incidence and mortality rates in the world due to under-utilization of CCSS which has been attributed to lack of knowledge, social-economic status, myths and misconceptions among women (CIRDZ, 2014). Despite the establishment of early detection and treatment services, cervical cancer screening service coverage remains low (Louie *et al.*, 2009).

According to WHO, about 528,000 women worldwide are diagnosed with cervical cancer every year and 266,000 deaths occur in developing countries annually. 90 % of the deaths are reported in developing countries including Zambia due to inadequate infrastructure and resources and these cases account for 13% of all female cancers (Birhanu *et al.*, 2012; Di *et al.*, 2015; Doshi *et al.*, 2015; Idowu *et al.*, 2016). Both Zambia and Tanzania are ranked first in the world on cervical cancer mortality rates and WHO projected that the prevalence of the disease will double in the next 20 years if no preventative action is taken (WHO, 2010).

## **2.4 Knowledge**

A study conducted in Zambia and Namibia on improving access to cervical cancer services for women in Southern Africa shows that HIV negative women had low knowledge levels on cervical cancer and the women associated cervical cancer with HIV and thus only women who are HIV positive were at risk of cervical cancer (Southern African Litigation Centre, 2012). In study conducted by Ali-Risasi, Mulumba, Verdonck, Vanden Broeck and Praet (2014) on knowledge, attitude and practice on cancer of the uterine cervix among women in the Democratic Republic of Congo, it was found that awareness of cervical cancer especially the prevention and treatment is very low among the women. In addition, socio-economic factors such as place of residence, level of education, occupation, marital status and religion affect practice regarding cervical cancer screening. Hami (2013:235) conducted a study in Malawi and found that women had inadequate information of risk factors associated with cervical cancer and prospects of screening and treatment. In a study conducted in Tanzania on demographic, knowledge, attitudinal, and accessibility factors associated with uptake of cervical cancer screening among women Lyimo and Beran (2012)

state that knowledge and other factors will determine whether women utilize screening services.

In addition, studies suggest the low uptake of a Pap smear test to be attributed to lack of awareness. Hyacinth, Adekeye, Ibeh and Osoba (2012) in a study to determine the level of awareness of cervical cancer and Pap smear tests and factors associated with the utilization of Pap test among female civil servants in Jos, Nigeria found that 50.9% were aware of cervical cancer and 38.6% were aware of a Pap smear test. Results of the study show a 10.2 % utilization of Pap smear. Hyacinth et al (2012) concluded that lack of awareness and the belief that cancer is not preventable are barriers to cervical cancer screening. Women should therefore be informed about cervical cancer, screening services and the education given to women should be according to literacy levels of the women (Maree et al, 2012).

Dissemination of knowledge regarding increased awareness of screening practices among women is much high in developed countries than developing countries (Ncube *et al.*, 2015).. The most common challenges of CCSS in developing countries are increasing women's awareness, increasing provider knowledge and skills and effective monitoring and evaluation approaches. Generally, reports from developing countries have showed that women had inadequate knowledge of causes, risks and prevention (Almobarak *et al.*, 2016).

Women's knowledge of cervical cancer as a disease and cervical cancer screening has been found to influence the decision to be screened. In a study conducted in a low resource setting in South Africa to survey women's knowledge, lifestyle, risks and screening practices Maree et al (2012) identified that the greatest risk for cervical cancer was the women's lack of knowledge of this cancer as a disease, self-protection against the cancer and ability to recognize the signs. Results of a quantitative survey conducted by Maree et al (2009) in South Africa on women's knowledge of cervical cancer and acceptance of visual inspection with acetic acid and practical lessons learnt show a low level of knowledge of cervical cancer and cervical screening. Furthermore, Maree et al (2012) state that no women can prevent any disease and use available screening opportunities if she does not know about the disease.

The sub Saharan Africa Region which has 12% of the world's population accounts for 20% (57,000) of estimated cervical cancer-related deaths (Chirwa *et al.*, 2010). Despite some improvements such as improved awareness and availability of service, and geographic inaccessibility, lack of knowledge remain the central barriers in most resource poor settings as a significant proportion of the population at risk of cervical cancer may be located in areas where little or no coverage currently exist (Bingham *et al.*, 2003; Ibu *et al.*, 2015; Ncube *et al.*, 2015). Furthermore, there is stigma attached to discussing reproductive health issues in African communication that contributes to women having little knowledge, low awareness and misconception about the aetiology of the disease, and its prevention may lead to seeking ineffective traditional remedies (Birhanu *et al.*, 2012; Chidyaonga-Maseko *et al.*, 2015; Ebu *et al.*, 2015). In addition, the uptake of CCSS among women is more likely to be influenced by socio- demographic characteristics. For instance, the uptake of screening tends to be low among women with low education and who live in rural areas, suggesting a statistical significant relationship between education and coverage of CCSS (Ak *et al.*, 2010; Lyimo and Beran, 2012). Women with low level of knowledge about cervical cancer and its prevention are unlikely to utilise the cervical cancer screening. Although awareness may be a significant factor in screening, previous studies indicate that 18% of female health workers who were aware of benefits of Pap smear had CCSS (Lyimo and Beran, 2012). Ebu *et al.*, 2015 argued that in the absence of adequate knowledge, women are not likely to present for screening or might do so at a stage when cervical cancer can no longer be prevented or effectively treated (Ebu *et al.*, 2015; Idowu *et al.*, 2015). The other study conducted in Ghana showed that lack of policy on mass screening contributed to low screening coverage, and often those who were screened, stated that they were referred; suggesting that they did not attend voluntarily (Ebu *et al.*, 2015).

Therefore, there is need to intensify efforts towards promoting awareness and screening of cervical cancer among the target groups (Birhanu *et al.*, 2012)

Zambia, a sub Saharan country with a population of over 15 million has the world's second highest annual cervical cancer incidence and mortality rate, and accounts for 30% of all

cancer cases (Parham et al, 2010; CIDRZ, 2014; Mwanahamuntu *et al.*, 2013). According to WHO, 2010 report in Zambia approximately 1,650 women are diagnosed with cervical cancer and 1,380 (81%) die annually and the nation has a population of 3.17 million women ages 15 and older who are at risk of developing cervical cancer (WHO, 2013). Although CCSS has been integrated in HIV services, the low coverage of CCSS has been largely influenced by women who simply do not know the benefits or have easy access to the service. Cancer of the cervix is one of the few cancers that can be most effectively controlled by screening (Assoumou *et al.*, 2015; Papapetrou *et al.*, 2016). A study conducted in Malawi approved that the provision of cancer screening and early treatment services was a good approach to prevent the incidence of cervical cancer. Major finding in this study showed that many of their clients reported when the cervical cancer was already in advanced stages due to lack of knowledge (Abdullahi *et al.*, 2009; Fernandez *et al.*, 2009; Makin *et al.*, 2011). Similarly, Zambia particularly Lusaka urban district has a lot of screening centres but only a few women access the service after observing early signs and symptoms of the disease (Mwanahamuntu, 2008). Furthermore, it is not known whether such kind of knowledge about awareness is prevalent among women in Lusaka urban district. However, it is most likely that health promotion on cervical cancer screening has been delivered despite low utilization of CCSS (Mulonda, 2009; Vwalika, 2010). However, it is evident that many women have little or no knowledge about cervical cancer and preventative measures (Liao, *et al.*, 2006; Aabotch *et al.*, 2009; Hamed *et al.*, 2009). Therefore, awareness in combination with other factors will determine whether women will utilize the CCSS. Hence, it is important that we understand the factors that affect CCSS in order to develop policy and promote screening uptake. Furthermore, although awareness may be a significant factor, some women do not seek screening. A previous report suggests that a few college women at the University of Ghana and 18% of female health workers who were aware of the Pap smear had actually accessed the service due to the fact that awareness and knowledge in combination with other factors influence women's uptake of CCSS (Aabotch *et al.*, 2009; Cyril *et al.*, 2009).

## 2.5 Social –Economic Status

In developed countries such as the United States, advanced screening has given rise to significant reductions in both new cases of cervical cancer and death (Abotch, 2009). Unfortunately, these cancer screening rates are very low in developing countries where the majority of the cases and deaths are reported (Mwanahamuntu, 2008; Akinyemiju, 2012; Tadesse, 2015). Fort et al (2011) in a study conducted in Malawi on barriers to cervical cancer screening found that women who had a stable income and good economic status were not interested in the CCSS as they perceived free health services as being poor services as well as difficulty to access because of congestion caused by so many women.

In less developed countries, the incidence and mortality rates of cancer are very much related to the overall economic standing and inability of the health system to make screening programs available and sustainable. In Africa, the screening services are largely limited to urban communities where they are often haphazard with insufficient human resources, and inadequate mechanisms to provide diagnostic and treatment services or are even non-existent (Kivuti-Bitok *et al.*, 2013). Since women take a role of single parent and lone caregiver if not both, their health is often neglected and less likely to seek CCSS and increase the likelihood to develop cervical cancer (Kaubi, 2011). However, women with high levels of income and education are more likely to participate in cancer screening (Mwanahamuntu, 2008). Furthermore, cervical cancer is associated with high costs, which may not be affordable for many African women, and a large proportion do not return for follow-ups (Elit *et al.*, 2012; Kivuti-Bitok *et al.*, 2013).

In Zambia, majority of the women with cancer are poor and the cost associated with travelling expenses to access the service at National Cancer Diseases Hospital (CDH) in Lusaka remains a challenge (Mwanahamuntu, 2008). More advanced cases are referred to Lusaka but this site is still unreachable for most women across the country due to high mortality, which is largely attributed to diagnosis of the disease in advanced stages (Swarnapriya *et al.*, 2015). In addition, travel costs associated to access the health care facilities is a prohibitive factor and is more frequently reported among rural than urban

women (Cunning *et al.*, 2015). Transport is sometimes unreliable and critical patients are often requested to delay their referral because transport is unreachable. Therefore, personal travelling cost, multiple referrals and failure to make follow ups are some of the major obstacles to effectively access CCSS in Zambia.

## **2.6 Attitude**

Women's attitudes towards cervical cancer and screening have been shown to influence their decision to be screened for the disease (Abdullahi *et al.*, 2009; Fernandez *et al.*, 2009). A qualitative study done in Mexico it was noted that women may fail to seek screening because their male sexual partners may be opposed to the male providers giving the examination (Kileo *et al.*, 2015). Perhaps it is less embarrassing to show private body parts to a female rather than a male health worker. This was confirmed by another study which showed that a negative attitude of men towards screening or treatment of cervical cancer is considered a key factor in contributing to poor uptake of CCSS (Singh *et al.*, 2009). Several other studies have found that attitudes are related to screening status (Abdullahi *et al.*, 2009; Fernandez *et al.*, 2009). Results from a study conducted to investigate the attitudes of Japanese University students towards cervical cancer among students who had never been screened for cervical cancer through group discussions reveal a low sense of reality about cervical cancer and a lack of knowledge of the disease and Pap smear tests (Oshima and Maezawa, 2013).

In addition, a study conducted in Thailand revealed that sex workers with a negative attitude to Pap smear tests were likely to never have had a Pap smear taken than those with a positive attitude (Lyimo and Beran 2012). Fort *et al.* (2011) in a study conducted in Malawi on barriers to cervical cancer screening found that attitudes towards health facilities and the services offered were generally negative.

A study conducted in Lao to determine the knowledge, awareness and attitudes about cervical cancer among Lao women attending or not attending HIV treatment centre show

that absence of symptoms was given as a reason of not undergoing a Pap smear test (Sichanh et al, 2014).

In a study done in rural of India show that 84.6% of the interviewed were willing to take the check up for cancer of cervix as they felt it would benefit them in the long run and 62.5% were willing to be screened. Having good attitude is mostly followed by having understanding about the cancer of cervix and also screening. Those who have heard regarding cancer of cervix and screening have good attitude regarding cervical screening than those who have not heard about it (Terefe, 2008). There are different beliefs and perception regarding cervix screening for cancer. Some negative beliefs mentioned among rural areas are “cervical cancer screening is only for commercial sex workers” and other positive beliefs like “pap smear decrease early death”. Good attitude was strongly linked with increase in chances of undertaking screening services. There was a five times chance of increase (McFarland, 2003). Another study in Tanzania suggested that 79.2% of study participants were agreed that cervical cancer screening can prevent cervical cancer (John, 2011) and also on similar study in Kenya 87% of respondents agreed (Gichangi, et al, 2003).

Previous report of a study conducted in Zambia indicated that majority of women who attend CCSS only do so because they have signs and symptoms, reflecting a bad attitude, and 83 % of these women who had a screening test for a second time or more showed a positive attitude towards screening programme (Kaubi, 2011). The findings of another study showed that women who had been screened were less likely to report embarrassment, preference for male or female provider and consider the procedure as painful as those who had not screened (Hammed, 2009). However, fear of receiving cervical cancer screening results and concerns about risk did not differ between those who had or had not screened, and further contended that men’s approval is an integral component of women’s behaviour (Lyimo and Beran, 2012). Thus, it is important that women who prefer a female health worker be assured that they can indeed access one (Birhanu et al., 2012).

## **2.7 Distance**

Equality of access ensures that screening services are made available to everyone. However, previous studies observed that issues of accessibility to care are in need of attention (Ezechi et al, 2014; Chang et al, 2007; Cunning et al, 2015). Furthermore, long distance contributes to other factors that hinder women from accessing the service (Chang *et al*, 2007). In Africa, the geographic distribution of cancer treatment with adequate laboratory capacity, radiotherapy and chemotherapy infrastructure severely limit accessibility for clients in rural areas (finocchario-Kessler et al, 2016). Cervical cancer screening ranges from 2% to 20% in urban areas and from 0.4% to 14% in rural areas (Parkhurst and Vulimuri, 2013). A previous study in a rural district of Tanzania noted that when all the factors were examined simultaneously, only those clients living close to the screening facility and had knowledge of cervical cancer were associated with screening status (Cunningham *et al*, 2015). In Malawi, the majority of women seeking cervical cancer screening services go to facilities on foot despite long distance (Chadza et al, 2014). Thus, the majority of women delay seeking and accessing appropriate CCSS and treating.

In Zambia, a sub Saharan African nation with a population of over 13 million, factors attributing to a low uptake of cancer screening have not been fully understood. Thus, achieving high coverage and attendance rates actually means reducing the incidence of cervical cancer. Therefore, the outreach service probably can be seen as an area of reducing the barrier that prevent women attending screening services (Chang et al, 2007).

## **2.8 Health Care Related Factors**

Health care service is a critical factor in both the acceptability of service to women and the feasibility of the service sustainability (Cunning *et al*, 2015). The most important factors include, trained human and technical resource and infrastructure with adequate laboratory capacity for screening cervical cancer. These are often absent in many low and middle income countries (Akinyemiju et al, 2015). Moreover, in Africa and South America with



the largest disease burden, there are competing priorities such as HIV/AIDS, infectious diseases such as malaria, tuberculosis, high infant and maternal mortality rates (Bateman et al, 2015). Finocchiaro-Kessler et al, (2016), conducted a study on regarding and benefits of cervical cancer screening found that the main barriers identified by all participants were accessibility and availability of quality services. Facilities that lack comfort and privacy, high costs, and courtesy of providers, contribute to poor service delivery (Begum *et al*, 2014; Lin and Chen, 2014). Begum et al, (2014), found that barriers that pertain to women's beliefs are anxiety borne by women awaiting test results if pre-test counselling is not adequately done and the procedure is not clearly explained to the woman for her to understand. However, the results indicated that except for the accessibility and availability of quality services, these results are consistent with findings from Lin and Chen, (2014), which explained that services were distant or difficult to access, the importance of providers taking time to convince the women, answering questions, explaining procedures, and giving encouragement were highlighted factors that motivated women to screen.

Parkhurst and Vulimuri, (2013) explained that some barriers could be lifted if health service delivery was improved, for instance, through quality improvement techniques that are available at low cost. They further noted that women's anxiety over test results still need to be further assessed to work out risk communication strategies that take into account broader educational frameworks such as infusing the way health services are provided for cervical cancer prevention regardless of the specific test used.

Bateman et al, (2015), concluded that non availability of quality cervical cancer screening and lack of information on cervical cancer are major barriers to screening for cervical cancer, in some instances, the lack of screening also reflects the lack of political will to prioritize cancer prevention in women.

Competing healthcare priorities posed by the striking burden of diseases other than cancers coupled with a trend of shrinking public health budgets is overwhelming in many developing countries (Kaubi, 2011). Lack of organized or opportunistic screening programmes, few health workers coupled with high “brain drain” of health professionals to

developed countries and existing health workers tend to cluster in urban, highly developed areas of countries leaving the poor, rural areas underserved (Akinyemiju *et al*, 2015). Health workers' gender, as well as age, marital status and ethnicity play a role in the demand for CCS (Begum *et al*, 2014; Lin and Chen, 2014).

There are challenges associated with the screening services ranging from low levels of cervical cancer screening due to poor access to organized screening, lack of or low information on cervical cancer screening, women's perception of low threat of disease and overburdened health care facilities which lack equipment and are understaffed (Makin *et al.*, 2011). In addition, it was found that ineffective infrastructure, long distance between facilities and clients' homes increase transportation costs and delay of reporting results contributes to underutilization of CCSS (Chirenje *et al.*, 2012)

Other studies found that fear of procedure and outcome, unnecessary perceptions, stigma and shame of disease, fatalism, modesty, attitudes of health worker, misconception about disease and screening, partner support all contributed to under-utilization of CCSS (Chirenje *et al.*, 2012; Lim and Ojo, 2016). Although, health care institutions in East and Central Africa have the adequate infrastructure for CCS, these facilities experience inadequate equipment, erratic supply of materials needed for taking Pap smears and shortage of skilled man power in management of CC (Chirenje *et al.* 2012). Fort *et al* (2011) in a study conducted in Malawi on barriers to cervical cancer screening found that attitudes towards health facilities, were related to the quality of health facility; with women perceiving free health services as being poor services as well as difficulty in moving from one department to another within the health facility

Cervical cancer prevention programme in Zambia (CCPPZ) includes 33 screening clinics and 22 referrals for loop electrosurgical excision procedure (LEEP) clinics and an expansion was planned for 100 additional screening clinics by December, 2016. This is aimed to allow the ever increasing number of women access to screening and treatment (Bateman *et al*, 2015).

Several studies found that knowledge on cervical cancer and cervical cancer screening is low among women and health workers (Kress, Sharling, Owen-Smith, Dasalegn, Blumberg and Goedken, 2015).

## **2.9 Conclusion**

The key issues that were identified in this literature search were the priority health problems in communities; risk factors mainly included behaviours and lifestyle (non- health seeking behaviours), which were particularly evident in women and girls with little or no education, poor residents and women with limited knowledge. Strategies for health promotion should take these factors into consideration. Policy, organization and manpower need further strengthening.

Finally, the literature reviewed suggests that most developing countries have a role to play in the women's decisions, considering their low educational levels, low socio-economic status, their use of traditional medicines, lack of regular medical check-ups, multiple births by those exposed to child bearing early and lack of screening centres for cervical cancer.

It is, therefore, important to state that all these factors in the developing countries have orchestrated the low utilization of CCS centres among women in their reproductive age group, where Zambia has not been an exception. It is, therefore, imperative that on-going sensitization continues as merely providing these CCS centres is not a solution because CCS for most women in developing countries is not an immediate need. Women with beliefs, perceived needs, low accessibility to health promotion and culture play a key role in affecting other women's behaviour and lifestyle. There's an urgent need for further research to understand the social and cultural mediators related to cervical cancer screening services.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research methodology that were used in this study. The research methodology and methods section focus on the research design, study setting, study population, sample selection, sample size, validity, reliability, data collection tools, data collection techniques, pilot study and ethical and cultural considerations. Data were collected using a semi structured interview schedule. A total of 370 respondents were interviewed and there was a 100% response rate. From July 2016, through July 2017, a total of 370 women were enrolled for CCSS interviews from 4 health facilities in Lusaka urban district of Zambia. The number of women interviewed on CCSS were distributed as following; Kalingalinga 39/370 (10.5%), Mtendere 102 /370 (27.5%), Chawama 67/370 (18.1%) and Kanyama 161/370 (43.5%). The majority 263/370 (71.1%) of women interviewed were reported from Kanyama and Mtendere clinic of Lusaka district.

#### **3.2 Research Design**

The study involved collection of information on the factors influencing utilization of cervical cancer screening services. Therefore, this study was a quantitative study and a cross sectional design. A cross sectional study design was used because the purpose of the study was to describe a population or a subgroup within the population with respect to an outcome or a set of risk factors. Cross sectional study was used to investigate the associations between risk factors and the outcome of interest.

### **3.3 Research Setting**

The research was conducted at four clinics in Lusaka urban district. Lusaka was selected because this project was firstly piloted in Lusaka before it was rolled to other districts. The research was conducted in Lusaka district at Kanyama, Chawama, kalingalinga and Mtendere health facilities. The Lusaka urban district (LUD) is located within the Lusaka province at altitude of 15 degrees south of the equator. It occupies 360sq km and has a population of more than 6.5million people (CSO, 2016).

LUD is in the capital city for Zambia .it is also the provincial head quarter of Lusaka province. It has got more than 93 residential areas out of which 30% are high cost and the rest are medium and low cost areas.

The district health office is situated at plot number 5231 off Makish road between the great east and Tuleteka road and is headed by the District Medical Officer.

### **3.4 Study Population**

Lusaka urban district has a population of approximately 2, 330,200 as for the year 2015 of which 51 % (1, 188402) were women (Lusaka district health statistics, 2015). The study population included all women aged 18 years and above. The target population for the study were all women aged 18 and above and residents of Lusaka urban district.

### **3.5 Sample Selection**

Probability sampling was used in selecting the sample and the study settings hence a multi stage sampling technique. The women were selected using simple random sampling as each element in the larger population had an equal chance of being selected into the sample. Selection of the clinics employed the fishbowl technique of sampling where each number from the sampling frame was written on a slip and slips were put in a container, and was ruffled. Only clinics where this service was available were added to the sampling frame. Slips

were drawn one at a time without being replaced back. The procedure was repeated until the required sample was attained.

### **3.5.1 Inclusion Criteria**

The sample was picked from the women who came to the health facilities to seek various health services in various departments such as family planning. Out -patient department and maternal and child health department.

The inclusion criteria to the study was; Women of 18 years and above, and had meet the following Criteria; were residents of Lusaka urban district, were present at the time of interview, was selected and Consented to participate in the study.

### **3.5.2 Exclusion Criteria**

Women were excluded if they were below 18 years of age, were absent at the time of the interview, were not residents of Lusaka urban district, were not randomly selected and did not consent to be in the study.

## **3.6 Sample Size**

To calculate the sample size, the prevalence proportion formula was used. The sample was calculated manually using the formulae below.

$$N = \frac{Z^2 P(1-P)}{d^2}$$

Where:

P= Proportion of women who are unaware of the service = 40%.

Z= standard normal variant at 95% confidence level (CL) = (1.96)

D= precision ±5%

$$N = \frac{Z^2 P(1 - P)}{d^2}$$

$$N = \frac{(1.96)^2 \times 0.4 \times (1 - 0.4)}{(0.05)^2}$$

$$N = \frac{3.8416 \times 0.4 \times 0.6}{2.5 \times 10^{-3}}$$

$$N = \frac{0.929184}{2.5 \times 10^{-3}}$$

$$N = 368.78$$

$$N = \mathbf{369}$$

Since the study was conducted at four sites which are Chawama, Kanyama, Mtendere and Kalingalinga clinic the sample size from each facility was calculated using the formulae below:

$$\text{No. of participants per facility} = \frac{\text{Women in child bearing age}}{\text{Total Women in child bearing age in 4 sites}} \times \text{Total sample}$$

### **Kanyama First Level Hospital**

$$\text{No. of participants per facility} = \frac{84,539}{194789} \times 369$$

$$\text{No. of participants from Kanyama} = \mathbf{161 \text{ Participants}}$$

### **Chawama First Level Hospital**

$$\text{No. of participants per facility} = \frac{36,238}{194789}$$

$$\text{No. of participants per from Chawama} = \mathbf{67 \text{ Participants}}$$

### **Mtendere Health Centre**

No. of participants per facility =  $\frac{53,818}{194789} \times 369$

No. of participants from Mtendere = **102 Participants**

### **Kalingalinga Health centre**

No. of participants per facility =  $\frac{20,194}{194789} \times 369$

No. of participants from Kalinganga = **39 Participants**

### **3.7 Data Collection Tool**

A semi- structured interview schedule was used to collect data. It had both open and closed ended questions. Open ended questions allowed respondents to provide their opinions. The schedule was written in simple language to ease understanding.

Semi structured interview schedule was chosen because of the following advantages: It could be used on both the literate and illiterate, (Non-verbal behaviour and mannerisms was observed), Questions could be clarified if they were misunderstood.

### **3.8 Validity**

To ensure validity, extensive literature review was conducted on recent literature on utilization CCSS. An extensive literature review was conducted before designing the tools. Experts in gynaecology, obstetrics and research supervisors, examined the questions to determine whether they would elicit desired responses on the variables to be measured. In addition, the questions were constructed in a simple, clear and precise way in order to give respondents chance to give clear and precise answers. The validity of the instrument used



in this study was maintained by ensuring that all aspects of variables pertaining to women above 18 years, CCS were included in the interview schedule for the respondents.

### **3.9 Reliability**

To ensure reliability, a pilot study was conducted at Chipata clinic. The centre has almost the same settings in terms of geo location, population, social, physical, and economic determinant of health with the clinics, which were used in the study. Reliability of the interview schedule was ensured by training the research assistants in use of the instrument. The questions were simple, concise and brief. During the pre-test, respondents were asked if there were any questions they did not understand. This gave room for alteration of questions.

### **3.10 Data Collection Technique**

A structured interview schedule is the data collection instrument that was used. The respondents were interviewed by the researcher with the help of research assistants and asked to respond to the same questions in the same order. The interviewers wrote down the responses using verbatim technique. The interview schedule was translated into Nyanja, a local Language commonly spoken in Lusaka. The research assistants were selected on the basis of Language, critical thinking and knowledge of subject matter.

The interviews were conducted face to face. The process of data collection was carried out in the following way:

1. The women that were present at the clinic during data collection, and met the inclusion criteria were approached with respect, either individually or groups by the researchers.
2. The researchers excused themselves to have a talk with them and those that agreed were told to go to the waiting room.
3. The researchers introduced themselves.

4. An explanation of the purpose of the study was done in simple terms to enable the respondents to take part in the research fully informed.
5. Sampling of the respondents was done using simple random sampling technique.
6. Respondents were informed that participation was voluntary and they could withdraw from the study if they so wished and that would not affect their obtaining health care in any way.
7. After the explanation the researchers got the consent signed by each respondents.
8. Each respondent was interviewed in a private room to maintain confidentiality for 10-20 minutes. Respondents were assured that the information that was collected was for research purposes only and names were not entered on the questionnaires. The information was locked in a confidential place and was not exposed to other people.
9. After the consent was obtained the researcher then proceeded to ask the respondents questions using the semi-structured interview schedule.
10. The respondent was thanked after the interview.

### **3.11 Pilot Study**

A pilot study was used to determine whether data the collection tool actually measure what it was supposed to measure, it was used on subjects who met the criteria for the study sample. It was conducted at Chipata clinic in Lusaka urban district. The centre was chosen because it had similar characteristics to the research settings. The number constituted 10% of the sample size, which was 37 participants. The pilot study helped correct any errors within the semi structured interview schedule.

### **3.12 Data Analysis**

After data collection, the structured interview schedules were sorted out according to their serial numbers. Sorting out data was done immediately the semi- structured interview schedule were collected. This was to check for completeness and to ensure that any mistakes were corrected there and then. Responses from open- ended questions were categorized and

coded before entering on the Statistical Package for Social Sciences (SPSS) version 22 program. Responses from closed -ended questions was entered directly on the SPSS. The data was analysed electronically using SPSS and manually with the help of a scientific calculator. Associations between the dependent variable (utilisation) and the independent variables were tested using the chi square test (chi square assumptions were met). If assumptions were not met fisher exact test was used. Frequency tables and pie charts were used to present data and cross tabulations were prepared to show the relationships among variables.

### **3.13 Ethical and Cultural Consideration**

Ethics clearance was obtained from the University of Zambia Bio Medical Research Ethics committee. Written permission to conduct the study was obtained from the District Health Management Team (DHMT). The purpose and nature of the study was explained to the study participants. Those who declined to participate were reassured that no privileges would be denied to them. Those who agree to take part in the study were asked to sign a consent form and the illiterate women will be asked to thumb stamp the consents which were written in Nyanja and English. Those who participated in the study were not remunerated in any way.

The respondent was not exposed to any physical and emotional danger or harm.

Confidentiality and anonymity were maintained by respondent's names not appearing on the questionnaires. Respondents were interviewed in a private room, one at a time. This ensured privacy.

After each interview session the investigator put all questionnaires under lock and key and no persons other than the researcher was allowed to access the collected data. Respondents were assured of anonymity and confidentiality during the interview as they were interviewed in privacy.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND PRESENTATION OF FINDINGS**

#### **4.1 Introduction**

This chapter presents how data and the findings were analysed and presented using bar charts pie charts and tables. Data analysis and presentation of findings section focus on the data processing and analysis, demographic characteristics of the participants, knowledge about cervical cancer screening, utilization of CCSS, social economic factors, distance, service delivery, attitude and the association between the independent and dependent variables.

#### **4.2 Data Processing and Analysis**

Following data collection, categorization was done, where the structured interview schedules were sorted out and edited for internal consistence, completeness, legibility and accuracy. Closed ended questions were assigned numerical codes for easy entry and analysis using the computer. Open ended questions were analysed by reading through the data in its entirety to identify and group answers that belonged together. Following data categorization, the researcher assigned numerical codes (1, 2, 3, 4 and others). The codes were then entered and analysed using SPSS software computer package. Pearson Chi-square was used to test association between the dependent variable and the independent variables. The variables were Knowledge about cervical cancer screening, Attitude, Economic status, Utilization, Distance and Health care system. The cut off point for statistical significance was set at 5%, P-values of 0.05 or less were considered statistically significant thereby rejecting the null hypothesis.

### 4.3 Section A: Demographic Characteristics of the Participants

This section comprised of socio-demographic data of the respondents. The socio demographic data consisted of the respondent's age, marital status, religion, educational level, occupation and monthly income as shown in table 4.1.

**TABLE 4.1 Social Demographic characteristics of the participants (n=370):**

Age In Years At Last Birthday	Frequency	Percent
<b>18-28 years</b>	190	51.4
<b>29-39 years</b>	112	30.3
<b>40-50 years</b>	53	14.3
<b>51`-60 years</b>	13	3.5
<b>62 and above</b>	2	.5
<i>Total</i>	<b>370</b>	<b>100.0</b>
Marital Status		
<b>Single</b>	94	25.4
<b>Married</b>	237	64.1
<b>Divorced</b>	18	4.9
<b>Widowed</b>	19	5.1
<b>Cohabiting</b>	2	.5
<i>Total</i>	<b>370</b>	<b>100.0</b>
Religion		
<b>Christian</b>	327	88.4
<b>Muslim</b>	40	10.8
<b>Hindu</b>	3	.8
<i>Total</i>	<b>370</b>	<b>100.0</b>
Educational Level		
<b>None</b>	17	4.6
<b>Primary</b>	129	34.9
<b>Secondary</b>	171	46.2
<b>Tertiary</b>	53	14.3
<i>Total</i>	<b>370</b>	<b>100.0</b>

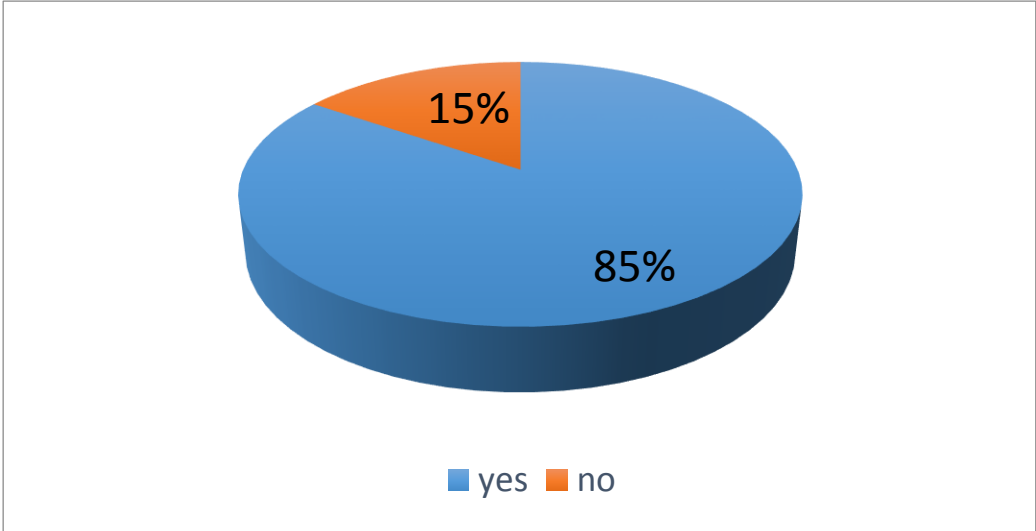
Employment Status	Frequency	Percent
<b>Employed</b>	83	22.4
<b>Unemployed</b>	212	57.3
<b>self employed</b>	74	20.0
<b>Pensioners</b>	1	.3
<i>Total</i>	<b>370</b>	<b>100.0</b>
Monthly Personal Income		
<b>&gt;k3000.00</b>	145	39.2
<b>k1000.00-k3000.00</b>	91	24.6
<b>&lt;k1000.00-no income</b>	134	36.2
<i>Total</i>	<b>370</b>	<b>100.0</b>
Residential Area		
<b>High density</b>	97	26.2
<b>Medium density</b>	183	49.5
<b>Low density</b>	82	22.2
<b>Others</b>	8	1.9
<i>Total</i>	<b>370</b>	<b>100.0</b>
Number Of Children		
<b>1 to 3</b>	238	64.3
<b>4 to 6</b>	111	30.0
<b>7 to 9</b>	21	5.7
<i>Total</i>	<b>370</b>	<b>100.0</b>

Table 4.1. Shows that more than half of the study respondents 200 (51.4%), were in the age group of 18-28 years old. Most of the participants were married 237 (64.1%) and slightly below half 171(46.2%) of women had reached secondary school level. Those participants who had more than 3 children accounted for 132 (35.7%) and just over one fifth of the interviewed women, 83 (22.4%) reported being in employment while 94 (25.4%) were not married, 17/370 (4.6%) did not attain post primary school, 82 (22.2%) resided in low density areas and slightly above one third 134 (36.2%) had a living income of less than 1,000

Zambian Kwacha (US\$ 100) per month. Majority of respondents were Christians (88.4%) with the least proportion being the Hindus (0.8%).

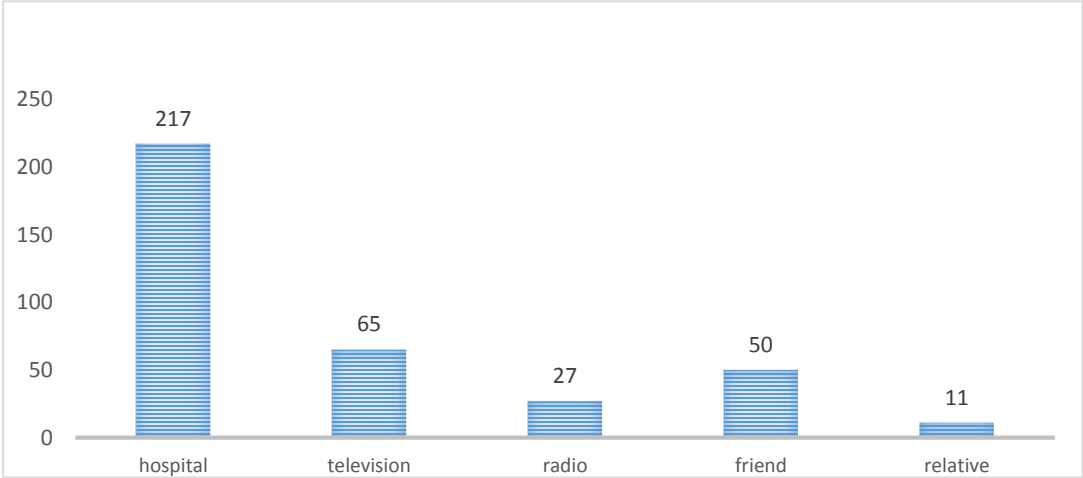
**4.4 Section B: Knowledge**

**Figure 4.1 Have you heard of Cervical Screening before? (n = 370):**



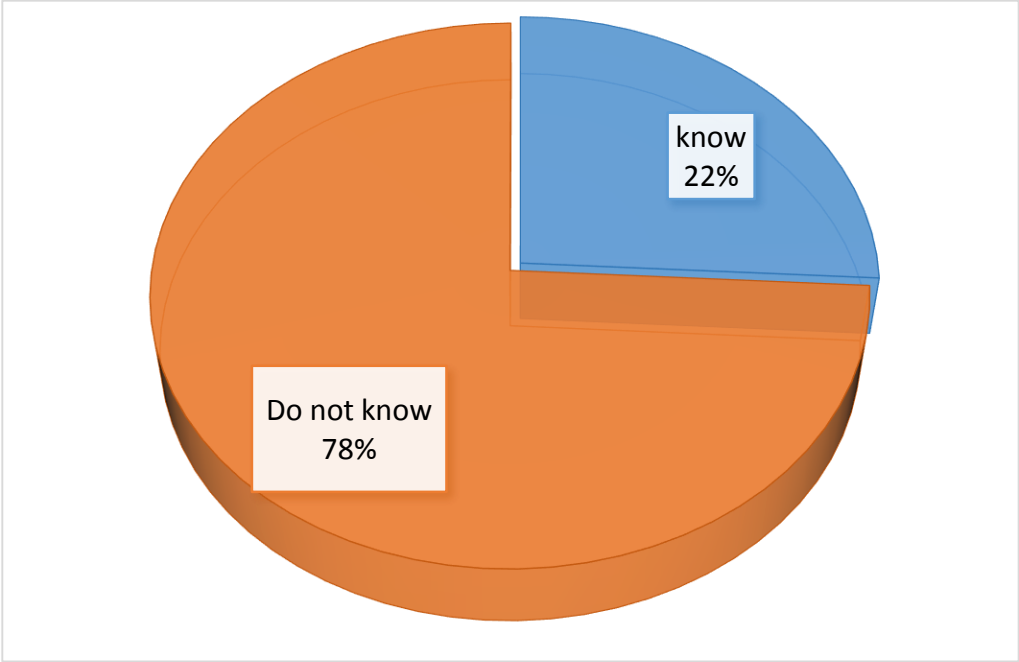
Of the 370 respondents, three quarters 313 (85%) reported having heard of CCSS before the interview as shown in the figure above.

**Figure 4.2 Primary Source of Knowledge (n = 370):**



The primary source of CCSS was the; hospital 217 (59%), television 65 (18%), radio 27 (7%), friends 50 (3%) and relatives 11 (3%) respectively as shown in fig 4.2. The highest proportion of respondents heard about CCSS from the hospital whilst the least heard from relatives.

**Figure 4.3 Knowledge of what Cervical Cancer Screening is? (n = 370):**



Only 81 (22%) of the women knew what CCS was and 313 women did not know. (Fig 4.3)



**Table 4.2 Risks of women prone to cervical cancer (n = 370):**

Risk Factors	Frequency		Percentage	
	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
Older women are more at risk than younger women	124	245	33.5%	66.5%
Every women of child bearing age is at risk of having cervical cancer	176	193	47.8%	52.2%
Women with multiple sexual partners are prone to cervical cancer	165	204	44.6%	55.4%
Susceptibility to cervical cancer increases with the number pregnancies	40	230	10.8%	89.2%
HIV positive	93	275	25.1%	74.9%
Women with one sexual partner	49	319	12.2%	88.8%

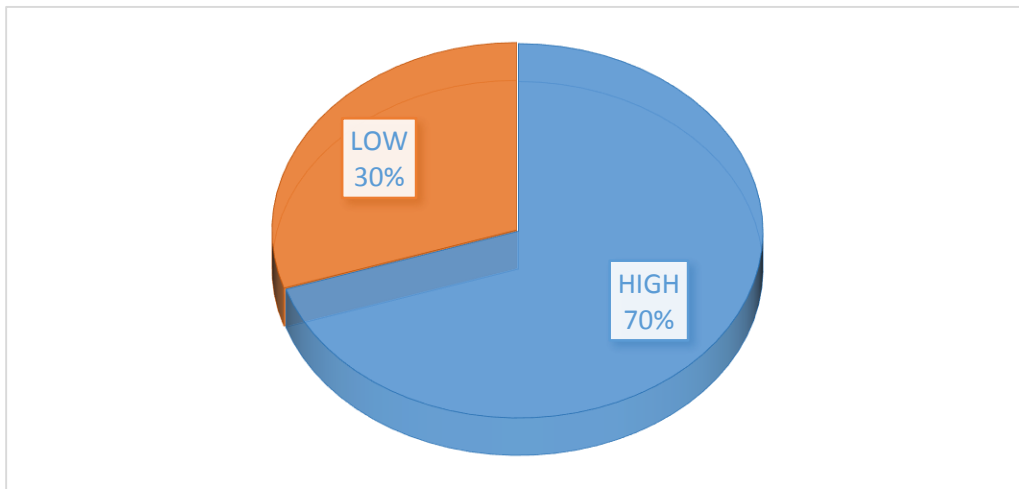
The research finding showed that 124 (53.5%) respondents stated that older women were more at risk of having cervical cancer than younger women, 176 (47.6%) indicated that it was every woman of child bearing age who was at risk of acquiring cervical cancer. About 204 (55%) respondents reported that women with multiple sexual partners were more prone to cervical cancer. 329 (89%) respondents reported that the number of pregnancies increased the risk of one developing cervical cancer. A relative high proportion of the respondents 275 (75%) reported that HIV positive women were prone to cervical cancer, 87% of respondents reported that women with one lifetime sexual partners were unlikely to have cervical cancer.

**Table 4.3 Knowledge of the sign and symptoms of cervical cancer (n = 370):**

Signs And Symptoms	Frequency		Percentage	
	Yes	No	Yes	No
Bleeding	174	196	47%	53%
Pain	128	242	34.6%	66.4%
Water discharge	82	288	22.2%	78.8%
No idea	86	284	23.2%	77.8%

Slightly above half of respondents 196/370 (53%) reported that unusual heavy and continuous bleeding in women were not signs and symptoms of cervical cancer, and 242 (66.2%) stated that pain was not a sign and symptom of cervical cancer. Majority of the respondents 288 (78%) did not relate watery discharge as a sign and symptom of cervical cancer, most of the respondents 284 (77%) had very little knowledge of the signs and symptoms of cervical cancer whilst only 86 (23%) respondents had no idea of the signs and symptoms of disease.

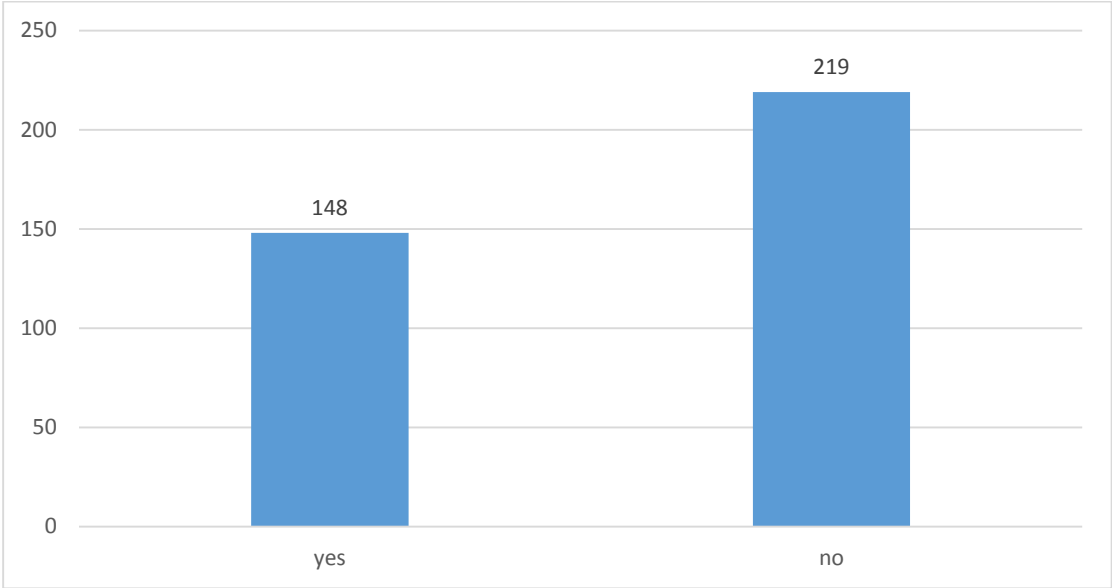
**Figure 4.4 Total knowledge levels (n = 370):**



259 (70%) of the respondents had low knowledge of cervical cancer and 111 30% had high knowledge of cervical cancer screening services.

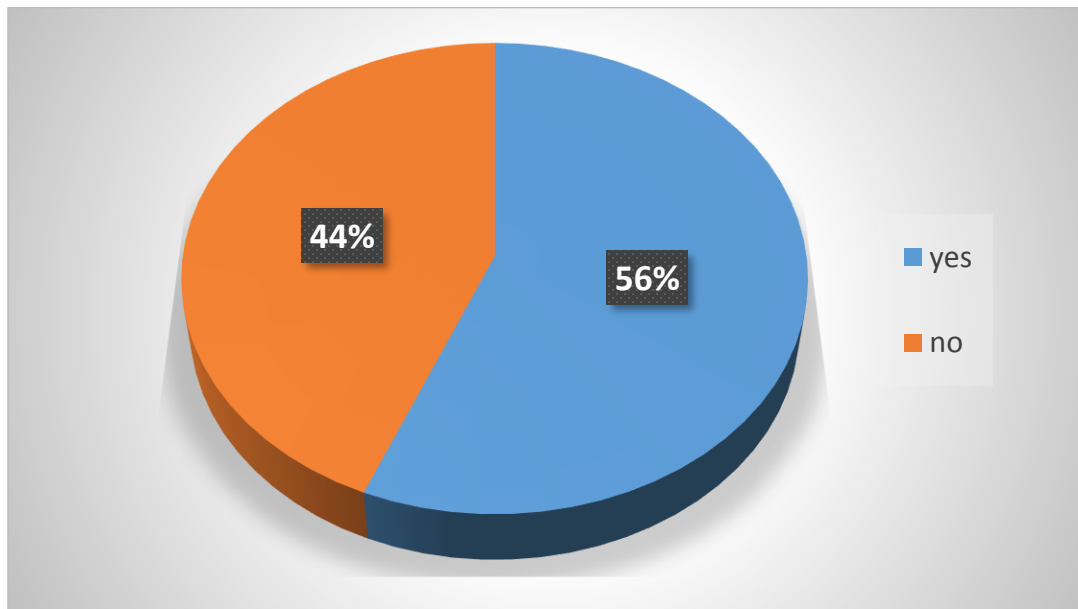
**4.5 Section C: Utilisation of Cervical Cancer Screening Services**

**Figure 4.5 Undergone CCS (n = 370):**



In this study 148 (40%) of the respondents, acknowledged having undergone CCS and 219 (60%) had not undergone CCS.

**Figure 4.6 Cervical cancer screening conducted within the past three years (n=148):**



Among the 148 respondents who had CCS, 83 (56%) reported having screening within the past three years whilst 65 (44%) had not undergone any cervical cancer screening.

**Table 4.4 Information of whether CCS can help easily cure cervical cancer, having CCS can result into infertility and if it is important for women to undergo CCS to know if she is healthy? (n = 370):**

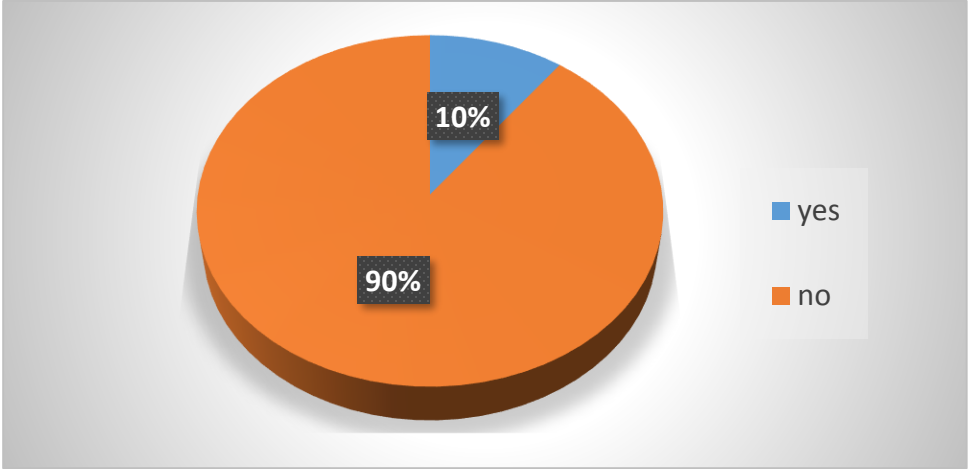
Prevailing Information	Frequency (N=370)			Percentage		
	Agree	Disagree	Not sure	Agree	Disagree	Not sure
CCS can help easily cure cervical cancer	239	29	98	65%	8%	27%
Having CCS can result it to infertility	178	62	130	48.1%	16.8%	35.1%
Is it important for women to undergo CCS to know if she is healthy?	327	5	38	88.3%	1.4%	10.3%

Of the respondent, 239 (65%) agreed that cervical cancer is easily cured if early detected. These were followed by 98 (27%) who were not sure if cervical cancer could easily be cured. The remainder 29 (8%) disagreed. The respondents were asked whether having cervical cancer results in one being infertile. 178 (48.1%) of the respondents agreed to the question, 130 (35.1) were not sure whether cervical cancer screening could result into infertility. 16.8% of the respondents disagreed strongly to this question. The majority of the respondents, 327 (88.3%) strongly agreed to the notion that it was important for women to have cervical cancer screening to know if they were healthy. Those who were not sure were 38 (10.3%) while 5 (1.4%) of the respondents disagreed.

**4.6 Section D: Social Economic**

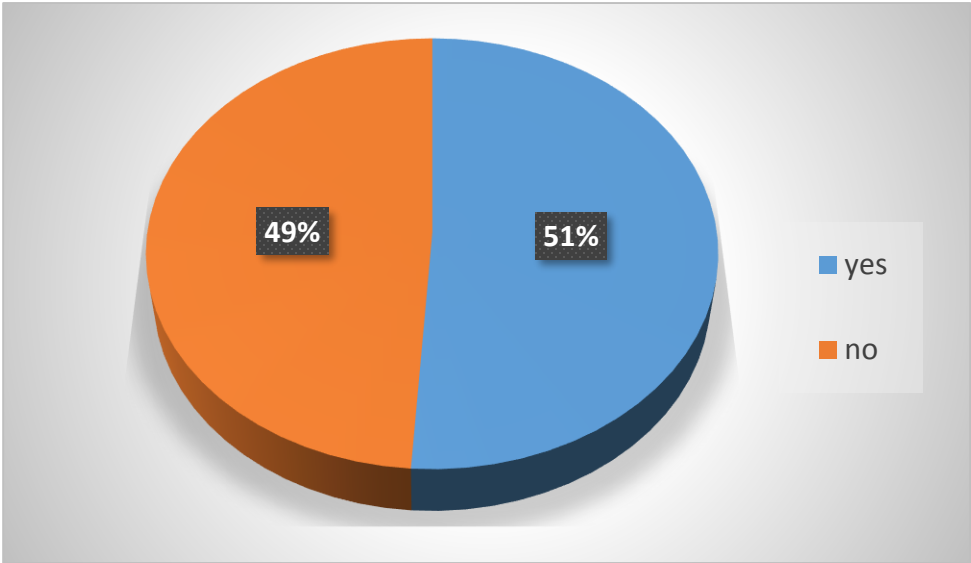
Cost involved in cervical cancer screening at your Centre?

**Figure 4.7 Costs involved in cervical cancer screening at your centre (n = 370):**



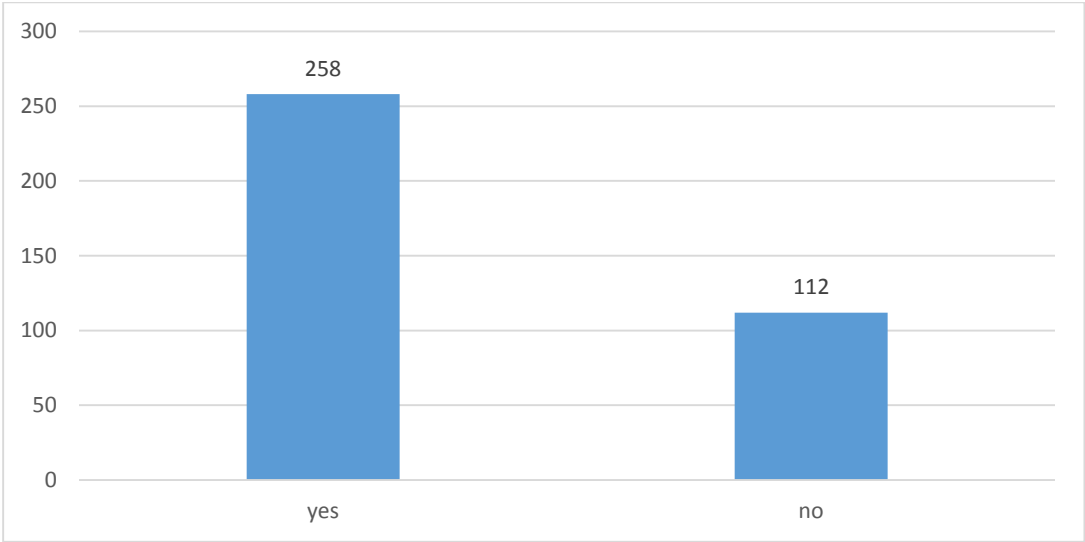
The majority of the respondent, 333 (90%) stated that were no costs involved in cervical cancer screening at their centres. Only 37 (10%) respondents said there were costs associated with cervical cancer screening.

**Figure 4.8 Affordability of the service (n = 370):**



The results showed that several respondents 189 (51%) did not have money and hence could not afford to access the CCSS.

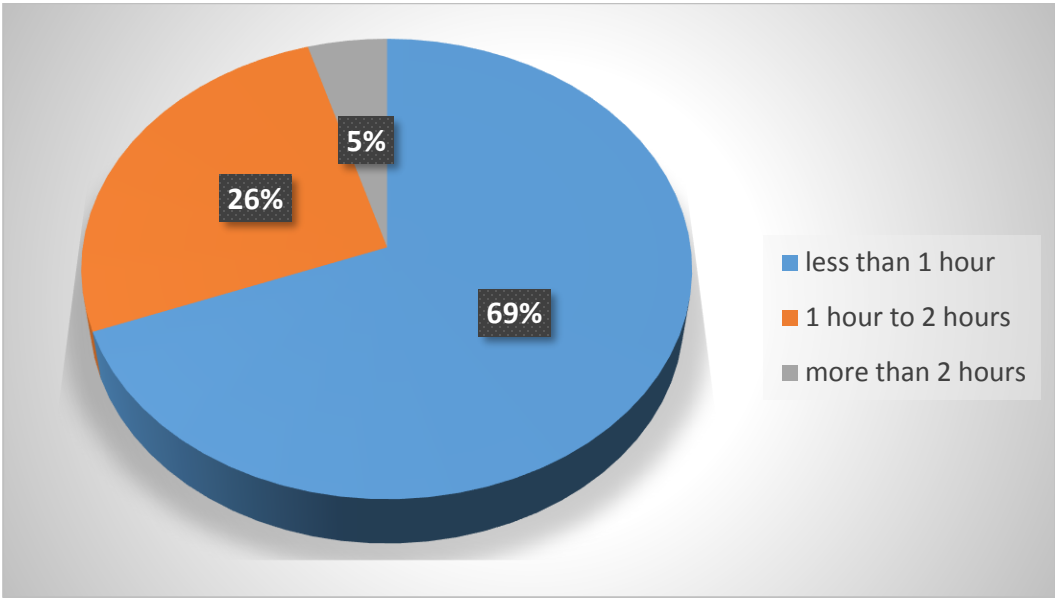
**Figure 4.9 Accessibility of cervical cancer services and partner supportive (n = 370):**



Above half of the respondents 258 (69.7%) reported partner support and accessibility as key area in accessing cervical cancer screening services were as 112 (30.3%) respondents had no partner support and no accessibility to the service.

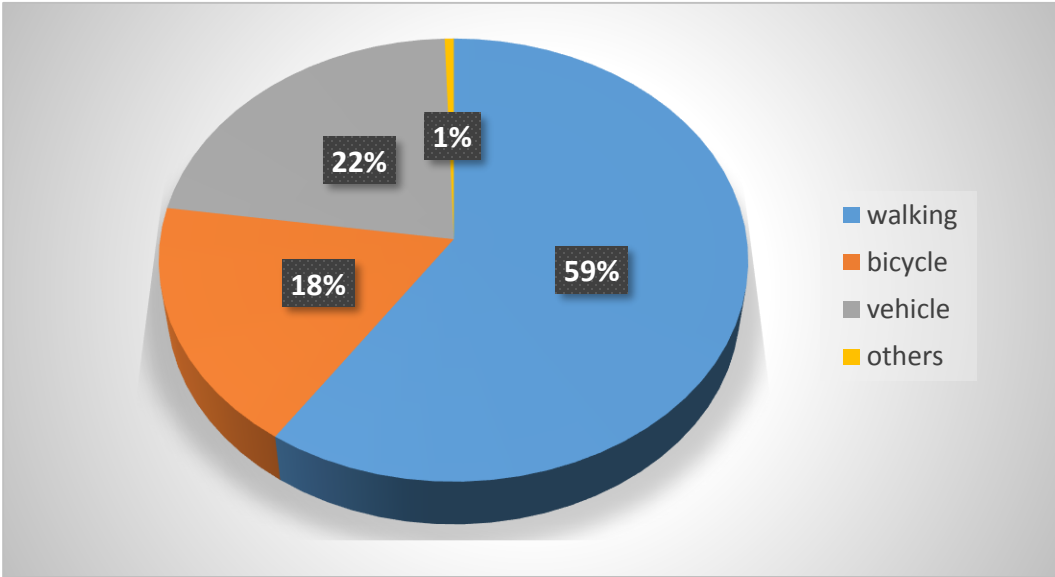
4.7 Section E: Distance

Figure 4.10 Duration of time taken to reach CCSS (n = 370):



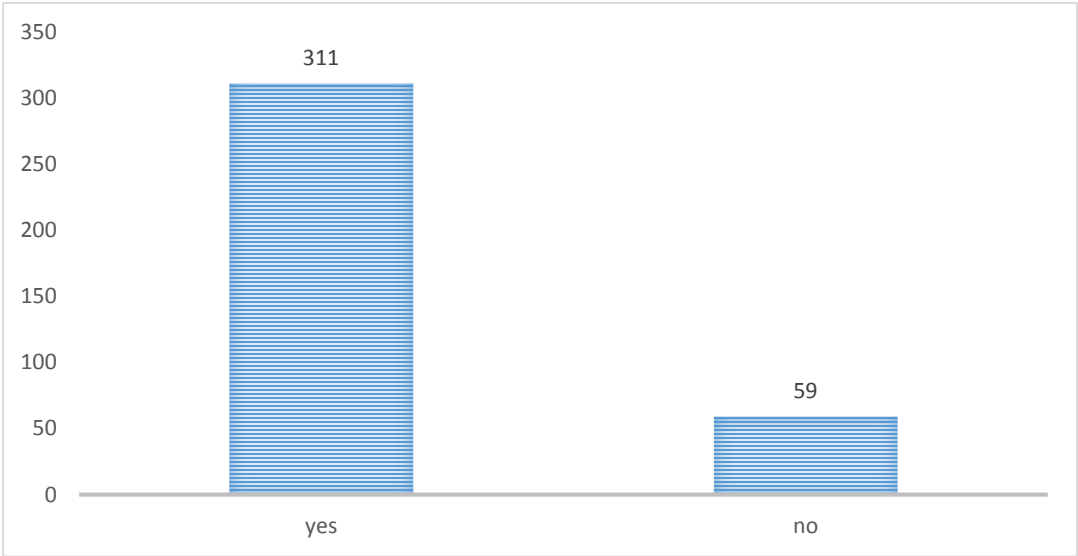
Majority of the respondents 256 (69%) took not less than 1 hour and 17 (5%) took more than 2hours to reach the facility.

Figure 4.11 Distribution of modes of transport to access cervical cancer screening services (n = 370).



Slightly above half of the respondents 220 (59%) walked to the health. About 66 (22%) of respondents used a vehicle while the remainder 67 (18%) by bicycles.

**Figure 4.12** As far as you are aware, is there any effective cervical cancer screening programme at your nearest clinic (n = 370):



Most of the women 311 (84.1%) reported being aware of the availability of cancer screening programme at their nearest clinics. The remainder 59 (15.9%) were not aware.



#### 4.8 Section F: Service Delivery

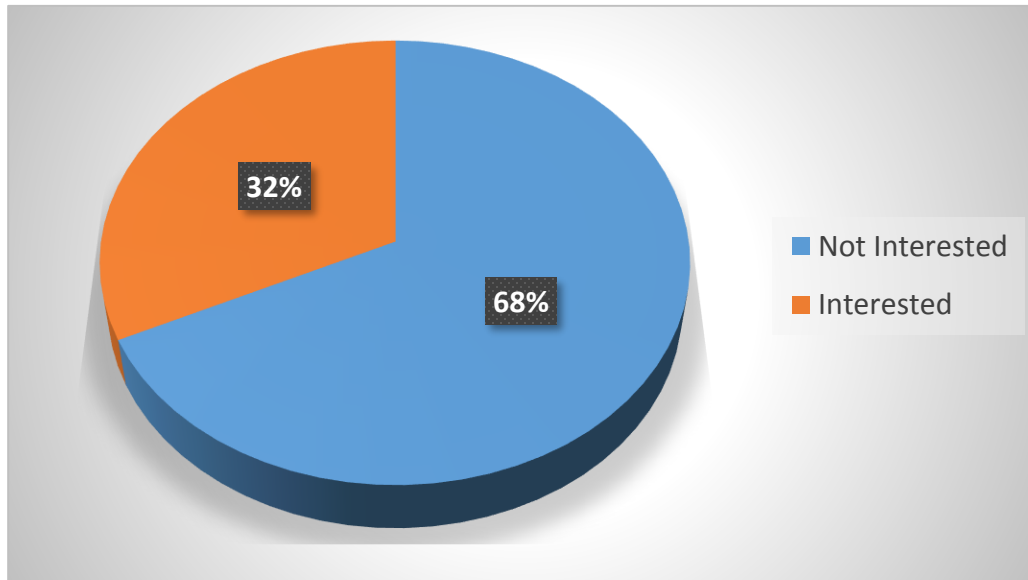
**Table 4.5 Information on whether CCS clinic operate daily, provides Privacy, provision of Pre and post counselling, Test results communication and Review date communication (n = 370):**

Services Related	Frequency		Percentage	
	Yes	No	Yes	No
Does clinic operate daily?	261	109	70.5%	29.5%
Privacy provided?	65	305	18%	82%
Pre and post counselling done ?	56	314	15%	85%
Test results communicated?	52	318	14%	86%
Review date communicated?	47	323	12.8.%	87.2%

All the respondents were asked if the cervical cancer screening programmes operated on a daily basis, only 111 (29.5%) indicated that screening programmes did not operate daily. The respondents were asked if their privacy was respected during the whole process of screening, 305 (82%) of the respondents felt that their privacy had not been respected. The respondents were asked whether counselling was conducted before and after the screening procedure about 314 (85%) of the respondents reported that counselling was not done before and after screening. Participants were also asked if the results were explained, 314 (85%) responded that their test results were not explained. The majority of the respondents 318 (86%) indicated the review dates were not communicated to participants after cervical cancer screening whilst only 323 (87.2%) indicated that review dates were communicated to the clients.

#### 4.9 Section G: Attitude

**Figure 4.13 Interest in cervical cancer screening (n = 370):**



The respondents were asked whether they had interest in screening 251(68%) stated they did not have interest in screening. Only 119 (32%) of the respondents had interest in screening.

**Table 4.6 Factors influencing utilization of cervical cancer screening services (n = 370):**

Factors That Prevent Women From Coming For Screening	Frequency (N =370)	Percentage
Fear of instruments.	226	61%
Male health.	11	3%
Stigma.	338	91%
Fear of the positive test results.	186	50%
Inadequate information.	196	53%
Friends experiences after screening.	42	11%
Culture.	18	5%
Religion.	4	1%
Family values	1	0.3%

From the study the woman cited the reasons indicated in the above table. Stigma was cited by most respondents 338 (91%) and family values were cited by 1 (0.3%) respondent.

**Table 4.7 Association between the demographic characteristics and utilization of cervical cancer screening. (n = 370):**

Demographics	C.V	D.F	Sign
Marital status	0.546	4	0.969
Age	13.752	4	0.008
Religion	5.360	2	0.069
Education	12.789	3	0.005
Residence	2.472	3	0.480
Income	4.381	3	0.223
Number of children	4.558	2	0.102
Employment	14.215	3	0.003

Table 4.7 shows associations between socio-demographic characteristics and respondents' utilisation of cervical cancer screening. Out of the demographical characteristic, only education level, employment status and age were significantly associated with the outcome utilization of cervical cancer screening services.

**Table 4.8 Association between Knowledge and Utilization (n = 370):**

		Utilization			
		Yes	No	Total	P-Value
Heard of Cervical Cancer Screening	Yes	137	176	313	<b>0.007</b>
	No	14	43	57	
	<b>Total</b>	151	219	370	
Knowledge of Signs And Symptoms	Not correct	95	160	255	<b>0.038</b>
	Correct	56	59	115	
	<b>Total</b>	151	219	370	

Table 4.8 shows associations between knowledge and utilisation of CCSS. Having heard of CCSS and knowledge of signs and symptoms were significant with P-value 0.007 and 0.0038 respectively.

**Table 4.9 Association between Health Service Delivery and Utilization (n = 370):**

		Utilization			
		Yes	No	Total	P-Value
Aware Of Cervical Cancer Screening	<b>Aware</b>	137	176	313	0.004
	<b>Not Aware</b>	14	43	57	
	Total	151	219	370	
Does The Clinic Operate Daily?	<b>Yes</b>	115	146	261	0.049
	<b>No</b>	36	73	109	
	Total	151	219	370	
Pre And Post Counseling Done	<b>Not Done</b>	42	188	230	0.000
	<b>Done</b>	109	31	140	
	Total	151	219	370	
Provided Privacy	<b>Not Provided</b>	35	174	209	0.000
	<b>Provided</b>	116	45	161	
	Total	151	219	370	
Test Results Explained	<b>Not Explained</b>	46	198	244	0.000
	<b>Explained</b>	105	21	126	
	Total	151	219	370	
Review Date Communicated	<b>No</b>	51	202	253	0.000
	<b>Yes</b>	100	17	117	
	Total	151	219	370	

Table 4.9 shows associations between health service delivery and utilization of cervical cancer screening services. Awareness of CCSS was significant with a P-value of 0.004, operation of the clinic daily with P-value of 0.049, pre and post counselling, provision of privacy, explanation of results and communication of review date all had a P-value of 0.000.

**Table 4.10 Association between Social Economic Status and Utilization (n = 370):**

		Utilization			
		Yes	No	Total	P-Value
Monthly Income And Utilization	<b>K3000 And Above</b>	66	80	145	<b>0.223</b>
	<b>Below K3000</b>	86	139	225	
	Total	151	219	370	
Afford The Cost Associated With Utilization	<b>Afford</b>	79	110	189	<b>0.693</b>
	<b>Do Not Afford</b>	72	109	181	
	Total	151	219	370	
Partner Support	<b>Yes</b>	115	143	258	<b>0.025</b>
	<b>No</b>	36	76	112	
	Total	151	219	370	

Table 4.10 shows associations between social economic status and utilization of CCSS. Monthly income was significant and partner support with p-value of 0.223 and 0.025 respectively while affordability of cost was not significant with a P-value of 0.693.

**Table 4.11 Linear and Logistic Regression (n = 370):**

Characteristics	Odds Ratio at 95% Confidence Level	P - Value
Knowledge	1.08 (0.92-1.29)	0.0319
Health care delivery system	2.30 (1.43-0.96)	0.43
Partner support	0.96 (0.9-1.07)	0.596
Distance	1.23 (1.10-1.36)	0.032
Attitude	0.83 (0.77-0.88)	<0.001

Multi variant logistic analysis regression adjusted for Knowledge, Health care delivery system, Partner support, Distance and Attitude with utilization of cervical cancer screening services.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS AND THE IMPLICATIONS ON THE HEALTH CARE SYSTEM**

#### **5.1 Introduction**

The discussion of the findings is based on the research analysis of the responses from respondents who accessed care at Mtendere, Kalingalinga, Chawama and Kanyama health facilities. The study purpose was to evaluate the factors influencing utilization of CCSS by women in Lusaka urban district. The outline of the discussion consists of the characteristics of the sample, discussion of each objective used in the study, the implications of the findings to the nursing care system, recommendations, dissemination of findings, limitation of the findings and the conclusion.

#### **5.2 Socio-Demographic Characteristics of the Sample**

According to table 4.1, slightly more than half (51.4% n= 190) of the respondents were between 18 to 28 years old. The explanation for the large number of respondents falling between 18 to 28 years old could be attributed to the fact that most household population in Zambia has a greater number of young people than older people (CCSO, 2007). This study showed a statistically significant relationship ( $P \leq 0.008$ ) between age and utilisation of cervical cancer screening services.

More than half (64.1%, n=237) of the study respondents were married. This could be attributed to the fact that the participants were drawn from women who were available at the health facility during data collection period in various clinics. Therefore, married women have a lot of services they can utilise at the health centre than unmarried women. The study

established that marital status was statistically insignificant ( $P \geq 0.969$ ) with CCSS. Majority (94.4%  $n=353$ ) of the study respondents had some formal education. with a minimal number (4.6%  $n=17$ ) of respondents having no formal education at all.

The study also reviewed that there was statistical significant relationship ( $P \leq 0.005$ ) between education levels and utilisation of cervical cancer screening services. These findings are supported by various authors (Sigh et al 2012; Ezechi et al, 2014; Chang et al, 2007; Cunningham et al, 2015). These studies revealed that there was a direct relationship between the women's level of education and their willingness to be screened for cancer of the cervix. Sigh et al, (2012), stated that education is an important determinant in health-seeking behaviour since it is assumed that educated people seek medical attention early more than the uneducated or semi-educated people who would seek unconventional medical attention before going to the hospital.

Ezechi et al, (2014), contended that education played a very important role in women's assimilation of health education given at the institutions as compared to those with minimal or no formal education at all. Their findings, further, revealed that educated women tend to have more concern about their health and cervical cancer screening in particular. Chang et al, (2007) and Cuning et al, (2015) their studies reviewed that educated people were likely to use this service as they have various sources of information such as print media and social media. Education changes the mind set of people where access to health services are concerned as educated people are better placed to understand the importance of using screening services to prevent getting diseased.

On the contrary various studies (Were et al 2011, Morema et al 2014 and UN: habitats, 2009) were done on respondents with tertiary education. A study on primary school teachers (Were et al 2011) revealed a low utilization rate of 5% by primary school teachers. Another study by Morema et al 2014 on health workers found that only about 15% of the respondents utilized the services. UN-habitat (2009), study on health staff managers showed that only 3% of the respondent had utilized the service from study. This low utilization may be attributed to lack of awareness by those who have higher levels of education. One's

education level does not make one to be aware or know everything. It is vital to note that being educated may not be the only factor influencing screening and those educated people cited busy schedule as the biggest reason for non-screening, hence health workers should continuously give health education regardless of one's educational status.

In regard to religion, more than three quarters (88.4%, n=327), of the respondents were Christians. This could be attributed to the fact that Zambia is largely a Christian nation with over 80% of the population believing in the Christian faith (Africa safari 2010).

Slightly above half (57.3%, n=212) of the respondents were unemployed, the employed respondents were (22.4%, n=212) while those self-employed were (20%, n=74) and in the study only (0.3%, n=1) was a pensioner. A statistically significant relationship ( $P \leq 0.003$ ) was observed between employment status and utilisation of cervical cancer screening services. The high levels of unemployment among the respondents reflects the low levels of the monthly personal incomes. Those who earned less than k1000 to having no income represented (36.2% n=134) of the respondents. Indirani et al (2010) explained how utilization of health services in developing countries were affected and they further stated that when the population is very poor with very low income they do not give enough attention to their health care needs due to financial problems.

In this study, the low levels of the respondents, (40%, n=148) who had undergone cervical cancer screening can be attributed to the unemployment status and subsequently low incomes. Therefore, there is a significant association between the respondent's income and utilization of cervical cancer screening services. Similarly, Al-Nagger et al, (2010) found low income as a barrier to being screened among young women. This study, concluded that the women's accessibility to cervical cancer screening was largely influenced by their income levels as most of the respondents depend on their spouses.

Close to half (49.5%, n=183) of the respondents lived in medium density areas and respondents living in high density areas were (26.2%, n=97). The explanation for having close to half of the respondent's residence living in medium density areas could be the study



sites. The respondents' location of residence did not influence their accessing of cervical cancer screening services. This study finding is similar to the finding of kibicho, (2014) who did a comparative study on rural and urban women on the rates of utilization of cervical cancer screening in his study it was concluded that women in both settings had low utilization rates despite the different areas.

From the respondents surveyed, (64.3%, n=238) had between one and three children. (30%, n=111) respondents had between four to six children while (5.7%, n=21) had between seven to nine children.

### **5.3 Knowledge on Cervical Cancer Screening**

Through this study it was established that majority (85%, n=313) of the study respondents had heard about CCSS and (15%, n=57) had not heard about the service as shown in figure 4.1. This high awareness level could be attributed to the study population being literate as majority of them (94.4%, n=353) had some form of formal education. This finding is contradicting with Amarin et al., (2008), whose study demonstrated that the vast majority of women in some countries had not heard of cervical cancer and even more knew nothing about cervical screening. Although almost three quarters of the respondents had heard about CCSS, this did not translate to good knowledge as the majority (74%, n=232) of the respondents, could not correctly define what cervical cancer screening was, and only (26%, n=81) of the respondents knew about CCSS. These findings are consistent with the findings of Mulonda (2014) whose study revealed that most women had heard about cervical cancer but had lots of myths and misconceptions about it. In many developing countries, women's knowledge of cervical cancer is very limited (Wong, 2009).

Fig 4.2 reviewed that slightly above half (59%, n=217) respondents source of information was the hospital. Similarly, sigh et al (2012) and Aniebue (2008) studies indicated that most of the respondent's sources of knowledge was from the hospital.

This indicates that the dissemination of health information at the health facilities was effective as every respondent was to be advised on the available screening services, hence the health workers should come up with good and creative health education to reach and convince every woman to screen. Health workers especially nurses are often times looked upon as "role models" in health related issues. Nurses play a major role in enlightening the public on the availability and need for cervical cancer screening services. They are informed individuals who are expected to have more information and knowledge about several health related issues and also act as role models in uptake of preventive services. The findings affirm Indirani et al (2010)'s assertions that in any community, trained nurses and midwives constitute a knowledgeable class with regards to medical information and intervention and that nurses are important health personnel that are supposed to educate women on the need for cervical screening.

Additionally, those women who may get the information from the community may not get the right information on cervical cancer and screening services because the information may be given by other women who may not give them the full and true information. Similarly, Twinn and colleagues (2002), indicated that most women got wrong knowledge about risk factors of cervical cancer screening services from their colleague, Prominent in their finding was the fact that women are not given adequate information on cervical cancer and screening. This shows that women are willing to know about their health but the health workers are not using their vantage positions to provide necessary information on cervical cancer screening. The participants were eager to get more information from nurses on cervical cancer and cervical cancer screening. The source of knowledge was statistically significant with a p-value of 0.007.

This study further sought to find out if the respondents knew the predisposing factors of cervical cancer, and on average only a few (29%, n=108) of them knew the predisposing factors. However, this is in contrast to a study done in Kasarani, Kenya which found out that 80% of study participants knew the predisposing factors (Ombechi et al, 2009). This difference could be attributed to the kind of health education they may have been receiving

that might not be prevalent among the women in Lusaka. Majority (44.6%, n=165) of the respondents were of the opinion that only promiscuous women are at risk of cervical cancer as shown in table 4.2. This is a misconception because not only promiscuous women are at risk of the disease. Women who are faithful but whose husbands visit sex workers are equally at risk of being infected with HPV as they might be infected by their husbands. This study established an association between a woman's levels of knowledge on the predisposing factors and utilization with a p-value of 0.006.

To assess the knowledge levels, the participants were further asked if they knew the signs and symptoms of cervical cancer and on average only (34.1%, n=126) knew the correct signs and symptoms, the remainder (74%, n=244) didn't know. Similarly, a study on utilization of cervical cancer screening conducted in Nyeri, Kenya by Githogo found that only 10% of the study participants gave correct responses of the signs and symptoms, (Githogo, 2012). Having knowledge about the signs and symptoms was statistically significant to utilization with a p-value of 0.038.

Despite slightly above quarter (30%, n=111) of the respondents in the current study scoring high level of knowledge on cervical cancer, gaps in knowledge still exist about what cervical cancer screening is, the risk factors for cervical cancer. Though they did not know what cervical cancer screening entailed or the screening methods, they still believed that it is important to undergo cancer screening as this helps in early detection and treatment. Knowledge was statistically significant with a p-value of 0.031 and therefore, rejecting the null hypothesis that there is no relationship between a woman's levels of knowledge and their likelihood to utilise cervical cancer screening services. Contrary to this study Adanu (2015) Found that most respondents had heard about cervical cancer screening and most of them knew and utilized the services. However, Adanu's finding may be attributed to the fact that his study was done on high class women and may be due to the increased sensitization programmes on cervical cancer screening which may be unavailable among women in Lusaka.

#### **5.4 Barrier of CCSS Utilisation in Relation**

This study was able to establish that the rate of utilisation was poor, (40%, n=148) of the respondents had utilized the services before but only, (5%, n=7) of the respondents went for screening willingly, (95%, n=141) reported having screened after observing a problem. The majority of the respondents 220 (60%) had not utilized cervical cancer screening services. This finding was due to the fact that most people only seek medical attention if a problem has been observed.

Similarly, Loyva (2015) observed that most women were not willing to screen if they did not have a gynaecological problem. On the contrary, Mulonda (2013), revealed that most women with bleeding delayed going to the hospital after observing signs and symptoms as the respondents strongly associated bleeding to witchcraft, this was because her study was conducted in a rural area of Zambia where most women still believe in Zambian tradition and witch craft.

The major factors identified by the women that influence screening utilization were inadequate information, (53%, n=196) Illiteracy, belief in not being at risk, having many contending issues, nonchalant attitude to their health, financial constraint, fear of having a positive result, (50%, n=186) fear of the instrument (61%, n=226) male health workers, (3%, n=11), stigma, (91%, n=338) Friends experiences after screening (11%, n=42), Culture, (5%, n=18), Religion, (1%, n=4), Family values (0.3%, n=1).

Despite the majority, (90%, n=333) of the total respondents surveyed indicating that there was no cost associated with the cost (10%, n=37), indicated that there was a cost associated with cervical cancer screening services. The respondents knew that the service was free however, (51.1%, n=189) of the sample indicated they could not afford the cost that was associated with this services, while (48.0%, n=181) could afford the cost, this result could be attributed to the attitude of the women as this was just used as an excuse for not utilizing the service because the service is free in Zambia.

In relation to the cost of transportation most of the respondents accessed the screening facilities by walking, 59.5%. The respondents who used vehicles were 22.2% of the total sample surveyed. Most of the respondents (69.2%, n=220), walked short distances less than one hour to the nearest clinic, in this study distance was statistically significant with a p-value of 0.0032. This was due to the availability of screening facilities within the vicinity of the respondents. From the finding it is evident that most respondents stay within a radius of 5km to a nearest health facility. In a similar study (Kibicho, 2014) Findings were that women in rural areas complained of long distances and transport costs as a major factor to non-utilization of CCSS but the rate of utilization was as low in rural area as in the urban settings. Low utilization among women in the urban setting was attributed to issues such as busy schedule.

In this study, the respondents (69.7%, n=258) indicated that their spouses did not support them. The remaining (30.2%, n=112) of the respondents were supported by their partners as they accessed cervical cancer services. Male partners play a vital role in the decision of family matters and influence utilization. In a similar study, Toddy et al (2006) in their paper on male involvement in promoting reproductive health concluded that own and partners' reproductive health is vital in most communities and that males are the head of the family, are usually the income earners and in most cases the male partner decides who, when and where to seek health care services. Similarly, the findings of Loyva (2015) explained that majority of their respondents mentioned husbands as significant persons to influence screening behaviour this finding highlights the importance of male involvement in women's reproductive health issues, an emerging trend in reproductive health service utilization.

Health care services as indicated by the findings of this research, greatly influence utilization. women get discouraged if the service is not well organised. Health professionals should be aware of the attitude of women towards the quality of the service.

All the respondents were asked if the cervical cancer screening programmes operated on a daily basis, (29.5%, n=111) indicated that screening programmes did not operate daily. The respondents were asked if their privacy was respected during the whole process of

screening, (82%, n=305) of the respondents felt that their privacy had not been respected. The respondents were asked whether counselling was conducted before and after the screening procedure about, (85%, n=314) of the respondents reported that counselling was not done before and after screening. Participants were also asked if the results were explained, (85%, n=314) responded that their test results were not explained. The majority of the respondents (86%, n=318) indicated the review dates were not communicated to participants after cervical cancer screening whilst only (87.2%, n=323) indicated that review dates were communicated to the clients. The health workers should try to alleviate the negative behaviour of women with certain practices during examination as much as possible and give information to them about the procedure prior to examination. Women should be allowed to ask questions about the procedure. Such practices may prevent women from developing negative feelings concerning the examination.

## **5.5 New Finding**

It has been established from this study that the service is largely discriminated as the respondents 338 (91%) pointed out stigma as a barrier that made the women not to utilize the service as the service is largely associated to immoral behaviour, hence it is an embarrassment such that even women who accessed the service would not want to come out freely that they accessed the service. This is so because even women who did not utilise the service responded to questions on how the service was offered to them such as the test result not explained, pre and post counselling not done as they accessed the screening and the review date not communicated.

From this finding the researcher concluded that the service suffers discrimination due to the embarrassment the woman will go through in the community. Embarrassment is an important barrier in gynaecological screening. Embarrassment is an unpleasant emotion that people often experience in social interaction and is accompanied by feelings of awkwardness, foolishness and frustration (Edelmann, 1990).

Understanding the organ in question women may be embarrassed by bodily predicaments (or exposures) or the apprehension of an unintended public-face. There is a lot of work in terms of health education the women need to accept the service and use it freely.

## **5.6 Implications to the Health Care System**

### **5.6.1 Nursing Practice**

Nurses are among health care providers trained in VIA, and they have a leading role in the delivery of quality health care in the country. With the increase of cervical cancer morbidity and mortality in women in the country, the health care system is experiencing a lot of strain on resources especially that they are other priority areas of concern such as, malaria, tuberculosis and HIV/AIDS.

The study revealed that the majority 232 (74%) of participants in the study had low knowledge of cervical cancer and the screening services. This impact negatively on nursing practice, by implying that nurses should engage more in giving Information Education and Communication (IEC) on CCSS at all levels of health care delivery. It is also important to devise outreach programmes aiming at sensitizing women including those in hard to reach places, in order to empower them with adequate information on cervical cancer and its preventive strategies. This will encourage more women to utilize CCS services. The MOH should also organize workshops on cervical cancer and the screening services for Nurses so that they can be equipped with new trends on cervical cancer and preventive strategies in nursing practice. Nurses need to be trained not only to provide comprehensive health education services routinely to their clients but to also motivate themselves to practice what they teach and lead by example like utilising of CCSS.

Furthermore, with the availability of Cancer Disease Hospital at the University Teaching Hospital in Lusaka where various forms of cancers are being treated, cervical cancer inclusive, the MOH in conjunction with other stakeholders such as CIDRZ, should scale up

screening services to other areas so that many women can have an opportunity to be screened for cervical cancer.

### **5.6.2 Nursing Administration**

Nurses as managers have a primary role in carrying out their management functions (planning, organizing, controlling and delegating). Therefore, it is imperative that nursing management improves nurses staffing levels so that sufficient time is allocated to IEC. Nurses should be trained in nursing education, preventive strategies of cervical cancer and the available screening methods such as VIA. Also the administration should plan to take more nurses for training in Oncology.

### **5.6.3 Nursing Education**

Since cervical cancer is the second most common cancer among women in the world, it's important that all the women become aware about cervical cancer and the screening services available. This implies that a comprehensive component on cervical cancer and screening services should be included in the nursing curriculum. This will help students acquire adequate knowledge on the risk factors, signs and symptoms, available screening methods and other preventive strategies and thus enable them educate women on cervical cancer and screening services wherever they work.

### **5.6.4 Nursing Research**

The literature review in this study showed that CCS services are a new trend in Zambia. Therefore, nurse researchers should be encouraged to research more on cancer of the cervix so as to find ways and means of helping women in Zambia to be empowered with knowledge



on cervical cancer and be encouraged to seek CCS services routinely. This will help to prevent many premature deaths from cervical cancer.

## **5.7 Recommendations**

There is need for MOH and other stakeholders like Ministry of Education, churches and NGOs to strengthen reproductive health services for women where cancer of the cervix and CCSS screening issues would be communicated to women by sensitising the importance of CCSS to women between the age of 18-37 in the communities so that they can be able to access the services quickly.

There is need to train health care providers in VIA screening methods in order to improve staffing levels and to make it easier for health workers to give IEC at any point of contact with women. Additionally, they should also introduce the outreach programmes using mobile clinics in order to extend the services to the areas that are not being served. This would enable women in such areas to have access to information on cervical cancer and screening services and could be screened as well.

Information, Education and Communication (IEC) on the importance of CCSS should be given to women during Maternal and Child health care activities and in all departments so that women can access the services at the health facility.

Community Based Agents (CBAs) should be fully equipped with knowledge about cervical cancer and importance of CCS screening services, so that they can in turn sensitize communities on cervical cancer.

Government should fund cervical cancer programs so that health workers can use door to door campaign strategy, radio/television sensitization on the prevention strategies of cervical cancer to the community.

The MOH should lobby for more cooperating partners and international organizations such as the Johns Hopkins Program of International Education in Gynaecology and Obstetrics (JHPIEGO) which is implementing visual inspection screening.

There is need for the study to be duplicated in other Provinces to enable generalization of the results.

Male involvement in cervical cancer screening to be encouraged.

### **5.8 Dissemination of Findings**

The findings of this study will be disseminated through summaries of the research findings and recommendations to the LDHMT, policy makers and other interested organizations such as CIDRZ. The researcher also intends to have a meeting with Mtendere, Kanyama, Chawama and Kalingalinga members of staff to inform them of the study findings and the recommendations. A copy of the research findings will be submitted to University of Zambia, school of Nursing Sciences and Medical library.

### **5.9 Limitations of the Study**

A cross-sectional study was carried out on a limited study population, so the findings should be generalized with caution as only clients who visited the selected clinics during data collection period were sampled.

### **5.10 Conclusion**

This was evaluating the factors influencing utilization of cervical cancer screening services in selected clinics of Lusaka urban district of Lusaka. This write up comprised five chapters of which chapter one covered introduction, background information, statement of the

problem, theoretical framework, justification of the study, research objectives stating of the hypothesis, definition of terms and identification of variables and their cut off points.

Chapter two covered literature review on cervical cancer screening globally, regionally and locally and on the variables. Chapter three was the methodology, chapter four was presentation of findings and chapter five was discussion of research findings. The study addressed the following specific objectives were to: identify the association between the socio demographic characteristics and utilization of CCSS, determine the levels of knowledge on CCSS among women, assess women's attitude towards utilization of CCSS and identify the barriers to CCSS. All the objectives were successfully accomplished as the study revealed that slightly below three quarters 259 (70%) of the respondents had low knowledge of cervical cancer and screening services. It also revealed that 219 (60%) of the respondents had never been screened for cervical cancer.

The study further showed that the majority 251 (86%) of the respondents had no interest in cervical cancer screening. The study findings revealed that there was a relationship between some demographic characteristics such as education, employment and age, with utilization of cervical cancer screening. Women with lower socioeconomic status were found to be much less likely to undergo the freely available cancer screening services.

The results of this study enable us to understand more thoroughly the characteristics of women who undergo cervical cancer screening. The findings can help formulate related policies that are directed at removing the barriers to accessing medical care and targeting those at-risk groups. This analysis provides new evidence of the factors affecting the utilization of preventive care among women in a Lusaka, Zambia which are comparable to those of other countries, and may shed further light on the issue of promoting cancer screening and women's health.

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## APPENDICES

### APPENDIX I: INFORMATION SHEET

***TITLE OF STUDY: FACTORS INFLUENCING UTILIZATION OF CERVICAL CANCER SCREENING SERVICES BY WOMEN IN SELECTED CLINICS OF LUSAKA URBAN DISTRICT IN ZAMBIA.***

My names are Wanga Zulu Mubanga, a student pursuing a Master of Science in Nursing Degree, at the University of Zambia, School of Nursing.

In partial fulfilment of my training in Master of Science Nursing Degree program, I'm required to undertake a research project of which my topic is stated above. The main objective of this study is to determine the factors influencing utilization of cervical cancer screening services by women in Lusaka Urban district.

This study wishes to find out why most women have not been going for cervical cancer screening services that are currently offered at most of the clinics in Lusaka and only questions relating to the subject matter will be asked hence you have been asked to participate in this study Before you decide whether or not to participate in this study, I would like to explain to you the purpose of the study, any risks or benefits and what is expected of you. I wish to inform you that participation in this study is voluntary and therefore; you are free to withdraw at any stage of the study if you so wish to, even if you consented to and you are free to refuse to participate in the study. You were randomly selected to participate in the study. You will answer questions on knowledge levels, educational level, cultural beliefs, attitude and distance/transport to the health facility. You will also be expected to give information on your demographic data, if you are not sure or you think you may leave any question unanswered for personal reasons you may feel free to do so. Any information given will be kept in confidence and no name will be written on the interview schedule guide. This study has no risks as per say but looking at the nature of the topic some questions

may seem to be sensitive and personal but don't worry, care will be taken not to make you feel embarrassed, the interview may take a bit of sometime roughly 40 minutes if you feel stressed please let me know and I will attend to your needs accordingly.

### **Benefits**

There are no monetary benefits from this study but you will benefit from the study in the sense that knowledge and advice on cervical cancer, cervical cancer prevention and cervical cancer screening will be given, the study results will also help as improve ways of educating the women to utilize cervical cancer screening services. The information that you will give will assist the researcher to determine factors influencing utilization of cervical cancer screening services and the findings will be used by policy makers and other organizations in finding ways to improve utilization of the screening services by the women.

If you are willing to participate in this study, you will be asked to a sign consent or thumb print for agreement. Please ask where you are not clear for clarification.

### **Procedure**

The study involves a face-to-face interview with the respondent that will ask you a set of questions using a structured questionnaire. After signing the consent form, i will proceed to ask you the relevant questions and your responses will be written down. The interview will take about 40 minutes.



## **ZOWONJEZERA - PEPALA LOYAMBA**

***MUTU WA PHUNZIRO: ZINTHU ZOMWE ZIMAKHUZA KUGWIRITSIRA NCHITO KANSALU KOYANGANIRA KHANSA YA KHOMO YA CHIBEREKERO NDI AZIMAI M'MAKLINIKI OMWE AMASANKHIDWA KU LUSAKA M'MZINDA WA ZAMBIA.***

Ine dzina langa ndi Wangu Zulu Mubanga wophunzira zakufufuza za sayansi yaukale, ku Yunivesite ya Zambia, sukulu ya unamwino. Ndikukwanitsa mwangwiro maphunziro anga ku pulogolamu ya sayansi ya digiri ya unamwino, ndikufunika kuti ndichite kafukufuku omwe ndatchula pamwambapa. Cholinga chachikulu cha phunziro lino ndi kudziwa zomwe zimakhudza kugwiritsira ntchito kansalu ka khansa ya khomo yachiberekero mwa azimai ku Lusaka.

Phunziroli likufunika kudziwa chifukwa chake azimai ambiri samapita kukayedzetsa khansa yakhomo ya chiberekero yomwe ikuperekedwa kuzipatala zambiri ku Lusaka ndipo mafunso okha akhudzana ndi nkhanayi adzafunsidwa kutenga nawo mbali mu phunziroli. Musanapange chisankho kapena musanalowe nawo mu phunziro ili. Ndikufuna kukufotokozerani cholinga cha phunziroli, zoopsa kapena zopindulitsa zililzonse ndi zomwe mukuyembekezera. Ndikufunanso kukudziwitsani kuti kutenga nawo mbali mu phunziroli ndi mwaufulu, choncho, uli omasuka kuchoka pa gawo lililonse la phunziro ngati mukufuna, ngakhale mutavomereza ndipo muli omasuka kukana kutenga nawo mbali pa phunziroli. Mudzayankha mafunso okhudzana ndi chidziwitso, msikhu wa maphunziro, zikhulupiliro, chikhalidwe ndi mtunda wa mayendedwe kupita ku chipatala. Mudzayembekezera kuti mudziwe zambiri zokhudza deta yanu, ngati simukudziwa kapena mukuganiza kuti simungayankhe funso lirilonse lomwe simunayankhidwe pazifukwa zanu zomwe mumakhala omasuka kuchita. Chidziwitso chilichonse chomwe

chidzaperekedwa chidzasungidwa ndi chidaliro ndipo palibe dzina lomwe lidzalembedwa potsatira ndondomeko ya zokambirana. Phunziroli liribe zoopsa monga momwe likunenera koma kuyangana pa chikhalidwe cha mutuwo, mafunso ena angawoneke osasamala, osadandaula, kusamalidwa kuti musamve manyazi, kuyankhulana kungatenge pang'ono nthawi pafupifupi mphindi makhumi anayi. Ngati mukumva kuti mukupanizika, chonde, ndidziwtseni ndipo ndikupita ku zosowa zanu molingana.

### **Ubwino**

Palibe zopindulitsa zapadera kuchokera mu phunziro lino koma zizaphindula ndi phunziroli cifukwa chakuti chidziwitso ndi malangizo pa khansa ya khomo ya chiberekero, kupewa matenda a khansa ya khomo ya chiberekero kudzaperekedwa, zotsatira zomwe zizaphunzitsidwa zidzathandizanso azimai kuti agwiritse nchito chithandizo cha khansa ya khomo ya chiberekero. Zomwe mungapereke zidzathandiza mfufuziyu kuti adziwe zomwe zimayambitsa kugwiritsa nchito njira zowunika khansa ya khomo ya chiberekero ndipo zomwe adzapeza zizagwiritsidwa nchito ndi omwe amapanga ndondomeko ndi mabungwe ena kupeza njira zowonjezera nchito zowunikira azimai.

Ngati mukufuna kutenga nawo mbali mu phunziro ili, mudzafunsidwa kuti mulembe chilolezo kapena zolembe zanu kuti muvomereze. Chonde, funsani zomwe simukudziwa bwino.

### **Ndondomeko**

Kuphunzira kumaphatikizapo kuyankhulana maso ndi maso ndi wofunsayo amene angakufunsemi mafunso osiyanasiyana pogwiritsa nchito mafunso olembedwa. Pambuyo posayina fomu yoyenera, ndikupitiriza kukufunsani mafunso oyenera ndipo mayankho anu adzalembedwa pafupi mpindi makumi anai.

**APPENDIX II: VOLUNTARY CONSENT FORM DECLARATION**

***TITLE OF STUDY: - FACTORS INFLUENCING UTILIZATION OF CERVI-CAL  
CANCER SCREENING SERVICES BY WOMEN IN  
SELECTED CLINICS OF LUSAKA URBAN DISTRICT IN  
ZAMBIA.***

I have been explained to and I understand the nature, confidentiality, purpose, benefits, risks and discomforts of the research in which I have been requested to participate. I also understand that taking part in this study is purely voluntary. I further understand that even after having agreed to take part in this study, I can at any time withdraw without having to give an explanation.

The opportunity to ask questions about the research was given and I have been answered to my satisfaction.

I therefore agree to participate.

I .....here by called the respondent understands the guidelines of this study and I am willing to participate in the study.

Dated this ..... day of .....2017.

**Signature/ thumb print** of respondent.....

**Witness**.....

## **PERSONS TO CONTACT FOR PROBLEMS OR QUESTIONS**

**1. Wanga Zulu Mubanga,**

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**2. Dr Dorothy Osigwe Chinuedo Chanda and Mrs Caroline Zulu.**

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**3. The Chairman, Research Ethics Committee,**

University of Zambia.  
P.O. Box 50110, Lusaka.  
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**ZOWONJEZERA WACHIBIRI:  
MAWONEKEDWE OLOLERA OVOMEREZEKA CHIWONETSERO  
(CHIDZIWITSO CHOBVOMEREZEKA)**

**MUTU WA PHUNZIRO: ZINTHU ZOMWE ZIMAKHUDZA KUGWIRITSIRA  
NCHITO KANSALU KOYANGANIRA KHANSA YA  
KHOMO YA CHIBEREKERO NDI AZIMAI  
M'MAKHALIDWE OMWE AMASANKHIDWA KU  
LUSAKA M'MZINDA WA ZAMBIA.**

Ndakhala ndikufotokozeredwa ndikukumvetsetsa chikhalidwe, chisinsi, cholinga, phindu, zoopsa ndi zosokoneza zafukufuku omwe ndafunsidwa kutenga nawo mbali. Ndikumvetsetsanso kuti kutenga nawo gawo mu phunziroli ndikudzipereka. Ndikumvetsetsa kuti ngakhale titagwirizana kuti ndichite nawo phunziroli, ndimatha kusiya nthawi iliyonse ndikupanda kufotokozerera.

Mwai wakufunsa mafunso okhudza kafukufuku waperekedwa ndipo ndayankhidwa kuti ndikhale wokhutira.

Choncho ndikuvomereza kutenga mbali.

Ine ..... ndiri wovomerayo ndi wo mvetsetsa malangizo a phunziro ili ndipo ndikufunitsitsa kutenga nawo mbali pa phunziroli.

.....

Siginito/zolembe za womvera .....

Mboni .....

**ANTHU OYENERA KULANKHULANA NAWO NGATI PALI MABVUTO  
KAPENA MAFUNSO**

**1. Wanga Zulu Mubanga,**

Yunivesite ya Zambia.

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**3. Tcheyamani, komiti yalamulo ochita kafukufuku,**

Yunivesite ya Zambia.

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**APPENDIX III: DATA COLLECTION TOOL (QUESTIONNAIRE)**

**THE UNIVERSITY OF ZAMBIA  
SCHOOL OF NURSING SCIENCES  
SEMI STRUCTURED INTERVIEW SCHEDULE**

**TOPIC: FACTORS INFLUENCING UTILIZATION OF CERVICAL  
CANCER SCREENING SERVICES AMONG WOMEN ABOVE 18  
YEARS AT SELECTED CLINICS OF LUSAKA URBAN DISTRICT**

DATE OF INTERVIEW: .....

PLACE OF INTERVIEW: .....

NAME OF INTERVIEWER: .....

SERIAL NUMBER: .....

**INSTRUCTIONS FOR THE INTERVIEWER**

1. Introduce yourself to the respondent.
2. Explain the reason for the interview.
3. Do not write the name of the respondent on the interview schedule
4. Tick  the most appropriate response to the question or fill in the answer on the space provided.
5. Assure the respondent of confidentiality and anonymity.
6. Provide time for the respondent to ask questions at the end of the interview.
7. Thank the respondent at the end of each interview.

**SECTION A SOCIO-DEMOGRAPHIC DATA:**

1. Age in years at last birthday

- a. 18 – 28 years.
- b. 29 – 39 years.
- c. 40 – 50 years.
- d. 51 – 60 years.
- e. 62 and above.


2. Date of birth; ...../...../.....

3. Marital Status

- a. Single
- b. Married
- c. Divorced
- d. Widowed
- e. Cohabiting


4. Religion

- a. Christian.
- b. Muslim.
- c. Hindu.
- d. Buddhist.
- e. Others (specify) .....


5. If Christian what is your denomination?

.....

6. Educational Level

- a. None
- b. Primary




- c. Secondary
  - d. Tertiary
- |  |
|--|
|  |
|  |

7. Employment Status

- a. Employed
  - b. Unemployed
  - c. Self employed
  - d. Pensioners
- |  |
|--|
|  |
|  |
|  |
|  |

e. If employed What is your occupation? .....

8. Monthly Personal Income

- a. > k5000
  - b. k3000 - k5000
  - c. k1000 - k3000
  - d. < k1000 - No income
- |  |
|--|
|  |
|  |
|  |
|  |

9. Residential Area

- a. High density
  - b. Medium density
  - c. Low density
  - d. Others Specify
- |  |
|--|
|  |
|  |
|  |
|  |

10. How many children do you have?

- a. 1 to 3
  - b. 4 to 6
  - c. 7 to 9
  - d. 10 and above
- |  |
|--|
|  |
|  |
|  |
|  |

**SECTION B: KNOWLEDGE**

11. Have you heard of cervical screening before?

a. Yes

b. No

12. If your answer is yes to question 11, where did you hear from?

a. Hospital

b. Television

c. Radio

d. A Friend.

e. Relative.

13. What is cervical cancer screening?

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14. From the following tick  the appropriate answer which women are at higher risk of developing cervical cancer

a. Older women are more at risk of cervical cancer than younger women.

b. Every woman of child bearing age is at risk of cervical cancer.

c. Women with multiple sexual partners are more prone to cervical cancer.

d. Susceptibility to cervical cancer increases with number of pregnancy.

e. Cervical cancer only happens to women who are above the age of 50 years.

f. HIV positive women

g. Women with one sexual partners

h. Young women

15. What are the predisposing factors of cervical cancer?

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16. What are the signs and symptoms of cancer of the cervix?

- a. Bleeding
- b. Pain
- c. Water discharge
- d. No idea


**SECTION C: UTILIZATION**

17. Have you ever undergone cervical cancer screening?

- a. Yes
- b. No


18. IF You answered yes to question 17, was the cervical cancer screening done within the past 3 years?

- a. Yes
- b. No


19. If you answered NO to either question 17 or 18, what has made you not to utilise the service.

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20. Is cervical cancer easily cured.

- a. Strongly Agree
- b. Agree
- c. Not Sure
- d. Disagree Strongly disagree


21. If the answer to question 19 is yes then at what stage can it be cured.

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22. Having cervical cancer can result to infertility.

- a. Strongly Agree
- b. Agree
- c. Not Sure
- d. Disagree
- e. Strongly disagree


23. What are the complications of not screening for cervical cancer?

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24. It is important for a woman to have cervical cancer screening to know if she is healthy.

- a. Strongly Agree
- b. Agree
- c. Not Sure
- d. Disagree
- e. Strongly disagree


**SECTION D: SOCIAL ECONOMIC**

25. Are there any costs involved in cervical cancer screening at your centre?

- a. Yes
- b. No


26. If yes, how much is it? \_\_\_\_\_

27. Do you afford to meet the costs associated with the services?

a. Yes

b. No

28. Is your partner supportive as you access cervical cancer services?

a. Yes

b. No

**SECTION E: DISTANCE**

29. How long does it take you to move from home to the nearest facility where you can access the service?

a. Less than 1 hour

b. 1 hour to 2 hours

c. More than 2 hours

30. What is your mode of transport to the nearest health facility where you can access screening?

a. Walking

b. Bicycle

c. Vehicle

d. Other \_\_\_\_\_

31. Is the road between your home and the nearest screening facility passable throughout the year?

a. Yes

b. No

c. If no, explain \_\_\_\_\_

**SECTION F: HEALTH CARE SYSTEM**

32. As far as you are aware, is there an effective cervical cancer screening programme at your nearest clinic?

a. YES

b. NO

33. If yes to the above question, does it operate daily?

a. YES

b. NO

35. If you screened, tick  whether the following were done

a. Privacy provided.

b. Counselling was done.

c. Test results were explained.

d. Review date was communicated.

**SECTION G: ATTITUDE**

35. What are some of the factors that prevent you from coming for CERVICAL CANCER SCREENING?

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36. What is your suggestion on how cervical cancer screening services can be conducted?

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37. What cultural beliefs make women either seek or not seek cervical cancer screening services?

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38. In your opinion, do you think it is good for women to come for cervical cancer screening?

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**The End.**

**SIKULU LALIKULU LA UNIVERSITY YA ZAMBIA**  
**SIKULU YA SAYANSI YA UNAMWINO**  
**MDANDANDA WA KUYANKHULANA**

**MUTU: MAGWIRITSIDWE YA ZINTHU ZOKOPEWA KHANSA YA KHOMO  
YA CHIBEREKERO MOSAMALA AKAZI AZAKA 18 ZAKUBADWA  
KUPITA ZAKA ZA KUMWAMBA ZA KUBADWA M'TAWUNI YA  
LUSAKA**

TSIKU LA KULANKHULANA: .....

MALO YO LANKHULILANA: .....

DZINA LA OYANKHULANA NAYE: .....

NAMBALA YA CHIZINDIKIRO: .....

**MALANGIZO KWA OFUNSA**

1. Zidziwitseni kwa olankhulana nawo.
2. Fotokozani chifukwa cha kulankhulilana nawo.
3. Musalembe dzina la ofunsi dwawo pa pepalali lakulankhulanali.
4. Chongani  yankho yomwe yayendelana ndi funso kapena lembani yankho mumalo opatsidwa.
5. Tsimikizirani woyankha kuti ndi za chisinsi ndi zobisa.
6. Patsani mpata kwa woyankha kufunsa mafunso mukatsiridza kuwafunsa.
7. Wongani oyankhawo pambuyo pa mafunso ya ndondomeko mwina cigawo chiriconse.



## NDIME A: DETA YA UMOYO PA ZAZIWERENGERO

1. Zaka zomwe anakwanitsa patsiku la kubadwa lanapitayo m'cakako.
  - a. Zaka pakati pa 18 ndi 28.
  - b. Zaka pakati pa 29 ndi 39.
  - c. Zaka pakati pa 40 ndi 50.
  - d. Zaka pakati pa 50 ndi 60.
  - e. Zaka 61 kupita kumwamba.
  
2. Tsiku, mwezi ndi caka ca kubadwa; ...../...../.....
  
3. Za banja.
  - a. Wosakwatiwa
  - b. Wokwatiwa.
  - c. Wosudzulidwa.
  - d. Wofedwa.
  - e. Kukhala ndi bambo kopanda chilolezo.
  
4. Chipembezo. 
  - a. Akhirisithu.
  - b. Achawa \ asilamu.
  - c. Ahindu.
  - d. Abuddhissti.
  - e. Ngati zina lembani.

.....
  
5. Ngati ndinu akhirisithu mupemphera mpingo \ chalichi chiti?  
.....  
.....

6. Mlingo wa maphunziro.
- a. Palibe.
  - b. Maphunziro a pulayimali.
  - c. Maphunziro a secondale.
  - d. Maphunziro a ukachenjede.
7. Nchito yomwe asewenzana.
- a. Osewenzana.
  - b. Osasewenzana.
  - c. Ozisewenzana.
  - d. A penshoni.
  - e. Ngati asewenzana, nchito yotani? .....
8. Zopeza za pa mwezi.
- a. Yopitirira k5000.
  - b. Pakati pa k3000 ndi k5000.
  - c. Pakati pa k1000 ndi k3000.
  - d. Yocepekera k1000 kufikira osapeza kalikonse.
9. Komwe akhala.
- a. Komwe kukhala anthu ambiri ndi chipwirikiti.
  - b. Komwe kukhala anthu ambiri koma kopanda chipwirikiti.
  - c. Komwe kukhala anthu ochepekera.
  - d. Ngati zina, fotokozani  
.....
10. Kodi muli ndi ana angati?
- a. Umodzi kufikira pa atatu.
  - b. Anai kufikira pa asanu ndi umodzi.
  - c. Asanu ndi awiri kufikira pa asanu ndi anai.
  - d. Khumi kupita kumwamba.

## NDIME YA B NZERU

11. Kodi munamvako za khansa ya khomo ya chiberekero?

- a. Inde
- b. Ayi

12. Ngati yankho yanu ndi 'inde' ku funso 11, kodi munazimva kuti?

- a. Kucipatala.
- b. Pa wailesi yakanema.
- c. Pa wailesi.
- d. Kwa abwenzi.
- e. Kwa abale.

13. Zomamikopani za khansa ya khomo la chiberekero ndi ciani?

.....  
.....

14. Kuchokera mu izi, chongani yankho yonena pa gulu la azimai omwe angagwiridwe ndi matenda a khansa ya khomo yacibelekero.

- a. Azimai acikulire ndiwo ali pa chiwopezo chodwala matenda ya khansa ya khomo ya chiberekero.
- b. Mzimai aliyense ali pamsinkhu wobala angathe kutenga matenda ya khansa ya khomo ya chiberekero.
- c. Azimai omwe agonana ndi azibambo osiyanasiyana angathe kutenga matenda ya khansa ya khomo ya chiberekero
- d. Chiwopsyezo ca khansa ya khomo ya chiberekero ichuluka kulingana ndi mamimba yomwe muzimai akhalapo nayo.
- e. Khansa ya khomo yachiberekero imabwera ku azimai azaka zakubadwa makhumi asanu ndi kupitililapo.
- f. Azimai omwe ali ndi kalombo ka HIV.

- g. Azimai omwe agonana ndi mzibambo umodzi cabe.
- h. Azimai acicepere

15. Zinanso zobweretsa matenda a khansa ya khomo yaciberekero

.....  
.....

16. Kodi zizindikiro khansa ya chiberekero ndi ciani?

- a. Kutuluka m,agazi ku ukazi.
- b. Kumva kuwawa.
- c. Kutuluka madzi.
- d. Zosadziwika.

**NDIME YA C: MAGWIRITSIDWE**

17. Kodi munacitapo zomamikopani khansa yakhomo la chiberekero?

- a. Inde.
- b. Ayi.

18. Ngati mwayankhula inde ku funso 17, kodi zomamikopani za khansa ya chiberekero munazichita munthawi ya zaka zitatu zapitazi?

- a. Inde
- b. Ayi.

19. Ngati mwayankha ai ku funso 17 kapena 18, ndi ciani chilengetsa kuti musapimise?

.....  
.....

20. Kodi khansa ya khomo ya chiberekero imachilitsidwa mosabvuta?

- a. Ndibvomekeza motsimikiza.
- b. Ndibvomekeza. .
- c. Sindidziwa.
- d. Ndikana motsimikiza.

21. Ngati yankho ku funso 19 ndi inde, ndi panthawi yotani pomwe ingathe ku poletsedwa?

.....  
.....

22. Kukhala ndi khansa ya khomo yacibalilo

kungalengetse.....

- a. Ndibvomekeza motsimikiza.
- b. ndibvomekeza.
- c. Sindidziwa.
- d. Ndikana motsimikiza

23. Kodi ndi mabvuto otani omwe apezeka ngati munthu sazipeleka kukamazikopetsa ku zoono pa khansa ya chiberekero?

.....  
.....

24. Ndichaphindu kwa mzimai kupita kukakopeso za khansa ya khomo ya chiberekero kuti aziwe za umoyo wao.

- a. Ndibvomekeza motsimikiza.
- b. Ndibvomekeza.
- c. Sindiwa.
- d. Ndikana.
- e. Ndikana motsimikiza.

25. Kodi pali ndalama zirizonse zomwe ziperekedwa ku chipatala chanu mukapita kukakopewa khansa ya khomo ya chiberekero.

a. Inde.

b. Ayi.

26. Ngati yankho ndi inde, kodi ndi zingati zomwe mumauzidwa? .....

27. Kodi mumakwaniritsa kulipira ndalama zomwe mumauzidwa?

a. Inde.

b. Ayi.

28. Kodi amuna anu amagwapo ngati mwafuna kukakopewa khansa ya khomo ya chiberekero?

a. Inde.

b. Ayi.

### **NDIME E: MUTUNDA**

29. Kodi mutunda kuchokera komwe mukhala kukafika komwe mungalandire thandizo yo kopewa khansa ya khomo ya chiberekero uli motani?

a. Kuchepekera ola limodzi.

b. Pakati pa ola limodzi ndi maola awiri.

c. Kupitilira maola awiri.

30. Mumasewenzetsa mayendedwe otani kuchokera kunyumba kupita komwe mungapeze thandizo.

a. Miyendo.

b. Njinga.

c. Galimoto.

d. Zina.....

31. Kodi njila yochokera kunyumba kwanu kukafika kuchipala imapitika nyengo zonse za m'caka?
- a. Inde.
- b. Ayi.
- c. Ngati ayi, fotokozani
- .....

**NDIME F: DONGOSOLO YA ZA UMOYO**

32. Kulingana ndi momwe mudziwiri, kodi zokopa za khansa yakhomo ya chiberekero ndi zothandiza pa chipatala chanu?
- a. Inde.
- b. Ayi.
33. Ngati inde ku funso liri pamwambapo, kodi thandizoli limakhalapo masiku onse?
- a. Inde.
- b. Ayi.
34. Ngati munakopesa, chongani  ngati izi zinachitika.
- a. Zinali muchisinsi.
- b. Ngati munaunikidwa.
- c. Ngati munauzidwa za umoyo wanu pa khansa atamipimani.
- d. Ngati tsiku lokapimidwa mwina kukasanikiwanso inaikidwa.

**NDIME G: ZA MTIMA**

35. Kodi ndi zifukwa zotani zomwe zimalengetsa kuti musazipita kukakopewa khansa ya khomo ya chiberekero?
- .....
- .....

36. Kodi mungalangize motani momwe muganizira kuti makopedwa ya khansa ya khomo ya chiberekero ofunika kucitikira?

.....  
.....

37. Kodi ndi miyambo zotani zomwe zimalengetsa azimai aku malo komwe mukhalira kupita kapena kusapita kukakopewa khansa ya chiberekero?

.....  
.....

38. Mumaganizo anu, kodi ndi chaphindu kwa mzimai kupita kukakopesa?

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.....

..... **KWATHA** .....