

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,

KUMASI

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

**THE DEPARTMENT OF HEALTH POLICY MANAGEMENT AND
ECONOMICS**

**FACTORS AFFECTING THE UTILIZATION OF CERVICAL CANCER
SCREENING SERVICES AMONG WOMEN AGED 18 TO 55 YEARS,
WITHIN THE EJISU JUABEN MUNICIPALITY.**

BY

ESTHER AKUA KONADU PREMPEH

B.SC. PUBLIC HEALTH (MGT)

NOVEMBER, 2015

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**A THESIS SUBMITTED TO THE DEPARTMENT OF HEALTH POLICY
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KNUST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF SCIENCE IN PUBLIC HEALTH IN HEALTH
SERVICE PLANNING AND MANAGMENT**

NOVEMBER, 2015

DECLARATION

I hereby do declare, that except for references to other people's work which have been duly acknowledged, this piece of work is my own composition and neither in whole nor in part has this work been presented for the award of a degree in this university or elsewhere.

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ABSTRACT

Cervical cancer is an important public health problem globally and in Ghana. Cure rates are high if the condition is diagnosed early. Screening has a role to play in early diagnosis, but uptake of screening is low in Ghana. The study assessed the proportion of women utilizing cervical cancer screening services. The study also evaluated reasons that may account for low screening rates in the Ejisu-Juaben district of Ghana, including the level of women's knowledge of cervical cancer screening service, accessibility of the screening service, and women's reasons for not utilizing cervical cancer screening services. A facility-based quantitative, descriptive cross-sectional study design was used. Data were collected using close-ended structured questionnaires. 395 questionnaires, based on completeness were analyzed. Percentages were calculated and expressed in simple descriptive statistics. 395 people were surveyed. 31 (1%) of those surveyed had had cervical screening. Two variables remained significant after controlling for relevant factors. These are age (Adj OR = 0.19 CI = 0.53 – 0.68 $p=0.01$) and knowledge level (Adj OR = 7.56 CI = 2.36 – 24.14 $p=0.001$). Other demographic variables such as higher education, Christians, married women, multiparty, and being a salaried worker were associated with acceptance of screening, but the association was not statistically significant. The majority of study respondents stated they would participate in the cervical screening program if it was more accessible and affordable. Including the benefits of screening programs in the educational curriculum may have a positive effect on cervical screening. In addition government policies directed at

improving accessibility of cervical cancer screening services, to all women in Ghana could improve uptake and help to reduce the incidence of cervical cancer among Ghanaian women. Government agencies in collaboration with stake holders should develop policies that will ensure accessibility of cervical cancer screening services, to all women in Ghana, Provision of resources, in terms of human, equipment and other logistics for cervical cancer screening is highly recommended. Public enlightenment campaign through the media with women as the main target should be instituted to sensitize women on the importance of being screened.



TABLE OF CONTENT

DECLARATION.....	ii
ABSTRACT	iii
TABLE OF CONTENT	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS AND ACRONYMS	x
DEFINITION OF TERMS.....	xi
ACKNOWLEDGEMENT	xiii
DEDICATION.....	xv
CHAPTER ONE: INTRODUCTION	1
1.1 Background Information	1
1.2 Problem Statement	3
1.3. Conceptual Framework	5
1.3.1 Conceptual Frame Work	6
1.4 Rationale for the Study	6
1.5 Research Objectives	9
1.5.1 General Objective	9
1.5.2 Specific objectives	9

1.6 Scope of Study	10
1.7 Organization of the Study	10
1.8 Pictorial View of Cervical Cancer Screening	11
CHAPTER TWO: LITERATURE REVIEW	14
2.1 Introduction	14
2.2 Women's Knowledge about Cervical Cancer Screening Services	14
2.3 Women's Perception about Cervical Cancer	17
2.4 Accessibility to Cervical Cancer Screening Centres	20
2.5 Proportion of Women Utilizing Cervical Cancer Screening	23
CHAPTER THREE: METHODOLOGY	25
3.1 Introduction	25
3.2 Profile of Study Area	25
3.3 Study Type and Design	28
3.3.1. Sampling Procedure	29
3.3.2 Sample Size Calculation	29
3.4 Study Variables	30
3.5 Pre-Testing of Research Instrument.....	31
3.6 Data Collection and Tool	31
3.7 Data Analysis	32
3.8 Quality Control	33

3.9 Ethical Consideration	
34 3.10 Plan for Dissemination of Results.....	
34	
CHAPTER FOUR: RESULTS	
35	
4.1 Demographic Characteristics	35
4.2 Women's Perception about Cervical Cancer Screening	37
4.3. Accessibility of Cervical Cancer Screening Services	38
CHAPTER FIVE: DISCUSSION OF STUDY FINDINGS	
41	
5.1 Introduction	41
5.2 Demographic Characteristics	42
5.3 Women's Knowledge about Cervical Cancer Screening	42
5.4 Women's Perception about Cervical Cancer Screening. (Reasons for not screening)	44
5.5 Accessibility of Cervical Cancer Screening Services	45
5.6 Proportion of Women Screened Compared with Demographics of the Study Population	46
5.7 Limitations	47
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS	
48	
6.1 Conclusion	48
6.2 Recommendations	49
6.2.1 Government.....	50

6.2.2 Ministry of Health	50
6.2.3 Ghana Health Service	51
6.2.4 Ministry for Women and Children	52
6.2.5 Ministry of Finance and Economic Planning.	52
6.2.6 Non-Governmental Organization.....	52
6.2.7 Traditional Rulers	53
6.2.8 Researchers	53
6.2.9 N.H.I.A.....	53
6.2.10 Ghanaian Women.....	53
REFERENCES	54
APPENDICES	59
Appendix 1 CHRPE approval letter	59
Appendix 2 Questionnaire	60
Appendix 3 Approval letters from district of study	65
LIST OF TABLES	v
and ownership.....	27
Table 2: Variables table	29
Table 3. Demographic characteristics of study participants N=395.....	35
Table 4: Participants perception about cervical cancer screening N=364 (Not screened).....	36
Table 5: Accessibility of the screening service to the study participant N= 347	37
Table 6: The association between demographic characteristic of study participants and screening. (N=395)	38
Table 7: Multivariate analysis of the respondents’ screening status and the	39

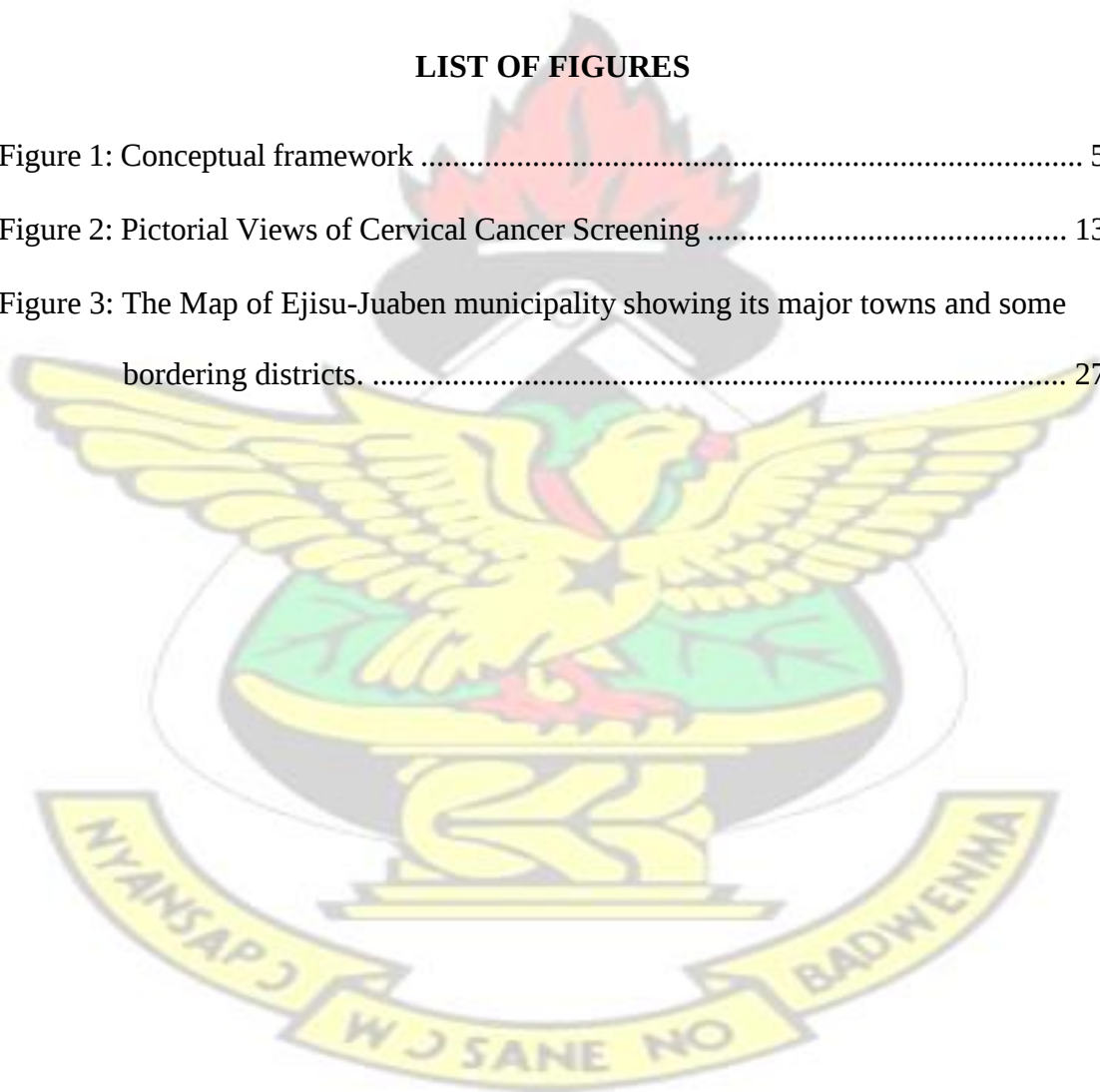
Table 1: Distribution of health facilities in the Ejisu-Juaben municipality by category



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LIST OF FIGURES

Figure 1: Conceptual framework	5
Figure 2: Pictorial Views of Cervical Cancer Screening	13
Figure 3: The Map of Ejisu-Juaben municipality showing its major towns and some bordering districts.	27



LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CHRPE	Committee on Human research Publication and Ethics
CCS	Cervical Cancer Screening
CCSC	Cervical Cancer Screening Center
EJMA	Ejisu Juaben Municipal Assembly
EJMHD	Ejisu Juaben Municipal Health Directorate
HPV	Human papilloma virus
IARC	International Agency for Research on Cancer
KNUST	Kwame Nkrumah University of Science and Technology
PAP	Papanicolaou
NGOs	Non-Governmental Organizations
NHIA	National Health Insurance Authority
WHO	World Health Organization

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DEFINITION OF TERMS

The cervix is the lower part of the uterus (womb) that opens at the top of the vagina.

Cervical cancer is a malignant neoplasm arising from cells from originating in the cervix uteri.

Human papilloma virus (HPV), HPV is a common virus that is spread through sexual intercourse. There are many different types (also called strains) of HPV. Some of the strains lead to cervical cancer.

Lithotomy Position. Position in which the patient is on their back with the hips and knees flexed and the thighs apart.

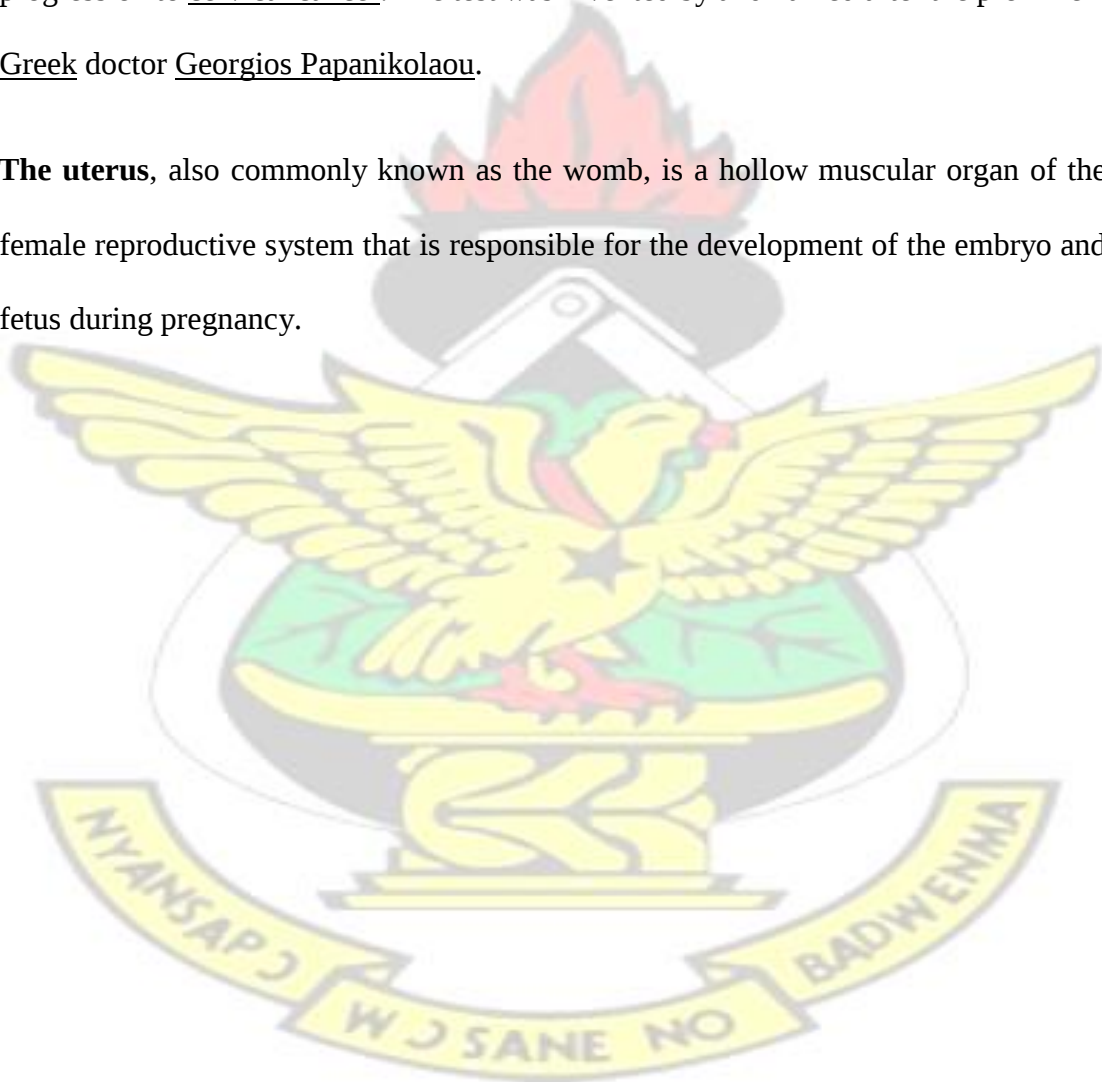
Malignancy is a cancerous tumor that can invade and destroy nearby tissue and spread to other parts of the body.

Multipara is a woman who has had two or more pregnancies with potential viable children.

Primipara is woman who has given birth to only one child, or who is giving birth for the first time.

Papanicolaou smear is a method of cervical screening used to detect potentially precancerous and cancerous processes in the endocervical canal (transformation zone) of the female reproductive system. Unusual findings are often followed up by more sensitive diagnostic procedures, and, if warranted, interventions that aim to prevent progression to cervical cancer. The test was invented by and named after the prominent Greek doctor Georgios Papanikolaou.

The uterus, also commonly known as the womb, is a hollow muscular organ of the female reproductive system that is responsible for the development of the embryo and fetus during pregnancy.



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To God be the glory, great things he hath done, I will Bless the Lord, with my soul and all that is within me will praise his holy name, for how far he has brought me.

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DEDICATION

This work is dedicated to my beloved late mother, who lost her life as a result of cervical cancer, as a well-disciplined woman, if she had an idea about cervical cancer screening, she would have been alive by now. Mum, rest in perfect peace! I will do anything within my power to throw more light on the importance of cervical cancer screening at all corners of Ghana, to save the precious lives of women in Ghana. Gone too soon, you will forever be remembered.



CHAPTER ONE INTRODUCTION

1.1 Background Information

The global prevalence of cervical cancer is estimated to be 2.3 million and the incidence to be 500000 (WHO/ICO, 2009). Cancer of the cervix is the commonest malignancy of the female genital tract and is the second most common cancer among women worldwide (American Cancer Society, 2009; Wong *et al.*, 2009). Each year about 10,000 women develop cervical cancer worldwide; about 86% of these cases (representing 13% of female cancers) occur in developing countries (WHO, 2010). About 0.5 to 5.0% of cervical cancers cases occur in pregnant women and nearly onethird of these women are below 35 at the time of diagnosis; the survival rates for the pregnant and the non-pregnant woman are very similar (Saonere, 2010).

Cervical cancer is the fifth most fatal cancer in women worldwide (Saonere 2013). The mortality rate of cervical cancer is estimated to be 8.9 per 100000 females globally and the cumulative risk to be 0.7%. The risk of cervical cancer tends to increase with age, reaching a peak of 35 per 100000 women from 55- 64 years age (WHO/ICO, 2007).

According to the World Health Organization (WHO) Information Centre on HPV and Cervical Cancer, 2009 report, cervical cancer is currently the primary cancer in women in South Africa with an annual new case incidence of 6,742, in African women. The cervical cancer incidence and mortality rates in Ghana are among the highest in the world. Although there is no formal cancer registry in Ghana, the International Agency for Research on Cancer has estimated that in 2008, 3,038 Ghanaian women developed cervical cancer and more than 2,006 Ghanaian women died of cervical cancer and its complications.

The World Health Organization (WHO) predicts that by the year 2025, 5,000 new cases of cervical cancer and 3,361 cervical cancer deaths will occur annually in Ghana (Williams and Amoateng 2012).

Cervical cancer is a malignant neoplasm arising from cells in the cervix of the uterus. The cervix which is the lower part of the uterus (womb) opens into the vagina superiorly. Cervical cancers start from cells on the surface of the cervix. These cells are of two types, squamous and columnar cells. Most cervical cancers arise from the squamous cells. It starts with abnormal changes in the cells on the surface of the cervix known as cervical dysplasia. These dysplastic cells are precancerous and gradually progress to cervical cancer. That is, the changes are not cancerous but can lead to cancer of the cervix if poorly managed (Spayne, Ackerman et al. 2008, Williams and Amoateng 2012, Morema., Atieli. et al. 2014).

The predisposing factors of cervical cancer includes; poverty (Ndikom and Ofi 2012), weak immune system, and women's sexual habits and patterns such as

- Having multiple sexual partners
- Having a partner or partners who are active in high-risk sexual activities.
- Having sex at an early age

Cervical cancer is now known to be caused by human papilloma virus (HPV). HPV is a virus that is spread through sexual intercourse.

Cervical cancer is usually characterized by abnormal vaginal bleeding in between menstruation, after intercourse, or after menopause; or a vaginal discharge that does not stop, which may be pale, watery, pink, brown, bloody, or foul-smelling; or may also be characterised by heavy menstruation or longer duration of menstruation. In some cases

however there may be no obvious symptoms until the cancer has progressed to an advanced stage (Price., Easton. et al. 1996, Agurto., Bishop. et al. 2004, Sherris, Wright et al. 2007, Cheung, Cheung et al. 2009).

Over the years, awareness and acceptance of cervical cancer screening services has remained poor in developing countries (WHO/ICO, 2007). Screening for cervical cancer is important so as to ensure early detection of pre-cancer lesions and hence reduce the incidence of mortality due to cervical cancer in the population (Adanu 2002). Reported mortality rates in developed countries with successful screening programmes occasionally exceed 5 per 100,000 women. However, the survival rate for cervical cancer in sub-Saharan Africa in 2002, was 21% compared with 70% and 66% in the United States and Western Europe, respectively (Hoque, Ibekwe et al. 2009).

Cervical cancer is highly preventable especially with the aid of cervical cancer screening tools. When cervical cancer is detected in early stages, it can easily be treated; however treating advanced cervical cancer is very challenging, (Williams and Amoateng 2012).

(See pictorial view of cervical cancer screening methods on page 10)

1.2 Problem Statement

The world-wide burden of cancers continues to increase largely because of the aging and growth of the world population together with increasing acceptance of high risk behaviours such as smoking. Nonetheless, there is a significant drop in incidence of cervical cancer in developed countries because of intensive cervical screening programs (Mutya, Faxelid et al. 2007).

Dr Rengaswamy Sankaranarayanan (2005), a lead investigator for an International Agency for Research on Cancer (IARC) research project, with a focus on cervical cancer screening, explained that, this disease should not be a death sentence, even in poor countries. Low-technology and inexpensive screening tools exist which could significantly reduce the burden of cervical cancer deaths.

In the precancerous stage, readily noticeable changes occur in the cells covering the surface of the cervix (Saonere 2013). In spite of the existence of effective screening, the awareness and acceptance of these preventive measures is low in developing countries and Ghana for that matter. Poor acceptance and patronage of cervical cancer screening in less developed countries have been attributed to factors including; social status, cultural beliefs and norms (Wong, Wong et al. 2008).

Approximately 2.7% of Ghanaian women obtain cervical cancer screening regularly and the average age-standardized mortality rate for cervical cancer in Ghana is more than three times the global cervical cancer mortality rate (27.6/100,000 vrs 7.8/100,000) respectively. This is alarming and efforts must be made to address.

Despite these staggering statistics, cervical cancer prevention is not commonly promoted in Ghana. Diseases such as malaria, tuberculosis, HIV/AIDS, and most recently breast cancer receive the majority of health promotion resources.¹² The Pap test and visual inspection with acetic acid (VIA) are the cervical cancer screening tools that are available in public and private hospitals throughout the country. Some public hospitals offer free cervical cancer screenings. In the past, non-governmental organizations have conducted organized cervical cancer screening events in rural areas. (Williams and Amoateng 2012).

1.3. Conceptual Framework

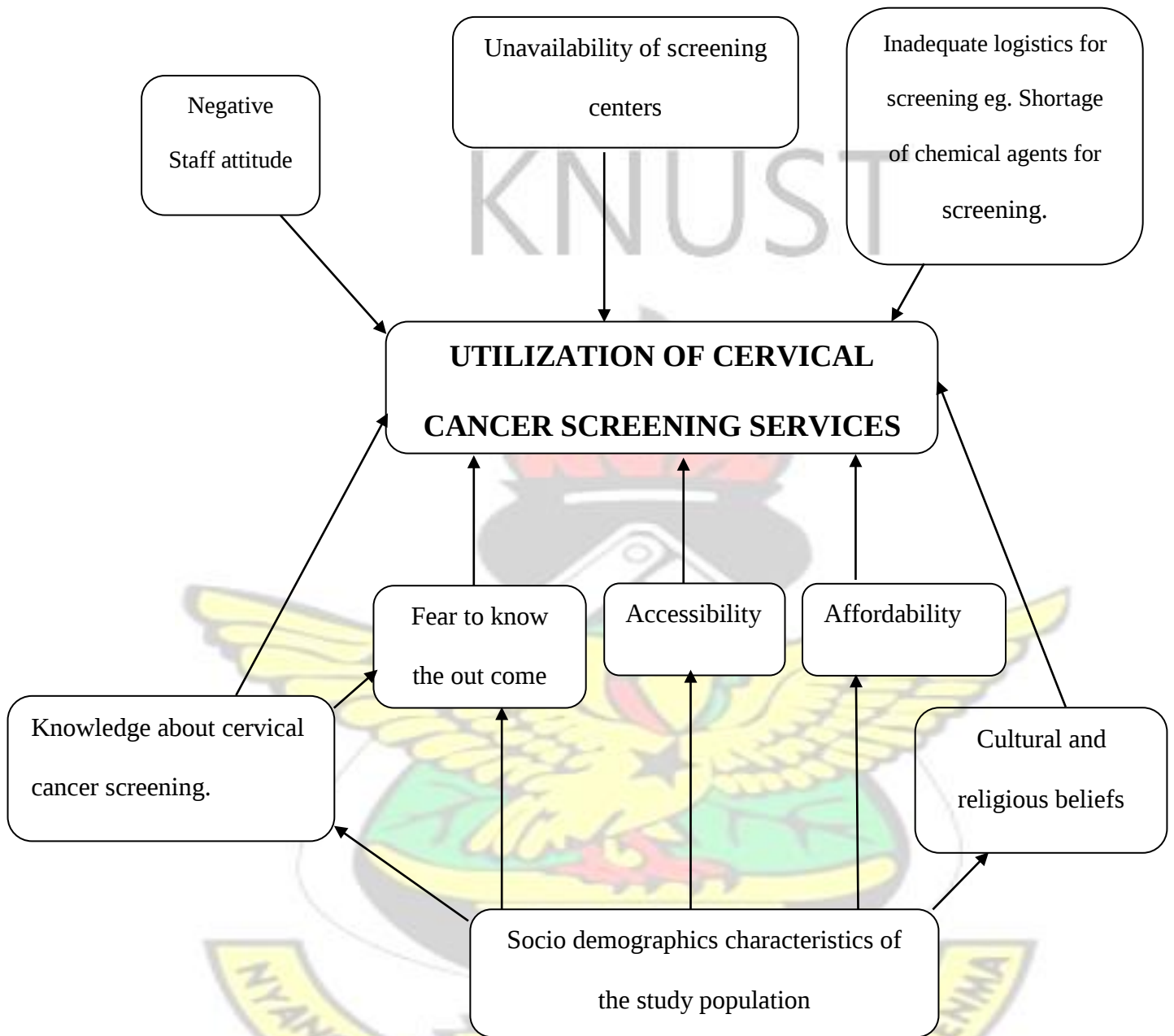


Figure 1: Conceptual framework

Source: Author's construct, 2014

1.3.1 Conceptual Frame Work

The study hypothesizes utilization of cervical cancer screening is affected by a number of factors including fear to know the outcome, Knowledge about cervical cancer screening, cultural and religious beliefs, accessibility, affordability and sociodemographics characteristics of the study population. The influence of the interplay of these factors as far as utilization of cervical cancer screening is considered in the subsequent paragraphs.

1.4 Rationale for the Study

Cervical cancer is an important public health problem globally and in Ghana. Cure rates are high if the condition is diagnosed early. Screening has a role to play in early diagnosis, but uptake of screening is low in Ghana.

Cervical cancer is the second commonest female malignancy in the world. It is the leading cause of gynaecological cancer mortality in the developing countries. Cervical cancer is treatable when detected earlier through screening. Women always report late to the hospital when little or nothing can be done to save their lives. This is due to lack of knowledge and other factors affecting the utilization of the cervical cancer screening.

The World Health Organization (WHO) predicts that by the year 2025, 5,000 new cases of cervical cancer and 3,361 cervical cancer deaths will occur annually in Ghana (Williams and Amoateng 2012).

Again, although there is no formal cancer registry in Ghana, the International Agency for Research on Cancer estimated that in 2008, 3,038 Ghanaian women developed cervical cancer and more than 2,006 Ghanaian woman died because of cervical cancer (Williams and Amoateng 2012).

Health promotion and disease prevention strategies are key to a healthy society. Participation in cervical cancer screening (CCS) is a health seeking behaviour that promotes the health of women and may prevent invasive cervical cancer. Cervical cancer remains a health issue for all women, which heightens the need for health promotion, disease prevention, and lifestyle changes (Duchcherer 2010).

The earlier cervical cancer screening is adopted and established as a routine in the life of every woman, the greater the chance of early detection of cervical cancer, which would ultimately lead to a decrease in mortality due to cervical cancer (Duchcherer 2010).

In Malaysia, the cervical cancer screening programme was established in 1969 to ensure early detection of cervical cancer among the target group of women aged 20– 65 years through its network of state-level health centres, the National Population and Family Development Board clinics, Singapore Med J 2009; 50 (1) : 50

Federation of Family Planning Association clinics, private clinics/hospitals and university/teaching hospitals. The Pap smear screening programme was planned, organized and evaluated by the Ministry of Health, Malaysia. Nevertheless, no reduction in the prevalence of cervical cancer has been noted to date. The coverage and uptake of cervical cancer screening remains a major challenge. Pap smear coverage in the country is poor, i.e. 26% in 1996.

In Cervical cancer screening services begun in Ghana in the year 2000 at Ridge hospital Accra, staffs were trained on how to do the visual inspection of the cervix with acetic acid, (VIA).

In the year 2002 other health staffs (nurses) from Ashanti region were also trained to do cervical cancer screening. In Ashanti Region, such screening is done at 5 public facilities, Tafo hospital, maternal and child health Hospital, Suntreso Hospital and Komfo Anokye Teaching Hospital, (KATH), and one private facility Global cervical screening foundation. Only KATH, Tafo hospitals and Global cervical cancer screening foundation does the Pap Smear, while the rest does the visual inspection of the service with acetic acid.

In Ghana VIA is indicated for women aged 25- 45 year and PAP SMEAR is often performed on women aged above 45 years.

Cervical cancer screening services are poorly utilized in developing countries. Improved knowledge has been found to increase acceptance of cervical cancer screening, (Corral et al., 1996). Successful cervical cancer screening programs depend on the participation of informed target population through programs that build knowledge and address misconceptions of the screening programs and therefore increase acceptability and improve patronage of cervical cancer screening programs. Is lack of information, knowledge and awareness an issue in the case of Ghana? Is it the availability of cervical screening services a problem? Little is known about the awareness and importance of cervical cancer screening, and factors influencing the acceptance and utilization of cervical cancer screening services in Ghana and hence, the Ejisu-Juaben municipality.

This study was done in the peri-urban area of Ejisu- Juaben municipality collecting data from urban and rural communities with relatively poor socio-economic backgrounds. The study, therefore seeks to explore the various factors affecting cervical cancer screening including the knowledge level of women and factors which contribute to low

patronage of cervical cancer screening by women in Ghana. Identification of these factors will influence the design and subsequent delivery of health education on cervical cancer and provision of cervical cancer screening services, which will lead to improved acceptance and patronage of cervical cancer screening services in the municipality and Ghana as a whole.

1.5 Research Objectives

1.5.1 General Objective

The main objective of the study is to assess the factors affecting the utilization of cervical cancer screening services among women in the Ejisu-Juaben Municipality in Ashanti region of Ghana.

1.5.2 Specific objectives

1. To identify the level of knowledge of women on cervical cancer screening service.
2. To investigate reasons why women do not utilize cervical cancer screening services.
3. To determine if cervical cancer screening service is available and accessible to women.
4. To assess the proportion of women utilizing cervical cancer screening services.

1.6 Scope of Study

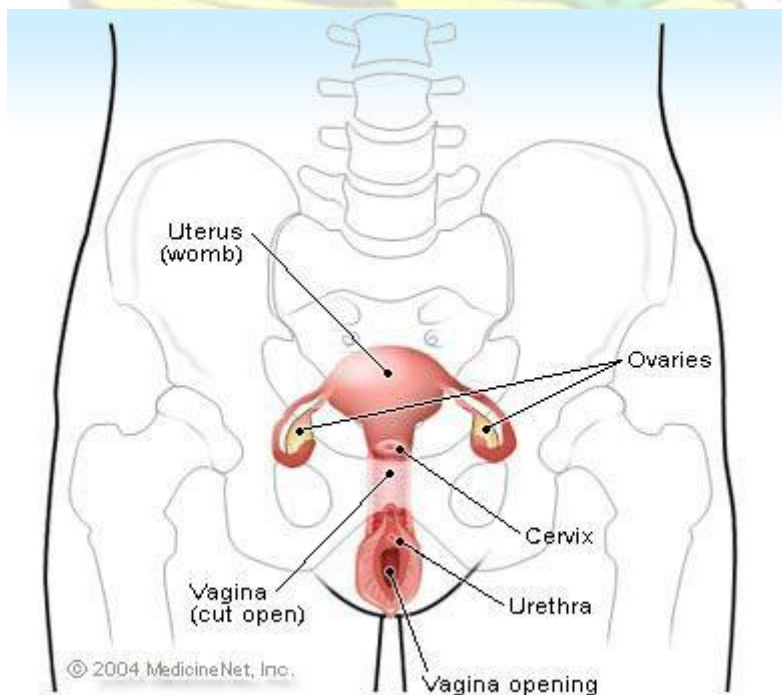
The study assessed the knowledge of women aged 18 to 55 years in the Ejisu –Juaben municipality on cervical cancer. It also assessed the availability of cervical cancer screening services in the municipality as well as acceptance and patronage of cervical cancer screening. The study is thus limited to the Ejisu- Juaben municipality, though

findings may be extrapolated to involve the rest of the country since statistical methods where employed in the study.

1.7 Organization of the Study

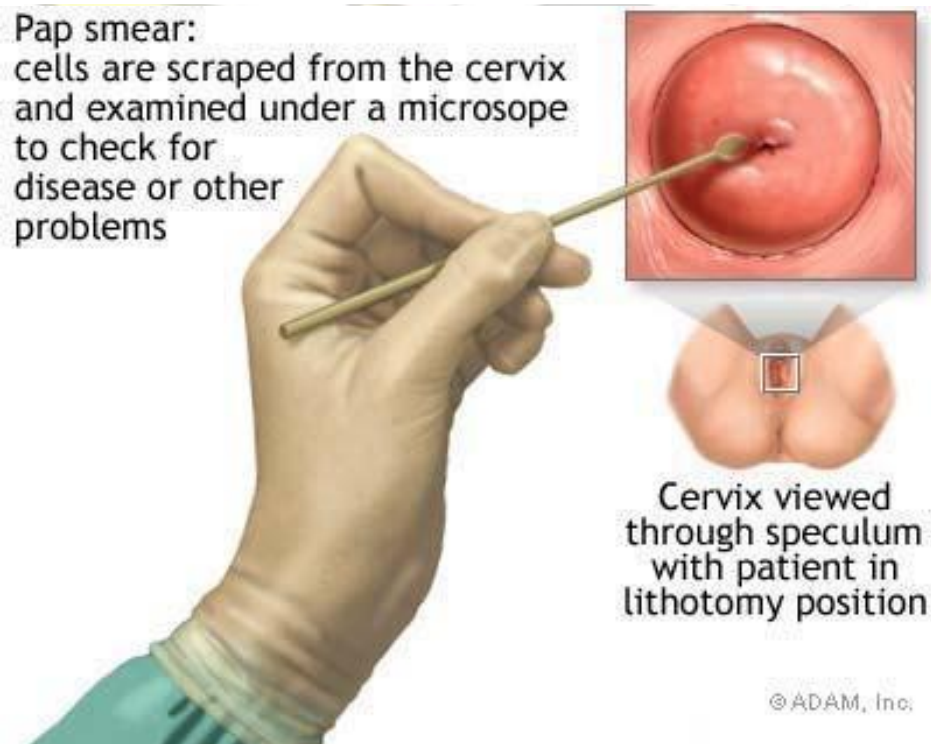
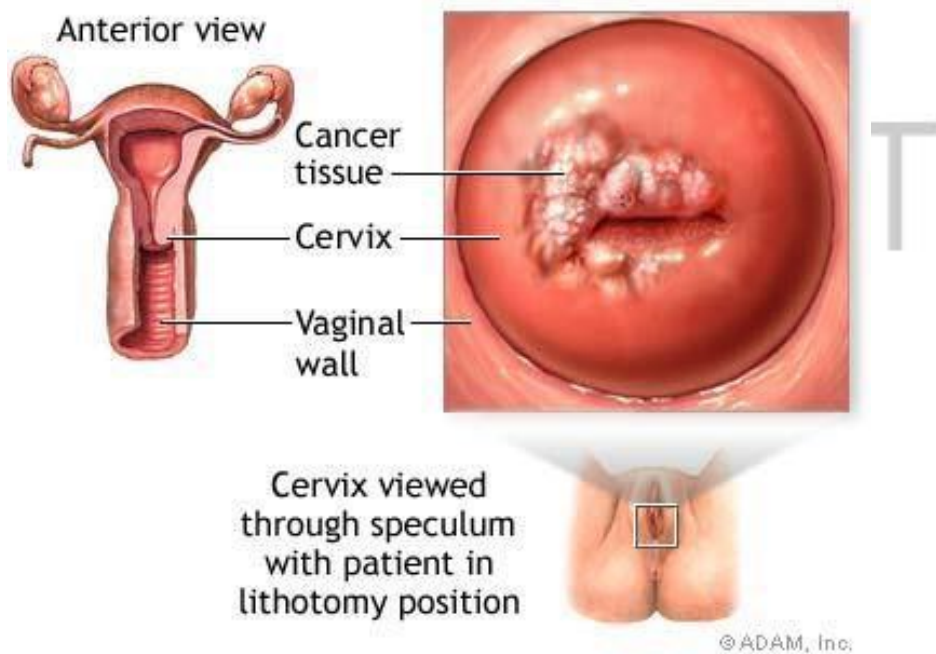
The entire thesis is organized into six chapters. The Chapter One is the Introduction. It covers areas such as background of the study, statement of the research problem, objectives of the research, research questions, significance/rational of the study and the scope of the study. The next is Chapter Two, which caters the literature review. Chapter Three is the research methodology; whiles Chapter Four is devoted to research findings. Chapter Five (5) deals with analyses and discussion of the data. The final Chapter is Six, and comprises of the summary of findings, conclusion and recommendations.

1.8 Pictorial View of Cervical Cancer Screening



The word "cervix" comes straight from Latin for "neck".

Cervical cancer is cancer that starts in the cervix. The cervix is the lower part of the uterus (womb) that opens at the top of the vagina.



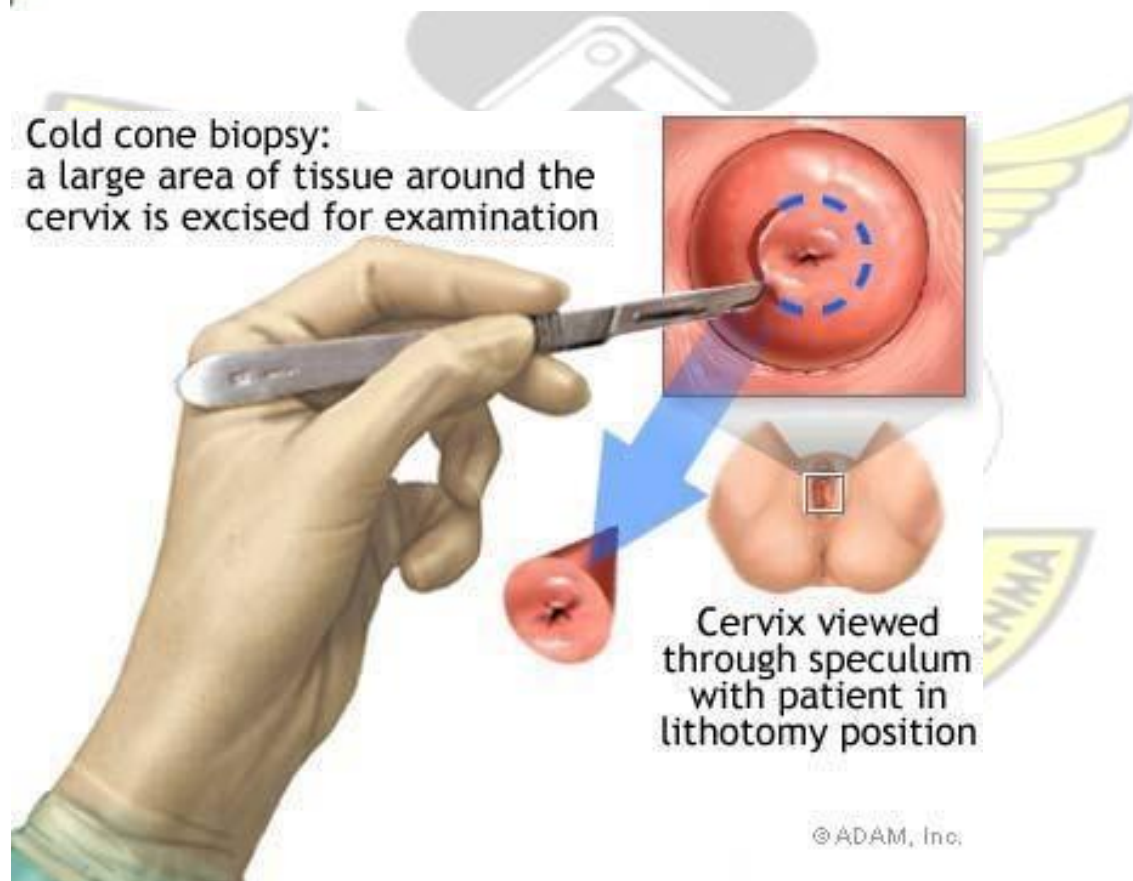
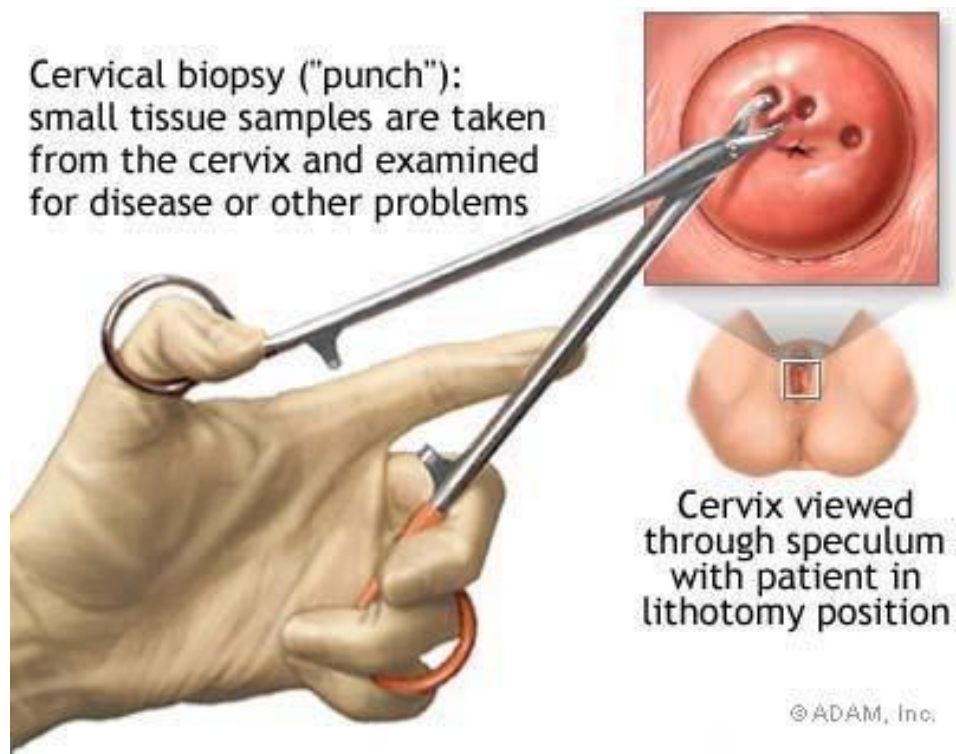


Figure 2: Pictorial Views of Cervical Cancer Screening

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This chapter gives brief literature from previous works on factors affecting the utilization of cervical cancer screening among women.

2.2 Women's Knowledge about Cervical Cancer Screening Services

There is the need for widespread dissemination of information about Pap smear screening and cervical cancer detection (Fort, Makin et al. 2011). Data from the World Health Survey indicate that cervical cancer screening rates in urban and rural areas in Ghana are extremely low (3.2% and 2.2% respectively). The results of previous studies indicate that lack of knowledge about cervical cancer among

Ghanaian maybe a barrier to cervical cancer screening (Williams and Amoateng 2012).

Inadequate knowledge and lack of awareness has become a factor affecting the utilization of cervical cancer screening, (Al-Nagger 2010). Many participants in previous studies revealed that, the respondents have little knowledge of cervical cancer and early screening using the Pap test can save their lives. A study by Singh and Badaya (2012), reveal that there is lack of knowledge of cervical cancer screening (CCS) among Indian women. Respondents in a Malaysian study stated that cervical cancer arises from contracting sexually transmitted diseases, (Wong, Wong et al. 2009). This may relate in part to lack of knowledge regarding Pap smear screening process and the socio-demographic background of the family, (Abotchie and Shokar

2009). Likewise, a study in India (Cason, Rice et al. 1998) demonstrated that the low level of awareness was attributed to the socio-demographic background of the respondents.

Equally, studies in developed countries such as the USA show poor knowledge and awareness of cervical cancer among women, (Lyttle. and Stadelman 2006). Also, a study in Japan among University students identified little knowledge of cervical cancer or Pap smears among the students and those who had some knowledge got their information from relatives and media, (Oshima and Maezawa 2013).

There is disproportionate awareness of cervical cancer screening and treatment among married and unmarried women; younger women have little knowledge of the role of the Pap smear test in the early detection of cervical cancer and lack factual information about cervical cancer compared to older women (Fort, Makin et al. 2011). Also, a study in South Africa found that those who were married had a higher recognition of cervical cancer risk factors than those who have never been married, (Brink, Snijders et al. 2006). Likewise, Pap smear as a screening test for early precancerous lesions is poorly understood, (Abrahams, Wood et al. 1996).

A study done at Kenya by (Morema., Atieli. et al. 2014), revealed that the respondents who have no knowledge about CCS did not also know about cervical cancer.

According to the Health Information National Trends Survey in the United States, 40% of American women aged 18–75 years have heard about HPV, and of these women, only 20% were aware that it can cause cervical cancer (National Cancer Institute, 2005). Interestingly, in Nigeria, even though awareness of cervical cancer screening among nurses was high (87%), the uptake of the services was low among these nurses (Udigwe 2006).

Awareness of the existence of screening test and its ability to detect precancerous lesions and cervical abnormalities is poor (Fort, Makin et al. 2011). In South Africa, a

study conducted by (Moodley and Moodley 2009), randomly selected 200 women, the study revealed that 64% of respondents had poor knowledge and awareness of cervical cancer and its screening. (Mutya, Faxelid et al. 2007) in Congo discovered that, only 3.7% had good knowledge about cervical cancer. In Nigeria, level of awareness of cervical screening was average (52.8%), however only 7.1% had ever done a Pap smear test; the most common reasons given for not doing a Pap smear test included the lack of awareness (46%), fear of a bad result and some felt there was no need for it (Ezem,2007). Similarly, some of the obstacles to Pap smear verbalized by women are: fear, embarrassment, lack of time and stigma (Hoque, Hoque et al. 2008). Also, evidence suggests that factors such as knowledge, attitude and awareness play a vital role in the utilizing of this service (Twinn, Shiu et al. 2002). Likewise, it is established that the major motivator for cervical screening is the invitation they get from the professionals and also the pelvic symptoms they experienced, (Abrahams, Wood et al. 1996). A study in Ghana found that almost half of the women who ever undertake a Pap smear did so because the doctor asked for it as part of patient management, also showed that although 93% of women have heard of cervical cancer, only 37% of those who had adequate knowledge about this disease, and of those with adequate knowledge, only 8.5% have ever had a Papanicolau (Pap) smear done (Adanu, 2002). Unmarried and non-sexually active women of an appropriate age group for screening did not perceive themselves to be at risk and hence did not see the need to undergo testing. Women from Australian-Chinese community believe that the Pap smear is not a prevention method and is only a means of providing peace of mind. One of the respondent also believed that, as she had only one husband and man in her life, she had a low risk of contracting this disease (Kwok, White et al. 2011).

2.3 Women's Perception about Cervical Cancer

In the USA and UK the main misconception was that Pap smear is a diagnostic test used to detect existing cervical cancer and other reproductive health problems, most women failed to realise that the Pap smear is a cervical screening procedure (National Cancer Institute, 2005). Other study, (Fort, Makin et al. 2011) identified misconception by women that knowledge of the presence of cancerous cells in any stage was tantamount to imminent and inevitable death.

(Boonpongmanee, 2007), revealed that the uptake of cervical cancer screening among women significantly depends on their perceptions regarding susceptibility to cervical cancer, their perceptions of the severity of cervical cancers, their perceptions regarding benefits of having a cervical cancer screening, and addressing their perceived barriers to seeking cervical cancer screening.

Women sometimes have their own perception, regarding cervical cancer and the Pap smear (Khoo, Teoh et al. 2011). Studies revealed that some women believe that women attend screening programs as they have been engaged in an active sexual lifestyle or contracted a sexually transmitted infection (STI). As a result of this perception, many women do not attend for screening until the systems are well established and the condition is life threatening. Previous research also revealed that if women feel healthy they feel no immediate need to attend for screening (Hewitt, Devesa et al. 2004).

Respondents attended screening, only after experiencing significant clinical symptoms, including yellowish discharge or bleeding from the vagina. There is also the contributing factor of not wanting to receive positive test results from the Pap smear (Oon., Shuib1. et al. 2011). Some women also avoid cervical cancer screening as they

want to avoid emotional stress and distraction and it will only bring worries upon their family (Wong *et al.*, 2009).

Although life threatening, many respondents did not want to learn more about cervical cancer as found the issue uncomfortable (Austin, Ahmad *et al.* 2002). Young Hispanic women refuse to attend screening as they would not want to admit engaging in sexual intercourse (Byrd, Peterson *et al.* 2004). Other women failed to present for screening as they believed that they would contract an infection from the Pap smear test procedure (Sairafi and Mohamed 2009).

One of the decisive factors in adopting proactive health behaviours, according to the health belief model, is obtaining benefits from the said behaviour. The primary reason given by forty-one per cent (41%) of women who failed to participate in cervical cancer screening programs was that they believe they did not need it. The same women who indicated they did not need cervical cancer screening frequently reported lack of symptoms as their justification.

Many studies have identified fear of a positive result of having cervical cancer, embarrassment, pain, financial constraints, and attitudes of health workers, lack of convenient clinic times and lack of female screeners as the major barriers to cervical cancer screening, (Bessler, Aung *et al.* 2007).

(Udigwe 2006), found that only 5.7% of nurses working in a University Teaching Hospital had ever undergone cervical cancer screening, while 15% had not done it because they were afraid of the outcome, 37.1% had no reason for not doing it and 25% had not done it because they thought they were not likely candidates of cervical cancer.

Nurses who are supposed to be role models and to have good knowledge and experience in order to impart knowledge to clients, find themselves not being screened.

Knowledge and the attitude of the women to smear testing are important in improving the understanding of factors influencing the uptake of diagnostic services available (Adanu, 2002). Moreover, the pervasive use of cervical screening programmes has reduced the occurrence of invasive cervical cancer by 50% or more in developed countries (Saonere, 2010). In the developed nations, declines in cervical cancer death have been credited to the institution of pervasive screening for cervical cancer precursors (Behtash, Nazari et al. 2006). However, even nurses were afraid of the outcome of cervical cancer screening.(Udigwe 2006)

Older women are more likely not to screen compared to younger women (Leyden., Manos. et al. 2005), (Fort, Makin et al. 2011), identified that married women were convinced that they were not at risk of developing cervical cancer because neither they nor their spouses were involved in promiscuous sexual behaviours, and hence did not need to have a Pap smear test. Similarly, the main reasons for not doing a cervical screening test are fear and being healthy (Hoque & Hoque, 2009).

Participants in a study admitted that, they did not go for cervical screening because of fear of pain and discomfort during the screening process.(Byrd, Peterson et al. 2004) Respondents assume that this physical test will cause pain as the test kit has to be inserted into the vagina in order to take the sample (Sairafi and Mohamed 2009). Other researchers reported that rumours spread by their close family members or friends that the screening process is painful (Byrd *et al.*, 2004).

Some of the respondents in a Malaysian study also expressed fear when they looked at instruments used in the same Pap process (Farooqui., Hassali. et al. 2013). A respondent of an Australian-Chinese study reported that the „Pap test is something very painful and she always cried after performing the screening (Kwok, White et al. 2011). There are also documented reports of women expressing a feeling of pain during cervical screening (Ogedegbe., Cassells. et al. 2005).

Scanty knowledge of cervical cancer and screening techniques and low recognition of the threat posed by the disease, as well as anxiety of embarrassment and potential pain lead to low uptake of screening services (Oshima & Maezawa, 2013). (Singh and Badaya 2012) also had similar outcomes, such as embarrassment, fear of outcome of results and fear of pain (Fort, Makin et al. 2011), found that many women believe that the Pap smear is only for married women while others blamed lack of recommendation by healthcare providers for their non-utilisation of the Pap smear test.

2.4 Accessibility to Cervical Cancer Screening Centres

In the U.S.A, though most professionals are knowledgeable about risk factors of cervical cancer, they cite the lack of time and resources in offering educational information on cancer to patients, and preventive counselling to reduce the risk of cervical cancer is viewed as of less importance to the professionals (Herman, Tessaro et al. 1996).

Some women feel that inadequate information is made available about the centres providing the screening facilities (Abotchie and Shokar 2009). The role of healthcare provider is also important in terms of providing support and knowledge that will help

increase the uptake of cervical cancer screening. However, previous research reported that some respondents stated that their doctor did not inform or advise them on cervical cancer and the Pap smear (Hewitt, Devesa et al. 2004).

Other women stated that medical practitioners, did not advise them to have a Pap smear after giving birth especially after the first child (Othman. and Rebolj. 2009). Lack of support and encouragement from close family and friends may play a role in women attending cervical cancer screening. One respondent stated that the husband did not care about the outcome of his wife's health condition post Pap smear testing (Al-Nagger 2010, Oon., Shuib1. et al. 2011) .

The cost of attending clinics in terms of travel and lost time were also noted by some women in previous studies(Oon., Shuib1. et al. 2011). Other participants mentioned that the fee for screening prevented them from attending (Hewitt, Devesa et al. 2004). Government intervention by way of provision of subsidies impacted positively on cervical screening uptake (Abotchie and Shokar 2009). Absence of affordable health insurance among many women affected their ability to attend clinics for the screening (Mupepi, Sampselle et al. 2011).

Previous research conducted in Mexico and Ecuador also reported that the cost incurred from transportation prevented women from attending clinics.(Ogedegbe., Cassells. et al. 2005) Other findings by (Ross, Nunez-Smith et al. 2008), stated cost in undertaking Pap smear is higher in Asian countries compared to western countries (Othman. and Rebolj. 2009). The cost of prevention is insignificant compared to the considerable financial burden of treating cervical cancer patients.

Barriers to screening are mostly cost-related as women in developed countries are expected to pay in order to access such services; other barriers were fear of the unknown, embarrassment, denial, lack of time and lack of transportation (Lyttle. and Stadelman 2006). Services are also principally available in some secondary and tertiary health facilities at a cost that make it not inaccessible and unreasonable to many women (Ndikom & Ofi, 2012). Moreover, the reluctance to visit gynaecological clinics is assumed to be influenced both by the age and the cultural attitudes of women towards sexuality and modesty (Oshima & Maezawa, 2013).

In a study to evaluate availability of screening services in African countries it was found that 95% of health institutions at all health care levels had basic infrastructures to perform cervical cancer screening (Chirenje., Rusakaniko. et al. 2001). However, lack of trained staff to provide service and education poses another form of barrier to screening (Hoque, Ibekwe et al. 2009) .

It is also established that women in the rural areas pointed to the difficulty of accessing clinics due to lack and cost of transportation compared to those living in urban areas (Oon., Shuib1. et al. 2011). This barrier was also evident in a Zimbabwean study where rural women have limited access to health centres providing cervical cancer screening, where many stated that it was too far to walk (Mupepi, Sampsel et al. 2011). Knowledge of the location of the nearest cancer screening facility promotes its utilization; so is the proximity (Lyimo and Beran 2012).

Poverty, besides low education level happens to be one of the reasons why the health seeking behaviour is different between urban and rural areas (Holroyd., Twinn. et al. 2004). In addition, when referred, women often resisted attending further investigations

following abnormal smears (Claeys., Gonzalez. et al. 2002). Research also shows that there medical providers are under-staffed to cater for routine Pap smear screening (Mupepi *et al.*, 2011).

Equally, studies conducted in Africa show that the most common barriers to providing cervical screening tests were a lack of a clear policy and procedures, and also staff competencies; also, most smears were evaluated in tertiary hospitals and this caused delays in turnaround times of results (Chirenje., Rusakaniko. et al. 2001). Another important factor which serves as a barrier to uptake of cervical cancer by women is consent by their husbands (Lyimo & Beran, 2012).

There has been a lot of public education in Ghana on cervical cancer and medical students are regularly taught about the lethal nature of cervical cancer and the importance of cervical cancer screening. Despite this education previous studies have shown very low rates of patronage of cervical cancer screening services (Abotchie and Shokar 2009).

2.5 Proportion of Women Utilizing Cervical Cancer Screening

In poorly resourced settings, access to services offering cervical screening is still a challenge and it is estimated that more than 50% of women in developing countries have never had a single screening test for cervical abnormalities (Adanu et al 2002).

Cancer of the cervix is a major burden on women's health worldwide. It is the second most common cause of cancer-related death among women globally as well as in South Africa (Jamal et al., 2006; Moodley et al., 2006). Study estimated that 493,000 new cases and 274,000 deaths occur every year due to this preventable disease (Ferlay et al.,

2004). In South Africa, the incidence rate is 30 per 100,000 women per year (Mqoqi et al., 2004; Moodley et al., 2006,).

Deaths due to cervical cancer in South Africa have been seen to outnumber the maternal deaths during 2000 (AbouZahr & Wardlaw, 2000; Ferlay et al., 2004). The women of poorer communities are mostly affected with this disease. It is evidenced that approximately, 83% of the world's new cases and 85% of all cervical cancer deaths reported are from developing countries where screening programmes are not well established or minimally effective (Cherenji et al., 2001; Moodley et al., 2006). This condition affects not only the health and lives of the women, but also their children, families and their communities at large.

A study in Nigeria identified a very low level of uptake of cervical cancer screening, as low as only 7.1% had ever done a Pap smear test (Ezem, 2007). Most women commonly screened are below 25 years and also women with invasive cervical cancer (Chirenje., Rusakaniko. et al. 2001). In South Africa which is among has the highest rate of screening in sub-Saharan Africa, only 26% of the target population access cervical cancer screening and thus reaching the 70% National target coverage remains a challenge (Moodley and Moodley 2009). (Udigwe 2006) found that only 5.7% of nurses working in a University Teaching Hospital had ever undergone cervical cancer screening, while 15% had not done it because they were afraid of the outcome, 37.1% had no reason for not doing it and 25% had not done it because they thought they were not likely candidates of cervical cancer.

CHAPTER THREE METHODOLOGY

3.1 Introduction

This chapter gives a brief description of the study type and design, study area, study population, sample size, sampling method, data collection, data management and analysis, ethical consideration.

3.2 Profile of Study Area

The study was conducted in the Ejisu-Juaben Municipality of the Ashanti region.

Ejisu-Juaben Municipal is one of the 30 administrative and political Districts in the Ashanti Region of Ghana. The Municipality is known globally for its rich cultural heritage and tourist attractions notably the booming kente weaving industry. The Municipality stretches over an area of 637.2 km² constituting about 10% of the entire Ashanti Region and with Ejisu as its capital. Currently it has four urban settlements namely, Ejisu, Juaben, Besease and Bonwire. The Municipality is located in the central part of the Ashanti Region and provides enormous opportunity for creating an inland port for Ghana to serve northern section of the country. Ejisu-Juaben Municipality shares boundaries with six (6) other Districts in the Region. To the North East and North West of the Municipal are Sekyere East and Kwabre East Districts respectively, to the South are Bosomtwe and Asante-Akim South Districts, to the East is the Asante-Akim North Municipality and to the West is the Kumasi Metropolitan Area.

Ethnicity: The main tribes in the Municipality are, Asantes. Others include Akyems, Fantes, Frafra, Hausa and Ewes. Majority are indigenous sons and daughters of the municipality. Most of the other tribes have lived in the area for generations and identify with the area especially the Northerners. Since it is very close to Kumasi a lot of workers who work in the Kumasi Metropolitan Area reside in the Municipality.

Religion: About 88 per cent of residents are Christian with Muslims as the majority of the remaining population. This attest to the findings of this study where majority screened were Christians. A comparative few practice traditional religion exclusively although many residents practise traditional religions as well as identifying themselves as Christians or Muslims. While there are ethnic and religious minorities, no caste system or prejudiced community exists in the Municipality. The prevailing systems of kinship, marriage, inheritance, and residence are principled but flexible and open to outsiders.

Economics: Poverty is widespread in the Municipality with 46 per cent of residents living below the poverty line. Fifty one per cent of the employed working age population is involved in petty trading, weaving of kente and agricultural activities. The major food crops produced in the area are maize, cassava, plantain, cocoyam and rice. Cocoa is the primary cash crop produced, with coffee, oil palm, cola and cashew produced to a lesser extent. Major vegetables grown include garden eggs, tomatoes, okra, cabbage, carrots, green pepper, French beans and pepper. Forty-two per cent of household expenditures are on food. Land for farming is generally acquired through family, as a leasehold, or tenancy. (GDSH, 2008).

The 2010 National Population Census put the population of the Municipality at 143,762 of which males form 47.7% (68,648) and females 52.3% (75,114).

Figure 10

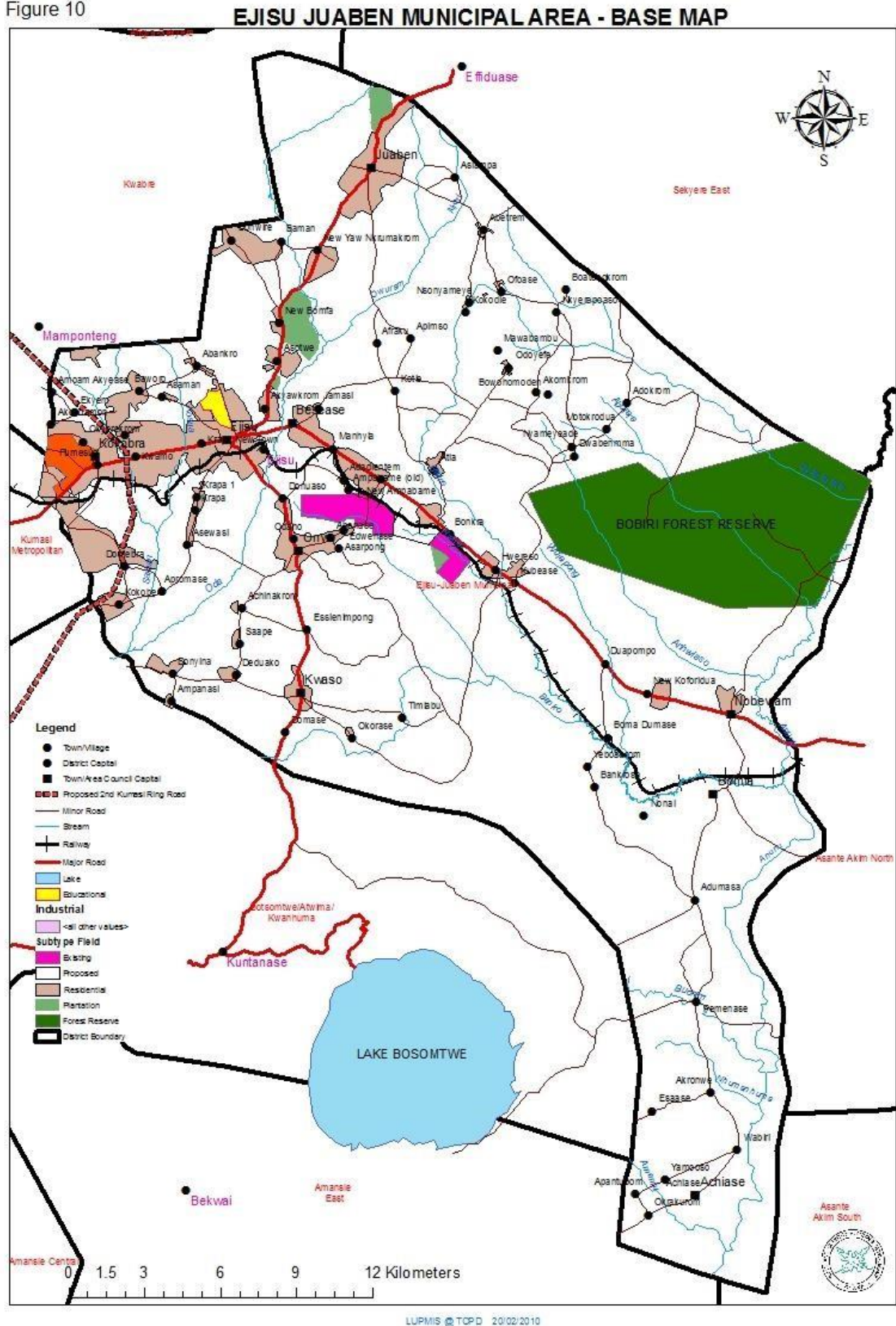


Figure 3: The Map of Ejisu-Juaben municipality showing its major towns and some bordering districts.

Source: EJMA

Health

There are three main hospitals in the municipality. These are the Municipal Hospital at Ejisu, Onwe hospital and Juaben Hospital. Apart from these hospitals, there are health centres and maternity homes providing health care in other communities. The government hospitals in Juaben, Ejisu and Onwe, serve as referral points of these health delivery facilities. In all there are 30 health facilities in the Municipality as tabulated below. Poor transportation has always been a problem to referred indigenes as poor roads makes it difficult for people to access the needed healthcare services. The means of transportation to these referrals are mainly done by vehicle, motor bicycle, and bicycle or even by foot.

Table 1: Distribution of health facilities in the Ejisu-Juaben municipality by category and ownership

Category	hospitals	Health centers	clinics	maternity	Chips comp
Ownership					
Government	3	3	4		2
Private	3	1	4	5	
Mission	2		4		
Total	8	4	11	5	2

3.3 Study Type and Design

A facility-based quantitative descriptive cross-sectional study design was used, to examine the factors affecting utilization of cervical cancer screening among women between the age 18 to 55years in Ejisu Juaben municipality. Review of literature indicates that very few women have knowledge about cervical cancer screening services. The situation can prevent the nation from achieving the reduction of morbidity and mortality rate among women of child bearing age. This calls for a quick

assessment of the situation in the Municipal so that stakeholders can plan intervention programmes to salvage the situation. This could be achieved through a cross-sectional study.

3.3.1. Sampling Procedure

Three hospitals were purposively selected to select the sample unit which was women within the age 18 to 55 years attending hospital. The Outpatient Department Register was used to determine the number of registrants for the day, based on the total number realised in the day, systematic random sampling method was used to select the respondents.

3.3.2 Sample Size Calculation

The study population was the sexually active women between the ages of 18 to 55 years attending hospital (outpatient department clients) within the three government hospitals. A similar study conducted in Nigeria found that cervical cancer screening awareness among women ranged from between 37.5% to 39%. Therefore, considering the fact that Nigeria shares similar characteristic with Ghana, the sample size was determined with the assumption that cervical cancer screening awareness in Ghana is 40%.

Epi-info version 7.1.4 software was used to calculate the minimum sample size required with level of significance set at 5% and 95% confidence interval. Considering the sensitive nature of the topic (the fact that some women might not respond to the entire questionnaire) and the sample size required for effective analysis (369), the calculated sample size was extrapolated to four hundred and twenty four (407) by a ten percent (10%) non-response rate.

The population was women between 18 to 55years. Participants for the study were recruited into the study from three government hospitals within three commercial towns which inhabits a cross-section of the major ethnic groups of the Ejisu Juaben Municipal.: 49% of the women were selected from Ejisu Hospital, 32% from Juaben Hospital and 19% from Onwe Hospital. The selection was done proportionate to the population of the three towns.

3.4 Study Variables

Table 2 shows the outline of the dependent and independent variables for the study and their corresponding scales of measure and instruments used for measurement.

Table 2 Variables table

Variable	Operational definitions of study variables	Scale of measurement	Instrument
Dependent variable			
Cervical cancer screening among women.	Screened or not screened	Numeric	Questionnaire
Independent variables			
Religion	The religious category of respondent	Nominal	Questionnaire
Level of education	The highest level of education the respondent has attained at the time of the study	Nominal	Questionnaire
Parity	Number of children of respondent	Numeric	Questionnaire
Age	The age of the respondent at the time of the study	Numeric	Questionnaire
Marital status	Being married or not married	Ordinal	Questionnaire
Knowledge of cervical cancer.	Ability to identify: the causes, mode of transmission, sign and symptoms, predisposing factors and prevention of cervical cancer.	Nominal	Questionnaire
Women's Perception about cervical cancer screening,	The respondents reasons for not utilizing cervical cancer screening	Nominal	Questionnaire

Accessibility to cervical cancer screening services to respondents	The distance to the screening centre and the cost of transportation to the centre.	Nominal	Questionnaire
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3.5 Pre-Testing of Research Instrument

A pre-testing study using a sample of twenty (20) women was selected from Kwaso within the Ejisu Juaben Municipal. The pre-test afforded the researcher, opportunity to assess the ability of the questionnaire to elicit the information required from the respondent. The ability of respondents to accurately understand questions asked as well as the ability of interviewers to ask the right questions and was recorded accurately. Other factors taken into consideration include the appropriateness of the sequence in which the questions were arranged, time allocated to the interviews and the budgetary implications. All research assistants were involved in the pre-testing to ensure adequate preparedness for the field work.

3.6 Data Collection and Tool

Field data collection using structured interview questionnaires occurred between April 2015 and May 2015. The participants completed questionnaire on demographic characteristics, knowledge level of cervical cancer, perception of the women on cervical cancer screening services, accessibility of cervical cancer services to the women in respect to distance, cost of transportation and cost of service. The questionnaire consisted of five parts and numbered alphabetically (A, B, C, D and E).

The first part collected data on study population's demographics. The second contained questions measuring their knowledge level. The third part looked at women's perception about cervical cancer screening. The proportion of women screened of cervical cancer among the study population was the fourth part and how cervical cancer screening services could be assessed was the fifth.

Questions related to demographic characteristics included age, religion, educational status, occupation, income of the family per month, marital status, and parity. Thirty one items was used to measure knowledge level, six items looked at the source of the information of cervical cancer to the women. Women who marked 70% were measured as having adequate knowledge; those with 50% to 69% had moderate knowledge and 49% and below had slight or poor knowledge. Seven questions on perception. The questions on women perception about cervical cancer screening included, if women have been screened before if not what are the reasons for not being screened, the reasons were, if the procedure is painful, cost of treatment, outcome of results, is the screening done for a particular group of people?, fear of stigmatization and the results leading to marital separation.

The criteria for assessing proportion of women screened looked at who recommended the screening to them, the duration, cost, review dates, confidentiality and provision of privacy of cervical screening services. The frequency of screening they have done, staff attitude and how they felt about the screening procedure.

In order to evaluate the accessibility of the screening services to women, the following questions were probed; How far was the screening centre from residence? How will they rate the distance from their residence to the screening centre? What was the means of transport from their home to the screening centre? If by public transport, how much do they spend for transport from their home to the screening center. How do they consider the cost of transport to the facility?

3.7 Data Analysis

The analysis focuses on the women's knowledge, perception and access to cervical cancer screening services, and the proportion of women screened among the study population. The data for the analysis was obtained from a cross-sectional community based hospital to hospital survey. The data was entered into Microsoft excel 2013 (Version 15.0.4551.1011) and then transferred into Stata (Version 12) computer statistical Software package for analysis. Chi square (χ^2) analyses were performed to determine the association between dependent and independent variables under the study. Logistic regression was used to determine the simple relationship between the outcome variable and each of independent variable. The strengths of the associations were determined with multiple logistic regressions. Socio demographic characteristics were included into regression model to control confounding. Inferences were made with 95% confidence interval with 5% error margin and p value <0.05. The results were presented in frequency and cross tabulation tables.

3.8 Quality Control

The research team was purposively selected from national service personnel working at Onwe Hospital; the team was recruited based on their level of education, previous experience in data collection, knowledge of local language and culture. They were given adequate training for two days by the principal investigator to ensure that they did the right thing in order to reduce errors in data collection. The training focused on sampling, interview techniques, and ethical issues, including safety of the participants and on maintaining confidentiality. The interview questions were administered by research assistants and the principal investigator. Literate respondents had selfadministered questionnaire while illiterate respondents had interviewer

administered questionnaires (Interviewers translated the questionnaire from the English language to the local language (Twi) for illiterate respondents to ensure better understanding of the questions). The field data collection procedure was closely supervised by the principal investigator to ensure the interviewers did the right things in order to reduce data collection errors as much as possible, to make sure that quality data is collected, and ensure that interviewers go through their questionnaires to be sure that it is completed before the interview ends. The principal investigator again, check daily on the questionnaires submitted to make sure that questionnaires were completely filled and recorded information makes sense.

3.9 Ethical Consideration

Ethical clearance was obtained from Kwame Nkrumah University of Science and technology committee for human research publication and ethics, and permission was sought from the Municipal Directorate of Health Service to enter the health facilities.

Informed consent was sought from all the respondents before interviewing them. The purpose and the objectives of the study, and any potential risk or benefits inherent in the study were explained to the respondents. The respondents were given an opportunity to ask questions about the study. Privacy and confidentiality was ensured by dealing with the respondents on individual basis.

3.10 Plan for Dissemination of Results

The results will be used by Ejisu Juaben Municipal health team to plan to encourage women to undergo cervical cancer screening.

The principal investigator will present the report of the study to

1. The Department of Health Policy, Management and Economics School of Public Health, Kwame Nkrumah University of Science and Technology.
2. The Regional and Municipal health directorates.
3. The heads of the facility that were used, and have a discussion with them on the findings.
4. Publish in a medical and health peer reviewed journals.

CHAPTER FOUR RESULTS

This chapter presents the results of the cross-sectional study of the 395 respondents who were mainly women aged 18 to 55 years residing at the Ejisu Juaben Municipality in the Ashanti Region of Ghana.

The remaining sections of this chapter are organized as follows. The first table presents the analysis of the background characteristics of the study sample. For the purpose of this study the reasons deduced was used to measure the perception of the respondents. The second table shows the analysis of the reasons why the study sample does not access the cervical cancer screening services and the third table presents the analysis of accessibility of cervical cancer screening service among the study sample in the municipality.

4.1 Demographic Characteristics

Table 3 presents the demographic characteristics of the participants of the study. In all, 395 women aged between 18 and 55 years were involved in the study. The Majority (68.9%) were either below the age of 34 years or Christians. On education, 24.6% of respondents had tertiary education, while 40.07% of the respondents had primary or no education. Of the total number, approximately seven in ten were salaried workers. Two hundred and forty-six (62.9%) of respondents were married, 71.1% were multi parous

while 28.9% were nulli parous. Majority (88.4%) of respondents had no knowledge on cervical cancer screening.

Table 3. Demographic characteristics of study participants N=395

CATEGORIES	TOTAL NO	%
AGE		
</=34 yrs	272	68.86
=>35 yrs	123	87.37
RELIGION		
Christians	345	87.34
Non-Christians	50	12.66
EDUCATIONAL STATUS		
Primary/no Education	182	46.07
Secondary Education	116	29.37
Tertiary Education	97	24.56
OCCUPATION		
Salaried workers	268	67.85
Non salary workers	127	32.15
MARITAL STATUS		
Not married	145	37.08
Married	246	62.92
PARITY		
Primi-para	144	28.86
Multi Para	281	71.14
KNOWLEDGE LEVEL		
No knowledge	349	88.35
Ave. knowledge	29	7.34
Good Knowledge	17	4.30

Source: Field data April 2015

4.2 Women's Perception about Cervical Cancer Screening. (Reasons for not screening)

Of the 395 respondents in this study, 364 had never been screened for cervical cancer. Table 4 presents the responses by study participants on why they had never been screened. Among the 364 respondents not screened, majority (86.8%) have not heard about the screening. 13.2% knew the screening procedure is painful; 80.8% had no reason for not screening, 19.2% knew the procedure is expensive. 4.95% were aware that a negative outcome of the screening does certainly lead to death. Also, only 4.4% of unscreened respondents perceived that cervical cancer screening is meant for prostitutes, while fear of embarrassment or stigma put only 4.4% of respondents away from screening, and almost all (2.20%) did believe that a screening result will lead to marital separation.

Table 4 Participants perception about cervical cancer screening N=364 (Not screened)

REASONS	FREQUENCY	PERCENTAGE
The screening procedure is painful	48	13.19
The screening procedure is expensive	70	19.23
Outcome of results will lead to death	18	4.95
The screening is for only prostitutes	16	4.40
Fear of stigma or embarrassment	16	4.40

Source: Field data April 2015

4.3. Accessibility of Cervical Cancer Screening Services

Table 5. Indicates the level of access to screening services by study participants. Only 12.1% of respondents said screening services were accessible to them. Majority (87.9%) had no idea of the place to access cervical cancer screening services. 7.1% complained of the service centre being far away from their residence, the least 5.1% claim the screening centre was near. 11.64% will go by public transport while the least 0.5% can walk to the centre. Though minority (3.04%) respondents said cost of transportation was expensive, while 9.11% thought its normal for them.

Table 5 Accessibility of the screening service to the study participant N= 347

	FREQUENCY	PERCENTAGE
Those who know the Cervical Cancer Screening Center.	48	12.15
The distance to Cervical Cancer Screening Center.		
Near	20	5.06
Far	28	7.09
Means of transport		
Public transport	46	11.64
Walk	2	0.51

Cost of transport		
Expensive	12	3.04
Normal	36	9.11

Source: Field data April 2015

Of the several variables tested for association only age ($p=0.007$) and knowledge of cervical cancer screening ($p<0.001$) showed significant association with respondents' screening status.

Table 6: The association between demographic characteristic of study participants and screening. (N=395)

CATEGORIES	screened		Not screened		Total		P=0.05
	No	%	No	%	No	%	
AGE							
<=34 yrs	28	90.32	244	67.03	123	31.14	
=/>35 yrs	3	9.68	120	32.97			
Mean (SD)	28,2 (7.98)		31.6 (9.54)				0.007
RELIGION							
Christians	27		318		345	87.34	
Non-Christians	4	87.10	46	87.36	50	12.66	
		12.90		12.64			0.966
EDUCATIONAL STATUS							
No/ primary ED.	8	38.48	144	39.56	152	38.48	
Secondary ED.	10	32.26	136	37.36	146	36.96	
Tertiary	13	41.94	84	23.08	97	24.56	0.057
							0.106
OCCUPATION			251		268	67.85	
Salaried workers	17	54.84	113	68.96	127	32.15	
Non salary workers	14	45.16		31.04			
MARITAL STATUS							
Not Married	7		138		145	37.08	
Married	24		222	38.33	246	62.92	
		22.58 77.42		61.67			0.081

PARITY

Nulli Para	6		108		144	28.86	
Multi Para	25	19.35	256	29.67	281	71.14	
		80.65		70.33			0.222

KNOWLEGDE

No knowledge	22	70.97	327	89.84	349	88.35	
Ave knowledge	3	9.68	26	7.14	29	7.34	
Good knowledge	6	1	35	11	3.02	17	4.30
							0.000

Source: Field data April 2015

Table 7 presents the multivariate analysis of the respondents' screening status and the background characteristics. After a multivariate analysis accounting for confounders, age ($p=0.01$, $CI=0.06 - 0.73$) and respondents' knowledge of screening ($p=0.01$, $CI=2.36 - 24.14$) were still associated with respondents' screening status.

Table 7: Multivariate analysis of the respondents' screening status and the background characteristics

CATEGORIES	Screened N=31	Not scrn N=364	O/R	95% C/I	P=0.05	Adj.O /R	95% C/I	P=0.05
AGE								
<=34YRS	28	244	REF	0.06-		1.00	0.53-	
>=35YRS	3	120	0.22	0.73	0.014	0.19	0.68	0.011
RELIGION								
Christians	27	318	1.00	0.34-		1.00	0.32-	
Non-Christians	4	46	1.02	3.06	0.966	1.08	3.64	0.893
EDUCATIONAL STATUS								
No/primary education	8	144	1.00			1.00		
Secondary education	10	136	2.77		0.030	1.11		0.842
Tertiary	13	84	1.31	1.10-6.95	0.58	1.84	0.39-3.11	0.346
				0.503.42			0.526.60	
OCCUPATION								
Salaried Workers	17	251	1.00	0.87-		1.00	0.40-	
Non-Salaried	14	113	1.83	3.84	0.110	1.18	3.42	0.765

workers

**MARRITAL
STATUS**

Not married	7	138	1.00	0.89-		1.00	0.52-	
Married	24	222	2.1	5.07	0.088	1.45	4.03	0.478

PARITY

Nulli para (primip)	6	108	1.00	0.70-		1.00	0.95-	
Multi para	25	256	1.7	4.40	0.229	2.91	8.89	0.061

KNOWLEGDE

LEVEL

No knowledge	22	327	1.00			1.00		
Average	3	26	1.71		0.405	1.83	0.47-	0.379
knowledge	6	11	8.11	0.48-6.11	0.000	7.56	7.08	0.001
Good				2.74-			2.36-	
knowledge				23.98			24.14	

Source field data April 2015

CHAPTER FIVE

DISCUSSION OF STUDY FINDINGS

5.1 Introduction

The main purpose of this study was to assess the factors affecting the utilization of cervical cancer screening services among women.

The key findings of the study suggest that:

1. Of the 395 respondents, majority (92.2%) had never been screened, while approximately one (1) out of ten had ever been screened.
2. The mean age was 31.4, majority (69%) of respondents were young women either 34 years or below as compared to the older women. Age was significantly associated with cervical cancer screening with (Adjusted OR 0.19, 95% CI 0.53 – 0.68, P=0.01)
3. 87% of the total respondents were Christians.

4. Majority (38.5%) of the respondents had primary or no education, whilst (37%) had secondary education and the minority (24.5%) had attained tertiary education.
5. More than half (63%) of the respondents were married, whereas 7 out of ten of the respondents were multiparous.
6. Knowledge level was significantly associated with cervical cancer screening, with (Adj. OR 7.56, 95% CI 2.36- 24.14, $p= 0.001$)

This chapter discusses the main findings of the study in relation to existing literature on the subject as well as policy implications of findings and limitation of the research.

5.2 Demographic Characteristics

Younger women were found to be the majority of the 395 respondent, with a mean age of 31.4 and a standard deviation of 9.5. Age was significantly associated with cervical cancer screening with (Adj OR 0.19, 95% CI 0.53 – 0.68, $P=0.01$). (See table 4.5). A similar study done in Nigeria by Ndikom and Ofi 2012, also revealed that of the 82 respondent's, majority was between 26 to 30years with the mean age of 27.

Information collected divulge that majority of the respondents were Christians and also form the greater percentage of the number of women screened. Also secondary and tertiary educational level, forms 74.2% of the number of respondents screened, while married women who have been screened was 77.4%. Women who have delivered more than once (multipara) were also 80.0%. Moreover, more than half (55%) of the respondent screened were salaried workers.

This shows that data collected indicated that of the 31 women who had ever been screened majority were, young, married, Christians, salaried workers, had delivered

more than once and well educated were more likely to do cervical cancer screening. However statistics did not show any significant association between religion, marital status, occupation and parity, however majority (74.2%) of screened respondents had secondary or tertiary education, this presages that education has an effect on cervical cancer screening.

5.3 Women's Knowledge about Cervical Cancer Screening

An overwhelming majority 349 (88.4%) of respondents, had no knowledge about cervical cancer screening. A similar study by (Singh and Badaya 2012) also found lack of knowledge among Indian women.

Surprisingly all women presented were married but only 9.59% of women had ever heard of cervical cancer, mostly belonging to upper socioeconomic group with only 11.62% underwent at least one cervical cancer screening in their life time. Their study revealed the limited knowledge of Indian women about the susceptibility of cervical cancer, and the necessity of cervical cancer screening among the women.

Another study conducted in Kenya revealed that, respondents who have no knowledge about cervical cancer screening, said they didn't know about the disease or about susceptibility to it, had a higher likelihood of not being screened for cervical cancer. (Morema., Atieli. et al. 2014).

In a quantitative study conducted to assess knowledge, perceptions and attitudes of health care professionals in the U.S.A, findings were that most professionals are knowledgeable about risk factors of cervical cancer. However, they cited the lack of time and resources in offering educational information on cancer to patients. Preventive counselling to reduce the risk of cervical cancer was viewed as of less importance to

the professionals (Tessarro, Herman, Shaw and Giese, 1996:272). This implies that no matter how knowledgeable health care professionals are, sharing information with patients and communities to reduce the risk of cervical cancer is challenging.

Other health personnel according to Udigwe (2006) found that only 5.7% of nurses working in a University Teaching Hospital had ever undergone cervical cancer screening, while 15% had not done it because they were afraid of the outcome, 37.1% had no reason for not doing it and 25% had not done it because they thought they were not likely candidates of cervical cancer. Nurses who are supposed to be role models and to have good knowledge and experience in order to impart knowledge to clients, find their selves not being screened, is very serious an issue, and there is the need to address this as a matter of urgency.

According to the study done by (Mutya, Faxelid et al. 2007), 2007 in Congo, Only 3.7% had good knowledge about cervical cancer. Knowledge therefore has become a major factor to non-utilization of cervical cancer screening, in Africa.

5.4 Women's Perception about Cervical Cancer Screening. (Reasons for not screening)

For the purpose of this study, the criteria for assessing their perception were based on their reasons for not screening.

Nine out of ten being the majority (91.2%) were not screened for various reasons. Most of them had not heard about the cervical cancer screening, the minority (19.2) who had heard about cervical cancer screening, according to the data collected, 13.2% were afraid to do the cervical cancer screening, 19.2% complained of the cost involved, 5% were afraid the outcome of cervical cancer screening will lead to death, 4.4% sensed

the cervical cancer screening was for prostitutes alone and were afraid of stigmatization and embarrassment, only 2.2 % felt it will lead to marital separation. Based on these reasons they perceived, they refused to be screened. Other reasons given, which were not part of the questionnaire were,

1. Staff attitude
2. Delay as in waiting time.
3. Unavailability of reagents for screening, i.e. if they manage to get to the health facility they will be told, the reagents for cervical cancer screening is finished they will be rebooked.
4. Most of the time the nurse responsible for cervical cancer screening, will not be available.
5. Privacy is sometimes compromised.
6. Others complained the screening centres have specific days for rendering the screening services, which are not known to the women.
7. Most of them complained that their culture and religion does not allow a third person apart from their husbands to see their genitalia unless during delivery.

A related study found that, the most commonly endorsed barriers were embarrassment (29%), intending to go but not getting round to it (21%), fear of pain and (14%) worry about what the test might find out. (Singh and Badaya 2012.)

5.5 Accessibility of Cervical Cancer Screening Services

According to the available data, approximately nine out of ten (87.8%) did not know where to access cervical cancer screening services. Of the minority 12.2% who knew where and how to access the cervical cancer screening services, had few reservations.

In all 48 respondents knew where the screening centre could be accessed, 20 of them said it was near to them while 28 said it was far from where they lived. 46 of the respondents irrespective of the distance being near or far from their house, said they will go by public transport whereas 2 of them said they could walk. 12 of them complained that the cost of transportation was expensive, however the majority (36) of them said it was normal, they can afford to pay.

Women interviewed in Kenya reported that it is often problematic for a woman to go to a health clinic to be screened if she is “feeling healthy,” as she must convince her partner to get money for transport when she is not visibly ill. (Bingham, Winkler et al. 2006)

Equally, studies conducted in Africa show that the most common barriers to providing cervical screening tests were a lack of a clear policy and procedures, and also staff competencies; also, most smears were evaluated in tertiary hospitals and this caused delays in turnaround times of results (Chirenje., Rusakaniko. et al. 2001)

5.6 Proportion of Women Screened Compared with Demographics of the Study Population

Of the 31 women that were screened, younger women 34years or less were more likely to be screened, compared to older women (adjusted O.R 0.19, 95% C.I 0.530.68, $p=0.011$), while more multiparous women had been screened than nulliparous (80.65%; 19.35%). Similar study done at Zimbabwe depicts that, of the 514 participants, 91% had never had cervical cancer screening (Mupepi et al 2011). Other studies done in Nigeria also stated that as low as 7% of the entire population studied had ever been screened for cervical cancer, (Utoo et al. 2013).

Available data from this study revealed that approximately 1% of respondents have been screened. Of the 31 people screened, 71% had no knowledge about cervical cancer, this was due to the fact that a researcher had earlier given health talks on the importance of cervical cancer screening to women fellowships in various churches, and a mass screening was done at various churches, a lot of the women reported late for the program and hence missed the education aspect of the program, but reported on the said date to have the screening done.

Conferring the data collected, it bare that, young married women had higher frequency of being screened than their unmarried counterparts, similarly majority of women screened were Christians, as well as salaried workers. This upshot depicts that, even though of the 395 respondent, majority had primary or no education, of the 31 women screened the majority had secondary or tertiary education.

5.7 Limitations

The limitations of this study are associated with, information bias (interviewer and respondents). With respect to respondent bias, the tendency for respondents to withhold some information in order to give socially acceptable responses to some questions which may have been very important.

On the other hand, the tendency for interviewers to seek out information that substantiate the knowledge of respondents on the causes, predisposing factors, signs and symptoms of cervical cancer and the onset of sexual intercourse might have affected the accuracy of the information collected. However, interviewers were trained not to conduct the interviews in groups. They should as much as they can provide privacy as

much as possible, so that other people could not hear the responses of the respondent's. They were also encouraged to be open-minded during data collection. These could help reduce information bias.

The study was carried out in three Government hospitals within the municipal. However, there were some respondents who had been referred from the private Hospitals and Health Centres, who were part of the respondents

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

The findings from this study indicate that, two major factors are barriers to cervical screening, among women between the ages of 18 to 55 years, these include, knowledge level and age.

Younger women are likely to do cervical cancer screening than older women, even though the percentage of women screened is very low, it is a good effort, since it will help to catch them young and the necessary intervention applied as in early detection, management and treatment. Age is significantly associated with cervical cancer screening.

Knowledge level is the backbone of barriers to cervical cancer screening; it is really a major factor, which prevents women from utilizing cervical screening services. Women who have knowledge see the importance of being screened.

Even though educational level did not show any significance to screening, the data collected showed that, of the 31 respondents screened (74.2%) are secondary and

tertiary graduates. This reveals that educational level is a barrier to cervical cancer screening. The higher they are educated the greater they do the screening.

In the researcher's bid to identify the level of women's knowledge of cervical cancer screening service, the study found that 88.4% of the respondents had no knowledge on cervical cancer screening though knowledge is the nub of cervical cancer screening, its detection and subsequent treatment.

Investigating the reasons why women do not utilize cervical cancer screening services, the study found that, women shunning cervical cancer screening emanated from misconceptions they had. These misapprehension about cervical cancer screening centered on the fact that some women saw the screening as painful and expensive. Others felt that cervical cancer screening is the preserve of prostitutes and also resulted in marriage separation. Some also harboured the fear of embarrassment or stigma and felt that negative outcomes of the screening resulted in death.

Determining the accessibility of cervical cancer screening services to women, the study found only 12.1% of respondents who had access to the cervical cancer screening services and disturbingly, majority (87.9%) had no idea of the place to access cervical cancer screening services. The few with access to the cervical cancer screening services lamented on the distance and the cost of transportation in accessing Cervical Cancer Screening centers.

The proportion of women utilizing cervical cancer screening is very low approximately (1%) in Ghana. This low patronage or utilization of the cervical cancer screening emanate from impediments such as lack of awareness and access and perceptions such

being afraid of the outcome, saw no reason doing the screening and because they perceived that, they were not likely candidates of cervical cancer.

6.2 Recommendations

The results of this study suggest that women's health, in respect to cervical cancer is essential, knowledge, and age are factors to the barriers to its preventive approach. These findings have the following implication for Government of Ghana, Ministry of Health, Ghana health service, Ministry for Women and Children, Ministry of Finance and Economic Planning, NGOs supporting reproductive health in Ghana, traditional rulers, researchers, N.H.I.A. and Ghanaian women as a whole.

6.2.1 Government

- Government should set up a commission like National Cervical Cancer Commission as in N.A.C.P. to help fight the risk of cervical cancer from getting to the terminal stage where little or nothing can be done to save the lives of our precious Ghanaian women.
- Government through the Health Ministry in conjunction with the Media and NGOs should draw up and intensify awareness campaign on cervical cancer, the need for screening and its benefits. This awareness creation and education would help discard or correct the myth surrounding cervical cancer and its screening.
- A comprehensive national cervical cancer screening programme must be introduced by government to get all women across the country involved in the screening exercise.
- Government must incorporate cervical cancer screening into the NHIS to enhance easy accessibility of women to screening.

6.2.2 Ministry of Health

- The Ministry should include in the syllabus of all health trainees, especially nurses, so as to be part of their knowledge acquired, and help the society by giving technical skilful information about cervical cancer, and the need to get screened. This will help erase misconceptions, and the women will get accurate health information about it.
- The ministry should set up a cancer registry where the country can assess the trend of cancer morbidity and mortality in the country, so the country will know how to plan its interventions for prevention, management and treatment.

6.2.3 Ghana Health Service

- Ghana Health Service should include set up or create more screening centres within their power in terms of finances to enable more access to cervical cancer screening centres.
- Health facilities must be adequately resourced with human Oncologist, Gynaecologist and material resources to carry out effective cervical screening and treatment. These staff must also be motivated for efficiency in service delivery.
- Health facilities must be adequately resourced with equipment especially Pap smear kits for effective screening of patients.
- Hospital management must also ensure collaboration between the pathology and gynaecology unit of the hospital so that tools like Pap smear kits can be easily available in gynaecology consulting rooms.
- The gynaecology unit must also establish protocol to perform a Pap smear test on any sexually active patients that visits the unit.

- Health staff must exhibit courtesy in the discharge of their duties towards the women by being affable and ensuring the utmost confidentiality meets outcomes of the cervical cancer screening.

6.2.4 Ministry for Women and Children

- The Ministry of Women and Children should add cervical cancer screening campaign and programmes to their yearly action plan.
- They should spend a quota of their budget for cervical cancer screening services.

“If the women in Ghana are not healthy gynaecologically, they cannot give birth to children and for that matter this ministry cannot function”.

- Women are the major stakeholders in cervical cancer issues. They must seek knowledge on cervical cancer and regularly go for screening exercise as part of their gynaecological consultation or take advantage of cervical cancer screening exercises.

6.2.5 Ministry of Finance and Economic Planning.

- The ministry should plan a budget specifically for reagents for cervical cancer screening, as they did for anti-retroviral drug manufacturing in Ghana. This will prevent inconsistency unavailability of reagents for cervical cancer screening.

6.2.6 Non-Governmental Organization.

- NGOs like Engender Health, Marie Stopes and focus Ghana in collaboration with World Health Organization, as part of their community outreach should create awareness and sensitize people on the need and importance of cervical

cancer screening, and support in creation of more cervical cancer screening centers, so that the service will be easily accessible.

- They should also offer technical and logistical support to the government, Ghana health service and health facilities to undertake cervical cancer screening exercises. eg. PPAG, Engender Health, Marie Stopes, Focus Ghana, W.H.O. etc

6.2.7 Traditional Rulers

The leaders may use occasions like durbars and festivals that bring a lot of their women together to sensitize them on the need and importance of cervical cancer screening, it will go a long way to protect women from reporting at the Health facilities at the terminal stages of cervical cancer.

6.2.8 Researchers

There is the need to carry out further research in the municipality, to determine other various facilitating factors and barriers affecting the utilization of cervical cancer screening to help improve the health of women as well as help in the realization of the millennium development goal.

6.2.9 N.H.I.A

Should include cervical cancer screening on their health list, so that all women attending the hospital will be screened for free under NHIA.

6.2.10 Ghanaian Women

Ghanaian women are the major stakeholders in cervical cancer issues. They must seek knowledge on cervical cancer and regularly go for screening exercise as part of their gynaecological consultation or take advantage of cervical cancer screening exercises.

- Women should make conscious effort to take up effective cervical cancer screening, as they are more legally responsible to help improve their own health.

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APPENDICES

Appendix 1 CHRPE approval letter



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COLLEGE OF HEALTH SCIENCES
SCHOOL OF MEDICAL SCIENCES / KOMFO ANOKYE TEACHING HOSPITAL
COMMITTEE ON HUMAN RESEARCH, PUBLICATION AND ETHICS

Our Ref: CHRPE/AP/093/15 1st April, 2015.

Miss Esther Akua Konadu Prempeh
Post Office Box 87
Onwe Government Hospital
EJISU-KUMASI

Dear Madam,

LETTER OF APPROVAL

Protocol Title: "Factors Affecting Utilization of Cervical Cancer Screening among Women between the Ages of 18 to 55 Years within the Ejisu Juaben Municipal in the Ashanti Region."

Proposed Site: Juaben Hospital, Ejisu Hospital and Onwe Hospital within Ejisu Juaben Municipality.

Sponsor: Principal Investigator.

Your submission to the Committee on Human Research, Publications and Ethics on the above named protocol refers.

The Committee reviewed the following documents:

- A notification letter of 16th March, 2015 from the Ejisu Municipal Health Directorate (study site) indicating approval for the conduct of the study in the Municipality.
- A Completed CHRPE Application Form.
- Participant Information Leaflet and Consent Form.
- Research Protocol.
- Interview Schedule.

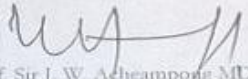
The Committee has considered the ethical merit of your submission and approved the protocol. The approval is for a fixed period of one year, renewable annually thereafter. The Committee may however, suspend or withdraw ethical approval at any time if your study is found to contravene the approved protocol.

Data gathered for the study should be used for the approved purposes only. Permission should be sought from the Committee if any amendment to the protocol or use, other than submitted, is made of your research data.

The Committee should be notified of the actual start date of the project and would expect a report on your study, annually or at close of the project, whichever one comes first. It should also be informed of any publication arising from the study.

Thank you Madam, for your application.

Yours faithfully,


Osomfuor Prof. Sir J. W. Acheampong MD, FWACP
Chairman

Room 7 Block J, School of Medical Sciences, KNUST, University Post Office, Kumasi, Ghana
Phone: +233 3220 63248 Mobile: +233 20 5453785 Email: chrpe.knust.kath@gmail.com / chrpe@knust.edu.gh

Appendix 2 Questionnaire

INTERVIEW SCHEDULE

I am Esther Akua Konadu Prempeh, an MPH student conducting a study on the topic,
**FACTORS AFFECTING THE UTILIZATION OF CERVICAL CANCER
SCREENING AMONG WOMEN BETWEEN 18-55 YEARS, WITHIN EJISU
JUABEN MUNICIPAL.**

I kindly ask you to answer the following questions and statements. By doing so you
contribute to a better scientific understanding of the topic above. Information provided
will be kept strictly confidential. Thank you.

DEMOGRAPHIC CHARACTERISTICS

PART A:

- 1. Age (years)**
- 2. Religion** i. Christianity () ii. Islamic () iii. Traditional () iv. Other
(please specify).....
- 3. Educational status** i. No formal education () ii. Primary education ()
 iii. Secondary education () iv. Polytechnic () V. University education ()
- 4. Occupation** i. Housewife () ii. Labourer () iii. Self employed ()
 iv. Artisans iv. Professional ()
- 5. Income of the family per month (Gh¢)**
 i. Less than 500 () ii. 500 – 1000 () iii. Above 1000 ()
- 6. Marital status** i. Married () ii. Divorced / separated () iii. Single () iv.
Widow ()

Parity

- i. How many children do you have? (.....)

KNOWLEDGE ON CERVICAL CANCER

PART B:

AWARENESS

1. Have you heard about cervical cancer before? i. Yes () ii. No ()

1. (a). If yes please state source of the information

1a1 1 Health worker(s) ()

1a2 Relatives / friends ()

1a3 NGOs ()

1a4 Media ()

KNOWLEDGE LEVEL

2a WHAT CAUSES CERVICAL CANCER? Yes () No ()

2a1 By hereditary factors ()

2a2 It is caused by a virus ()

2a3 Cigarette smoking. ()

2a4 Radiation (use of microwaves and exposure to x-rays) ()

2a5 Other specify.....

2B. how does it move from person to person

2b1 Through sexual intercourse. ()

2b2 Do not know. ()

2b3 Other specify

2C what are some of the things a woman does to her, that increase her chances of getting cervical cancer?

2c1 Having early sex before 16 years. ()

2c2 Multiple sex partners. ()

2c3 Women who have multiple deliveries. ()

2c4 Having unprotected sex. ()

2c5 Chronic infections. (STI) ()

2c 6 Smoking. ()

2c 7 Radiation. ()

2c 8 Hereditary ()

2c 9 Other specify

2D. how will a woman know if she has cervical cancer?

2d 1 Abnormal vaginal bleeding.()

2d 2 Bleeding after sex. ()

2d 3 Bleeding after menopause. ()

2d 4 Abnormal vaginal discharge. ()

2d 5 Painful sexual inter course.

2E. how can a woman prevent from getting cervical cancer

2e 1 Delay of onset of sex.

2e 2 Being faithful to one sexual uninfected partner.

2e 3 Do not smoke.

WOMEN'S PERCEPTIONS ABOUT CERVICAL CANCER.

PART C;

3a.1 have you been screened of cervical cancer before? YES () NO()

If yes MOVE TO PART D. if NO continue.

3a 2 I think it's Painful. ()

3a 3 Cost of treatment is high. ()

3a 4 Outcome of results will lead to death. ()

3a 5 The screening is for only prostitutes,()

3a 6 Fear of stigma or embarrassment. ()

3a 7 Results will lead to marital separation ()

Other epecify

PROPORTION OF WOMEN THAT HAVE BEEN SCREENED

PART D

4a. If yes, who recommended it to you ? myself () doctor () nurse () relative () friend () other specify.....

4b. how long did you have to wait before being screened?

4c. How much did you pay for your last screening? Gh¢.....

4d. When were you told to come back for another screening?

4e. How many times have you done the screening

4f. How will you describe the attitude of staff at the screening centre?

i. Friendly () ii. Not friendly () iii. not sure () 4g. Do you feel there is privacy and confidentiality at the screening centre?

i. Yes () ii. No ()

4h. Do you perceive that you will have to wait long before being screened?

i. Yes () ii. No () iii. Not sure ()

4i. How did you find the screening procedure?

i. Painful.

ii. Time consuming.

iii. Embarrassment

iv. Costly.

4j. Will you recommend the screening to other women? Yes () No ()

If yes why.....

If no why **ACCESSIBILITY
OF THE SCREENING SERVICE**

PART E

5a Have you heard about where the screening centre is? Yes () No ()

i. How far is the screening centre from where you are staying? ii.

How will you rate the distance from your residence to the screening centre?

i. Very near () ii. Near () iii. Normal () iv. Far () v. Very far () iii.

What is the means of transport from your home to the screening centre?

i. Walk () ii. Public transport () iii. Bicycle/motor () iv. If by public

transport, how much do you spend for transport from your home to the

Facility? GHC.....

v. How do you consider the cost of transport to the facility?

i. Normal () Expensive ()



Appendix 3 Approval letters from district of study

In case of reply the number and the date of this letter should be quoted

My Ref. No: GHS/MHD/EJ-121
Your Ref. No:
Tel no. 03220 - 96543

GHANA HEALTH SERVICE
MUNICIPAL HEALTH DIRECTORATE
P. O. BOX 87
EJISU-ASHANTI
GHANA

16th March, 2015

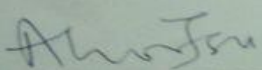
THE COMMITTEE FOR HUMAN RESEARCH AND ETHICS
K.N.U.S.T
PRIVATE MAIL BAG
UNIVERSITY POST OFFICE
KUMASI

LETTER OF APPROVAL

Approval has been given to Ms. Esther Akua Konadu Prempeh a postgraduate student undertaking an MPH Health Service planning and Management course in the Department of Community Health, Kwame Nkrumah of Science and Technology to conduct her research on: **Factors affecting Utilization of Cervical Cancer Screening among Women between 18 – 55 years within Ejisu Juaben Municipality.**

My Office is prepared to give her the necessary support and assistance to enable her complete the research work.

Thank you


JOSEPHINE ATSUFEE AHORSU (MRS)
MUNICIPAL DIRECTOR OF HEALTH SERVICE
EJISU-JUABEN