ปัจจัยที่มีผลต่อความพึงพอใจในการตรวจคัดกรองมะเร็งปากมดลูกของสตรี จังหวัดร้อยเอ็ด ประเทศไทย

นางไกรศร แสนสิงห์

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตร์มหาบัณฑิต
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ปีการศึกษา 2552

FACTORS EFFECTING ON WOMEN SATISFACTION OF CERVICAL CANCER SCREENING IN ROIET PROVINCE, THAILAND

Mrs.Kraisorn Sansingha

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Public Health Program in Health Systems Development
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ไกรศร แสนสิงห์: ปัจจัยที่มีผลต่อความพึงพอใจในการตรวจคัดกรองมะเร็งปากมดลูกของสตรีจังหวัดร้อยเอ็ด ประเทศไทย (FACTORS EFFECTING ON WOMEN SATISFACTION OF CERVICAL CANCER SCREENING IN ROIET PROVINCE, THAILAND) อ. ที่ปรึกษาวิทยานิพนธ์หลัก: อ.ดร.เขมิกา ยามะรัต, 98 หน้า.

วัตถุประสงค์ของการศึกษาครั้งนี้เพื่อศึกษาปัจจัยที่มีผลต่อความพึงพอใจในการตรวจคัดกรองมะเร็งปากมดลูก ของสตรีอายุระหว่าง 30-60 ปี อำเภอเมืองสรวง และอำเภอโพนทราย จังหวัดร้อยเอ็ด การศึกษานี้เป็นการวิจัย เชิงพรรณนา (Descriptive Study) โดยใช้การสุ่มตัวอย่างแบบโควตา (Quota Sampling) จำนวนกลุ่มตัวอย่าง 400 ราย เก็บข้อมูลระหว่างวันที่ 1-15 มีนาคม พ.ศ. 2553 การวิเคราะห์ข้อมูลใช้สถิติเชิงบรรยาย (ค่าความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน) และใช้สถิติ Chi Square การศึกษาพบว่า กลุ่มตัวอย่างมีอายุระหว่าง 30-40 ปี และ 51-60 ปี เป็นส่วนใหญ่ ร้อยละ 35.2 มีสถานภาพสมรสคู่ ร้อยละ 78.7 มีการศึกษาระดับประถมศึกษา ร้อยละ 67.0 ประกอบอาชีพเกษตรกรรม ร้อยละ 76.0 มีรายได้ต่ำกว่า 5,000 บาทต่อปี ร้อยละ 64.5 มีอายุเมื่อสมรสครั้งแรกอยู่ระหว่าง 20-29 ปีร้อยละ 49.75 มีประวัติการตรวจมะเร็งปากมดลูกสม่ำเสมอ ร้อยละ 56.5 เคยไปตรวจและหยุด ร้อยละ 33 ไม่เคยตรวจมะเร็งปากมดลูกร้อยละ 10.5 การศึกษาครั้งนี้พบว่า กลุ่มศึกษามีระดับความรู้ ทัศนคติ พฤติกรรมการปฏิบัติ และระดับความพึงพอใจต่อการจัดบริการและสิ่งแวดล้อมในระดับปานกลาง ร้อยละ 47.75, 49.25, 59.00 และ 59.25 ตามลำดับ และยังพบความสัมพันธ์อย่างมีนัยสำคัญทางสถิติ ระหว่างปัจจัยด้านด้านลักษณะประชากรกับความพึงพอใจในการตรวจมะเร็งปากมดลูกได้แก่สถานภาพสมรส อาชีพ รายได้ อายุแรกสมรส จำนวนบุตร ส่วนปัจจัยด้านอายุและระดับการศึกษาไม่มีความสัมพันธ์ต่อความพึงพอใจในการตรวจมะเร็งปากมดลูก ปัจจัยด้านความรู้ ทัศนคติ และพฤติกรรมการปฏิบัติ มีความสัมพันธ์ต่อความพึงพอใจในการตรวจมะเร็งปากมดลูกอย่างมีนัยสำคัญทางสถิติ

ผลการศึกษาครั้งนี้ได้ให้ข้อเสนอแนะที่เป็นประโยชน์ต่อการวางแผนการดำเนินงานป้องกันและควบคุมโรคมะเร็งปากมดลูก ในอนาคตควรปรับปรุงรูปแบบบริการให้สอดคล้องกับวิถีชุมชนและเน้นการสร้างความร่วมมือกับองค์กรชุมชนในการรณรงค์ตรวจคัดกรองมะเร็งปากมดลูก

สาขาวิชา การพัฒนาระบบสาธารณสุข ลายมือชื่อนิสิต .....

ปีการศึกษา 2552 ลายมือชื่ออาจารย์ที่ปรึกษาวิทยานิพนธ์หลัก .....

5179135753: MAJOR HEALTH SYSTEMS DEVELOPMENT
KEYWORDS: CERVICAL CANCER, SATISFACTION

KRAISORN SANSINGHA: FACTORS EFFECTING ON WOMEN SATISFACTION OFCERVICAL CANCER SCREENING IN ROIET PROVINCE, THAILAND.THESIS ADVISOR: KHEMIKA YAMARAT, Ph.D. ,98 pp.

The study aims to examine the factors affecting the level of satisfaction with cervical cancer screening on women between the ages of 30 and 60 in Mueang Suang and Phon Sai District, RoiEt Province. The research is a descriptive study and uses quota samplings of 400 cases. Data was collected between March 1st and 15th , 2010. Descriptive statistics (frequency, percentage, mean, and standard deviation) andChi Square are applied in data analysis. The study result shows that 35.2 % of the total samples, which constitute the majority, are between 30-40 and 51-60 years of age; while 78.7 % of the total samples are married, 67.0 % have primary education, 76 %work in the agricultural sector, 64.5 % earn less than 5,000 baht of income per year, 49.75 % were between 20-29 years of age when they first married, 56.5 % have regular cervical cancer screening history, 33 % used to receive screening service but have stopped, and 10.5 % have never had cervical cancer screening. The study shows moderate levels of knowledge, attitude, Practices behavioural and experiences, and satisfaction with the service provision and environment among the samples at 47.7 %, 49.3 %, 59.0 % and 59.2 % respectively. A significant association is found between the satisfaction with cervical cancer screening and the demographic characteristics, marital status, occupation, income, age of first marriage, and number of children. Age and level of education factors show no association to the satisfaction with cervical cancer screening; while knowledge, attitude, and behavioral practices show statistically significant relation to the satisfaction with cervical cancer screening.

This study had provided useful recommendation for operational planning, prevention and control cervical cancer. In the future, service model should be improved consistent with the community life and emphasizes on creating partnerships with community organizations in campaigns cervical cancer screening.

Field of Study : Health Systems Development Student's Signature .....

Academic Year : 2009 Advisor's Signature .....

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LIST OF ABBREVIATIONS

WHO	World Health Organization
VIA	Visual Inspection with Acetic acid
Pap.Smear	Papanicolaou Smear
SCJ	Squamo Columnar Junction
HPV	Human Papilloma Virus
HIV	Human Immunodeficiency Virus
ASCP	American Society for Clinical Pathology
ACOG	American College of Obstetricians and Gynaecologists
PPV	Positive Predictive Value
NCI	The National Cancer Institute
CIS	Carcinoma In Stu
CIN	Cervical Intraepithelial Neoplasia
HSV -2	Herpes Simplex Virus Type II
LEEP	Loop Electrosurgical Excision Procedure
NHSO	The National Health Security Office
PPV	Positive Predictive Value
RCOG	Royal College of Obstetricians and Gynaecologists
SOGC	Society of Obstetricians and Gynaecologists of Canada
IARC	The International Agency for Research on Cancer
ACS	The American Cancer Society
NHSO	The National Health Security Office
HOS xP PCU	Hospital Operating System (Windows xp) Program for Primary Care Unit

CHAPTER I
INTRODUCTION

1. Background and Rational

Cervical cancer threatens the lives of women all over the world. For each 500,000 new cases, there are 231,000 deaths every year. 80% of new cases are found in the developing world. In Thailand, cervical cancer is the first killer disease of Thai women; about 20.9 per hundred thousand or 6,300 new cases each year (Masood, 1999.) Cervical cancer affects mostly women between the ages of 45 and 50 and is often detected at the more invasive stage of carcinoma when the survival rate is five years. If we put together the total number of patients, women with invasive carcinoma and new patients, only 60,000 women are cured every year. Most of these patients, between 80% and 86%, have Squamous Cell Carcinoma type while 12% to 19% suffer from other types of cervical cancer (Theera Kuhaprema, 2005)

Although the causes of cervical cancer remain unknown, certain risk factors have been identified. They include women with multiple sexual partners, those who started having sexual relations before the age of 18, women with Human Papilloma Virus infection (Ries.LAG, 2006), smokers, those with a high number of births and finally women with a history of cervical cancer in the family.

Although cervical cancer is a serious disease and causes the death of thousands of women each year, early detection is possible through the cervical cancer screening called Papanicolaou Smear or Pap Smear.So in order to lower the death rate and the effect of this disease, women must have regular cervical cancer screening as this helps the early detection of any abnormal cells. Any abnormal pre-cancerous cells found can be more easily cured at this early stage and can in fact reverse to become normal healthy cells again (Theera Tongsong, 2006)

As stated in the 8th Public Health Development Plan (1997-2001), the policy of the Thai government is to lower the number of deaths from cervical cancer. The target set by this policy is to have 80% of women aged between 35 and 59 screened for cervical cancer once a year. This policy also states that at least once a year, information about cervical cancer screening should be distributed to women in the

35-59 age group who have had abnormal results These women would have to have at least one follow up screening after two consecutive pap smear results show they have abnormal cells. At the same time, they should also receive information about cervical cancer at least once a year after they have had positive Pap smear results. This will be followed by checkups at least every three years. Although, all public health centers were able to implement this policy, the results they achieved were not successful.

According to the findings of the International Agency for Research on Cancer, a yearly screening of 80% of the female population between the ages of 30 and 60 can significantly bring down the rate of deaths from cervical cancer by 61%. The same target was set by the Thai government in the 9th Public Health development Plan (2002-2007). However, if the screening takes place every five years, the death rate will be about 55%. If, on the other hand, only 30% of women aged 35-59 receive a Pap smear test on a yearly basis, this will bring down the death rate from cervical cancer to 15%. Therefore and in order to ensure Thai women receive more cervical cancer screening is through the more invasive screening method. If 80% of women in the target group have this kind of screening, cervical cancer cases in Thailand can be cut by 50% in five years. In fact, the most suitable age for Thai women to start being screened for cervical cancer is 35. Visual Inspection with Acetic acid (VIA) can be used to screen the target group women aged between 30 and 45. A trained nurse can use the VIA screening which includes applying between 3% and 5% of vinegar on the cervix area and checking on the spot if there are any abnormalities. If these exist, a cryosurgery is carried out immediately after the screening. This method is believed to be particularly suitable in poor countries with significant health problems and with limited trained medical staff and resources (University of Zimbabwe, 1999). As a matter of fact, both VIA and Pap smear screenings can help decrease the death rate from cervical cancer if women were aware of the importance of cervical cancer screening.

In 2006, there were 64 new cases of cervical cancer in RoiEt Province. The majority of these cases were women between the ages of 40 and 49. 53.13% of these women were at stage one of the disease, 21.28% at stage two, 14.06% at stage three and 10.94% could not have the stage of the disease identified. This research has found that after screening, the number of women in the target group who were found to be at

stages one or two of the disease was higher than at any other stage. Some studies have found that the chances of a cure are better when the disease is caught at an early stage (Chitkhet Tomuean, 009). According to the findings of the "Internal Performance Monitoring and Supervision Team at the Ministry of Health", the percentage of women within the target group who received cervical cancer screening by Pap Smear from the cervical cancer prevention and control programme in the past five years (2005-2009) is as follows: about 9.30% in 2005, 44.00% in 2006, 9.56% in 2007, 50.29% in 2008 and 17.97% in 2009. The rate of women in the same target group who were screened using the VIA method during the same period is as follows: 36.49% in 2005, 43.77% in 2006, 50.27% in 2007, 55.69% in 2008 and 4.45% in 2009. This shows that the coverage of cervical cancer screening is lower than the target set by the Ministry of Public Health. This suggests that the majority of women were at risk of not having cervical cancer detected prior to the symptoms appearing (The 9th of Public Health Development Plan, 2002)

The researcher's aim is to study the factors affecting women's satisfaction of cervical cancer screening in RoiEt Province. These factors will in turn help shed some light on the factors that affect cervical cancer screening. The researcher's interest in this subject is also linked to the fact this study is the first of its kind. It is expected that the findings of this research will contribute to raising women's awareness of the importance of cervical cancer screening so that there is an increase in the number of women in RoiEt Province who use the screening services available.

2. Objectives

2.1 To study the factors affecting the level of satisfaction women between the ages of 30 and 60 have with the cervical cancer screening services in Mueang Suang and Phon Sai district, RoiEt Province.

2.2 To study the factors affecting these women's decision to have cervical cancer screening in Mueang Suang and Phon Sai district, RoiEt province.

3. Research Questions

3.1 What factors affect the level of satisfaction women between the ages of 30 and 60 have with cervical cancer screening services in Mueang Suang and Phon Sai district, RoiEt Province?

3.2 What is the level of women between the ages of 30 and 60 who are satisfied with the cervical cancer screening services in Mueang Suang and Phon Sai district, RoiEt Province?

4. Research Hypothesis

4.1 Demographic factors affect on women satisfaction of cervical cancer screening in RoiEt province.

4.2 Knowledge, attitude, practices behavioural and experiences factors affect on women satisfaction of cervical cancer screening in RoiEt province.

4.3 Environmental factors and service management affect on women satisfaction of cervical cancer screening in RoiEt province.

5. Key Words

5.1 Cervical Cancer

5.2 Satisfaction

5.3 Cervical Cancer Screening

6. Operational Definitions

6.1 Cervical cancer is a disease that is caused by the abnormal growth and division of cells. In the early stage of the disease, patients do not have any abnormal symptoms. Over a period of time, normal cells in the cervix change become invasive carcinoma.

6.2 The screening of cervical cancer using Pap Smear (Papanicolaou Smear) involves taking out a sample of cells from the cervix and doing a pathology of these cells to find out if there are any of these cells are abnormal.

6.3 Cervical cancer screening by Visual Inspection with Acetic Acid or VIA means screening by applying 3% to 5% of diluted Acetic Acid on the cervix and

check if, after one minute, there are any changes in the color of the cervix tissues. Acetic Acid will cause a coagulation reaction with protein in cells that make acetowhite be seen. A thick acetowhite that has a clear edge will appear near the Squamo Columnar Junction (SCJ) when the result of this screening positive. This screening method can produce immediate results.

6.4 The target group comprises women between the ages of 30 and 60 who live in RoiEt Province area and includes Mueang Suang and Phon Sai Districts. This age group has been identified in the policy of the Ministry Public Health of which sets out the details of cervical cancer screening policy of Ministry of Public Health.

6.5 Factors affecting the target group's level of satisfaction of cervical cancer screening include availability and access to information to support or obstruct women's satisfaction or dissatisfaction with the existing cervical cancer screening in the Province. The factors being considered in this research are as follows:

6.5.1 Demographic characteristics include age, level of education, occupation, income, marital status, age at first marriage and number of children.

6.5.2 Knowledge factor refers to the actual knowledge or awareness women between the ages of 30 and 60 living in RoiEt Province have about cervical cancer including the symptoms, medical investigation, prevention and treatment of cervical cancer.

6.5.3 Attitude factor means personal beliefs women in the target group have about their own bodies and about undergoing internal medical examinations.

6.5.4 Practice behavior and experience factors refer to being aware of cervical cancer services available, any pain associated with the screening, screening history, sexual relations, and the history of any infections women have and may be embarrassed about or ashamed of cervical cancer screening.

6.5.5 Surrounding and service factors refers to the components or variables that support or obstruct women's decision to get cervical cancer screening or not. Public Health These include:

Place refers to the premises where the screening is carried out. It also refers to its level of cleanliness, and the waiting time to have the screening done.

Information means a campaign to help ensure a variety of public announcements and other sources of information are made available to raise

awareness about cervical cancer screening. This also means involving public health volunteers to help provide advice and suggestions.

Officers are used to describe the quality of the service provided by medical staff. This includes their helpful manner, clarity of information they offer and how friendly and kind their service.

Follow-up service refers to a comfortable mobile screening service in the community. The service should also be able to produce the screening results.

6.6 Satisfaction with the quality of the cervical cancer screening service covers the information or variables that support or obstruct women's access to and satisfaction with cervical cancer screening services.

7. Research Delimitation

The study area is selected by probability sampling. Mueang Suang and Phon Sai district are selected in this study to collect data. They are similar contexts: population, public health service, and public health personnel. Both of districts are service cervical cancer screening by government policy, provide a screening service campaign in collaboration with community based health volunteers in public relations operations as well. However, both of districts have overall result in cervical cancer screening under the criteria. The research focuses on research to take benefits to the development of operational prevention and control of cervical cancer to RoiEt province.

8. Expected Benefit & Application

1. To know the factors effecting on women aged 30 to 60 years satisfaction of cervical cancer screening in Muaeng Suang district and Phon Sai district, RoiEt province.

2. There are a guide to educate and recommendations to target effectively.

3. To guide staff in planning for improvement model and operations to increase the coverage of cervical cancer screening.

4. To guide the research on issues related to health behaviors and development of prevention and control operations cervical cancer to develop the nursing academic effectively.

CHAPTER II
LITERATURE REVIEW

This research is a study of the factors effecting the satisfaction among women in RoiEt Province with cervical cancer screening. To find an approach for the research, documents, literature, concepts, theories and related researches on the following topics were studied:

1. Cervical cancer
2. Cervical cancer screening process policy
3. Cervical cancer screening
4. Theory about knowledge, attitude, service quality, and access to service
5. Related researches

1. Cervical cancer

Cervical cancer is a disease caused by a condition called Cervical Intraepithelial Neoplasia (CIN), also known as cervical dysplasia, an abnormal growth and division of the cervical cells.

Precancerous conditions are classified into three levels:

CIN I = Mild Dysplasia - abnormal cells are limited to the outer one-third of the surface cell layer (epithelium) lining the cervix (Lower 1/3).

CIN II = Moderate Dysplasia - abnormal cells make up about one-half of the thickness of the surface layer (Up to Mild 2/3).

CIN III = Severe Dysplasia - the entire thickness of the epithelium is composed of abnormal cells.(Threeawut Kuhaprema and others, 2005)

The most common types of cervical cancer are:

1. **Squamous Cell Carcinoma** (cancer of the squamous cells) the abnormal growth of the squamous cells that line the ectocervix. Squamous cells are flat cells that look similar to those on the outer layer of the skin.

2. **Adenocarcinoma** (cancer of the glandular cells) the abnormal growth of the mucus producing glandular cells that line the endocervix. These glandular cells are tall and have a narrow base.

At the microinvasive stage of cervical cancer, cancer cells start to spread less than 5 millimetres deep and less than seven millimetres wide through the basal layer of the cervical tissues.

At the invasive stage of cervical cancer, cancer cells start to spread more than five millimetres deep and break through the basal layer of the cervical tissues. They may spread into the pelvis, the surrounding lymph glands, the bladder, the rectum and the vagina.

Causes of cervical cancer

The exact causes of cervical cancer are unknown, but previous studies found the following risk factors (Theera Thongsong and others, 1996):

1. Sexual intercourse

Cervical cancer is directly related to sexual intercourse, with higher risk of occurrences found in the following cases:

1.1 Women who are married young or begin having sexual intercourse before the age of 17, when the cervix is sensitive to changes. It is found that women who begin having vaginal sexual intercourse before the age of 16 have 2.7 times higher risk than those who begin having vaginal intercourse after the age of 22.

1.2 Women who have multiple sexual partners. It is found that women who have multiple sexual partners, those who are married more than once, and sex workers have higher risk of cervical cancer.

1.3 Women who have frequent vaginal sexual intercourse.

1.4 Women who experience several pregnancies and give birth to several children. Pregnancy and delivery cause tears in the cervix cells, which requires frequent cervix repair.

2. Age

The invasive stage of cervical cancer is found mostly in women who are between the ages of 45 and 50; the average age is 48. The early stage of cervical cancer is commonly found in women with the average age of younger than 38.

Presently, it is more frequently found among patients who are younger than 20 years old.

3. Characteristics of husbands or sexual partners that affect the occurrence of cervical cancer in women:

3.1 Uncircumcised husbands or sexual partners contribute to higher risk of cervical cancer because of the smegma which has mycobacteria smegmatis and which can turn the cholesterol in dead cells into carcinogens.

3.2 Men with penile cancer increase the risk of cervical cancer in women by times, according to the study by (Somkiet Srisupandit, 1988).

3.3 Men who used to contract sexually transmitted disease, had sexual experiences at a young age, are promiscuous or regularly have sexual contact with others woman can increase the risk of cervical cancer to his wife. The risk rate of cervical cancer is higher by 7.8 times in women whose husbands had more than 15 multiple sexual partners.

3.4 Husbands whose previous wives had cervical cancer can double the risk rate of cervical cancer to his present wife.

3.5 Men whose sperms contain high amount of Protamine a kind of protein found in the head of sperms can double the risk of cervical cancer in women. Protamine affects the DNA of cervical cells and triggers it to change and develop into abnormal tissues (Dysplasia). Men with low socio-economic status are found to have high level of Protamine in their sperms.

4. Combined hormonal contraceptive pills increase the risk of cervical cancer. (WHO,1996)

5. Smoking is related with squamous cervical cancer type. The risk rate is about 1.5-2.3 times because cotinin and nicotine in tobacco cause changes in the cervical mucus and weaken the cervical epithelium's immune response. This causes higher risk of infection by the human papillomavirus (HPV) of the types that risk causing cervical cancer. HPV can be a sexually transmitted. (Pansak Sukraruek, 1997)

6. Viral infection is linked to cervical cancer. The following viral infections are sexually transmitted:

6.1 HPV is the main cause of cervical cancer. There are more than 70 types of HPVs. The higher-risk types of cervical cancer are: types 16, 18 and 31. Type 18, in particular, causes an early-stage cervical cancer to grow rapidly into an invasive stage.

6.2 Herpes Simplex Virus Type II (HSV – 2). About 95 % of patients with herpes genital infection have HSV- 2, with an increased incident of CIN.

6.3 Other infections, such as Tricomonas, Gonorrhea and Syphilis, may cause early-stage cervical cancer, although it remains inconclusive.

7. Weakened immune system or transplant recipients taking immunosuppressive medications, for example, pregnant women, HIV virus infection patients and patients with other types of cancer.Because of the weakened immune system, this group has a higher risk of cervical cancer as well as a higher risk of HSV-2 and HPV viral infection of the reproductive system.

8. Nutrients deficiency such as vegetables, fruits, vitamin A, vitamin C, folate and beta-carotene can increase the risk of cancer.

9. Low socio-economic status woman. Women with poor education and economic status have 5 times higher risk of cervical cancer than those with higher socio-economic status.

10. Nationality, religion and custom may contribute to the abnormal growth of cells on the surface of the cervix, which develops into a cervical cancer. This abnormal growth is mostly found in some woman groups such as Thai and Negro women, but hardly found in White American and Jewish women.

Symptom of cervical cancer

Vaginal bleeding is found in 80-90 % of patients with cervical cancer. Patients might experience occasional bleeding during the menstrual period, increased, abnormalities in leucorrhoea discharge with foul-smell or with some bleeding, or "contact bleeding" (after vaginal sexual intercourse). If the condition is severe and cancer has spread to the sides or to the pelvis, patients might suffer from back pain because the cancerous tumour presses on the nerves.

Late symptoms after the cancer has spread to other organs are, for example, swollen legs, back pain, tailbone (coccyx) pain, and bleeding in urine and faeces.

Treatment of cervical cancer

Depending on the stage of disease, treatment can be divided into two types (Thanitchet Rattanachat, 2003) as follows:

1. Treatment of early-stage cervical cancer (Treatment of CIN). In order to provide the most appropriate treatment of CIN for each patient, it is necessary to take into consideration the patients' age, their plan for pregnancy, the severity of the disease, the patients' states of health and mind and the ability to follow up on the result of the treatment. Some most common treatments are:

1.1 Observation. This approach is limited to the treatment for CIN I and CIN II cases, with small disease marks that can disappear by themselves or by cervical biopsy. The patients must understand how the disease progresses and must be able to come for Pap smear test or colposcopy to follow up on the progress of the disease.

1.2 Outpatient Management. This is limited to young patients who want to preserve their fertility and those with small disease marks. These patients can be treated by:

1.2.1 Electrocautery. Heat is used to destroy abnormal tissue which is not deeper than two or three millimetres. Recovery rate is about 89 % in the first session and 97 % in second session of electrocautery.

1.2.2 Cryosurgery. This type of treatment lowers the cost, reduces the time, and helps avoiding the necessity for invasive treatment. It is suitable for patients with non-severe condition, who wants to preserve their fertility. Cryosurgery kills abnormal cervical cells by freezing them with a metal probe cooled with liquid nitrogen to a temperature between 60 to 90 degree Celsius. This CIN treatment method produces good results in 84-96 % of the cases.

1.2.3 Laser Ablation. Water in the cells will absorb the energy form the laser beam. By vaporising the abnormal cells, laser treatment can destroy the abnormal tissue (Dysplasia) which occurs in small, limited areas and which has not spread to other organs. Laser ablation cleanly removes the basal layer of the abnormal tissue, causes little damage to healthy tissue, and allows quick healing. This method can destroy tissue layer at about five to seven millimetres deep and produces a good result in about 83-94 % of the cases.

1.2.4 Loop Electrosurgical Excision Procedure (LEEP). This procedure uses a thin wire heated by alternating current electricity with low voltage and high frequency to remove abnormal tissue and stop bleeding. This method produces a good result in about 95 % of the cases.

1.2.5 Cold Coagulation. Temperature between 50 and 120 degree Celsius is used to cause the epithelium cells to swell and be dislodged. How deep the tissue is destroyed depends on the temperature used and the time heat is applied. This method produces a good result in about 95-99 % of the cases.

1.3 Inpatient Management:

1.3.1 Therapeutic Conisation. This treatment is commonly used in CIN treatment especially in young women who want to preserve their fertility. The surgery removes completely all the diseased tissue. The cone biopsy must have tumour-free margins.

1.3.2 Hysterectomy. This method of CIN treatment is advised for patients who do not plan to have children and want to have birth control, elderly women or women reaching the menopausal period, women with other pathological conditions of gynaecological disorders that require surgery, such as cervical or ovarian tumours. With this method of treatment, the long-term result cannot be followed up.

2. Invasive treatment for advanced stage of cervical cancer. There are four methods of invasive treatment:

2.1 Surgical Therapy. This is used for treating cervical cancer in stage I and some of stage II.

2.2 Radiotherapy. This method is used for every stage of cancer. The treatment result in a survival rate of five years for patients in stage I in about 88.46 % of the cases, stage II in about 64.10 %, and stage III in about 38.363 %.

2.3 Chemotherapy. This is used in patients with a very advanced stage of recurrent cancer which cannot be treated or cured by other methods.

2.4 Mixed method. This method of treatment uses surgery and radiotherapy.Attempts were also made to combine chemotherapy with radiotherapy to treat patients with advanced stage of cancer.

Prognosis of cervical cancer

Prognosis will be more accurate if the patients undergo treatment since the early-stage of changes in the epithelium cells the CIN and CIS stages when the success rate is almost 100 %. Factors affecting the patients' survival rate are as follow:

1. The size of the cancerous tumour. A patient with a large cancerous tumour has lower survival rate than a patient with a small cancerous tumour because a large cancerous tumour, or one that spreads rather deeply, poses higher risk of spreading to lymph glands and other parts of the body.

2. The spread of cancer to the cervical tissue. If cancer spreads to the cervical tissue, it usually spreads widely to other parts of the body as well, such as the vaginal wall, the parametrium, the lymph glands in the pelvis and the peritoneum. Patients with cancer spreading to the cervical tissue have a lower survival rate than those in the same stage of cancer but whose cervical tissue is not affected by cancer.

3. The spread of cancer to the lymph glands. Cervical cancer patients that underwent surgery have a survival rate of five years after operation in about 90 % of the cases if the cancer has not spread to the lymph glands, between 50 and 60 % if the cancer has spread to the lymph glands, and between 20 and 40 % if the cancer has spread to the lymph glands in the pelvis.

4. The patients' physical condition. Anaemia, fever and diabetes produce poor prognosis. Patients between the ages of 35 and 40 have a higher survival rate than those who are older.

Public Health Standard in Cancer Prevention

Cancer prevention is the best way to control cancer disease. The World Health Organization laid down the objectives to control and prevent cancer disease in order to lower the illness and death from cancer and to improve the quality of life of cancer patients. (WHO, 1992) The control and preventive measures are:

1. Primary Prevention. This is to prevent cancer by strengthening the immunity to the disease and avoid cancer-causing substances, for example, by not smoking, good eating habit, regular exercises, adequate rest and sleep, good mental health, avoid stress, and good personal hygiene.

2. Secondary Prevention. The aims are to lower sickness and mortality rate by screening and finding the patients in early-stage of cancer. Good screening must be easy to do, well-accepted by the people, inexpensive and highly accurate, such as Pap smear test to check for cervical cancer and breast self examination to check for breast cancer. This secondary prevention is very important because it will facilitate treatment and help to discover the disease at an early stage when it can be easily cured.

3. Tertiary Prevention. This preventive measure treats the early-stage patients with the most suitable method to prolong the patients' life as much as possible. This includes rehabilitation, providing knowledge and regular care, and prompt treatment of any complication.

Prevention of cervical cancer

Although cervical cancer is curable if found in the early stage, prevention is always better than cure. To prevent cervical cancer, women should:

1. Avoid having multiple sexual partners.

2. Avoid having sexual intercourse at a young age.

3. Practice safe sex through condom use.

4. Avoid sexually-transmitted diseases.

5. Quit smoking or avoid cigarette smoke.

6. Receive vaccination against Human Papillomavirus infection (the vaccine will soon be available).

7. Maintain cleanliness of the genitalia by washing it with clean water after excretion or vaginal sexual intercourse.

8. Sterilization after having enough number of children or leave at least two years' gap between pregnancies.

9. See the doctor for treatment without delay if abnormal symptoms occur, such as leucorrhoea, foul-smelling discharge, abnormal cervical bleeding, herpes, warts, or sexually transmitted diseases.

10. Advise their husbands to refrain from having sexual intercourse with sex workers or having multiple sexual partners.

11. Make sure that their husbands immediately see the doctor without delay if the husbands contract any sexually transmitted disease.

12. Receive a screening to check for the early stage of cervical cancer.

2. Cervical Cancer Screening Policy

Cervical cancer is the number one cause of death in the Thai populations since 1999. Cervical cancer is also the most prevalent type of cancer affecting Thai women, with 6,228 new cases in 1996. It was projected that the number would rise to 8,000 cases in 2008, if no control measure was in place. The National Institute of Cancer, the principal agency in cancer prevention and control, in cooperation with the National Health Security Office (NHSO) which provided the financial support began, in June 2005, a five-year project for a nationwide cervical cancer screening. The project adopted Pap smear test as the method of cervical cancer screening because it is a standard method that is an internationally adopted. Empirical evidence shows that the method can lower the occurrence and the mortality rate of cervical cancer because Pap smear test can reveal the precancerous lesions of cervical cancer or carcinoma in situ. Treatment of the precancerous lesions helps lower the number of cervical cancer patients.

A study found that the programme had low coverage and failed to be implemented among the target group that risks having precancerous lesion of cervical cancer, while not a few women whose screening showed abnormal condition (test positive or suspected of cancer) did not received appropriate treatment. (ACOG, 2004) Presently, professional nurses who are trained in the “Cervical Cancer Screening and Management of Preinvasive Stage” programme, which is organised by the Bureau of Reproductive Health, Department of Health, Ministry of Public Health, are able to perform the precancerous lesion of cervical cancer testing by using VIA and cryotherapy.

Thailand has a national plan for cervical cancer prevention and control in 2005. The National Health Security Office made a memorandum of agreement with the Ministry Public Health to implement nationwide cervical cancer screenings with the objective to lower the mortality rate of Thai women from this disease by 50 %.The programme's duration is five years and covered all the 75 provinces of Thailand. Two

screening methods were adopted: Pap smear and VIA (visual inspection with acetic acid). This can be viewed as a "dual-track strategy." (IARC, 2003) The target group was women between 30-60 years old, who were advised to take the screening every five years. (Presently the VIA method is recommended for women between 30-45 years of age, who is in the risk group for precancerous lesion of cervical cancer and whose squamocolumnar junction or SCJ is clearly visible). The project tried to cover almost 80 % of the women in the target group. (Cuzuick J, 2008) In 2003, Gaffikin and others published an article in which they concluded from existing evidence that VIA was equal in quality to Pap smear. (Gaffikin, 2003) Other professional organisations, such as the American College of Obstetricians and Gynaecologists (ACOG), the United Kingdom's Royal College of Obstetricians and Gynaecologists (RCOG) and The Society of Obstetricians and Gynaecologists of Canada (SOGC), also endorsed VIA as an good alternative screening method for cervical cancer in limited-resource settings. (ACOG, 2004)

Early Detection can be done in 2 ways:

1. Screening. This type of early detection method usually applies to a large number of people.

2. Early Diagnosis. The medical personnel are used to apply the Early Diagnosis method to cervical cancer suspects or the high risk group. The American Cancer Society recommends all women to begin having cervical cancer screening about three years after they have begun having vaginal sexual intercourse, but no later than 21 years old. The screening should be done every year of the Pap smear method is used, and every two years. These recommendations do not represent a truly proactive move to health care; they merely passively provide health education to women, who are advised to come by themselves for cervical cancer screening. In Thailand, women come to have their annual screening for cervical cancer are not first timer, but they have already had regular screening, while there are many women who have never had a screening and therefore cervical cancer remains a problem for Thailand's public health. The International Agency for Research on Cancer (IARC) of the World Health Organisation (WHO) found that cervical cancer screenings that cover a large number of the population are more effective in reducing the incidence of

cancer than the frequency of visit for cervical cancer screening. In other words, if cervical cancer screenings by Pap smears can be done every year to cover 80 % of the population, they will lower the cervical cancer mortality rate by 61 % and if they are done every three years, they will equally lower the mortality rate by 61 %, while the interval of five years will lower the mortality rate by as much as 55 %. If the screenings can cover only 30 % of the population, and even if these women receive Pap smears every year, the mortality rate from cervical cancer will be reduced by 15 % only. Consequently, to cover as many women in the target group as possible in the screening programme constitutes the most proactive and effective measure against cervical cancer. A survey found that there are 10 million Thai women between the ages of 35 – 60 years old, while the cytotechnicians in practice in Thailand has the capacity to screen two million Pap smear slides per year, and therefore it is possible for this group of Thai women to take a Pap smear test every five years, which represents two million cases a year for five years. If Pap smear tests can be done to cover 80% of the target group, it is projected that incidences of cervical cancer in Thailand will be reduced by 50% within five years. The National Cancer Institute (NCI) found that incidences of cervical cancer in the Thai women are most prevalent among the group of 45 years old. Since it takes ten years for the early or precancerous stage to develop into the cancer stage, the right age for the Thai women to begin cervical cancer screening is therefore 35. To facilitate efficient control and information management, it is therefore necessary to segment the target group (who are assumed to show no sign of cervical cancer) by their ages: 35, 40, 45, 50, 55 and 60. This programme provides screenings to women with no sign of cervical cancer, therefore its detection method is different from the one used in the programme for women who have high risk or are suspected of having cervical cancer. The latter program covers women of all age group and uses the Early Diagnosis method.

The cervical cancer screening programme in women of 35, 40, 45, 50, 55 and 60 years old takes five years to reach the goal. The target is to have 80 % of Thai women receive one Pap smear every five years. It is a proactive programme. Women of other ages besides the 35, 40, 45, 50, 55 and 60 years old age group are advised to receive cervical cancer screening according to the guidelines from the American Cancer Society or, if they have the symptom of cervical cancer, they should

immediately be examined without considering the age. If as many Thai women as possible undergo either the Early Diagnosis method or the screening method, the incidences and the mortality rate of cervical cancer in Thailand will certainly decline.

3. Cervical Cancer Screening

Cervical cancer screening is the secondary prevention with the aim to detect the disease from its early-stage. Good screening must be easy and convenient to perform, acceptable to the people, cheap and provides highly accurate test result, which involves the following statistical measures, values and rates:

1. "Sensitivity" measures the proportion of positives which are correctly identified as such (e.g. the percentage of sick people who are identified as sick).

2. "Specificity" measures the proportion of negatives which are correctly identified as such (e.g. the percentage of healthy people who are identified as healthy).

3. "Positive Predictive Value" (PPV) means the proportion of patients with correctly identified positive test results (i.e. Sick people correctly identified as sick).

4. "Negative Predictive Value" means the proportion of patients with correctly identified negative test results (i.e. Healthy people correctly identified as healthy).

5. "False Positive Rate" means the proportion of patients with incorrectly identified positive test results (i.e. Healthy people incorrectly identified as sick).

6. "False Negative Rate" means the proportion of patients with incorrectly identified negative test results (i.e. Sick people incorrectly identified as healthy).

Cervical Cancer Screening by Pap Smear

"Pap Smear" is shortened from "Papanicolaou Smear" which means cytodiagnosis of the ectocervix by collecting discharge or cells from the posterior ectocervix and the endocervical canal to investigate the early-stage of cervical cancer. This method has high sensitivity and specificity. It is low cost and can detect early stage of cell abnormality, while causing only slight discomfort to the patients.
(Ministry of Public Health, 1996)

Regulations for Pap Smear Testing

Associations and institutes in United States of America held meetings and concluded that every women who is older than 18 years old or who has sexual intercourse, should receive internal examination and undergo a Pap smear test once every year, but if three consecutive test results are negative, the interval can be longer than once every year. Various organisations also propose indicators and frequency for Pap smear tests as follows:

1. The American Cancer Society (ACS) suggests that women should begin having Pap smear test at the age of 20 or when they begin to have sexual intercourse regularly. If the first test result comes out negative, they should repeat the test again within a year. If the second test result is still negative, they should return for tests again every three years until they are 65 years old. However, more frequent tests are advised for women with higher risk of cervical cancer.

2. The American College of Obstetricians and Gynaecologists (ACOG) suggests that women who are older than 18 years old or women who have sexual intercourse regularly take a Pap smear test every year.

3. The National Institutes of Health of the United States' government recommends women to have a Pap smear test after they begin having regular sex and to take another test within one year. If both of their test results come out negative, they can take Pap smear tests every one to three years.

4. The American Society for Clinical Pathology (ASCP) advises women who begin having sex or is older than 18 years old to undergo a Pap smear test every year. In Thailand, women were advised to have a Pap smear test when they reached the ages of 35 or after child delivery. However, during the past 20 years later, cervical cancer incidences were found in younger women because women began to have sex at a younger age than before. (Jatupol Srisomboon, 1997) Consequently, Thailand's National Cancer Institute at present recommends Pap smear tests to all women who have begun to have sex, without specifying the women's age. Women who have never had sexual intercourse should have cervical cancer screening at least once a year staring from the age of 35 years old because Thai women have high incidences of cervical cancer. The risk of cervical cancer incidence in women is between the ages of 35 and 60. Statistics found that the abnormal changes in the cervical epithelium

(preinvasive stage) occur mostly when women are older than 35 and, since the abnormal cells usually take five to ten years to become cervical cancer cells, therefore women should have a cervical cancer screening every five years.

Pap Smear Testing

A Pap smear test is easy to do and causes no pain. It can be completed quickly in only about two to five minutes by the following steps:

1. The patient assumes the lithotomy position. The vaginal speculum is inserted into the vagina and gently dilates it until the cervix is clearly visible to the naked eye. A spatula is used to collect the cells from the outer opening of the cervix by rotating the spatula around 360 degrees. The samples are then smeared on a glass slide and coated with cells fixative liquid before they are sent to the laboratory to check for abnormalities.

2. Pap Smear Test collects sample cells from the following areas:

2.1 The posterior cervix. This is where cells that dislodge from higher parts collect. Samples from the posterior cervix give high false negative rate of about 50 %.

2.2 The ectocervix. The samples from the cervix area give more accurate reading, with lower false negative rate than those from the posterior cervix.

2.3 The endocervix. The samples from this area are the best because the area is in a transformation zone where cells have highest incidences of transforming into cervical cancer cells.

Preparation before taking a Pap Smear Test

1. Do not have the test during menstrual period.
2. Do not have vaginal sexual intercourse during the 48 hours before the screening.
3. Do not clean the vagina during the 48 hours before the screening.
4. Refrain from using any pessary during the before 48 hours before the screening.
5. Do not have any internal examination during the 24 hours before screening.

Persons who need cervical cancer screening

1. Single women or women who never have vaginal sexual intercourse need to begin the screening from the age of 35.

2. Women between the ages of 35, 40, 45, 50, 55 and 60 need the screening to check for the precancerous stage or early-stage stage of cervical cancer.

3. Women who had vaginal sexual intercourse. (although they might be younger than 35 years old).

4. Women who have an abnormal vaginal bleeding or abnormal leucorrhoea.

5. Women who never have cervical cancer screening or do not have it regularly. ("Regularly" means having cervical cancer screening at least every two to five years if the result of the latest screening is negative).

Advantages of cervical cancer screening

1. To discover cervical cancer, by receiving a screening every 5 years.

2. To discover cervical cancer at its early stage. Early treatment has higher rate of curability and it saves time and expenses.

3. To discover CIN, ovarian cancer, and vaginal cancer.

Cervical Cancer Screening by VIA

In the screening for precancerous lesions of cervical cancer by Visual Inspection with Acetic Acid (VIA), 3-5 % acetic acid dilution is used to smear on the cervix and, after a minute, the cervix tissue's colour change is observed under the light. (This step is similar to the colposcopy method; acetic acid causes a temporary dehydration and coagulation of proteins in the cells, which temporary appear white – the acetowhite reaction – which can be clearly seen by the naked eye. The acetowhite area with clear margin that appears near the squamocolumnar junction (SCJ) is considerd a positive result. VIA screening gives immediate result and, if there is any treatment indicator, treatment can start immediately in the "see and treat – single visit approach" (SVA). However, a thin layer of acetowhite could also form on the immature squamous metaplastic epithelium during the repair or inflammation states. The VIA method has limitations. It cannot assess the abnormalities or lesions that lie

deep within the endocervical canal and cannot produce accurate assessment in women whose SCJ is not clearly and wholly visible, particularly in older women. Moreover, the screenings by the VIA method presently lack evidence from the diagnosis to be used for checking. (Prasert Treevichitsil, 2003)

In comparison with the other prevalent methods such as Pap smear and HPV (Human Papillomavirus) DNA testing, which their strengths and weaknesses, the studies conducted in many institutes in various countries such as India, China and South Africa found the precancerous lesion of cervical cancer testing by using VIA method has no less sensitivity than the Pap smear method at 67-79 % versus 44-78 % respectively, and no less specificity than the Pap smear method at 49-86 % versus 91-96 % respectively. Therefore, there is always a risk of over-treatment because of the false positive results. The HPV DNA Testing has high sensitivity and medium specificity, but is a very costly method, although it is projected that the cost will lower in the future, when this method will play more roles in the cervical cancer screenings. The cost-effectiveness study of the VIA screening in comparison with other methods found that the VIA screening combined with the cryotherapy in the single visit approach is the most cost effective procedure. (Belinson JL, 2001)

Cervical cancer screening for precancerous lesions of cervical cancer by using VIA method is an alternative method that, when combined with cryosurgery in a single visit approach, is a suitable method for cervical cancer prevention and control in the limited resource settings, with no or limited access to Pap smear test. (ACOG, 2004)

4. Theoretical Concepts of Knowledge, Attitude, Quality of Services, and Access to Services; Factors Affecting Satisfaction; and Related Literature.

4.1 Knowledge

Knowledge means the knowledge about facts, rules and structural rules gained from study or search or knowledge about places, persons and things gained from experiences and learning. These cognitive processes must be clear and requires time. Prapapen Suwan (1993) said that knowledge is the primary behaviour of the learners,

which can be classified by practice, sight, hearing, and memory. Knowledge at this stage involves the knowledge of meaning, theory, structure and problem-solving methods.

Knowledge can be concluded as something that is gained from studying about places, things and persons, through observation, learning and experiences, which people have received and accumulated. Knowledge can be divided into six stages: cognition, memory, application, analysis, observation and assessment.

Knowledge Measurement/Assessment

There are many tools to measure knowledge as appropriate to measure or assess different aspects of knowledge. The most popular tool is the test or exam, which is a kind of stimulant to the test participants to respond through certain behaviours such as speaking, writing and acting for observation or quantification so that ranking or characterising of the test participants. There are three types of tests:

1. Oral test, which is performed through direct verbal exchanges between the tester and the test participant. It is sometimes called an “interview.”

2. Written test, which is sub-divided to 2 types:

- Free response which needs the tester to explain, describe, compose or criticise about the question.

- Multiple choice items the test participants compare and choose the item that represent the correct answer. There are four types of multiple choice test: true/false, filling in the correct answer, matching the right pairs, choosing the correct answer.

3. Performance test, which does not require the test participant to respond verbally or in writing or in signs, but in action.

4.2 Attitude

Attitude means the readiness of a person to express his or her response to something. Prapapen Suwan (1977) said that attitude is the belief that a person has about something such as persons, things, actions and others. Attitude is a state of the mind that is formed from experiences which make that person hold certain views

about something.These views can be positive or negative, consenting or not dissenting.

Components of Attitude. There are three important components of attitude:

1. Cognitive Component. If one has knowledge or belief that someone or something is good, one will have a positive attitude towards that someone or something.

2. Feeling Component. If one likes or loves someone or something, one will have a positive attitude towards that someone or something.

3. Action Tendency Component. One has the tendency to respond or react in certain manners or ways because of one's emotion about that thing, incident, or person.

Attitude is formed through learning and people have different experiences, which contribute to their different attitudes. The society, social environment and the people they meet and associate with are key mechanisms that directly and indirectly contribute to the formation of attitudes. Attitude is therefore influenced by one's family, school, friends, and circles and groups in society, the mass media, and one's environment.

Attitude is formed in various ways:

1. People gradually absorb the thoughts, responses and reactions of those close to them, or assume the attitude of those whom they imitate. For example, children that grow up in a family of artists or musicians will absorb the thoughts and attitudes about music or art from their family.

2. Intensive, severe experience can form attitudes.

3. Normal experiences in daily life, such as advertisement or teacher's instructions can contribute to the formation of a person's attitude.

4. People choose to take up or assume certain attitudes to reach certain objectives such as to be accepted into a group as members.

Attitude is the result of many experiences in society.

Sources that contribute to the inculcation of an attitude are:

1. Specific Experience. People form an attitude towards something or someone when they have direct experience with that something or someone.

2. Communication from others. Positive attitude is formed when people make communicate with others and receive positive, satisfactory response.

3. Model. People form an attitude from models. They will imitate models that bring about positive attitude.

4. Institution Factor. People's attitudes are formed through the influence of relevant institutions such as schools and religious institutes.

The formulation or inculcation of attitudes can be influenced because attitudes are formed by learning and experiences. The factors that influence attitudes are culture, family, friends and personality.

Attitude Measurement

Attitude is a construct, a complicated expression. It is difficult to measure or assess directly, but it is possible to do so indirectly by assessing a person's opinions instead. Admittedly, using opinions as the indicator of attitude can lead to errors if the person's expressed opinions are not compatible with his rue feelings on the issue. However, the discrepancies and errors are parts of any measurement. Researchers and psychologists have tried to create several types of measurement to assess attitudes. Likert’s technique is one type that is widely applied to many situations and can be adapted to assess several aspects of the affective domain. Likert-type attitude scale is popular because it can be applied to assess the attitude on any issue, with higher risk value than other types.

On reviewing the literature and relevant researches, it is found that knowledge and attitude affect a person’s decision to take cervical cancer screening as pointed out in the study by Jurarat Suwanmek (2003).who study the effect of participatory learning programme on the knowledge about cervical cancer, the attitude, and the inclination of married women to receive cervical cancer screening. Participants were divided into an experimental group and a control group, each with 30 individuals. It was found that, with statistically significance (P-value<.001), women in the participatory learning programme had better knowledge about cervical cancer, better

attitude towards cervical cancer screening, and were more inclined to take the screening than they had been before the programme and than the control group, which did not join the participatory learning programme.

Pannee Songsai (1998) studied the primary and secondary preventive behaviours and the factors related with CIN preventive behaviour. The experimental group comprises 250 women who are sex workers in Bangkok. It was found that almost all of the women in the group had incorrect cervical cancer preventive behaviour. Most of the undesirable primary preventive behaviours comprise the failure to avoid cigarette smoke, use of fingers to clean the vagina, and use of chemical solution to douche the vagina. The undesirable secondary preventive behaviour is the failure to take a cervical cancer screening on a regular basis. It was also found that receiving the information on cervical cancer prevention relates to the cervical cancer preventive behaviour. This finding corresponds to the study by Wanida Tangam (1999) on the promotion of the married women's behaviour to receive cervical cancer screening. The promotion was organised by the "Phuean Satri" ("Women's Friends") group, a women's group in Nam Kliang District, Si Sa Ket Province, which applied traditional beliefs to the promotional effort, in combination with the social support, as the approach in organising the healthcare programme. The experimental group enjoyed the support from the Phuean Satri group which organise a house visit to distribute leaflets to these women, discuss with them, encourage, support, persuade and warm them to take the screening. Data were collected twice, before and after the experiment. It was found that after the experiment the experimental group was better aware of the cancer risk, severity of the disease, and the beneficial effects of following the advices and was also more inclined to receive the screening than they were before the experiment and than the control group, in a statistically significant level (p-value<.001).

Orasri Suwimol (2001) studied cervical cancer preventive behaviours of women in Lam Plai Mat District, Buri Ram Province and found that the factors of cervical cancer knowledge, health belief and social support were associated in positive ways with the cervical cancer preventive behaviour.

Sarayut Srisan (2005) studied the knowledge, attitude and cervical cancer screening of women between the ages of 35, 40, 45, 50, 55 and 60 in the area under

the responsibility of Ban Na Kham Yai Community Health Center, Na Kham Yai Sub-district, Khueang Nai District, Ubon Ratchathani Province. The study found that most of the members of the experimental group had average knowledge and attitude toward having cervical cancer screening and they also believed that frequent cervical cancer screening posed a health risk from cervical infection. Most of them have the information about cervical cancer screening. Those who had the screening responded that they had it in order to know their present health condition; while those who did not have it responded that they did not because they were shy. These findings correspond to those found in the study by Suwimol Boonchan (2008) on the factors that were related to the cervical cancer screening of the women between the ages of 35 and 60 in Kut Nam Sai Sub-district, Nam Phong district, Khon Khaen Province. The study found that knowledge of cervical cancer screening information was obtained from the public health officers. The place most women had their screenings were the Health Centres in their communities. Most of the women responded that the reason for not having the screening was because they were shy. The findings in Suwimol Boonchan's study correspond to those in the study by Wijit Taonil (2004) on the factors that were related to cervical cancer screening decision of women between the ages of 35 and 60 in Nong Saeng Community Health Centre, Haet District, Khon Khaen Province. The study found the factors that affected the decision by women between the ages of 35 and 60 to have cervical cancer screening were: age, number of pregnancies, abnormal leucorrhoea history, counselling from Health Centre or hospital officials, personal experience with cervical cancer patients or death cases, and the information on cervical cancer.

Wong L P (2009) studied the knowledge and awareness of cervical cancer of Malaysian women who never had cervical cancer screening found that most of them lacked the knowledge about cervical cancer and thought that they should only have the screening only if they had abnormal symptoms.

4.3 The Cencepts of Customer Satisfaction

Studies of the approaches to satisfaction usually focus on two dimensions: job satisfaction and customer satisfaction. For the study on women's satisfaction with

cervical cancer screening in RoiEt Province, the researcher applies the following approach to customer satisfaction with the service:

Customers' Satisfaction

Literature review shows many approaches to customer satisfaction:

Tubury and Fisk (1989) stated that customer satisfaction is the level of good feeling of a person who receives a service in the direct experience that meets the customer's expectation.

Penchansky and Thomas (1981) stated that there are five aspects of the health service system that satisfy the customers:

1. Availability - the sufficiency of the existing service to meet the customer's need.

2. Accessibility - the ability to access the service conveniently as regards the location and transportation.

3. Accommodation - the facilities and accommodations at the establishment that are acceptable to the customer.

4. Affordability - the customer's ability to pay for the service or the coverage of the customer's health insurance.

5. Acceptability - the customer acceptance of the quality of service and service providers.

Aday, and Anderson, (1980) stated that customer satisfaction represents a feeling or opinion that is related to personal attitude that originates from the customer's experience of receiving the service from that establishment and how much that experience meets the customer's expectation, and indicate six factors that affect the customer satisfaction with the health service and their feelings:

1. Satisfaction with the convenience received. This is subdivided into:
   1.1 Waiting time for service/treatment.
   1.2 Availability of care when needed.
   1.3 Convenience received at the healthcare establishment.
2. Satisfaction with the service co-ordination:
   2.1 All the needs of the customer are completely met at the healthcare establishment.
   2.2 The doctors pay attention to the overall health of the patients both physical and mental health.

2.3 The doctors follow up on the treatment results.

3. Satisfaction with the courtesy and attention of service providers, such as politeness, courtesy, friendliness and attention and care for the customers.

4. Satisfaction with medical information is sub-divided to 2 types:

4.1 Information about what was wrong

4.2 Information about the treatment, such as what the customer is expected to do, how to take medicines.

5. Satisfaction with the quality of care, such as the quality of the overall care which the customers, in their view, received from the healthcare establishment.

6. Satisfaction with all the expense that the customers paid for the treatment.

Soawaros Senasoon (2003) studied the factors affecting the cervical cancer screening service in Chonburi Province and found that the awareness of the information about how to receive cervical cancer screening and the convenient time for receiving the screening affected the decision to have the screening. The findings correspond to the study by Moltha Thayida (2002) on the factors that were related to the cervical cancer screenings of working women between the ages of 15 and 59. It was found that the access to information and the knowledge about cervical cancer were related to incidences of cervical cancer screening at a statistically significant level of 0.05.

Jetsada Sringam (2004) studied cervical cancer preventive behaviour of women in Tha Ruea District, Phra Nakhon Si Ayutthaya Province found that knowing the information on cervical cancer, awareness of cancer risk and its severity, and the advantages of disease preventive behaviour are the factors that supported the target group to receive cervical cancer screening.

The study by Wilairut Simuen (2003) on the awareness of service management that affected customer satisfaction in Noen Phayom Public Health Centre in Rayong Province found that people's awareness of the facilities and accommodation management and their trust affected the satisfaction with cervical cancer screening. Inexpensive service also affected customer satisfaction and was a factor that affected the decision to have cervical cancer screening.

The reviewing of documents and related researches on cervical cancer screening led to the finding that there were many causes and factors involved in

women’s decision t have cervical cancer screening, such as the knowledge about cervical cancer, age, education, occupation, income, marital statue, healthcare establishment, access to or awareness of information or advices, health history, abnormal symptoms and shyness to expose body to healthcare personnel.

The aforementioned factors influence women's decision to receive cervical cancer screenings. In the study on the satisfaction with cervical cancer screening, the researcher therefore applied the factors of population, knowledge of cervical cancer, attitude, experience, behavioural practices and service quality as well as the service management that affect the cervical cancer screening of the women in RoiEt Province, within the conceptual framework as shown in Figure 1.

CONCEPTUAL FRAMEWORK

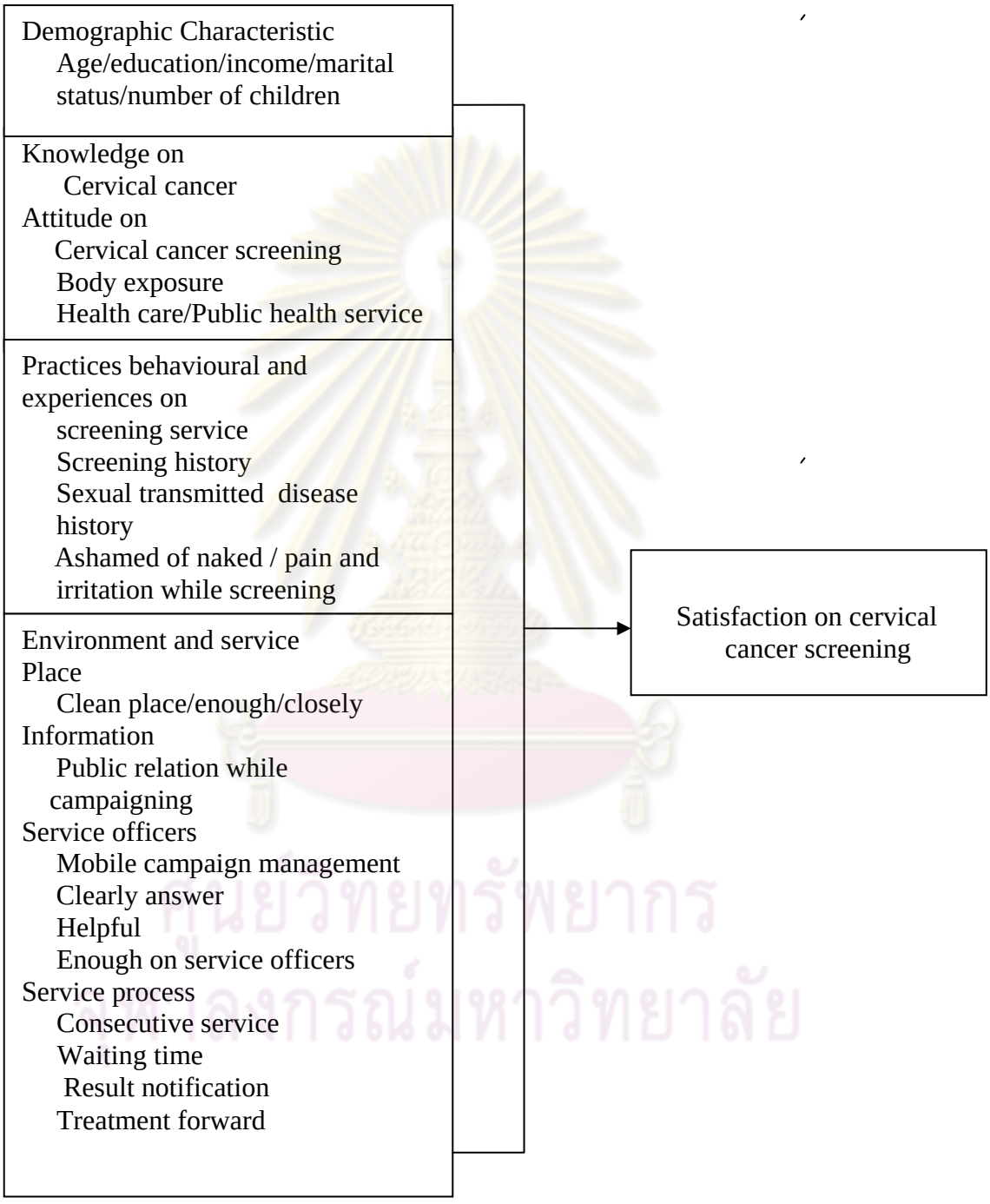

Figure 1: Conceptual Framework

CHAPTER III
RESEARCH METHODOLOGY

This descriptive research aims to study the factors affecting women satisfaction with cervical cancer screening in RoiEt Province, Thailand by applying the following methodology:

1. Population and Samples

1.1 The study area was selected by probability sampling. Mueang Suang District and Phon Sai District were selected for data collection because they are small areas with similar contexts. Mueang Suang District had a population of 24,577 people in the screening service area, while Phon Sai District had 28,846. They share similar public health services: a community hospital and five public health centres in each district and not much different number of public health personnel with 79 in Mueang Suang District and 86 in Phon Sai District. Both districts provided cervical cancer screening services in line with the government policy and organised screening service campaigns in their communities, supported by the public relations in collaboration with public health volunteers who shared similar objectives. However, the overall results of cervical cancer screening programmes in both districts were below target as follows 17%. According to survey women in the target area for more than six months, both districts had 4,530 women aged between 30 and 60 years old.

1.2 The study population was women aged between 30 and 60 years old who lived in Mueang Suang District and Phon Sai District, RoiEt Province. They were listed in the population database by using “HOS xP PCU” program of hospitals and primary Care Unit .

Selection Input Criteria

Being present in the aforesaid areas on the date of the data collection

Having no communication problem

Having no cervical cancer

Exclusion Selection

Women aged between 30 and 60 with cervical cancer

Not being in the aforesaid areas

Having communication problems e.g. being deaf, blind, or paralysed

1.3 Sampling Technique

The sample size was calculated by applying Taro Yamane's formula (Referred to in Prakong Kannasoot, 1985:10):

$$n = \frac{N}{1 + Ne^2} = \frac{4,530}{1+ (4,530(0.05)^2)} = 386$$

n = Sample population size

N = Population size Ministry of Public Health Ministry of Public Health

e = Allowance (0.05)

Sample size = 386.A total of interviews were 400 made to cover missing values and losing respondents.

1.4 Samples were 400 women aged between 30 and 60 years old who lived in Mueang Suang District and Phon Sai District, RoiEt Province, selected through quota sampling method to select target areas in order to obtain diversity of data. Sample population was divided into two groups according to their respective areas:

1.4.1 Sample population in the service coverage zone of hospitals in 22 villages.

1.4.2 Sample population in the service coverage zone of public health centres in 64 villages.

Thirty percent of all samples were randomly selected to represent their respective villages, with samples from 4 villages in each district for the data survey of service coverage zone of hospitals, and with samples form 9 villages in each district for the data survey of service coverage zone of public health centres. The samples were selected from the list of population database through the “HOS xP PCU”

The program use for keep data base records on people in the area for health services provided. Selected the names in the list of each village were selected in the following sequence: 1, 4, 7, and 10... The target group in each village were sorted numerically according to the house registration numbers. It was possible to randomly select several samples in the same household.

2. Variables and Measurement

The variables that could be studied, as laid out in the conceptual framework, included the demographic data, knowledge, attitude, behavioural practices, and satisfaction with cervical cancer screening service.

3. Research Instruments

Questionnaires for interviewing were used as the study tool in this research. The target population was women aged between 30 and 60 years old. The questionnaires comprised open-ended and closed-ended questions that were divided into five parts:

Part 1 Demographic data included age, marital status, education, occupation, income, age at first sexual relations, etc. There were 15 items.

Part 2 Cervical cancer knowledge was asked in the closed questions. There were 10 items, each with two answers to choose from. A correct answer received 1 point, while an incorrect one received zero point. The scores were graded according to the following, low score, medium score, and high score.

Part 3 The part of the questionnaire that focused on cervical cancer attitude adopted the closed question type. Respondents were asked to choose from among five options. The scores used the rating scale that the researcher designed by applying the Likert technique, comprising five levels of options with positive and negative texts, each option was assigned with points as follows:

	Positive Text	Negative Text
Strongly agree	5	1
Agree	4	2
Unsure	3	3
Disagree	2	4
Strongly disagree	1	5

Part 4 To measure the Practices behavioural and experiences regarding the cervical cancer screening service, the questionnaires used the closed questions, with three options to choose from: regularly, sometimes, and never, with 3 points, 2 points and 1 point respectively for each answer.

Part 5 To measure the satisfaction with cervical cancer screening service, the questionnaires used the closed question type. There are 15 items, each with five options: very high, high, medium, Low, very low, which ranges from 5 points for "Very high" to 1 point for "Very low" respectively.

4. Instrument Creation

Tools were created by the following procedure:

4.1 Research and study from documents, academic writings, and related researches.

4.2 Creation of a questionnaire and determine the variable to be studied.

4.3 Verification of questionnaire content for accuracy and validity by a panel of three experts.

4.4 Questionnaire revision.

4.5 Questionnaire's quality test on 30 women aged between 30 and 60 years old, who had similar characteristics to the sample group, in Chiang Khwan District, RoiEt Province.

4.6 Questionnaire analysis for the reliability value, the difficulty value and discrimination strength.

4.7 Questionnaire revision to correct features that the analysis revealed as low standard.

5. Instrument Testing for Validity and Reliability

5.1 Cervical cancer knowledge test was validated for reliability by using the Kuder Richardson (KR-20) technique. The analysis result was 0.75.

5.2 Cervical cancer attitude test and satisfaction with cervical cancer screening service test was validated for reliability by using the Conbrach's Alpha Coefficient, with the reliability value set at higher than 0.5. The results were:

Cervical cancer attitude, 10 items, α equals 0.89.

Experiences and behavioural practices, 10 items, α equals 0.85.

Service satisfaction of cervical cancer screening, 15 items, α equals 0.82.

6. Data Collecting

1. Upon the approval from the Ethical Committee, the researcher coordinated with the data collection volunteers at Chiang Khwan District's public health centre, and made a written request for permission to collect data in Mueang Suang District and Phon Sai District in RoiEt Province.

2. The researcher organised the data collection training for 30 public health volunteers in Chiang Khwan District in order that they understand each and every item in the questionnaires and so that they follow the same procedure. Consent of the respondents and confidentiality of the data were emphasised.

3. Data collection took 15 days from 1st to 15th April 2010.

4. The researcher checked the validity of the questionnaire, recorded and analysed the results by using statistical methods.

7. Data Analysis

The SPSS program (Statistical Package for the Social Science for Windows) Version 17 was used to analyse the frequency distribution, mean, percentage, and standard deviation, which were presented in the table format with descriptive lectures. Inference statistics was used to find Chi-square value.

8. Ethical Consideration

In collecting the data, the researcher protected the privacy of the respondents by attaching to each of the questionnaires a document explaining the objectives of the study and data collection and notifying the respondents of the voluntary nature and the confidentiality of the data and assuring that the respondents and the related persons in the data collection would not be adversely affected in anyway. The researcher assured that the study result would only present an overall picture and the respondents were free to withdraw from participation at any time that they so wished. And received approval from the Research Ethics Committee in person.

CHAPTER IV
RESEARCH RESULTS

This study aims to research the factors affecting the satisfaction with cervical cancer screening of the women in RoiEt Province, Thailand. The samples were women aged between 30 and 60 years old living in Mueang Suang and Phon Sai districts. Data was collected during March 1st to 15th, 2010 with 400 cases by using questionnaire. The results of data analysis are presented in six parts as follows:

Part 1: Demographic characteristics

Part 2: Knowledge of cervical cancer

Part 3: Attitude towards cervical cancer

Part4: Practices behavioural and experiences regarding on cervical cancer screening

Part 5: Satisfaction with cervical cancer screening service

Part 6: Association between the factors affecting the satisfaction with cervical cancer screening service

Part 1: Demographic characteristics

1.1 Demographic characteristics of the study samples included age, marital status, education, occupation, income, age at first marriage, and number of children.

The study results showed that, of the 400 samples: 35.25 % were aged between 30 and 40 years and between 51 and 60 years; 78.75 % were married; 67.00 % had primary education; 78.75 % worked in the agriculture sector or unemployed; 64.50 % had less than 5,000 baht of income per year; 49.75 % were aged between 20 and 29 years when they were first married; and 58.75 % had two children. (Table 1).

Table 1: Demographic characteristics, sorted by numbers and percentages.

Demographic characteristics		Number	Percentage
		400	100
Age (year)			
	30 - 40	141	35.25
	41 - 50	118	29.50
	51 - 60	141	35.25
	$\overline{X}$ = 44.39, S.D = ± 9.66, Min=30, Max=60		
Marital status			
	Single	19	4.75
	Married	315	78.75
	Widowed / divorced / separated	66	16.50
Education			
	Not educated	6	1.50
	Primary school	268	67.00
	Secondary school / vocational	82	20.50
	High vocational certificate / diploma	18	4.50
	Bachelor degree or higher	26	6.50
Occupation			
	Not employed / Agricultural sector	315	78.75
	Trade/labour	17	4.25
	Housewife	20	5.00
	Employee	10	2.50
	State employee / government official	38	9.50
Income (baht/year)			
	Less than 5,000 baht	258	64.50
	5,000-10,000 baht	81	20.25
	10,001-20,000 baht	38	9.50
	More than 20,001 baht	23	5.75

Table 1: Demographic characteristics, sorted by numbers and percentages. (cont)

Demographic characteristics	Number	Percentage
	400	100
Age at first marriage (year)		
Less than 20	176	44.00
20 - 29	199	49.75
30 - 39	23	5.75
More than 39	2	0.75
Number of children		
None	27	6.75
One	32	8.00
Two	235	58.75
Three	76	19.00
More than three	30	7.50

1.2 Cervical cancer screening data included cervical cancer screening history, the reasons for not having the screening, the latest cervical cancer screening that the samples had, the reasons for giving up receiving the screening, the reasons for receiving the screening on a regular basis, the establishments where the samples had their latest screening, the reasons for receiving the screening services at the chosen establishments, and the latest result of the samples' cervical cancer screening.

Cervical cancer screening history. The research found that the majority or 56.60% of the samples received regular training every year and the latest screening was received one year before the interview; 33.00% used to have screenings a long time ago; and 10.50 % never had any screening. (Table 2)

Table 2: Cervical cancer screening history, sorted by numbers and percentages.

Cervical cancer screening history	Number	Percentage
	400	100
Never receive screening	42	10.50
Received a long time ago, presently receiving none	132	33.00
Having regular screening	266	56.50

The reasons for not having cervical cancer screening. The research found that 59.52 % of the samples were uninformed about the cervical cancer screening; 52.38 % were too embarrassed to have the screening; 45.24 % had no symptoms of cervical cancer. (Table 3)

Table 3: Reasons for not having cervical cancer screening, sorted by numbers and percentages. (multiple items)

Reasons for not having cervical cancer screening	Number	Percentage
	42	100
Having no symptom	19	45.24
Afraid	17	40.48
Shy/embarrassed	22	52.38
No time	8	19.45
Disliking the officials / health personnel	0	0.00
Far from home / Inconvenient transportation	0	0.00
Too costly expenses	0	0.00
Belief that the screening was not necessary	5	11.90
Uninformed about the screening	25	59.52

The latest cervical cancer screening. The research found that majority or 63.13 % of the samples had regular cervical cancer screenings every year, while 27.93% had the screening more than two years earlier. (Table 4)

Table 4: Latest cervical cancer screening, sorted by numbers and percentages.

Time	Number	Percentage
	358	100
One year	226	63.13
Two years or more	100	27.93
Cannot remember	32	8.94

The reasons for giving up receiving the cervical cancer screening. The research found that the majority or 82.58 % of the samples gave up receiving the screening because they did not have abnormality symptoms, while the second most prevalent reason was because the samples, 27.27 % of them, were shy of the authorities, nurses, and doctors who provided the screening. (Table 5).

Table 5: Reasons for giving up receiving the cervical cancer screening, sorted by numbers and percentages. (multiple items)

Reasons for giving up receiving cervical cancer screening	Number	Percentage
	132	100
No symptom	109	82.58
Afraid	30	22.73
Physical pain and discomfort	28	21.21
Shy of the officials and health personnel	36	27.27
No time	33	25.00
Disliking the officials and health personnel	11	8.33
Far from home/ Inconvenient of transportation	0	0.00
Too costly expenses	1	0.76
Belief that the screening was not necessary	8	6.06
Uninformed about the screening	8	6.06

The samples' reasons for receiving the cervical cancer screening on a regular basis. The research found that the majority or 72.12 % of the samples received the screening at their annual health check, while 51.33 % were advised by the public health officials to have the screening. (Table 6)

Table 6: Reasons for receiving cervical cancer screening on a regular basis, sorted by numbers and percentages. (multiple items)

Reasons for receiving cervical cancer screening on a regular basis	Number 226	Percentage 100
Annual health check	163	72.12
Examination after delivery	35	15.49
Advised by public health officials	116	51.33
Having abnormality symptoms	11	4.87
Persuaded by a friend	20	8.85
Public health campaign mobile unit giving services at the village	88	38.94

The establishments where the samples received their latest cervical cancer screening. The research found that the majority or 39.39% of the samples received their cervical cancer screening services at public health centres, while 22.63% at the hospitals .(Table 7)

Table 7: The establishments where the samples received their latest cervical cancer screening, sorted by numbers and percentages.

Establishments where the samples received their latest cervical cancer screening	Number 358	Percentage 100
Public health centres	141	39.39
Government hospitals	81	22.63
Private hospitals	12	3.35
Private clinics	53	14.80
Community health centres	35	9.78
Public service mobile unit	36	10.06

The samples' reasons for receiving the cervical cancer screening services at the chosen establishments. The research found that the majority or 91.34 % of the samples had their cervical cancer screening at their chosen establishments out of convenience .(Table 8)

Table 8: Reasons for receiving the cervical cancer screening services at the chosen establishments, sorted by number and percentages. (multiple items)

Reasons for receiving the cervical cancer screening services at the chosen establishments	Number 358	Percentage 100
Convenience	327	91.34
Inexpensive	57	15.92
Good service	123	34.36
Well-known	47	13.13

The results of the samples' latest cervical cancer screenings. The researcher found that the majority or 93.02 % of the samples had normal (negative) results. (Table 9)

Table 9: The results of the samples' latest cervical cancer screenings, sorted by numbers and percentages.

Result of the latest cervical cancer screening	Number 358	Percentage 100
Normal (negative)	333	93.02
Abnormal (positive)	21	5.86
Unknown	4	1.12

Part 2 Knowledge about cervical cancer

The analysis result found that 88.50% of the samples knew that early-stage cervical cancer can be cured; 79.75% knew that having multiple sexual partners increase the risk of cervical cancer; 14.50% knew that cervical cancer can be prevented by vaccination; and 23.50 % knew that cervical cancer can be genetically transmitted. (Table 10)

Table 10: Knowledge about cervical cancer, sorted by percentage of samples who gave correct and incorrect answers to each items. (n=400)

Items (True/False)	Correctly answered Percentage	Incorrectly answered Percentage
1. Cervical cancer can be transmitted genetically.	23.50	76.50
2.Cervical cancer patients do not necessarily suffer from vaginal bleeding.	47.75	52.25
3. Illness with sexually transmitted diseases is the cause of cervical cancer.	69.50	30.50
4. Early-stage cervical cancer patients can be cured.	85.50	14.50
5. Women with multiple sexual partners risk having cervical cancer.	79.75	20.25
6.Women who smoke risk having cervical cancer	68.25	31.75
7. Forty-eight hours before having cervical cancer screening, women should avoid using pessary (vaginal suppository).	58.25	41.75
8. Cervical cancer can be prevented by vaccination.	14.50	85.50
9.Regular cervical cancer screening can prevent the invasive stage of cervical cancer.	73.25	26.75
10.Women whose husbands had sexually transmitted diseases risk having cervical cancer.	74.25	25.75

The analysis of the samples' cervical cancer knowledge found that 65.25 % of the samples had average knowledge about cervical cancer, while 18.50% had good knowledge about it. (Table 11)

Table 11: The samples' different levels of knowledge about cervical cancer, sorted by number and percentage.

Level of Knowledge	Number	Percentage
	400	100
Low (0 – 4 points)	65	16.25
Medium (5 – 8 points)	261	65.25
High (9 – 10 points)	74	18.50

$\overline{X}$ = 5.95, S.D = ± 1.79 , Min = 1 , Max = 10

Part 3: Attitude factor that affects the cervical cancer screenings

The analysis found that the samples had positive attitude towards cervical cancer screening: 44.05% agreed that regular screening every year helps find early-stage of cancer; 38.00% viewed that cervical cancer screening was a waste of time that should better be spent on their work; and 33.00% viewed that there was no need to take the screening if one was healthy and strong and had no abnormal symptom. The research also found that 11.25% of the samples were embarrassed to receive the screening from physicians or nurse who are their acquaintances; 7.50% felt embarrassed to receive the screening; 7.50% felt stressed when they took the screening for fear that they might find that they had cervical cancer; and 7.00% were very worried that they might have cervical cancer after they discovered that their relatives or neighbours had the disease .(Table 12)

Table 12: The samples' levels of attitude towards cervical cancer, sorted by items and levels of attitude in percentage.(n=400)

Items (questions)	Attitude Level				
	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
1.Do you think you do not need to have cervical cancer screening because you are healthy, strong and have no abnormal symptom?	33.00	34.00	4.25	17.75	11.00
2. Do you feel stressed to take the screening for fear that you might find that you have cervical cancer?	7.75	33.50	15.75	35.50	7.50
3. Do you think that cervical cancer screening will cause pain and irritation?	10.25	37.75	17.25	32.50	2.25
4. Do you feel too embarrassed to take cervical cancer screening?	10.25	29.75	13.50	39.00	7.50
5.Do you think that cervical cancer screening will cost you money?	21.75	37.75	19.75	19.25	1.50
6.Are you afraid of infection from the medical instrument used in the screening?	18.25	30.75	27.75	20.00	3.25
7.Are you very worried that you might have cervical cancer after finding that your relatives or neighbours have this disease?	12.00	29.50	15.50	36.00	7.00
8. Do you feel embarrassed when you are screened by a physician or a nurse who is your acquaintance?	10.75	29.00	4.75	44.25	11.25

Table 12: The samples' level of attitude towards cervical cancer, sorted by items and levels of attitude in percentage. (cont.) (n=400)

Items (questions)	Attitude Level				
	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
9. Do you think that cervical cancer screening is a waste of time that should better be spent on your work?	38.00	33.00	19.00	9.25	0.75
10.Regular cervical cancer screening every year helps to find early-stage cervical cancer.	5.25	3.45	4.00	43.25	44.05

The analysis of the samples' attitude towards cervical cancer screening showed that 71.50% of the samples have moderate level of attitude, while 15.00 % have high level of attitude. (Table 13)

Table 13: The samples' different levels of attitude, sorted by number and percentage.

Level of attitude	Number	Percentage
	400	100
Low (10-28 points)	54	13.50
Medium (29-39 points)	286	71.50
High (40-50 points)	60	15.00

$\overline{X}$ = 28.56, S.D = ± 5.32, Min = 12, Max = 45

Part 4: Practices behavioural and experiences regarding the cervical cancer screening

From the analysis of the samples' practices behavioural and experiences found that the majority of the samples or 76.50% were informed by the village health volunteers or public health officials to take the cervical cancer screening; 70.50% took the screening every time that they were reminded by the village health volunteers or public health officials; 68.75% were informed of the test result; and 60.50% took the screening because they were motivated by the campaign for cervical cancer screening .(Table 14)

Table 14: The samples' practices behavioural and experiences, sorted by items and frequency in percentage. (n=400)

Items (Questions)	Regularly	Sometimes	Never
1. Have you ever been informed about cervical cancer from the media such as TV, radio, newspapers, and various journals?	44.25	54.50	1.25
2. Have you been informed by the village health volunteers or public health officials to take the cervical cancer screening?	76.50	22.00	1.50
3. Did the screening campaign motivate you to take cervical cancer screening?	60.50	32.25	7.25
4. Did you take the screening every time after the village health volunteers or public health officials had informed you to do so?	70.50	19.75	9.75
5. Did you take the screening when you had abdominal pain, leucorrhoea, and other symptoms?	29.00	46.25	24.75

Table 14: The samples' practices behavioural and experiences, sorted by items and frequency in percentage. (Cont) (n=400)

Items (Questions)	Regularly	Sometimes	Never
6.Do you feel pain and irritation while you are having an internal examination?	12.25	60.50	27.25
7.Do you feel embarrassed to receive the screening from doctors and nurses who are your acquaintances?	23.00	48.50	28.50
8. Are you afraid of infection from the medical tools used in cervical cancer screening?	13.75	52.25	34.00
9. Were you advised to take the screening again?	53.50	20.25	26.25
10. Were you informed of the test result?	68.75	5.75	25.50

Data analysis of the practices behavioural and experiences regarding cervical cancer screening found that the majority of the samples or 59.00 % had moderate level of practices behavioural and experiences, while 22.00% had high level. (Table 15).

Table 15: The samples' practices behavioural and experiences regarding the cervical cancer screening, sorted by number and percentage .

Level of practices behavioural and experiences	Number 400	Percentage 100
Low (14 - 18 points)	76	19.00
Medium (19 - 25 points)	236	59.00
High (26 - 30 points)	88	22.00

$\overline{X}$ = 22.66, S.D = ± 3.93, Min = 14, Max = 30

Part 5: Satisfaction with cervical cancer screening service

The results of the analysis of the samples' satisfaction of cervical cancer screening service are grouped in the following categories:

5.1 **The facilities:** 17% of the samples, the highest percentage, were satisfied with the examination room, while15.75% was satisfied with the cleanliness of the facility.

5.2 **The information:** 23.50% of the samples, the highest percentage, were satisfied with the public health volunteers giving them guidance and advices, while 23.25 % were satisfied to have received the information during the cervical cancer screening campaign.

5.3 **The service provider:** 29.75% of the samples, the highest percentage, were satisfied with the public health officials' courtesy, friendliness, and willingness; 26.25% with the sufficient number of officials to provide prompt service; and 26.00% with the officials' clear advices and answers.

5.4 **The service procedure:** 36.75 % of the samples, the highest percentage, were satisfied with the queuing system or first-come-first-serve system, 35.75% with the notification of the test result, and 33.25% with the mobile unit for cervical cancer screening in the community. (Table 16)

Table 16: The samples' levels of satisfaction with the cervical cancer screening service, sorted by items in different categories in percentage. (n=358)

Items	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
The facilities					
1. Clean facilities and examination rooms	15.75	40.75	37.25	3.25	3.00
2. Sufficient number of examination rooms.	14.00	43.25	38.25	4.00	0.50
3. Examination room has privacy	17.00	36.25	39.00	7.50	2.25
Information					
1. There were public relations during the campaign for cervical cancer screening.	23.25	56.00	17.75	3.00	0.00
2. Regular and widespread public relations though the media.	20.50	60.25	16.00	3.25	0.00
3. There were public health officials to give advices on cervical cancer screening.	23.50	64.75	10.50	1.00	0.25
Service provider					
1. Officials provide screenings at the villages.	23.00	48.00	27.50	1.50	0.00
2. Officials gave clear advices and answers.	26.00	49.25	23.50	1.25	0.00
3. Officials in charge of screening provided information about cervical cancer.	19.75	57.00	19.25	4.00	0.00
4. Officials provided service with courtesy, friendliness, and willingness.	29.75	58.75	9.75	1.75	0.00

Table 16: The samples' levels of satisfaction with the cervical cancer screening service, sorted by items in different categories in percentage. (n=358) (Cont)

Items	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
5. There were sufficient numbers of officials. service procedure	26.25	44.50	26.25	2.75	0.25
1. The service applied queuing system.	36.75	49.50	11.25	2.50	0.00
2. Effort was made to deliver prompt services.	29.50	51.25	17.00	2.25	0.00
3. The client was informed of test result.	33.25	43.50	21.50	1.25	0.50
4. Appointment was arranged for the client to see a doctor for referral and timely treatment.	35.75	51.25	11.00	2.00	0.00

Satisfaction analysis found that the majority of the samples or 59.25% were moderately satisfied with the cervical cancer screening service, while 24.75% were highly satisfied. (Table 17)

Table 17: The samples' level of satisfaction with the cervical cancer screening service , sorted by number and percentage. (n=400)

Level of Satisfaction		Number 400	Percentage 100
Low	(36-53 scores)	64	16.00
Medium	(54-63 scores)	237	59.25
High	(64-75 scores)	99	24.75

$\overline{X}$ = 60.68, S.D = ± 7.22, Min = 36, Max = 75

Part 6: Factors that affect the satisfaction with cervical cancer screening service

6.1 The association between the demographic factors and the satisfaction with cervical cancer screening

Age factor The study result found that the majority of the samples who were between the ages of 51 and 60, 41 and 50, and 30 and 40 years old were moderately satisfied with the cervical cancer screening medium at 59.58 %, 59.32 %, 58.87 % respectively.

When the association between the age factor and the cervical cancer screening satisfaction was tested, it was found that age was not associated with the satisfaction with cervical cancer screening (*p*-Value = 0.999). All age groups share a similar tendency to be satisfied with the cervical cancer screening. (Table 18)

Table 18: The association between age factor and the cervical cancer screening, sorted by number and percentage .

Age	Attitude Level			Total
	Low	Medium	High	
30 - 40 years	22 (34.38)	83 (35.03)	36 (36.36)	141 (35.25)
41 - 50 years	19 (29.69)	70 (29.53)	29 (29.30)	118 (29.50)
51 – 60 years	23 (35.93)	84 (35.44)	34 (34.34)	141 (35.25)
Total	64 (100)	237 (100)	99 (100)	400 (100)

X^2 = 0.89, df = 4, *p*-Value = 0.999

Marital status factor. The study found that the majority or 63.16 % of the samples that were single were highly satisfied with cervical cancer screening, while 61.90 % of those that were married and 54.55 % of those that were widowed/divorced/separated were moderately satisfied.

When the association between the marital status factor and the cervical cancer screening satisfaction was tested, it was found that marital status was associated with the satisfaction with cervical cancer screening with statistical significance

(*p*-Value = 0.001). The married and widowed/divorced/separated groups have the tendency to be satisfied with the cervical cancer screening .(Table 19)

Table 19: The association between marital status factor and the satisfaction with cervical cancer screening, sorted by number and percentage.

Marital status	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Single	1 (1.56)	6 (2,54)	12 (12.12)	19 (4.75)
Married	45 (70.32)	195 (82.28)	75 (75.76)	315 (78.75)
Widowed/ divorced/ separated	18 (28.12)	36 (15.18)	12 (12.12)	66 (16.50)
Total	64 (100)	237 (100)	99 (100)	400 (100)

X^2 = 19.63, df = 4, *p*-Value = 0.001

Education factor. The study found that the majority or 61.20 % of the samples with primary education were moderately satisfied with the cervical cancer screening.

When the association between the education factor and the cervical cancer screening satisfaction was tested, it was found that education was not associated with the satisfaction with cervical cancer screening (*p*-Value = 0.189). The groups with education, at any level of education, have a tendency to have the same level of satisfaction with the cervical cancer screening .(Table 20)

Table 20: The association between education factor and the satisfaction with cervical cancer screening, sorted by number and percentage.

Education Level	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Not educated	1 (1.56)	3 (1.26)	2 (2.02)	6 (1.50)
Primary school	46 (71.87)	164 (69.20)	58 (58.58)	268(67.00)
Secondary or vocational school	15 (23.44)	46 (19.41)	21 (21.22)	82 (20.50)
Certificate/ diploma/ vocational college	0 (0.00)	11 (4.65)	7 (7.06)	18 (4.50)
Bachelor degree/ higher	2 (3.13)	13 (5.48)	11 (11.12)	26 (6.50)
Total	64 (100)	237 (100)	99 (100)	400 (100)

X^2 = 11.22, df = 8, p-Value = 0.189

Occupation factor. The study found that the majority or 62.86 % of the samples in the agricultural sector and those who were not employed were moderately satisfied with cervical cancer screening, while 47.06 % of the samples with occupation in trade had a low satisfaction level.

When the association between the occupation factor and the cervical cancer screening satisfaction was tested, it was found that occupation was associated with the satisfaction with cervical cancer screening with statistical significance (p-Value < 0.5). The group in the agricultural factor and those with no employment have a tendency to be more satisfied with the cervical cancer screening than did the group with occupation in trade. (Table 21)

Table 21: The association between occupation factor and the satisfaction with cervical cancer screening, sorted by number and percentage .

Occupation	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Agricultural sector/ Not employed	48 (75.00)	198 (83.55)	69 (69.70)	315 (78.75)
Trade/labour	8 (12.50)	8 (3.37)	1 (1.01)	17 (4.25)
Housewife	3 (4.69)	11 (4.64)	6 (6.06)	20 (5.00)
Employee	3 (4.69)	2 (0.84)	5 (5.05)	10 (2.50)
State and government official	2 (3.12)	18 (7.60)	18 (18.18)	38 (9.50)
Total	64 (100)	237 (100)	99 (100)	400 (100)

X^2 = 33.15 df = 8 *p*-Value = 0.001

Income factor. The study found that the majority or 67.90 % of the samples with an income between 5,000 and 10,000 baht per month were moderately satisfied with cervical cancer screening, while 34.78 % of those with over 20,000 baht per month had a low satisfaction.

When the association between the income factor and the cervical cancer screening satisfaction was tested, it was found that income level was associated with the satisfaction with cervical cancer screening with statistical significance (*p*-Value < 0.5). The group with low income level have higher satisfaction with the cervical cancer screening than did the group with higher income level (Table 22)

Table 22: The association between income factor and the satisfaction with cervical cancer screening, sorted by number and percentage.

Income	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Less than 5,000 baht	47 (73.44)	148 (62.44)	63 (63.63)	258 (64.50)
5,001-10,000 baht	9(14.06)	55 (23.21)	17 (17.17)	81 (20.25)
10,001- 20,000 baht	0 (0.00)	23 (9.71)	15 (15.16)	38 (9.50)
Over 20,000 baht	8 (12.50)	11 (4.64)	4 (4.04)	23 (5.75)
Total	64 (100)	237 (100)	99 (100)	400(100)

$X^2 = 19.15$ df = 6 p-Value = 0.004

Age at first marriage factor. The study found that all or 100 % of the age group with the age of over 40 years old when they were first married were moderately satisfied with cervical cancer screening. It was noticeable that 52.17 % of those in the age group between 30 and 39 years when they were first married had a low level of satisfaction with the cervical cancer screening. Those with younger age when they were first married had a tendency to have higher satisfaction with cervical cancer screening than those with older age when they were first married.

When the association between the age at first marriage factor and the cervical cancer screening satisfaction was tested, it was found that the age at first marriage was associated with the satisfaction with cervical cancer screening with statistical significance (p-Value < .05). (Table 23)

Table 23: The association between age at first marriage factor and the satisfaction with cervical cancer screening, sorted by number and percentage.

Age at first marriage	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Less than 20 years	21 (32.82)	105 (44.31)	50 (50.51)	176 (44.00)
20 – 29 years	31 (48.44)	122 (51.47)	46 (46.46)	199 (49.75)
30 – 39 years	12 (18.74)	8 (3.37)	3 (3.03)	23 (5.75)
Over 40 years	0 (0.00)	2 (0.85)	0 (0.00)	2 (0.50)
Total	64 (100)	237 (100)	99 (100)	400 (100)

$X^2 = 26.94$, df = 6, p-Value = 0.001

Number of children factor. The study found that the majority or 70.37 % of the samples that were childless were highly satisfied with cervical cancer screening, while those who had children were moderately satisfied with the cervical cancer screening.

When the association between the number of children factor and the cervical cancer screening satisfaction was tested, it was found that the number of children factor was associated with the satisfaction with cervical cancer screening with statistical significance (p-Value < .05). The samples with children and without children had a tendency to be satisfied with cervical cancer screening. (Table 24)

Table 24: The association between number of children factor and the satisfaction with cervical cancer screening, sorted by number and percentage .

Number of children	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
None	1 (1.57)	7 (2.96)	19 (19.20)	27 (6.75)
One	4 (6.25)	21 (8.85)	7 (7.06)	32 (8.00)
Two	32 (50.00)	158 (66.66)	45 (45.46)	235 (58.75)
Three	16 (25.00)	33 (13.93)	27 (27.27)	76 (19.00)
More than three	11 (17.18)	18 (7.60)	1 (1.01)	30 (7.50)
Total	64 (100)	237 (100)	99 (100)	400 (100)

$X^2 = 58.79$ df $= 8$ p-Value $= 0.001$

6.2 The association between cervical cancer knowledge and satisfaction with cervical cancer screening

The study found that the majority of the samples with the high (18.50 %), medium (65.25 %), and low (16.25 %) knowledge level of cervical cancer were all moderately satisfied in cervical cancer screening. It is noticeable that the sample group with low level of knowledge of cervical cancer had a tendency to be satisfied with cervical cancer screening than the group with high level of knowledge.

When the association between the cervical cancer knowledge factor and the cervical cancer screening satisfaction was tested, it was found that the cervical cancer knowledge factor was associated with the satisfaction with cervical cancer screening with statistical significance (p-Value < .05) . (Table 25)

Table 25: The association between the samples' cervical cancer knowledge and satisfaction factor with cervical cancer screening, sorted by number and percentage .

Knowledge Level	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Low (0 – 4 points)	10 (15.63)	28 (11.80)	27 (27.27)	65 (16.25)
Medium (5 – 8 points)	51 (79.68)	150 (63.30)	60 (60.61)	261 (65.25)
High (9 – 10 points)	3 (4.69)	59 (24.90)	12 (12.12)	74 (18.50)
Total	64 (100)	237 (100)	99 (100)	400 (100)

$X^2 = 26.81$, df = 4, p-Value = 0.000

6.3 The association between cervical cancer attitude factor and the satisfaction with cervical cancer screening

The study found that the majority of the samples with high (15.00 %), medium (71.50 %), and low (13.50 %) attitude levels were satisfied with cervical cancer screening and every group had the tendency to be satisfied with cervical cancer screening.

When the association between the attitude factor and the cervical cancer screening satisfaction was tested, it was found that the attitude factor was associated with the satisfaction with cervical cancer screening with statistical significance (p-Value < .05). (Table 26)

Table 26: The association between the sample's attitude towards cervical cancer and the satisfaction with cervical cancer screening, sorted by number and percentage.

Attitude Level	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Low (10 – 28 points)	8 (12.50)	34 (14.35)	12 (12.13)	54 (13.50)
Medium (29 – 39 points)	45 (70.32)	167 (70.47)	74 (74.74)	286 (71.50)
High (40 – 50 points)	11 (17.18)	36 (15.18)	13 (13.13)	60 (15.00)
Total	64 (100)	237 (100)	99 (100)	400 (100)

$X^2 = 3.64$, df = 4, p-Value = 0.001

6.4 The association between practices behavioural and experiences factor and satisfaction with cervical cancer screening

The study found that the majority of the samples with moderate (69.07%), high (50.00%) and low (39.47%) levels of practices behavioural and experiences had a moderate satisfaction with cervical cancer screening.

When the association between the practices behavioural and experiences factor and the cervical cancer screening satisfaction was tested, it was found that experience and behavioural practise factor was associated with the level of satisfaction with cervical cancer screening with statistical significance (p-Value < .05). The group with high level of practices behavioural and experiences had a tendency to have higher level of satisfaction with the cervical cancer screening, while those with lower level of practices behavioural and experiences tend to have lower level of satisfaction. (Table 27)

Table 27: The association between the samples' practices behavioural and experiences and satisfaction with cervical cancer screening, sorted by number and percentage.

Practices behavioural and experiences	Satisfaction with cervical cancer screening			Total
	Low	Medium	High	
Low (14 – 18 points)	24 (37.50)	30 (12.66)	22 (22.23)	76 (19.00)
Medium (19 – 25 points)	31 (48.44)	163 (68.77)	42 (42.42)	236 (59.00)
High (26 – 30 points)	9 (14.06)	44 (18.57)	35 (35.35)	88 (22.00)
Total	64 (100)	237 (100)	99 (100)	400 (100)

$X^2 = 37.87$, df = 4, p-Value = 0.001

CHAPTER V
DISCUSSION,CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The object of this descriptive research was to study the factors that affect satisfaction of women in RoiEt Province with the cervical cancer screening. The research used quota sampling with 400 cases of women between the ages of 30 and 60 in Mueang Suang District and Phon Sai District, RoiEt Province. Questionnaire was used as an instrument in the research, which included the demographic data, knowledge, attitude, practices behavioural and experiences, and measurement of the satisfaction with cervical cancer screening service. The questionnaire underwent content accuracy and validity by experts. The variability test by Kuder Richardson (KR-20) method for cervical cancer knowledge resulted in a value of 0.75. The valiability test by Conbrach's Alpha Coefficient, with the higher than 0.5 reliability value, for attitude, practices behavioural and experiences regarding cervical cancer and the satisfaction with the cervical cancer screening service, resulted in the value of 0.89, 0.85 and 0.82 respectively. The data collection was carried out from March 1st to 15th, 2010. Data was analysed by descriptive statistics that included percentage, mean, standard deviation, and Chi-square test. The results were as follows.

Cervical cancer knowledge factor. It was found that the majority of the samples had moderate knowledge of cervical cancer in general. However, they had rather high level of knowledge of the following items: the early-stage cervical cancer can be cured; women with multiple sexual partners and women whose husband used to have sexually-transmitted disease have higher risk of cervical cancer; and regular cervical cancer screenings can prevent the cervical cancer from progressing into the invasive stage. They had very low level of knowledge about the following items: cervical cancer can be prevented by vaccination and cervical cancer is a genetically transmittable disease.

Cervical cancer attitude factor. It was found that the majority of the samples had medium level of positive attitudes and had high tendency. They had positive attitude towards the following items: regular cervical cancer screening every year help

find cancer at an early stage; one does not have to take cervical cancer screening if one is healthy and strong and having no abnormal symptom; and taking cervical cancer screening is a waste of time that should better be spent on work. They had negative attitude towards the following items: feeling embarrassed when one had to take the screening with doctors or nurses who are acquaintances; feeling stressed when having screening for fear of having serious disease; and very worried that one might have cervical cancer after one have found out that one's relatives or neighbours had the disease.

Practices behavioural and experiences of cervical cancer screening factor. It was found that the majority of the samples had medium level of experiences and practices behavioural and experiences regarding cervical cancer on a regular basis: they were informed by the village health volunteers or public health officials to receive cervical cancer screening; they went to have the screening every time they were informed to do so by the volunteers or the officials; they were informed of the test result; and they found that the campaign for the screening motivated them to have the screening.

Satisfaction with cervical cancer screening service factors. It was found that the majority of the samples were moderately satisfied with the service, with the highest level of satisfaction with the following aspects: the service procedure factor the queuing system, and the appointment with the doctors for case referral and timely treatment; the service providers factor the officials' courtesy, friendliness, and willingness to serve, and the sufficient number of officials so that the clients did not have to wait for along time, and the clear advices and answers from the officials; the information factor the public health volunteers to give advice on cervical cancer screening, the public relations during the cervical cancer screening campaign; and the facilities factor the privacy of the physical , the cleanliness of the establishment and the physical examination room.

When the factors affecting women's satisfaction with cervical cancer screening were analysed, it was found that the factors of occupation, income, age at first marriage, knowledge, attitude, and experiences and behavioural practices had association with the cervical cancer screening with statistical significance

(*p*-Value < .05). Other factors had no association with the satisfaction of cervical cancer screening.

Discussion

1. The study had limitations regarding the random selection of the geographic area for data collection. The researcher selected a specific area Mueang Suang District and Phon Sai District, RoiEt Province and therefore deprive the data of diversities in the demographic characteristics i.e. education, occupation, income, knowledge, attitude, experiences and behavioural practices, and access to the service. This might be due to the fact that both districts offered similar public health services and the samples shared the similar customs, beliefs and lifestyle. It can be said that the selected geographical areas did not cover all areas of RoiEt Province so as to represent the province. Be that as it may, the knowledge and the result of the study can be applied to the development and improvement of cervical cancer prevention effort in the selected geographical areas as well as in other areas with a similar profile, which will positively affect the future implementation plans.

2. From the demographic characteristics of the samples, it was found that the factors regarding the samples' marital status, age at first marriage, number of children, and the last screening results were associated, with statistical significance, with the cervical cancer screening satisfaction. This might be because the majority of the samples were women who had sexual relations at a young age and because they had several deliveries, which posed a high risk of cervical cancer. (Ries,Melbertand Krapcho, 2006.)

3. The samples had high level of knowledge about the following items: the early stage of cervical cancer could be treated early (88.50 %); women with multiple sexual partners or whose husbands had sexually transmitted disease had high risk of cervical cancer (79.75 %) and regular cervical cancer screening can help prevent having invasive cervical cancer. This might be because of the samples had the information and knowledge about cervical cancer from the medias such as television, radio, newspapers, journals, and the public health officials and village health volunteers. Be that as it may, the samples lacked the correct understanding about the vaccination against cervical cancer. They failed to understand that it work only with women who had never had vaginal intercourse. This might be modern and dispread.

Knowledge and information about cervical cancer has association with cervical cancer screening satisfaction with statistical significance. This association corresponds to the result of the study by Moltha Thayida (2002), which stated that the knowledge and information about cervical cancer were associated with cervical cancer screening at the statistical significant value of 0.05.

4. The samples had positive attitude towards the following items: regular cervical cancer screening every year helps detect cervical cancer at the early stage, taking cervical cancer screening is not a waste of time away from ones work, screening is necessary even though one is physically healthy and strong and has no symptom of any abnormality. This corresponds to the study by Chitkhet Tomuean (2009), which found that early-stage cervical cancer responded well to treatment. The samples had negative attitude towards the following: feeling embarrassed when receiving screening by doctors or nurses who were one's acquaintances and feeling embarrassed to take the screening,This is consistent with the studies by Sarayut Srisan (2005) which found that embarrassment was a reason for failure to take cervical cancer screening.

5. The study showed that the samples had regular practices behavioural and experiences regarding cervical cancer: 76.50% of the samples were informed by the health volunteers and public health officials to receive the screening. This might be attributed to the cervical cancer screening campaign, the public relation to the target group, the annual physical examination all of which followed the government's policy to reduce the incidences of cervical cancer death and the benefit from exercising the health care rights from the National Health Security Office. This is consistent with the study by Suwimol Boonchan (2008), which found that knowledge and information about cervical cancer screening service came from public health officers, and the study by Wijit Thownil (2004), which found that the advices from public health centre officials or hospital personnel constituted a factor that associated with the decision of women aged between 35 and 60 years old to have cervical cancer screening.

6. The result of the study found that 36.75 % were the most service satisfaction in order-after. Result of the screening was notified and public services were organized mobile services in the community, 35.75 and 33.25 % respectively.

According to the study of Wilairuk Srimhuan (2003) found that the facilities were organized to attend the cervical cancer screening.

Recommendation

The researcher has the following recommendation:

1. Policy recommendations

1.1 The campaign for women to take cervical cancer screening should be carried out continuously by emphasising the approaches and formats that correspond to the lifestyle, livelihood, and local culture. Local leaders who have health knowledge, such as the health volunteers, local leaders and respected academics in the locality, should be promoted to take a more active role. Mass media that can reach wider public, such as television, major radio channels, community radios, should be used in the campaign to educate the public on cervical cancer.

1.2 Public health education should be promoted through the printed media such as document, leaflets, journals, posters, in order to attract more attention from the public.

1.3 Appropriate public health programmes should be promoted by cooperating with the support from the various social networks, for example, the house visits by community health volunteer groups or the letters sent to women to motivate them to action.

2. Practical recommendations

2.1 The resources in a community, such as the village health volunteers (who presently receive a subsidy of 600 baht per person a month) or the community leaders, should be optimally exploited. They should be provided, through training, with the knowledge about the advantages of cervical cancer screening and the risk from failure to pay attention to the screening, so that they could contribute to the public relation effort to disseminate information to the public, particularly the target group – the women between 30 and 60 years old. Resources in the locality should also be used, for example, the community primary healthcare centres and the community

halls can be used as the meeting places for information dissemination and exchanges in the effort to bring about results in cervical cancer prevention.

2.2 Public health mobile units should be sent to the communities to provide cervical cancer screening service in order to reach out to the women target group.

2.3 The establishment and facilities that provide cervical cancer screening should be improved to ensure better privacy, and they should exist in sufficient numbers to make people feel more confident in their service.

2.4 Unnecessary procedure should be trimmed down to make it more convenient for the client and save the clients' time.

2.5 The public health mobile unit should be improved to have similar standard of facilities, cleanliness, security and privacy as the clinic of that establishment to ensure public confidence when they come to the mobile unit for service.

3. Recommendation for further research

3.1 The study should cover appropriate geographical area and samples size to ensure the data distribution of the samples that represents a sufficiently diverse demography.

3.2 To make experimental study with the media format for educating the public and persuading more women in the target group to receive cervical cancer screening service.

3.3 To make a comparative study of the factors that affect the women's decision to receive cervical cancer screening, in order to find out the problems and the approaches to develop a clearer perspective on the issue.

3.4 To make in depth study on the factors that affect the women's decision to receive cervical cancer screening, so as to use the finding to improve the service and make it more relevant to the real need of each community.

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APPENDICIES

APPENDIX A

Questionnaire form (English)

Questionnaire Number ( ) ( ) ( )

Questionnaire

Factors Effecting on Women Satisfaction of Cervical Cancer Screening in RoiEt Province, Thailand

Objective

To study the factors effecting on women satisfaction of cervical cancer screening in RoiEt province, Thailand.

Elucidation in response to a questionnaire

This research was to study factors effecting satisfaction of cervical cancer screening among women in RoiEt province. The researcher would like to know demographic data, knowledge, attitude, experiences, practices, and satisfaction to cervical cancer screening. Data from the inquiry will be considered confidential. The answers and results will be analyzed and presented as a whole. Data will be used to develop prevention and control of cervical cancer. Therefore, the researcher asks for cooperation from respondents, please answer truthfully as possible and thankful for your cooperation in this survey.

Questionnaire was divided into five parts.

Part 1: Demographic characteristics

Part 2: Knowledge of cervical cancer

Part 3: Attitude towards cervical cancer

Part 4: Practices and experiences behavioural regarding cervical cancer screening

Part 5: Satisfaction to cervical cancer screening

Thank you to please answer the questionnaire

Mrs. Kraisorn Sansingha

Researcher

2009

Part 1 Demographic characteristics

Expalnation : Please mark ✓ into the gab ( ) or add the text in the gab actually.

For the Researcher

1. Age .....years(completely) G1 [ ] [ ]
2. Marital Status G2 [ ]
   - ( ) 1. Single
   - ( ) 2. Married
   - ( ) 3. Widowed
   - ( ) 4. Divorced
   - ( ) 5. Separated
3. Education G3 [ ]
   - ( ) 1. Non education
   - ( ) 2. Primary school
   - ( ) 3. Lower secondary school
   - ( ) 4 Upper secondary school/vocational
   - ( ) 5. High vocational certificate / diploma
   - ( ) 6. Bachelor degree or higher education
4. Occupations G4 [ ]
   - ( ) 1. Non occupations
   - ( ) 2. Agriculture
   - ( ) 3. Trade
   - ( ) 4. Housewife
   - ( ) 5. Employee
   - ( ) 6. Employees of the state / government officials
   - ( ) 7. Other…….
5. Monthly income G5 [ ]
   - ( ) 1. Lower than 5000 Baht
   - ( ) 2. 5,000 – 10,000 Baht
   - ( ) 3. 10,001-15,000 Baht
   - ( ) 4. 15,001-20,000 Baht
   - ( ) 5. 20001-25000 Baht
   - ( ) 6. 25,001-30,000 Baht

( ) 7. More than 30,000 Baht

6. When does your first age marry?.....years G6 [ ]

7. How many children do you have? G7 [ ]

( ) 1. No

( ) 2. Yes Number of children.....

8. Have you ever received cervical cancer screening or not? G8 [ ]

( ) 1. Never receive screening

( ) 2. Receive long time ago,presently receiving none (Go to 10)

( ) 3. Having screening regularly screening (Go to 12)

9. Why do not you have cervical cancer screening? (Multiple items) G9 [ ]

( ) 1. Normal symptom

( ) 2. Afraid

( ) 3 Embarrass

( ) .4 Timeless

( ) 5 Dislike authorities

( ) 6. The long journey home and inconvenience

( ) 7. Expensive cost

( ) 8 Unnecessary detection

( ) 9 .Unknown information about examination

( ) 10.Other…….

10. When do you have cervical cancer screening final? G10 [ ]

( ) 1. Specify number of years……

( ) 2. Disremember

11. Why do you stop of cervical cancer screening? (Multiple items) G11 [ ]

( ) 1. Normal symptoms

( ) 2. Afraid

( ) 3. The pain and discomfort

( ) 4. Embarrass to the authorities, nurses, and doctors

( ) 5. Timeless

( ) 6 Dislike authorities

( ) 7. The long journey home and inconvenience

( ) 8. Expensive cost

( ) 9 .Unnecessary detection

( ) 10. Unknown information about examination

( ) 11 .Other…….

12. Why do you have cervical cancer screening regularly? (Multiple items) G12 [ ]

( ) 1. Annual health check

( ) 2. Examination after delivery

( ) 3. Public health officials guide

( ) 4. Having abnormality symptoms

( ) 5. A friend inviting to check

( ) 6. Having public service and campaign for examination to the village

( ) 7. Other……

13. Where do you receive cervical cancer screening final? G13 [ ]

( ) 1. Public Health Center

( ) 2. Government hospitals

( ) 3. Private hospitals

( ) 4. Private clinics

( ) 5. Community Health Center

( ) 6. Public Service vehicle movement

( ) 7. Other.....

14. Why do you choose to receive cervical cancer at the place ? (Multiple items)

(Number 13) G14 [ ]

( ) 1. Convenience

( ) 2. Cheaper

( ) 3. Good service

( ) 4. Famous

( ) 5. Other…….

15. What is the result of cervical cancer screening finally? . G15 [ ]

( ) 1. Normal

( ) 2. Abnormal

( ) 3. Unknown

Part 2 Knowledge examination about cervical cancer

Explanation: Please mark ✓ into the gab that you think the most accurate.

If correct answer is equal one, incorrect answer is zero.

Knowledge	Correct	incorrect	Unknown	Researcher
1. Cervical cancer can be transmitted genetically.				K1
2. Cervical cancer patients do not necessarily suffer from vaginal bleeding				K2
3. Illness with sexually transmitted diseases is the cause of cervical cancer				K3
4. Early-stage cervical cancer patients can be cured.				K4
5. Women with multiple sexual partners risk having cervical cancer.				K5
6. Women who smoke risk having cervical cancer				K6
7. Forty-eight hours before having cervical cancer screening, women should avoid using pessary (vaginal suppository).				K7
8. Cervical cancer can be prevented by vaccination.				K8
9. Regular cervical cancer screening can prevent the invasive stage of cervical cancer.				K9
10. Women whose husbands had sexually transmitted diseases risk having cervical cancer.				K10

Part 3 An attitude about cervical cancer

Explanation: Please mark ✓ in the gab that matches the ideas and feeling your best.

Strongly agree means that respondents agree with the text significantly.

Agree means that respondents agree with the text.

Unsure means that respondents are not sure about the text.

Disagree means that respondents disagree with the text.

Strongly disagree means that respondents disagree with the text significantly.

Text	Strongly Agree (5)	Agree (4)	Unsure (3)	Disagree (2)	Strongly Disagree (1)	Researcher
1. Do you think you do not need to have cervical cancer screening because you are healthy, strong and have no abnormal symptom?						A1
2. Do you feel stressed to take the screening for fear that you might find that you have cervical cancer?						A2
3. Do you think that cervical cancer screening will cause pain and irritation?						A3
4. Do you feel too embarrassed to take cervical cancer screening?						A4
5. Do you think that cervical cancer screening will cost you money?						A5

6. Are you afraid of infection from the medial instrument used in the screening?						A6
7. Are you very worried that you might have cervical cancer after finding that your relatives or neighbours have this disease?						A7
8. Do you feel embarrassed when you are screened by a physician or a nurse who is your acquaintance?						A8
9. Do you think that cervical cancer screening is a waste of time that should better be spent on your work?						A9
10. Regular cervical cancer screening every year helps to find early-stage cervical cancer.						A10

Part 4 Practices and experiences behavioural

Explanation: Please mark ✓ in the answer that you choose only one answer

Usually practices mean respondents practicing the activities regularly.

Sometimes mean respondents practices such activities from time to time, or not done every time.

Never mean respondents never practices the activities.

	Regularly (3)	Sometimes (2)	Never (1)	Researcher
1. Have you ever been informed about cervical cancer from the media such as TV, radio, newspapers, and various journals?				P1
2. Have you been informed by the village health volunteers or public health officials to take the cervical cancer screening?				P2
3. Did the screening campaign motivate you to take cervical cancer screening?				P3
4. Did you take the screening every time after the village health volunteers or public health officials had informed you to do so?				P4
5. Did you take the screening when you had abdominal pain, leucorrhoea, and other symptoms?				P5
6. Do you feel pain and irritation while you are having examination?				P6
7. Do you have bashful the doctors or nurses who provide cervical cancer screening an acquaintance?				P7
8. Do you afraid that the disease will				P8

be tools used in cervical cancer screening?				
9. Are you advised to check next time?				P9
10. Do you receive the test results?				P10

Part 5 Satisfaction to cervical cancer screening

Explanation: Please mark ✓according to your satisfaction.

Highest level means that respondents are satisfied with the sentence the most.

High level means that respondents are satisfied with the sentence.

Medium level means that respondents are satisfied with the sentence medium.

Low level means that respondents are satisfied with the sentence less.

Lowest level means that respondents are satisfied with the sentence lowest.

Text	Satisfaction levels					Researcher
	Highest (5)	High (4)	Medium (3)	Low (2)	Lowest (1)	
1. Environmental, services, and locations						
1.1Examination room is clean.						S1
1.2 Examination room is enough and less time in waiting.						S2
1.3 Examination room is entirely.						S3
2. Information						
2.1 The public relations notify to during Cervical Cancer Screening campaign.						S4
2.2 The public relations have to advertise through media regularly.						S5
2.3 Public health officials do recommend about						S6

cervical cancer screening.						
3. Service Provider						
3.1 Authorities provide examination service within the softness and painless.						S7
3.2 Authorities do recommend and answer questions clearly.						S8
3.3 Authorities provider service has to provide knowledge about cervical cancer.						S9
3.4 Authorities provide service to the comity, friendly, and beaming.						S10
3.5 Authorities provide enough service and not wait too long.						S11
4. The process of service						
4.1 The service provides in order-after.						S12
4.2 The facilities are less time in waiting.						S13
4.3 Public services are organized mobile services in the community.						S14
4.4 Result of the screening is notified.						S15

APPENDIX B

Questionnaire form (Thai)

แบบสอบถามเลขที่ ( ) ( ) ( )

แบบสอบถาม
เรื่อง ปัจจัยที่มีผลต่อความพึงพอใจในการตรวจคัดกรองมะเร็งปากมดลูกของสตรีจังหวัดร้อยเอ็ด

วัตถุประสงค์

เพื่อศึกษาปัจจัยที่มีผลต่อความพึงพอใจในการตรวจคัดกรองมะเร็งปากมดลูกของสตรีจังหวัดร้อยเอ็ด

คำชี้แจงในการตอบแบบสอบถาม

การวิจัยครั้งนี้เป็นการศึกษา**ปัจจัยที่มีผลต่อความพึงพอใจในการตรวจคัดกรองมะเร็งปากมดลูกของสตรีจังหวัดร้อยเอ็ด** โดยผู้วิจัยต้องการทราบข้อมูลเกี่ยวกับข้อมูลทั่วไป ความรู้ ทัศนคติ ประสบการณ์ การปฏิบัติ และความพึงพอใจต่อการตรวจมะเร็งปากมดลูก ข้อมูลจากการสอบถามจะ**ถือเป็นความลับ** จากนั้นจะนำไปวิเคราะห์และนำเสนอผลการวิจัยในภาพรวม ซึ่งข้อมูลที่ได้จะนำไปพัฒนางานป้องกันและควบคุมโรคมะเร็งปากมดลูกต่อไป ดังนั้นผู้วิจัยจึงขอความร่วมมือจากท่านโปรดให้คำตอบตามความเป็นจริงมากที่สุด และขอขอบคุณทุกท่านที่กรุณาให้ความร่วมมือในการตอบแบบสอบถามครั้งนี้

แบบสอบถาม แบ่งออกเป็น 5 ส่วน ประกอบด้วย

ส่วนที่ 1 ลักษณะทางประชากร

ส่วนที่ 2 แบบทดสอบความรู้เกี่ยวกับโรคมะเร็งปากมดลูก

ส่วนที่ 3 แบบวัดทัศนคติเกี่ยวกับโรคมะเร็งปากมดลูก

ส่วนที่ 4 แบบวัดประสบการณ์และพฤติกรรมการปฏิบัติ

ส่วนที่ 5 แบบวัดความพึงพอใจต่อบริการตรวจคัดกรองมะเร็งปากมดลูก

ขอขอบคุณที่ท่านให้ความกรุณาตอบแบบสอบถาม

นางไกรศร แสนสิงห์

ผู้ศึกษา

2552

ส่วนที่ 1 ข้อมูลทั่วไป

คำชี้แจง : โปรดทำเครื่องหมาย ✓ ลงในช่อง ( ) หรือเติมข้อความลงในช่องว่าง ตามความเป็นจริง

สำหรับผู้วิจัย

1. อายุ .....ปี(นับจำนวนเต็มปี) G1 [ ] [ ]
2. สถานภาพสมรส G2 [ ]
   ( ) 1. โสด
   ( ) 2. คู่
   ( ) 3. หม้าย
   ( ) 4. หย่า
   ( ) 5. แยกกันอยู่
3. ระดับการศึกษา G3 [ ]
   ( ) 1. ไม่ได้เรียนหนังสือ
   ( ) 2. ประถมศึกษา
   ( ) 3. มัธยมศึกษาตอนต้น
   ( ) 4. มัธยมศึกษาตอนปลาย/ปวช.
   ( ) 5. อนุปริญญา/ปวส./ปวท.
   ( ) 6. ปริญญาตรีหรือสูงกว่า
4. อาชีพหลักของท่าน G4 [ ]
   ( ) 1. ไม่ได้ประกอบอาชีพ
   ( ) 2. เกษตรกรรม ทำนา ทำไร่
   ( ) 3. ค้าขาย
   ( ) 4. แม่บ้าน
   ( ) 5. รับจ้าง
   ( ) 6. รับราชการ/รัฐวิสาหกิจ
   ( ) 7. อื่นๆ (ระบุ).....
5. ท่านมีรายได้ต่อเดือน G5 [ ]
   ( ) 1. ต่ำกว่า 5,000 บาท
   ( ) 2. 5,000 – 10,000 บาท
   ( ) 3. 10,001-15,000 บาท

( ) 4. 15,001-20,000 บาท

( ) 5. 20,001-25,000 บาท

( ) 6. 25,001-30,000 บาท

( ) 7. มากกว่า 30,000 บาทขึ้นไป

6. ท่านานสมรสครั้งแรกเมื่ออายุเท่าใด.....ปี G6 [ ]

7. ปัจจุบันท่านมีบุตรกี่คน G7 [ ]

( ) 1. ไม่มี

( ) 2. มี จำนวนบุตรทั้งหมด.....คน

8. ท่านเคยได้รับการตรวจมะเร็งปากมดลูกหรือไม่ G8 [ ]

( ) 1. ไม่เคยตรวจเลย [ ] [ ]

( ) 2. เคยตรวจเมื่อนานมาแล้ว และปัจจุบันไม่ได้ไปตรวจ (ข้ามไปตอบข้อ 10) [ ] [ ]

( ) 3 ตรวจอย่างสม่ำเสมอ (ข้ามไปตอบข้อ 12) [ ] [ ]

9. เพราะเหตุใดท่านจึงไม่ไปตรวจมะเร็งปากมดลูก (ตอบได้หลายข้อ) G9 [ ]

( ) 1 ไม่มีอาการผิดปกติ

( ) 2 กลัว

( ) 3 อาย

( ) 4 ไม่มีเวลา

( ) 5 ไม่ชอบเจ้าหน้าที่

( ) บ้านอยู่ไกลการเดินทางไม่สะดวก

( ) ค่าตรวจแพง

( ) คิดว่าไม่จำเป็นต้องตรวจ

( ) ไม่ทราบข้อมูลข่าวสารเกี่ยวกับการตรวจภายใน

( ) อื่นๆระบุ.....

10. ท่านเคยตรวจมะเร็งปากมดลูกครั้งสุดท้าย เมื่อใด G10 [ ]

( ) 1. ระบุจำนวนปี..... ปี

( ) 2. จำไม่ได้

11. เพราะเหตุใดท่านจึงหยุดไปตรวจมะเร็งปากมดลูก (ตอบได้หลายข้อ) G11 [ ]

( ) 1 ไม่มีอาการผิดปกติ

( ) 2 กลัว

( ) 3 เจ็บและไม่สบายตัว

( ) 4 อายเจ้าหน้าที่ พยาบาล แพทย์ที่ตรวจ

(..) 5 ไม่มีเวลา

(..) 6 ไม่ชอบเจ้าหน้าที่

( ) 7 บ้านอยู่ไกลการเดินทางไม่สะดวก

( ) 8 ค่าตรวจแพง

( ) 9 คิดว่าไม่จำเป็นต้องตรวจ

(..) 10 ไม่ทราบข้อมูลข่าวสารเกี่ยวกับการตรวจภายใน

(..) 11 อื่นๆระบุ…….

12. เพราะสาเหตุใดท่านจึงไปตรวจมะเร็งปากมดลูกอย่างสม่ำเสมอ (ตอบได้หลายข้อ) G12 [ ]

( ) 1. ตรวจสุขภาพประจำปี

( ) 2. ตรวจหลังคลอด

( ) 3. เจ้าหน้าที่สาธารณสุขแนะนำ

( ) 4. มีอาการผิดปกติ

( ) 5. เพื่อนชวนไปตรวจ

( ) 6 . มีหน่วยรณรงค์ตรวจภายในให้บริการถึงหมู่บ้าน

( ) 6. อื่น ๆ (ระบุ)……..

13. สถานบริการใดที่ท่านไปรับการตรวจมะเร็งปากมดลูก ในครั้งสุดท้าย G13 [ ]

( ) 1. สถานีอนามัย

( ) 2. โรงพยาบาลของรัฐ

( ) 3. โรงพยาบาลของเอกชน

( ) 4. คลินิกเอกชน

( ) 5. ศูนย์สาธารณสุขชุมชนในหมู่บ้าน

( ) 6. รถหน่วยบริการเคลื่อนที่

( ) 7. อื่น ๆ ระบุ.....

14. ท่านไปรับการตรวจที่นี่ (ตามข้อ 13) เพราะอะไร (ตอบได้หลายข้อ) G14 [ ]

( ) 1. สะดวก

( ) 2. ราคาไม่แพง

( ) 3. บริการดี

( ) 4. มีชื่อเสียง

( ) 5. อื่น ๆ (ระบุ)……..

15. ผลของการตรวจมะเร็งปากมดลูกครั้งสุดท้าย G15 [ ]

( ) 1. ปกติ

( ) 2. ผิดปกติ

( ) 3. ไม่ทราบผล

ส่วนที่ 2 แบบทดสอบความรู้เกี่ยวกับโรคมะเร็งปากมดลูก

คำชี้แจง : โปรดทำเครื่องหมาย ✓ ลงในช่องที่ท่านคิดว่าถูกต้องที่สุด

กรณี ตอบถูก เท่ากับ 1 ตอบผิด และไม่ทราบเท่ากับ 0

ข้อความด้านความรู้	ใช่	ไม่ใช่	ไม่ทราบ	สำหรับผู้วิจัย
1. มะเร็งปากมดลูกเป็นโรคที่สามารถถ่ายทอดทางกรรมพันธุ์				K1
2. ผู้ป่วยมะเร็งปากมดลูกไม่จำเป็นจะต้องมีเลือดออกทางช่องคลอด ทุกคน				K2
3. การเจ็บป่วยด้วยโรคติดต่อทางเพศสัมพันธ์เป็นสาเหตุของโรคมะเร็งปากมดลูก				K3
4. มะเร็งปากมดลูกระยะเริ่มแรกสามารถรักษาให้หายได้				K4
5. ผู้หญิงที่มีคู่นอนหลายคนมีโอกาสเป็นมะเร็งปากมดลูก				K5
6. ผู้หญิงที่สูบบุหรี่มีโอกาสเสี่ยงต่อการเกิดมะเร็งปากมดลูก				K6
7. ก่อนตรวจมะเร็งปากมดลูก 48 ชั่วโมงไม่ควรเหน็บยาทางช่องคลอด				K7
8. มะเร็งปากมดลูกสามารถป้องกันได้ด้วยวัคซีน				K8
9. การตรวจค้นหามะเร็งปากมดลูกเป็นประจำสามารถป้องกันมะเร็งปากมดลูกระยะลุกลามได้				K9
10. สตรีที่สามีที่เคยเจ็บป่วยด้วยโรคทางเพศสัมพันธ์มีโอกาสป่วยเป็นโรคมะเร็งปากมดลูก				K10

ส่วนที่ 3 แบบวัดทัศนคติเกี่ยวกับโรคมะเร็งปากมดลูก

คำชี้แจง : โปรดทำเครื่องหมาย ✓ ลงในช่องว่าง ที่ตรงกับความคิดเห็นและความรู้สึกของท่านมากที่สุด

เห็นด้วยอย่างยิ่ง หมายถึง ผู้ตอบแบบสอบถามเห็นด้วยกับข้อความนั้นอย่างมาก

เห็นด้วย หมายถึง ผู้ตอบแบบสอบถามเห็นด้วยกับข้อความนั้น

ไม่แน่ใจ หมายถึง ผู้ตอบแบบสอบถามไม่แน่ใจกับข้อความนั้น

ไม่เห็นด้วย หมายถึง ผู้ตอบแบบสอบถามไม่เห็นด้วยกับข้อความนั้น

ไม่เห็นด้วยอย่างยิ่ง หมายถึง ผู้ตอบแบบสอบถามไม่เห็นด้วยกับข้อความนั้นอย่างมาก

ข้อความ	เห็นด้วยอย่างยิ่ง (5)	เห็นด้วย (4)	ไม่แน่ใจ (3)	ไม่เห็นด้วย (2)	ไม่เห็นด้วยอย่างยิ่ง (1)	สำหรับผู้วิจัย
1. ท่านคิดว่าร่างกายของท่านสมบูรณ์แข็งแรง และไม่มีอาการผิดปกติใดๆจึงไม่จำเป็นต้องไปตรวจมะเร็งปากมดลูก						A1
2. ท่านรู้สึกเครียดที่ต้องไปตรวจมะเร็งปากมดลูกเพราะกลัวว่าตัวเองจะเป็นโรคร้ายแรงนี้						A2
3.ท่านคิดว่าการตรวจมะเร็งปากมดลูกจะทำให้เจ็บและทำให้เกิดการระคายเคือง						A3
4.ท่านรู้สึกอายที่จะไปรับการตรวจมะเร็งปากมดลูก						A4
5.ท่านคิดว่าต้องใช้ค่าใช้จ่ายในการที่จะไปตรวจคัดกรองมะเร็งปากมดลูก						A5
6. ท่านกลัวว่าจะได้รับเชื้อโรคจากเครื่องมือที่ใช้ในการตรวจมะเร็งปากมดลูก						A6
7. ท่านวิตกกังวลอย่างมากว่าจะเป็นมะเร็งปากมดลูกหากพบว่ามีญาติหรือเพื่อนบ้านเป็นมะเร็งปากมดลูก						A7
8.ท่านอายแพทย์ หรือพยาบาลผู้ให้บริการตรวจมะเร็งปากมดลูกที่เป็นคนรู้จัก						A8
9.ท่านคิดว่าการไปตรวจมะเร็งปากมดลูกทำให้เสียเวลาในการประกอบอาชีพ						A9

10.ถ้าท่านได้รับการตรวจหามะเร็งปากมดลูกสม่ำเสมอทุกปีจะช่วยให้พบมะเร็งได้ตั้งแต่ระยะเริ่มแรก						A10

ส่วนที่ 4 แบบวัดประสบการณ์และพฤติกรรมการปฏิบัติ

คำชี้แจง : โปรดทำเครื่องหมาย ✓ ในช่องคำตอบที่ท่านเลือกเพียงคำตอบเดียว

ปฏิบัติสม่ำเสมอ หมายถึง ผู้ตอบแบบสอบถามปฏิบัติกิจกรรมดังกล่าวเป็นประจำ

ปฏิบัติบางครั้ง หมายถึง ผู้ตอบแบบสอบถามปฏิบัติกิจกรรมดังกล่าวเป็นครั้งคราวหรือไม่ได้ทำทุกครั้ง

ไม่เคยปฏิบัติ หมายถึง ผู้ตอบแบบสอบถามไม่ปฏิบัติกิจกรรมดังกล่าวเลย

	สม่ำเสมอ (3)	บางครั้ง (2)	ไม่เคยปฏิบัติ (1)	ผู้วิจัย
1. ท่านเคยได้รับความรู้เรื่องมะเร็งปากมดลูกจากสื่อต่างๆ เช่น ทีวี วิทยุ หนังสือพิมพ์ วารสารต่างๆ				P1
2.ท่านเคยได้รับแจ้งจาก อสม.หรือเจ้าหน้าที่สาธารณสุขให้ไปรับการตรวจมะเร็งปากมดลูก				P2
3. การรณรงค์ตรวจคัดกรองเป็นการกระตุ้นให้ท่านไปตรวจมะเร็งปากมดลูก				P3
4. ท่านไปรับบริการตรวจคัดกรองทุกครั้งที่ได้รับแจ้งจาก อสม.หรือเจ้าหน้าที่				P4
5.ท่านไปรับการตรวจเมื่อมีอาการ ปวดท้องน้อย ตกขาว และอื่นๆ				P5
6. ท่านรู้สึกเจ็บ และระคายเคืองขณะตรวจภายใน				P6
7. ท่านอายที่ต้องตรวจภายในกับแพทย์ พยาบาล ที่ท่านรู้จักและคุ้นเคย				P7
8. ท่านรู้สึกกลัวการติดเชื้อจากเครื่องมือตรวจภายใน				P8
9. ท่านได้รับคำแนะนำการตรวจครั้งต่อไป				P9
10. ท่านได้รับแจ้งผลการตรวจ				P10

ส่วนที่ 5 แบบวัดความพึงพอใจของการรับบริการตรวจมะเร็งปากมดลูก

คำชี้แจง : โปรดทำเครื่องหมาย ✓ ตามระดับความพึงพอใจของท่าน

มากที่สุด หมายถึง ผู้ตอบแบบสอบถามมีความพึงพอใจต่อประโยคนั้นมากที่สุด

มาก หมายถึง ผู้ตอบแบบสอบถามมีความพึงพอใจต่อประโยคนั้นมาก

ปานกลาง หมายถึงผู้ตอบแบบสอบถามมีความพึงพอใจต่อประโยคนั้นปานกลาง

น้อย หมายถึง ผู้ตอบแบบสอบถามมีความพึงพอใจต่อประโยคนั้นน้อย

น้อยที่สุด หมายถึง ผู้ตอบแบบสอบถามมีความพึงพอใจต่อประโยคนั้นน้อยที่สุด

ข้อความ	ระดับความพึงพอใจ					สำหรับผู้วิจัย
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)	
1.ด้านสิ่งแวดล้อมและการบริการด้านสถานที่						
1.1 สถานที่ ห้องตรวจมีความสะอาด						S1
1.2 จัดห้องตรวจเพียงพอไม่ต้องรอนาน						S2
1.3 ห้องตรวจมิดชิด						S3
2. ด้านข้อมูลข่าวสาร						
2.1 มีการแจ้งข่าวสารประชาสัมพันธ์ในช่วงรณรงค์ตรวจคัดกรองมะเร็งปากมดลูก						S4
2.2 มีการประชาสัมพันธ์ผ่านสื่ออย่างสม่ำเสมอ ทั่วถึง						S5
2.3 มีอาสาสมัครสาธารณสุขให้คำแนะนำการตรวจมะเร็งปากมดลูก						S6
3.ด้านผู้ให้บริการ						
3.1 เจ้าหน้าที่ให้บริการตรวจภายในด้วยความนุ่มนวล ไม่เจ็บ						S7
3.2 เจ้าหน้าที่ให้คำแนะนำและตอบข้อซักถามอย่างชัดเจน						S8

3.3 เจ้าหน้าที่ผู้ให้บริการได้ให้ความรู้เกี่ยวกับโรคมะเร็งปากมดลูก						S9
3.4 เจ้าหน้าที่ให้บริการให้ด้วยความสุภาพเป็นมิตรเป็นกันเอง ยิ้มแย้มแจ่มใส						S10
3.5 มีเจ้าหน้าที่ให้บริการเพียงพอ ไม่ต้องรอนาน						S11
4. ด้านขั้นตอนการให้บริการ						
4.1 มีการให้บริการตามลำดับก่อน-หลัง						S12
4.2 มีการอำนวยความสะดวก ไม่ต้องรอนาน						S13
4.3 มีการจัดหน่วยบริการเคลื่อนที่ให้บริการในชุมชน						S14
4.4 มีการแจ้งผลการตรวจคัดกรอง						S15

APPENDIX C

Table 1: Reliability analysis scale .(Knowledge)

Knowledge	Scale Mean If Item Delete	Scale Variance If Item Delete	Corrected Item-Total Correlation	Alpha If Item Delete
1.Cervical cancer can be transmitted genetically.	5.6667	6.0230	.4109	7373
2. Cervical cancer patients do not necessarily suffer from vaginal bleeding	5.7000	5.5966	.5968	.7093
3. Illness with sexually transmitted diseases is the cause of cervical cancer	5.6333	5.8264	.5164	.7222
4. Early-stage cervical cancer patients can be cured.	5.5667	6.1851	.3864	.7405
5.Women with multiple sexual partners risk having cervical cancer.	5.6000	6.5931	.1844	.7669
6. Women who smoke risk having cervical cancer	5.6667	6.2989	.2897	.7542
7. Forty-eight hours before having cervical cancer screening, women should avoid using pessary (vaginal suppository).	5.7667	5.7713	.5016	.7237
8. Cervical cancer can be prevented by vaccination.	5.5667	6.1851	.3864	.7237
9. Regular cervical cancer screening can prevent the invasive stage of cervical cancer.	5.9000	6.0241	.4004	.7388
10. Women whose husbands had sexually transmitted diseases risk having cervical cancer.	5.6333	5.8264	.5164	.7222

Reliability Coefficients: N of Cases = 30.0 , N of Items = 10 ,Alpha = .7562

Table 2: Reliability analysis scale. (Attitude)

Attitude	Scale Mean If Item Delete	Scale Variance If Item Delete	Corrected Item-Total Correlation	Alpha If Item Delete
1. Do you think you do not need to have cervical cancer screening because you are healthy, strong and have no abnormal symptom?	33.2000	22.0966	.6394	.8861
2. Do you feel stressed to take the screening for fear that you might find that you have cervical cancer?	3.7000	21.2885	.5737	.8888
3. Do you think that cervical cancer screening will cause pain and irritation?	33.5333	21.9816	.6059	.8872
4. Do you feel too embarrassed to take cervical cancer screening?	33.3333	22.5747	.4400	.8962
5. Do you think that cervical cancer screening will cost you money?	33.4667	20.2575	.6366	.8851
6. Are you afraid of infection from the medical instrument used in the screening?	33.6000	19.4207	.8005	.8724
7.Are you very worried that you might have cervical cancer after finding that your relatives or neighbours have this disease?	33.4333	20.1161	.6668	.8827
8. Do you feel embarrassed when you are screened by a physician or a nurse who is your acquaintance?	33.4667	19.9816	.7293	.8779
9. Do you think that cervical cancer screening is a waste of time that should better be spent on your work?	33.4000	20.2483	.6561	.8835
10. Regular cervical cancer screening every every year helps to find early-stage cervical cancer.	33.3333	20.9885	.6684	.8826

Reliability Coefficients :N of Cases = 30.0,N of Items = 10, Alpha = .8948

Table 3: Reliability analysis scale. (Practices and Experiences behavioural.)

Practices and Experiences behavioural	Scale Mean If Item Delete	Scale Variance If Item Delete	Corrected Item-Total Correlation	Alpha If Item Delete
1. Have you ever been informed about cervical cancer from the media such as TV, radio, newspapers, and various journals?	20.0333	16.5851	.4520	.8527
2. Have you been informed by the village health volunteers or public health officials to take the cervical cancer screening?	20.1333	16.3264	.3257	.8652
3. Did the screening campaign motivate you to take cervical cancer screening?	19.9333	14.2713	.6992	.8311
4. Did you take the screening every time after the village health volunteers or public health officials had informed you to do so?	20.1667	14.8333	.5323	.8484
5. Did you take the screening when you had abdominal pain, leucorrhoea, and other symptoms?	20.3000	15.6655	.5237	.8472
6. Do you feel pain and irritation while you are having examination?	20.5333	15.9126	.5618	.8448
7. Do you have bashful the doctors or nurses who provide cervical cancer screening an acquaintance?	20.3667	15.9644	.4488	.8534
8. Do you afraid that the disease will be tools used in cervical cancer screening?	20.4000	14.8690	.7213	.8311
9. Are you advised to check next time?	20.1333	14.4644	.6946	.8318
10. Do you receive the test results?	19.9000	14.7138	.7377	.8293

Reliability Coefficients :N of Cases = 30.0 ,N of Items = 10, Alpha = .8574

Table 4: Reliability analysis scale .(Service satisfaction)

Practices and experiences behavioural	Scale Mean If Item Delete	Scale Variance If Item Delete	Corrected Item-Total Correlation	Alpha If Item Delete
1. Environmental, services, and locations				
1.1 Examination room is clean.	53.5000	20.8103	.6503	.7929
1.2 Examination room is enough and less time in waiting.	53.5000	21.1552	.7556	.7870
1.3 Examination room is entirely.	53.7000	22.4241	.4974	.8061
2. Information				
2.1 The public relations notify to during Cervical Cancer Screening campaign.	53.2000	22.7172	.5681	.8022
2.2 The public relations have to advertise through media regularly.	53.2000	23.1310	.4382	.8103
2.3 Public health officials do recommend about cervical cancer screening.	52.9667	23.8264	.5173	.8081
3. Service Provider				
3.1 Authorities provide examination service within the softness and painless.	53.1333	23.2230	.5811	.8035
3.2 Authorities do recommend and answer questions clearly.	53.0667	23.3747	.5152	.8065
3.3 Authorities provider service has to provide knowledge about cervical cancer.	53.1667	25.3161	.0893	.8327
3.4 Authorities provide service to the comity, friendly, and beaming.	52.8000	24.1655	.4983	.8100

Practices and experiences behavioural	Scale Mean If Item Delete	Scale Variance If Item Delete	Corrected Item-Total Correlation	Alpha If Item Delete
3.5 Authorities provide enough service and not wait too long.	53.1000	24.6448	.2471	.8214
4. The process of service				
4.1 The service provides in order-after.	52.7000	23.5966	.3505	.8164
4.2 The facilities are less time in waiting.	52.8667	22.2575	.5202	.8043
4.3 Public services are organized mobile services in the community.	52.7333	23.8575	.2349	.8276
4.4 Result of the screening is notified.	52.9667	23.5506	.3068	.8207

Reliability Coefficients N of Cases = 30.0 N, of Items = 15 , Alpha = .8209

Biography

Name	Mrs.Kraisorn Sansingha
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