

CHAPTER ONE

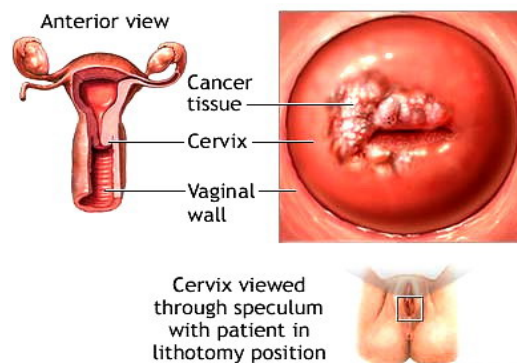
INTRODUCTION

1.1 BACKGROUND

What is cervical cancer - cervical cancer is one of around 200 different types of cancer that develops in the cervix, the cone-shaped part of the uterus that connects the upper part of the womb and the vagina.

Figure 1. Cervical Cervix (Anterior View)

Source: Retrieved August 28, 2008, from <http://healthguide.howstuffworks.com/cervical-cancer-picture.htm>



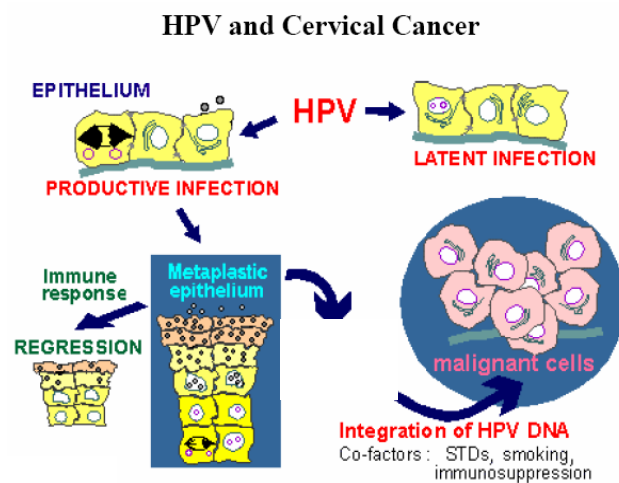
Worldwide, the prevalence of cervical cancer affects approximately 1.4 million women, and claims an estimated 239,000 lives each year. Over 90% of cervical cancer cases resulted from genital infection with Human Papilloma Virus (HPV). Moreover, this virus represents a major health inequity, as 80% of those with cervical cancer take place in developing countries. The peak incidence of HPV infection occurs in adolescents and young women. (Clifford, 2005)

Human Papilloma Virus (HPV) is a group of DNA viruses that belong to the family of *papillomaviridae*. This virus is the most common sexually transmitted infection (STI), and causes a common infection of the skin and genitals in men and women. It takes an important roll to be a major cause of cervical neoplasia and cervical carcinoma, which is the second most common cancer in women worldwide especially in developing countries including Thailand. (Sankaranarayanan, 2006)

HPV is a small, non-enveloped deoxyribonucleic acid (DNA) virus that infects skin or mucosal cells. HPV infection is now a well-established cause of cervical cancer; typing 16 and 18 are responsible for about 70% of all cervical cancer worldwide. Recently, HPV vaccines that prevent specific HPV infections, and have the potential to reduce the incidence of cervical cancers, have been licensed worldwide (WHO, 2004).

Figure 2. The Relationship between HPV and Cervical Cancer

Source: Retrieved August 28, 2008, from <http://www.stanford.edu/group/virus/papilloma/2004goglincarnevale/Papilloma/Cancer.htm>



HPV 16 appears to be the most common type of HPV found in cervical cancers. HPV 18 is the predominant type in adenocarcinomas, and HPV-16 is the most common type in squamous cell carcinomas.

There are more than 40 HPV types that can be infected and transmitted by sexual activities. This infection often goes away by itself; it can lead in women over a long period of time to cancer of the cervix. HPV is not visible by naked eyes. The only means to know about this virus is through the microscope. Most people who become infected with HPV do not even know that they have it because there is no sign or symptom at the early stages of infection. The virus may take more than ten years to develop cancer. Thus, those women who have an infection by this virus continue normal life like those women without the infection of this virus. The sign

and symptom caused by this virus will occur at the late stages of cancer development. This has led many women to lose their body organ, removal of the cervix, or lose their lives, when treatment cannot be cured. Actually, cervical cancer, unlike other cancer, such as breast or ovary, can be prevented by having regular screening of the cervical cytology or the Pap smear. The procedure is not complicated, and many women have had it the same time that they have had their pelvic examination. However, very few women are aware of this issue. This has resulted in only few women having had this kind of test and a few more women have ended in either losing their cervix or lives. It is therefore that women, especially those women who have been exposed to sex, should have some knowledge about this virus in order to prevent themselves from developing cervical cancer. For those women who are not infected by the HPV, it is very unlikely that they will develop to have a cervical cancer. (Taira, 2004)

The screening of the cervical cytology or the Pap smear has been considered the second preventive measure and has been developed and used worldwide for more than four decades. Many attempts have been made in the last decades to develop the primary preventive measure of cervical cancer. That is, the development of the vaccine to protect women against this deadly disease, cancer of the cervix. On the emerge of the twenty-first century the HPV was known to have cause cervical cancer and HPV vaccine has successfully been developed and introduced into the world market. Also, the HPV vaccine has been introduced and distributed in Thailand market to protect women from having cervical cancer. HPV vaccine can now protect women from 2 types of HPV that cause most cervical cancers and genital warts. Biological HPV 16 or 18 vaccines are considered to prevent infection associated cervical pre-cancer, according to a 0-2-6 month schedule. The vaccine is recommended for 11 and 12 year-old girls; it is also recommended for girls and women age 13 through 26 who have not yet been vaccinated or completed the vaccine series. (WHO, 2005)

In terms of cancer, it is a class of diseases in which a group of uncontrolled growth of cells, and sometimes metastasis spreads to other locations in the body through lymph nodes or blood circulation that could not be averted. Nearly all cancers are caused by abnormalities in the genetic material of the transformed cells. These abnormalities may be due to the effects of carcinogens, such as tobacco smoke,

radiation, chemicals, or infectious agents. In addition, cancer is a leading cause of death worldwide; it accounted for 7.9 million deaths, around 13% of all deaths, in 2007 (WHO, 2007).

In the past, it has been said that cancer cannot be prevented by vaccination. However, due to the world of high technology, many diseases can be detected effectively by new innovations of diagnostic strategy. Moreover, the management and treatment of symptoms of patients have now been less complicated by the support of medical innovations and technology.

The emergence of HPV vaccines that can effectively prevent the infection of HPV virus typing 16 and 18 has been a good benchmark and hope for women in terms of cervical cancer. These vaccines are responsible for about 70% of all cervical cancer worldwide and a 71.9% of invasive cervical cancer in Thailand accordingly. (WHO, 2007).

According to the study of WHO, it is found the prevalence of the cervical cancer disease in the range of ages amongst Thai women is between 15 – 44 years of age; moreover, cervical cancer also represents the 1st most incidence of female cancers in Thailand too. Besides, the most effectiveness ages of HPV vaccination are among 9 to 26 years old. (WHO, 2007) In order to focus the productive group in terms of effective results, expense affordable, and acceptable knowledge, this study will assess the knowledge level and attitude of HPV vaccine towards cervical cancer amongst female undergraduate students in two universities in Bangkok. In general, it is important to know the knowledge level and attitude towards the disease prevention amongst female university students as they are in reproductive ages and will be carrying on their human reproduction at least 30 years. Their awareness to this issue will highly be beneficial to their future reproductive health.

1.2 STATEMENT OF THE PROBLEM

This study is conducted to answer the following questions:

1.2.1 What are the knowledge level and attitudes about HPV vaccines as related to cervical cancer amongst the female university students in Bangkok?

1.2.2 What are the relationships between the knowledge level and attitudes related to cervical cancer?

1.2.3 Do the female university students tend to receive the HPV vaccines in order to prevent the infection caused by HPV?

1.3 OBJECTIVES OF THE STUDY

1.3.1 Main Objective

To assess the knowledge level and attitudes about HPV vaccines as related to cervical cancer amongst female undergraduate students in two universities in Bangkok.

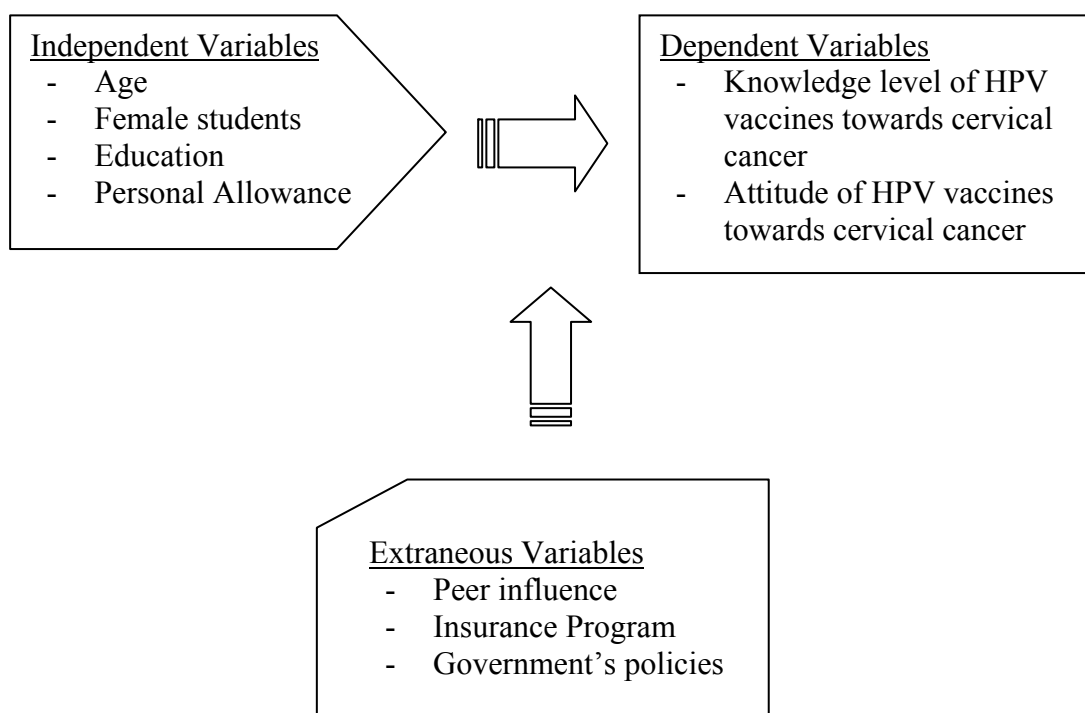
1.3.2 Sub-Objectives

1. To investigate the relationship of knowledge level and attitudes about HPV vaccines as related to cervical cancer amongst female undergraduate students in two universities in Bangkok.

2. To ascertain whether female undergraduate students in Bangkok decide to receive HPV vaccine for the prevention of cervical cancer.

1.4 VARIABLES AND DEFINITIONS

1.4.1 Variables



1.4.2 Definition of Terms and Indicator

Variables	Conceptual Definition	Operational Definition	Indicator
I) <u>Independent</u>			
a) Age	A length of time in which a person lives.	A number of years a person has lived since a date of birth.	Aged between 18 – 25 years old.
b) Female students	Refer to persons who belong to the sex that can produce eggs or have babies.	Refer to women who are undergraduate students in universities.	Refer to undergraduate students in Chulalongkorn University and Rangsit University.
c) Education	A process of learning especially in a school or university.	A process of learning especially in a school or university.	1 st year student 2 nd year student 3 rd year student 4 th year student 5 th year student
d) Personal Allowance	Money received over a certain period.	A monetary gain that can be used for living monthly.	≤ 5,000 ≥ 5,001 – 10,000 ≥ 10,001 – 15,000 > 15,000
II) <u>Dependent</u>			
e) Knowledge level	Level of information and understanding in one's mind.	Level of information and understanding of HPV vaccines as related to cervical cancer.	Right or wrong answer was used to assess their knowledge level.

II) <u>Dependent</u>			
f) Attitudes	Refers to what persons think or feel about something and how it affects them.	Refers to what persons think or feel about HPV vaccines as related to cervical cancer.	5-point Likert scale was used to assess their attitudes

1.5 SCOPE OF THE STUDY

This research aimed to assess the knowledge level and attitudes about HPV vaccines as related to cervical cancer amongst female undergraduate students in two universities in Bangkok: Chulalongkorn University and Rangsit University. HPV vaccine, in terms of prevention of infection of HPV that caused cervical cancer, is a new issue in Thailand; it is an alternative for women to prevent cervical cancer apart from monitoring by other frequent diagnosis such as pap smear. The research revealed the relationship of knowledge level and attitudes about HPV vaccines as related to cervical cancer; moreover, it illustrated that female university students in Bangkok decided to receive HPV vaccine for the prevention of cervical cancer.

The participants of this study were female undergraduate students from the 1st to 5th year study, aged between 18 – 25 years old. Non-probability sampling method (purposive sampling of 200 students) used to obtain the respondents. A cross sectional design was used to describe the study, which was conducted with a questionnaire. The questionnaire contained 31 questions, which being used right or wrong answers, a 5-point Likert scale, closed-ended and open-ended questions. The questionnaire was divided into four sections: personal information, knowledge about HPV vaccines as related to cervical cancer, attitudes about HPV vaccines as related to cervical cancer, as well as, open-ended questions to obtain comments, suggestions, and opinions about their knowledge level and attitudes about receiving HPV vaccines. The Statistical Package for Social Sciences (SPSS) version 14 was used to analyze the data. Descriptive statistics, such as frequency distribution and percentage were used to illustrate the answers to the research questions.

The period of the study was four months from December 2008 to March 2009. The time frame of activities was defined into 4 phases: planning, implementation, analysis, and reporting.

The finding of the study illustrated the knowledge level and attitudes about HPV vaccines as related to cervical cancer amongst female undergraduate students in two universities in Bangkok.

1.6 SIGNIFICANCE OF THE STUDY

The results of the study provided the information to the concerned parties on healthcare knowledge amongst women in Thailand. Their attitudes that affected the decision making to receive HPV vaccines can be applied to the healthcare program in the future and help promote the awareness of cervical cancer prevention amongst women.

1.7 ORGANIZATION OF THE STUDY

This research was the study of knowledge level and attitudes about HPV vaccines as related to cervical cancer amongst female undergraduate students in two universities in Bangkok: Chulalongkorn University and Rangsit University. This study was divided into five chapters. The first chapter was the introduction consisting of the background, statement of the problems, the objectives of the study, variables and definitions, the scope of the study, the significance of the study, and the organization of the study. The second chapter was the review of literature containing the knowledge about HPV vaccines and cervical cancer, the concept of attitudes, and related studies of knowledge level and attitudes about HPV vaccines as related to cervical cancer amongst female. The third chapter was the methodology obtaining the information of the subjects of the study, instruments, procedure of the study and the data analysis. The fourth chapter was the findings of the study, and the last chapter, chapter five, was the conclusion, discussion, and recommendations.