

CHAPTER 1 : INTRODUCTION

Malaysia is a unique country with a multiracial population. The three main ethnic groups in West Malaysia are the Malays, Chinese and Indians whereas in East Malaysia the Indigenous Groups, Chinese and Malays make up the main groups. To date, no proper National Cancer Registry exist in Malaysia and most cancer incidence data in the country are derived mainly from hospital based studies. In Malaysia, cancer of the cervix has been shown to be the second common cancer among Malaysian female after breast cancer, followed by ovarian cancer (Norhanom and Yadav, 1995). Worldwide, breast cancer has been shown to be the leading cancer among women and followed by cancer of the cervix (Parkin, 1992). Table 1.1 showed the percentage of incidence of gynaecological neoplasms and their age standardized rates (ASR) in developed countries and Asia. In Asia, cancer of the cervix is about twice as common as in developed countries. Among developed countries except the United States, cervical cancer ranked first followed by ovarian cancer and cancer of the uterus. In the United States, cancer of the uterus ranked first followed by ovarian cancer and cervical cancer.

The first cancer registry published in Malaysia is the Penang Cancer Registry (1996). Since only 38 per cent of the cases notified were Penang residents and the remaining 62 per cent were from other northern states of Peninsula Malaysia, the Registry may be used to represent the cancer incidence of the population in the northern region of West Malaysia. This report also showed that cervical cancer is the second most common cancer after breast cancer, followed by the uterus. The

ten most common cancer among women reported in the Penang Cancer Registry (1996) and their age standardized rates are shown in Table 1.2.

Table1.1 : The percentage of incidence and their ASR of gynaecological neoplasms in developed countries and Asia

COUNTRY	SITE					
	CERVIX		OVARY		ENDOMETRIUM/ UTERUS	
	%	ASR	%	ASR	%	ASR
Developed countries						
JAPAN (1990)	45	7.2	38	6.4	17	2.7
UNITED STATES (1990)	24	9.2	35	11.4	41	13.0
AUSTRALIA (1990)	36	12.0	32	9.5	32	9.6
Asia						
CHINA (1985)	63	17.8	22	6.1	15	4.2
MALAYSIA (1985)	46	12.2	36	9.0	17	4.8
SINGAPORE (1990)	47	15.1	33	10.3	20	6.7
INDONESIA (1985)	72	31.6	21	8.8	7	3.4
THAILAND (1985)	78	24.5	16	5.1	6	2.2
PHILIPPINES (1985)	58	24.5	26	6.7	16	4.6

Source : IARC *Incidence of cancer*, 1998.

Table 1.2 : Ten most common cancer among women reported in the Penang Cancer Registry (1996) and their age standardized rates.

SITE	AGE STANDARDIZED RATE
Breast	28.31
Cervix	15.03
Lung	8.35
Colon	6.82
Stomach	6.05
Hematopoitic & Reticuloendothelial Systems	4.58
Ovary	4.09
Uterus	-
Rectum	3.87
Skin	4.02

In the present study, an epidemiological survey on the incidence of gynaecological neoplasm was carried out in the population of Sarawak, a state in East Malaysia. The population of Sarawak is made up of a multitude of ethnic races which includes the Ibans (29.39 %), the main Indigenous group. Other smaller Indigenous groups include the Melanau, Bidayuh, Kayan, Kenyah, Daro, Kelabit, Penan, Bisaya, Ukit and Sabahan (Kadazan, Dusun and Murut) which make up 19.99 per cent of the whole population. The other major ethnic groups are the Chinese (27.30 %) and the Malays (21.38 %). The Indians, Eurasians,

Europeans, Indonesians and other Asians make up the rest of the population (Figure 1.1).

One of the objectives of the present study is to obtain some basic information on the gynaecological neoplasms patterns and frequency in the various age and ethnic groups in the population of Sarawak. Although a hospital-based study such as the present one is greatly biased by hospital selectivity of patients, in favour of sites more accessible to biopsy and the number of patients referred to the radiotherapy unit, it is hoped that the information obtained by the present study may contribute to the cancer epidemiology research in Malaysia.

Cancer of the cervix is about twice as common in Asia as in Europe and North America and its incidence varies among different Asian ethnic groups. The sexual values of Asian men and women appear to be different from contemporary Western values (Cuzick *et al.*, 1989). In Western countries, factors related to sexual behaviour and elevated risks have been associated with multiple sexual partners and having been divorced (Boyd and Doll, 1964; Brinton *et al.*, 1987), early age at first intercourse (Armstrong *et al.*, 1992) or first childbirth and high parity (Brinton *et al.*, 1989; Parazzini *et al.*, 1989). Although HPV is aetiologically associated with cervical cancer (zur Hausen, 1991; Vousden, 1993; Demers *et al.*, 1994), the observations that healthy women have a high prevalence of potentially oncogenic HPV types relative to the incidence of cervical cancer indicate that other co-factors may exist. A number of infectious agents have been incriminated, including *Treponema pallidum*, *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, HSV-2,

CMV and EBV (Brinton, 1992; Herrero *et al.*, 1990; Lehtinen *et al.*, 1992; Jha *et al.*, 1993; Schmauz *et al.*, 1989; Landers *et al.*, 1993).

The present study also includes a viral seroepidemiological study on the sera of cervical carcinoma patients and normal pregnant women. This study was carried out in order to gain some information on the antibody prevalence of different viruses namely the HPV 16, HSV-2, CMV and EBV and their association with cervical cancer in the study population.

Figure 1.1 : Population of Sarawak in 1996
(Total population : 1.9 million - 1996 Population Year Book)

