

**SINGAPORE  
CANCER  
REGISTRY  
REPORT NO. 7**

**Trends In Cancer Incidence  
In Singapore  
1968 – 2007**

**National Registry of Diseases Office**

**SINGAPORE CANCER REGISTRY**

Previous Publications:

1. K Shanmugaratnam, HP Lee, NE Day: Cancer Incidence in Singapore 1968-1977. IARC Scientific Publications No. 47, 1983.
2. HP Lee, NE Day, K Shanmugaratnam: Trends in Cancer Incidence in Singapore 1968-1982. IARC Scientific Publications No. 91, 1988.
3. HP Lee, KS Chia, K Shanmugaratnam: Cancer Incidence in Singapore 1983-1987. Singapore Cancer Registry, Report No. 3, 1992.
4. KS Chia, HP Lee, A Seow, K Shanmugaratnam: Trends in Cancer Incidence in Singapore 1968-1992. Singapore Cancer Registry, Report No. 4, 1996.
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7. CS Wong, KY Chow, GH Lim, V Bhalla, HP Lee, KS Chia: Cancer Survival in Singapore 1968-2002. Singapore Cancer Registry, 2008.

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A/Prof Teh Ming	National University Hospital
Dr Anjula Thomas	Mount Elizabeth Medical Centre

## **STAFF OF THE SINGAPORE CANCER REGISTRY**

### **HONORARY**

Prof Shanmugaratnam	Emeritus Professor of Pathology, NUS
Prof Chia Kee Seng	Head, Epidemiology and Public Health, NUS
A/Prof Adeline Seow	Epidemiology and Public Health, NUS
A/Prof Koh Woon Puay	Epidemiology and Public Health, NUS
Prof Ivy Sng	Visiting Pathologist

### **FULL-TIME**

Dr Jin Ai Zhen	Epidemiologist
Ms Loy En Yun	Epidemiologist
Mr William Ho	Senior Executive, Data Management
Ms Lee Bee Guat	Registry Coordinator
Ms Yeng Wai Koke	Registry Coordinator
Ms Betty Cheong	Registry Coordinator (Retired)
Mrs Alice Yap	Registry Coordinator
Ms Lee Kwai Ho	Registry Coordinator
Ms Law Siaw May	Registry Coordinator
Ms Sarjit Kaur	Registry Coordinator
Mr Jalaludin s/o P. Mohd	Registry Coordinator

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## 1. INTRODUCTION

The Singapore Cancer Registry (SCR) has been collecting and reporting cancer statistics in Singapore since 1968. There were 6 previous SCR publications [1-6] that reported on the cancer incidence in Singapore as well as the organization and operations of the SCR. This latest report aims to update the information from the SCR and to document the trends in cancer incidence between 1968 and 2007.

In this report, we have chosen to use population denominators from the Ministry of Health, which were in turn obtained from the Department of Statistics, Singapore to calculate incidence rates. The figures are accurate as at 26/9/2008. This set of denominators is currently used by most government agencies and by adopting these denominators, we will align our report with other official publications. Previously, SCR used population denominators that were obtained through intra- and extrapolation of population figures from the census years of 1980, 1990 and 2000 [7-9].

In this report, only Singapore citizens and permanent residents (i.e. "Singapore Residents") are included and age standardization is obtained by direct method using the UICC "World Population" [10].

All records in the SCR go through the processes of registration, verification, matching and classification before they are finalised. The data contained in this document are the 1968-2007 statistics finalised in the SCR as of 9<sup>th</sup> April 2009.

There were changes to the histological coding systems used by the SCR between 1968 and 2007. The International Classification of Diseases, 9<sup>th</sup> Revision (ICD-9) [11] and the Manual of Tumor Nomenclature and Coding (MOTNAC) [12] were used for classification of primary sites and morphology coding respectively up till 1992. Between 1993 and 2002, SCR used the International Classification of Diseases for Oncology, 2<sup>nd</sup> Edition (ICD-O-2) [13] for classification of both primary site and morphology. In the most recent five year period of 2003-2007, SCR adopted the new International Classification of Diseases for Oncology, 3<sup>rd</sup> Edition (ICD-O-3) [14]. In this report, we present the entire set of data on primary site using ICD-9 to allow for comparison across periods.

Concomitantly, the classification of hematopoietic neoplasms was also evolving. The classification of non-hodgkin lymphomas in ICD-O-2 was largely based on the Working Formulation, which was a means of translating terminology among the Rappaport, Kiel and Lukes-Collins classification. Then,

the classification system was based upon tissue architecture and cytologic appearances of neoplastic cells. This was then followed by the Revised European-American Lymphoma classification (REAL) in 1994, which incorporated immunotype and genetic criteria, and was subsequently subsumed into a new WHO classification of tumours of haematopoietic and lymphoid tissues in 2001. As this classification also includes tumours of myeloid or mixed origin, the Acute Myeloid Leukemia M0-M7 codes from the French-American-British classification were added as well. This WHO classification was adopted in ICD-O-3. Since then, the WHO classification has undergone three revisions until the latest 2008 edition, which expands upon the use of objective diagnostic criteria [15, 16].

The haematopoietic classifications in this monograph are adopted from the WHO classification of tumours of haematopoietic and lymphoid tissues 4<sup>th</sup> edition, and we are moving ahead in line with both the Surveillance, Epidemiology and End Results (SEER) Registry and the North American Association of Central Cancer Registries (NAACCR), which have both resolved to use the WHO classification as the coding standard beginning on January 1, 2010. Because of this change, statistics on lymphomas and leukaemias will only be presented until the year 1997, after which statistics on the new classifications of myeloid and lymphoid neoplasms will be shown.

This report can be downloaded at National Registry of Diseases website [www.nrdo.gov.sg](http://www.nrdo.gov.sg). Do note that this is not the final version as chapters on lymphoid and myeloid neoplasms are still pending.

## 2. THE COUNTRY AND ITS POPULATION

### 2.1 GEOGRAPHY AND CLIMATE

Singapore is situated in Southeast Asia and it lies at the southern tip of Malaysian peninsular. It has a total land area of approximately 707.1 square metres, comprising of the mainland and several smaller islands. As Singapore is located close to the equator, it enjoys relatively stable temperatures throughout the year. The average daily maximum and minimum temperatures are around 31.1°C and 24.8°C respectively. The country also experiences high humidity and rainfall. Rain falls throughout the year and the highest rainfalls are usually recorded in November to January, during the monsoon season. In 2007, 195 rainy days were recorded.

### 2.2 POPULATION GROWTH

Within this monograph, “Singapore residents” refers to citizens and those who have been granted permanent residence in Singapore, and “total population” comprises of both Singapore residents and non-residents. These terms and definitions are identical to those used in the Census of Population [7-9, 17].

The population pyramids for the resident population enumerated from the 1970, 1980, 1990 and 2000 censuses are displayed in Figure 2.1. The historical population sizes and growth rates in the census years of 1970, 1980, 1990 and 2000 are shown in Table 2.1. Between 2003 and 2007, the growth rate for the total population (using the mid year population estimates) increased from 0.2% to 5.5% while the growth rate for the Singapore resident population remained steady around 1.6% [18].

Figure 2.1

Population Pyramids for the resident population: 1970, 1980, 1990 and 2000

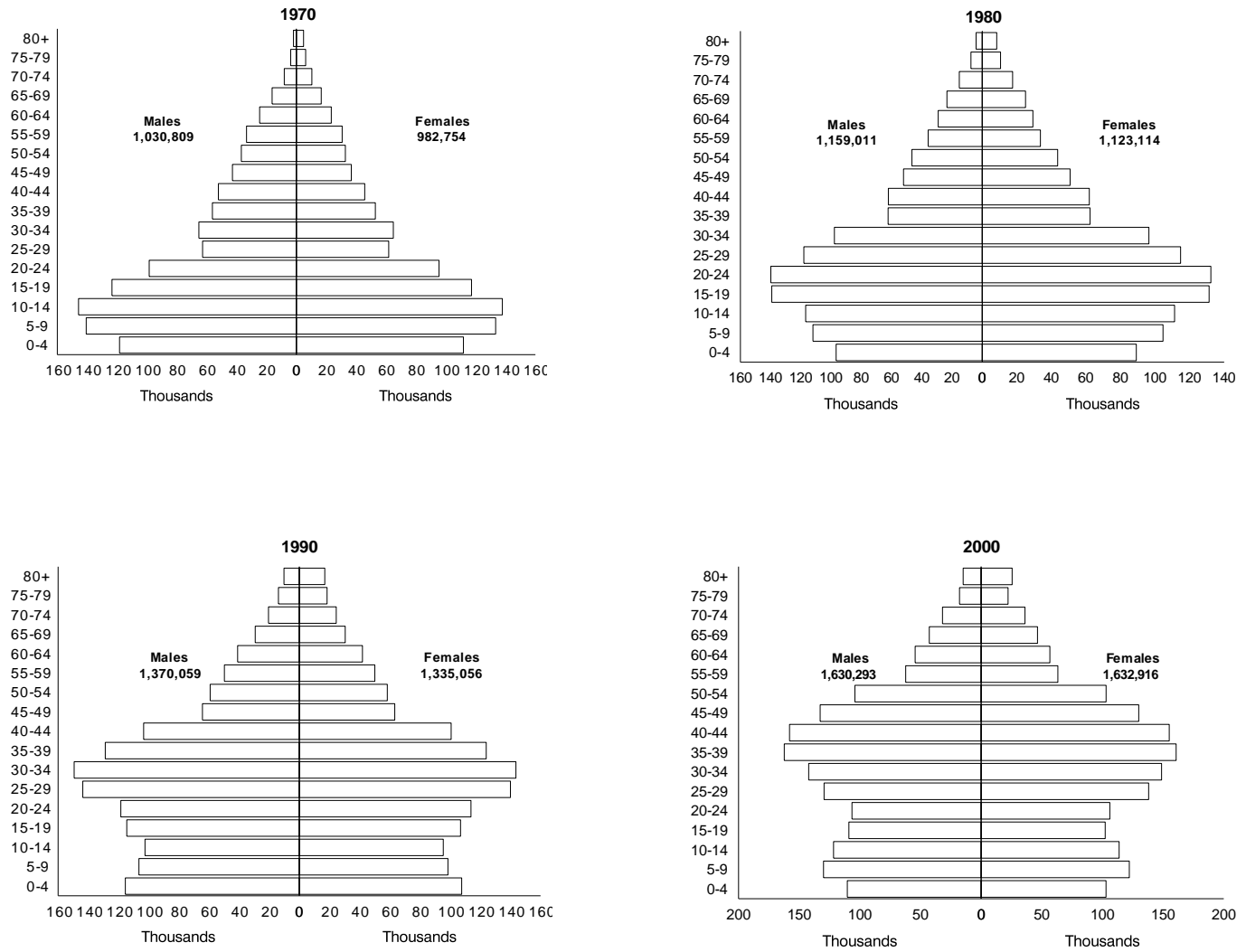


Table 2.1

Population sizes and growth rates for the resident population: 1970, 1980, 1990 and 2000

Census year	Resident population (in thousands)	Growth rate (%)
1970	2013.6	NA
1980	2282.1	1.3
1990	2735.9	1.7
2000	3273.4	1.8

### 2.3 ETHNIC DISTRIBUTION

Singapore is a multiethnic country and the three major ethnic groups in the resident population are the Chinese, the Malays and the Indians. There are also a significant number of residents from other ethnic groups. The ethnic distributions of Singapore residents in the censuses of 1970, 1980, 1990 and 2000 [7-9, 17] are shown in Table 2.2. As of end June 2008, there were 2,721,800 Chinese, 495,100 Malay and 323,400 Indian Singapore residents. Ethnicity of Singapore residents is recorded based on father's ethnic group and there are few interethnic marriages (16.7% of all registered marriages in 2008) [18].

Table 2.2

Ethnic distribution of Singapore residents: 1970, 1980, 1990 and 2000

	Chinese	Malays	Indians	Others
1970	1,579,900	311,400	145,200	38,100
1980	1,787,800	328,700	143,400	22,200
1990	2,127,900	384,300	194,000	29,600
2000	2,513,847	455,207	257,866	46,443

Within each ethnic group, there are further subdivisions. Based on the census conducted in 2000, the major dialect groups in Chinese resident population are Hokkien (41.4%), Teochew (21.0%), Cantonese (15.4%), Hakka (7.9%), Hainanese (6.7%) and Others (7.9%). The Malay resident population comprises of Malays (68.3%), Javanese (17.6%), Boyanese (11.4%) and Others (2.7%). The Indian resident population is made up of Tamils (58.3%), Malayalis (8.4%), Sikhs (5.1%), Hindustanis (2.0%) and Others (26.2%) [9].

### 2.4 GENDER DISTRIBUTION

The male to female ratio amongst Singapore residents has been declining over time. The ratios in 1970, 1980, 1990 and 2000 were 1.049, 1.032, 1.026 and 0.998 respectively. As of end 2008, there were 18,030,000 male and 1,839,700 female Singapore residents [18].

### 2.5 MIGRANT STATUS, CITIZENSHIP AND RESIDENCE

There has been an increase in the proportion of non-residents in the total population of Singapore. The proportion of non-residents rose from 5.5% in 1980 to 18.8% in 2000.

## 2.6 HEALTHCARE SYSTEM

Singapore has a comprehensive healthcare system. There are some 2000 private medical practitioner's clinics and 18 outpatient polyclinics that cater to the primary healthcare needs in Singapore. These are complemented by a network of hospitals, including 7 public hospitals and 6 national specialty centres for cancer, cardiac, eye, skin, neuroscience and dental care. The public healthcare system provides affordable and good quality healthcare services to all Singaporeans through subsidized medical services. Public institutions provide 80% of hospital care and 20% of primary healthcare. On the other hand, the private sector provides 20% of hospital care and 80% of primary healthcare [19].

Singaporeans are encouraged to take responsibility for their health and adopt healthy lifestyle practices. In order to strengthen health promotion, health education and disease prevention in Singapore, the Health Promotion Board was set up in 2001. Many of the national preventive medicine initiatives such as BreastScreen Singapore and Workplace Health Promotion Programme come under HPB [20].

### 3. CANCER MORTALITY

Table 3.1 shows the trends of cancer deaths among the total population from 1968-2007. The proportion of cancer deaths among all deaths has increased over the past 4 decades and cancer now accounts for more than a quarter of all deaths in Singapore, as compared to 14.8% in 1968-1973. The crude annual cancer death rate declined slightly over the last two periods and stood at 103.2 per 100,000 in 2003-2007.

**Table 3.1 CANCER DEATHS AMONG TOTAL POPULATION, 1968-2007**

Period	Population-at-risk <sup>a</sup>	Mean annual number of cancer deaths <sup>a</sup>	Crude annual cancer death rate (per 100,000 mid-term population)	Proportion of cancer deaths among deaths from all causes
1968-1972	2,074,507 (1970 Census)	1,622.2	78.2	14.8
1973-1977	2,262,000 (1975 Estimate)	2,086.4	92.2	17.8
1978-1982	2,413,945 (1980 Census)	2,543.8	105.4	20.2
1983-1987	2,736,000 (1985 Estimate)	2,909.0	106.3	22.1
1988-1992	3,047,100 (1990 Census)	3,312.6	108.7	23.7
1993-1997	3,524,500 (1995 Estimate)	3,859.6	109.5	25.4
1998-2002	4,027,900 (2000 Census)	4,233.0	105.1	27.1
2003-2007	4,265,800 (2005 Estimate)	4,432.0	103.9	27.1

<sup>a</sup> Data from Census Reports[7-9, 17] and Yearbook of Statistics [18].

Table 3.2 shows the number of cancer deaths as well as the crude and age-standardized rates for selected cancer sites among the resident population in 2003-2007. Lung cancer is the most frequent cancer site for cancer deaths among male resident population, accounting for almost a third of all cancer deaths and its age standardized mortality rate is more than double than that of liver cancer. Among female residents, breast, lung and colon cancers are the three most frequent cancer sites for cancer deaths.



**Table 3.2. CANCER DEATHS<sup>a</sup> AMONG RESIDENT POPULATION 2003- 2007 : NUMBERS AND MORTALITY RATES FOR SELECTED CANCER SITES AND FOR ALL CANCERS**

<b>MALES</b>	<b>ICD9</b>	<b>NUMBER</b>	<b>%<sup>b</sup></b>	<b>CR<sup>c</sup></b>	<b>ASR<sup>d</sup></b>
Lung	162	3,372	28.6	39.1	36.1
Liver	155	1,507	12.8	17.5	15.8
Colon	153	1,154	9.8	13.4	12.1
Stomach	151	927	7.9	10.8	9.8
Rectum	154	551	4.7	6.4	5.8
Pancreas	157	533	4.5	6.2	5.6
Nasopharynx	147	542	4.6	6.3	5.1
Prostate	185	437	3.7	5.1	4.7
Oesophagus	150	325	2.8	3.8	3.5
Lymphomas	200-2	309	2.6	3.6	3.3
Leukaemias	204-8	263	2.2	3.1	2.9
Kidney & urinary tract	189	220	1.9	2.6	2.2
Bladder	188	163	1.4	1.9	1.7
Brain, nervous system	191-2	152	1.3	1.8	1.6
Larynx	161	143	1.2	1.7	1.5
<b>All cancer deaths</b>		<b>11,694</b>	<b>99.3</b>	<b>135.8</b>	<b>123.2</b>

<b>FEMALES</b>	<b>ICD9</b>	<b>NUMBER</b>	<b>%<sup>b</sup></b>	<b>CR<sup>c</sup></b>	<b>ASR<sup>d</sup></b>
Female Breast	174	1,566	16.8	17.9	13.6
Lung	162	1,561	16.8	17.9	13.1
Colon	153	1,108	11.9	12.7	9.0
Stomach	151	624	6.7	7.1	5.1
Liver	155	518	5.6	5.9	4.3
Ovary & uterine adnexa	183	471	5.1	5.4	4.1
Pancreas	157	451	4.9	5.2	3.9
Cervix uteri	180	382	4.1	4.4	3.4
Rectum	154	377	4.1	4.3	3.1
Lymphomas	200-2	227	2.4	2.6	2.0
Leukaemias	204-8	203	2.2	2.3	2.0
Nasopharynx	147	157	1.7	1.8	1.4
Gall bladder & extrahepatic ducts	156	136	1.5	1.6	1.1
Corpus uteri	182	117	1.3	1.3	1.1
Kidney & urinary tract	189	122	1.3	1.4	1.0
<b>All cancer deaths</b>		<b>9,191</b>	<b>98.9</b>	<b>105.1</b>	<b>78.2</b>

<sup>a</sup> Derived from data provided by the Singapore Immigration and Registration Department.

<sup>b</sup> % of all cancer deaths.

<sup>c</sup> CR = Crude Rate per 100,000 per year.

<sup>d</sup> ASR = Age-standardized Rate per 100,000 per year (to 'World' population).

## **4. THE SINGAPORE CANCER REGISTRY**

### **4.1. History of the Singapore Cancer Registry**

The Singapore Cancer Registry was started in 1967 through the joint efforts of the National University of Singapore, the Ministry of Health and the International Agency for Research on Cancer. The key objective of setting up this registry was to obtain information on population-based cancer trends and patterns in Singapore. Singapore is considered to be a favourable location for comprehensive cancer registration as it is a small country with a relatively compact and stable population. There is generally good access to medical care so we can expect that most cancer patients are diagnosed and treated in the local hospitals. In addition, there is adequate operational and technological infrastructure to perform the cancer registration process.

The Singapore Cancer Registry began to collect information on all cancers diagnosed in Singapore from 1<sup>st</sup> January 1968 and up till 2001, it was staffed by one pathologist, three part time epidemiologists, three secretaries and one record searcher. The Registry was transferred to the Ministry of Health in April 2001 and subsequently came under the National Registry of Diseases Office (NRDO), a unit within the Research and Strategic Planning Division in Health Promotion Board, Singapore. Within NRDO, there are four disease specific registries, namely those of stroke, acute myocardial infarction, end-stage renal failure and cancer and each of these are staffed by dedicated teams that perform field data collection. Currently, the operation of the Singapore Cancer Registry is run by two nurse managers, two senior executives, one senior staff nurse, one staff nurse and two management support staff.

### **4.2. Legislation**

In 2007, the National Registry of Diseases Act was enacted to provide legislative cover for national disease registries including the SCR. The Act establishes the National Registry of Diseases and provides for compilation of information on disease incidence of selected diseases for purposes of disease prevention and control.

### 4.3. Registry structure and methods

#### 4.3.1. Sources of data

We obtain information on incident cancer cases through a) cancer notifications from all sections of the medical profession, b) pathology records, c) hospital records and d) death certificates.

The vast majority of cancer cases are diagnosed histologically and we receive pathology reports of cancer from all public and private laboratories. All cases with mention of cancer in hospital discharge forms and death certificates are also included and certification of death is essentially complete in Singapore. These records allow us to compare against the cancer notifications received from doctors. Reminders are sent out to the attending clinicians if cancer notifications are delayed.

To improve cancer registration, SCR verified all notifications from 2002 onwards for accuracy of information through review of the medical records at the hospitals and clinics. The records of cancer cases are maintained electronically and may be updated as new information becomes available.

Recently, cancer notification has become compulsory following the enactment of the National Registry of Diseases Act in 2007. Doctors can notify both histologically confirmed as well as clinically diagnosed cancers to SCR through hand delivery (including courier), registered mail or electronic notification.

### 4.4. Data processing and coding

#### a) Identification Key

The primary identification key for our Singapore residents is the National Registration Identity Card (NRIC) number. For non-residents, their passport numbers or foreign identification (FIN) numbers are used. These are unique numbers assigned to avoid duplication of records in our database, especially when we update our data from multiple sources.

b) Verification of information

All notifications are corroborated with clinical medical records. Registry coordinators (RC) will review hardcopy medical casenotes and electronic medical records to ensure completion of notifications and to verify discrepancies in information.

c) Primary site registration

The Singapore Cancer Registry adopted the International Classification of Diseases for Oncology, 3<sup>rd</sup> Edition (ICD-O-3) [14] for classification of primary sites for the period 2003-2007. This differs from the last report when we used ICD-O-2 [13] classification for the period 1998-2002.

d) Multiple primary registrations

In the Singapore Cancer Registry, a second or third primary is only registered when all the primary sites are confirmed histologically. Notably, an exception is made for primary in liver from the period 2003-2007. If the possibility of metastasis is excluded and the alpha-feto protein level is greatly raised above the normal range (e.g. > 1000ug/L), the diagnosis of a second / third primary in the liver is accepted even in the absence of proven histology. We register the second / third primary with a new registration number for each new site as indicated by the 3-digit ICD-O-3 code. Hence, there are no new registrations for second primary cancers occurring in different subsites (4<sup>th</sup> digit of ICD-O-3 code) within the same site or occurring in the other site of paired organs. We also assign new registration numbers for a tumour in the same 3-digit site as a previous tumour but with a different histologic group as defined by IARC [14]

e) Histological typing

The Singapore Cancer Registry adopted the International Classification of Diseases for Oncology, 3<sup>rd</sup> Edition (ICD-O-3) [14] for classification of morphology for the period 2003-2007. The Manual of Tumor Nomenclature and Coding (MOTNAC) [12] was used for classification of primary sites and morphology coding up till 1992 and between 1993 and 2002, the Singapore Cancer Registry employed the International Classification of Diseases for Oncology, 2<sup>nd</sup> Edition (ICD-O-2) [13].

We included all malignant tumours (5<sup>th</sup> digit code '3') and tumours of borderline malignancy (5<sup>th</sup> digit code '1') in the incidence data.

f) Special considerations

1. Some neoplasms of questionable malignancy (5<sup>th</sup> digit code '1') that cannot be assigned to ICD-9 140-208 and are included in the Singapore Cancer Registry incidence data are:
  - I. Carcinoid of Appendix (235.2)
  - II. Craniopharyngioma (237.0)
  - III. Cystosarcoma phyllodes (238.3)
  - IV. Glioma, benign (225.0)
  - V. Ependymoma, benign (225.0)
  - VI. Mesothelioma (239.9)
  - VII. Osteoclastoma (238.0)
  - VIII. Papilloma of bladder, NOS (223.3)
  - IX. Thymoma (212.6)
  - X. Mucoepidermoid tumour of salivary gland (235.0)
  - XI. Granulosa cell tumour of ovary (236.2)
  - XII. Myeloproliferative disease (238.7)
  - XIII. Lymphoproliferative disease (238.7)
  
2. The following are also included in the Singapore Cancer Registry incidence data: they were considered borderline in ICD-O-2 prior to 2003 but are considered malignant in ICD-O-3 from 2003 onwards.
  - I. Polycythemia vera (238.4)
  - II. Myelosclerosis with myeloid metaplasia (238.7)
  - III. Idiopathic thrombocythemia (238.7)
  - IV. Myelodysplastic syndrome (238.7)
  
3. While cases of carcinoma-in-situ are registered, they are not used in calculation of incidence data. If these cases turn invasive subsequently, they are registered in year of turning into invasive carcinoma.

g) Follow-up

We update our records with date and cause of death information.

#### h) Data storage

Most of the data management has shifted to an electronic platform. In 2004, the National Disease Registries System (NDRS) was developed to provide full support for the operations of the cancer registry; merging data from varied sources, ensuring valid data capture, data security and generation of timely reports. As much as possible, electronic transmission of data was established between hospitals and the registry. Registry coordinators from the cancer registry visited the medical record offices of the hospitals to collect additional information and enter them into their laptops.

Information submitted by the medical practitioners who continued to notify cancer cases using hard copy notification forms was entered into the NRDS. The hard copy forms were subsequently scanned and stored in an electronic repository.

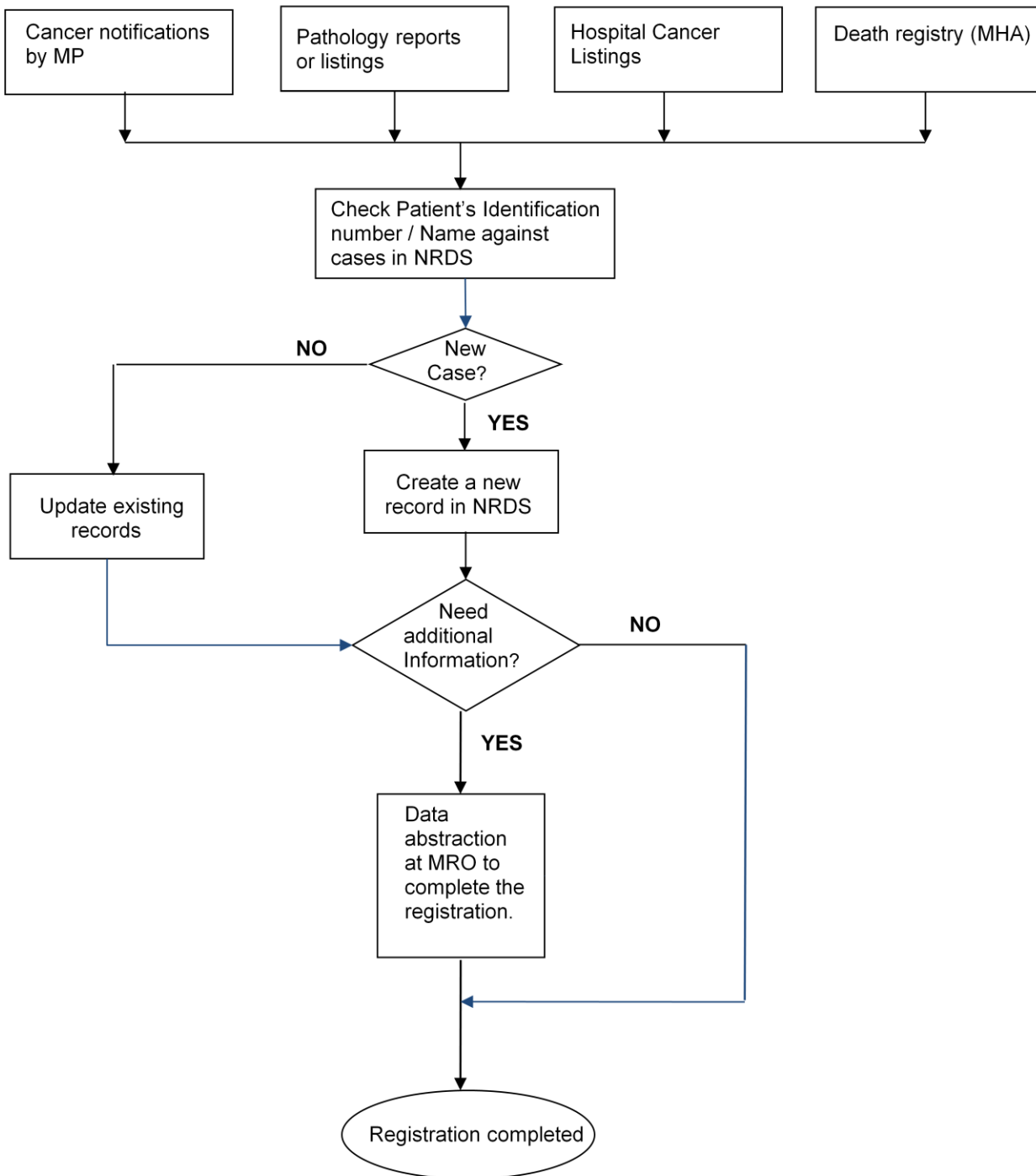
#### i) Data requests

The data in the Singapore Cancer Registry is a resource for epidemiological studies, public health research and policy making. Requests forms can be downloaded from NRDO's website. Upon approval, the information is usually released as aggregate data or key-coded records.

The data in the Registry is updated regularly and hence there may be differences in the figures presented in this report when compared to previous reports. The information contained within this report should be considered to be more reliable where differences exist.

Figure 4.1

**Flow chart: Workflow for Cancer Registration (2003-2007)**



## 4.5 Denominators For Cancer Statistics

In the previous six reports, we had used population denominators (termed as “SCR population denominators” in this publication) that were generated through intra- and extrapolation of enumerated population figures from the censuses of 1970, 1980, 1990 and 2000. The methods used to obtain these population estimates are shown in Appendix A1 in the previous reports. In this report, we continue to use SCR population denominators to calculate rates for the total population for the 5-year periods from 1968 to 1982.

Department of Statistics (DOS) releases mid-year population estimates annually and these population denominators are widely used in official publications in Singapore. In this report, we used the population denominators obtained from DOS (termed as “DOS population denominators” in this publication) in the calculation of incidence rates from 1983 to 2007. We were unable to use DOS population denominators for earlier periods because published resident population denominators from DOS were available only from 1980 onwards.

DOS currently uses a register-based approach to generate the mid-year population estimates. This was first adopted in the 2000 Census where basic information of the population was obtained from the Household Registration Database (HRD), a database that uses information from administrative sources as well as the 1990 Census. The HRD is updated regularly from administrative sources [9, 21]. The register-based approach provides an accurate estimation of the resident and total population in Singapore.

### Comparison of DOS and SCR population denominators

Generally, the two sets of denominators are fairly similar in the earlier periods (e.g. 1983-1997) but the differences increased in the more recent periods. We assessed the impact of shift from SCR to DOS population denominators by comparing the difference in incidence rates calculated from both sets of population denominators in the resident population in the 2003-2007 period. These incidence rates are shown in Appendix E.

We note that the impact of this shift in population denominators on age-standardized rates for common cancers and “all cancers” as a single category is small. For example, the age-standardized rates for “all cancers”, lung, colon and prostate cancers in all males calculated using the DOS population denominators are 230.02, 40.83, 22.99 and 23.89 while similar rates calculated using the



SCR population denominators are 226.45, 40.09, 22.77 and 23.61. The age-standardized rates for “all cancers”, breast, colon and lung cancers for all females calculated using DOS denominators and the SCR population denominators are 203.39, 58.46, 19.07 and 16.01, and 201.02, 56.44, 19.33 and 16.18 respectively. With the exception of female breast cancer, the difference in the age standardized incidence rates for individual cancers calculated using the two set of population denominators did not exceed 1 per 100000 per year in both males and females.

There are greater differences in the age specific rates calculated from these two sets of denominators as compared to the age standardized rates. The differences can be seen in both common and rare individual cancers and these differences tend to be larger in the older age groups.

## 5. CANCER INCIDENCE 2003-2007: ALL RESIDENTS

There were 45,140 incident cases of cancer diagnosed among Singapore residents in 2003-2007. While there were more female cases and the female crude rate was higher, the age-standardized rate was greater in males.

**Table 5.1 TOTAL NUMBER OF INCIDENT CANCERS BY GENDER AND FIVE-YEAR PERIOD, 1968-2007**

PERIOD	GENDER	NUMBER	%	CR	ASR
1968-1972	Male	6,986	57.9	135.4	227.3
	Female	5,086	42.1	103.4	154.1
1973-1977	Male	8,563	58.1	158.1	246.3
	Female	6,187	41.9	118.9	161.1
1978-1982	Male	10,136	55.9	175.1	250.3
	Female	7,997	44.1	142.6	175.8
1983-1987	Male	11,681	53.8	185.8	243.3
	Female	10,051	46.2	164.3	183.5
1988-1992	Male	13,635	51.7	197.7	236.2
	Female	12,739	48.3	189.3	191.5
1993-1997	Male	16,191	50.8	213.8	236.7
	Female	15,704	49.2	209.5	195.6
1998-2002	Male	18,949	49.0	231.5	233.3
	Female	19,727	51.0	240.3	203.0
2003-2007	Male	21,940	48.6	254.7	230.0
	Female	23,200	51.4	265.3	203.4

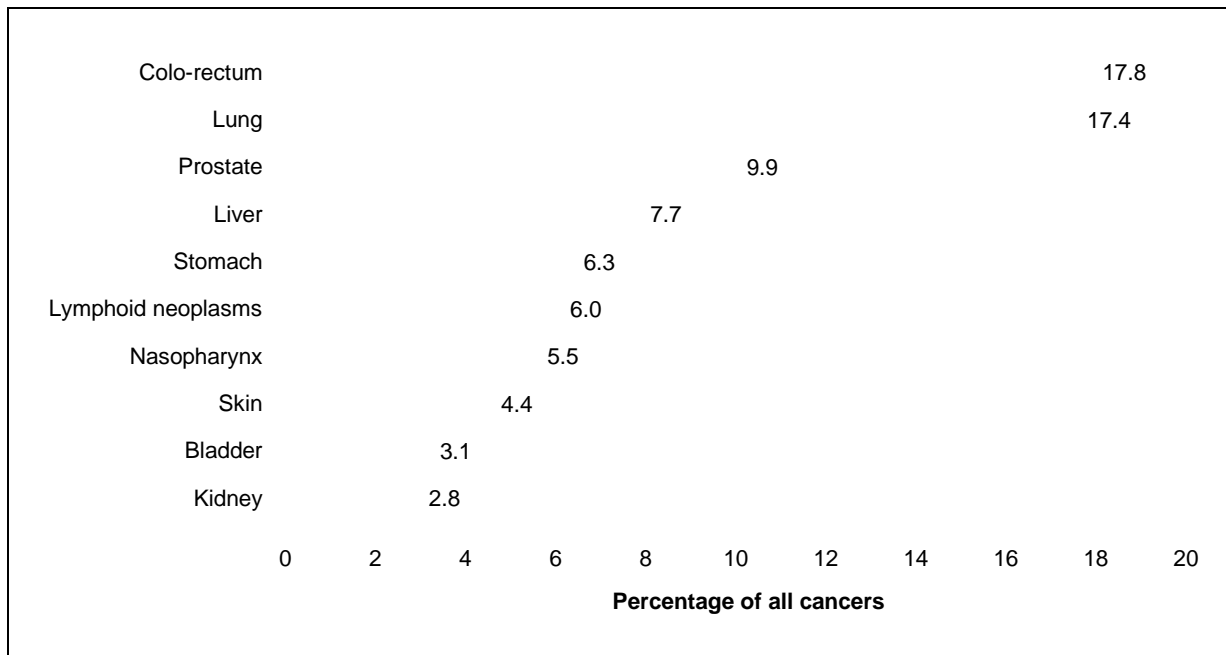
CR: Crude rate (per 100,000 per year)  
ASR: Age-standardized rate (per 100,000 per year)

The sources of cases, types of notification and basis of diagnosis of all cases for the period 2003-2007 are given in Appendix A1. The most valid basis of diagnosis for selected sites in males and females respectively are given in Appendices A2 and A3.

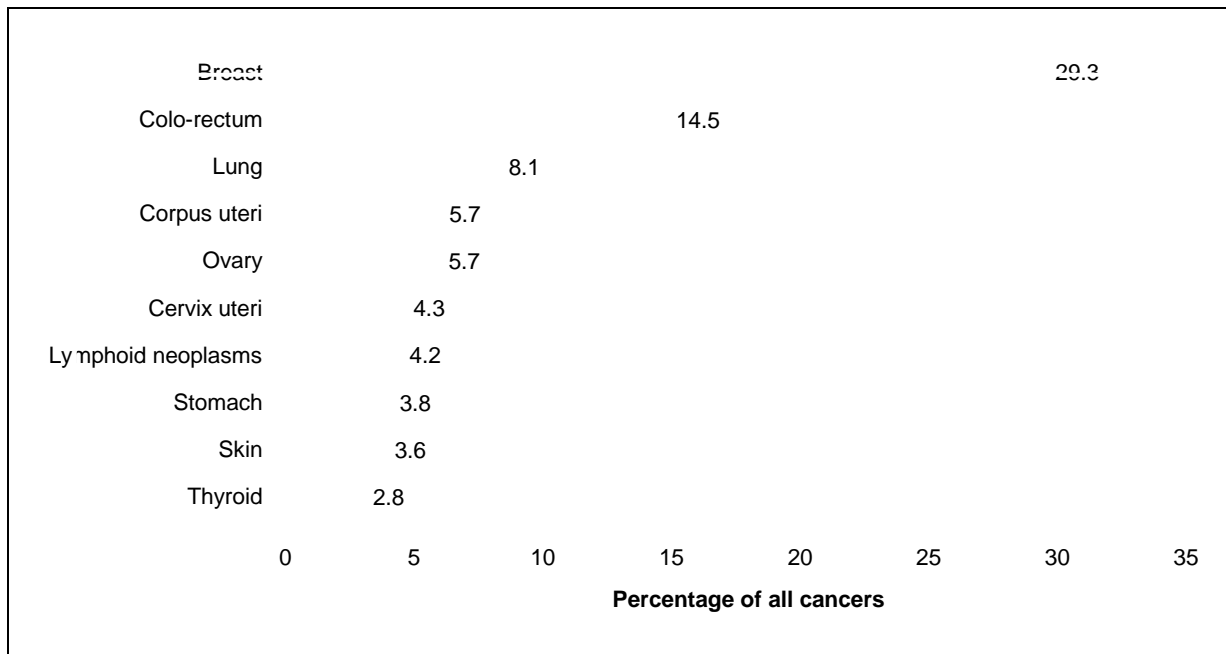
The numbers and age-standardized rates for the highest ranking cancers (first ten ranks) for males and females from 2003-2007 are shown in Table 5.2, and the relative frequencies of the ten most frequent sites are shown in Figures 5.1 (a) and (b).

The numbers of cancers in all Singapore Residents by gender, site and 5-year age group for the period 2003-2007 are given in Appendices B1 (males) and B2 (females); the corresponding incidence rates are given in Appendices C1 and C2.

**Figure 5.1(a) TEN MOST FREQUENT CANCERS IN MALES, 2003-2007**



**Figure 5.1(b) TEN MOST FREQUENT CANCERS IN FEMALES, 2003-2007**



**Table 5.2 HIGHEST RANKING CANCERS, 2003-2007, ALL RESIDENTS**

<b>MALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Colo-rectum	3,902	45.3	40.5
2	Lung	3,828	44.4	40.8
3	Prostate	2,169	25.2	23.9
4	Liver	1,700	19.7	17.8
5	Stomach	1,375	16.0	14.5
6	Lymphoid neoplasms	1,309	15.2	14.4
7	Nasopharynx	1,198	13.9	10.8
8	Skin, including melanoma	973	11.3	10.1
9	Bladder	675	7.8	7.1
10	Kidney & Oth.Urinary	620	7.2	6.2
		4,191		
	<b>All</b>	<b>21,940</b>	<b>254.7</b>	<b>230.0</b>

<b>FEMALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Breast	6,798	77.8	58.5
2	Colo-rectum	3,375	38.6	29.0
3	Lung	1,868	21.4	16.0
4	Corpus uteri	1,332	15.2	11.7
5	Ovary, etc.	1,327	15.2	12.0
6	Cervix uteri	1,009	11.5	8.8
7	Lymphoid neoplasms	973	11.1	10.0
8	Stomach	885	10.1	7.4
9	Skin, including melanoma	840	9.6	7.0
10	Thyroid	645	7.4	5.8
		4,148		
	<b>All</b>	<b>23,200</b>	<b>265.3</b>	<b>203.4</b>

CR: Crude rate (per 100,000 per year)

ASR: Age-standardized rate (per 100,000 per year)

## 6. ETHNIC GROUP VARIATIONS

The updated age-standardized annual incidence rates per 100,000 population for all sites among the major ethnic groups in Singapore are given in Table 6.1.

**Table 6.1 AGE-STANDARDIZED INCIDENCE RATE (PER 100,000 RESIDENT POPULATION) FOR ALL CANCERS BY ETHNIC GROUP, GENDER AND FIVE YEAR PERIOD, 1968- 2007**

PERIOD	GENDER	ETHNIC GROUP		
		CHINESE	MALAY	INDIAN
1968-1972	Male	258.5	95.8	125.4
	Female	158.6	97.7	182.9
1973-1977	Male	276.9	116.5	156.8
	Female	167.8	97.2	153.9
1978-1982	Male	283.1	119.3	153.9
	Female	183.2	114.7	174.8
1983-1987	Male	274.8	132.2	138.6
	Female	193.8	118.4	142.6
1988-1992	Male	267.5	146.4	111.3
	Female	202.0	136.4	134.2
1993-1997	Male	267.4	154.8	105.6
	Female	204.6	151.2	140.1
1998-2002	Male	259.1	171.9	112.4
	Female	211.7	164.7	148.4
2003-2007	Male	247.5	167.4	131.2
	Female	212.2	175.8	138.9

The numbers and incidence rates for the highest ranking cancers (first ten ranks) for males and females in the three major ethnic groups for the period 2003-2007 are shown in Tables 6.2 (a) to (c) and the relative frequencies of the ten most frequent sites in Figures 6.1 (a) to (f).

The numbers of cancers in each of the major ethnic groups by site, gender and 5-year age groups, 2003-2007 are given in Appendices B3 to B8; the corresponding incidence rates are given in Appendices C3 to C8.

The relative risks, after adjustment for age, for selected cancers among the major ethnic groups (Chinese as reference group) are given in Tables 6.3 for the period 2003-2007. In both males and females, Malays and Indians remain at significantly lower risk of cancer than the Chinese. The relative risk of cancer among Indian men is only 53.0% that of Chinese men, and for Malays the corresponding figure is 67.6%. These differences are especially marked for cancers of the nasopharynx, lung (Indians), oesophagus, stomach, colon, rectum, liver and skin. The relative protective effect estimates of stomach, liver, larynx, lung and skin cancers have risen by more than 30% (ie. narrowing the difference compared to Chinese males) in Indian males compared to the

previous 5 year period and this same narrowing can also be seen among Malay females with cervical cancer.

The opposite effect can be observed among Malay males with tongue cancer, Indian females with lung cancer and Malay females with cancer of the mouth, where the protective effect difference has widened compared to the previous 5 year period. Of note, ethnicity has previously conferred a protective effect but now confers a risk effect instead in Indian males and Malay females with tongue cancer.

**TABLE 6.2(a) HIGHEST RANKING CANCERS AMONG CHINESE RESIDENTS, 2003-2007**

<b>MALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Colo-rectum	3,457	53.2	44.7
2	Lung	3,315	51.1	44.3
3	Prostate	1,837	28.3	25.2
4	Liver	1,482	22.8	19.4
5	Stomach	1,235	19.0	16.3
6	Nasopharynx	1,100	16.9	12.5
7	Lymphoid neoplasms	1,029	15.8	14.5
8	Skin, including melanoma	800	12.3	10.5
9	Bladder	552	8.5	7.3
10	Kidney & Oth.Urinary	514	7.9	6.4
	Others	3,491		
	<b>All</b>	<b>18,812</b>	<b>289.7</b>	<b>247.5</b>

<b>FEMALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Breast	5,594	84.1	59.9
2	Colo-rectum	3,056	46.0	31.5
3	Lung	1,687	25.4	17.4
4	Corpus uteri	1,101	16.6	12.0
5	Ovary, etc.	1,071	16.1	12.2
6	Cervix uteri	861	12.9	9.3
7	Stomach	811	12.2	8.1
8	Skin, including melanoma	751	11.3	7.5
9	Lymphoid neoplasms	747	11.2	9.6
10	Thyroid	496	7.5	5.6
	Others	3,555		
	<b>All</b>	<b>19,730</b>	<b>296.7</b>	<b>212.2</b>

CR: Crude rate (per 100,000 per year)  
 ASR: Age-standardized rate (per 100,000 per year)

**TABLE 6.2(b) HIGHEST RANKING CANCERS AMONG MALAY RESIDENTS, 2003-2007**

<b>MALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Lung	356	29.6	34.7
2	Colo-rectum	268	22.3	26.0
3	Lymphoid neoplasms	178	14.8	16.9
4	Prostate	169	14.1	17.7
5	Liver	139	11.6	13.2
6	Nasopharynx	84	7.0	6.8
7	Bladder	63	5.2	6.0
8	Stomach	54	4.5	5.3
9	Kidney & Oth.Urinary	53	4.4	4.9
10	Myeloid neoplasms	52	4.3	4.7
	Others	336		
	<b>All</b>	<b>1,752</b>	<b>145.8</b>	<b>167.4</b>

<b>FEMALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Breast	724	60.3	54.5
2	Colo-rectum	221	18.4	20.0
3	Ovary, etc.	163	13.6	12.7
4	Lymphoid neoplasms	156	13.0	13.6
5	Lung	141	11.7	12.0
6	Corpus uteri	138	11.5	11.1
7	Cervix uteri	103	8.6	8.4
8	Thyroid	95	7.9	7.4
9	Myeloid neoplasms	47	3.9	3.9
10	Pancreas	46	3.8	4.1
	Others	336		
	<b>All</b>	<b>2,170</b>	<b>180.7</b>	<b>175.8</b>

CR: Crude rate (per 100,000 per year)

ASR: Age-standardized rate (per 100,000 per year)



**TABLE 6.2(c) HIGHEST RANKING CANCERS AMONG INDIAN RESIDENTS, 2003-2007**

<b>MALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Colo-rectum	127	17.0	17.1
2	Lung	122	16.3	16.9
3	Prostate	117	15.6	15.9
4	Lymphoid neoplasms	80	10.7	11.4
5	Stomach	70	9.4	9.4
6	Liver	64	8.5	8.8
7	Bladder	38	5.1	5.1
8	Kidney & Oth.Urinary	35	4.7	4.8
9	Pancreas	31	4.1	4.1
10	Myeloid neoplasms	27	3.6	3.5
	Others	249		
	<b>All</b>	<b>960</b>	<b>128.2</b>	<b>131.2</b>

<b>FEMALES</b>				
<b>RANK</b>	<b>SITE</b>	<b>NO.</b>	<b>CR</b>	<b>ASR</b>
1	Breast	367	51.9	48.6
2	Corpus uteri	80	11.3	11.6
3	Colo-rectum	77	10.9	11.1
4	Ovary, etc.	76	10.8	9.9
5	Lymphoid neoplasms	54	7.6	8.5
6	Thyroid	38	5.4	4.8
7	Stomach	32	4.5	4.9
8	Lung	26	3.7	4.1
9	Cervix uteri	25	3.5	3.8
10	Kidney & Oth.Urinary	21	3.0	3.2
	Others	185		
	<b>All</b>	<b>981</b>	<b>138.8</b>	<b>138.9</b>

CR: Crude rate (per 100,000 per year)

ASR: Age-standardized rate (per 100,000 per year)

**Table 6.3 RELATIVE RISKS FOR SELECTED SITES BY ETHNIC GROUP AFTER ADJUSTMENT FOR AGE<sup>a</sup>, 2003-2007 (CHINESE AS REFERENCE GROUP)**

<b>MALES</b>					
<b>Site</b>	<b>ASR among Chinese<sup>b</sup></b>	<b>Malay</b>		<b>Indian</b>	
		<b>RR<sup>c</sup></b>	<b>95% CI<sup>d</sup></b>	<b>RR<sup>c</sup></b>	<b>95% CI<sup>d</sup></b>
Tongue	1.5	0.30	0.12-0.73	1.96	1.26-3.07
Mouth	1.3	0.51	0.24-1.11	1.75	1.05-2.93
Nasopharynx	12.5	0.53	0.42-0.66	0.07	0.04-0.15
Oesophagus	4.1	0.25	0.13-0.47	0.54	0.33-0.89
Stomach	16.3	0.32	0.25-0.42	0.55	0.44-0.71
Colo-rectum	44.7	0.58	0.52-0.66	0.38	0.32-0.45
Liver	19.4	0.71	0.60-0.85	0.45	0.35-0.58
Larynx	3.9	0.61	0.40-0.92	0.75	0.49-1.16
Lung	44.3	0.81	0.72-0.90	0.37	0.31-0.44
Skin, including melanoma	10.5	0.34	0.24-0.47	0.33	0.23-0.49
Prostate	25.2	0.71	0.61-0.83	0.65	0.54-0.79
Bladder	7.3	0.85	0.65-1.10	0.68	0.49-0.95
Lymphoid neoplasms	14.5	1.13	0.96-1.32	0.75	0.60-0.94
Myeloid neoplasms	4.6	1.03	0.77-1.38	0.76	0.51-1.12
Pancreas	6.3	0.71	0.52-0.96	0.65	0.45-0.94
<b>All</b>	<b>247.5</b>	<b>0.68</b>	<b>0.65-0.72</b>	<b>0.51</b>	<b>0.48-0.55</b>

<b>FEMALES</b>					
<b>Site</b>	<b>ASR among Chinese<sup>b</sup></b>	<b>Malay</b>		<b>Indian</b>	
		<b>RR<sup>c</sup></b>	<b>95% CI<sup>d</sup></b>	<b>RR<sup>c</sup></b>	<b>95% CI<sup>d</sup></b>
Tongue	0.5	1.98	1.05-3.73	2.63	1.29-5.37
Mouth	0.4	0.39	0.09-1.59	4.83	2.64-8.86
Nasopharynx	4.1	0.31	0.19-0.50	0.06	0.02-0.24
Stomach	8.1	0.37	0.26-0.51	0.60	0.42-0.86
Colo-rectum	31.5	0.61	0.53-0.69	0.38	0.30-0.47
Liver	4.9	0.79	0.58-1.07	0.66	0.42-1.03
Lung	17.4	0.71	0.60-0.84	0.24	0.16-0.35
Skin, including melanoma	7.5	0.49	0.36-0.67	0.32	0.19-0.53
Breast	59.9	0.91	0.84-0.98	0.78	0.70-0.87
Cervix uteri	9.3	0.86	0.70-1.06	0.36	0.24-0.53
Corpus uteri	12.0	0.90	0.76-1.08	0.88	0.70-1.11
Thyroid	5.6	1.28	1.03-1.60	0.83	0.60-1.16
Lymphoid neoplasms	9.6	1.44	1.21-1.71	0.87	0.66-1.14
Myeloid neoplasms	3.6	1.14	0.84-1.56	0.63	0.37-1.06
Ovary, etc.	12.2	1.05	0.89-1.23	0.83	0.65-1.04
<b>All</b>	<b>212.2</b>	<b>0.83</b>	<b>0.79-0.87</b>	<b>0.65</b>	<b>0.61-0.69</b>

<sup>a</sup> Adjusted for age and ethnic group using generalized linear regression model for binary data with the Chinese as the reference population.

<sup>b</sup> Age-standardized rate (per 100,000 per year) to 'World' population.

<sup>c</sup> Relative risk

<sup>d</sup> 95% confidence interval

## 7. AGE PATTERNS AND CHILDHOOD CANCERS

The relative frequencies of the ten most frequent cancers for males and females in each of the four broad age-groups for the period 2003-2007 are shown in Figures 7.1(a) and (b). The time trends for the five most frequent cancers in each age group are described for the period 1968-2007 in Figures 7.2 (a) and (b) for males and females, respectively. The incidence rates in these charts have been age-standardized to the 'World' population for the relevant age groups and expressed as a rate per 100,000 per year.

In children (0-14 years), the main cancers in both sexes remain the leukaemias (comprising greater than 40% of all cancers in both males and females), malignancies of the brain and nervous system and lymphomas.

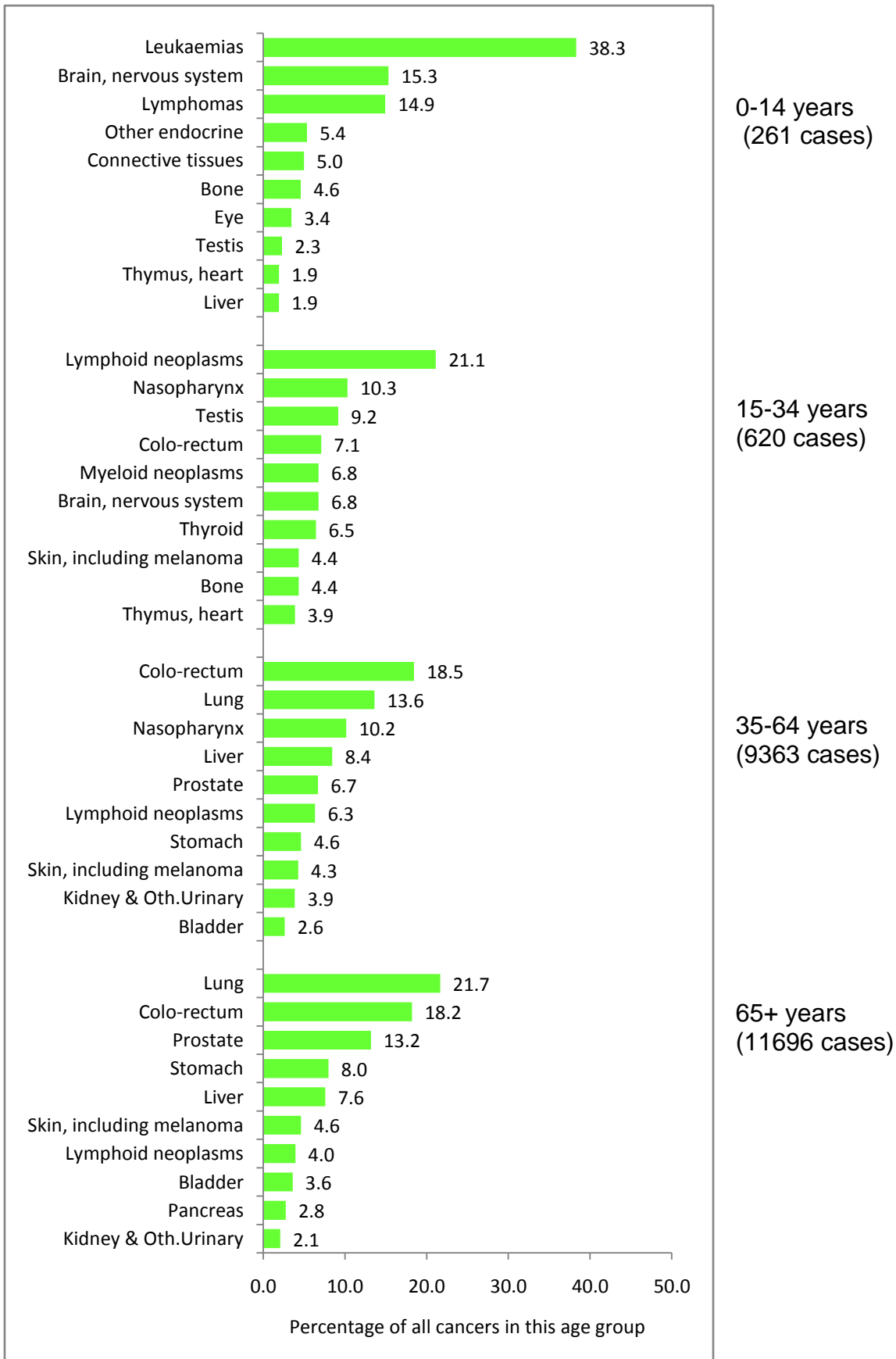
In young adults (15-34 years), cancers of the nasopharynx have fallen slightly compared to the previous 10-year period. The other relatively frequent cancers in males are lymphoid neoplasms, testicular and colorectal cancer. Among women in this age group, cancers of the breast, thyroid and ovary together comprise about 50% of all malignancies, and the incidence of these cancers has shown an upward trend over the last 40 years.

In the middle-aged (35-64 years), colorectal cancer is the most common primary site, followed closely by lung and nasopharynx in males. Among females, breast cancer lies in first place and accounts for more than one-third of all malignancies, with colorectal cancers a distant second.

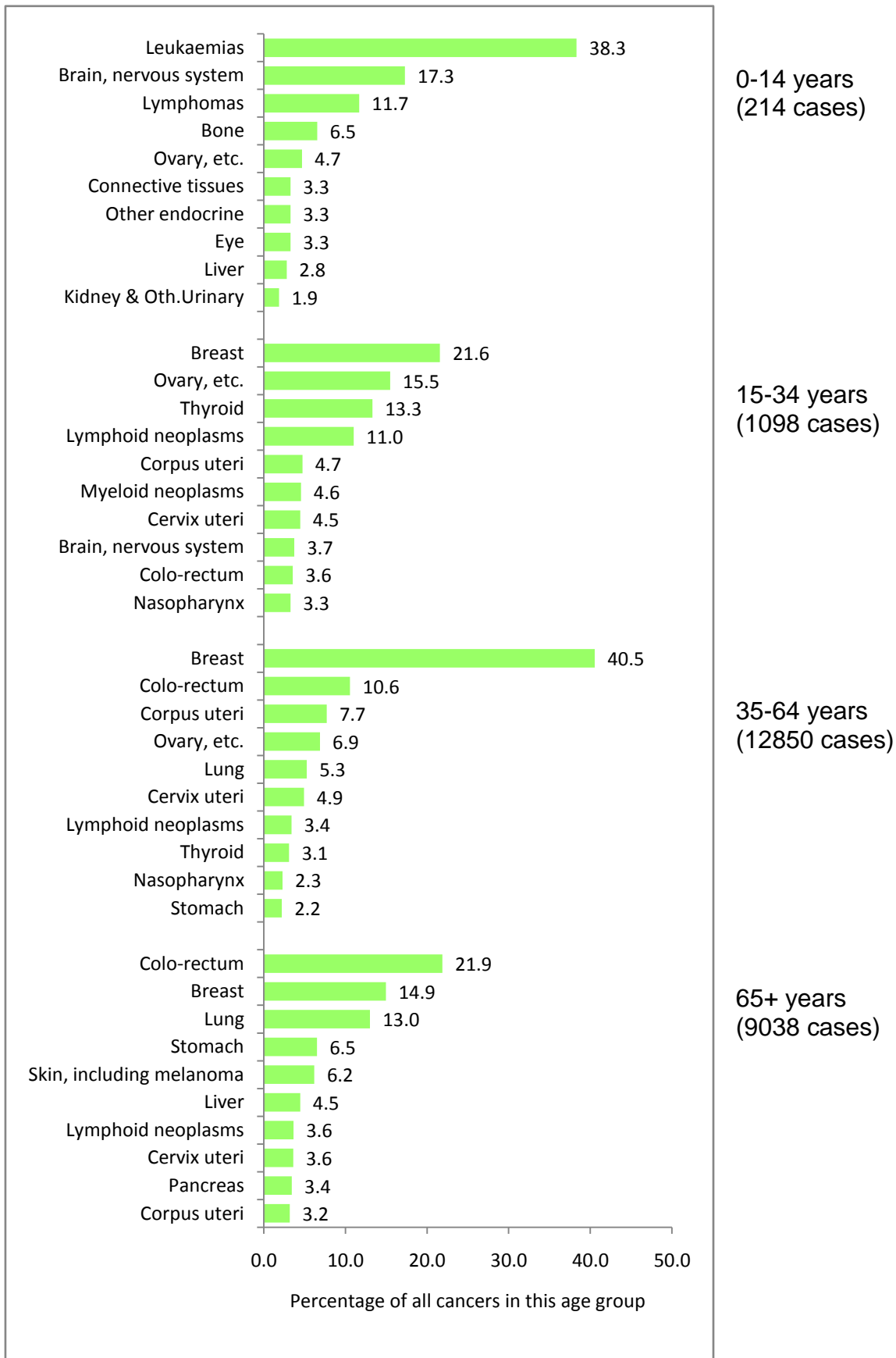
In the elderly (65 years and above), cancers of the lung and colo-rectum continue to be prominent among both males and females. Lung cancer incidence rates have fallen since 1978 among males in this age group, but remain relatively stable in females. Prostate cancer has shown a steady increase in incidence and accounts for approximately 13.2% of all male cancers in this age group.

Table 7.1 shows the cancers that occur in children (0-14 years) from 2003 to 2007 according to the International Classification of Childhood Cancer (ICCC) [22]. This classification, which divides neoplasms into 12 major histological groups, emphasizes the fact that cancers in children, unlike those in adults, are more related by histologic type than by anatomical site. Using this classification, leukaemias rank first as the most frequent cancers in children, with brain and spinal tumours, and lymphomas in second and third place, respectively. This is similar to the pattern observed in Europe, North America, Australia and Japan; in other parts of Asia and in Africa and Latin America, lymphomas outnumber the brain and spinal tumours [23].

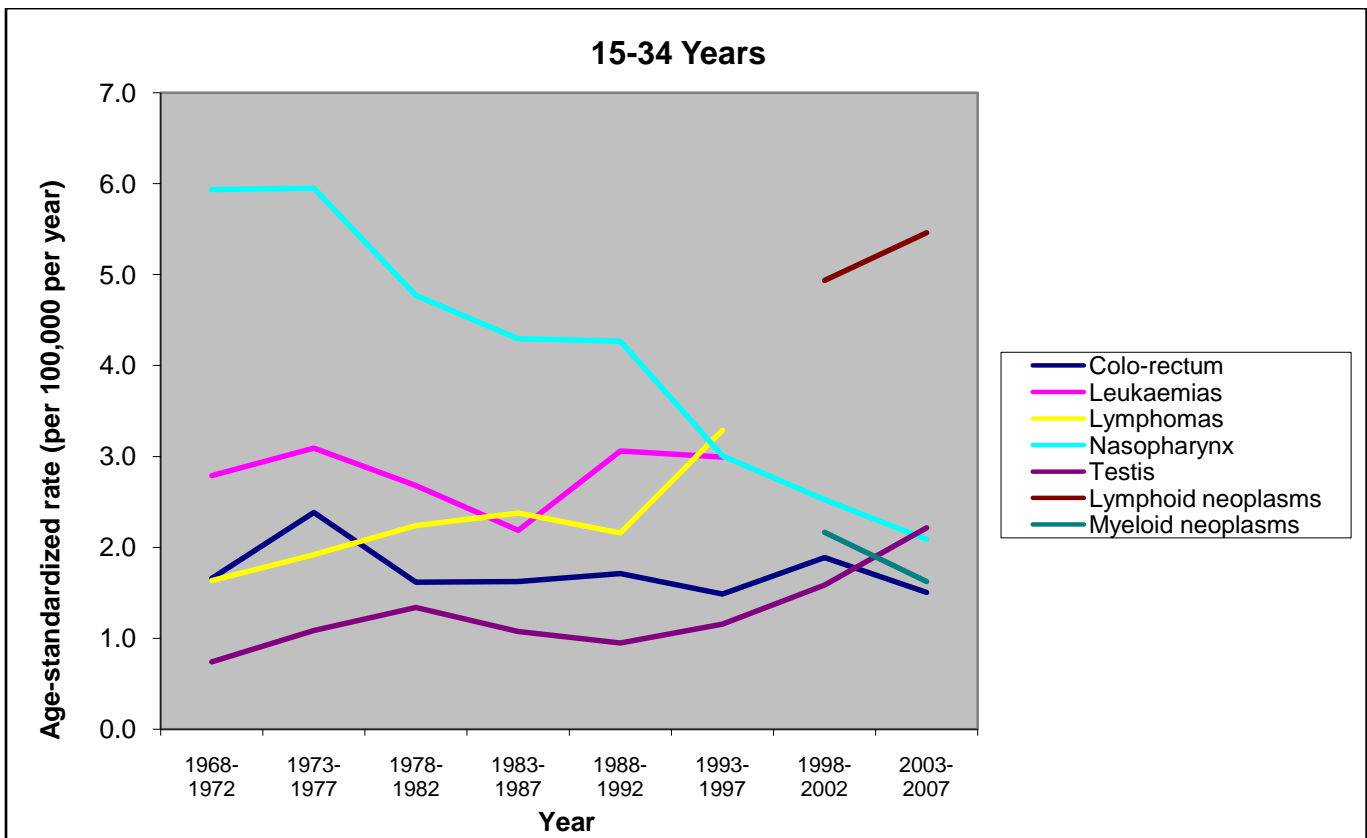
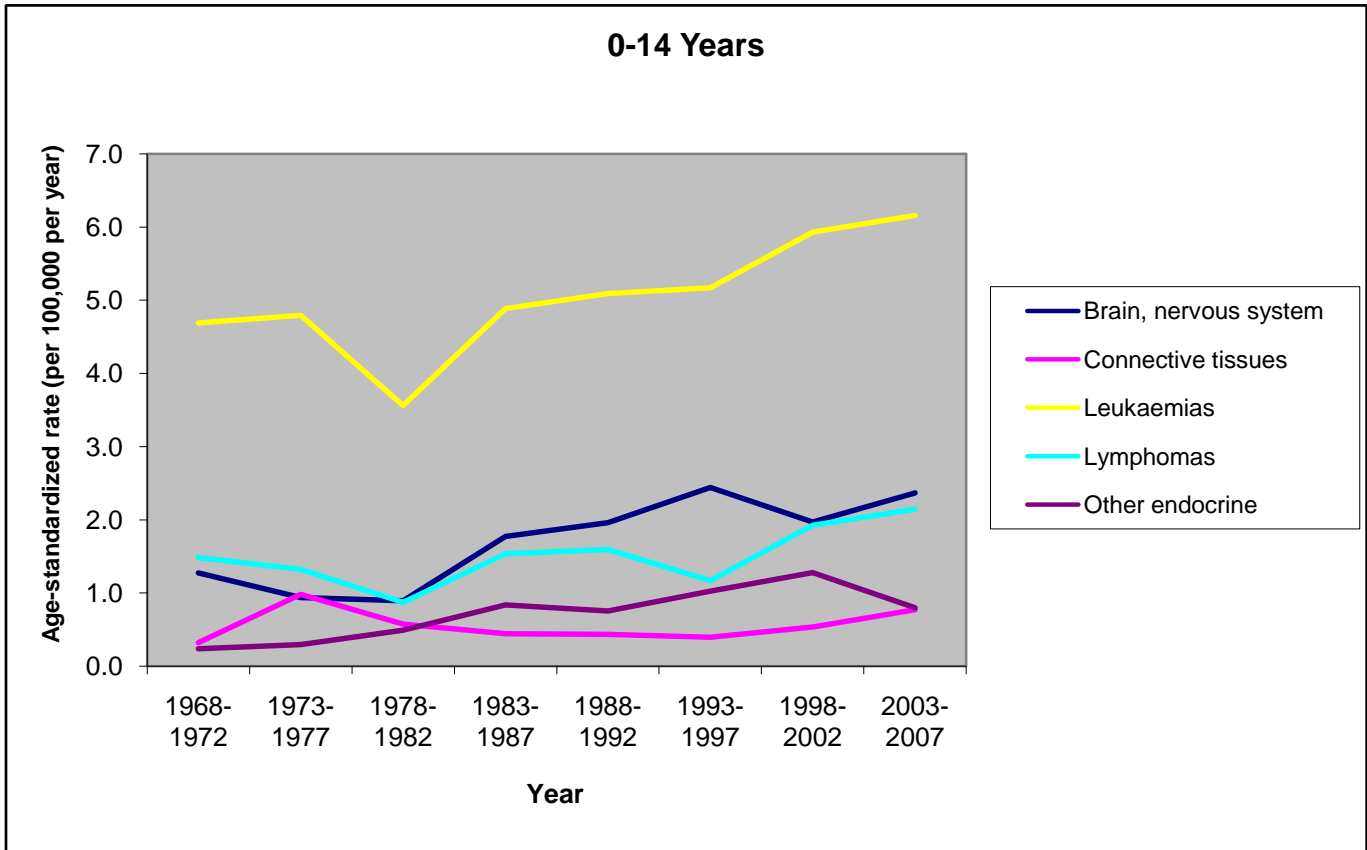
**Figure 7.1(a) TEN MOST FREQUENT CANCERS IN MALE RESIDENTS BY BROAD AGE GROUP, 2003-2007**



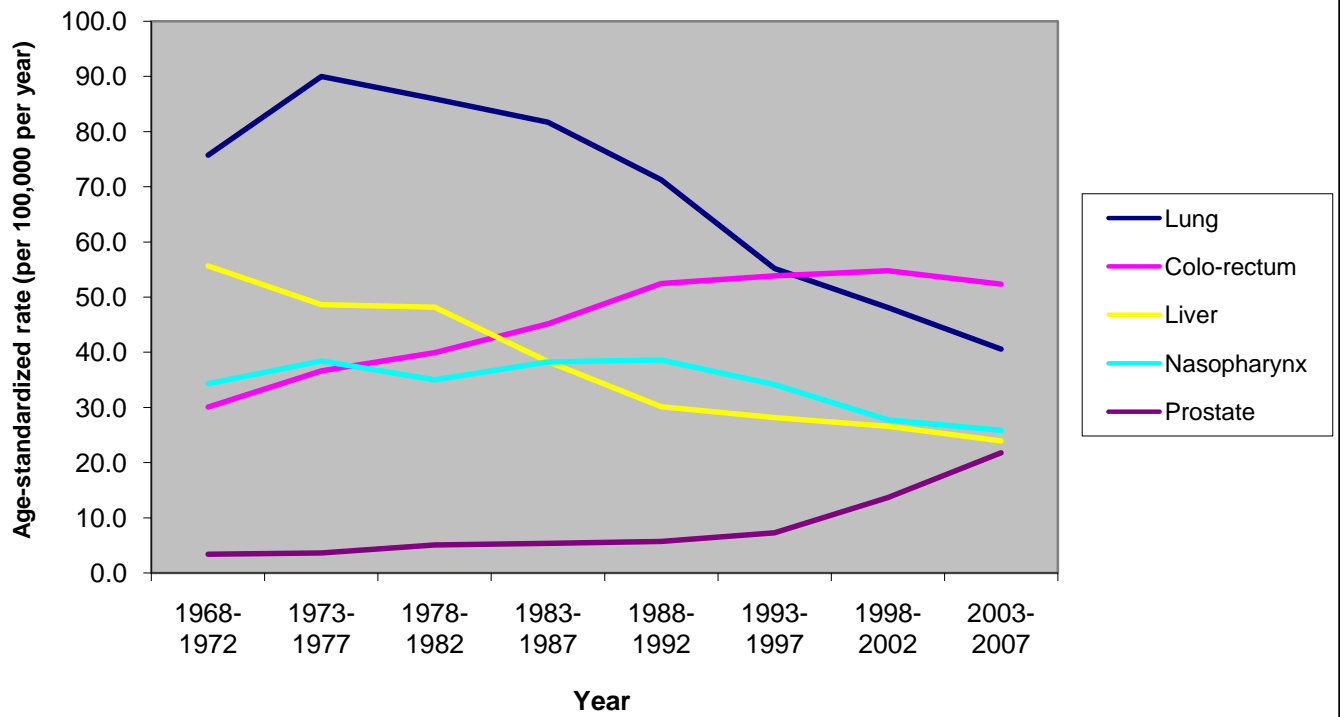
**Figure 7.1(b) TEN MOST FREQUENT CANCERS IN FEMALE RESIDENTS BY BROAD AGE GROUP, 2003-2007**



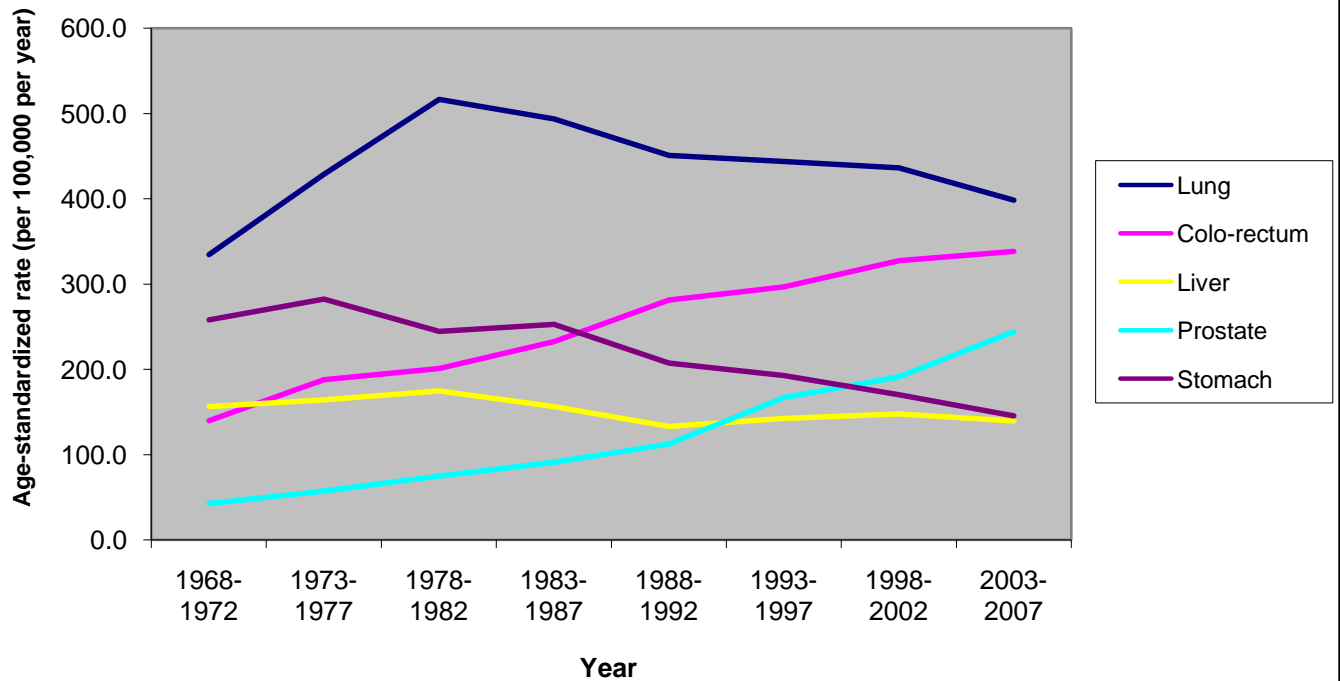
**Figure 7.2(a) TRENDS IN SELECTED CANCERS IN MALE RESIDENTS BY BROAD AGE GROUP, 1968-2007**



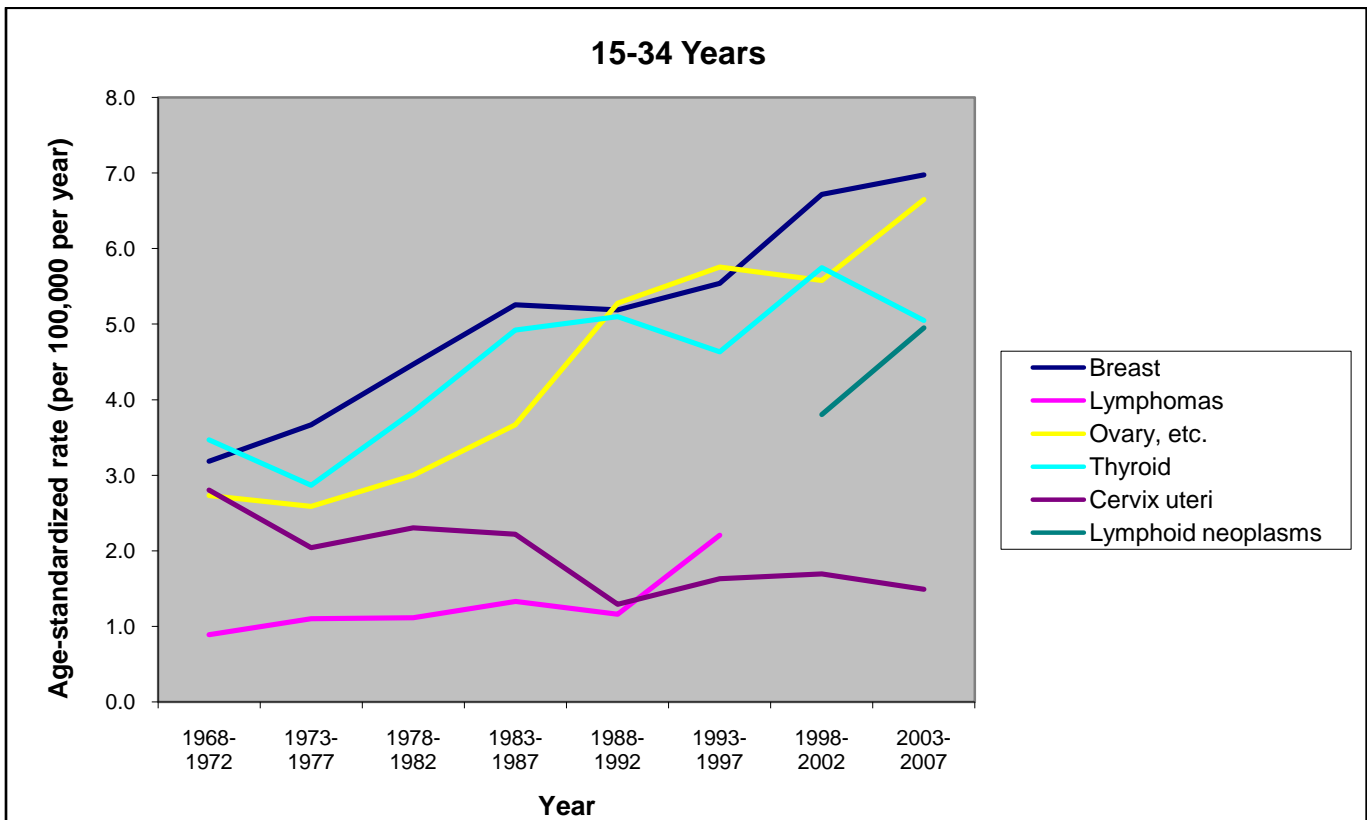
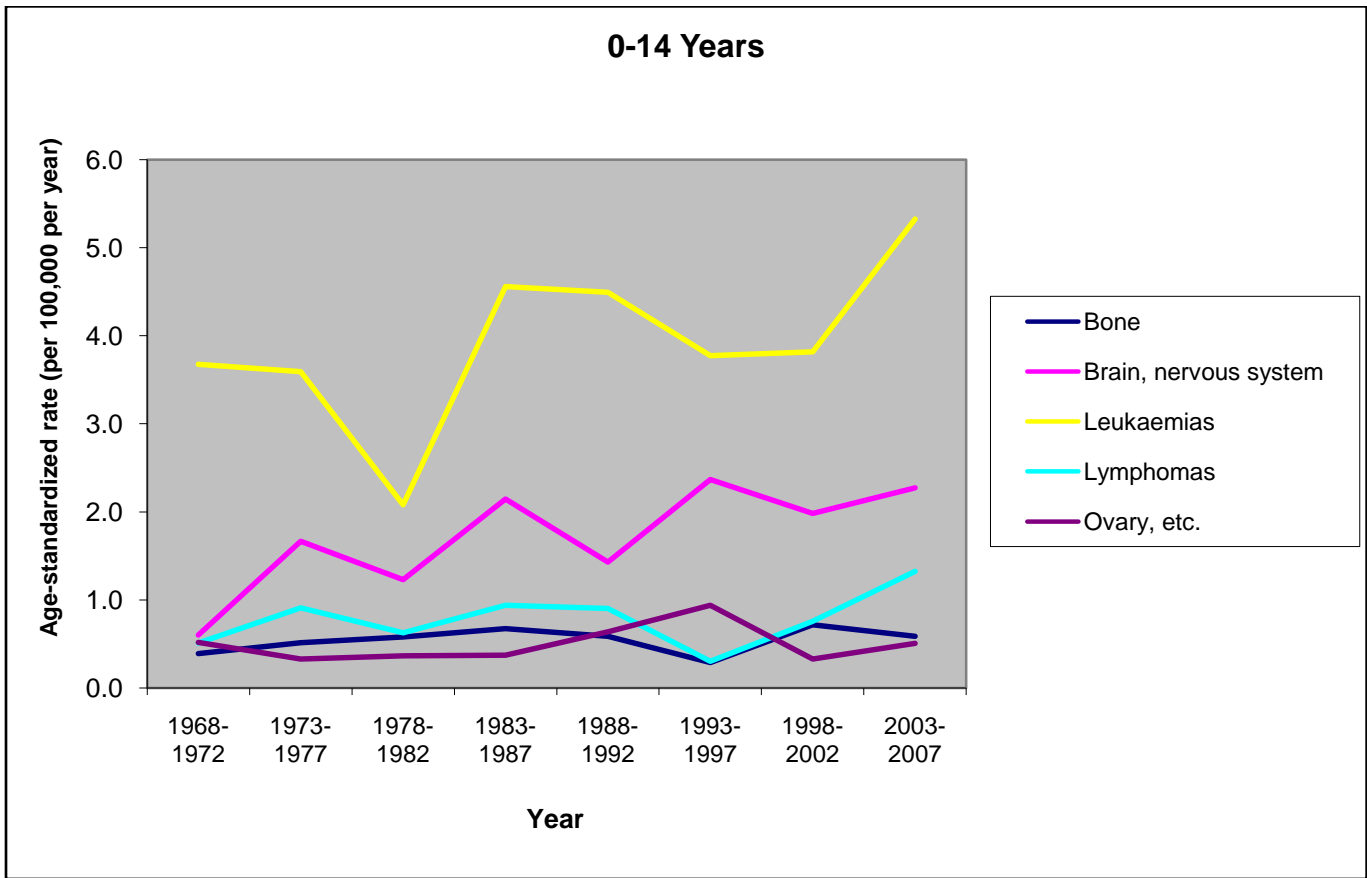
### 35-64 Years



### 65 Years and above

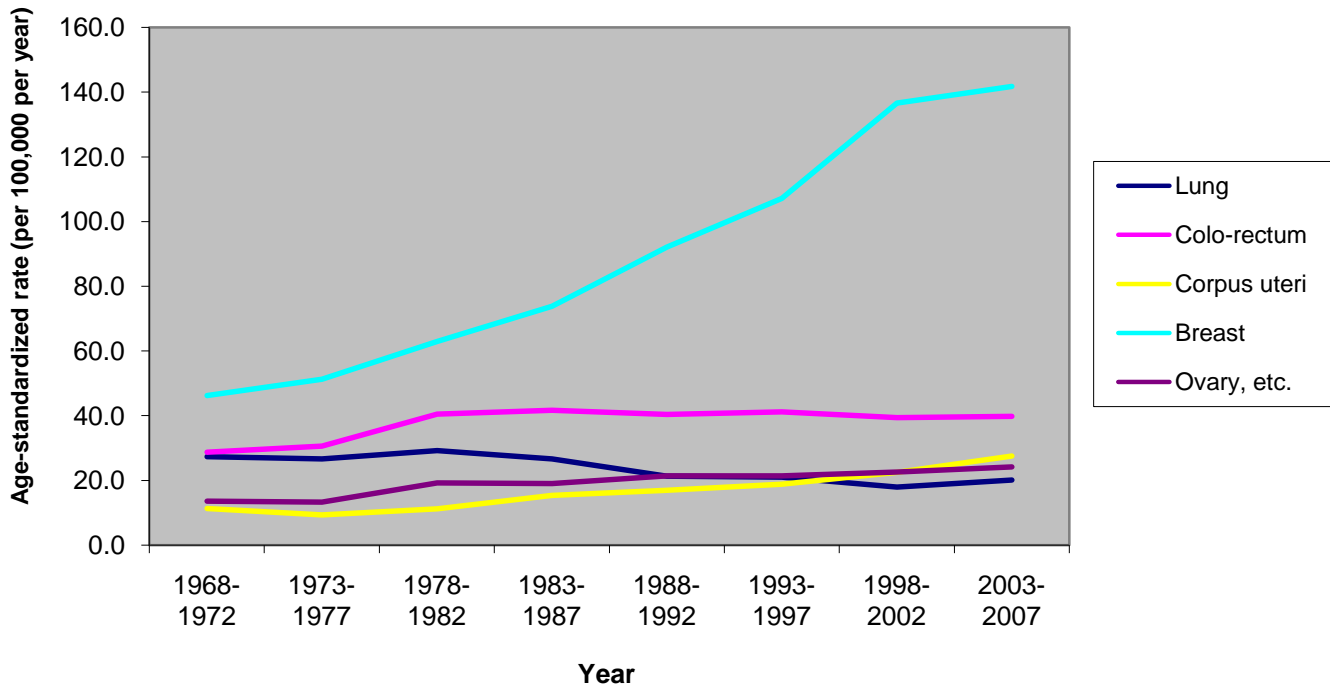


**Figure 7.2(b) TRENDS IN SELECTED CANCERS IN FEMALE RESIDENTS BY BROAD AGE GROUP, 1968-2007**

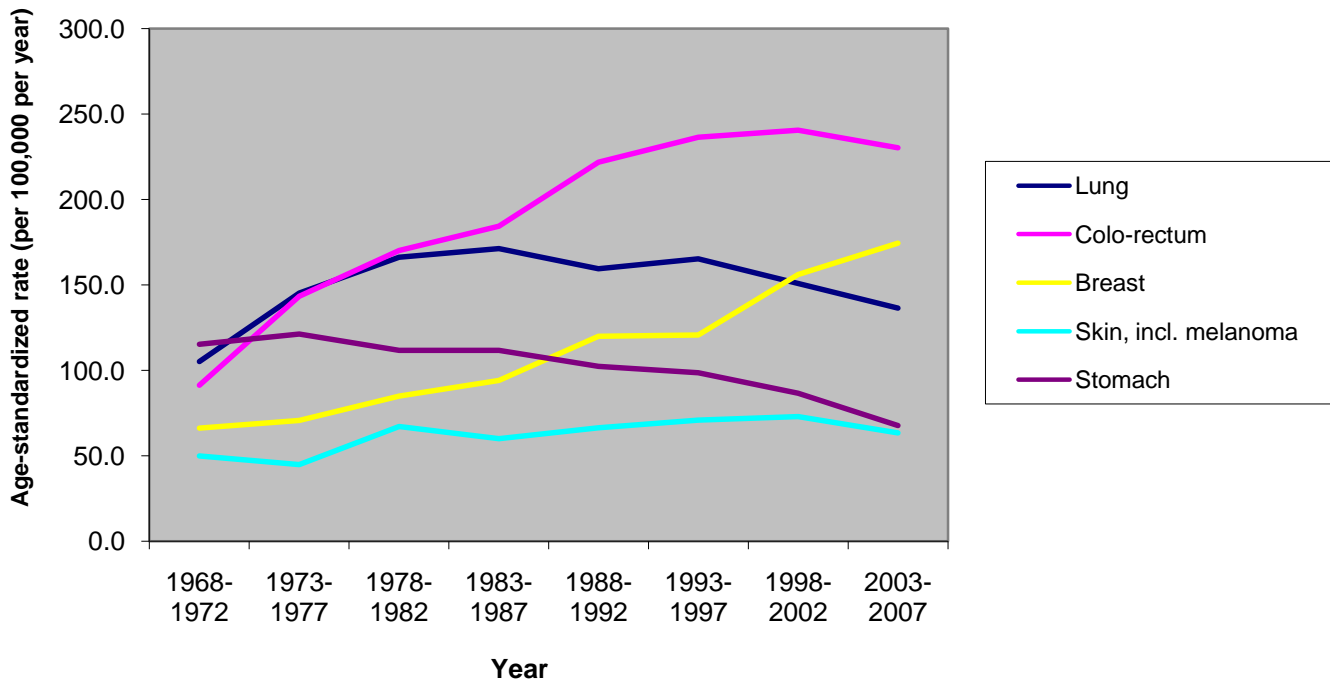




### 35-64 Years



### 65 Years and above



**Table 7.1 NUMBER OF CASES OF CHILDHOOD CANCER BY INTERNATIONAL CLASSIFICATION OF CHILDHOOD CANCER (ICCC-3) GROUP AND AGE GROUP, 2003-2007**

ICCC group	ICCC description	Age groups				
		<1	1-4	5-9	10-14	0-14
<b>I</b>	<b>Leukemias, myeloproliferative diseases, and myelodysplastic diseases</b>					
(a)	Lymphoid leukemias	1	68	49	25	<b>143</b>
(b)	Acute myeloid leukemias	3	10	8	1	<b>22</b>
(c)	Chronic myeloproliferative diseases	0	2	0	6	<b>8</b>
(d)	Myelodysplastic syndrome and myeloproliferative other diseases	0	2	0	1	<b>3</b>
(e)	Unspecified and other specified leukemias	0	1	2	1	<b>4</b>
<b>II</b>	<b>Lymphomas and reticuloendothelial neoplasms</b>					
(a)	Hodgkin lymphomas	0	0	1	5	<b>6</b>
(b)	Non-Hodgkin lymphomas (except Burkitt lymphoma)	1	8	13	24	<b>46</b>
(c)	Burkitt lymphoma	0	3	2	2	<b>7</b>
(d)	Miscellaneous lymphoreticular neoplasms	0	0	0	0	<b>0</b>
(e)	Unspecified lymphomas	0	0	0	0	<b>0</b>
<b>III</b>	<b>CNS and miscellaneous intracranial and intraspinal neoplasms</b>					
(a)	Ependymomas and choroid plexus tumour	0	4	0	3	<b>7</b>
(b)	Astrocytomas	0	8	9	6	<b>23</b>
(c)	Intracranial and intraspinal embryonal tumours	2	4	7	4	<b>17</b>
(d)	Other gliomas	0	0	3	4	<b>7</b>
(e)	Other specified intracranial and intraspinal neoplasms	1	5	1	2	<b>9</b>
(f)	Unspecified intracranial and intraspinal neoplasms	0	1	0	0	<b>1</b>
<b>IV</b>	<b>Neuroblastoma and other peripheral nervous cell tumours</b>					
(a)	Neuroblastoma and ganglioneuroblastoma	1	14	6	0	<b>21</b>
(b)	Other peripheral nervous cell tumours	0	0	0	2	<b>2</b>
<b>V</b>	<b>Retinoblastoma</b>					
V	Retinoblastoma	4	10	1	0	<b>15</b>
<b>VI</b>	<b>Renal tumours</b>					
(a)	Nephroblastoma and other non-epithelial renal tumours	3	3	1	1	<b>8</b>
(b)	Renal carcinomas	0	0	0	0	<b>0</b>
(c)	Unspecified malignant renal tumours	0	0	0	0	<b>0</b>
<b>VII</b>	<b>Hepatic tumours</b>					
(a)	Hepatoblastoma	0	8	0	0	<b>8</b>
(b)	Hepatic carcinomas	0	0	2	1	<b>3</b>
(c)	Unspecified malignant hepatic tumours	0	0	0	0	<b>0</b>
<b>VIII</b>	<b>Malignant bone tumours</b>					
(a)	Osteosarcomas	0	0	7	12	<b>19</b>
(b)	Chondrosarcomas	0	0	0	0	<b>0</b>

ICCC group	ICCC description	Age groups				
		<1	1-4	5-9	10-14	0-14
<b>VIII</b>	<b>Malignant bone tumours (cont'd)</b>					
(c)	Ewing tumour and related sarcomas of bone	1	0	1	2	4
(d)	Other specified malignant bone tumours	0	0	1	2	3
(e)	Unspecified malignant bone tumours	0	0	0	0	0
<b>IX</b>	<b>Soft tissue and other extrasosseous sarcomas</b>					
(a)	Rhabdomyosarcomas	2	2	3	3	10
(b)	Fibrosarcomas, peripheral nerve sheath tumours, and other fibrous neoplasms	0	1	1	2	4
(c)	Kaposi sarcoma	0	0	0	0	0
(d)	Other specified soft tissue sarcomas	0	1	4	4	9
(e)	Unspecified soft tissue sarcomas	0	0	0	0	0
<b>X</b>	<b>Germ cell tumours, trophoblastic tumours, and neoplasms of gonads</b>					
(a)	Intracranial and intraspinal germ cell tumours	0	0	1	12	13
(b)	Malignant extracranial and extragonadal germ cell tumours	2	1	0	3	6
(c)	Malignant gonadal germ cell tumours	2	4	1	6	13
(d)	Gonadal carcinomas	0	0	0	1	1
(e)	Other and unspecified malignant gonadal tumours	0	0	0	1	1
<b>XI</b>	<b>Other malignant epithelial neoplasms and malignant melanomas</b>					
(a)	Adrenocortical carcinomas	0	0	0	0	0
(b)	Thyroid carcinomas	0	0	0	5	5
(c)	Nasopharyngeal carcinomas	0	0	0	3	3
(d)	Malignant melanomas	0	0	0	0	0
(e)	Skin carcinomas	0	0	1	0	1
(f)	Other and unspecified carcinomas	0	0	1	5	6
<b>XII</b>	<b>Other and unspecified malignant neoplasms</b>					
(a)	Other specified malignant tumours	0	0	0	0	0
(b)	Other unspecified malignant tumours	0	0	0	0	0
	<b>Total</b>	<b>23</b>	<b>160</b>	<b>126</b>	<b>149</b>	<b>458</b>

## 8. TRENDS IN CANCER INCIDENCE 1968-2007

This report presents updated figures on cancers occurring since 1968 and documents incidence trends over the past 40 years. Changes in the age-standardized cancer incidence rates for the total resident population are presented in Figure 8.1, and for the major ethnic groups in Figures 8.2(a) and (b).

The age-standardized incidence of all cancers in males declined between 1973 and 2007 after an initial rise whereas the rate for females has shown a consistent upward trend since 1968 and has only recently leveled off in the 2003-2007 period (Fig 8.1). Overall, the age-standardized rate for cancer in females for 2003-2007 was 32.0% higher than in 1968-1972, an average annual change of 0.8%. A similar trend is evident in the Chinese population. Malays appear to have experienced an increase in total cancer incidence rates, with males experiencing a slight decline in the recent 5 year period. Indians have seen a decline for females and for males until 1997, after which the rates have started to increase to close to the original 1968-1972 rates (Fig 8.2(a) and (b)).

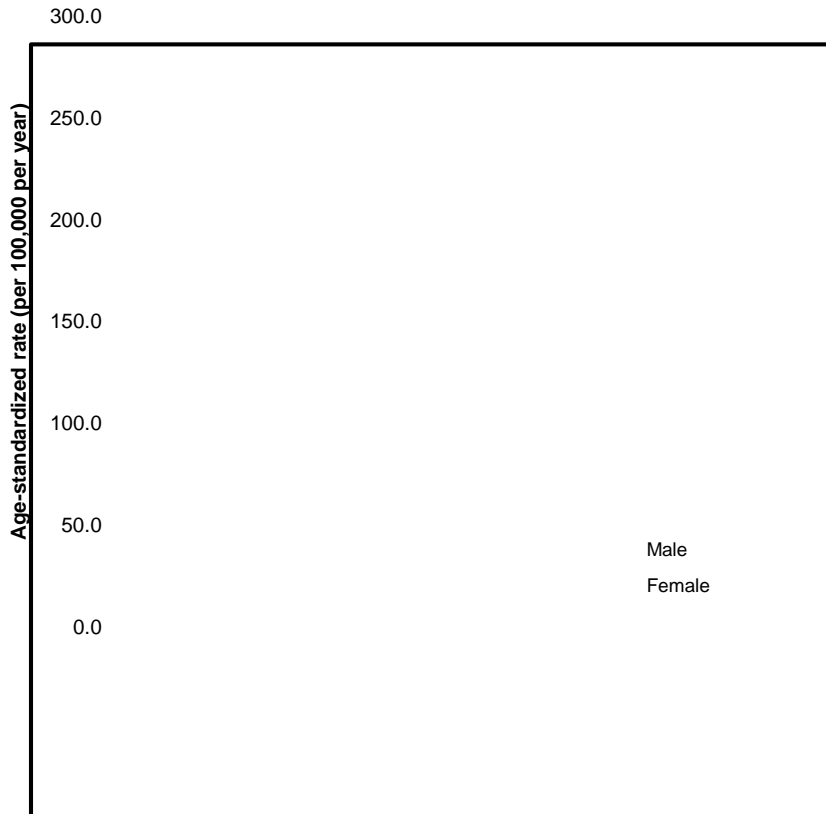
The time trends for cancers of selected sites in males and females are presented in Figures 8.3(a) and (b). Tables 8.1 and 8.2 present the ten most frequent cancers for each five-year period by gender and by ethnic group, respectively, to allow a comparison in the incidence rates and relative frequencies of these cancers over time. Overall changes in age-standardized incidence rates between 1968 and 2007 are summarized in terms of the average annual percent change in Figures 8.4(a) and (b); it should be noted that this figure does not take into account changes in different directions within this period.

On the whole, the data show substantial increases in the rate of prostate cancer among males, and cancers of the breast, ovary and corpus uteri among females. The incidence of lymphomas, colorectal, pancreatic, thyroid, leukaemias and skin (including melanoma) cancers have increased in both sexes. Some of the malignancies with relatively large declines over the last 40 years include cancers of the stomach, liver, mouth, oesophagus and nasopharynx. These trends are described in greater detail in Chapter 12.

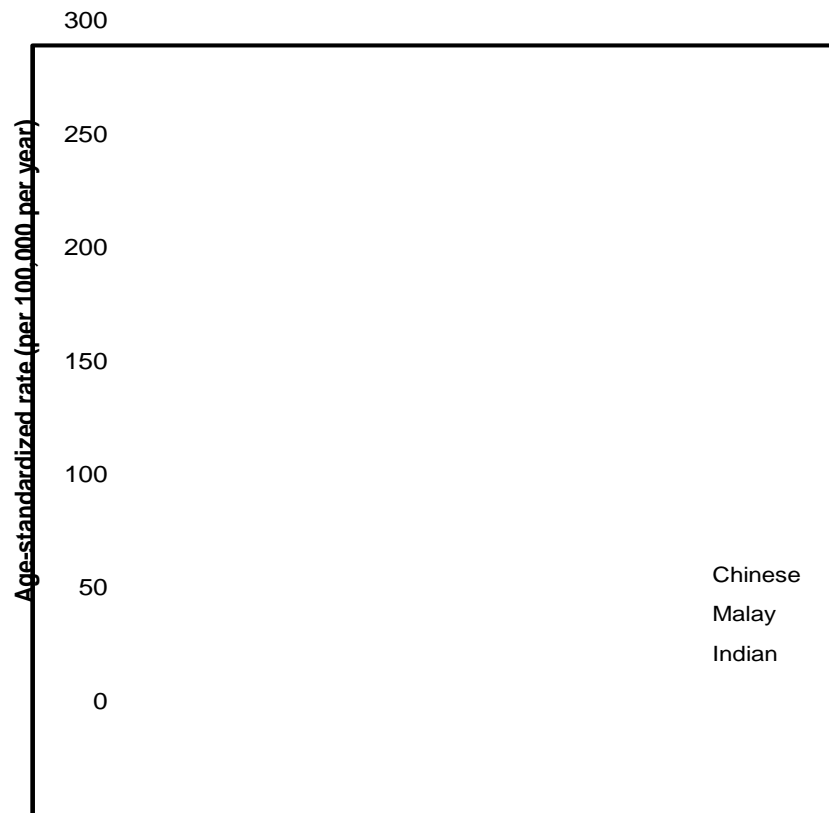
Some interesting observations between broad age groups (Table 8.3) are the steeper increase in uterine cancer among females in the 15-34 year age group, and the consistent rate of increase in lymphomas across all age groups in males. When interpreting the average annual percentage

changes, especially by age group, it should be noted that the large percentage changes are usually due to a low initial baseline rate.

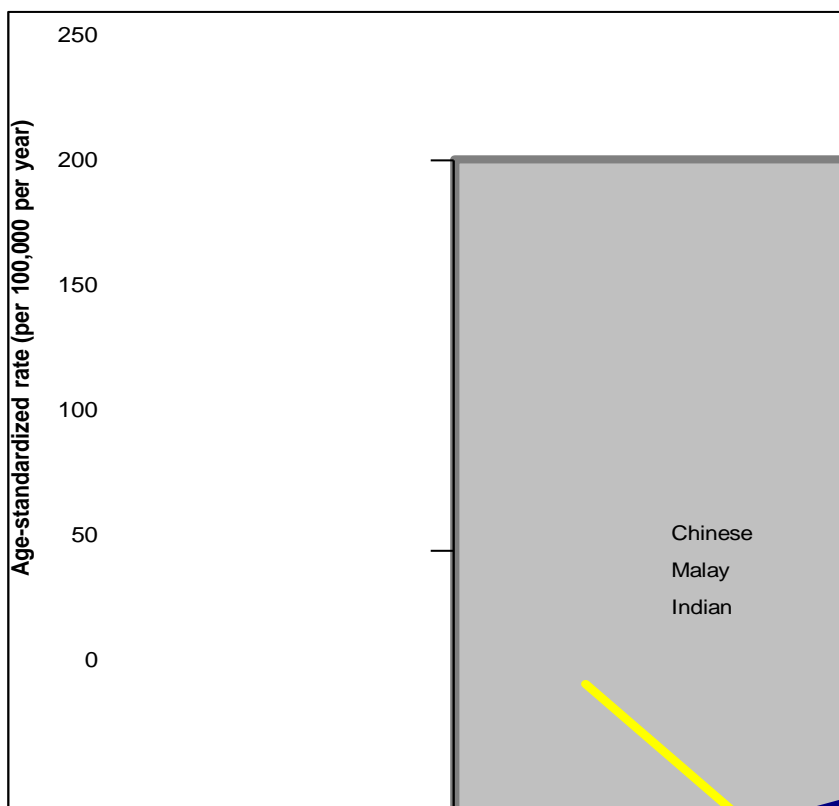
**Figure 8.1: TRENDS IN AGE-STANDARDIZED INCIDENCE FOR ALL CANCERS BY GENDER, 1968-2007**



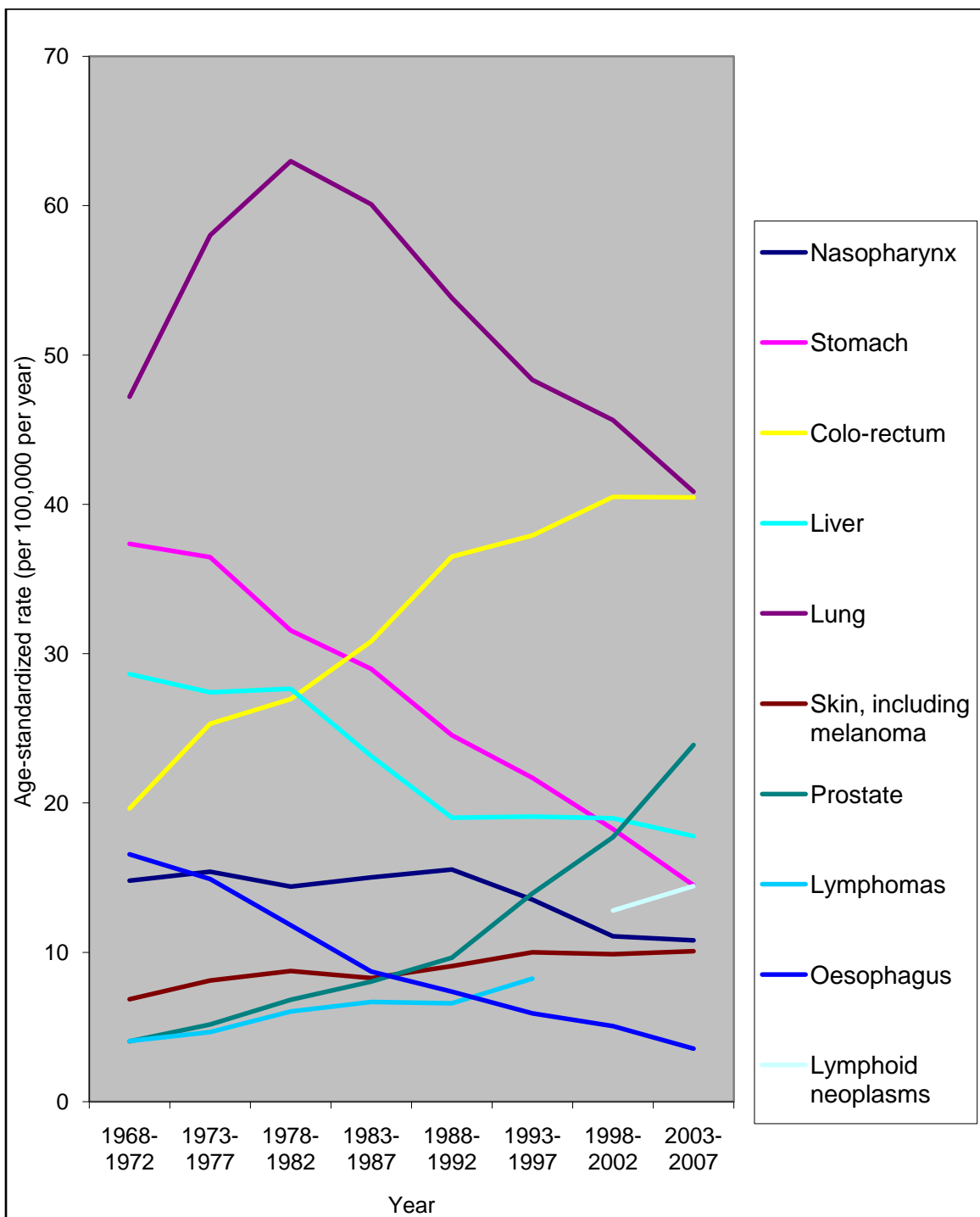
**Figure 8.2(a): TRENDS IN AGE-STANDARDIZED INCIDENCE FOR ALL CANCERS BY ETHNIC GROUP, MALES, 1968-2007**



**Figure 8.2(b): TRENDS IN AGE-STANDARDIZED INCIDENCE FOR ALL CANCERS BY ETHNIC GROUP, FEMALES, 1968-2007**

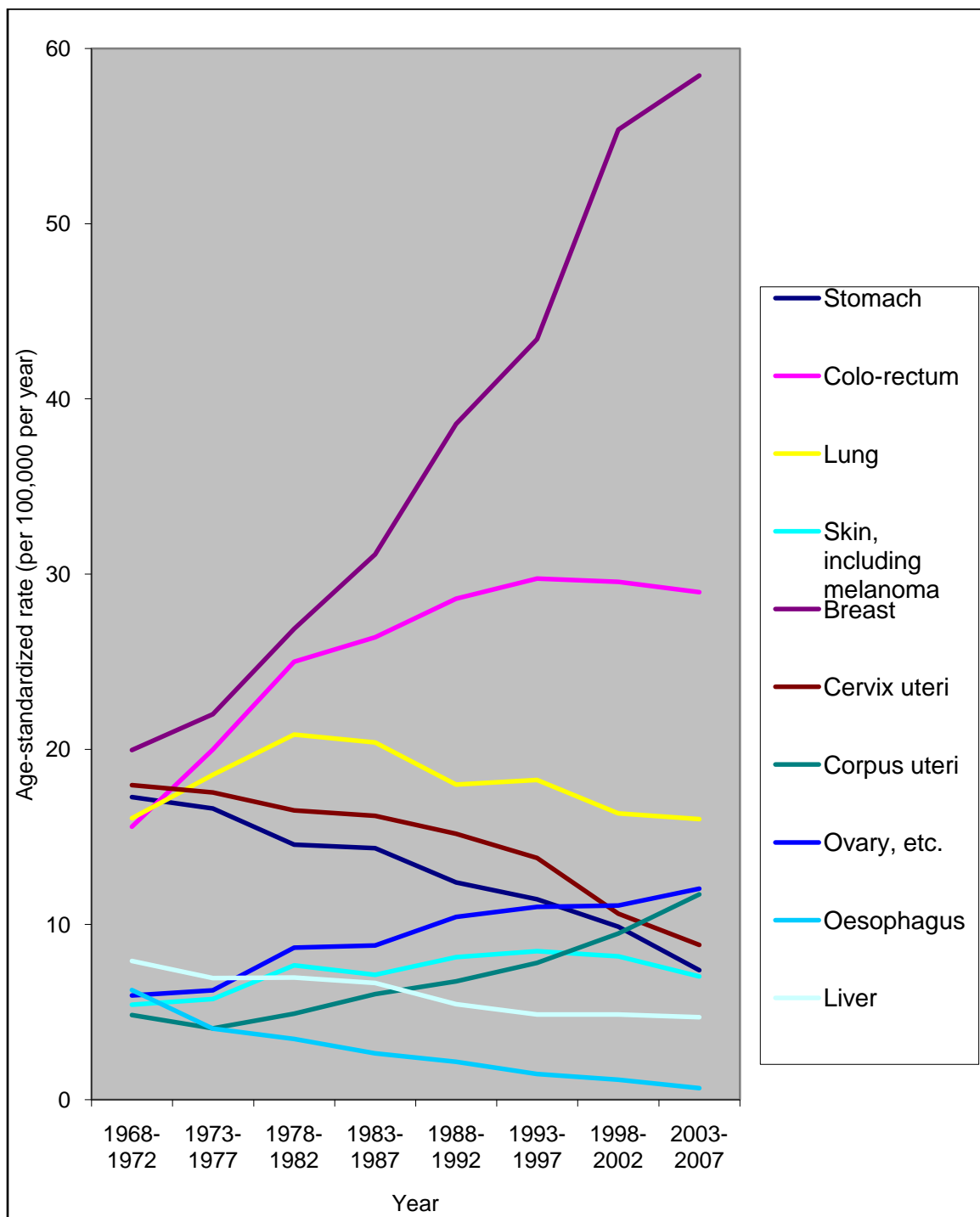


**Figure 8.3(a): TRENDS IN AGE-STANDARDIZED INCIDENCE FOR SELECTED CANCER SITES IN MALES 1968-2007**

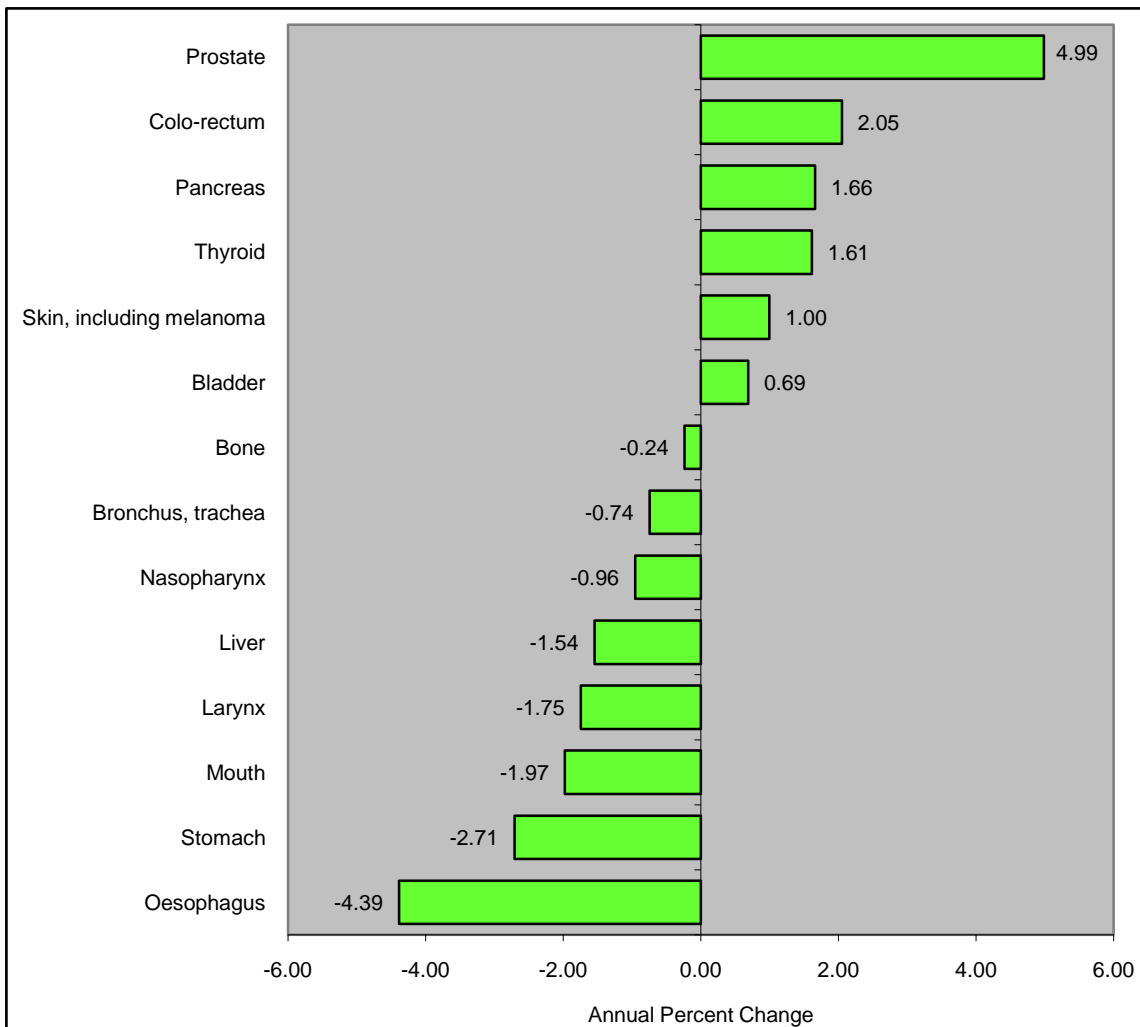




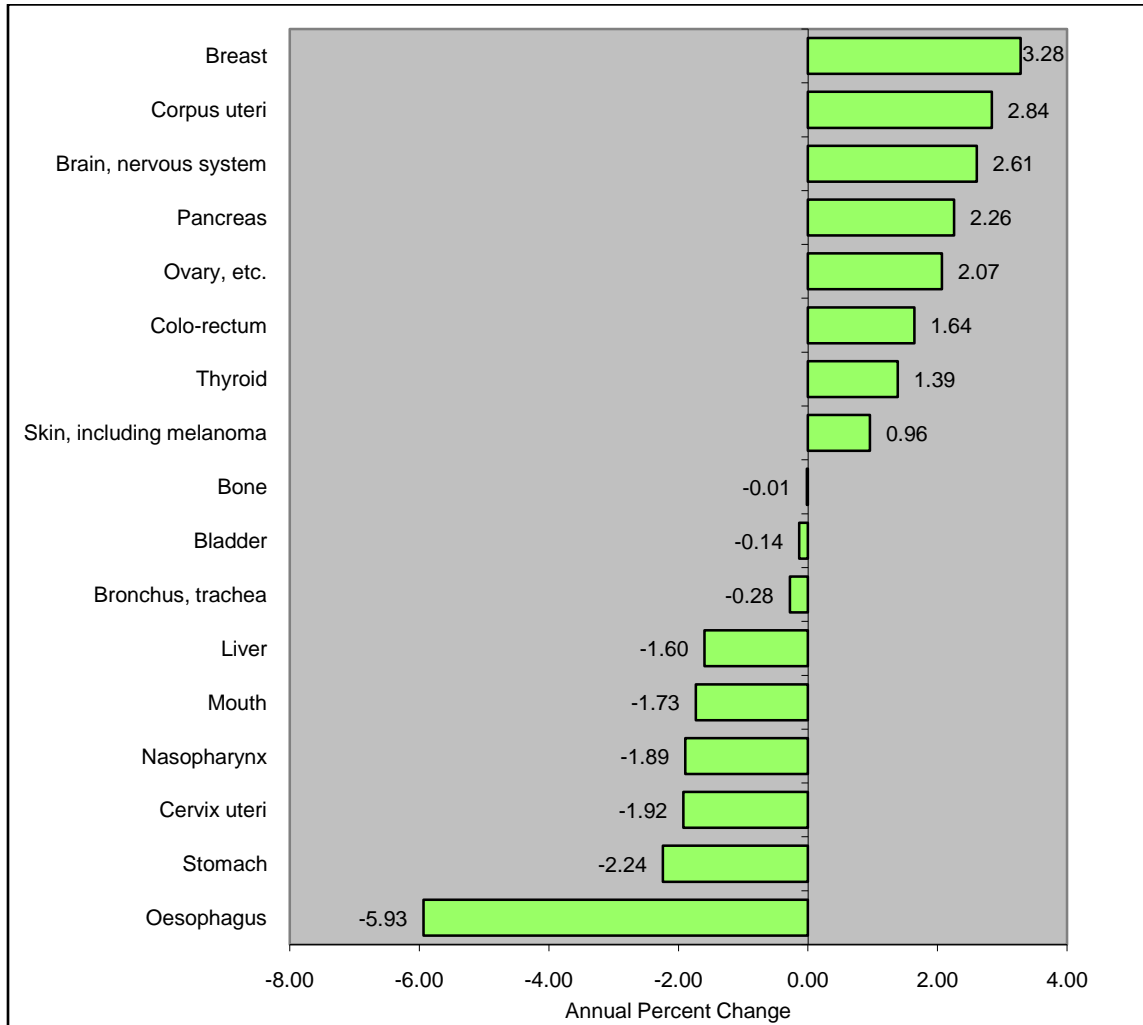
**Figure 8.3(b): TRENDS IN AGE-STANDARDIZED INCIDENCE FOR SELECTED CANCER SITES IN FEMALES 1968-2007**



**Fig. 8.4(a) AVERAGE ANNUAL PERCENT CHANGE IN AGE-STANDARDIZED INCIDENCE RATE OF SELECTED CANCER SITES IN MALES, 1968-2007**



**Fig. 8.4(b) AVERAGE ANNUAL PERCENT CHANGE IN AGE-STANDARDIZED INCIDENCE RATE OF SELECTED CANCER SITES IN FEMALES, 1968-2007**



**Table 8.1(a) TEN MOST FREQUENT CANCERS IN MALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Lung	1361	47.2	Lung	1920	58.0	Lung	2440	63.0	Lung	2770	60.1
Stomach	1093	37.4	Stomach	1215	36.5	Stomach	1232	31.6	Colo-rectum	1456	30.8
Liver	898	28.6	Liver	965	27.4	Liver	1126	27.7	Stomach	1333	29.0
Colo-rectum	572	19.6	Colo-rectum	841	25.3	Colo-rectum	1066	26.9	Liver	1094	23.1
Nasopharynx	567	14.8	Nasopharynx	671	15.4	Nasopharynx	703	14.4	Nasopharynx	863	15.0
Oesophagus	450	16.6	Oesophagus	465	14.9	Oesophagus	440	11.8	Oesophagus	398	8.7
Leukaemias	222	4.8	Skin, incl. melanoma	265	8.1	Skin, incl. melanoma	348	8.7	Skin, incl. melanoma	393	8.3
Larynx	193	6.8	Leukaemias	232	4.8	Larynx	290	7.3	Prostate	356	8.0
Skin, incl. melanoma	185	6.9	Larynx	221	6.7	Bladder	271	7.1	Lymphomas	351	6.7
Lymphomas	157	4.1	Bladder	197	6.3	Lymphomas	269	6.0	Bladder	316	6.9
<b>All</b>	<b>6982</b>	<b>227.3</b>	<b>All</b>	<b>8555</b>	<b>246.3</b>	<b>All</b>	<b>10118</b>	<b>250.3</b>	<b>All</b>	<b>11667</b>	<b>243.3</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Lung	2971	53.8	Lung	3167	48.3	Lung	3598	45.6	Colo-rectum	3902	40.5
Colo-rectum	2082	36.5	Colo-rectum	2571	37.9	Colo-rectum	3283	40.5	Lung	3828	40.8
Stomach	1372	24.5	Stomach	1439	21.7	Liver	1547	19.0	Prostate	2169	23.9
Liver	1089	19.0	Liver	1302	19.1	Stomach	1450	18.3	Liver	1700	17.8
Nasopharynx	1063	15.5	Nasopharynx	1122	13.5	Prostate	1359	17.7	Stomach	1375	14.5
Prostate	529	9.6	Prostate	903	13.9	Nasopharynx	1101	11.1	Lymphoid neoplasms	1309	14.4
Skin, incl. melanoma	527	9.1	Skin, incl. melanoma	697	10.0	Lymphoid neoplasms	1032	12.8	Nasopharynx	1198	10.8
Bladder	414	7.3	Lymphomas	601	8.2	Skin, incl. melanoma	817	9.9	Skin, incl. melanoma	973	10.1
Lymphomas	410	6.6	Leukaemias	489	7.1	Bladder	615	7.7	Bladder	675	7.1
Oesophagus	408	7.4	Bladder	486	7.2	Kidney & Oth. Urinary	466	5.6	Kidney & Oth. Urinary	620	6.2
<b>All</b>	<b>13624</b>	<b>236.2</b>	<b>All</b>	<b>6189</b>	<b>236.7</b>	<b>All</b>	<b>18948</b>	<b>233.3</b>	<b>All</b>	<b>21940</b>	<b>230.0</b>

**Table 8.1(b) TEN MOST FREQUENT CANCERS IN FEMALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Breast	671	20.0	Breast	859	22.0	Breast	1237	26.9	Breast	1731	31.1
Cervix uteri	603	18.0	Colo-rectum	727	20.0	Colo-rectum	1097	25.0	Colo-rectum	1410	26.4
Stomach	542	17.3	Cervix uteri	676	17.5	Lung	893	20.8	Lung	1071	20.4
Lung	489	16.1	Lung	663	18.5	Cervix uteri	751	16.5	Cervix uteri	897	16.2
Colo-rectum	486	15.6	Stomach	610	16.6	Stomach	643	14.6	Stomach	772	14.4
Liver	243	7.9	Nasopharynx	273	6.3	Ovary, etc.	413	8.7	Ovary, etc.	501	8.8
Ovary, etc.	222	6.0	Ovary, etc.	262	6.2	Skin, incl. melanoma	344	7.7	Skin, incl. melanoma	390	7.1
Nasopharynx	222	6.1	Liver	255	6.9	Nasopharynx	326	6.6	Nasopharynx	372	6.3
Oesophagus	188	6.3	Skin, incl. melanoma	212	5.7	Liver	306	7.0	Thyroid	368	5.8
Leukaemias	169	4.0	Leukaemias	182	4.0	Thyroid	224	4.2	Liver	354	6.7
<b>All</b>	<b>5084</b>	<b>154.1</b>	<b>All</b>	<b>6185</b>	<b>161.1</b>	<b>All</b>	<b>7986</b>	<b>175.8</b>	<b>All</b>	<b>10048</b>	<b>183.5</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Breast	2621	38.6	Breast	3581	43.4	Breast	5530	55.4	Breast	6798	58.5
Colo-rectum	1868	28.6	Colo-rectum	2328	29.7	Colo-rectum	2836	29.6	Colo-rectum	3375	29.0
Lung	1174	18.0	Lung	1442	18.2	Lung	1601	16.3	Lung	1868	16.0
Cervix uteri	998	15.2	Cervix uteri	1127	13.8	Ovary, etc.	1060	11.1	Corpus uteri	1332	11.7
Stomach	826	12.4	Stomach	917	11.4	Cervix uteri	1035	10.6	Ovary, etc.	1327	12.0
Ovary, etc.	703	10.4	Ovary, etc.	886	11.0	Stomach	969	9.9	Cervix uteri	1009	8.8
Skin, incl. melanoma	562	8.1	Skin, incl. melanoma	704	8.5	Corpus uteri	904	9.5	Lymphoid neoplasms	973	10.0
Nasopharynx	440	6.2	Corpus uteri	607	7.8	Skin, incl. melanoma	823	8.2	Stomach	885	7.4
Thyroid	435	6.0	Thyroid	488	5.6	Lymphoid neoplasms	714	8.1	Skin, incl. melanoma	840	7.0
Corpus uteri	433	6.8	Nasopharynx	402	4.6	Thyroid	646	6.6	Thyroid	645	5.8
<b>All</b>	<b>12735</b>	<b>191.5</b>	<b>All</b>	<b>15700</b>	<b>195.6</b>	<b>All</b>	<b>19726</b>	<b>203.0</b>	<b>All</b>	<b>23200</b>	<b>203.4</b>

**Table 8.2(a) TEN MOST FREQUENT CANCERS IN CHINESE MALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Lung	1273	55.9	Lung	1728	66.8	Lung	2226	73.8	Lung	2475	70.0
Stomach	1001	43.7	Stomach	1104	42.5	Stomach	1128	37.3	Colo-rectum	1293	35.7
Liver	792	32.9	Liver	840	31.1	Liver	988	31.5	Stomach	1219	34.4
Nasopharynx	536	19.2	Colo-rectum	732	28.1	Colo-rectum	952	31.1	Liver	974	27.0
Colo-rectum	498	22.0	Nasopharynx	640	19.6	Nasopharynx	677	18.0	Nasopharynx	822	18.3
Oesophagus	425	19.7	Oesophagus	436	17.7	Oesophagus	404	13.9	Oesophagus	377	10.7
Larynx	174	7.8	Skin, incl. melanoma	221	8.7	Skin, incl. melanoma	297	9.5	Skin, incl. melanoma	332	9.0
Leukaemias	164	4.7	Larynx	188	7.3	Larynx	255	8.3	Lymphomas	272	6.7
Skin, incl. melanoma	150	7.2	Leukaemias	179	4.8	Bladder	229	7.8	Bladder	262	7.3
Bladder	130	5.8	Bladder	172	7.0	Lymphomas	204	5.8	Prostate	257	7.3
<b>All</b>	<b>6162</b>	<b>258.5</b>	<b>All</b>	<b>7465</b>	<b>276.9</b>	<b>All</b>	<b>8874</b>	<b>283.1</b>	<b>All</b>	<b>10141</b>	<b>274.8</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Lung	2617	62.6	Lung	2817	56.6	Lung	3150	52.0	Colo-rectum	3457	44.7
Colo-rectum	1855	42.4	Colo-rectum	2307	44.4	Colo-rectum	2925	46.5	Lung	3315	44.3
Stomach	1249	29.4	Stomach	1322	26.0	Liver	1365	21.6	Prostate	1837	25.2
Nasopharynx	1006	18.7	Liver	1121	21.4	Stomach	1316	21.6	Liver	1482	19.4
Liver	960	22.1	Nasopharynx	1045	15.9	Prostate	1097	18.7	Stomach	1235	16.3
Skin, incl. melanoma	452	10.1	Prostate	718	14.6	Nasopharynx	1015	12.9	Nasopharynx	1100	12.5
Prostate	413	9.7	Skin, incl. melanoma	598	11.1	Lymphoid neoplasms	782	12.6	Lymphoid neoplasms	1029	14.5
Oesophagus	366	8.6	Lymphomas	467	8.2	Skin, incl. melanoma	696	10.9	Skin, incl. melanoma	800	10.5
Bladder	339	7.9	Non-Hodgkin's lymphoma	436	7.7	Bladder	493	8.0	Bladder	552	7.3
Lymphomas	313	6.5	Bladder	400	7.7	Kidney & Oth.Urinary	412	6.4	Kidney & Oth.Urinary	514	6.4
<b>All</b>	<b>11800</b>	<b>267.5</b>	<b>All</b>	<b>14034</b>	<b>267.4</b>	<b>All</b>	<b>16272</b>	<b>259.1</b>	<b>All</b>	<b>18812</b>	<b>247.5</b>

**Table 8.2(b) TEN MOST FREQUENT CANCERS IN CHINESE FEMALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Breast	553	19.5	Breast	737	22.6	Breast	1048	27.4	Breast	1456	31.9
Cervix uteri	527	18.6	Colo-rectum	672	21.3	Colo-rectum	999	26.6	Colo-rectum	1309	28.9
Stomach	492	18.1	Lung	622	20.0	Lung	849	22.9	Lung	992	22.0
Lung	461	17.3	Cervix uteri	588	18.3	Cervix uteri	639	17.0	Cervix uteri	802	17.6
Colo-rectum	445	16.5	Stomach	568	17.9	Stomach	583	15.3	Stomach	719	15.6
Nasopharynx	218	7.3	Nasopharynx	266	7.5	Ovary, etc.	341	8.7	Ovary, etc.	402	8.6
Liver	214	8.0	Liver	231	7.3	Skin, incl. melanoma	315	8.0	Skin, incl. melanoma	362	7.7
Ovary, etc.	184	5.9	Ovary, etc.	201	5.8	Nasopharynx	314	7.8	Nasopharynx	358	7.4
Oesophagus	170	6.5	Skin, incl. melanoma	195	6.1	Liver	274	7.2	Liver	314	6.9
Skin, incl. melanoma	143	5.4	Leukaemias	148	4.0	Corpus uteri	190	5.1	Thyroid	303	5.9
<b>All</b>	<b>4457</b>	<b>158.6</b>	<b>All</b>	<b>5468</b>	<b>167.8</b>	<b>All</b>	<b>7024</b>	<b>183.2</b>	<b>All</b>	<b>8867</b>	<b>193.8</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Breast	2198	39.4	Breast	2982	44.4	Breast	4634	57.4	Breast	5594	59.9
Colo-rectum	1718	31.2	Colo-rectum	2115	32.3	Colo-rectum	2562	32.1	Colo-rectum	3056	31.5
Lung	1096	19.8	Lung	1334	20.1	Lung	1439	17.6	Lung	1687	17.4
Cervix uteri	877	16.2	Cervix uteri	991	14.8	Cervix uteri	910	11.5	Corpus uteri	1101	12.0
Stomach	766	13.6	Stomach	850	12.7	Stomach	886	10.8	Ovary, etc.	1071	12.2
Ovary, etc.	588	10.7	Ovary, etc.	710	10.9	Ovary, etc.	841	11.0	Cervix uteri	861	9.3
Skin, incl. melanoma	511	8.6	Skin, incl. melanoma	621	8.8	Corpus uteri	755	9.7	Stomach	811	8.1
Nasopharynx	419	7.2	Corpus uteri	494	7.8	Skin, incl. melanoma	748	8.8	Skin, incl. melanoma	751	7.5
Corpus uteri	368	7.1	Thyroid	403	5.9	Lymphoid neoplasms	545	7.7	Lymphoid neoplasms	747	9.6
Thyroid	356	6.0	Nasopharynx	381	5.4	Thyroid	513	6.6	Thyroid	496	5.6
<b>All</b>	<b>11173</b>	<b>202.0</b>	<b>All</b>	<b>13573</b>	<b>204.6</b>	<b>All</b>	<b>16898</b>	<b>211.7</b>	<b>All</b>	<b>19730</b>	<b>212.2</b>

**Table 8.2(c) TEN MOST FREQUENT CANCERS IN MALAY MALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Liver	58	15.1	Lung	111	26.2	Lung	122	26.3	Lung	191	33.1
Lung	47	14.7	Liver	75	17.0	Liver	78	15.5	Liver	78	13.0
Stomach	33	9.9	Colo-rectum	45	11.5	Colo-rectum	54	10.6	Colo-rectum	77	14.1
Colo-rectum	29	8.3	Stomach	36	9.6	Stomach	41	9.5	Lymphomas	49	7.0
Leukaemias	29	4.3	Leukaemias	32	4.2	Lymphomas	33	5.9	Prostate	45	9.4
Nasopharynx	25	4.8	Nasopharynx	26	5.3	Leukaemias	31	4.4	Leukaemias	36	5.0
Lymphomas	21	3.7	Lymphomas	22	3.8	Prostate	25	7.0	Stomach	33	6.2
Skin, incl. melanoma	16	5.0	Prostate	20	7.0	Skin, incl. melanoma	24	4.6	Nasopharynx	30	4.3
Prostate	9	4.3	Skin, incl. melanoma	15	3.3	Nasopharynx	23	3.9	Skin, incl. melanoma	29	5.0
Bladder	9	3.6	Bladder	12	3.2	Bladder	18	3.6	Bladder	28	5.1
<b>All</b>	<b>357</b>	<b>95.8</b>	<b>All</b>	<b>507</b>	<b>116.5</b>	<b>All</b>	<b>607</b>	<b>119.3</b>	<b>All</b>	<b>787</b>	<b>132.2</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Lung	241	36.9	Lung	241	31.0	Lung	318	36.0	Lung	356	34.7
Colo-rectum	125	18.9	Colo-rectum	164	20.5	Colo-rectum	211	23.6	Colo-rectum	268	26.0
Liver	82	11.5	Liver	122	16.0	Lymphoid neoplasms	177	18.1	Lymphoid neoplasms	178	16.9
Lymphomas	61	8.0	Prostate	91	12.9	Prostate	140	16.7	Prostate	169	17.7
Stomach	57	8.4	Lymphomas	86	10.0	Liver	114	12.7	Liver	139	13.2
Leukaemias	54	6.6	Leukaemias	74	8.0	Bladder	72	8.0	Nasopharynx	84	6.8
Prostate	54	8.7	Nasopharynx	60	6.4	Nasopharynx	63	5.5	Bladder	63	6.0
Nasopharynx	51	6.6	Stomach	52	6.8	Stomach	63	6.6	Stomach	54	5.3
Bladder	45	7.0	Bladder	45	5.9	Myeloid neoplasms	60	6.4	Kidney & Oth.Urinary	53	4.9
Skin, incl. melanoma	30	4.1	Skin, incl. melanoma	38	4.6	Skin, incl. melanoma	46	5.2	Myeloid neoplasms	52	4.7
<b>All</b>	<b>1016</b>	<b>146.4</b>	<b>All</b>	<b>1242</b>	<b>154.8</b>	<b>All</b>	<b>1584</b>	<b>171.9</b>	<b>All</b>	<b>1752</b>	<b>167.4</b>



**Table 8.2(d) TEN MOST FREQUENT CANCERS IN MALAY FEMALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Breast	64	17.0	Breast	69	14.9	Breast	112	21.2	Breast	152	22.6
Cervix uteri	45	11.2	Ovary, etc.	49	10.6	Ovary, etc.	57	9.9	Ovary, etc.	64	9.1
Stomach	31	9.0	Cervix uteri	43	8.9	Colo-rectum	55	12.8	Colo-rectum	64	11.5
Ovary, etc.	29	6.2	Colo-rectum	29	8.6	Cervix uteri	49	9.4	Lung	61	12.2
Lung	20	7.5	Stomach	24	7.3	Thyroid	33	4.8	Cervix uteri	56	8.9
Liver	19	6.7	Leukaemias	24	3.8	Lung	29	7.8	Thyroid	43	4.9
Colo-rectum	18	6.0	Lung	22	6.5	Stomach	28	6.5	Liver	33	6.2
Leukaemias	18	2.3	Corpus uteri	17	4.5	Liver	23	5.5	Lymphomas	31	5.3
Lymphomas	16	3.6	Thyroid	17	3.6	Leukaemias	22	3.5	Stomach	29	5.5
Thyroid	15	4.1	Lymphomas	14	2.8	Lymphomas	20	3.6	Leukaemias	29	3.5
<b>All</b>	<b>368</b>	<b>97.7</b>	<b>All</b>	<b>410</b>	<b>97.2</b>	<b>All</b>	<b>576</b>	<b>114.7</b>	<b>All</b>	<b>733</b>	<b>118.4</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Breast	260	33.3	Breast	357	37.2	Breast	527	44.8	Breast	724	54.5
Colo-rectum	94	13.9	Colo-rectum	133	16.6	Colo-rectum	177	18.7	Colo-rectum	221	20.0
Cervix uteri	82	11.4	Ovary, etc.	113	11.9	Ovary, etc.	147	13.4	Ovary, etc.	163	12.7
Ovary, etc.	81	9.9	Cervix uteri	90	10.1	Lung	116	12.0	Lymphoid neoplasms	156	13.6
Lung	60	9.7	Lung	86	10.6	Lymphoid neoplasms	112	11.0	Lung	141	12.0
Thyroid	59	6.3	Corpus uteri	69	7.8	Corpus uteri	90	8.8	Corpus uteri	138	11.1
Lymphomas	46	5.9	Leukaemias	55	6.2	Cervix uteri	79	7.3	Cervix uteri	103	8.4
Corpus uteri	38	5.1	Thyroid	54	5.4	Thyroid	79	6.9	Thyroid	95	7.4
Leukaemias	36	4.3	Lymphomas	49	5.6	Myeloid neoplasms	43	4.3	Myeloid neoplasms	47	3.9
Stomach	35	5.4	Skin, incl. melanoma	43	5.4	Stomach	42	3.9	Pancreas	46	4.1
<b>All</b>	<b>1011</b>	<b>136.4</b>	<b>All</b>	<b>1343</b>	<b>151.2</b>	<b>All</b>	<b>1746</b>	<b>164.7</b>	<b>All</b>	<b>2170</b>	<b>175.8</b>

**Table 8.2(e) TEN MOST FREQUENT CANCERS IN INDIAN MALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Stomach	54	20.0	Stomach	73	22.6	Lung	74	21.8	Lung	92	21.3
Liver	42	10.3	Lung	65	19.6	Stomach	56	15.7	Colo-rectum	76	16.2
Colo-rectum	37	9.6	Colo-rectum	48	16.7	Liver	54	13.9	Stomach	70	15.3
Lung	34	10.6	Liver	44	14.1	Colo-rectum	43	13.6	Prostate	41	10.6
Leukaemias	24	5.8	Mouth	26	10.3	Oesophagus	30	8.1	Larynx	39	9.1
Mouth	22	8.3	Oesophagus	23	6.9	Larynx	28	7.8	Liver	39	9.3
Oesophagus	18	5.4	Larynx	21	7.1	Leukaemias	27	6.5	Mouth	26	5.1
Lymphomas	15	4.2	Tongue	20	5.3	Prostate	26	9.2	Lymphomas	24	5.1
Larynx	12	4.1	Leukaemias	17	3.7	Lymphomas	25	7.5	Tongue	23	4.3
Tongue	12	3.7	Prostate	16	7.0	Bladder	19	5.6	Leukaemias	21	4.9
<b>All</b>	<b>398</b>	<b>125.4</b>	<b>All</b>	<b>498</b>	<b>156.8</b>	<b>All</b>	<b>536</b>	<b>153.9</b>	<b>All</b>	<b>621</b>	<b>138.6</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Lung	83	14.7	Lung	74	10.7	Colo-rectum	120	16.3	Colo-rectum	127	17.1
Colo-rectum	73	13.3	Colo-rectum	69	10.2	Lung	94	12.9	Lung	122	16.9
Stomach	56	9.9	Prostate	68	9.8	Prostate	86	11.4	Prostate	117	15.9
Prostate	43	8.1	Stomach	57	8.8	Stomach	63	8.2	Lymphoid neoplasms	80	11.4
Liver	39	6.6	Liver	49	7.5	Liver	60	8.2	Stomach	70	9.4
Lymphomas	31	5.7	Larynx	37	5.5	Lymphoid neoplasms	59	8.8	Liver	64	8.8
Oesophagus	31	5.4	Lymphomas	34	5.4	Bladder	36	4.7	Bladder	38	5.1
Larynx	28	4.7	Bladder	33	5.0	Oesophagus	25	3.3	Kidney & Oth.Urinary	35	4.8
Bladder	23	4.1	Leukaemias	32	5.3	Mouth	21	2.8	Pancreas	31	4.1
Mouth	22	3.6	Mouth	24	3.7	Pancreas	21	3.0	Skin, incl. melanoma	27	3.9
<b>All</b>	<b>621</b>	<b>111.3</b>	<b>All</b>	<b>692</b>	<b>105.6</b>	<b>All</b>	<b>819</b>	<b>112.4</b>	<b>All</b>	<b>960</b>	<b>131.2</b>

**Table 8.2(f) TEN MOST FREQUENT CANCERS IN INDIAN FEMALES 1968-2007, BY FIVE-YEAR PERIOD**

1968-1972			1973-1977			1978-1982			1983-1987		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Cervix uteri	26	27.2	Breast	41	27.3	Cervix uteri	54	28.9	Breast	89	32.7
Female Breast	25	25.0	Cervix uteri	37	26.2	Breast	52	28.9	Cervix uteri	36	12.0
Colo-rectum	17	19.1	Colo-rectum	12	9.6	Colo-rectum	36	26.7	Ovary, etc.	29	9.8
Stomach	16	19.4	Stomach	12	9.3	Stomach	21	16.0	Colo-rectum	27	15.0
Mouth	12	16.8	Ovary, etc.	12	7.8	Mouth	13	9.6	Stomach	17	8.7
Thyroid	9	11.7	Corpus uteri	11	7.1	Ovary, etc.	12	4.2	Thyroid	17	5.8
Liver	6	6.8	Lung	9	8.1	Skin, incl. melanoma	9	4.9	Leukaemias	13	4.4
Oesophagus	6	5.8	Oesophagus	9	7.2	Lymphomas	9	3.2	Mouth	10	5.8
Ovary, etc.	6	5.5	Liver	9	4.8	Lung	8	6.0	Lymphomas	10	4.2
Leukaemias	6	2.9	Thyroid	9	4.3	Oesophagus	6	3.8	Lung	9	5.0
<b>All</b>	<b>168</b>	<b>182.9</b>	<b>All</b>	<b>221</b>	<b>153.9</b>	<b>All</b>	<b>297</b>	<b>174.8</b>	<b>All</b>	<b>343</b>	<b>142.6</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR	SITE	NO.	ASR
Breast	119	34.7	Breast	183	39.3	Breast	283	47.4	Breast	367	48.6
Colo-rectum	35	12.8	Colo-rectum	59	15.7	Colo-rectum	73	13.9	Corpus uteri	80	11.6
Cervix uteri	31	8.6	Ovary, etc.	50	10.4	Ovary, etc.	58	9.0	Colo-rectum	77	11.1
Ovary, etc.	28	7.6	Cervix uteri	38	8.6	Corpus uteri	49	8.5	Ovary, etc.	76	9.9
Stomach	23	7.7	Corpus uteri	35	7.6	Thyroid	46	7.0	Lymphoid neoplasms	54	8.5
Corpus uteri	20	6.4	Stomach	25	6.7	Lymphoid neoplasms	44	8.4	Thyroid	38	4.8
Leukaemias	17	5.3	Thyroid	22	3.5	Cervix uteri	37	6.6	Stomach	32	4.9
Thyroid	17	3.7	Mouth	19	5.1	Lung	34	7.1	Lung	26	4.1
Mouth	13	4.6	Lung	17	5.2	Stomach	34	6.1	Cervix uteri	25	3.8
Skin, incl. melanoma	12	4.6	Skin, incl. melanoma	17	4.5	Myeloid neoplasms	19	3.3	Kidney & Oth.Urinary	21	3.2
<b>All</b>	<b>426</b>	<b>134.2</b>	<b>All</b>	<b>599</b>	<b>140.1</b>	<b>All</b>	<b>832</b>	<b>148.4</b>	<b>All</b>	<b>981</b>	<b>138.9</b>

**Table 8.3 AVERAGE ANNUAL PERCENTAGE CHANGE IN INCIDENCE RATES FOR SELECTED SITES AND ALL SITES BY BROAD AGE GROUP, 1968-2007**

<b>Males</b>		<b>Age group (years)</b>			
<b>ICD-9</b>	<b>SITE</b>	<b>0-14</b>	<b>15-34</b>	<b>35-64</b>	<b>65+</b>
147	Nasopharynx	-2.35	-3.09	-0.87	-0.04
150	Oesophagus	-	-	-4.52	-4.29
151	Stomach	-	-3.17	-4.11	-1.77
153-4	Colo-rectum	-	-0.49	1.66	2.46
155	Liver	2.25	-3.27	-2.51	-0.48
157	Pancreas	-	0.42	0.64	2.60
162	Lung	-	0.03	-2.13	0.19
170	Bone	0.09	-0.52	-0.47	0.64
172-3	Skin, incl. melanoma	-	-0.29	0.76	1.24
185	Prostate	-	-	4.97	4.97
186	Testis	2.39	2.14	0.31	-3.75
188	Bladder	-	-	0.01	1.11
191-2	Brain, nervous system	2.62	1.65	1.27	-
194	Other endocrine	4.29	-	3.45	-
	<b>All</b>	<b>1.26</b>	<b>-0.08</b>	<b>-0.90</b>	<b>0.56</b>

<b>Females</b>		<b>Age group (years)</b>			
<b>ICD-9</b>	<b>SITE</b>	<b>0-14</b>	<b>15-34</b>	<b>35-64</b>	<b>65+</b>
150	Oesophagus	-	-	-7.59	-5.04
151	Stomach	-	-3.49	-3.29	-1.40
153-4	Colo-rectum	-	0.55	0.86	2.45
155	Liver	2.16	-2.37	-3.41	-0.46
157	Pancreas	-	-	1.29	3.05
162	Lung	-	-0.07	-1.26	0.46
170	Bone	0.81	-1.53	1.38	-1.12
172-3	Skin, incl. melanoma	-	1.52	0.79	1.05
174	Breast	-	2.17	3.47	2.87
180	Cervix uteri	-	-1.65	-2.35	-0.78
182	Corpus uteri	-	4.79	2.92	2.42
183	Ovary, etc.	0.77	2.95	1.68	3.02
191-2	Brain, nervous system	2.75	1.22	2.13	-
193	Thyroid	1.97	1.59	1.44	0.94
194	Other endocrine	3.97	-	5.11	-
	<b>All</b>	<b>1.15</b>	<b>0.82</b>	<b>0.69</b>	<b>1.02</b>

Percent change was not computed if no cases occurred in one or more five-year periods for that site and age group.

## 9. SUBSITE DISTRIBUTION

Table 9.1 shows the subsite distribution according to ICD-9, stratified by gender, for the period 1968-2007. The subcategory “other” (fourth digit “8”) refers to “a malignant neoplasm that overlaps the boundaries of two or more subsites and whose point of origin cannot be determined”.

Any interpretation of the data must take into consideration the proportion of cases categorized as “NOS” (“not otherwise specified”) indicated by fourth digit “9”. Where this proportion is high, the distribution of the remaining specified subsites should not be taken as representative.

**Table 9.1 SUBSITE DISTRIBUTION BY GENDER, 1968-2007**

ICD9	SITE	Male	%	Female	%	All	%
<b>140</b>	<b>LIP, VERMILION</b>	<b>23</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>35</b>	<b>100.0</b>
140.0	Upper lip, vermilion border	2	8.7	2	16.7	4	11.4
140.1	Lower lip, vermilion border	7	30.4	1	8.3	8	22.9
140.3	Upper lip, inner aspect	1	4.3	3	25.0	4	11.4
140.4	Lower lip, inner aspect	2	8.7	2	16.7	4	11.4
140.5	Lip, unspecified, inner aspect	0	0.0	1	8.3	1	2.9
140.6	Commissure of lip	1	4.3	0	0.0	1	2.9
140.8	Other sites of lip	1	4.3	0	0.0	1	2.9
140.9	Lip, unspecified, vermilion border	9	39.1	3	25.0	12	34.3
<b>141</b>	<b>TONGUE</b>	<b>785</b>	<b>100.0</b>	<b>339</b>	<b>100.0</b>	<b>1124</b>	<b>100.0</b>
141.0	Base of tongue	180	22.9	35	10.3	215	19.1
141.1	Dorsal surface of tongue	2	0.3	4	1.2	6	0.5
141.2	Tip and lateral border of tongue	17	2.2	11	3.2	28	2.5
141.3	Ventral surface of tongue	7	0.9	2	0.6	9	0.8
141.4	Anterior two-thirds of tongue, part unspecified	8	1.0	9	2.7	17	1.5
141.6	Lingual tonsil	1	0.1	0	0.0	1	0.1
141.8	Other sites of tongue	4	0.5	1	0.3	5	0.4
141.9	Tongue, unspecified	566	72.1	277	81.7	843	75.0
<b>142</b>	<b>SALIVARY GLAND</b>	<b>335</b>	<b>100.0</b>	<b>318</b>	<b>100.0</b>	<b>653</b>	<b>100.0</b>
142.0	Parotid gland	227	67.8	207	65.1	434	66.5
142.1	Submandibular gland	65	19.4	65	20.4	130	19.9
142.2	Sublingual gland	7	2.1	8	2.5	15	2.3
142.8	Other major salivary glands	1	0.3	2	0.6	3	0.5
142.9	Salivary gland, unspecified	35	10.4	36	11.3	71	10.9
<b>143</b>	<b>GUM</b>	<b>49</b>	<b>100.0</b>	<b>44</b>	<b>100.0</b>	<b>93</b>	<b>100.0</b>
143.0	Upper gum	9	18.4	7	15.9	16	17.2
143.1	Lower gum	24	49.0	13	29.5	37	39.8
143.9	Gum, unspecified	16	32.7	24	54.5	40	43.0

ICD9	SITE	Male	%	Female	%	All	%
<b>144</b>	<b>FLOOR OF MOUTH</b>	<b>158</b>	<b>100.0</b>	<b>39</b>	<b>100.0</b>	<b>197</b>	<b>100.0</b>
144.0	Anterior portion of floor of mouth	1	0.6	0	0.0	1	0.5
144.1	Lateral portion of floor of mouth	1	0.6	2	5.1	3	1.5
144.9	Floor of mouth, part unspecified	156	98.7	37	94.9	193	98.0
<b>145</b>	<b>MOUTH, OTHER PARTS</b>	<b>591</b>	<b>100.0</b>	<b>295</b>	<b>100.0</b>	<b>886</b>	<b>100.0</b>
145.0	Cheek mucosa	202	34.2	134	45.4	336	37.9
145.1	Vestibule of mouth	5	0.8	2	0.7	7	0.8
145.2	Hard palate	70	11.8	34	11.5	104	11.7
145.3	Soft palate	106	17.9	21	7.1	127	14.3
145.4	Uvula	7	1.2	3	1.0	10	1.1
145.5	Palate, unspecified	104	17.6	49	16.6	153	17.3
145.6	Retromolar area	45	7.6	26	8.8	71	8.0
145.8	Other specified parts of mouth	4	0.7	1	0.3	5	0.6
145.9	Mouth, unspecified	48	8.1	25	8.5	73	8.2
<b>146</b>	<b>OROPHARYNX</b>	<b>457</b>	<b>100.0</b>	<b>126</b>	<b>100.0</b>	<b>583</b>	<b>100.0</b>
146.0	Tonsil	343	75.1	102	81.0	445	76.3
146.1	Tonsillar fossa	11	2.4	0	0.0	11	1.9
146.2	Tonsillar pillars (anterior) (posterior)	7	1.5	1	0.8	8	1.4
146.3	Vallecula epiglottica	12	2.6	1	0.8	13	2.2
146.4	Anterior aspect of epiglottis	1	0.2	0	0.0	1	0.2
146.5	Junctional region of oropharynx	1	0.2	0	0.0	1	0.2
146.6	Lateral wall of oropharynx	3	0.7	1	0.8	4	0.7
146.7	Posterior wall of oropharynx	10	2.2	1	0.8	11	1.9
146.8	Other specified sites of oropharynx	1	0.2	2	1.6	3	0.5
146.9	Oropharynx, unspecified	68	14.9	18	14.3	86	14.8
<b>147</b>	<b>NASOPHARYNX</b>	<b>7292</b>	<b>100.0</b>	<b>2816</b>	<b>100.0</b>	<b>10108</b>	<b>100.0</b>
147.0	Superior wall of nasopharynx	8	0.1	3	0.1	11	0.1
147.1	Posterior wall of nasopharynx	10	0.1	3	0.1	13	0.1
147.2	Lateral wall of nasopharynx	12	0.2	7	0.2	19	0.2
147.3	Anterior wall of nasopharynx	7	0.1	1	0.0	8	0.1
147.8	Other specified sites of nasopharynx	1	0.0	0	0.0	1	0.0
147.9	Nasopharynx, unspecified	7254	99.5	2802	99.5	10056	99.5
<b>148</b>	<b>HYPOPHARYNX</b>	<b>547</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>	<b>615</b>	<b>100.0</b>
148.0	Postcricoid region of hypopharynx	29	5.3	15	22.1	44	7.2
148.1	Pyriform sinus	358	65.4	27	39.7	385	62.6
148.2	Aryepiglottic fold, hypopharyngeal aspect	2	0.4	1	1.5	3	0.5
148.3	Posterior hypopharyngeal wall	6	1.1	1	1.5	7	1.1
148.8	Other specified sites of hypopharynx	3	0.5	3	4.4	6	1.0
148.9	Hypopharynx, unspecified	149	27.2	21	30.9	170	27.6
<b>149</b>	<b>PHARYNX</b>	<b>70</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>88</b>	<b>100.0</b>
149.0	Unspecified	68	97.1	17	94.4	85	96.6
149.8	Other	1	1.4	1	5.6	2	2.3
149.9	NOS	1	1.4	0	0.0	1	1.1
<b>150</b>	<b>OESOPHAGUS</b>	<b>3281</b>	<b>100.0</b>	<b>1089</b>	<b>100.0</b>	<b>4370</b>	<b>100.0</b>
150.0	Cervical esophagus	25	0.8	10	0.9	35	0.8
150.1	Thoracic esophagus	25	0.8	4	0.4	29	0.7
150.2	Abdominal esophagus	4	0.1	1	0.1	5	0.1

ICD9	SITE	Male	%	Female	%	All	%
<b>150</b>	<b>OESOPHAGUS (cont'd)</b>						
150.3	Upper third of esophagus	280	8.5	119	10.9	399	9.1
150.4	Middle third of esophagus	879	26.8	279	25.6	1158	26.5
150.5	Lower third of esophagus	531	16.2	118	10.8	649	14.9
150.8	Other specified part of esophagus	8	0.2	2	0.2	10	0.2
150.9	Esophagus, unspecified	1529	46.6	556	51.1	2085	47.7
<b>151</b>	<b>STOMACH</b>	<b>10518</b>	<b>100.0</b>	<b>6164</b>	<b>100.0</b>	<b>16682</b>	<b>100.0</b>
151.0	Cardia	1081	10.3	369	6.0	1450	8.7
151.1	Pylorus	426	4.1	257	4.2	683	4.1
151.2	Pyloric antrum	787	7.5	506	8.2	1293	7.8
151.3	Fundus of stomach	54	0.5	32	0.5	86	0.5
151.4	Body of stomach	199	1.9	113	1.8	312	1.9
151.5	Lesser curvature of stomach, unspecified	163	1.5	106	1.7	269	1.6
151.6	Greater curvature of stomach, unspecified	50	0.5	43	0.7	93	0.6
151.8	Other specified sites of stomach	106	1.0	47	0.8	153	0.9
151.9	Stomach, unspecified	7652	72.8	4691	76.1	12343	74.0
<b>152</b>	<b>SMALL INTESTINES</b>	<b>291</b>	<b>100.0</b>	<b>259</b>	<b>100.0</b>	<b>550</b>	<b>100.0</b>
152.0	Duodenum	138	47.4	126	48.6	264	48.0
152.1	Jejunum	42	14.4	46	17.8	88	16.0
152.2	Ileum	35	12.0	16	6.2	51	9.3
152.3	Meckel's diverticulum	3	1.0	1	0.4	4	0.7
152.8	Other specified sites of small intestine	3	1.0	0	0.0	3	0.5
152.9	Small intestine, unspecified	70	24.1	70	27.0	140	25.5
<b>153</b>	<b>COLON</b>	<b>8798</b>	<b>100.0</b>	<b>9001</b>	<b>100.0</b>	<b>17799</b>	<b>100.0</b>
153.0	Hepatic flexure	357	4.1	321	3.6	678	3.8
153.1	Transverse colon	752	8.5	852	9.5	1604	9.0
153.2	Descending colon	644	7.3	592	6.6	1236	6.9
153.3	Sigmoid colon	3228	36.7	3138	34.9	6366	35.8
153.4	Cecum	699	7.9	811	9.0	1510	8.5
153.5	Appendix vermiformis	118	1.3	165	1.8	283	1.6
153.6	Ascending colon	585	6.6	684	7.6	1269	7.1
153.7	Splenic flexure	332	3.8	249	2.8	581	3.3
153.8	Other specified sites of large intestine	576	6.5	586	6.5	1162	6.5
153.9	Colon, unspecified	1507	17.1	1603	17.8	3110	17.5
<b>154</b>	<b>RECTUM</b>	<b>6982</b>	<b>100.0</b>	<b>5127</b>	<b>100.0</b>	<b>12109</b>	<b>100.0</b>
154.0	Rectosigmoid junction	1541	22.1	1198	23.4	2739	22.6
154.1	Rectum	5235	75.0	3729	72.7	8964	74.0
154.2	Anal canal	124	1.8	116	2.3	240	2.0
154.3	Anus, unspecified	44	0.6	55	1.1	99	0.8
154.8	Other sites of rectum, rectosigmoid junction, and anus	38	0.5	29	0.6	67	0.6
<b>155</b>	<b>LIVER</b>	<b>9727</b>	<b>100.0</b>	<b>2910</b>	<b>100.0</b>	<b>12637</b>	<b>100.0</b>
155.0	Liver, primary	8867	91.2	2363	81.2	11230	88.9
155.1	Intrahepatic bile ducts	356	3.7	331	11.4	687	5.4
155.2	Liver, not specified as primary or secondary	504	5.2	216	7.4	720	5.7

ICD9	SITE	Male	%	Female	%	All	%
<b>156</b>	<b>GALL BLADDER, ETC.</b>	<b>810</b>	<b>100.0</b>	<b>988</b>	<b>100.0</b>	<b>1798</b>	<b>100.0</b>
156.0	Gallbladder	317	39.1	527	53.3	844	46.9
156.1	Extrahepatic bile ducts	207	25.6	191	19.3	398	22.1
156.2	Ampulla of Vater	261	32.2	244	24.7	505	28.1
156.8	Other specified sites of gallbladder and extrahepatic bile ducts	4	0.5	3	0.3	7	0.4
156.9	Biliary tract, part unspecified	21	2.6	23	2.3	44	2.4
<b>157</b>	<b>PANCREAS</b>	<b>2114</b>	<b>100.0</b>	<b>1672</b>	<b>100.0</b>	<b>3786</b>	<b>100.0</b>
157.0	Head of pancreas	632	29.9	495	29.6	1127	29.8
157.1	Body of pancreas	71	3.4	60	3.6	131	3.5
157.2	Tail of pancreas	94	4.4	79	4.7	173	4.6
157.3	Pancreatic duct	7	0.3	4	0.2	11	0.3
157.4	Islets of Langerhans	5	0.2	4	0.2	9	0.2
157.8	Other specified sites of pancreas	50	2.4	33	2.0	83	2.2
157.9	Pancreas, part unspecified	1255	59.4	997	59.6	2252	59.5
<b>158</b>	<b>RETROPERITONEUM &amp; PERITONEUM</b>	<b>135</b>	<b>100.0</b>	<b>192</b>	<b>100.0</b>	<b>327</b>	<b>100.0</b>
158.0	Retroperitoneum	99	73.3	116	60.4	215	65.7
158.8	Specified parts of peritoneum	21	15.6	25	13.0	46	14.1
158.9	Peritoneum, unspecified	15	11.1	51	26.6	66	20.2
<b>160</b>	<b>NOSE, SINUSES, ETC.</b>	<b>438</b>	<b>100.0</b>	<b>238</b>	<b>100.0</b>	<b>676</b>	<b>100.0</b>
160.0	Nasal cavities	189	43.2	88	37.0	277	41.0
160.1	Auditory tube, middle ear, and mastoid air cells	32	7.3	15	6.3	47	7.0
160.2	Maxillary sinus	166	37.9	107	45.0	273	40.4
160.3	Ethmoidal sinus	32	7.3	20	8.4	52	7.7
160.4	Frontal sinus	0	0.0	1	0.4	1	0.1
160.5	Sphenoidal sinus	8	1.8	3	1.3	11	1.6
160.8	Other accessory sinuses	2	0.5	2	0.8	4	0.6
160.9	Accessory sinus, unspecified	9	2.1	2	0.8	11	1.6
<b>161</b>	<b>LARYNX</b>	<b>2310</b>	<b>100.0</b>	<b>248</b>	<b>100.0</b>	<b>2558</b>	<b>100.0</b>
161.0	Glottis	1004	43.5	85	34.3	1089	42.6
161.1	Supraglottis	416	18.0	63	25.4	479	18.7
161.2	Subglottis	29	1.3	5	2.0	34	1.3
161.3	Laryngeal cartilages	14	0.6	5	2.0	19	0.7
161.8	Other specified sites of larynx	41	1.8	3	1.2	44	1.7
161.9	Larynx, unspecified	806	34.9	87	35.1	893	34.9
<b>162</b>	<b>LUNG</b>	<b>22065</b>	<b>100.0</b>	<b>9204</b>	<b>100.0</b>	<b>31269</b>	<b>100.0</b>
162.0	Trachea	31	0.1	12	0.1	43	0.1
162.2	Main bronchus	197	0.9	85	0.9	282	0.9
162.3	Upper lobe, bronchus or lung	2117	9.6	865	9.4	2982	9.5
162.4	Middle lobe, bronchus or lung	201	0.9	128	1.4	329	1.1
162.5	Lower lobe, bronchus or lung	1146	5.2	555	6.0	1701	5.4
162.8	Other parts of bronchus or lung	70	0.3	32	0.3	102	0.3
162.9	Bronchus and lung, unspecified	18303	83.0	7527	81.8	25830	82.6
<b>163</b>	<b>PLEURA</b>	<b>100</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>	<b>128</b>	<b>100.0</b>
163.0	Parietal pleura	2	2.0	2	7.1	4	3.1
163.9	Pleura, unspecified	98	98.0	26	92.9	124	96.9



ICD9	SITE	Male	%	Female	%	All	%
<b>164</b>	<b>THYMUS, HEART</b>	<b>272</b>	<b>100.0</b>	<b>185</b>	<b>100.0</b>	<b>457</b>	<b>100.0</b>
164.0	Thymus	160	58.8	146	78.9	306	67.0
164.1	Heart	3	1.1	2	1.1	5	1.1
164.2	Anterior mediastinum	22	8.1	10	5.4	32	7.0
164.3	Posterior mediastinum	5	1.8	1	0.5	6	1.3
164.8	Other parts of mediastinum	0	0.0	2	1.1	2	0.4
164.9	Mediastinum, part unspecified	82	30.1	24	13.0	106	23.2
<b>170</b>	<b>BONE</b>	<b>438</b>	<b>100.0</b>	<b>349</b>	<b>100.0</b>	<b>787</b>	<b>100.0</b>
170.0	Bones of skull and face, except mandible	19	4.3	25	7.2	44	5.6
170.1	Mandible	17	3.9	14	4.0	31	3.9
170.2	Vertebral column, excluding sacrum and coccyx	17	3.9	11	3.2	28	3.6
170.3	Ribs, sternum, and clavicle	18	4.1	14	4.0	32	4.1
170.4	Scapula and long bones of upper limb	58	13.2	37	10.6	95	12.1
170.5	Short bones of upper limb	3	0.7	3	0.9	6	0.8
170.6	Pelvic bones, sacrum, and coccyx	52	11.9	36	10.3	88	11.2
170.7	Long bones of lower limb	199	45.4	161	46.1	360	45.7
170.8	Short bones of lower limb	19	4.3	11	3.2	30	3.8
170.9	Bone and articular cartilage, site unspecified	36	8.2	37	10.6	73	9.3
<b>171</b>	<b>CONNECTIVE TISSUES</b>	<b>785</b>	<b>100.0</b>	<b>602</b>	<b>100.0</b>	<b>1387</b>	<b>100.0</b>
171.0	Connective and other soft tissue of head, face, and neck	77	9.8	45	7.5	122	8.8
171.2	Connective and other soft tissue of upper limb, including shoulder	86	11.0	67	11.1	153	11.0
171.3	Connective and other soft tissue of lower limb, including hip	264	33.6	197	32.7	461	33.2
171.4	Connective and other soft tissue of thorax	55	7.0	39	6.5	94	6.8
171.5	Connective and other soft tissue of abdomen	40	5.1	38	6.3	78	5.6
171.6	Connective and other soft tissue of pelvis	68	8.7	53	8.8	121	8.7
171.7	Connective and other soft tissue of trunk, unspecified	65	8.3	42	7.0	107	7.7
171.8	Other specified sites of connective and other soft tissue	5	0.6	4	0.7	9	0.6
171.9	Connective and other soft tissue, site unspecified	125	15.9	117	19.4	242	17.4
<b>172</b>	<b>MELANOMA OF SKIN</b>	<b>242</b>	<b>100.0</b>	<b>230</b>	<b>100.0</b>	<b>472</b>	<b>100.0</b>
172.0	Malignant melanoma of skin of lip	2	0.8	0	0.0	2	0.4
172.1	Malignant melanoma of skin of eyelid, including canthus	2	0.8	4	1.7	6	1.3
172.2	Malignant melanoma of skin of ear and external auditory canal	3	1.2	2	0.9	5	1.1
172.3	Malignant melanoma of skin of other and unspecified parts of face	11	4.5	16	7.0	27	5.7
172.4	Malignant melanoma of skin of scalp and neck	8	3.3	10	4.3	18	3.8
172.5	Malignant melanoma of skin of trunk, except scrotum	33	13.6	26	11.3	59	12.5

ICD9	SITE	Male	%	Female	%	All	%
<b>172</b>	<b>MELANOMA OF SKIN (cont'd)</b>						
172.6	Malignant melanoma of skin of upper limb, including shoulder	33	13.6	35	15.2	68	14.4
172.7	Malignant melanoma of skin of lower limb, including hip	89	36.8	103	44.8	192	40.7
172.8	Malignant melanoma of other specified sites of skin	4	1.7	3	1.3	7	1.5
172.9	Melanoma of skin, site unspecified	57	23.6	31	13.5	88	18.6
<b>173</b>	<b>SKIN, OTHERS</b>	<b>3974</b>	<b>100.0</b>	<b>3810</b>	<b>100.0</b>	<b>7784</b>	<b>100.0</b>
173.0	Other skin of lip	118	3.0	140	3.7	258	3.3
173.1	Other skin of eyelid, including canthus	268	6.7	282	7.4	550	7.1
173.2	Other skin of ear and external auditory canal	234	5.9	151	4.0	385	4.9
173.3	Other skin of other and unspecified parts of face	1455	36.6	1933	50.7	3388	43.5
173.4	Other scalp and skin of neck	257	6.5	277	7.3	534	6.9
173.5	Other skin of trunk, except scrotum	415	10.4	224	5.9	639	8.2
173.6	Other skin of upper limb, including shoulder	313	7.9	168	4.4	481	6.2
173.7	Other skin of lower limb, including hip	447	11.2	258	6.8	705	9.1
173.8	Other other specified sites of skin	145	3.6	78	2.0	223	2.9
173.9	Other skin, site unspecified	322	8.1	299	7.8	621	8.0
<b>174</b>	<b>FEMALE BREAST</b>			<b>23031</b>	<b>100.0</b>	<b>23031</b>	<b>100.0</b>
174.0	Nipple and areola of female breast			98	0.4	98	0.4
174.1	Central portion of female breast			429	1.9	429	1.9
174.2	Upper-inner quadrant of female breast			473	2.1	473	2.1
174.3	Lower-inner quadrant of female breast			304	1.3	304	1.3
174.4	Upper-outer quadrant of female breast			1622	7.0	1622	7.0
174.5	Lower-outer quadrant of female breast			334	1.5	334	1.5
174.6	Axillary tail of female breast			13	0.1	13	0.1
174.8	Other specified sites of female breast			338	1.5	338	1.5
174.9	Breast (female), unspecified			19420	84.3	19420	84.3
<b>175</b>	<b>MALE BREAST</b>	<b>77</b>	<b>100.0</b>			<b>77</b>	<b>100.0</b>
175.0	Nipple and areola of male breast	2	2.6			2	2.6
175.9	Other and unspecified sites of male breast	75	97.4			75	97.4
<b>180</b>	<b>CERVIX UTERI</b>			<b>7096</b>	<b>100.0</b>	<b>7096</b>	<b>100.0</b>
180.0	Endocervix			73	1.0	73	1.0
180.1	Exocervix			6	0.1	6	0.1
180.8	Other specified sites of cervix			6	0.1	6	0.1
180.9	Cervix uteri, unspecified			7011	98.8	7011	98.8
<b>181</b>	<b>CHORIOEPITHELIOMA</b>			<b>162</b>	<b>100.0</b>	<b>162</b>	<b>100.0</b>
181.9	Placenta			162	100.0	162	100.0
<b>182</b>	<b>CORPUS UTERI</b>			<b>4121</b>	<b>100.0</b>	<b>4121</b>	<b>100.0</b>
182.0	Corpus uteri, except isthmus			4115	99.9	4115	99.9
182.1	Isthmus			1	0.0	1	0.0
182.8	Other specified sites of body of uterus			5	0.1	5	0.1

ICD9	SITE	Male	%	Female	%	All	%
<b>183</b>	<b>OVARY, ETC.</b>			<b>5374</b>	<b>100.0</b>	<b>5374</b>	<b>100.0</b>
183.0	Ovary			5268	98.0	5268	98.0
183.2	Fallopian tube			74	1.4	74	1.4
183.3	Broad ligament of uterus			10	0.2	10	0.2
183.8	Other specified sites of uterine adnexa			17	0.3	17	0.3
183.9	Uterine adnexa, unspecified			5	0.1	5	0.1
<b>184</b>	<b>OTHER FEM. GENITAL</b>			<b>464</b>	<b>100.0</b>	<b>464</b>	<b>100.0</b>
184.0	Vagina			177	38.1	177	38.1
184.1	Labia majora			14	3.0	14	3.0
184.2	Labia minora			5	1.1	5	1.1
184.3	Clitoris			5	1.1	5	1.1
184.4	Vulva, unspecified			258	55.6	258	55.6
184.8	Other specified sites of female genital organs			1	0.2	1	0.2
184.9	Female genital organ, site unspecified			4	0.9	4	0.9
<b>185</b>	<b>PROSTATE</b>	<b>5794</b>	<b>100.0</b>			<b>5794</b>	<b>100.0</b>
185.9	NOS	5794	100.0			5794	100.0
<b>186</b>	<b>TESTIS</b>	<b>560</b>	<b>100.0</b>			<b>560</b>	<b>100.0</b>
186.0	Undescended testis	11	2.0			11	2.0
186.9	Other and unspecified testis	549	98.0			549	98.0
<b>187</b>	<b>PENIS</b>	<b>425</b>	<b>100.0</b>			<b>425</b>	<b>100.0</b>
187.1	Prepuce	23	5.4			23	5.4
187.2	Glans penis	24	5.6			24	5.6
187.3	Body of penis	2	0.5			2	0.5
187.4	Penis, part unspecified	259	60.9			259	60.9
187.5	Epididymis	4	0.9			4	0.9
187.6	Spermatic cord	6	1.4			6	1.4
187.7	Scrotum	96	22.6			96	22.6
187.8	Other specified sites of male genital organs	8	1.9			8	1.9
187.9	Male genital organ, site unspecified	3	0.7			3	0.7
<b>188</b>	<b>BLADDER</b>	<b>3124</b>	<b>100.0</b>	<b>1002</b>	<b>100.0</b>	<b>4126</b>	<b>100.0</b>
188.0	Trigone of urinary bladder	8	0.3	3	0.3	11	0.3
188.1	Dome of urinary bladder	19	0.6	7	0.7	26	0.6
188.2	Lateral wall of urinary bladder	137	4.4	33	3.3	170	4.1
188.3	Anterior wall of urinary bladder	6	0.2	0	0.0	6	0.1
188.4	Posterior wall of urinary bladder	16	0.5	8	0.8	24	0.6
188.5	Bladder neck	13	0.4	1	0.1	14	0.3
188.6	Ureteric orifice	31	1.0	12	1.2	43	1.0
188.7	Urachus	6	0.2	4	0.4	10	0.2
188.8	Other specified sites of bladder	55	1.8	21	2.1	76	1.8
188.9	Bladder, part unspecified	2833	90.7	913	91.1	3746	90.8
<b>189</b>	<b>KIDNEY &amp; OTH.URINARY</b>	<b>2126</b>	<b>100.0</b>	<b>1196</b>	<b>100.0</b>	<b>3322</b>	<b>100.0</b>
189.0	Kidney, except pelvis	1783	83.9	957	80.0	2740	82.5
189.1	Renal pelvis	198	9.3	112	9.4	310	9.3
189.2	Ureter	110	5.2	78	6.5	188	5.7
189.3	Urethra	17	0.8	35	2.9	52	1.6
189.8	Other specified sites of urinary organs	5	0.2	4	0.3	9	0.3

ICD9	SITE	Male	%	Female	%	All	%
<b>189</b>	<b>KIDNEY &amp; OTH.URINARY (cont'd)</b>						
189.9	Urinary organ, site unspecified	13	0.6	10	0.8	23	0.7
<b>190</b>	<b>EYE</b>	<b>109</b>	<b>100.0</b>	<b>87</b>	<b>100.0</b>	<b>196</b>	<b>100.0</b>
190.0	Eyeball, except conjunctiva, cornea, retina, and choroid	13	11.9	12	13.8	25	12.8
190.1	Orbit	9	8.3	4	4.6	13	6.6
190.2	Lacrimal gland	4	3.7	7	8.0	11	5.6
190.3	Conjunctiva	19	17.4	8	9.2	27	13.8
190.4	Cornea	2	1.8	0	0.0	2	1.0
190.5	Retina	41	37.6	37	42.5	78	39.8
190.6	Choroid	1	0.9	1	1.1	2	1.0
190.7	Lacrimal duct	0	0.0	1	1.1	1	0.5
190.9	Eye, part unspecified	20	18.3	17	19.5	37	18.9
<b>191</b>	<b>BRAIN</b>	<b>1070</b>	<b>100.0</b>	<b>833</b>	<b>100.0</b>	<b>1903</b>	<b>100.0</b>
191.0	Cerebrum, except lobes and ventricles	49	4.6	45	5.4	94	4.9
191.1	Frontal lobe	125	11.7	109	13.1	234	12.3
191.2	Temporal lobe	85	7.9	55	6.6	140	7.4
191.3	Parietal lobe	69	6.4	49	5.9	118	6.2
191.4	Occipital lobe	15	1.4	10	1.2	25	1.3
191.5	Ventricles	31	2.9	30	3.6	61	3.2
191.6	Cerebellum nos	130	12.1	94	11.3	224	11.8
191.7	Brain stem	33	3.1	48	5.8	81	4.3
191.8	Other parts of brain	47	4.4	30	3.6	77	4.0
191.9	Brain, unspecified	486	45.4	363	43.6	849	44.6
<b>192</b>	<b>NERVOUS SYSTEM</b>	<b>90</b>	<b>100.0</b>	<b>99</b>	<b>100.0</b>	<b>189</b>	<b>100.0</b>
192.0	Cranial nerves	5	5.6	10	10.1	15	7.9
192.1	Cerebral meninges	41	45.6	57	57.6	98	51.9
192.2	Spinal cord	31	34.4	14	14.1	45	23.8
192.3	Spinal meninges	1	1.1	2	2.0	3	1.6
192.8	Other specified sites of nervous system	1	1.1	0	0.0	1	0.5
192.9	Nervous system, part unspecified	11	12.2	16	16.2	27	14.3
<b>193</b>	<b>THYROID</b>	<b>942</b>	<b>100.0</b>	<b>3140</b>	<b>100.0</b>	<b>4082</b>	<b>100.0</b>
193.9	The thyroid gland, unspecified	942	100.0	3140	100.0	4082	100.0
<b>194</b>	<b>OTHER ENDOCRINE</b>	<b>229</b>	<b>100.0</b>	<b>168</b>	<b>100.0</b>	<b>397</b>	<b>100.0</b>
194.0	Adrenal gland	93	40.6	80	47.6	173	43.6
194.1	Parathyroid gland	1	0.4	4	2.4	5	1.3
194.3	Pituitary gland and craniopharyngeal duct	55	24.0	43	25.6	98	24.7
194.4	Pineal gland	59	25.8	16	9.5	75	18.9
194.5	Carotid body	5	2.2	11	6.5	16	4.0
194.6	Aortic body and other paraganglia	11	4.8	14	8.3	25	6.3
194.8	Other endocrine glands and related structures, other	2	0.9	0	0.0	2	0.5
194.9	Endocrine gland, site unspecified	3	1.3	0	0.0	3	0.8

## 10. Multiple Primary Cancers

The Registry's criteria for registering multiple primary cancers include the following:

- (a) histological confirmation of all primary sites;
- (b) exclusion of probable metastasis from the first primary site;
- (c) exclusion of cancers occurring in the same site (first three digits) but different subsite (4th digit) and cancers of multi-centric origin in the same organ or bilaterally paired organs.
- (d) exclusion of cancers occurring in certain sites that are grouped together as a single site in the context of recognizing multiple primaries as recommended in ICD-O.

A total of 6842 multiple primary cancers were registered among the resident population for the period 1968 to 2007: 6593 patients with two primaries, 243 with three primaries and 6 with four primaries.

Table 10.1 lists the number of multiple cancers by site and order of occurrence. Table 10.2 presents the site distribution of second and subsequent cancers in relation to the first primary. Table 10.3 shows the top ranked multiple primary site(s) by first primary site.

**Table 10.1 MULTIPLE CANCERS<sup>1</sup>: SITE DISTRIBUTION BY ORDER OF OCCURRENCES, 1968-2007**

SITE	ICD9	As first primary	As second primary	As third or fourth primary	Total number of occurrences
Colon	153	745	711	29	1485
Breast	174	846	533	11	1390
Lung	162	270	974	29	1273
Skin	173	631	393	26	1050
Stomach	151	374	565	18	957
Rectum	154	448	472	15	935
Prostate	185	288	327	20	635
Cervix	180	437	152	1	590
Bladder	188	284	277	9	570
Corpus uteri	182	283	254	6	543
Nasopharynx	147	383	138	7	528
Ovary	183	227	278	6	511
Lymphomas	200-2	202	202	8	412
Kidney	189	186	176	10	372
Thyroid	193	222	121	4	347
Larynx	161	221	104	4	329
Oesophagus	150	98	165	8	271
Liver	155	46	168	9	223
Leukaemias	204-8	70	116	8	194
Tongue	141	65	80	4	149
Mouth	143-5	71	58	2	131
Connective tissue	171	50	48	2	100
Pancreas	157	18	76	1	95
Gallbladder,etc	156	30	52	1	83
Nasal cavity	160	25	44	0	69
Vagina and vulva	184	23	41	3	67
Oropharynx	146	33	29	2	64
Small intestine	152	20	42	2	64
Salivary gland	142	35	18	5	58
Hypopharynx	148	24	32	1	57
Other & unspecified		187	196	4	387
<b>Total</b>		<b>6842</b>	<b>6842</b>	<b>255</b>	

<sup>1</sup> Listed in order of frequency.

**Table 10.2 MULTIPLE CANCERS: SITE DISTRIBUTION OF SECOND AND SUBSEQUENT CANCERS IN RELATION TO FIRST PRIMARY SITE, 1968-2007**

First primary SITE	Second or subsequent primary															
	ICD-9	141	142	143-5	146	147	148	150	151	152	153	154	155	156	157	160
Tongue	141		0	2	4	1	2	12	6	0	3	5	1	0	0	0
Salivary gland	142	2		0	1	3	0	0	5	0	3	2	0	0	0	1
Mouth	143-5	7	0	1	0	0	0	10	8	0	4	3	1	1	0	2
Oropharynx	146	3	0	2		4	1	5	1	0	0	1	0	0	0	0
Nasopharynx	147	31	5	11	6		2	2	16	1	24	22	11	5	2	19
Hypopharynx	148	0	0	1	1	0		4	2	0	1	0	0	0	0	0
Oesophagus	150	0	0	5	0	1	8		30	1	2	9	2	0	0	0
Stomach	151	0	1	4	2	11	4	11		2	88	43	13	1	3	1
Small intestine	152	0	0	0	0	0	0	0	2		5	3	0	0	1	0
Colon	153	5	1	3	0	18	1	21	99	2		66	20	11	12	3
Rectum	154	1	0	2	3	8	3	13	54	6	49		14	4	3	1
Liver	155	1	0	0	0	2	0	2	4	0	3	3		0	0	0
Gallbladder,etc	156	0	0	0	0	1	0	1	1	0	8	3	2		2	0
Pancreas	157	1	0	0	0	0	0	0	1	0	1	4	0	1		0
Nasal cavity	160	0	0	1	0	0	0	0	1	0	2	2	1	0	0	
Larynx	161	1	1	1	2	3	1	23	15	0	26	17	7	0	1	1
Lung	162	8	0	3	3	10	2	10	33	4	34	19	5	0	4	3
Connective tissue	171	2	0	0	0	3	0	3	10	0	6	6	1	0	0	0
Skin	173	4	3	4	1	4	3	15	66	5	82	43	28	6	9	4
Breast	174	3	7	6	0	18	0	12	67	5	121	57	11	10	12	2
Cervix	180	1	0	3	1	9	2	5	28	5	47	43	6	1	4	0
Corpus uteri	182	1	1	0	1	3	0	1	9	2	35	21	5	3	3	1
Ovary	183	0	1	0	1	3	0	3	10	1	26	22	4	1	4	0
Vagina and vulva	184	0	0	0	0	0	0	0	1	0	4	2	0	0	0	0
Prostate	185	0	0	5	1	8	0	1	32	0	54	21	9	3	2	1
Bladder	188	1	1	0	0	6	0	8	19	1	37	22	12	1	2	2
Kidney	189	1	0	2	1	1	1	1	17	1	20	12	4	3	2	0
Thyroid	193	4	2	0	0	12	1	1	7	2	19	9	4	1	4	0
Lymphomas	200-2	4	0	1	1	10	1	2	19	6	14	13	10	0	2	0
Leukaemias	204-8	1	0	2	0	2	1	1	5	0	8	4	0	1	2	0
Other & unspecified		2	0	1	2	4	0	6	15	0	14	10	6	0	3	2

**Table 10.2 MULTIPLE CANCERS: SITE DISTRIBUTION OF SECOND AND SUBSEQUENT CANCERS IN RELATION TO FIRST PRIMARY SITE, 1968-2007**

First primary SITE	Second or subsequent primary															
	ICD-9	161	162	171	173	174	180	182	183	184	185	188	189	193	200-2	204-8
Tongue	141	8	8	0	3	1	1	1	1	0	4	0	2	0	0	0
Salivary gland	142	0	0	0	4	6	0	0	0	0	0	0	0	2	3	0
Mouth	143-5	5	18	0	5	0	2	1	0	0	1	3	0	0	0	0
Oropharynx	146	1	6	0	4	2	0	0	0	0	1	2	0	1	2	0
Nasopharynx	147	7	64	6	35	22	10	6	6	0	22	5	4	5	15	12
Hypopharynx	148	1	7	0	3	0	0	0	0	0	2	1	1	1	0	0
Oesophagus	150	7	17	0	7	0	0	0	0	0	4	1	2	1	3	0
Stomach	151	9	58	4	30	21	7	1	4	0	24	9	14	4	12	4
Small intestine	152	0	2	0	1	0	0	0	3	1	3	0	0	0	0	0
Colon	153	10	93	3	60	60	26	27	33	2	64	37	29	20	23	13
Rectum	154	13	74	2	28	45	10	16	9	1	34	21	21	4	12	3
Liver	155	0	11	1	3	3	1	1	0	0	3	4	0	1	1	1
Gallbladder,etc	156	0	6	0	0	1	2	1	0	0	0	0	1	0	0	1
Pancreas	157	0	1	0	0	4	0	0	0	0	1	0	2	0	1	0
Nasal cavity	160	0	3	0	4	3	2	1	0	0	0	0	0	1	1	1
Larynx	161		64	4	15	0	1	0	0	0	19	9	1	6	5	2
Lung	162	9		3	20	19	5	5	2	0	21	17	10	9	9	5
Connective tissue	171	1	7		1	8	0	0	0	0	1	0	0	1	1	0
Skin	173	13	125	3		50	9	6	5	0	50	35	4	9	26	12
Breast	174	1	79	6	61		51	123	80	8	0	16	14	24	41	26
Cervix	180	2	92	2	19	61		23	23	23	0	15	6	7	7	5
Corpus uteri	182	2	25	1	6	56	3		96	2	0	6	8	6	2	3
Ovary	183	0	20	1	3	60	7	28		4	0	9	6	4	5	4
Vagina and vulva	184	1	3	0	2	2	3	0	1		0	0	2	1	0	0
Prostate	185	6	52	3	23	0	0	0	0	0		30	11	2	15	4
Bladder	188	0	56	3	15	7	0	0	1	0	49		28	4	4	5
Kidney	189	2	20	3	11	7	0	1	2	2	19	45		1	4	2
Thyroid	193	2	20	2	9	66	3	13	5	0	8	6	5		6	8
Lymphomas	200-2	2	31	2	22	14	3	3	3	0	9	5	4	5		9
Leukaemias	204-8	3	8	0	10	5	3	1	2	0	3	3	1	1	2	
Other & unspecified		3	33	1	15	18	4	2	8	1	5	7	10	5	4	4



**Table 10.3 MOST FREQUENT MULTIPLE PRIMARY SITES**

<b>First Primary</b>	<b>First Most Frequent Multiple Primary Site</b>	<b>Second Most Frequent Multiple Primary Site</b>
Tongue	Oesophagus	
Salivary Gland	Breast	Stomach
Mouth	Lung	Oesophagus
Oropharynx	Lung	Oesophagus
Stomach	Colon	Lung
Small Intestine	Colon	
Colon	Stomach	Lung
Rectum	Lung	Stomach
Liver	Lung	
Gallbladder	Colon	Lung
Pancreas	Breast*	Rectum
Nasal Cavity	Skin	
Larynx	Lung	Colon
Lung	Colon	Stomach
Connective Tissue	Stomach	Breast
Skin	Lung	Colon
Breast	Corpus Uteri	Colon
Cervix	Lung	Breast
Corpus Uteri	Ovary	Breast
Ovary	Breast	Corpus Uteri
Vagina & vulva	Colon	
Prostate	Colon	Lung
Bladder	Lung	Prostate
Kidney	Bladder	
Thyroid	Breast	Lung
Lymphomas	Lung	Skin
Leukaemias	Colon*	Skin

\* Tied in ranking with second most frequent multiple primary site.

## 11 HISTOLOGIC TYPES

Table 11.1 shows the numbers of cancers by histologic type as notified, for the period 1998-2007. Some of the categories listed in this table include combinations of histological variants or subtypes. The category "other & unspecified" includes microscopically confirmed cancers of uncertain or undetermined histogenesis.

Two points should be taken into consideration in the interpretation of the figures: the proportion of cases histologically confirmed compared to the total number of cases diagnosed according to site, and variations in diagnostic criteria and terminology among pathologists. Notwithstanding these considerations, the available distributional data are useful as an initial guide on histologic types for each major site.

Table 11.2 shows the number of cervical carcinoma in-situ reported in Singapore female residents for the seven 5-year periods. The national CervicalScreen Singapore programme was launched in 2004 to encourage women aged 25-69 who ever had sex to go for Pap smears once every 3 years.

Table 11.1 HISTOLOGIC TYPE BY SITE, 1998-2007

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Lip (ICD-9 140)</b>					
	Squamous Cell Carcinoma	1	5	6	50.0
	Adenocarcinoma, NOS	1	2	3	25.0
	Basaloid Squamous Cell Carcinoma	0	1	1	8.3
	Adenoid Cystic Carcinoma	0	1	1	8.3
	Mucoepidermoid Carcinoma	0	1	1	8.3
	<b>Total with histology</b>	<b>2</b>	<b>10</b>	<b>12</b>	<b>100.0</b>
	<b>All cases</b>	<b>2</b>	<b>10</b>	<b>12</b>	
<b>Tongue (ICD-9 141)</b>					
	Squamous Cell Carcinoma	199	208	407	94.2
	Adenoid Cystic Carcinoma	3	4	7	1.6
	Carcinoma, NOS	2	4	6	1.4
	Mucoepidermoid Carcinoma	2	3	5	1.2
	Adenocarcinoma, NOS	1	1	2	0.5
	Carcinoma, Undifferentiated	1	0	1	0.2
	Small Cell Carcinoma	0	1	1	0.2
	Lymphoepithelial Carcinoma	1	0	1	0.2
	Basaloid Squamous Cell Carcinoma	0	1	1	0.2
	Paraganglioma, Malignant	1	0	1	0.2

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Tongue (ICD-9 141) Cont'd</b>					
	<b>Total with histology</b>	<b>210</b>	<b>222</b>	<b>432</b>	<b>100.0</b>
	<b>All cases</b>	<b>214</b>	<b>226</b>	<b>440</b>	
<b>Salivary gland (ICD-9 142)</b>					
	Mucoepidermoid Carcinoma	19	41	60	24.5
	Adenoid Cystic Carcinoma	27	20	47	19.2
	Acinar Cell Carcinoma	24	14	38	15.5
	Adenocarcinoma, NOS	7	14	21	8.6
	Lymphoepithelial Carcinoma	7	11	18	7.3
	Squamous Cell Carcinoma	5	7	12	4.9
	Carcinoma In Pleomorphic Adenoma	5	4	9	3.7
	Carcinoma, NOS	4	4	8	3.3
	Basal Cell Adenocarcinoma	6	2	8	3.3
	Epithelial-Myoepithelial Carcinoma	5	3	8	3.3
	Neoplasm, Malignant, NOS	1	3	4	1.6
	Cystadenocarcinoma	2	1	3	1.2
	Duct Carcinoma	0	2	2	0.8
	Malignant Myoepithelioma	1	1	2	0.8
	Carcinoma, Undifferentiated	0	1	1	0.4
	Mucinous Adenocarcinoma	1	0	1	0.4
	Adenosquamous Carcinoma	1	0	1	0.4
	Desmoplastic Small Round Cell Tumor	0	1	1	0.4
	Primitive Neuroectodermal Tumor	0	1	1	0.4
	<b>Total with histology</b>	<b>115</b>	<b>130</b>	<b>245</b>	<b>100.0</b>
	<b>All cases</b>	<b>115</b>	<b>130</b>	<b>245</b>	
<b>Mouth (ICD-9 143-145)</b>					
	Squamous Cell Carcinoma	145	146	291	77.4
	Mucoepidermoid Carcinoma	19	14	33	8.8
	Adenoid Cystic Carcinoma	7	6	13	3.5
	Adenocarcinoma, NOS	5	7	12	3.2
	Carcinoma, NOS	1	5	6	1.6
	Carcinoma, Undifferentiated	2	2	4	1.1
	Basaloid Squamous Cell Carcinoma	0	3	3	0.8
	Neoplasm, Malignant, NOS	1	1	2	0.5
	Adenosquamous Carcinoma	2	0	2	0.5
	Malignant Melanoma, NOS	1	1	2	0.5
	Sarcoma, NOS	1	1	2	0.5
	Clear Cell Adenocarcinoma	0	1	1	0.3
	Mucinous Adenocarcinoma	0	1	1	0.3
	Rhabdomyosarcoma	0	1	1	0.3
	Carcinoma In Pleomorphic Adenoma	1	0	1	0.3
	Mesenchymoma, Malignant	1	0	1	0.3

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Mouth (ICD-9 143-145) Cont'd</b>					
	Hemangiosarcoma	1	0	1	0.3
	<b>Total with histology</b>	<b>187</b>	<b>189</b>	<b>376</b>	<b>100.0</b>
	<b>All cases</b>	<b>187</b>	<b>190</b>	<b>377</b>	
<b>Oropharynx (ICD-9 146)</b>					
	Squamous Cell Carcinoma	91	92	183	88.4
	Carcinoma, Undifferentiated	4	6	10	4.8
	Carcinoma, NOS	3	2	5	2.4
	Lymphoepithelial Carcinoma	3	0	3	1.4
	Adenocarcinoma, NOS	2	0	2	1.0
	Basaloid Squamous Cell Carcinoma	0	1	1	0.5
	Mucoepidermoid Carcinoma	0	1	1	0.5
	Sarcoma, NOS	1	0	1	0.5
	Hemangiopericytoma, Malignant	0	1	1	0.5
	<b>Total with histology</b>	<b>104</b>	<b>103</b>	<b>207</b>	<b>100.0</b>
	<b>All cases</b>	<b>104</b>	<b>105</b>	<b>209</b>	
<b>Nasopharynx (ICD-9 147)</b>					
	Carcinoma, Undifferentiated	1265	1338	2603	85.1
	Carcinoma, NOS	106	162	268	8.8
	Squamous Cell Carcinoma	83	71	154	5.0
	Adenocarcinoma, NOS	7	4	11	0.4
	Neuroendocrine Carcinoma	3	3	6	0.2
	Neoplasm, Malignant, NOS	1	4	5	0.2
	Adenoid Cystic Carcinoma	0	2	2	0.1
	Basaloid Squamous Cell Carcinoma	0	1	1	0.0
	Basaloid Carcinoma	0	1	1	0.0
	Mucoepidermoid Carcinoma	1	0	1	0.0
	Adenosquamous Carcinoma	0	1	1	0.0
	Adenocarcinoma With Neuroendocrine Differentiation	0	1	1	0.0
	Malignant Melanoma, NOS	1	0	1	0.0
	Embryonal Rhabdomyosarcoma	0	1	1	0.0
	Carcinosarcoma	0	1	1	0.0
	Teratoma, Malignant	0	1	1	0.0
	<b>Total with histology</b>	<b>1467</b>	<b>1591</b>	<b>3058</b>	<b>100.0</b>
	<b>All cases</b>	<b>1477</b>	<b>1601</b>	<b>3078</b>	
<b>Hypopharynx (ICD-9 148)</b>					
	Squamous Cell Carcinoma	85	111	196	94.7
	Carcinoma, NOS	3	3	6	2.9
	Carcinoma, Undifferentiated	0	3	3	1.4
	Adenocarcinoma, NOS				0.5
		0	1	1	

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Hypopharynx (ICD-9 148) Cont'd</b>					
	Adenoid Cystic Carcinoma	0	1	1	0.5
	<b>Total with histology</b>	<b>88</b>	<b>119</b>	<b>207</b>	<b>100.0</b>
	<b>All cases</b>	<b>91</b>	<b>121</b>	<b>212</b>	
<b>Oesophagus (ICD-9 150)</b>					
	Squamous Cell Carcinoma	382	320	702	79.2
	Adenocarcinoma, NOS	55	41	96	10.8
	Carcinoma, NOS	20	14	34	3.8
	Small Cell Carcinoma	7	3	10	1.1
	Mucinous Adenocarcinoma	6	3	9	1.0
	Basaloid Squamous Cell Carcinoma	0	6	6	0.7
	Neuroendocrine Carcinoma	3	3	6	0.7
	Adenosquamous Carcinoma	4	2	6	0.7
	Carcinoma, Undifferentiated	2	2	4	0.5
	Smooth Muscle Tumor, Borderline	1	2	3	0.3
	Gastrointestinal Stromal Sarcoma	0	3	3	0.3
	Neoplasm, Malignant, NOS	1	1	2	0.2
	Malignant Melanoma	2	0	2	0.2
	Leiomyosarcoma	2	0	2	0.2
	Carcinosarcoma	1	0	1	0.1
	<b>Total with histology</b>	<b>486</b>	<b>400</b>	<b>886</b>	<b>100.0</b>
	<b>All cases</b>	<b>506</b>	<b>421</b>	<b>927</b>	
<b>Stomach (ICD-9 151)</b>					
	Adenocarcinoma, NOS	1482	1157	2639	58.7
	Signet Ring Cell Carcinoma	373	430	803	17.8
	Adenocarcinoma, Intestinal Type	222	263	485	10.8
	Gastrointestinal Stromal Sarcoma	59	117	176	3.9
	Carcinoma, Diffuse Type	66	104	170	3.8
	Carcinoma, NOS	29	31	60	1.3
	Mucinous Adenocarcinoma	21	33	54	1.2
	Neuroendocrine Carcinoma	19	20	39	0.9
	Neoplasm, Malignant, NOS	7	10	17	0.4
	Squamous Cell Carcinoma	5	8	13	0.3
	Leiomyosarcoma	11	2	13	0.3
	Carcinoma, Undifferentiated	2	6	8	0.2
	Adenosquamous Carcinoma	4	4	8	0.2
	Small Cell Carcinoma	1	3	4	0.1
	Adenocarcinoma With Neuroendocrine Differentiation	0	2	2	0.0
	Malignant Melanoma	0	2	2	0.0
	Smooth Muscle Tumor, Borderline	2	0	2	0.0
	Lymphoepithelial Carcinoma	0	1	1	0.0

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Stomach (ICD-9 151) Cont'd</b>					
	Hepatoid Adenocarcinoma	0	1	1	0.0
	Sarcoma, NOS	1	0	1	0.0
	Carcinosarcoma	0	1	1	0.0
	<b>Total with histology</b>	<b>2304</b>	<b>2195</b>	<b>4499</b>	<b>100.0</b>
	<b>All cases</b>	<b>2419</b>	<b>2260</b>	<b>4679</b>	
<b>Small intestine (ICD-9 152)</b>					
	Adenocarcinoma, NOS	54	56	110	40.7
	Gastrointestinal Stromal Sarcoma	25	52	77	28.5
	Neuroendocrine Carcinoma	13	21	34	12.6
	Mucinous Adenocarcinoma	8	5	13	4.8
	Carcinoma, NOS	4	4	8	3.0
	Leiomyosarcoma	6	2	8	3.0
	Neoplasm, Malignant, NOS	2	4	6	2.2
	Carcinoma, Undifferentiated	2	2	4	1.5
	Sarcoma, NOS	2	1	3	1.1
	Squamous Cell Carcinoma	0	1	1	0.4
	Adenosquamous Carcinoma	1	0	1	0.4
	Malignant Fibrous Histiocytoma	1	0	1	0.4
	Liposarcoma, NOS	1	0	1	0.4
	Smooth Muscle Tumor, Borderline	1	0	1	0.4
	Hemangiosarcoma	0	1	1	0.4
	Kaposi Sarcoma	1	0	1	0.4
	<b>Total with histology</b>	<b>121</b>	<b>149</b>	<b>270</b>	<b>100.0</b>
	<b>All cases</b>	<b>129</b>	<b>151</b>	<b>280</b>	
<b>Colon (ICD-9 153)</b>					
	Adenocarcinoma, NOS	3233	3739	6972	89.8
	Mucinous Adenocarcinoma	213	390	603	7.8
	Neuroendocrine Carcinoma	39	46	85	1.1
	Carcinoma, NOS	31	22	53	0.7
	Neoplasm, Malignant, NOS	6	3	9	0.1
	Carcinoma, Undifferentiated	6	3	9	0.1
	Mucinous Cystic Tumor, Borderline	1	7	8	0.1
	Gastrointestinal Stromal Sarcoma	5	3	8	0.1
	Adenosquamous Carcinoma	1	4	5	0.1
	Squamous Cell Carcinoma	1	1	2	0.0
	Adenocarcinoma With Neuroendocrine Differentiation	0	2	2	0.0
	Leiomyosarcoma	1	1	2	0.0
	Small Cell Carcinoma	1	0	1	0.0
	Sarcoma, NOS	0	1	1	0.0
	Rhabdomyosarcoma	1	0	1	0.0

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Colon (ICD-9 153) Cont'd</b>					
	<b>Total with histology</b>	<b>3539</b>	<b>4222</b>	<b>7761</b>	<b>100.0</b>
	<b>All cases</b>	<b>3703</b>	<b>4432</b>	<b>8135</b>	
<b>Rectum and Anus (ICD-9 154)</b>					
	Adenocarcinoma, NOS	2118	2480	4598	89.1
	Mucinous Adenocarcinoma	112	140	252	4.9
	Neuroendocrine Carcinoma	65	101	166	3.2
	Squamous Cell Carcinoma	28	19	47	0.9
	Carcinoma, NOS	10	14	24	0.5
	Gastrointestinal Stromal Sarcoma	10	8	18	0.3
	Malignant Melanoma	7	8	15	0.3
	Basaloid Carcinoma	8	3	11	0.2
	Neoplasm, Malignant, NOS	4	4	8	0.2
	Basaloid Squamous Cell Carcinoma	0	5	5	0.1
	Cloacogenic Carcinoma	2	2	4	0.1
	Paget Disease, Extramammary	2	2	4	0.1
	Small Cell Carcinoma	2	0	2	0.0
	Adenosquamous Carcinoma	1	1	2	0.0
	Leiomyosarcoma	2	0	2	0.0
	Carcinosarcoma	0	1	1	0.0
	Kaposi Sarcoma	1	0	1	0.0
	<b>Total with histology</b>	<b>2372</b>	<b>2788</b>	<b>5160</b>	<b>100.0</b>
	<b>All cases</b>	<b>2416</b>	<b>2845</b>	<b>5261</b>	
<b>Liver (ICD-9 155)</b>					
	Hepatocellular Carcinoma	509	690	1199	81.5
	Adenocarcinoma, NOS	17	69	86	5.8
	Cholangiocarcinoma	35	43	78	5.3
	Carcinoma, NOS	17	26	43	2.9
	Neoplasm, Malignant, NOS	7	11	18	1.2
	Hepatoblastoma	8	8	16	1.1
	Combined Hepatocellular Carcinoma And Cholangiocarcinoma	1	9	10	0.7
	Hemangiosarcoma	0	6	6	0.4
	Neuroendocrine Carcinoma	3	1	4	0.3
	Sarcoma, NOS	2	2	4	0.3
	Hemangioendothelioma, Malignant	1	2	3	0.2
	Carcinosarcoma	1	1	2	0.1
	Small Cell Carcinoma	1	0	1	0.1
	Cystadenocarcinoma	0	1	1	0.1
	<b>Total with histology</b>	<b>602</b>	<b>869</b>	<b>1471</b>	<b>100.0</b>
	<b>All cases</b>	<b>2017</b>	<b>2249</b>	<b>4266</b>	

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Gall bladder and extrahepatic bile ducts (ICD-9 156)</b>					
	Adenocarcinoma, NOS	275	265	540	88.1
	Carcinoma, NOS	8	14	22	3.6
	Mucinous Adenocarcinoma	7	12	19	3.1
	Adenosquamous Carcinoma	4	5	9	1.5
	Squamous Cell Carcinoma	2	5	7	1.1
	Neuroendocrine Carcinoma	2	3	5	0.8
	Neoplasm, Malignant, NOS	2	2	4	0.7
	Carcinoma, Undifferentiated	0	2	2	0.3
	Carcinosarcoma	0	2	2	0.3
	Hepatoid Adenocarcinoma	0	1	1	0.2
	Sarcoma, NOS	0	1	1	0.2
	Embryonal Rhabdomyosarcoma	1	0	1	0.2
	<b>Total with histology</b>	<b>301</b>	<b>312</b>	<b>613</b>	<b>100.0</b>
	<b>All cases</b>	<b>392</b>	<b>387</b>	<b>779</b>	
<b>Pancreas (ICD-9 157)</b>					
	Adenocarcinoma, NOS	325	523	848	78.1
	Carcinoma, NOS	27	37	64	5.9
	Neoplasm, Malignant, NOS	8	28	36	3.3
	Neuroendocrine Carcinoma	8	22	30	2.8
	Mucinous Adenocarcinoma	11	13	24	2.2
	Carcinoma, Undifferentiated	6	5	11	1.0
	Mucinous Cystadenocarcinoma	7	4	11	1.0
	Solid Pseudopapillary Carcinoma	2	8	10	0.9
	Papillary Adenocarcinoma	2	7	9	0.8
	Islet Cell Carcinoma	2	6	8	0.7
	Signet Ring Cell Carcinoma	3	3	6	0.6
	Intraductal Papillary-Mucinous Carcinoma, Invasive	0	5	5	0.5
	Acinar Cell Carcinoma	2	3	5	0.5
	Adenosquamous Carcinoma	0	4	4	0.4
	Small Cell Carcinoma	1	2	3	0.3
	Mixed Islet Cell And Exocrine Adenocarcinoma	1	2	3	0.3
	Cystadenocarcinoma	2	1	3	0.3
	Squamous Cell Carcinoma	0	2	2	0.2
	Adenoid Cystic Carcinoma	1	0	1	0.1
	Leiomyosarcoma	1	0	1	0.1
	Gastrointestinal Stromal Sarcoma	0	1	1	0.1
	Carcinosarcoma	0	1	1	0.1
	<b>Total with histology</b>	<b>409</b>	<b>677</b>	<b>1086</b>	<b>100.0</b>
	<b>All cases</b>	<b>754</b>	<b>1036</b>	<b>1790</b>	



SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Retroperitoneum and Peritoneum (ICD-9 158)</b>					
	Liposarcoma, NOS	19	14	33	22.0
	Serous Cystadenocarcinoma	12	11	23	15.3
	Mesothelioma, Malignant	5	9	14	9.3
	Leiomyosarcoma	3	10	13	8.7
	Sarcoma, NOS	9	2	11	7.3
	Adenocarcinoma, NOS	4	4	8	5.3
	Neoplasm, Malignant, NOS	3	3	6	4.0
	Serous Surface Papillary Carcinoma	2	4	6	4.0
	Malignant Fibrous Histiocytoma	4	1	5	3.3
	Retroperitoneal Fibromatosis	3	1	4	2.7
	Stromal Sarcoma	4	0	4	2.7
	Germ Cell Tumor, Nonseminomatous	3	1	4	2.7
	Paraganglioma, Malignant	0	3	3	2.0
	Neuroblastoma	1	2	3	2.0
	Malignant Peripheral Nerve Sheath Tumor	1	2	3	2.0
	Mucinous Cystadenocarcinoma	1	1	2	1.3
	Smooth Muscle Tumor, Borderline	0	2	2	1.3
	Embryonal Rhabdomyosarcoma	1	1	2	1.3
	Neuroendocrine Carcinoma	1	0	1	0.7
	Gastrointestinal Stromal Sarcoma	0	1	1	0.7
	Synovial Sarcoma	0	1	1	0.7
	Mixed Germ Cell Tumor	0	1	1	0.7
	<b>Total with histology</b>	<b>76</b>	<b>74</b>	<b>150</b>	<b>100.0</b>
	<b>All cases</b>	<b>81</b>	<b>79</b>	<b>160</b>	
<b>Nasal cavities and sinuses (ICD-9 160)</b>					
	Squamous Cell Carcinoma	36	47	83	35.8
	Olfactory Neuroblastoma	9	16	25	10.8
	Carcinoma, Undifferentiated	7	12	19	8.2
	Schneiderian Carcinoma	5	9	14	6.0
	Adenocarcinoma, NOS	6	7	13	5.6
	Adenoid Cystic Carcinoma	6	6	12	5.2
	Sarcoma, NOS	2	7	9	3.9
	Carcinoma, NOS	2	6	8	3.4
	Neuroendocrine Carcinoma	5	3	8	3.4
	Hemangiopericytoma, Malignant	2	5	7	3.0
	Rhabdomyosarcoma	2	4	6	2.6
	Mucoepidermoid Carcinoma	3	1	4	1.7
	Basaloid Squamous Cell Carcinoma	0	3	3	1.3
	Neoplasm, Malignant, NOS	2	0	2	0.9
	Small Cell Carcinoma	0	2	2	0.9
	Mucinous Adenocarcinoma	1	1	2	0.9
	Acinar Cell Carcinoma	0	2	2	0.9

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	%
		NO.	NO.	NO.	
<b>Nasal cavities and sinuses (ICD-9 160) Cont'd</b>					
	Adenosquamous Carcinoma	1	1	2	0.9
	Malignant Melanoma	1	1	2	0.9
	Teratocarcinoma	1	1	2	0.9
	Malignant Peripheral Nerve Sheath Tumor	0	2	2	0.9
	Lymphoepithelial Carcinoma	0	1	1	0.4
	Basal Cell Adenocarcinoma	0	1	1	0.4
	Malignant Fibrous Histiocytoma	1	0	1	0.4
	Leiomyosarcoma	1	0	1	0.4
	Primitive Neuroectodermal Tumor	1	0	1	0.4
	<b>Total with histology</b>	<b>94</b>	<b>138</b>	<b>232</b>	<b>100.0</b>
	<b>All cases</b>	<b>97</b>	<b>138</b>	<b>235</b>	
<b>Larynx (ICD-9 161)</b>					
	Squamous Cell Carcinoma	360	359	719	97.0
	Carcinoma, NOS	2	5	7	0.9
	Spindle Cell Carcinoma	2	2	4	0.5
	Carcinoma, Undifferentiated	3	0	3	0.4
	Neuroendocrine Carcinoma	1	2	3	0.4
	Basaloid Carcinoma	1	1	2	0.3
	Lymphoepithelial Carcinoma	0	1	1	0.1
	Adenocarcinoma, NOS	1	0	1	0.1
	Sarcoma, NOS	0	1	1	0.1
	<b>Total with histology</b>	<b>370</b>	<b>371</b>	<b>741</b>	<b>100.0</b>
	<b>All cases</b>	<b>376</b>	<b>385</b>	<b>761</b>	
<b>Lung (ICD-9 162)</b>					
	Adenocarcinoma, NOS	1884	2120	4004	42.8
	Squamous Cell Carcinoma	985	903	1888	20.2
	Small Cell Carcinoma	479	482	961	10.3
	Non-Small Cell Carcinoma	0	810	810	8.7
	Carcinoma, NOS	613	101	714	7.6
	Large Cell Carcinoma	177	117	294	3.1
	Bronchiolo-Alveolar Adenocarcinoma	70	106	176	1.9
	Neuroendocrine Carcinoma	59	51	110	1.2
	Neoplasm, Malignant, NOS	64	40	104	1.1
	Adenosquamous Carcinoma	42	33	75	0.8
	Carcinoma, Undifferentiated	35	29	64	0.7
	Mucinous Adenocarcinoma	13	23	36	0.4
	Pleomorphic Carcinoma	12	12	24	0.3
	Acinar Cell Carcinoma	1	22	23	0.2
	Lymphoepithelial Carcinoma	7	10	17	0.2
	Clear Cell Adenocarcinoma	5	5	10	0.1
	Mucoepidermoid Carcinoma	2	8	10	0.1

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Lung (ICD-9 162) Cont'd</b>					
	Sarcoma, NOS	3	7	10	0.1
	Spindle Cell Carcinoma	4	3	7	0.1
	Adenoid Cystic Carcinoma	1	5	6	0.1
	Leiomyosarcoma	1	3	4	0.0
	Basaloid Squamous Cell Carcinoma	0	3	3	0.0
	Carcinosarcoma	1	2	3	0.0
	Adenocarcinoma With Mixed Subtypes	0	2	2	0.0
	Solitary Fibrous Tumor, Malignant	0	2	2	0.0
	Lymphangiomyomatosis	0	2	2	0.0
	Adenocarcinoma With Neuroendocrine Differentiation	0	1	1	0.0
	Smooth Muscle Tumor, Borderline	0	1	1	0.0
	Pulmonary Blastoma	1	0	1	0.0
	Epitheloid Hemangio Endothelioma, Malignant	1	0	1	0.0
	Hemangiopericytoma, Malignant	1	0	1	0.0
	<b>Total with histology</b>	<b>4461</b>	<b>4903</b>	<b>9364</b>	<b>100.0</b>
	<b>All cases</b>	<b>5199</b>	<b>5696</b>	<b>10895</b>	
<b>Pleura (ICD-9 163)</b>					
	Mesothelioma, Malignant	32	42	74	94.9
	Neoplasm, Malignant, NOS	1	2	3	3.8
	Sarcoma, NOS	0	1	1	1.3
	<b>Total with histology</b>	<b>33</b>	<b>45</b>	<b>78</b>	<b>100.0</b>
	<b>All cases</b>	<b>33</b>	<b>48</b>	<b>81</b>	
<b>Thymus and mediastinum (ICD-9 164)</b>					
	Thymoma, NOS	53	19	72	32.1
	Thymoma, Type B2	0	23	23	10.3
	Thymoma, Type B3	0	16	16	7.1
	Germ Cell Tumour, NOS	4	11	15	6.7
	Thymoma, Type Ab	0	14	14	6.3
	Thymic Carcinoma	0	11	11	4.9
	Neuroendocrine Carcinoma	6	3	9	4.0
	Thymoma, Type B1	0	9	9	4.0
	Squamous Cell Carcinoma	2	6	8	3.6
	Carcinoma, NOS	5	1	6	2.7
	Thymoma, Type A	0	6	6	2.7
	Yolk Sac Tumor	2	4	6	2.7
	Sarcoma, NOS	1	3	4	1.8
	Liposarcoma, Well Differentiated	2	2	4	1.8
	Teratoma, Malignant	3	1	4	1.8
	Embryonal Carcinoma	2	1	3	1.3
	Rhabdomyosarcoma	0	2	2	0.9

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Thymus and mediastinum (ICD-9 164) Cont'd</b>					
	Synovial Sarcoma	2	0	2	0.9
	Mixed Germ Cell Tumor	0	2	2	0.9
	Neuroblastoma	0	2	2	0.9
	Lymphoepithelial Carcinoma	0	1	1	0.4
	Paraganglioma, Malignant	0	1	1	0.4
	Carcinosarcoma	0	1	1	0.4
	Hemangiosarcoma	0	1	1	0.4
	Primitive Neuroectodermal Tumor	1	0	1	0.4
	Malignant Peripheral Nerve Sheath Tumor	0	1	1	0.4
	<b>Total with histology</b>	<b>83</b>	<b>141</b>	<b>224</b>	<b>100.0</b>
	<b>All cases</b>	<b>88</b>	<b>152</b>	<b>240</b>	
<b>Bone (ICD-9 170)</b>					
	Osteosarcoma	43	43	86	36.6
	Giant Cell Tumor Of Bone	18	37	55	23.4
	Chondrosarcoma	22	23	45	19.1
	Ewing Sarcoma	6	8	14	6.0
	Sarcoma, NOS	6	6	12	5.1
	Chordoma	5	6	11	4.7
	Osteochondromatosis	2	1	3	1.3
	Ameloblastoma, Malignant	1	2	3	1.3
	Malignant Fibrous Histiocytoma	1	0	1	0.4
	Synovial Sarcoma	0	1	1	0.4
	Hemangiosarcoma	0	1	1	0.4
	Mesenchymal Chondrosarcoma	0	1	1	0.4
	Adamantinoma Of Long Bones	1	0	1	0.4
	Odontogenic Tumor, Malignant	0	1	1	0.4
	<b>Total with histology</b>	<b>105</b>	<b>130</b>	<b>235</b>	<b>100.0</b>
	<b>All cases</b>	<b>112</b>	<b>132</b>	<b>244</b>	
<b>Connective tissues (ICD-9 171)</b>					
	Sarcoma, NOS	31	28	59	11.3
	Malignant Fibrous Histiocytoma	27	21	48	9.2
	Malignant Peripheral Nerve Sheath Tumor	19	26	45	8.6
	Leiomyosarcoma	16	26	42	8.0
	Liposarcoma, Well Differentiated	6	33	39	7.5
	Synovial Sarcoma	11	22	33	6.3
	Myxoid Liposarcoma	12	15	27	5.2
	Liposarcoma, NOS	14	7	21	4.0
	Primitive Neuroectodermal Tumor	6	15	21	4.0
	Fibromyxosarcoma	4	16	20	3.8
	Hemangiosarcoma	10	10	20	3.8
	Giant Cell Sarcoma	3	9	12	2.3

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	%
		NO.	NO.	NO.	
<b>Connective tissues (ICD-9 171) Cont'd</b>					
	Pleomorphic Liposarcoma	7	4	11	2.1
	Kaposi Sarcoma	4	7	11	2.1
	Epithelioid Sarcoma	2	7	9	1.7
	Rhabdomyosarcoma, NOS	5	4	9	1.7
	Neuroblastoma	3	6	9	1.7
	Fibrosarcoma	5	2	7	1.3
	Dedifferentiated Liposarcoma	1	6	7	1.3
	Smooth Muscle Tumor, Borderline	4	3	7	1.3
	Myxoid Chondrosarcoma	5	2	7	1.3
	Neoplasm, Malignant, NOS	2	3	5	1.0
	Aggressive Fibromatosis	1	4	5	1.0
	Embryonal Rhabdomyosarcoma	3	2	5	1.0
	Chondrosarcoma	1	4	5	1.0
	Alveolar Soft Part Sarcoma	3	2	5	1.0
	Myxosarcoma	3	1	4	0.8
	Angiomyxoma	1	3	4	0.8
	Clear Cell Sarcoma	2	2	4	0.8
	Abdominal Fibromatosis	1	2	3	0.6
	Round Cell Liposarcoma	0	3	3	0.6
	Malignant Rhabdoid Tumor	3	0	3	0.6
	Infantile Fibrosarcoma	1	1	2	0.4
	Myofibroblastic Tumor	0	2	2	0.4
	Mesenchymal Chondrosarcoma	0	2	2	0.4
	Glomus Tumor, Malignant	0	1	1	0.2
	Fibroblastic Liposarcoma	0	1	1	0.2
	Alveolar Rhabdomyosarcoma	1	0	1	0.2
	Gastrointestinal Stromal Sarcoma	0	1	1	0.2
	Malignant Myoepithelioma	0	1	1	0.2
	Malignant Tenosynovial Giant Cell Tumor	0	1	1	0.2
	<b>Total with histology</b>	<b>217</b>	<b>305</b>	<b>522</b>	<b>100.0</b>
	<b>All cases</b>	<b>223</b>	<b>311</b>	<b>534</b>	
<b>Melanoma of skin (ICD-9 172)</b>					
	Malignant Melanoma, NOS	58	62	120	66.3
	Acral Lentiginous Melanoma, Malignant	7	18	25	13.8
	Superficial Spreading Melanoma	1	14	15	8.3
	Nodular Melanoma	4	8	12	6.6
	Lentigo Maligna Melanoma	1	1	2	1.1
	Desmoplastic Melanoma, Malignant	2	0	2	1.1
	Spindle Cell Melanoma	1	1	2	1.1
	Balloon Cell Melanoma	0	1	1	0.6
	Amelanotic Melanoma	0	1	1	0.6
	Blue Nevus, Malignant	1	0	1	0.6

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Melanoma of skin (ICD-9 172) Cont'd</b>					
	<b>Total with histology</b>	<b>75</b>	<b>106</b>	<b>181</b>	<b>100.0</b>
	<b>All cases</b>	<b>77</b>	<b>106</b>	<b>183</b>	
<b>Skin, excluding melanoma (ICD-9 173)</b>					
	Basal Cell Carcinoma	982	984	1966	60.3
	Squamous Cell Carcinoma	375	457	832	25.5
	Dermatofibrosarcoma	50	48	98	3.0
	Basal Cell Carcinoma, Nodular	0	72	72	2.2
	Basosquamous Carcinoma	28	22	50	1.5
	Sebaceous Adenocarcinoma	23	18	41	1.3
	Hemangiosarcoma	15	14	29	0.9
	Skin Appendage Carcinoma, NOS	14	8	22	0.7
	Carcinoma, NOS	15	5	20	0.6
	Sweat Gland Adenocarcinoma	12	6	18	0.6
	Paget Disease, Extramammary	6	9	15	0.5
	Adenocarcinoma, NOS	7	5	12	0.4
	Eccrine Poroma, Malignant	0	11	11	0.3
	Neoplasm, Malignant, NOS	5	5	10	0.3
	Merkel Cell Carcinoma	3	6	9	0.3
	Trichilemmocarcinoma	1	7	8	0.2
	Adenoid Cystic Carcinoma	6	2	8	0.2
	Kaposi Sarcoma	4	4	8	0.2
	Mucinous Adenocarcinoma	2	3	5	0.2
	Adenoid Basal Carcinoma	0	3	3	0.1
	Malignant Fibrous Histiocytoma	3	0	3	0.1
	Basaloid Squamous Cell Carcinoma	0	2	2	0.1
	Squamous Cell Carcinoma, Clear Cell Type	0	2	2	0.1
	Neuroendocrine Carcinoma	2	0	2	0.1
	Apocrine Adenocarcinoma	1	1	2	0.1
	Mucoepidermoid Carcinoma	2	0	2	0.1
	Lymphangiosarcoma	1	1	2	0.1
	Malignant Peripheral Nerve Sheath Tumor	2	0	2	0.1
	Small Cell Carcinoma	1	0	1	0.0
	Pilomatrix Carcinoma	0	1	1	0.0
	Ceruminous Adenocarcinoma	0	1	1	0.0
	Sarcoma, NOS	0	1	1	0.0
	Leiomyosarcoma	1	0	1	0.0
	Carcinosarcoma	0	1	1	0.0
	<b>Total with histology</b>	<b>1561</b>	<b>1699</b>	<b>3260</b>	<b>100.0</b>
	<b>All cases</b>	<b>1564</b>	<b>1707</b>	<b>3271</b>	

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Female breast (ICD-9 174)</b>					
	Duct Carcinoma	4342	5318	9660	79.1
	Lobular Carcinoma	246	263	509	4.2
	Mucinous Adenocarcinoma	157	183	340	2.8
	Infiltrating Duct And Lobular Carcinoma	99	177	276	2.3
	Phyllodes Tumor, Malignant	124	144	268	2.2
	Carcinoma, NOS	134	85	219	1.8
	Infiltrating Duct Mixed With Other Types Of Carcinoma	0	188	188	1.5
	Tubular Adenocarcinoma	50	47	97	0.8
	Medullary Carcinoma	53	28	81	0.7
	Adenocarcinoma, NOS	49	30	79	0.6
	Papillary Carcinoma	46	27	73	0.6
	Cribriform Carcinoma	46	18	64	0.5
	Paget Disease And Infiltrating Duct Carcinoma Of Breast	8	52	60	0.5
	Comedocarcinoma	35	8	43	0.4
	Neoplasm, Malignant, NOS	30	10	40	0.3
	Intracystic Carcinoma	9	23	32	0.3
	Intraductal Papillary Adenocarcinoma With Invasion	5	20	25	0.2
	Atypical Medullary Carcinoma	0	22	22	0.2
	Paget Disease, Mammary	16	3	19	0.2
	Metaplastic Carcinoma	0	18	18	0.1
	Paget Disease And Intraductal Carcinoma Of Breast	3	14	17	0.1
	Infiltrating Lobular Mixed With Other Types Of Carcinoma	0	15	15	0.1
	Neuroendocrine Carcinoma	4	8	12	0.1
	Squamous Cell Carcinoma	3	5	8	0.1
	Stromal Sarcoma	2	5	7	0.1
	Adenoid Cystic Carcinoma	2	4	6	0.0
	Signet Ring Cell Carcinoma	1	4	5	0.0
	Malignant Fibrous Histiocytoma	4	1	5	0.0
	Sarcoma, NOS	1	3	4	0.0
	Apocrine Adenocarcinoma	0	2	2	0.0
	Intraductal Micropapillary	0	2	2	0.0
	Adenosquamous Carcinoma	2	0	2	0.0
	Adenocarcinoma With Neuroendocrine Differentiation	0	2	2	0.0
	Hemangiosarcoma	0	2	2	0.0
	Osteosarcoma	1	1	2	0.0
	Epithelial-Myoepithelial Carcinoma	1	0	1	0.0
	Malignant Melanoma	1	0	1	0.0
	Leiomyosarcoma	0	1	1	0.0
	Carcinosarcoma	1	0	1	0.0

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Female breast (ICD-9 174) Cont'd</b>					
	Adenomyoepithelioma, Malignant	0	1	1	0.0
	<b>Total with histology</b>	<b>5475</b>	<b>6734</b>	<b>12209</b>	<b>100.0</b>
	<b>All cases</b>	<b>5530</b>	<b>6798</b>	<b>12328</b>	
<b>Male breast (ICD-9 175)</b>					
	Duct Carcinoma	18	12	30	78.9
	Papillary Carcinoma	1	1	2	5.3
	Infiltrating Duct Mixed With Other Types Of Carcinoma	0	2	2	5.3
	Adenoid Cystic Carcinoma	1	0	1	2.6
	Tubular Adenocarcinoma	0	1	1	2.6
	Lobular Carcinoma	1	0	1	2.6
	Metaplastic Carcinoma	0	1	1	2.6
	<b>Total with histology</b>	<b>21</b>	<b>17</b>	<b>38</b>	<b>100.0</b>
	<b>All cases</b>	<b>22</b>	<b>17</b>	<b>39</b>	
<b>Cervix uteri (ICD-9 180)</b>					
	Squamous Cell Carcinoma	716	717	1433	70.6
	Adenocarcinoma, NOS	161	113	274	13.5
	Adenosquamous Carcinoma	45	45	90	4.4
	Carcinoma, NOS	39	15	54	2.7
	Mucinous Adenocarcinoma	11	24	35	1.7
	Endometrioid Adenocarcinoma	5	22	27	1.3
	Neuroendocrine Carcinoma	11	8	19	0.9
	Papillary Adenocarcinoma	5	10	15	0.7
	Clear Cell Adenocarcinoma	10	5	15	0.7
	Small Cell Carcinoma	6	7	13	0.6
	Papillary Squamous Cell Carcinoma	4	7	11	0.5
	Adenosarcoma	0	10	10	0.5
	Serous Adenocarcinoma	2	6	8	0.4
	Adenocarcinoma, Endocervical Type	0	4	4	0.2
	Leiomyosarcoma	2	2	4	0.2
	Neoplasm, Malignant, NOS	2	1	3	0.1
	Lymphoepithelial Carcinoma	0	3	3	0.1
	Adenoid Cystic Carcinoma	3	0	3	0.1
	Mullerian Mixed Tumor	0	3	3	0.1
	Malignant Melanoma	0	2	2	0.1
	Sarcoma, NOS	1	1	2	0.1
	Alveolar Soft Part Sarcoma	1	0	1	0.0
	<b>Total with histology</b>	<b>1024</b>	<b>1005</b>	<b>2029</b>	<b>100.0</b>
	<b>All cases</b>	<b>1035</b>	<b>1009</b>	<b>2044</b>	



SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Placenta (ICD-9 181)</b>					
	Choriocarcinoma	6	9	15	93.8
	Placental Site Trophoblastic Tumor	0	1	1	6.3
	<b>Total with histology</b>	<b>6</b>	<b>10</b>	<b>16</b>	<b>100.0</b>
	<b>All cases</b>	<b>7</b>	<b>10</b>	<b>17</b>	
<b>Corpus uteri (ICD-9 182)</b>					
	Endometrioid Adenocarcinoma	459	922	1381	62.2
	Adenocarcinoma, NOS	182	70	252	11.3
	Serous Adenocarcinoma	53	83	136	6.1
	Mullerian Mixed Tumor	39	68	107	4.8
	Leiomyosarcoma	36	42	78	3.5
	Endometrial Stromal Sarcoma	24	35	59	2.7
	Mucinous Adenocarcinoma	19	25	44	2.0
	Smooth Muscle Tumor, Borderline	22	14	36	1.6
	Clear Cell Adenocarcinoma	13	18	31	1.4
	Carcinoma, NOS	13	7	20	0.9
	Adenosquamous Carcinoma	12	8	20	0.9
	Adenosarcoma	7	11	18	0.8
	Carcinosarcoma	4	11	15	0.7
	Sarcoma, NOS	4	3	7	0.3
	Squamous Cell Carcinoma	1	5	6	0.3
	Neuroendocrine Carcinoma	3	2	5	0.2
	Neoplasm, Malignant, NOS	3	0	3	0.1
	Small Cell Carcinoma	1	1	2	0.1
	Mixed Mesenchymomal Tumor	1	0	1	0.0
	<b>Total with histology</b>	<b>896</b>	<b>1325</b>	<b>2221</b>	<b>100.0</b>
	<b>All cases</b>	<b>904</b>	<b>1332</b>	<b>2236</b>	
<b>Ovary and uterine adnexa (ICD-9 183)</b>					
	Serous Cystadenocarcinoma	246	282	528	23.0
	Mucinous Cystic Tumor, Borderline	142	186	328	14.3
	Endometrioid Adenocarcinoma	140	159	299	13.1
	Clear Cell Adenocarcinoma	125	170	295	12.9
	Adenocarcinoma, NOS	58	80	138	6.0
	Serous Cystadenoma, Borderline	62	58	120	5.2
	Mucinous Adenocarcinoma	34	63	97	4.2
	Mucinous Cystadenocarcinoma	40	47	87	3.8
	Teratoma, Malignant	40	43	83	3.6
	Granulosa Cell Tumor, Malignant	30	25	55	2.4
	Carcinoma, NOS	10	23	33	1.4
	Mullerian Mixed Tumor	13	14	27	1.2
	Papillary Adenocarcinoma	16	7	23	1.0
	Yolk Sac Tumor	5	13	18	0.8

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	%
		NO.	NO.	NO.	
<b>Ovary and uterine adnexa (ICD-9 183) Cont'd</b>					
	Serous Papillary Carcinoma	1	16	17	0.7
	Transitional Cell Carcinoma	9	5	14	0.6
	Squamous Cell Carcinoma	6	6	12	0.5
	Neoplasm, Malignant, NOS	1	8	9	0.4
	Dysgerminoma	5	4	9	0.4
	Adenosquamous Carcinoma	6	2	8	0.3
	Sertoli-Leydig Cell Tumor, Poorly Differentiation	2	6	8	0.3
	Mixed Germ Cell Tumor	4	4	8	0.3
	Endometrioid Adenofibroma, Malignant	4	3	7	0.3
	Sarcoma, NOS	2	5	7	0.3
	Sex Cord-Gonadal Stromal Tumor, Malignant, NOS	4	2	6	0.3
	Leiomyosarcoma	1	5	6	0.3
	Neuroendocrine Carcinoma	1	4	5	0.2
	Cystadenocarcinoma	4	1	5	0.2
	Endometrial Stromal Sarcoma	0	5	5	0.2
	Serous Adenocarcinofibroma	0	5	5	0.2
	Clear Cell Adenocarcinofibroma	0	4	4	0.2
	Struma Ovarii, Malignant	4	0	4	0.2
	Small Cell Carcinoma	1	2	3	0.1
	Juvenile Granulosa Cell Tumor, Malignant	1	2	3	0.1
	Clear Cell Cystic Tumor Of Borderline	0	2	2	0.1
	Smooth Muscle Tumor, Borderline	1	1	2	0.1
	Adenosarcoma	2	0	2	0.1
	Adenofibroma, Malignant	0	2	2	0.1
	Sebaceous Adenocarcinoma	1	0	1	0.0
	Sex Cord Tumor With Annular Tubules	0	1	1	0.0
	Steroid Cell Tumor, Malignant	0	1	1	0.0
	Carcinosarcoma	0	1	1	0.0
	Embryonal Carcinoma	1	0	1	0.0
	Gonadoblastoma, Malignant	1	0	1	0.0
	Choriocarcinoma	1	0	1	0.0
	<b>Total with histology</b>	<b>1024</b>	<b>1267</b>	<b>2291</b>	<b>100.0</b>
	<b>All cases</b>	<b>1060</b>	<b>1327</b>	<b>2387</b>	
<b>Vagina and vulva (ICD-9 184)</b>					
	Squamous Cell Carcinoma	53	59	112	54.6
	Paget Disease, Extramammary	16	17	33	16.1
	Basal Cell Carcinoma	7	5	12	5.9
	Malignant Melanoma	3	9	12	5.9
	Adenocarcinoma, NOS	2	6	8	3.9
	Carcinoma, NOS	6	1	7	3.4
	Sarcoma, NOS	2	1	3	1.5

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Vagina and vulva (ICD-9 184) Cont'd</b>					
	Basosquamous Carcinoma	1	1	2	1.0
	Basaloid Carcinoma	1	1	2	1.0
	Mucinous Adenocarcinoma	2	0	2	1.0
	Dermatofibrosarcoma	1	1	2	1.0
	Angiomyxoma	0	2	2	1.0
	Basaloid Squamous Cell Carcinoma	0	1	1	0.5
	Multifocal Superficial Basal Cell Carcinoma	0	1	1	0.5
	Basal Cell Carcinoma, Nodular	0	1	1	0.5
	Neuroendocrine Carcinoma	0	1	1	0.5
	Adenosquamous Carcinoma	1	0	1	0.5
	Embryonal Rhabdomyosarcoma	0	1	1	0.5
	Stromal Sarcoma	1	0	1	0.5
	Hemangiosarcoma	0	1	1	0.5
	<b>Total with histology</b>	<b>96</b>	<b>109</b>	<b>205</b>	<b>100.0</b>
	<b>All cases</b>	<b>96</b>	<b>110</b>	<b>206</b>	
<b>Prostate (ICD-9 185)</b>					
	Adenocarcinoma, NOS	1008	1170	2178	63.9
	Acinar Cell Carcinoma	262	877	1139	33.4
	Carcinoma, NOS	26	20	46	1.3
	Duct Carcinoma	2	13	15	0.4
	Mucinous Adenocarcinoma	4	3	7	0.2
	Neoplasm, Malignant, NOS	1	5	6	0.2
	Transitional Cell Carcinoma	3	3	6	0.2
	Neuroendocrine Carcinoma	0	4	4	0.1
	Small Cell Carcinoma	2	1	3	0.1
	Sarcoma, NOS	1	0	1	0.0
	Leiomyosarcoma	1	0	1	0.0
	Smooth Muscle Tumor, Borderline	0	1	1	0.0
	Embryonal Rhabdomyosarcoma	1	0	1	0.0
	Primitive Neuroectodermal Tumor	1	0	1	0.0
	<b>Total with histology</b>	<b>1312</b>	<b>2097</b>	<b>3409</b>	<b>100.0</b>
	<b>All cases</b>	<b>1359</b>	<b>2169</b>	<b>3528</b>	
<b>Testis (ICD-9 186)</b>					
	Seminoma	55	65	120	59.4
	Mixed Germ Cell Tumor	15	20	35	17.3
	Yolk Sac Tumor	7	8	15	7.4
	Embryonal Carcinoma	3	7	10	5.0
	Teratoma, Malignant	6	3	9	4.5
	Leydig Cell Tumor, Malignant	0	3	3	1.5
	Rhabdomyosarcoma	0	3	3	1.5
	Spermatocytic Seminoma	2	1	3	1.5

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Testis (ICD-9 186) Cont'd</b>					
	Liposarcoma, Well Differentiated	0	2	2	1.0
	Mucinous Cystadenocarcinoma	0	1	1	0.5
	Germ Cell Tumor, Nonseminomatous	0	1	1	0.5
	<b>Total with histology</b>	<b>88</b>	<b>114</b>	<b>202</b>	<b>100.0</b>
	<b>All cases</b>	<b>90</b>	<b>116</b>	<b>206</b>	
<b>Penis and other male genital organs (ICD-9 187)</b>					
	Squamous Cell Carcinoma	41	51	92	60.9
	Paget Disease, Extramammary	10	31	41	27.2
	Adenocarcinoma, NOS	3	3	6	4.0
	Basal Cell Carcinoma	1	2	3	2.0
	Liposarcoma, NOS	1	2	3	2.0
	Rhabdomyosarcoma	3	0	3	2.0
	Skin Appendage Carcinoma	1	0	1	0.7
	Serous Cystadenoma, Borderline Malignancy	1	0	1	0.7
	Adenosquamous Carcinoma	0	1	1	0.7
	<b>Total with histology</b>	<b>61</b>	<b>90</b>	<b>151</b>	<b>100.0</b>
	<b>All cases</b>	<b>63</b>	<b>92</b>	<b>155</b>	
<b>Bladder (ICD-9 188)</b>					
	Papillary Transitional Cell Carcinoma	399	546	945	57.0
	Transitional Cell Carcinoma, NOS	315	278	593	35.7
	Adenocarcinoma, NOS	22	12	34	2.0
	Carcinoma, NOS	11	9	20	1.2
	Squamous Cell Carcinoma	6	10	16	1.0
	Neoplasm, Malignant, NOS	5	9	14	0.8
	Mucinous Adenocarcinoma	4	4	8	0.5
	Neuroendocrine Carcinoma	6	1	7	0.4
	Paraganglioma, Malignant	2	5	7	0.4
	Small Cell Carcinoma	2	3	5	0.3
	Leiomyosarcoma	3	1	4	0.2
	Sarcoma, NOS	1	1	2	0.1
	Giant Cell Sarcoma	0	1	1	0.1
	Myofibroblastic Tumor	0	1	1	0.1
	Malignant Fibrous Histiocytoma	1	0	1	0.1
	Carcinosarcoma	0	1	1	0.1
	<b>Total with histology</b>	<b>777</b>	<b>882</b>	<b>1659</b>	<b>100.0</b>
	<b>All cases</b>	<b>801</b>	<b>898</b>	<b>1699</b>	
<b>Kidney and other urinary organs (ICD-9 189)</b>					
	Renal Cell Carcinoma, NOS	449	593	1042	73.3
	Transitional Cell Carcinoma, NOS	107	133	240	16.9

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	
		NO.	NO.	NO.	%
<b>Kidney and other urinary organs (ICD-9 189) Cont'd</b>					
	Carcinoma, NOS	8	18	26	1.8
	Papillary Adenocarcinoma	2	22	24	1.7
	Nephroblastoma	12	8	20	1.4
	Renal Cell Carcinoma, Sarcomatoid	0	14	14	1.0
	Adenocarcinoma, NOS	6	6	12	0.8
	Chromophobe Carcinoma	1	11	12	0.8
	Squamous Cell Carcinoma	4	4	8	0.6
	Neoplasm, Malignant, NOS	4	3	7	0.5
	Sarcoma, NOS	1	2	3	0.2
	Leiomyosarcoma	3	0	3	0.2
	Malignant Rhabdoid Tumor	2	1	3	0.2
	Collecting Duct Carcinoma	0	2	2	0.1
	Malignant Fibrous Histiocytoma	1	1	2	0.1
	Carcinoid Tumor	1	0	1	0.1
	Mucinous Adenocarcinoma	1	0	1	0.1
	Malignant Cystic Nephroma	0	1	1	0.1
	Primitive Neuroectodermal Tumor	0	1	1	0.1
	<b>Total with histology</b>	<b>602</b>	<b>820</b>	<b>1422</b>	<b>100.0</b>
	<b>All cases</b>	<b>748</b>	<b>950</b>	<b>1698</b>	
<b>Eye (ICD-9 190)</b>					
	Retinoblastoma	10	15	25	44.6
	Malignant Melanoma	6	9	15	26.8
	Squamous Cell Carcinoma	2	5	7	12.5
	Neoplasm, Malignant, NOS	1	1	2	3.6
	Adenoid Cystic Carcinoma	1	1	2	3.6
	Rhabdomyosarcoma	1	1	2	3.6
	Carcinoma, NOS	0	1	1	1.8
	Basaloid Carcinoma	0	1	1	1.8
	Adenocarcinoma, NOS	0	1	1	1.8
	<b>Total with histology</b>	<b>21</b>	<b>35</b>	<b>56</b>	<b>100.0</b>
	<b>All cases</b>	<b>23</b>	<b>35</b>	<b>58</b>	
<b>Brain and nervous system (ICD-9 191-192)</b>					
	Astrocytoma	140	178	318	41.7
	Oligodendroglioma	32	39	71	9.3
	Pilocytic Astrocytoma	19	31	50	6.6
	Ependymoma	21	21	42	5.5
	Medulloblastoma	21	21	42	5.5
	Meningeal Sarcomatosis	0	33	33	4.3
	Glioma, Malignant, NOS	10	15	25	3.3
	Mixed Glioma	6	16	22	2.9
	Primitive Neuroectodermal Tumor	12	8	20	2.6

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	%
		NO.	NO.	NO.	
<b>Brain and nervous system (ICD-9 191-192) Cont'd</b>					
	Meningioma, Malignant	8	9	17	2.2
	Germinoma	3	13	16	2.1
	Hemangioblastoma	5	10	15	2.0
	Hemangiopericytoma, Malignant	8	3	11	1.4
	Gliosarcoma	4	7	11	1.4
	Papillary Meningioma	0	9	9	1.2
	Fibrillary Astrocytoma	5	3	8	1.0
	Central Neurocytoma	0	8	8	1.0
	Neoplasm, Malignant, NOS	2	5	7	0.9
	Neuroblastoma	2	3	5	0.7
	Myxopapillary Ependymoma	1	3	4	0.5
	Pleomorphic Xanthoastrocytoma	0	4	4	0.5
	Ganglioglioma, Anaplastic	0	4	4	0.5
	Sarcoma, NOS	1	2	3	0.4
	Subependymoma	1	2	3	0.4
	Malignant Rhabdoid Tumor	2	0	2	0.3
	Mixed Germ Cell Tumor	0	2	2	0.3
	Subependymal Giant Cell Astrocytoma	1	1	2	0.3
	Desmoplastic Infantile Astrocytoma	0	2	2	0.3
	Paraganglioma, Malignant	1	0	1	0.1
	Malignant Melanoma	1	0	1	0.1
	Malignant Fibrous Histiocytoma	1	0	1	0.1
	Choroid Plexus Carcinoma	1	0	1	0.1
	Astroblastoma	0	1	1	0.1
	Chordoid Glioma	0	1	1	0.1
	<b>Total with histology</b>	<b>308</b>	<b>454</b>	<b>762</b>	<b>100.0</b>
	<b>All cases</b>	<b>357</b>	<b>520</b>	<b>877</b>	
<b>Thyroid (ICD-9 193)</b>					
	Papillary Carcinoma	571	444	1015	60.6
	Follicular Carcinoma	127	27	154	9.2
	Papillary Carcinoma, Follicular Variant	65	84	149	8.9
	Papillary Microcarcinoma	0	133	133	7.9
	Follicular Carcinoma, Minimally Invasive	0	78	78	4.7
	Medullary Carcinoma	13	19	32	1.9
	Carcinoma, Anaplastic	13	15	28	1.7
	Oxyphilic Carcinoma	13	12	25	1.5
	Carcinoma, NOS	16	8	24	1.4
	Papillary Carcinoma, Encapsulated	0	15	15	0.9
	Neoplasm, Malignant, NOS	1	5	6	0.4
	Insular Carcinoma	0	5	5	0.3
	Squamous Cell Carcinoma	1	2	3	0.2
	Papillary Carcinoma, Columnar Cell	0	3	3	0.2

SITE	HISTOLOGY	1998-2002	2003-2007	1998-2007	%
		NO.	NO.	NO.	
<b>Thyroid (ICD-9 193) Cont'd</b>					
	Mixed Medullary-Papillary Carcinoma	0	2	2	0.1
	Mixed Medullary-Follicular Carcinoma	0	1	1	0.1
	Hemangiosarcoma	1	0	1	0.1
	<b>Total with histology</b>	<b>821</b>	<b>853</b>	<b>1674</b>	<b>100.0</b>
	<b>All cases</b>	<b>831</b>	<b>860</b>	<b>1691</b>	
<b>Other endocrine glands (ICD-9 194)</b>					
	Craniopharyngioma	15	14	29	17.7
	Neuroblastoma	18	8	26	15.9
	Germinoma	14	9	23	14.0
	Adrenal Cortical Carcinoma	12	6	18	11.0
	Paraganglioma, Malignant	4	10	14	8.5
	Extra-Adrenal Paraganglioma, Malignant	7	3	10	6.1
	Carcinoma, NOS	4	4	8	4.9
	Pheochromocytoma, Malignant	2	5	7	4.3
	Teratoma, Malignant	3	2	5	3.0
	Glomus Jugulare Tumor	2	2	4	2.4
	Pineoblastoma	1	3	4	2.4
	Adenocarcinoma, NOS	2	1	3	1.8
	Pineocytoma	2	1	3	1.8
	Neoplasm, Malignant, NOS	0	2	2	1.2
	Neuroendocrine Carcinoma	1	1	2	1.2
	Leiomyosarcoma	1	0	1	0.6
	Gastrointestinal Stromal Sarcoma	0	1	1	0.6
	Embryonal Carcinoma	0	1	1	0.6
	Yolk Sac Tumor	0	1	1	0.6
	Mixed Germ Cell Tumor	1	0	1	0.6
	Primitive Neuroectodermal Tumor	1	0	1	0.6
	<b>Total with histology</b>	<b>90</b>	<b>74</b>	<b>164</b>	<b>100.0</b>
	<b>All cases</b>	<b>95</b>	<b>89</b>	<b>184</b>	

**Table 11.2 NUMBER OF CASES OF CERVICAL CARCINOMA-IN-SITU IN FEMALE RESIDENTS BY AGE GROUP, 1968-2007**

<b>AGE (years)</b>	<b>1968 -1972</b>	<b>1973 -1977</b>	<b>1978 -1982</b>	<b>1983 -1987</b>	<b>1988 -1992</b>	<b>1993 -1997</b>	<b>1998 -2002</b>	<b>2003 -2007</b>	<b>TOTAL</b>
15-19	1	-	-	-	4	1	4	1	11
20-24	10	5	5	9	17	22	23	34	125
25-29	38	68	44	86	117	78	136	125	692
30-34	110	125	107	232	301	218	227	222	1,542
35-39	121	131	112	234	361	337	307	262	1,865
40-44	102	117	110	160	326	282	315	299	1,711
45-49	61	79	74	114	199	216	233	231	1,207
50-54	27	27	31	54	94	103	149	124	609
55-59	8	6	11	25	50	41	70	88	299
60-64	3	6	13	10	27	39	55	53	206
65-69	6	3	4	7	21	27	43	30	141
70-74	1	1	2	8	9	11	9	13	54
75-79	-	2	-	-	4	4	7	8	25
>=80	-	-	2	4	1	4	7	5	23
Unknown	1	1	-	-	5	-	-	-	7
<b>Total</b>	<b>489</b>	<b>571</b>	<b>515</b>	<b>943</b>	<b>1,536</b>	<b>1,383</b>	<b>1,585</b>	<b>1,495</b>	<b>8,517</b>



## 12 COMMENTARY ON SELECTED SITES

In this chapter, all charts have been updated to correspond to the appendices found in this volume. The international comparisons are taken from Cancer Incidence in Five Continents, Volume IX [24], which uses age-standardized incidence rates from 1998-2002 across all registries. Instances where cities are missing for certain cancer sites are where age-standardized incidence rates are not available.

### 12.1 Tongue (ICD-9: 141 / ICD-O-3: C01-C02)

Compared to the past five years, the rates of tongue cancer have seen a slight decline for both males and females. Risk for Indian males has risen nearly two-fold and risk for Malay females has increased more than two-fold compared to 1998-2002 to surpass that of Chinese females. Squamous cell carcinoma accounted for 94% of all specified histological types.

INCIDENCE DATA (2003-2007)			Males	
	No.	% <sup>a</sup>	ASR <sup>b</sup>	RR (95% CI) <sup>c</sup>
All residents	154	0.7	1.5	-
Chinese	122	0.6	1.5	1.0
Malays	5	0.3	0.3	0.3 (0.1-0.7)
Indians	23	2.4	3.1	2.0 (1.3-3.1)

INCIDENCE DATA (2003-2007)			Females	
	No.	% <sup>a</sup>	ASR <sup>b</sup>	RR (95% CI) <sup>c</sup>
All residents	72	0.3	0.6	-
Chinese	50	0.3	0.5	1.0
Malays	12	0.6	0.9	2.0 (1.1-3.7)
Indians	9	0.9	1.4	2.6 (1.3-5.4)

<sup>a</sup> percentage of all cancers in this sex-ethnic group

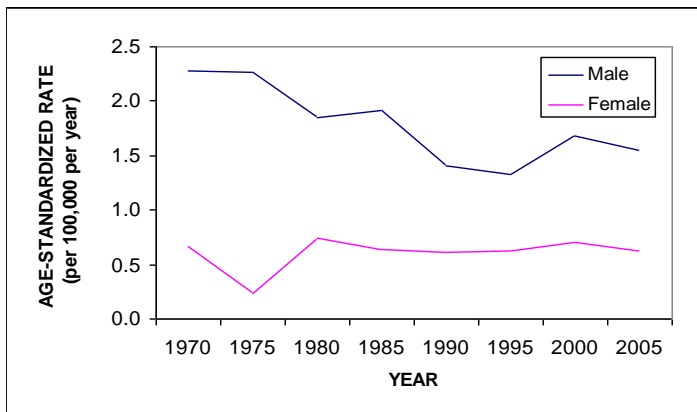
<sup>b</sup> age-standardized (to 'World' population) rate per 100,000/year

<sup>c</sup> age-adjusted relative risk and 95% confidence interval for Malays and Indians (Chinese as reference group)

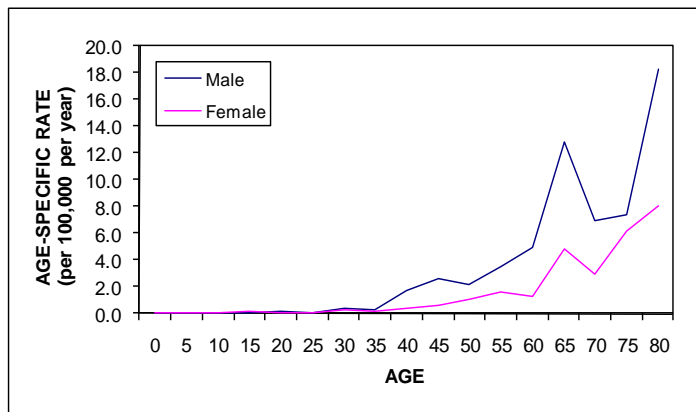
† The above footnotes are applicable to the ASR tables of all cancer sites.

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
141.0	Base	48	12
141.1	Dorsal Surface	1	4
141.2	Tip and border	6	-
141.3	Ventral Surface	6	-
141.4	Ant 2/3	7	8
141.6	Lingual Tonsil	1	-
141.8	Other	3	-
141.9	NOS	82	48
<b>All cases</b>		<b>154</b>	<b>72</b>

HISTOLOGY 2003-2007		
	NO.	%
Squamous Cell Carcinoma	208	93.7
Carcinoma, Nos	4	1.8
Adenoid Cystic Carcinoma	4	1.8
Mucoepidermoid Carcinoma	3	1.4
Small Cell Carcinoma	1	0.5
Basaloid Squamous Cell Carcinoma	1	0.5
Adenocarcinoma, Nos	1	0.5
<b>Total with histology</b>	<b>222</b>	<b>100.0</b>
<b>All cases</b>	<b>226</b>	

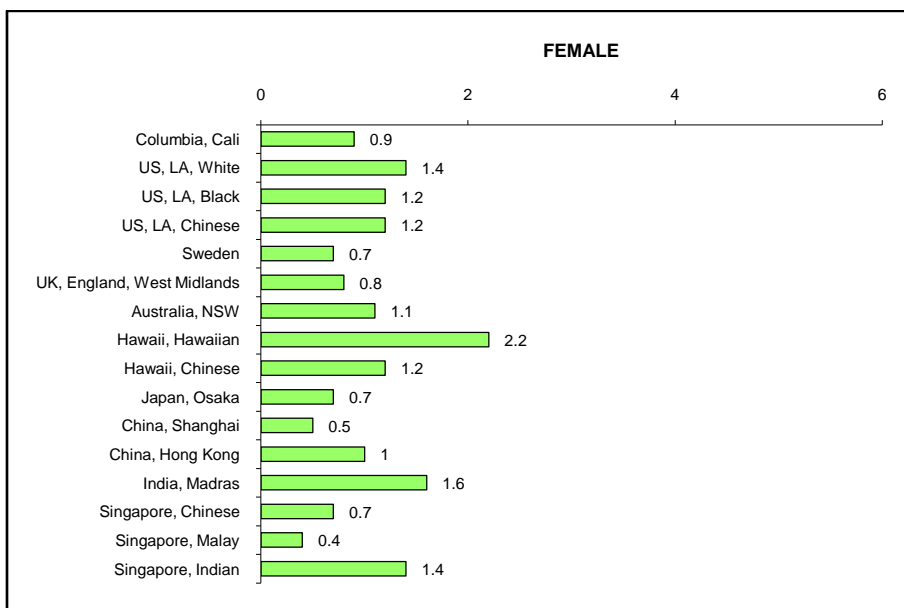
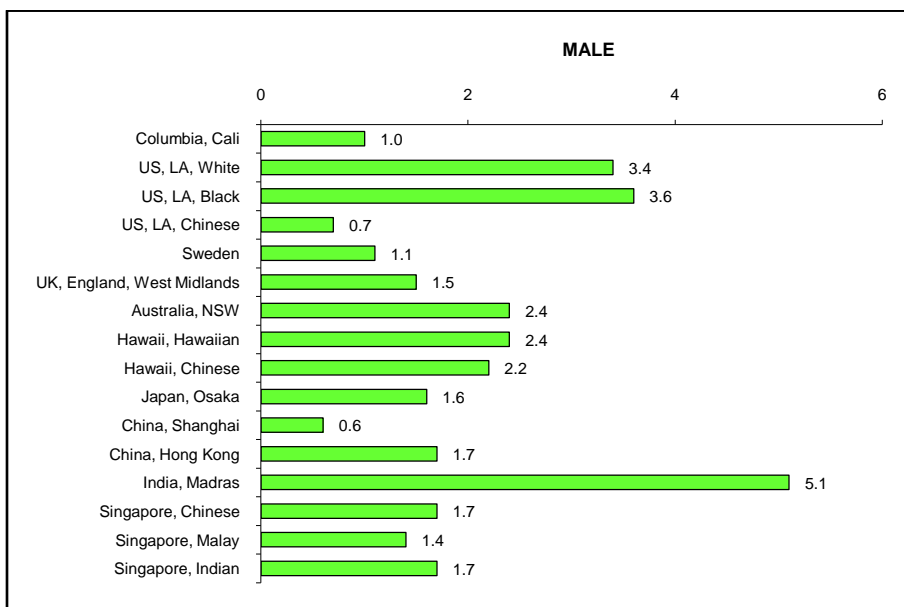


**TONGUE: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**TONGUE: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**TONGUE: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.2 Major Salivary Glands (ICD-9: 142 / ICD-O-3: C07-C08)

The number of cases of this cancer remains small, with the overall age-standardized rates fluctuating between 0.5 and 0.8 per 100,000 over the 40-year period. Close to three-fourths (73.1%) and 20.8% of tumors in the last five years occurred in the parotid and submandibular glands respectively. Adenoid cystic, acinar cell and mucoepidermoid carcinomas are the major histologic types (61.5%) of salivary gland malignancies.

The incidence rates for Singapore Chinese are similar to other worldwide populations of Chinese ethnicity.

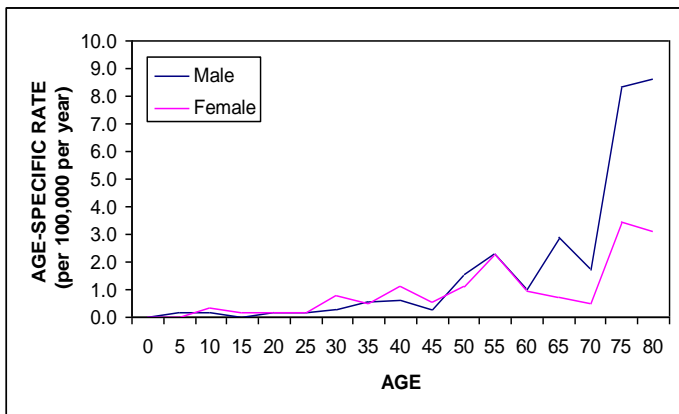
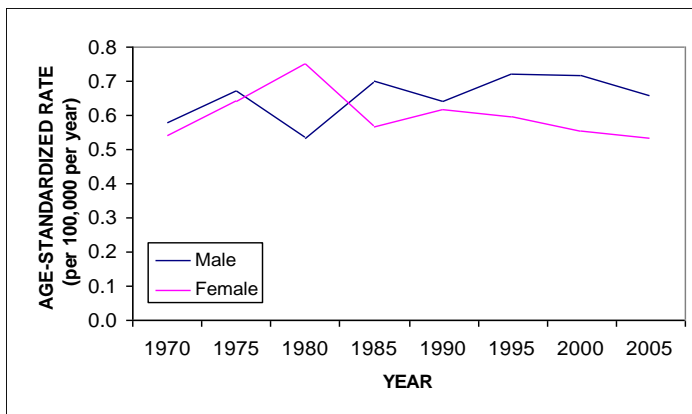
INCIDENCE DATA (2003-2007)		Males		
	No.	%	ASR	RR (95% CI)
All residents	68	0.3	0.7	-
Chinese	57	0.3	0.7	1.0
Malays	6	0.3	0.5	0.7 (0.3-1.7)
Indians	5	0.5	0.6	0.9 (0.3-2.1)

INCIDENCE DATA (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All residents	62	0.3	0.5	-
Chinese	52	0.3	0.5	1.0
Malays	8	0.4	0.5	1.1 (0.5-2.3)
Indians	1	0.1	0.2	0.2 (0.0-1.6)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
142.0	Parotid	49	46
142.1	Submandibular	14	13
142.2	Sublingual	3	2
142.9	NOS	2	1
<b>All cases</b>		<b>68</b>	<b>62</b>

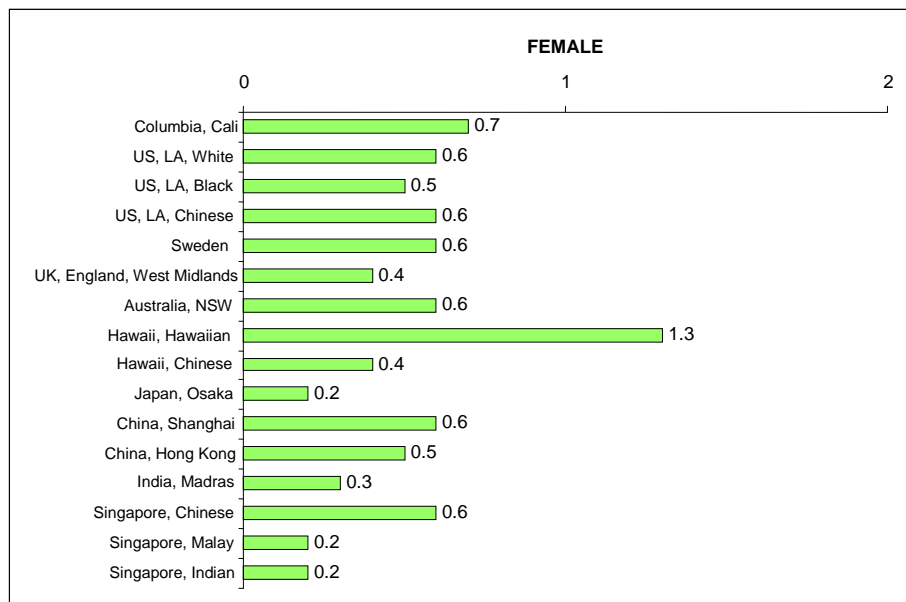
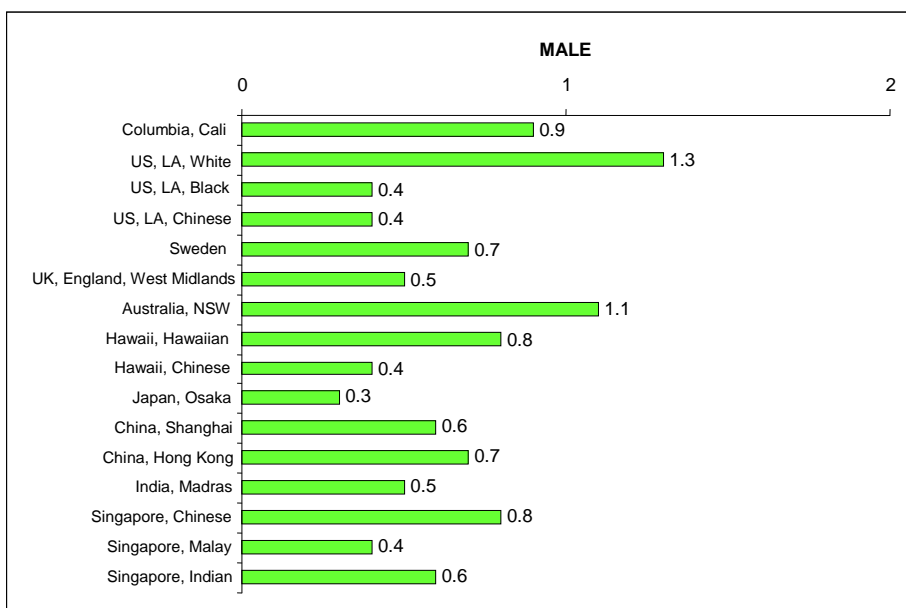
HISTOLOGY 2003-2007		NO.	%
Mucoepidermoid Carcinoma		41	31.5
Adenoid Cystic Carcinoma		20	15.4
Adenocarcinoma, Nos		14	10.8
Acinar Cell Carcinoma		14	10.8
Lymphoepithelial Carcinoma		11	8.5
Squamous Cell Carcinoma		7	5.4
Carcinoma, Nos		4	3.1
Carcinoma In Pleomorphic Adenoma		4	3.1
Neoplasm, Malignant, Nos		3	2.3
Epithelial-Myoepithelial Carcinoma		3	2.3
Basal Cell Adenocarcinoma		2	1.5
Duct Carcinoma		2	1.5
Carcinoma, Undifferentiated		1	0.8
Cystadenocarcinoma		1	0.8
Desmoplastic Small Round Cell Tumour		1	0.8
Malignant Myoepithelioma		1	0.8
Primitive Neuroectodermal Tumour		1	0.8
<b>Total with histology</b>		<b>130</b>	<b>100.0</b>
<b>All cases</b>		<b>130</b>	



**SALIVARY GLAND: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**

**SALIVARY GLAND: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**SALIVARY GLAND: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



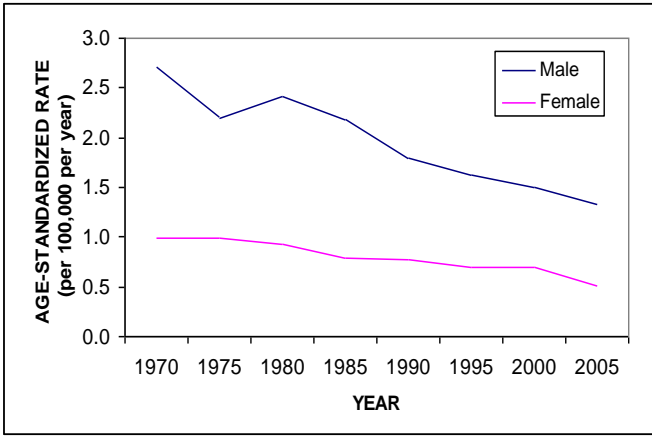
### 12.3 Mouth (ICD-9: 143-5 / ICD-O-3: C03-C06)

The incidence of this cancer among Indians in Singapore remains markedly higher than the other ethnic groups, especially for females; but lower than that in India. The trend in all residents has been a gradual decline over the 40-year period, by 51.9% in males (from 2.7 in 1968-72 to 1.3 per 100,000 per year) and by 50% in females (from 1.0 to 0.5 per 100,000 per year). The male: female ratio of case numbers is 2.1:1. The age incidence curve shows an increase in risk with age, most marked after the fourth decade of life.

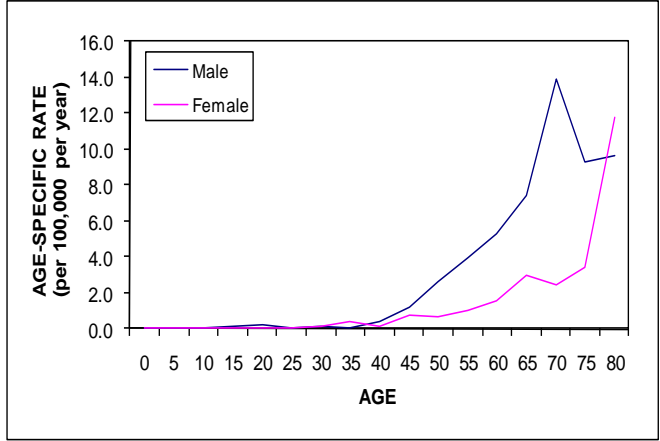
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	128	0.6	1.3	-
Chinese	103	0.5	1.3	1.0
Malays	7	0.4	0.7	0.5 (0.2-1.1)
Indians	17	1.8	2.4	1.8 (1.0-2.9)
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	62	0.3	0.5	-
Chinese	46	0.2	0.4	1.0
Malays	2	0.1	0.2	0.4 (0.1-1.6)
Indians	14	1.4	2.4	4.8 (2.6-8.9)

SUBSITES 2003-2007				
ICD9	SUBSITE	Male	Female	
143.0	Gum, upper	3	2	
143.1	Gum, lower	7	4	
143.9	Gum, NOS	1	6	
144.9	Floor of mouth, NOS	29	-	
145.0	Cheek mucosa	26	19	
145.1	Vestibule	-	1	
145.2	Hard palate	11	6	
145.3	Soft palate	19	5	
145.4	Uvula	3	-	
145.5	Palate, NOS	9	7	
145.6	Retromolar	10	10	
145.8	Other	1	-	
145.9	NOS	9	2	
<b>All cases</b>		<b>128</b>	<b>62</b>	

HISTOLOGY 2003-2007		
	NO.	%
Squamous Cell Carcinoma	146	77.2
Mucoepidermoid Carcinoma	14	7.4
Adenocarcinoma, Nos	7	3.7
Adenoid Cystic Carcinoma	6	3.2
Carcinoma, Nos	5	2.6
Basaloid Squamous Cell Carcinoma	3	1.6
Carcinoma, Undifferentiated	2	1.1
Neoplasm, Malignant, Nos	1	0.5
Clear Cell Adenocarcinoma	1	0.5
Mucinous Adenocarcinoma	1	0.5
Malignant Melanoma, Nos	1	0.5
Sarcoma, Nos	1	0.5
Rhabdomyosarcoma	1	0.5
<b>Total with histology</b>	<b>189</b>	<b>100.0</b>
<b>All cases</b>	<b>190</b>	

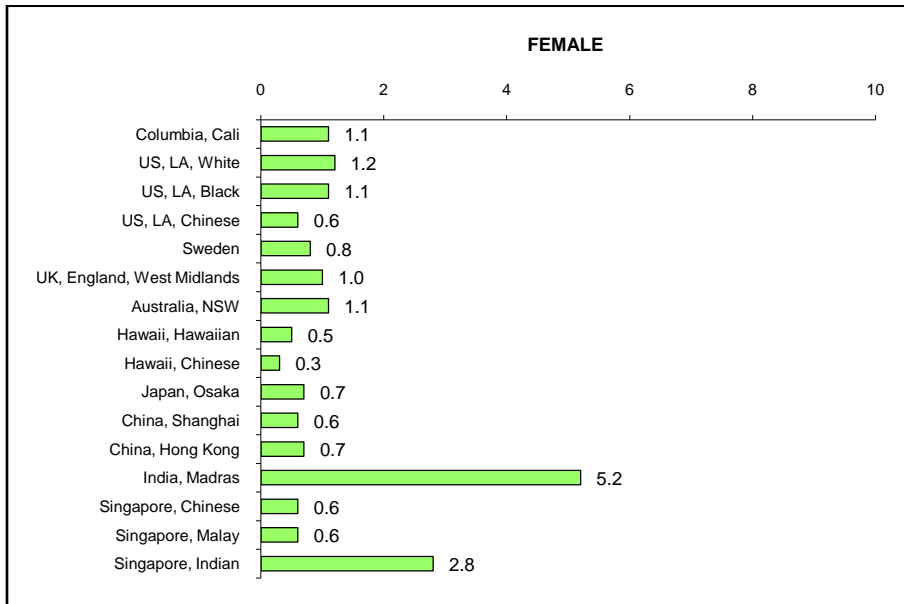
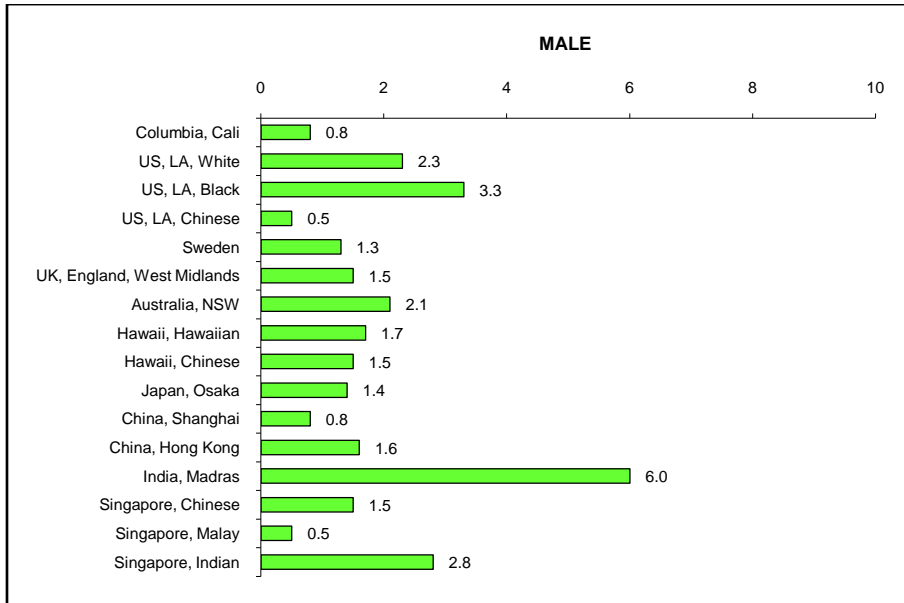


**MOUTH: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**MOUTH: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**MOUTH: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.4 Nasopharynx (ICD-9: 147 / ICD-O-3: C11)

Of the 1601 incident cases of this disease, 92.5% occurred in Chinese. Incidence rates remained remarkably stable between 1968 and 1992 but subsequently began to decline. Among Chinese men, the annual ASR fell significantly from 18.7 in 1988-1992 to 12.9 per 100,000 in 1998-2002 and has further fallen slightly to 12.5 per 100,000 in 2003-2007. Compared to the Chinese, Malays have about 30-50% of the risk. Rates are low among Indians, their relative risk is about one-tenth that of Chinese.

The age-specific incidence rates for nasopharyngeal cancer begin to rise in the third decade of life and peak at 60 years among males. On the contrary, one can observe dual peaks in ASR among the females; one at 55 years and one at 75 years. The male to female ratio remains similar as in previous years, at 2.7:1. Earlier data from the Cancer Registry [1-3] showed significantly higher risks for individuals of Cantonese origin, consistent with the high incidence in Hong Kong and Singapore relative to other countries.

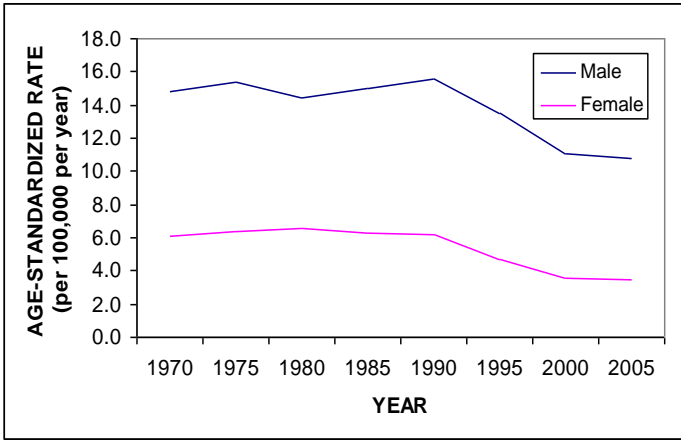
INCIDENCE DATA (2003-2007)		No.	%	Males ASR	RR (95% CI)
All residents		1198	5.5	10.8	-
Chinese		1100	5.8	12.5	1.0
Malays		84	4.8	6.8	0.5 (0.4-0.7)
Indians		8	0.8	1.1	0.1 (0.0-0.1)

INCIDENCE DATA (2003-2007)		No.	%	Females ASR	RR (95% CI)
All residents		403	1.7	3.4	-
Chinese		381	1.9	4.1	1.0
Malays		17	0.8	1.3	0.3 (0.2-0.5)
Indians		2	0.2	0.3	0.1 (0.0-0.2)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
147.0	Superior Wall	3	1
147.1	Posterior Wall	8	2
147.2	Lateral Wall	5	1
147.3	Anterior Wall	3	-
147.9	NOS	1179	399
<b>All cases</b>		<b>1198</b>	<b>403</b>

HISTOLOGY 2003-2007		NO.	%
Carcinoma, Undifferentiated		1338	84.1
Carcinoma, Nos		162	10.2
Squamous Cell Carcinoma		71	4.5
Neoplasm, Malignant, Nos		4	0.3
Adenocarcinoma, Nos		4	0.3
Neuroendocrine Carcinoma		3	0.2
Adenoid Cystic Carcinoma		2	0.1
Basaloid Squamous Cell Carcinoma		1	0.1
Basaloid Carcinoma		1	0.1
Adenosquamous Carcinoma		1	0.1
Adenocarcinoma With Neuroendocrine Differentiation		1	0.1
Embryonal Rhabdomyosarcoma		1	0.1
Carcinosarcoma		1	0.1
Teratoma, Malignant		1	0.1
<b>Total with histology</b>		<b>1591</b>	<b>100.0</b>
<b>All cases</b>		<b>1601</b>	

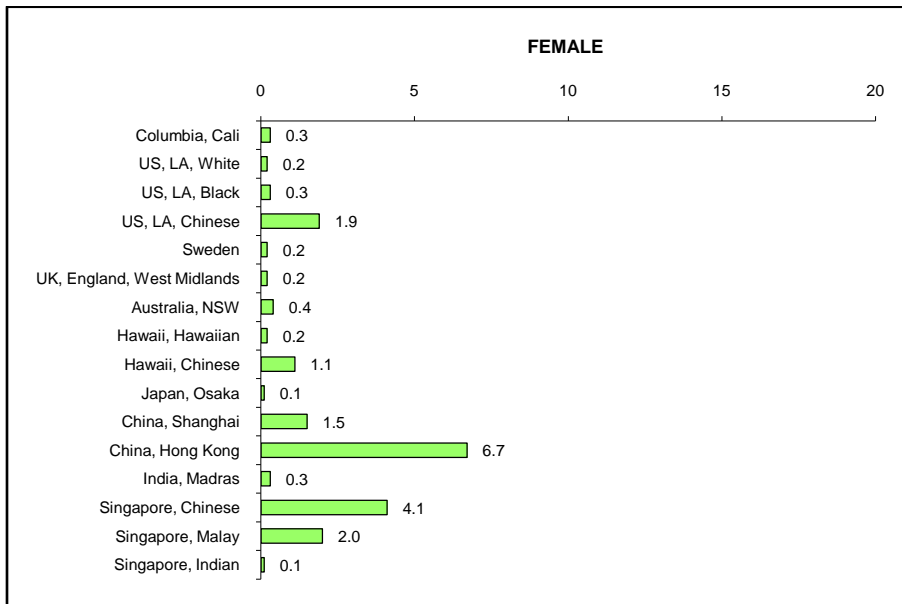
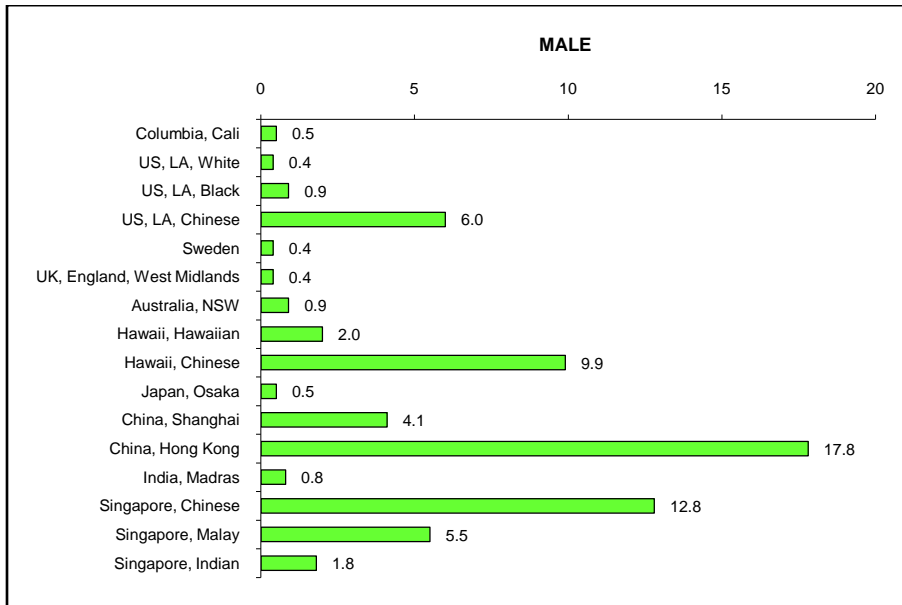


**NASOPHARYNX: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**NASOPHARYNX: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**NASOPHARYNX: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**





## 12.5 Oesophagus (ICD-9: 150 / ICD-O-3: C15)

Since 1968, rates of oesophageal cancer in Singapore have been on the decline and this trend has continued in 2003-2007. The annual incidence rates (per 100,000) for Chinese males and females locally were 4.1 and 0.7, respectively, per 100,000 in 2003-2007 compared with 19.7 and 6.4 in 1968-72, an average annual decline of 4.4% in males and 5.9% in females. The male: female ratio of this cancer is 3.57. The age-incidence curves for 1998-2002 show a steep rise after the age of 40 for males and after the age of 50 for females. Of cases with specified histology (95% of those notified), 80.0% were squamous cell carcinomas and 10.3% were adenocarcinomas.

Among ethnic groups, risks among Malay and Indian men remain generally lower than that for Chinese men. There is a suggestion of a higher risk among Indian women, but the number of cases is small. Earlier data [1-3] showed that Hokkiens and Teochews had significantly higher risks than other Chinese dialect groups.

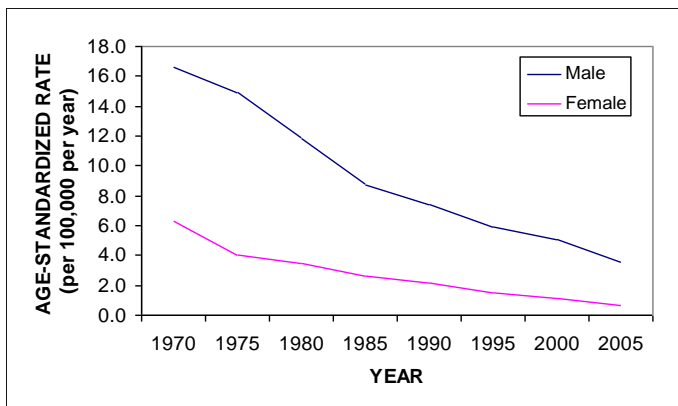
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	334	1.5	3.6	-
Chinese	306	1.6	4.1	1.0
Malays	10	0.6	0.9	0.3 (0.1-0.5)
Indians	16	1.7	2.0	0.5 (0.3-0.9)

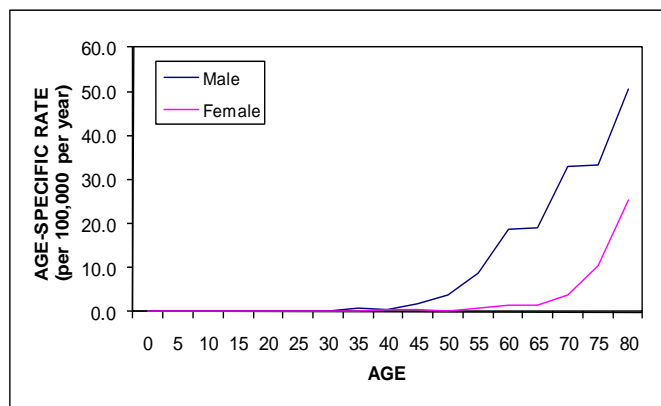
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	87	0.4	0.7	-
Chinese	77	0.4	0.7	1.0
Malays	3	0.1	0.3	0.4 (0.1-1.2)
Indians	7	0.7	0.9	1.7 (0.8-3.7)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
150.0	Cervical	5	1
150.1	Thoracic	15	2
150.2	Abdominal	2	-
150.3	Upper third	30	12
150.4	Middle third	84	29
150.5	Lower third	93	15
150.8	Other	5	-
150.9	NOS	100	28
<b>All cases</b>		<b>334</b>	<b>87</b>

HISTOLOGY 2003-2007		
	NO.	%
Squamous Cell Carcinoma	320	80.0
Adenocarcinoma, Nos	41	10.3
Carcinoma, Nos	14	3.5
Basaloid Squamous Cell Carcinoma	6	1.5
Small Cell Carcinoma	3	0.8
Neuroendocrine Carcinoma	3	0.8
Mucinous Adenocarcinoma	3	0.8
Gastrointestinal Stromal Sarcoma	3	0.8
Carcinoma, Undifferentiated	2	0.5
Adenosquamous Carcinoma	2	0.5
Smooth Muscle Tumour, Borderline	2	0.5
Neoplasm, Malignant, Nos	1	0.3
<b>Total with histology</b>	<b>400</b>	<b>100.0</b>
<b>All cases</b>	<b>421</b>	

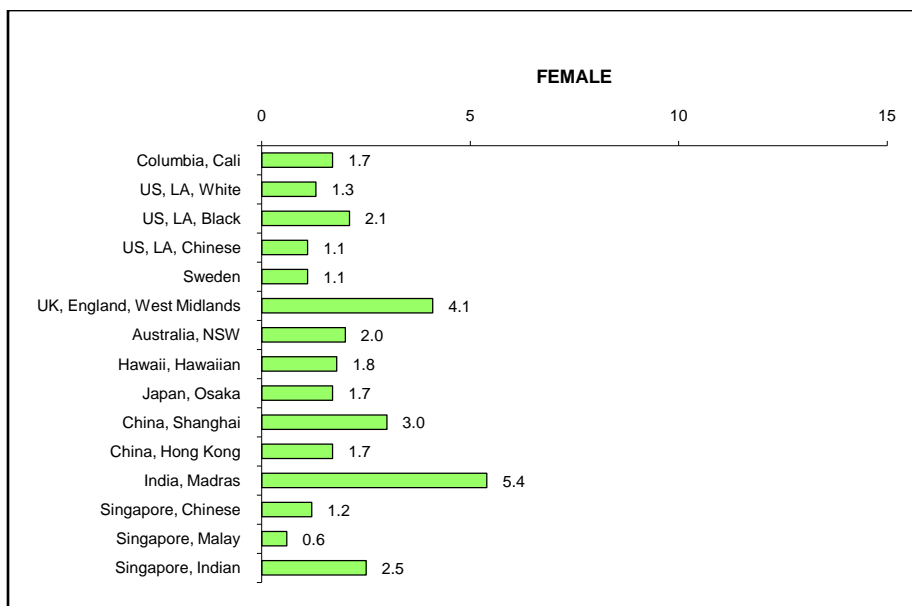
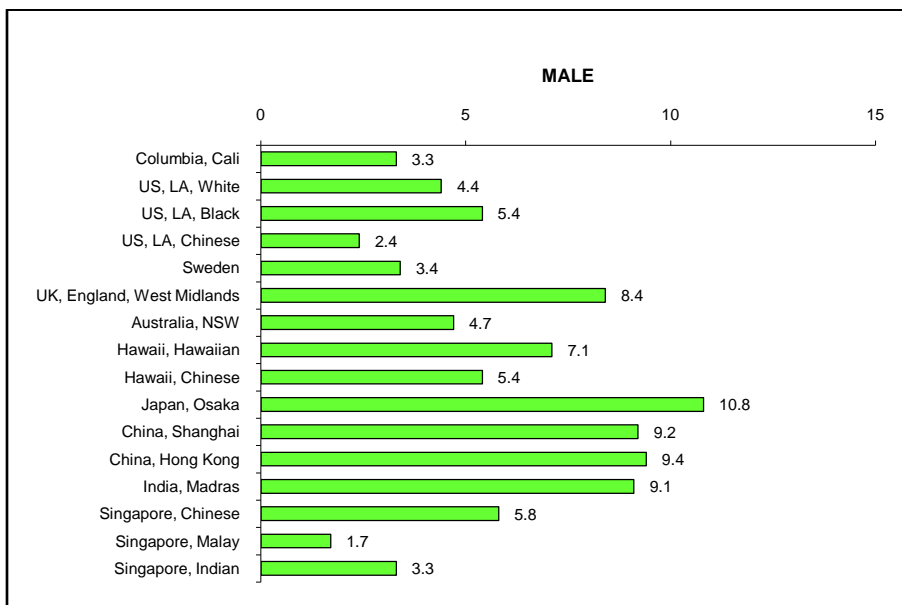


**OESOPHAGUS: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**OESOPHAGUS: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**OESOPHAGUS: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.6 Stomach (ICD-9: 151 / ICD-O-3: C16)

The steady decline in incidence of stomach cancer has continued, with an average annual decline of 2.7% in males and 2.2% in females. It now ranks 5th and 8th among males and females respectively, each ranking having fallen compared to the previous 5-year period. The age-specific incidence rises sharply from the end of the fifth decade, and the male: female ratio is 1.6:1.

Chinese account for 91% of all cases diagnosed in 2003-2007. Age-adjusted risks for Malays and Indians are all significantly lower than for Chinese males and females, and the relative risks remain similar to previous reports. Data presented in previous publications for the period 1968-1987 [1-3] showed that Hokkiens and Teochews had significantly higher risks than other Chinese dialect groups; foreign-born Chinese also had higher risks than the local-born.

On an international scale, Singapore's incidence rates for Chinese remain between those of Hong Kong and Shanghai, and are about half those of Japan.

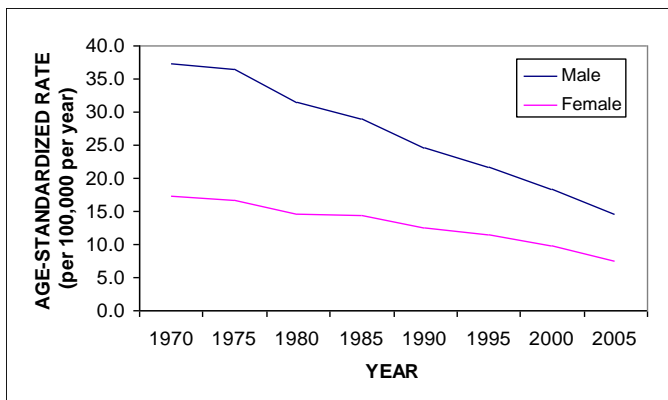
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	1375	6.3	14.5	-
Chinese	1235	6.6	16.3	1.0
Malays	54	3.1	5.3	0.3 (0.2-0.4)
Indians	70	7.3	9.4	0.6 (0.4-0.7)

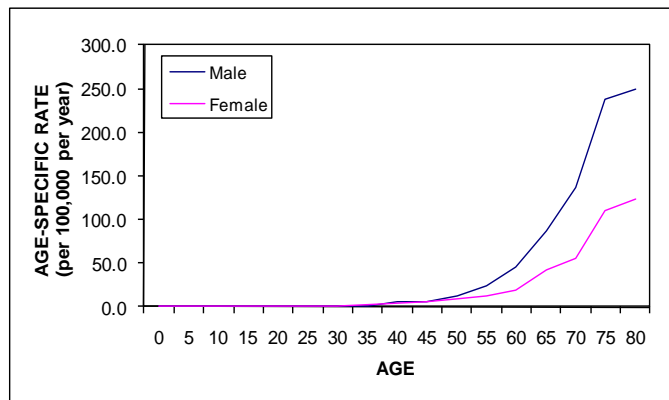
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	885	3.8	7.4	-
Chinese	811	4.1	8.1	1.0
Malays	35	1.6	2.8	0.4 (0.3-0.5)
Indians	32	3.3	4.9	0.6 (0.4-0.9)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
151.0	Cardia	249	116
151.1	Pylorus	72	35
151.2	Pyloric Antrum	268	187
151.3	Fundus	19	13
151.4	Body	77	61
151.5	Lesser Curvature	124	80
151.6	Greater Curvature	42	34
151.8	Other	68	29
151.9	NOS	456	330
<b>All cases</b>		<b>1375</b>	<b>885</b>

HISTOLOGY 2003-2007		NO.	%
Adenocarcinoma, Nos		1157	52.7
Signet Ring Cell Carcinoma		430	19.6
Adenocarcinoma, Intestinal Type		263	12.0
Gastrointestinal Stromal Sarcoma		117	5.3
Carcinoma, Diffuse Type		104	4.7
Mucinous Adenocarcinoma		33	1.5
Carcinoma, Nos		31	1.4
Neuroendocrine Carcinoma		20	0.9
Neoplasm, Malignant, Nos		10	0.5
Squamous Cell Carcinoma		8	0.4
Carcinoma, Undifferentiated		6	0.3
Adenosquamous Carcinoma		4	0.2
Small Cell Carcinoma		3	0.1
Adenocarcinoma With Neuroendocrine Differentiation		2	0.1
Malignant Melanoma		2	0.1
Leiomyosarcoma		2	0.1
Lymphoepithelial Carcinoma		1	0.0
Hepatoid Adenocarcinoma		1	0.0
Carcinosarcoma		1	0.0
<b>Total with histology</b>		<b>2195</b>	<b>100.0</b>
<b>All cases</b>		<b>2260</b>	

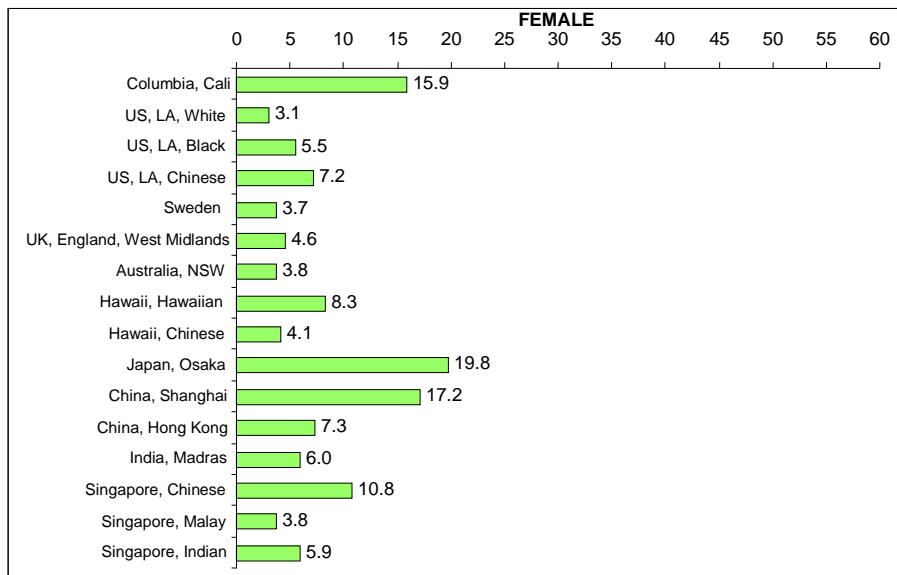
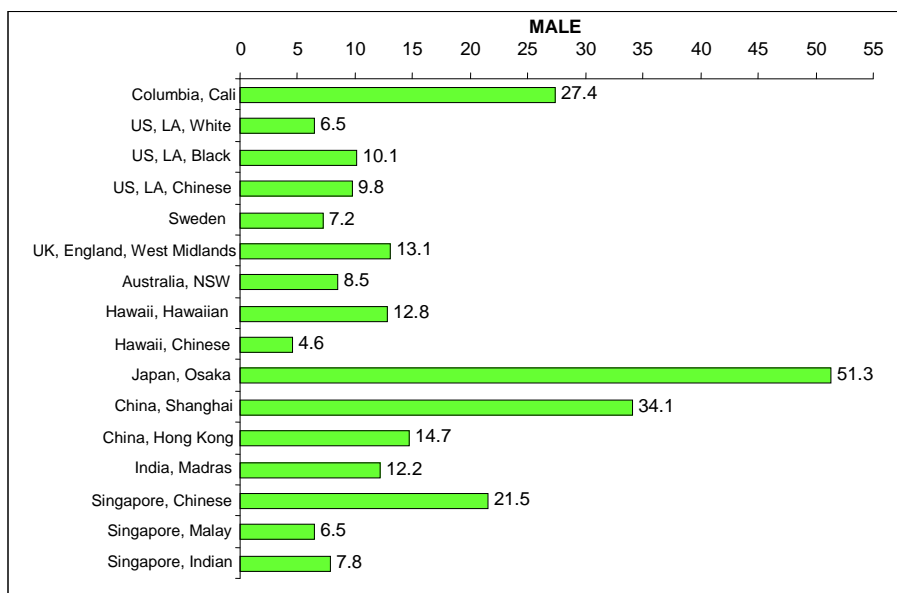


**STOMACH: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**STOMACH: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**STOMACH: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.7 Colorectal

The incidence of cancer of the large bowel (colon and rectum) has ranked second for both males and females in Singapore since 1983 and in 2003-2007, and has overtaken lung cancer as the leading cause of cancer incidence among Singapore males. It accounts for 17.8% of cancers in males and 14.5% in females, and is the most frequent cancer when both genders are combined (7277 cases in 2003-2007 compared to 5696 cases of lung cancer in the same period).

The age-standardized incidence rate in Singapore Chinese is the highest among Chinese populations around the world and has exceeded those of whites in the US. They are also inching towards the rates in Australia, NSW, a region with the one of the highest ASRs in the world. Colorectal cancer incidence has been declining in the United States, and to a lesser extent in Europe.<sup>1,2</sup>

### 12.7.1 Colon (ICD-9: 153 / ICD-O-3: C18)

The age-standardized rates for colon cancer in 2003-2007 represent a 125.1% increase over risks in 1968-72 for males, and a 112.4% increase for females. Compared with the previous five-year period (1998-2002), rates in males and females appear to have stabilized. The age-specific rates begin to increase sharply in the 40-45 year age group.

Of the 6940 colorectal cancer cases with specific subsite (see also section 12.8), 1405 (20.2%) occurred proximal to the splenic flexure, 5077 (73.2%) were in the distal colon (including splenic flexure / descending / sigmoid colon / rectum and rectosigmoid junction) and 458 (6.6%) were in other / overlapping sites.

Among the ethnic groups, Malays and Indians have a risk between 20-60% that of Chinese.

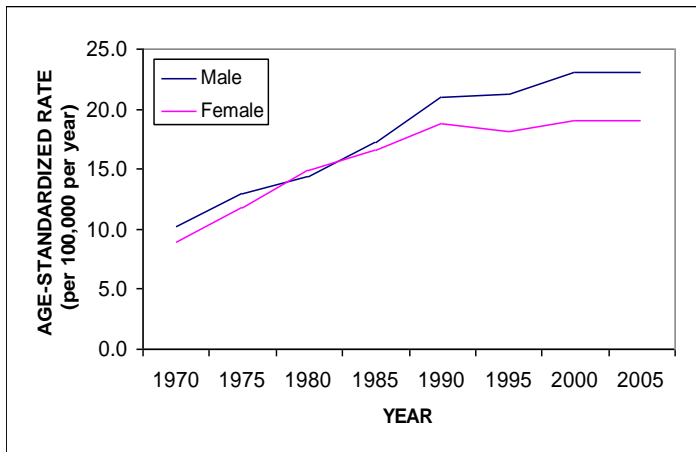
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	2192	10.0	23.0	-
Chinese	1962	10.4	25.7	1.0
Malays	146	8.3	14.4	0.6 (0.5-0.7)
Indians	55	5.7	7.4	0.3 (0.2-0.4)
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	2240	9.6	19.1	-
Chinese	2035	10.3	20.8	1.0
Malays	140	6.4	12.6	0.6 (0.5-0.7)
Indians	50	5.1	7.0	0.4 (0.3-0.5)

<sup>1</sup> Jemal A, Thun MJ, Ries LA, et al. Annual report to the nation on the status of cancer, 1975-2005, featuring trends in lung cancer, tobacco use, and tobacco control. J Natl Cancer Inst. 2008; Dec 3;100(23): 1672-94.

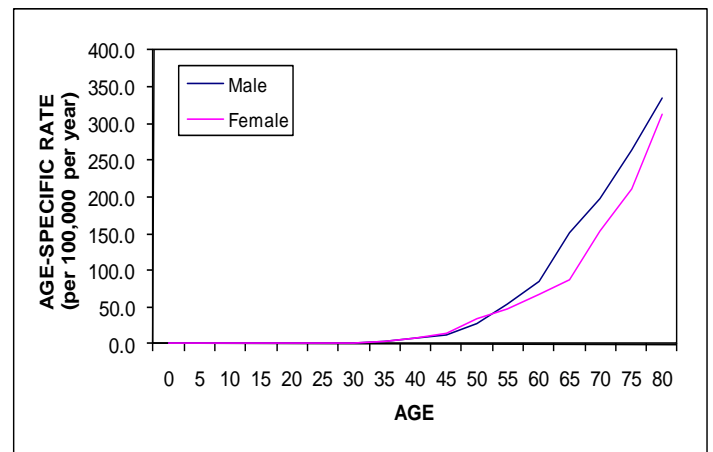
<sup>2</sup> Quinn M. Cancer trends in the United States – a view from Europe. J Natl Cancer Inst 2003; 95: 1258-9.

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
153.0	Hepatic Flexure	147	107
153.1	Transverse Colon	173	199
153.2	Descending Colon	161	169
153.3	Sigmoid Colon	923	889
153.4	Caecum	153	200
153.5	Appendix	25	38
153.6	Ascending Colon	159	204
153.7	Splenic Flexure	103	90
153.8	Other	183	172
153.9	NOS	165	172
<b>All cases</b>		<b>2192</b>	<b>2240</b>

HISTOLOGY 2003-2007		
	NO.	%
Adenocarcinoma, Nos	3739	88.6
Mucinous Adenocarcinoma	390	9.2
Neuroendocrine Carcinoma	46	1.1
Carcinoma, Nos	22	0.5
Mucinous Cystic Tumour, Borderline	7	0.2
Adenosquamous Carcinoma	4	0.1
Neoplasm, Malignant, Nos	3	0.1
Carcinoma, Undifferentiated	3	0.1
Gastrointestinal Stromal Sarcoma	3	0.1
Adenocarcinoma With Neuroendocrine Differentiation	2	0.0
Squamous Cell Carcinoma	1	0.0
Sarcoma, Nos	1	0.0
Leiomyosarcoma	1	0.0
<b>Total with histology</b>	<b>4222</b>	<b>100.0</b>
<b>All cases</b>	<b>4432</b>	

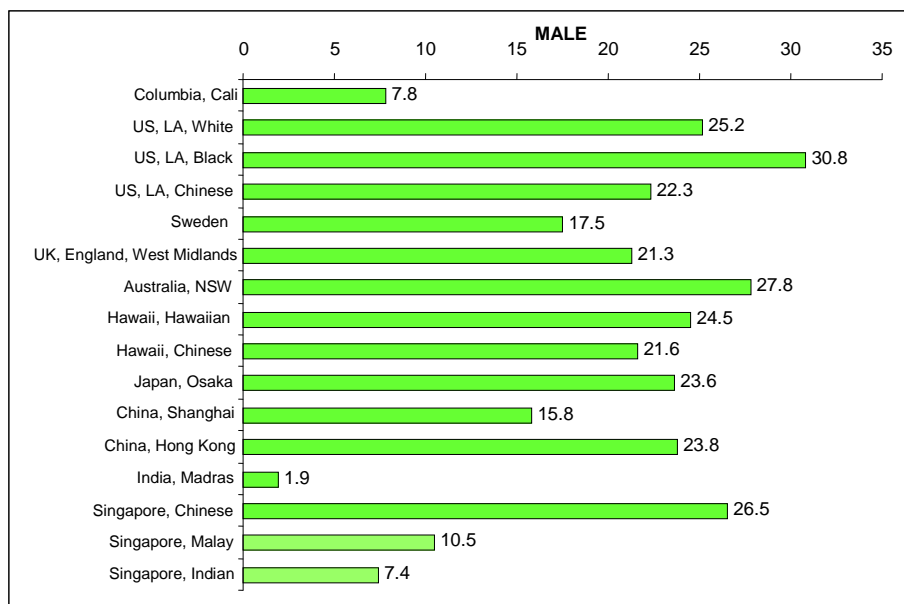


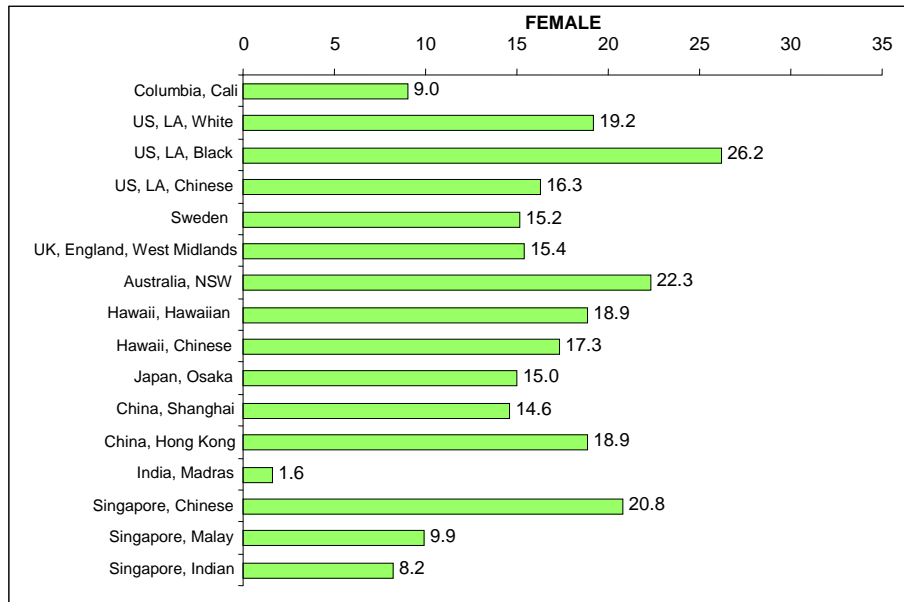
COLON: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007



COLON: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007

COLON: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)





### 12.7.2 Rectum and anus (ICD-9: 154 / ICD-O-3: C19-C21)

Cancers of the rectum, rectosigmoid junction and anus (ICD-9 154) constituted 43.8% and 33.6% of cancers of the large bowel among males and females, respectively, in 2003-2007. Incidence rates in Singapore exceed those in most developed countries, including the US and parts of Europe – reasons for this are not clear. The rates in 2003-2007 show a negligible decrease (0.2%) over the previous 5-year period for males, and a 5.8% decrease for females.

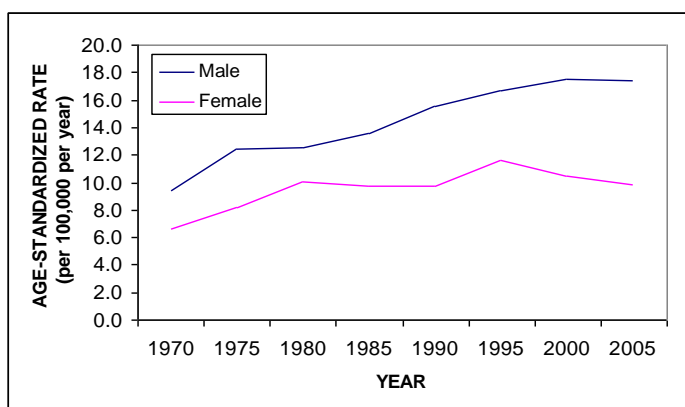
The age-adjusted relative risk among ethnic groups for rectal cancer is similar to colon cancer, with rates for Indians being 30-40% that of Chinese and Malays being intermediate between the two.

Note: As it can be difficult to determine the exact anatomical origin of tumours arising near the rectosigmoid junction, it should be noted that data on large bowel cancers, particularly for international comparisons, may be affected by the degree to which ‘sigmoid colon’ (ICD-9 1533 / ICD-O-2 C18.7) and ‘rectosigmoid junction’ (ICD-9 1540 / ICD-O-2 C19.9) are differentiated in the notification process.

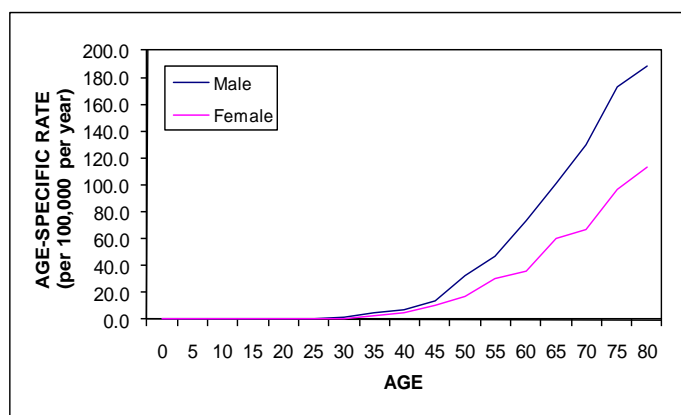
INCIDENCE (2003-2007)	Males			
	No	%	ASR	RR (95% CI)
All	171	7.8	17.5	-
Chinese	149	7.9	19.0	1.0
Malays	12	7.0	11.6	0.6 (0.5-0.7)
Indians	7	7.5	9.7	0.5 (0.4-0.6)
INCIDENCE (2003-2007)	Females			
	No	%	ASR	RR (95% CI)
All	113	4.9	9.9	-
Chinese	102	5.2	10.7	1.0
Malays	8	3.7	7.4	0.6 (0.5-0.8)
Indians	2	2.7	4.2	0.4 (0.3-0.6)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
154.0	Rectosigmoid Junction	545	387
154.1	Rectum	1107	703
154.2	Anal Canal	32	23
154.3	Anus	5	8
154.8	Others	21	14
<b>All cases</b>		<b>1710</b>	<b>1135</b>

HISTOLOGY 2003-2007		
	NO.	%
Adenocarcinoma, Nos	2480	89.0
Mucinous Adenocarcinoma	140	5.0
Neuroendocrine Carcinoma	101	3.6
Squamous Cell Carcinoma	19	0.7
Carcinoma, Nos	14	0.5
Malignant Melanoma	8	0.3
Gastrointestinal Stromal Sarcoma	8	0.3
Basaloid Squamous Cell Carcinoma	5	0.2
Neoplasm, Malignant, Nos	4	0.1
Basaloid Carcinoma	3	0.1
Cloacogenic Carcinoma	2	0.1
Paget Disease, Extramammary	2	0.1
Adenosquamous Carcinoma	1	0.0
Carcinosarcoma	1	0.0
<b>Total with histology</b>	<b>2788</b>	<b>100.0</b>
<b>All cases</b>	<b>2845</b>	

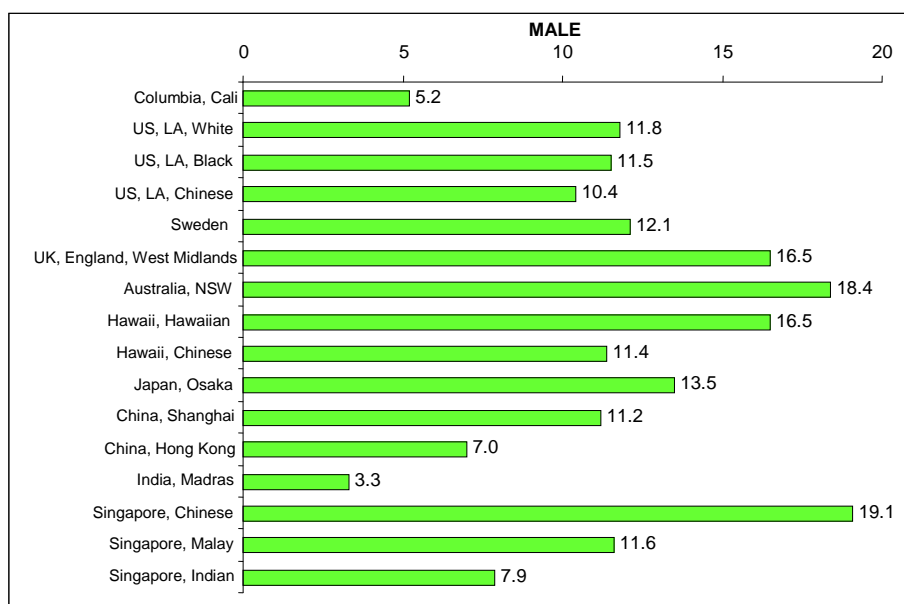


RECTUM: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007

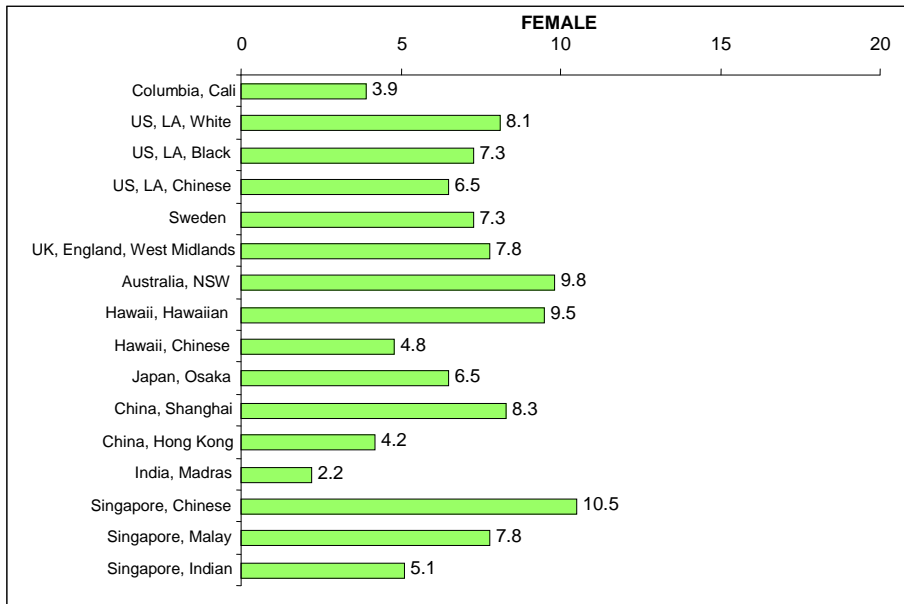


RECTUM: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007

RECTUM: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)







## 12.8 Liver (ICD-9: 155 / ICD-O-3: C22)

Overall, liver cancer incidence rates showed a marginal decline in women while they appear to have remained stable in men over the past 20 years, showing a slight decline only in the past 5 years. Rates begin to rise during the fourth decade of life for men, and about 15-20 years later for women. The male: female ratio is 3.1:1. The rates in Singapore, while still considerably higher than in the West, are lower than those in Japan, Hong Kong and Shanghai.

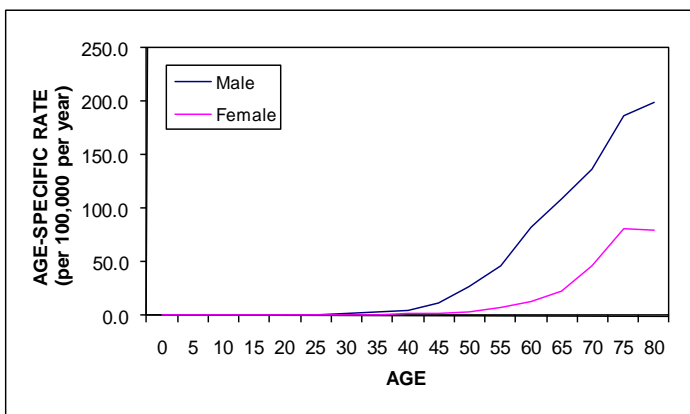
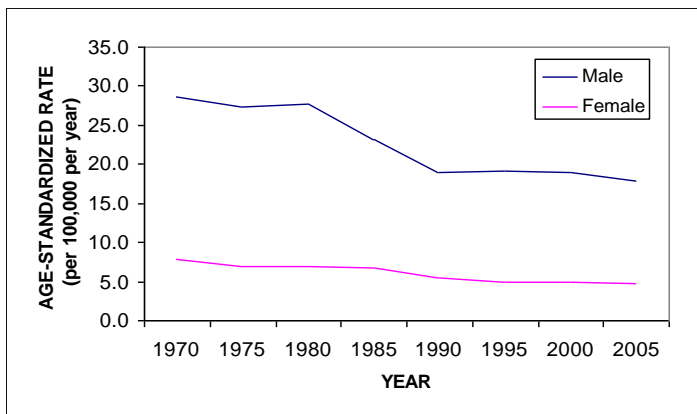
The risks among Malays and Indians are lower than for Chinese; this difference is more marked in men.

The monitoring of rates for liver cancer by the Registry continues to constitute an important part of the surveillance system accompanying the nationwide immunization programme against Hepatitis B.

INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	1700	7.7	17.8	-
Chinese	1482	7.9	19.4	1.0
Malays	139	7.9	13.2	0.7 (0.6-0.8)
Indians	64	6.6	8.8	0.4 (0.3-0.6)
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	549	2.4	4.7	-
Chinese	481	2.4	4.9	1.0
Malays	44	2.0	4.0	0.8 (0.6-1.1)
Indians	20	2.0	3.5	0.7 (0.4-1.0)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
155.0	Primary Liver	1587	436
155.1	Intrahepatic Bile Ducts	108	106
	Liver, not specified		
155.2	primary or secondary	5	7
	<b>All cases</b>	<b>1700</b>	<b>549</b>

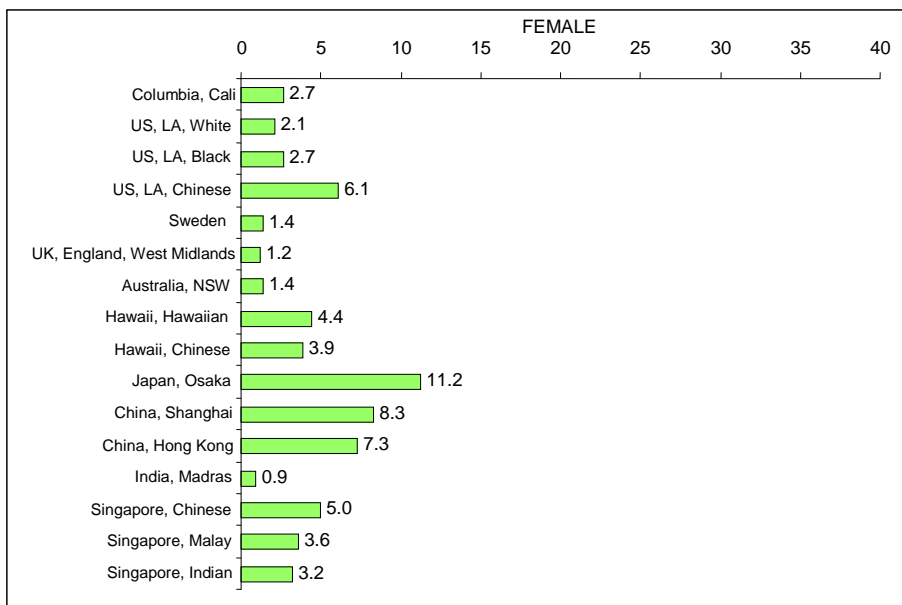
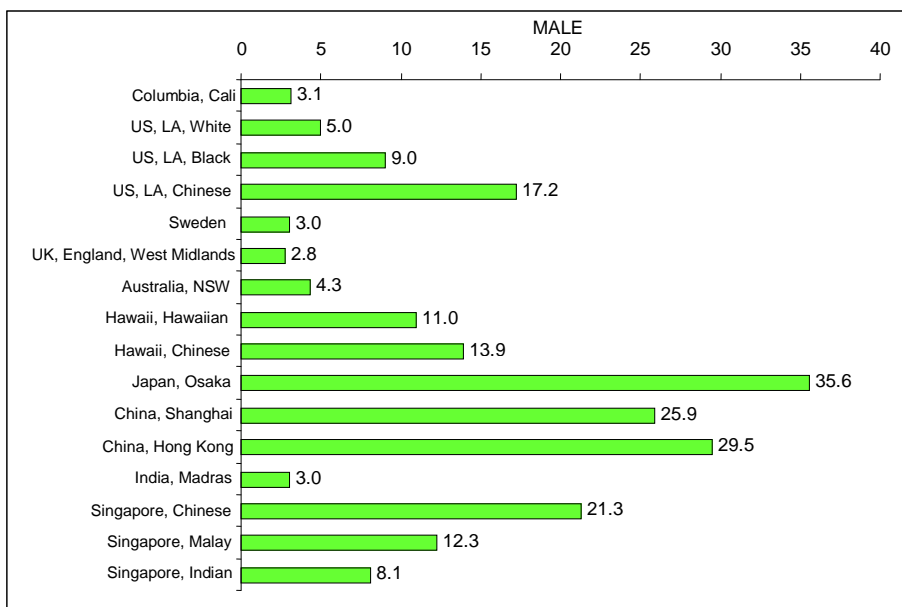
HISTOLOGY 2003-2007	NO.	%
Hepatocellular Carcinoma	690	79.4
Adenocarcinoma, Nos	69	7.9
Cholangiocarcinoma	43	4.9
Carcinoma, Nos	26	3.0
Neoplasm, Malignant, Nos	11	1.3
Combined Hepatocellular Carcinoma And Cholangiocarcinoma	9	1.0
Hepatoblastoma	8	0.9
Hemangiosarcoma	6	0.7
Sarcoma, Nos	2	0.2
Hemangioendothelioma, Malignant	2	0.2
Neuroendocrine Carcinoma	1	0.1
Cystadenocarcinoma	1	0.1
Carcinosarcoma	1	0.1
<b>Total with histology</b>	<b>869</b>	<b>100.0</b>
<b>All cases</b>	<b>2249</b>	



LIVER: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007

LIVER: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007

LIVER: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)



## 12.9 Gall bladder and extrahepatic bile ducts (ICD-9: 156 / ICD-O-3: C23-C24)

Of the 387 cases diagnosed in 2003-2007, 55.8% occurred in females, giving a female: male ratio of 1.3:1. Although an uncommon cancer (0.9% of all cancers), rates among females continued to increase and the rate in the 1998-2002 period was three times the rates experienced in 1968-1972. For the most recent 2003-2007 period, the rates in females have fallen to the same rate as the males. For males, the trend is less distinct as the numbers are smaller. The incidence among Singapore Chinese remains lower than that in Japan, China and Hong Kong. There are no significant inter-ethnic differences.

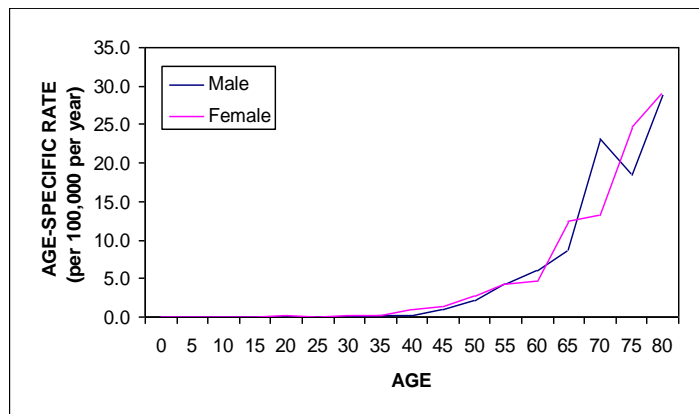
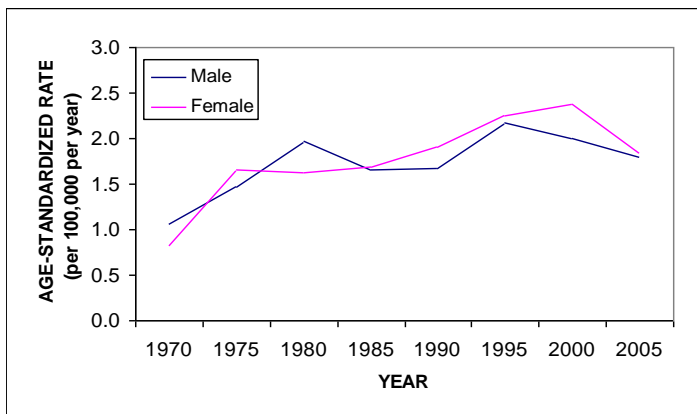
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	171	0.8	1.8	-
Chinese	137	0.7	1.8	1.0
Malays	15	0.9	1.4	0.8 (0.5-1.4)
Indians	16	1.7	2.1	1.2 (0.7-2.0)

INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	216	0.9	1.8	-
Chinese	189	1.0	1.9	1.0
Malays	17	0.8	1.5	0.8 (0.5-1.3)
Indians	8	0.8	1.3	0.6 (0.3-1.3)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
156.0	Gall Bladder	72	125
156.1	Extrahepatic Bile Ducts	42	32
156.2	Ampulla	50	56
156.8	Other	1	-
156.9	NOS	6	3
<b>All cases</b>		<b>171</b>	<b>216</b>

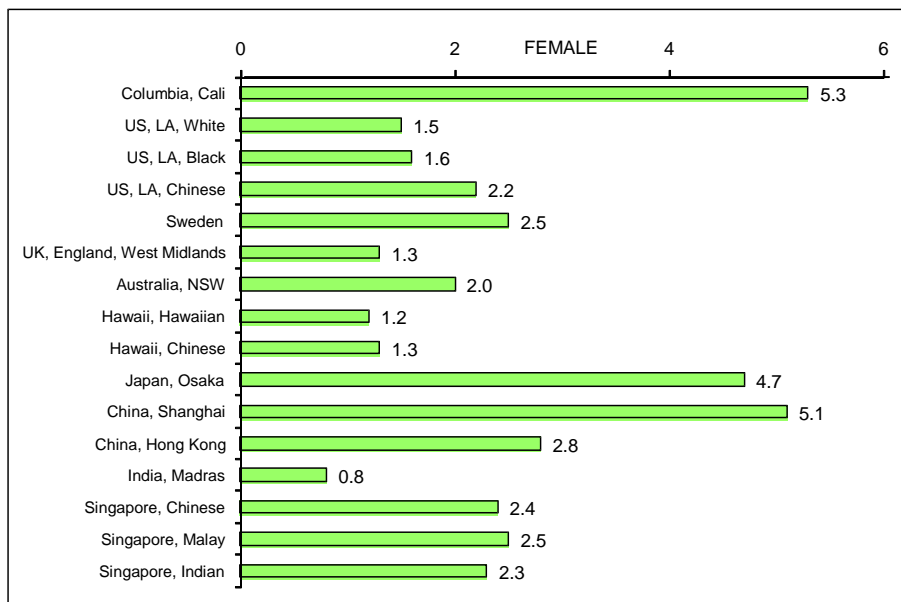
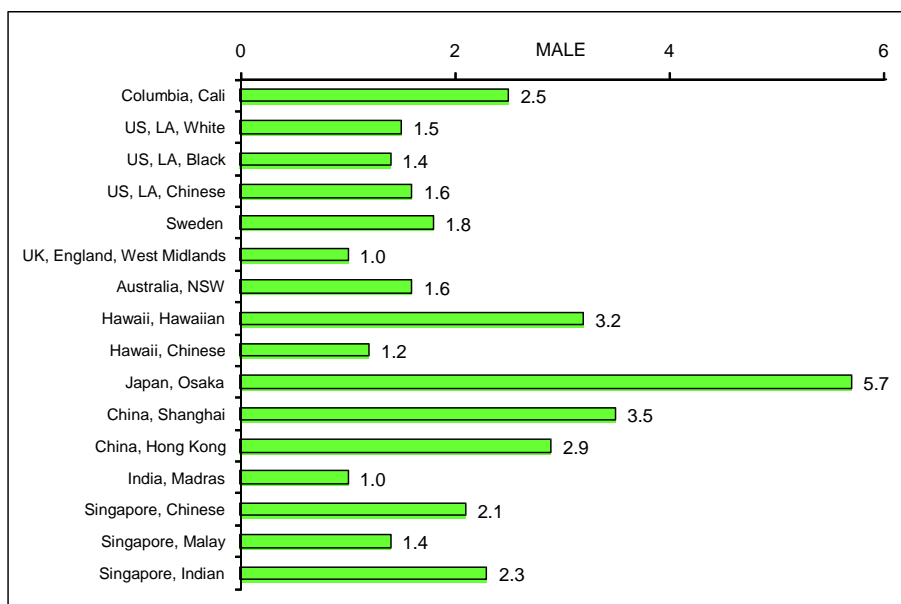
HISTOLOGY 2003-2007	NO.	%
Adenocarcinoma, Nos	265	84.9
Carcinoma, Nos	14	4.5
Mucinous Adenocarcinoma	12	3.8
Squamous Cell Carcinoma	5	1.6
Adenosquamous Carcinoma	5	1.6
Neuroendocrine Carcinoma	3	1.0
Neoplasm, Malignant, Nos	2	0.6
Carcinoma, Undifferentiated	2	0.6
Carcinosarcoma	2	0.6
Hepatoid Adenocarcinoma	1	0.3
Sarcoma, Nos	1	0.3
<b>Total with histology</b>	<b>312</b>	<b>100.0</b>
<b>All cases</b>	<b>387</b>	



**GALL BLADDER: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**

**GALL BLADDER: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**GALL BLADDER: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.10 Pancreas (ICD-9: 157 / ICD-O-3: C25)

In 2003-2007, pancreatic cancer constituted about 2% of all cancers diagnosed in males and females. The age-standardized incidence rates have increased in parallel for both sexes over the last 40 years, and in 2003-2007 increased by 16% in males and 13% in females over the previous 5 year period. Indians have about half the risk of pancreatic cancer compared to their Chinese counterparts.

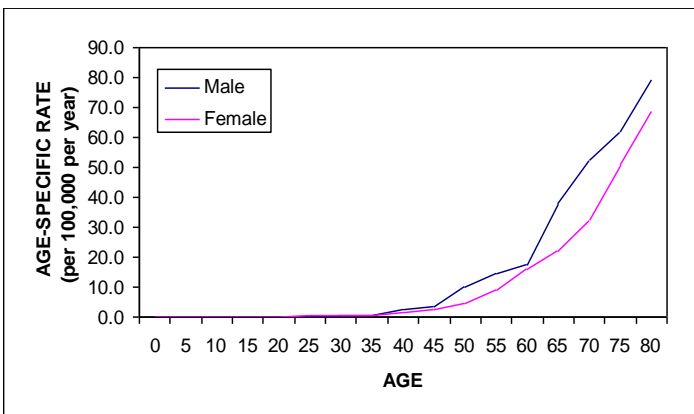
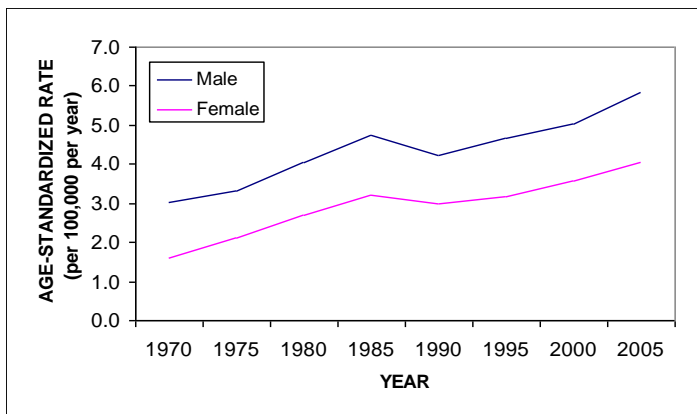
INCIDENCE DATA (2003-2007)		Males		
	No.	%	ASR	RR (95% CI)
All residents	566	2.6	5.8	-
Chinese	486	2.6	6.3	1.0
Malays	46	2.6	4.5	0.7 (0.5-1.0)
Indians	31	3.2	4.1	0.7 (0.5-0.9)

INCIDENCE DATA (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All residents	470	2.0	4.0	-
Chinese	407	2.1	4.2	1.0
Malays	46	2.1	4.1	1.0 (0.7-1.3)
Indians	14	1.4	2.3	0.5 (0.3-0.9)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
157.0	Head	204	181
157.1	Body	40	34
157.2	Tail	59	46
157.3	Pancreatic Duct	4	-
157.4	Islets of Langerhans	-	3
157.8	Other	39	23
157.9	NOS	220	183
<b>All cases</b>		<b>566</b>	<b>470</b>

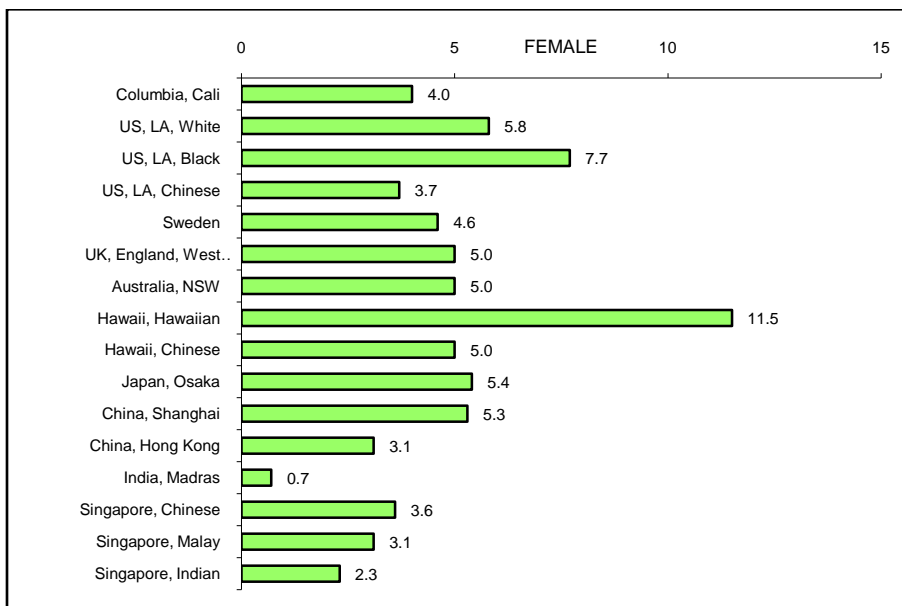
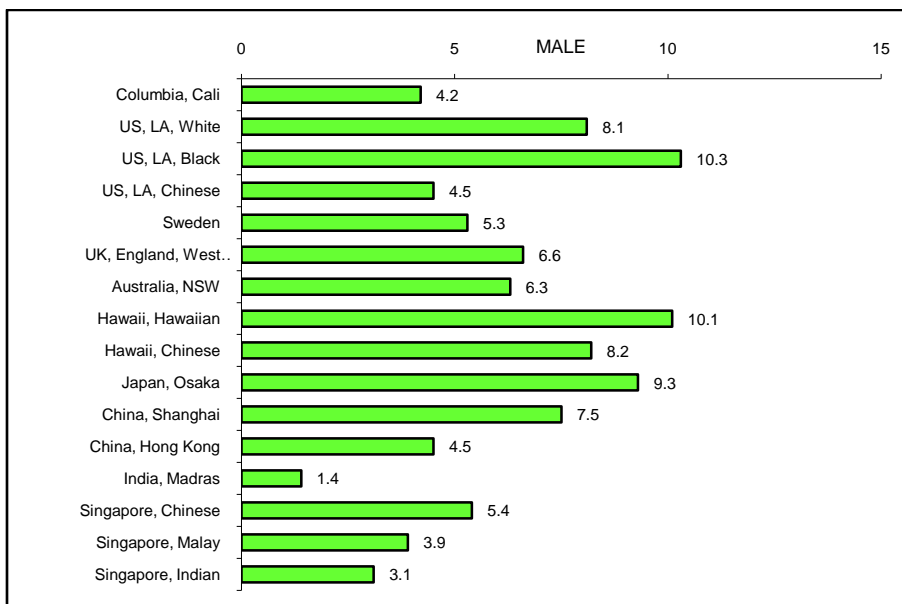
HISTOLOGY 2003-2007	NO.	%
Adenocarcinoma, Nos	523	77.3
Carcinoma, Nos	37	5.5
Neoplasm, Malignant, Nos	28	4.1
Neuroendocrine Carcinoma	22	3.2
Mucinous Adenocarcinoma	13	1.9
Solid Pseudopapillary Carcinoma	8	1.2
Papillary Adenocarcinoma	7	1.0
Islet Cell Carcinoma	6	0.9
Carcinoma, Undifferentiated	5	0.7
Intraductal Papillary-Mucinous Carcinoma, Invasive	5	0.7
Mucinous Cystadenocarcinoma	4	0.6
Adenosquamous Carcinoma	4	0.6
Signet Ring Cell Carcinoma	3	0.4
Acinar Cell Carcinoma	3	0.4
Small Cell Carcinoma	2	0.3
Squamous Cell Carcinoma	2	0.3
Mixed Islet Cell And Exocrine Adenocarcinoma	2	0.3
Cystadenocarcinoma	1	0.1
Gastrointestinal Stromal Sarcoma	1	0.1
Carcinosarcoma	1	0.1
<b>Total with histology</b>	<b>677</b>	<b>100.0</b>
<b>All cases</b>	<b>1036</b>	



**PANCREAS: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**

**PANCREAS: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**PANCREAS: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.11 Nasal cavities and sinuses (ICD-9: 160 / ICD-O-3: C30-C31)

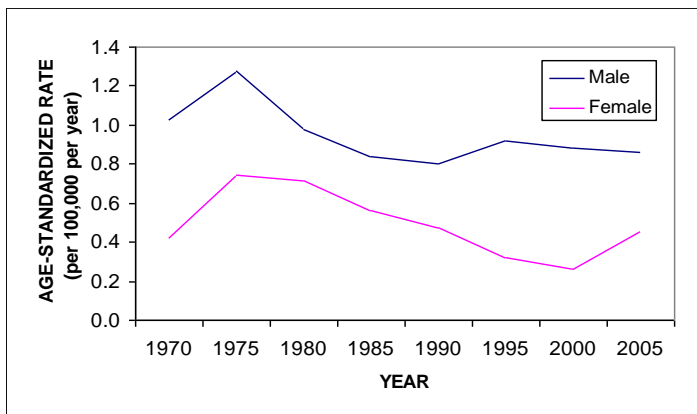
This cancer is relatively uncommon in Singapore, with only 138 cases (about 0.3% of all cancers) occurring in 2003-2007. The risk for males and females has fallen since 1973-1977; this trend has been more consistent in the latter. The male: female ratio of this cancer is 3:1. The rates in Chinese males are the highest compared to other Chinese males around the world whereas those in Chinese females are comparable to other Chinese females globally.

INCIDENCE DATA (2003-2007)		Males		
	No.	%	ASR	RR (95% CI)
All residents	83	0.4	0.9	-
Chinese	75	0.4	1.0	1.0
Malays	4	0.2	0.3	0.4 (0.1-1.1)
Indians	3	0.3	0.5	0.4 (0.1-1.3)
INCIDENCE DATA (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All residents	55	0.2	0.5	-
Chinese	44	0.2	0.5	1.0
Malays	9	0.4	0.7	1.4 (0.7-3.0)
Indians	2	0.2	0.2	0.6 (0.1-2.3)

HISTOLOGY 2003-2007	NO.	%
Squamous Cell Carcinoma	47	34.1
Olfactory Neuroblastoma	16	11.6
Carcinoma, Undifferentiated	12	8.7
Schneiderian Carcinoma	9	6.5
Adenocarcinoma, Nos	7	5.1
Sarcoma, Nos	7	5.1
Carcinoma, Nos	6	4.3
Adenoid Cystic Carcinoma	6	4.3
Hemangiopericytoma, Malignant	5	3.6
Rhabdomyosarcoma	4	2.9
Basaloid Squamous Cell Carcinoma	3	2.2
Neuroendocrine Carcinoma	3	2.2
Small Cell Carcinoma	2	1.4
Acinar Cell Carcinoma	2	1.4
Malignant Peripheral Nerve Sheath Tumour	2	1.4
Lymphoepithelial Carcinoma	1	0.7
Basal Cell Adenocarcinoma	1	0.7
Mucoepidermoid Carcinoma	1	0.7
Mucinous Adenocarcinoma	1	0.7
Adenosquamous Carcinoma	1	0.7
Malignant Melanoma	1	0.7
Teratocarcinoma	1	0.7
<b>Total with histology</b>	<b>138</b>	<b>100.0</b>
<b>All cases</b>	<b>138</b>	

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
160.0	Nasal Cavities	50	31
160.1	Middle Ear	1	1
160.2	Maxillary Sinus	21	16
160.3	Ethmoidal Sinus	4	2
160.5	Sphenoidal Sinus	2	3
160.8	Other	2	1
160.9	NOS	3	1
	<b>All cases</b>	<b>83</b>	<b>55</b>

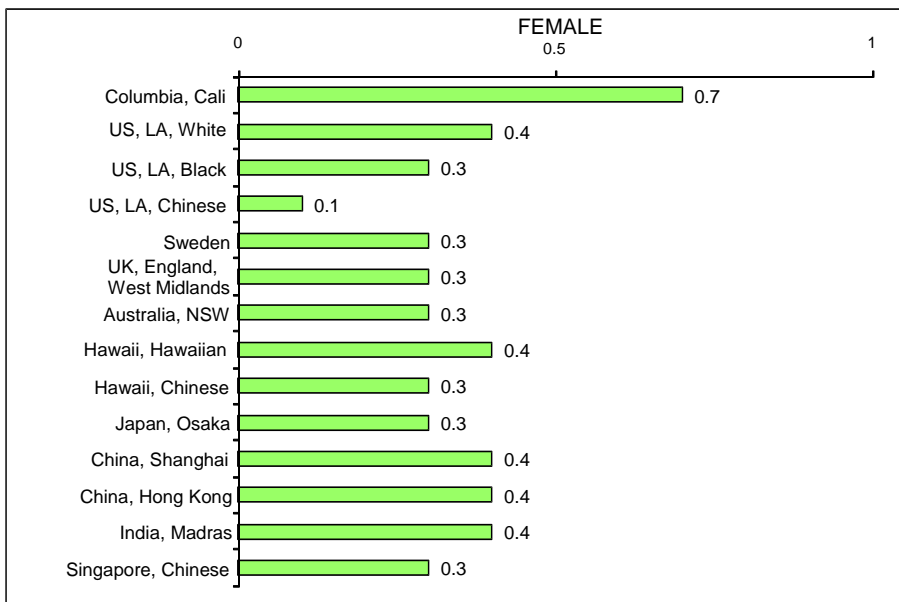
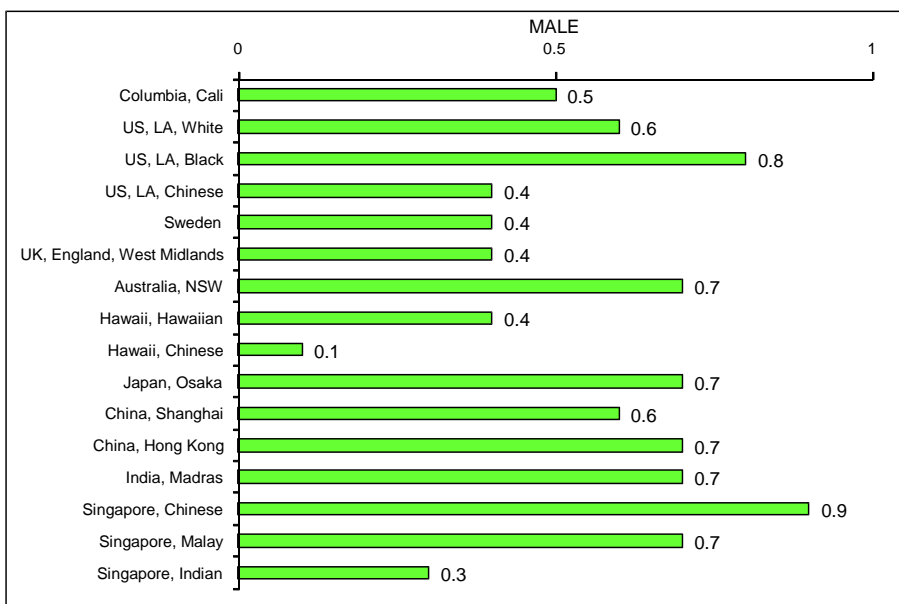




**NASAL CAVITIES: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**

**NASAL CAVITIES: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**NASAL CAVITIES: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.12 Larynx (ICD-9: 161 / ICD-O-3: C32)

Cancer of the larynx exhibits a marked male predominance, consistent with the global pattern. In 2003-2007, the male: female ratio was 10.7:1. There has been an overall decline in incidence rates among males from 6.8 per 100,000 in 1968-1972 to 3.7 per 100,000 in 2003-2007. The rates are significantly lower among Malay and Indian males compared to Chinese males, but are not significantly different among the ethnicities in females.

Rates in Singapore Chinese males are tied with Hong Kong Chinese males to be the highest ranked among Chinese males globally, whereas rates in Chinese females are similar to their counterparts around the world.

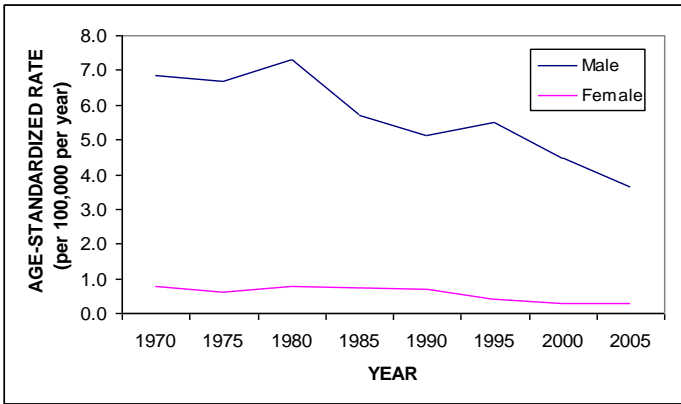
INCIDENCE DATA		Males			
(2003-2007)	No.	%	ASR	RR (95% CI)	
All residents	352	1.6	3.7	-	
Chinese	301	1.6	3.9	1.0	
Malays	24	1.4	2.2	0.6 (0.4-0.9)	
Indians	22	2.3	3.1	0.8 (0.5-1.2)	

INCIDENCE DATA		Females			
(2003-2007)	No.	%	ASR	RR (95% CI)	
All residents	33	0.1	0.3	-	
Chinese	24	0.1	0.2	1.0	
Malays	6	0.3	0.5	2.1 (0.9-5.3)	
Indians	2	0.2	0.3	1.3 (0.3-5.6)	

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
161.0	Glottis	198	13
161.1	Supraglottic	88	14
161.2	Subglottic	9	-
161.3	Laryngeal Cartilages	4	-
161.8	Other	16	1
161.9	NOS	37	5
<b>All cases</b>		<b>352</b>	<b>33</b>

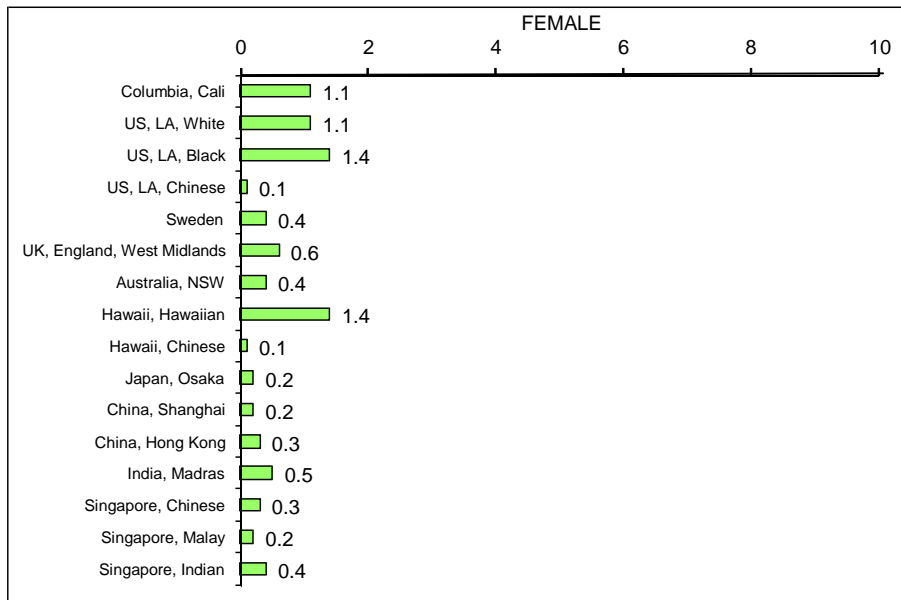
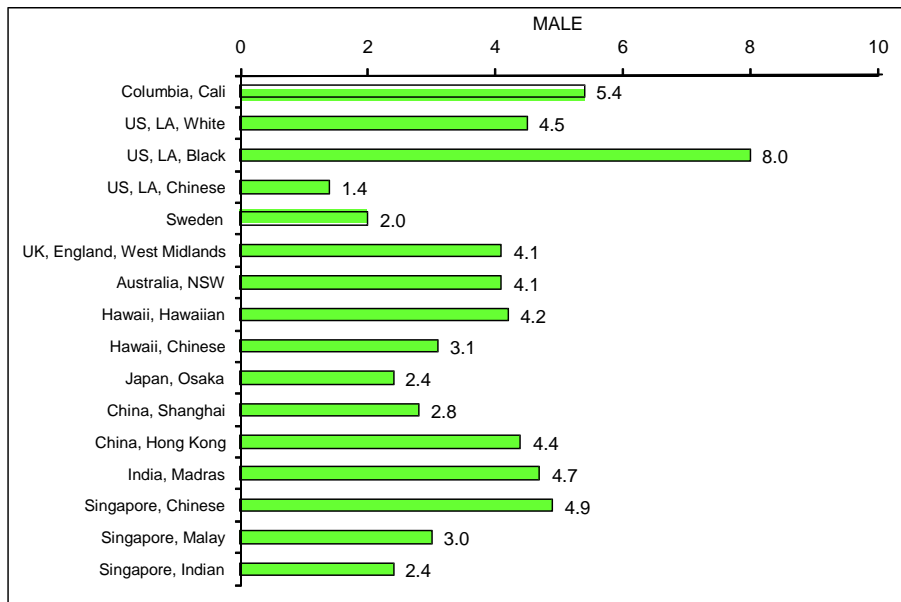
HISTOLOGY 2003-2007		
	NO.	%
Squamous Cell Carcinoma	359	96.8
Carcinoma, Nos	5	1.3
Spindle Cell Carcinoma	2	0.5
Neuroendocrine Carcinoma	2	0.5
Lymphoepithelial Carcinoma	1	0.3
Basaloid Carcinoma	1	0.3
Sarcoma, Nos	1	0.3
<b>Total with histology</b>	<b>371</b>	<b>100.0</b>
<b>All cases</b>	<b>385</b>	



**LARYNX: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**

**LARYNX: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**LARYNX: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



### 12.13 Lung (ICD-9: 162 / ICD-O-3: C33-C34)

The global risk for lung cancer varies widely. Indians in Singapore and India are among those at lowest risk. Our data show that Indian men and women have 20% the risk of their Chinese counterparts, with the rate for Malays being intermediate. The male: female ratio is 2.0:1.

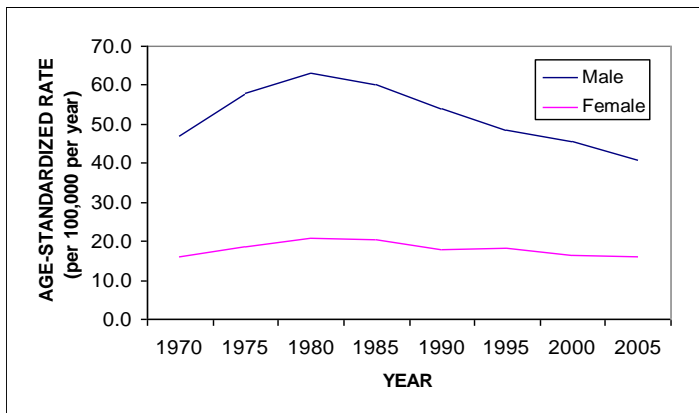
There has been little change in the age-standardized lung cancer rate over the last decade – the downward slope among males persisting, and female rates remaining fairly constant. Rates in 2003-2007 were 21% lower than those in 1968-72 for males, and 0.3% lower for females. This cancer has been the most frequent cancer among males since 1968, and has only been recently outranked by colorectal cancer in the current five year period. It is the third most frequent cancer among females.

INCIDENCE DATA (2003-2007)		Males		
	No.	%	ASR	RR (95% CI)
All residents	3828	17.4	40.8	-
Chinese	3315	17.6	44.3	1.0
Malays	356	20.3	34.7	0.8 (0.7-0.9)
Indians	122	12.7	16.9	0.4 (0.3-0.4)
INCIDENCE DATA (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All residents	1868	8.0	16.0	-
Chinese	1687	8.5	17.4	1.0
Malays	141	6.5	12.0	0.7 (0.6-0.8)
Indians	26	2.6	4.1	0.2 (0.2-0.3)

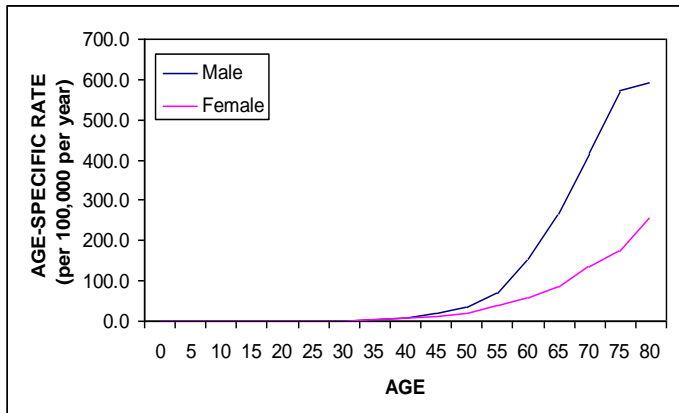
SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
162.0	Trachea	5	1
162.2	Main Bronchus	164	71
162.3	Upper Lobe	1406	587
162.4	Middle Lobe	133	86
162.5	Lower	776	389
162.8	Other	61	25
162.9	NOS	1283	709
<b>All cases</b>		<b>3828</b>	<b>1868</b>

HISTOLOGY 2003-2007	NO.	%
Adenocarcinoma, Nos	2120	43.2
Squamous Cell Carcinoma	903	18.4
Non-Small Cell Carcinoma	810	16.5
Small Cell Carcinoma	482	9.8
Large Cell Carcinoma	117	2.4
Bronchiolo-Alveolar Adenocarcinoma	106	2.2
Carcinoma, Nos	101	2.1
Neuroendocrine Carcinoma	51	1.0
Neoplasm, Malignant, Nos	40	0.8
Adenosquamous Carcinoma	33	0.7
Carcinoma, Undifferentiated	29	0.6
Mucinous Adenocarcinoma	23	0.5
Acinar Cell Carcinoma	22	0.4
Pleomorphic Carcinoma	12	0.2
Lymphoepithelial Carcinoma	10	0.2

HISTOLOGY 2003-2007 (cont'd)	NO.	%
Mucoepidermoid Carcinoma	8	0.2
Sarcoma, Nos	7	0.1
Adenoid Cystic Carcinoma	5	0.1
Clear Cell Adenocarcinoma	5	0.1
Spindle Cell Carcinoma	3	0.1
Basaloid Squamous Cell Carcinoma	3	0.1
Leiomyosarcoma	3	0.1
Adenocarcinoma With Mixed Subtypes	2	0.0
Solitary Fibrous Tumour, Malignant	2	0.0
Carcinosarcoma	2	0.0
Lymphangiomyomatosis	2	0.0
Adenocarcinoma With Neuroendocrine Differentiation	1	0.0
Smooth Muscle Tumour, Borderline	1	0.0
<b>Total with histology</b>	<b>4903</b>	<b>100.0</b>
<b>All cases</b>	<b>5696</b>	

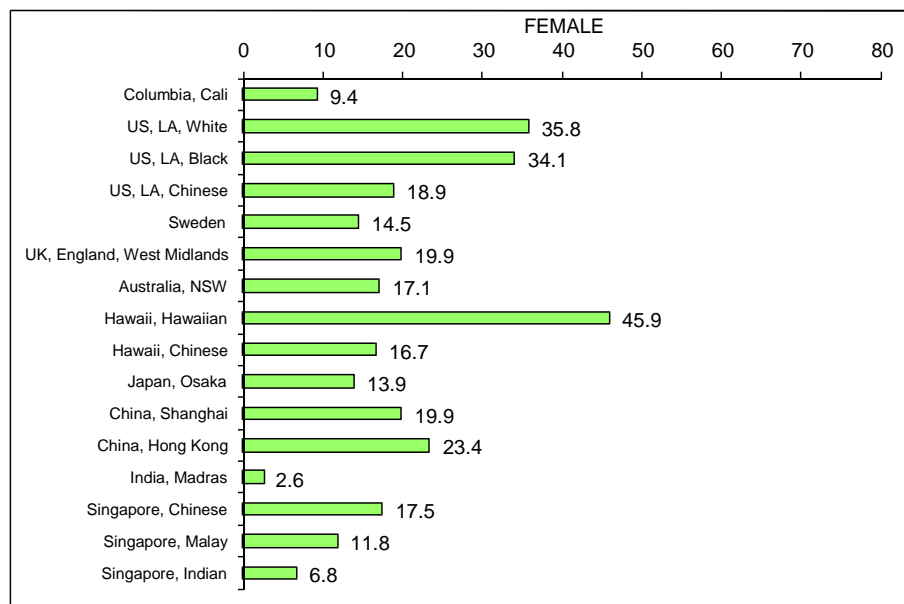
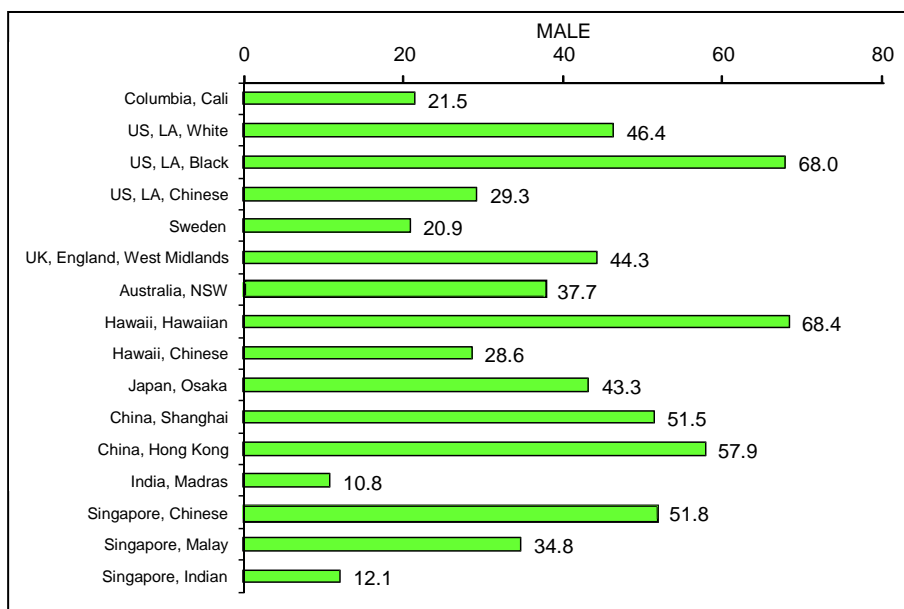


**LUNG: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**LUNG: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**LUNG: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



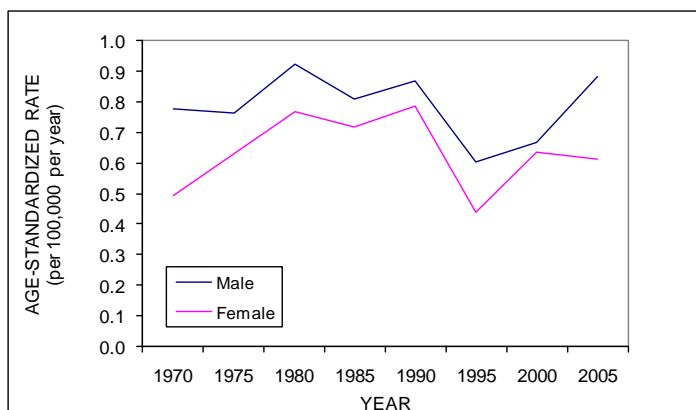
## 12.14 Bone (ICD-9: 170 / ICD-O-3: C40-C41)

There were 132 bone cancers registered for 2003-2007. Comparisons between ethnic group and five year periods are limited by the small number of cases. Histological information was available for 98.5% of the cases, an improvement of 4% from the previous 5-year period. The main histological types were osteosarcomas (33%), giant cell tumours (29%) and chondrosarcomas (18%).

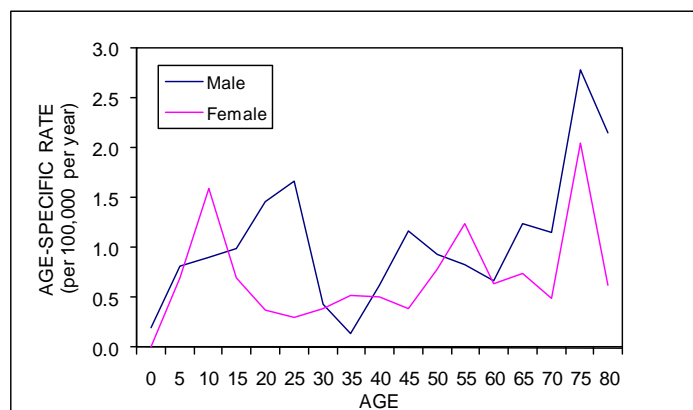
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	76	0.3	0.9	-
Chinese	56	0.3	0.9	1.0
Malays	9	0.5	0.8	0.9 (0.4-1.8)
Indians	7	0.7	1.0	1.2 (0.5-2.5)
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	56	0.2	0.6	-
Chinese	42	0.2	0.6	1.0
Malays	9	0.4	0.7	1.2 (0.6-2.4)
Indians	5	0.5	0.8	1.2 (0.5-3.0)

SUBSITES 2003-2007				
ICD9	SUBSITE	Male	Female	
170.0	Skull and face	3	6	
170.1	Mandible	4	1	
170.2	Vertebral Column	4	1	
170.3	Ribs, sternum and clavicle	-	3	
170.4	Upper limb, long	15	10	
170.5	Upper limb, short	1	-	
170.6	Pelvis	10	4	
170.7	Lower limb, long	35	26	
170.8	Lower limb, short	3	2	
170.9	NOS	1	3	
<b>All cases</b>		<b>76</b>	<b>56</b>	

HISTOLOGY 2003-2007		
	NO.	%
Osteosarcoma	43	33.1
Giant Cell Tumour Of Bone	37	28.5
Chondrosarcoma	23	17.7
Ewing Sarcoma	8	6.2
Sarcoma, Nos	6	4.6
Chordoma	6	4.6
Ameloblastoma, Malignant	2	1.5
Synovial Sarcoma	1	0.8
Hemangiosarcoma	1	0.8
Osteochondromatosis	1	0.8
Mesenchymal Chondrosarcoma	1	0.8
Odontogenic Tumour, Malignant	1	0.8
<b>Total with histology</b>	<b>130</b>	<b>100.0</b>
<b>All cases</b>	<b>132</b>	

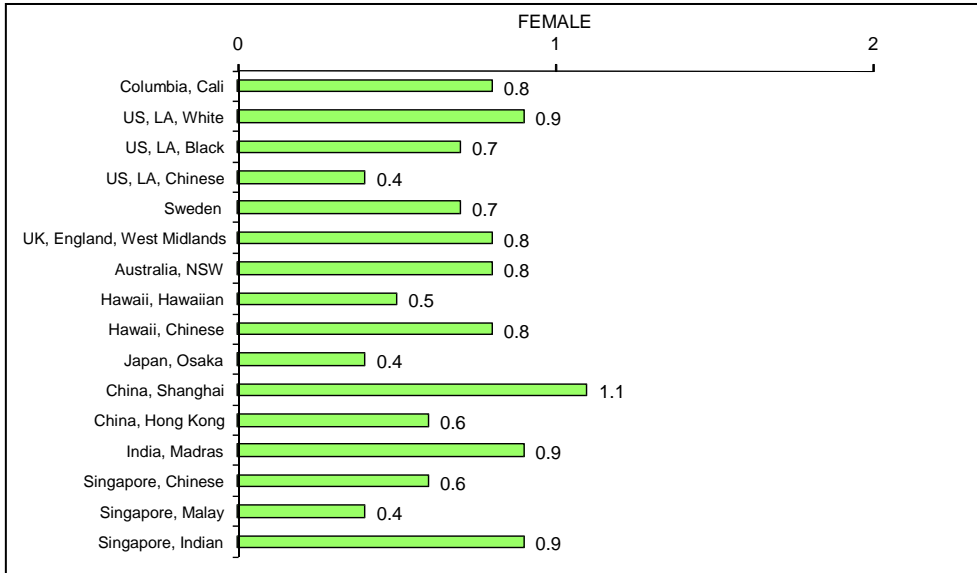
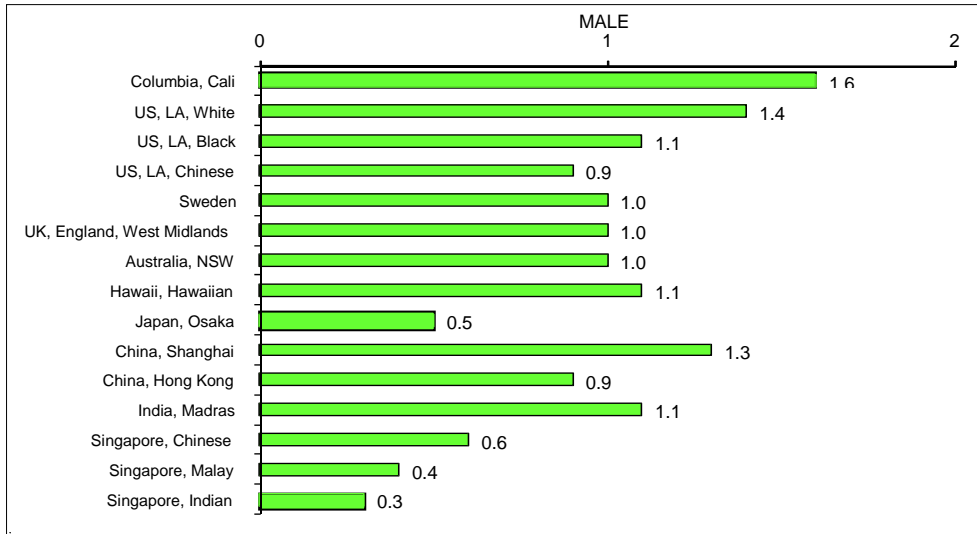


**BONE: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**BONE: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**BONE: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002  
(per 100,000 per year)**



## 12.15 Connective and other soft tissue (ICD-9: 171 / ICD-O-3: C49)

The data presented here refer to all soft tissue tumours registered under ICD-9 171. They do not include connective tissue tumours occurring in individual organs or in the retroperitoneum and mediastinum. The latter are described under their respective sites.

There were 312 such tumours in this period and the most common histological types were the liposarcomas, leiomyosarcomas and malignant peripheral nerve sheath tumours.

INCIDENCE DATA (2003-2007)		Males		
	No.	%	ASR	RR (95% CI)
All residents	182	0.8	1.9	-
Chinese	157	0.8	2.1	1.0
Malays	16	0.9	1.2	0.7 (0.4-1.1)
Indians	5	0.5	0.6	0.3 (0.1-0.7)

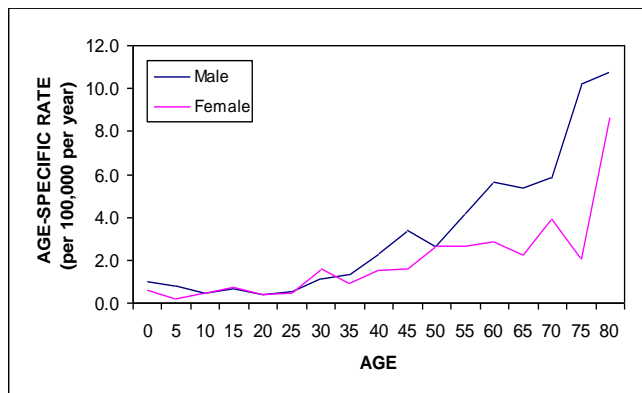
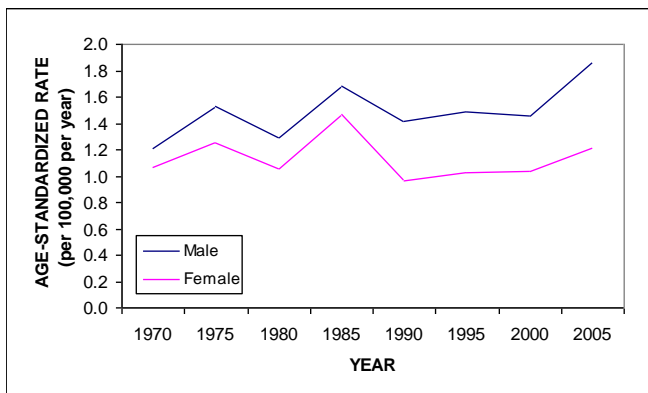
INCIDENCE DATA (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All residents	129	0.6	1.2	-
Chinese	115	0.6	1.4	1.0
Malays	8	0.4	0.6	0.5 (0.2-1.0)
Indians	4	0.4	0.7	0.4 (0.1-1.1)

SUBSITES 2003-2007			
ICD	SUBSITE	Male	Female
171.0	Head and neck	1	1
171.2	Upper limb	2	1
171.3	Lower limb	7	4
171.4	Thorax	1	1
171.5	Abdomen	1	1
171.6	Pelvis	2	1
171.7	Trunk	7	5
171.8	Other	4	2
171.9	NOS	9	6
<b>All</b>		<b>18</b>	<b>12</b>

HISTOLOGY 2003-2007	NO.	%
Liposarcoma, well differentiated	33	10.8
Sarcoma, NOS	28	9.2
Malignant peripheral nerve sheath tumor	26	8.5
Leiomyosarcoma	26	8.5
Synovial sarcoma	22	7.2
Malignant fibrous histiocytoma	21	6.9
Fibromyxosarcoma	16	5.2
Myxoid liposarcoma	15	4.9
Primitive neuroectodermal tumor	15	4.9
Hemangiosarcoma	10	3.3
Giant cell sarcoma	9	3.0
Liposarcoma, NOS	7	2.3
Kaposi sarcoma	7	2.3
Epithelioid sarcoma	7	2.3
Neuroblastoma	6	2.0
Dedifferentiated liposarcoma	6	2.0
Pleomorphic liposarcoma	4	1.3
Rhabdomyosarcoma, NOS	4	1.3
Aggressive fibromatosis	4	1.3
Chondrosarcoma	4	1.3
Smooth muscle tumor, borderline	3	1.0

HISTOLOGY 2003-2007 (cont'd)	NO.	%
Neoplasm, malignant, NOS	3	1.0
Angiomyxoma	3	1.0
Round cell liposarcoma	3	1.0
Fibrosarcoma	2	0.7
Myxoid chondrosarcoma	2	0.7
Embryonal rhabdomyosarcoma	2	0.7
Alveolar soft part sarcoma	2	0.7
Clear cell sarcoma	2	0.7
Abdominal fibromatosis	2	0.7
Myofibroblastic tumor	2	0.7
Mesenchymal chondrosarcoma	2	0.7
Myxosarcoma	1	0.3
Infantile fibrosarcoma	1	0.3
Glomus tumor, malignant	1	0.3
Fibroblastic liposarcoma	1	0.3
Gastrointestinal stromal sarcoma	1	0.3
Malignant myoepithelioma	1	0.3
Malignant tenosynovial giant cell tumor	1	0.3
<b>Total with histology</b>	<b>305</b>	<b>100.0</b>
<b>All cases</b>	<b>311</b>	

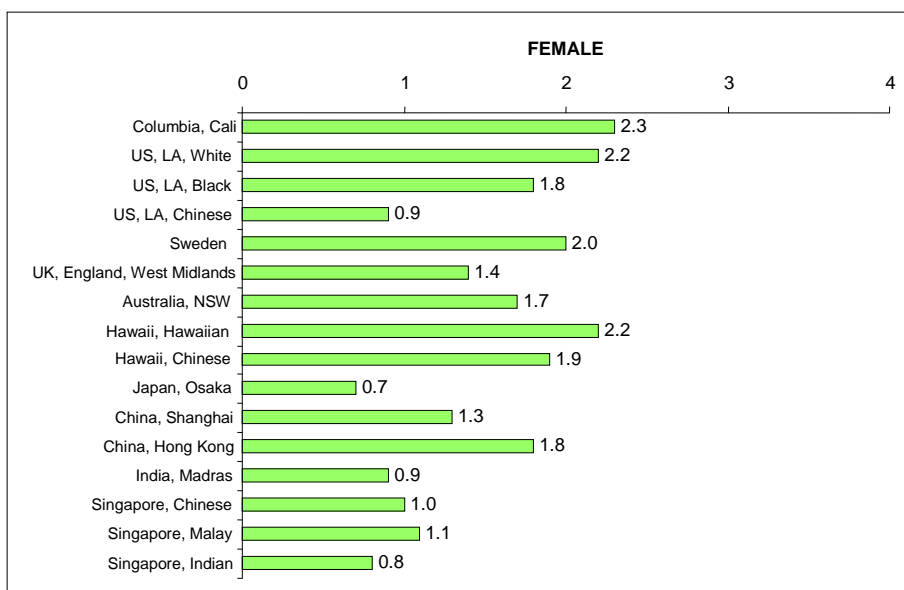
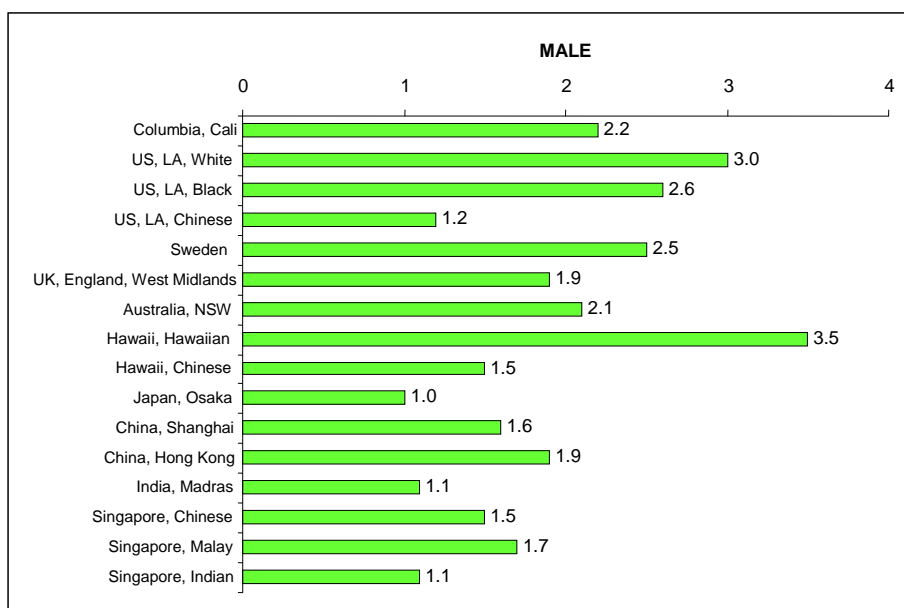




**CONNECTIVE TISSUE: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**

**CONNECTIVE TISSUE: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**CONNECTIVE TISSUE: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.16 Melanoma of skin (ICD-9: 172 / ICD-O-3: C44 with M8720-8790)

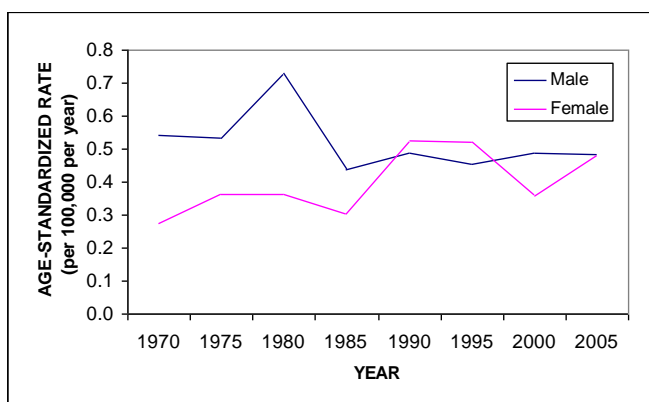
In contrast to its high incidence in Caucasian populations, melanoma of the skin is a rare cancer in Singapore. Only 106 cases were diagnosed locally in 2003-2007 and it is difficult to comment on time trends due to the small number of cases.

The most common subsite encountered in this period was the lower limb, with 42 cases (46.7% of those specified). In the ICD-O-2 coding system, melanoma of the skin is combined with other skin cancers under the topographical code C44, whereas in ICD-9 it is coded separately (ICD-9 172). This should be noted when comparing the incidence of skin cancers over time.

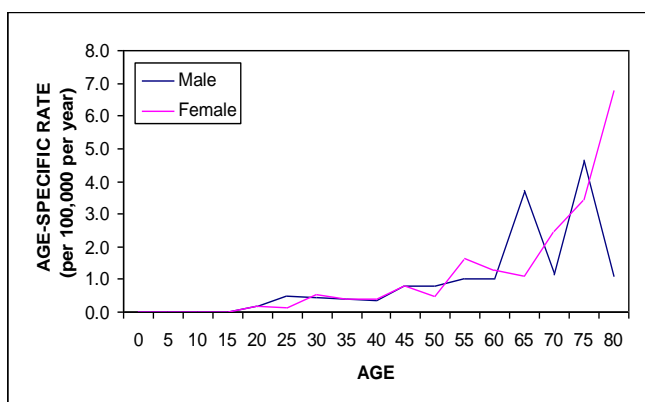
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	49	0.2	0.5	-
Chinese	36	0.2	0.5	1.0
Malays	2	0.1	0.1	0.4 (0.1-1.6)
Indians	2	0.2	0.2	0.6 (0.1-2.4)
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	57	0.3	0.5	-
Chinese	50	0.3	0.5	1.0
Malays	5	0.2	0.4	0.8 (0.3-2.0)
Indians	1	0.1	0.1	0.3 (0.0-2.0)

SUBSITES 2003-2007				
ICD9	SUBSITE	Male	Female	
172.0	Lip	1	-	
172.2	Ear and external auditory canal	1	-	
172.3	Face, other	2	3	
172.4	Scalp and neck	1	2	
172.5	Trunk, except scrotum	14	7	
172.6	Limb, Upper	7	6	
172.7	Limb, Lower	13	29	
172.8	Other	2	2	
172.9	NOS	8	8	
<b>All cases</b>		<b>49</b>	<b>57</b>	

HISTOLOGY 2003-2007		
	NO.	%
Malignant Melanoma, Nos	62	58.5
Acral Lentiginous Melanoma, Malignant	18	17.0
Superficial Spreading Melanoma	14	13.2
Nodular Melanoma	8	7.5
Balloon Cell Melanoma	1	0.9
Amelanotic Melanoma	1	0.9
Lentigo Maligna Melanoma	1	0.9
Spindle Cell Melanoma	1	0.9
<b>Total with histology</b>	<b>106</b>	<b>100.0</b>
<b>All cases</b>	<b>106</b>	

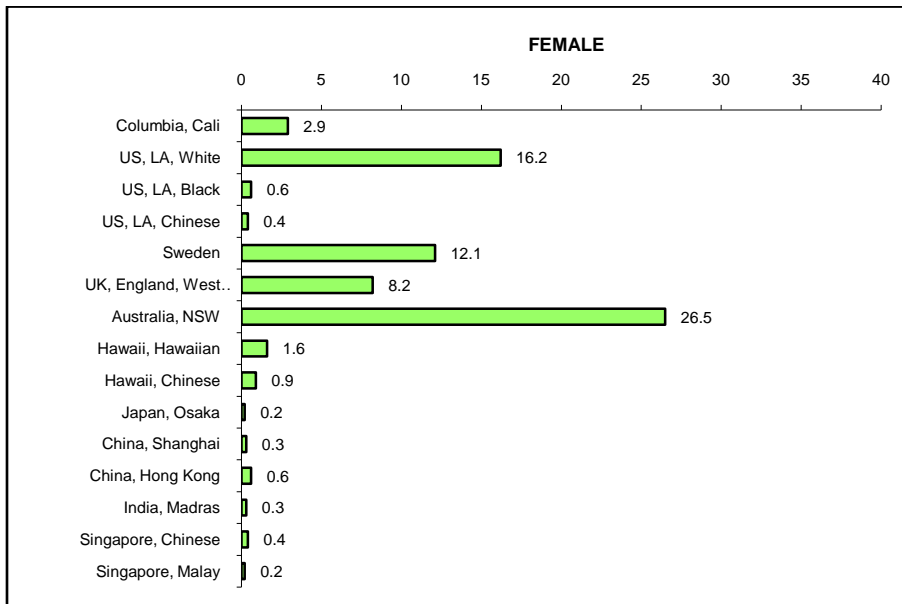
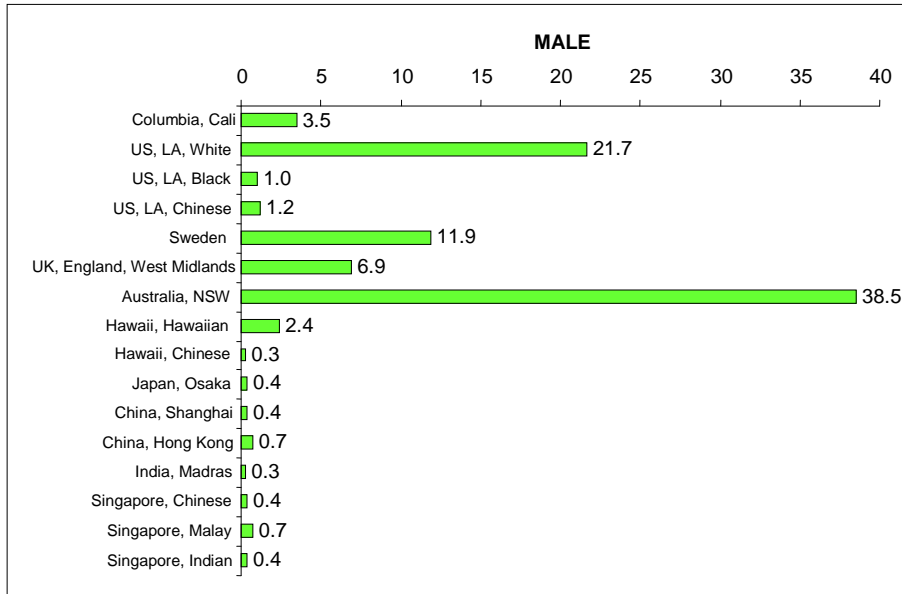


SKIN, MELANOMA: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007



SKIN, MELANOMA: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007

**SKIN, MELANOMA: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002  
(per 100,000 per year)**



## 12.17 Skin, excluding melanoma (ICD-9: 173 / ICD-O-3: C44 excluding M8720-8790)

There were a total of 1707 incident cases of non-melanoma cancer of the skin in 2003-2007, of which the predominant histological type was basal cell carcinoma (57.9%) followed by squamous cell carcinoma (26.9%). Of the cancers with specified subsite, the major proportion (61.0% in males and 73.4% in females) occurred on the head and neck.

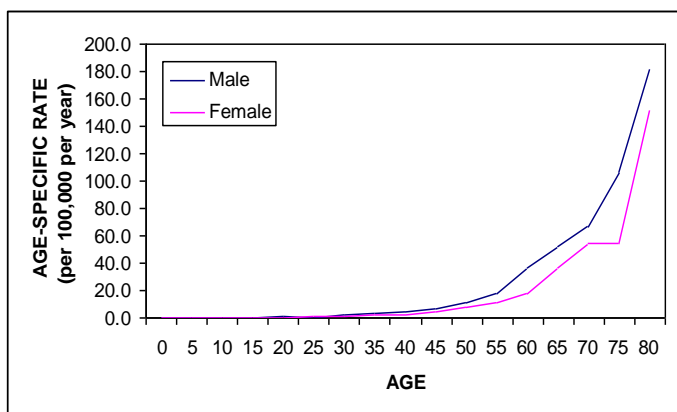
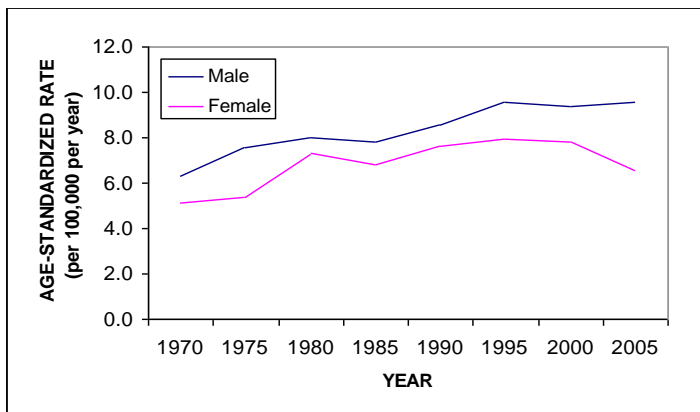
There has been a rising trend in the incidence of this cancer in both men and women over the last 40 years although the incidence in women has seen a slight dip over the past 5 years. Among ethnic groups, Malays and Indians continue to have substantially lower risks than Chinese.

INCIDENCE (2003-2007)		Males		
	No.	%	ASR	RR (95% CI)
All	92	4.2	9.5	-
Chinese	76	4.0	10.0	1.0
Malays	3	2.0	3.4	0.3 (0.2-0.5)
Indians	2	2.6	3.7	0.3 (0.2-0.5)
INCIDENCE (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All	78	3.3	6.5	-
Chinese	70	3.5	6.9	1.0
Malays	3	1.7	3.2	0.5 (0.3-0.7)
Indians	1	1.4	2.0	0.3 (0.2-0.5)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
173.0	Lip	27	28
173.1	Eyelid	48	48
173.2	Ear and External auditory canal	51	34
173.3	Face, other	303	362
173.4	Scalp and neck	65	33
173.5	Trunk	99	56
173.6	Upper limb	98	48
173.7	Lower limb	63	54
173.8	Other	56	25
173.9	NOS	114	95
<b>All cases</b>		<b>924</b>	<b>783</b>

HISTOLOGY 2003-2007	NO.	%
Basal Cell Carcinoma	984	57.9
Squamous Cell Carcinoma	457	26.9
Basal Cell Carcinoma, Nodular	72	4.2
Dermatofibrosarcoma	48	2.8
Basosquamous Carcinoma	22	1.3
Sebaceous Adenocarcinoma	18	1.1
Hemangiosarcoma	14	0.8
Eccrine Poroma, Malignant	11	0.6
Paget Disease, Extramammary	9	0.5
Skin Appendage Carcinoma, Nos	8	0.5
Trichilemmocarcinoma	7	0.4
Merkel Cell Carcinoma	6	0.4
Sweat Gland Adenocarcinoma	6	0.4
Neoplasm, Malignant, Nos	5	0.3
Carcinoma, Nos	5	0.3
Adenocarcinoma, Nos	5	0.3

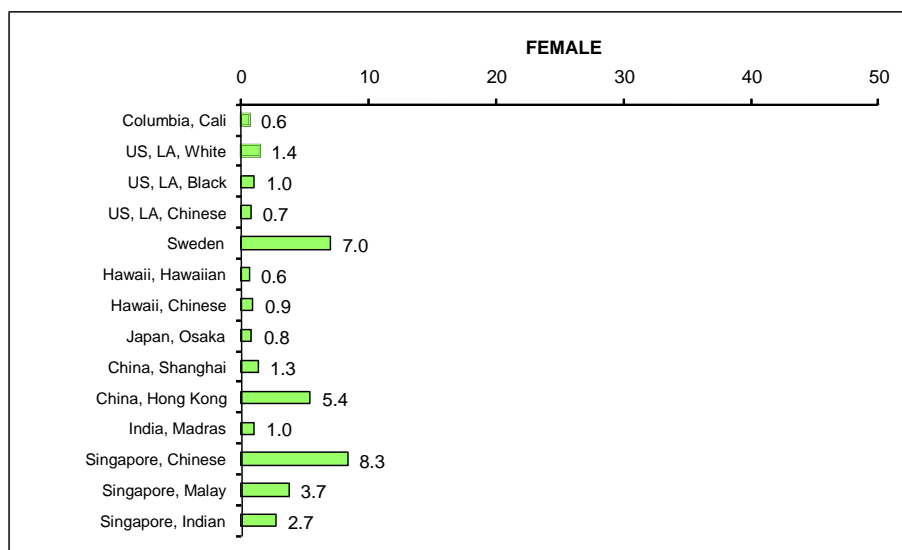
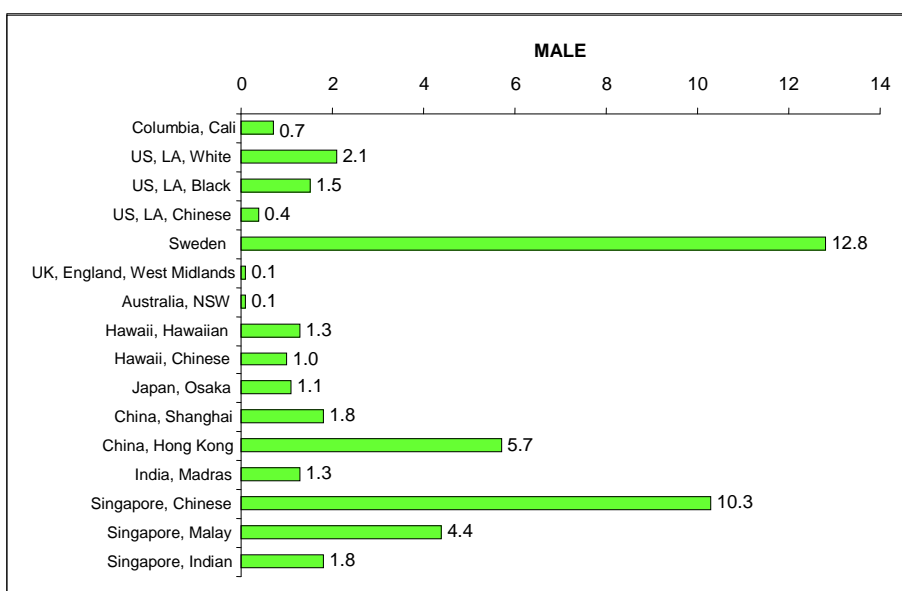
HISTOLOGY 2003-2007 (cont'd)	NO.	%
Kaposi Sarcoma	4	0.2
Adenoid Basal Carcinoma	3	0.2
Mucinous Adenocarcinoma	3	0.2
Basaloid Squamous Cell Carcinoma	2	0.1
Squamous Cell Carcinoma, Clear Cell Type	2	0.1
Adenoid Cystic Carcinoma	2	0.1
Pilomatrix Carcinoma	1	0.1
Apocrine Adenocarcinoma	1	0.1
Ceruminous Adenocarcinoma	1	0.1
Sarcoma, Nos	1	0.1
Carcinosarcoma	1	0.1
Lymphangiosarcoma	1	0.1
<b>Total with histology</b>	<b>1699</b>	<b>100.0</b>
<b>All cases</b>	<b>1707</b>	



**SKIN, OTHERS: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**

**SKIN, OTHERS: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**SKIN, OTHERS: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.18 Female breast (ICD-9: 174 / ICD-O-3: C50)

Cancer of the breast has remained the most frequent cancer among females over the last forty years. The previously observed upward trend in incidence has continued, and the incidence rate in 2003-2007 is 2.9 times that in 1968-1972 and 5.6% higher than in 1998-2002. The pattern of increase over time is consistent across all three ethnic groups.

The age pattern for 2003-2007 suggests that the highest age-specific incidence rate is occurring progressively later in life. Sixty percent of all cases occurred in women 50 years of age and older. The shift in peak age is consistent with a birth cohort effect. The wider use of screening mammography in recent years may also have contributed to a larger number of cancers being detected, particularly in women above the age of 50.

Among ethnic groups, Malay and Indian women have risks that are lower than that of Chinese women by about 10% and 30% respectively.

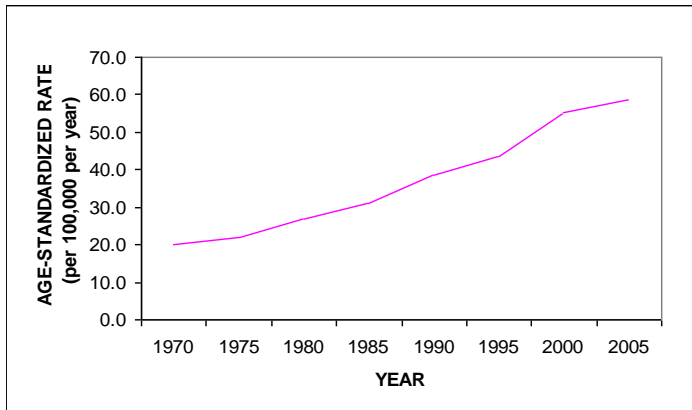
Internationally, rates of breast cancer in Singapore remain about half those among women in the United States and Europe; they are higher than those in most other parts of Asia.

INCIDENCE DATA (2003-2007)	Females			
	No.	%	ASR	RR (95% CI)
All residents	6798	29.3	58.5	-
Chinese	5594	28.3	59.9	1.0
Malays	724	33.3	54.5	0.9 (0.8-1.0)
Indians	367	37.4	48.6	0.8 (0.7-0.9)

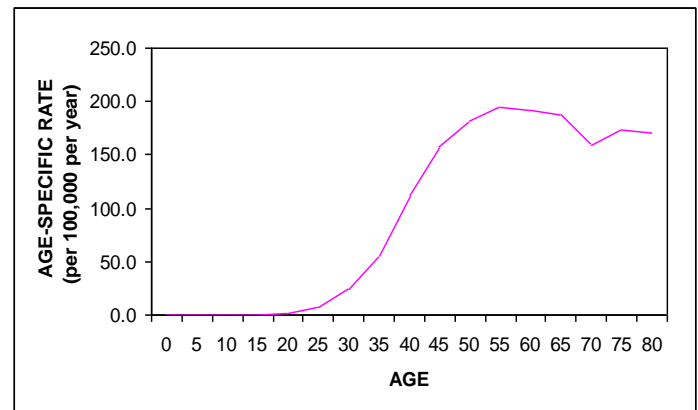
SUBSITES 2003-2007		
ICD9	SUBSITE	Female
174.0	Nipple and Areola	35
174.1	Central Portion	422
174.2	Upper-Inner Quadrant	463
174.3	Lower-Inner Quadrant	297
174.4	Upper-Outer Quadrant	1588
174.5	Lower-Outer Quadrant	330
174.6	Axillary Tail	10
174.8	Other	330
174.9	NOS	3323
<b>All cases</b>		<b>6798</b>

HISTOLOGY 2003-2007	NO.	%
Duct Carcinoma	5318	79.0
Lobular Carcinoma	263	3.9
Infiltrating Duct Mixed With Other Types Of Carcinoma	188	2.8
Mucinous Adenocarcinoma	183	2.7
Infiltrating Duct And Lobular Carcinoma	177	2.6
Phyllodes Tumour, Malignant Carcinoma, Nos	144	2.1
85	1.3	
PageT Disease And Infiltrating Duct Carcinoma Of Breast	52	0.8
Tubular Adenocarcinoma	47	0.7
Adenocarcinoma, Nos	30	0.4
Medullary Carcinoma	28	0.4
Papillary Carcinoma	27	0.4
Intracystic Carcinoma	23	0.3
Atypical Medullary Carcinoma	22	0.3
Intraductal Papillary Adenocarcinoma With Invasion	20	0.3
Cribriform Carcinoma	18	0.3
Metaplastic Carcinoma	18	0.3
Infiltrating Lobular Mixed With Other Types Of Carcinoma	15	0.2

HISTOLOGY 2003-2007 (cont'd)	NO.	%
PageT Disease And Intraductal Carcinoma Of Breast	14	0.2
Neoplasm, Malignant, Nos	10	0.1
Neuroendocrine Carcinoma	8	0.1
Comedocarcinoma	8	0.1
Squamous Cell Carcinoma	5	0.1
Stromal Sarcoma	5	0.1
Adenoid Cystic Carcinoma	4	0.1
Signet Ring Cell Carcinoma	4	0.1
PageT Disease, Mammary	3	0.0
Sarcoma, Nos	3	0.0
Apocrine Adenocarcinoma	2	0.0
Intraductal Micropapillary Adenocarcinoma With Neuroendocrine Differentiation	2	0.0
Hemangiosarcoma	2	0.0
Malignant Fibrous Histiocytoma	1	0.0
Leiomyosarcoma	1	0.0
Adenomyoepithelioma, Malignant	1	0.0
Osteosarcoma	1	0.0
<b>Total with histology</b>	<b>6734</b>	<b>100.0</b>
<b>All cases</b>	<b>6798</b>	

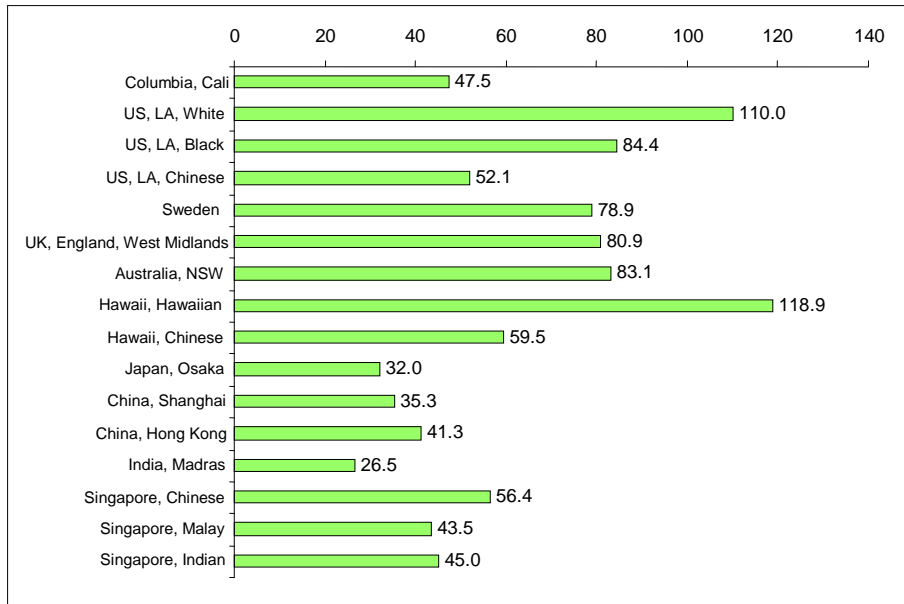


**FEMALE BREAST: AGE-STANDARDIZED INCIDENCE, 1968-2007**



**FEMALE BREAST: AGE-SPECIFIC INCIDENCE, 2003-2007**

**FEMALE BREAST: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002  
(per 100,000 per year)**





## 12.19 Cervix uteri (ICD-9: 180 / ICD-O-3: C53)

The incidence rate for cancer of the cervix has consistently declined over the last four decades. The age-standardized rate in 2003-2007 was 17.0% lower than that in 1998-2002. The peak incidence appears to be between 55 and 70 years of age.

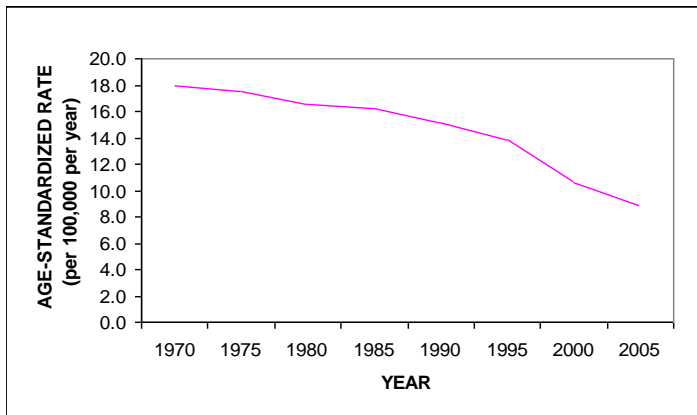
Cancer of the cervix has fallen in ranking from the second most common cancer in 1968-1972 to the sixth most common cancer among women in 2003-2007, and constitutes 4.3% of all female cancers diagnosed in 2003-2007. Indian women have a substantially lower risk (30%) compared to Chinese.

The rates of cervical cancer are the highest in Singapore Chinese women compared to Chinese women residing in other parts of the world.

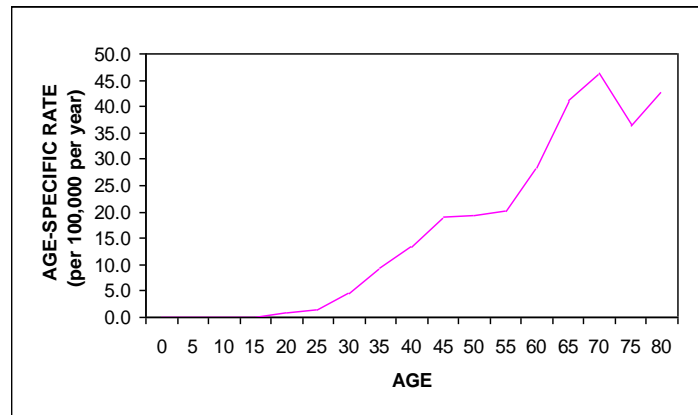
INCIDENCE DATA (2003-2007)	No.	%	Females	
			ASR	RR (95% CI)
All residents	1009	4.4	8.8	-
Chinese	861	4.4	9.3	1.0
Malays	103	4.7	8.4	0.9 (0.7-1.1)
Indians	25	2.6	3.8	0.4 (0.2-0.5)

SUBSITES 2003-2007		
ICD9	SUBSITE	Female
180.0	Endocervix	33
180.1	Exocervix	4
180.8	Other	5
180.9	NOS	967
<b>All cases</b>		<b>1009</b>

HISTOLOGY 2003-2007	NO.	%
Squamous Cell Carcinoma	717	71.3
Adenocarcinoma, Nos	113	11.2
Adenosquamous Carcinoma	45	4.5
Mucinous Adenocarcinoma	24	2.4
Endometrioid Adenocarcinoma	22	2.2
Carcinoma, Nos	15	1.5
Papillary Adenocarcinoma	10	1.0
Adenosarcoma	10	1.0
Neuroendocrine Carcinoma	8	0.8
Small Cell Carcinoma	7	0.7
Papillary Squamous Cell Carcinoma	7	0.7
Serous Adenocarcinoma	6	0.6
Clear Cell Adenocarcinoma	5	0.5
Adenocarcinoma, Endocervical Type	4	0.4
Lymphoepithelial Carcinoma	3	0.3
Mullerian Mixed Tumour	3	0.3
Malignant Melanoma	2	0.2
Leiomyosarcoma	2	0.2
Neoplasm, Malignant, Nos	1	0.1
Sarcoma, Nos	1	0.1
<b>Total with histology</b>	<b>1005</b>	<b>100.0</b>
<b>All cases</b>	<b>1009</b>	

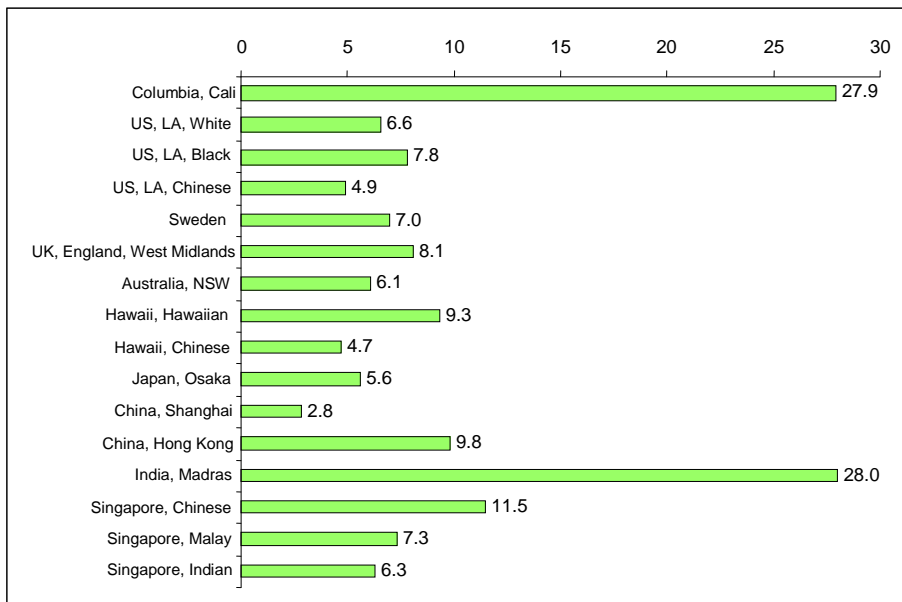


**CERVIX: AGE-STANDARDIZED INCIDENCE, 1968-2007**



**CERVIX: AGE-SPECIFIC INCIDENCE, 2003-2007**

**CERVIX: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.20 Corpus uteri (ICD-9: 182 / ICD-O-3: C54)

The incidence rate of uterine cancer has been increasing steadily over the last four decades, from 4.1 per 100,000 in 1973-77 to 11.7 per 100,000 in 2003-2007. It is currently ranked 4<sup>th</sup> in incidence among cancers in women, up from 7<sup>th</sup> place in 1998-2002. The peak incidence appears to be between 50 and 70 years of age.

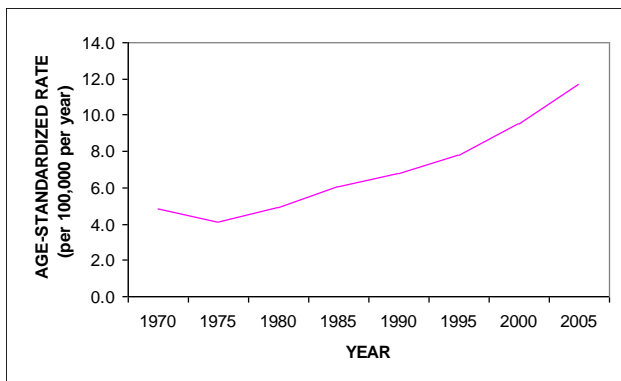
Differences in risk between ethnic groups are small. This cancer ranks 4<sup>th</sup> among Chinese women, but among Indian and Malay women it is the 2<sup>nd</sup> and 6<sup>th</sup> most frequent cancer, respectively. It constitutes between 5.6% and 8.2% of all female cancers in the three ethnic groups.

The rates of uterine cancer are highest among those of Chinese women globally, except for those in Hawaii, who experience unusually high rates. They are lower than the rates in most Western countries.

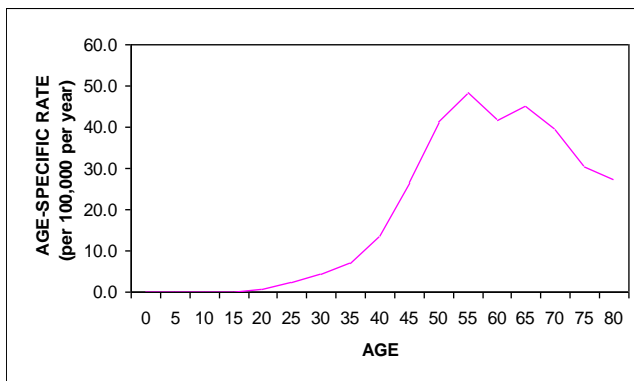
INCIDENCE DATA (2003-2007)	Females			
	No.	%	ASR	RR (95% CI)
All residents	1332	5.7	11.7	-
Chinese	1101	5.6	12.0	1.0
Malays	138	6.4	11.1	0.9 (0.8-1.1)
Indians	80	8.1	11.6	0.8 (0.7-1.0)

SUBSITES 2003-2007		
ICD9	SUBSITE	Female
182.0	Corpus	1328
182.1	Isthmus	1
182.8	NOS	3
<b>All cases</b>		<b>1332</b>

HISTOLOGY 2003-2007	NO.	%
Endometrioid Adenocarcinoma	922	69.6
Serous Adenocarcinoma	83	6.3
Adenocarcinoma, Nos	70	5.3
Mullerian Mixed Tumour	68	5.1
Leiomyosarcoma	42	3.2
Endometrial Stromal Sarcoma	35	2.6
Mucinous Adenocarcinoma	25	1.9
Clear Cell Adenocarcinoma	18	1.4
Smooth Muscle Tumour, Borderline	14	1.1
Adenosarcoma	11	0.8
Carcinosarcoma	11	0.8
Adenosquamous Carcinoma	8	0.6
Carcinoma, Nos	7	0.5
Squamous Cell Carcinoma	5	0.4
Sarcoma, Nos	3	0.2
Neuroendocrine Carcinoma	2	0.2
Small Cell Carcinoma	1	0.1
<b>Total with histology</b>	<b>1325</b>	<b>100.0</b>
<b>All cases</b>	<b>1332</b>	

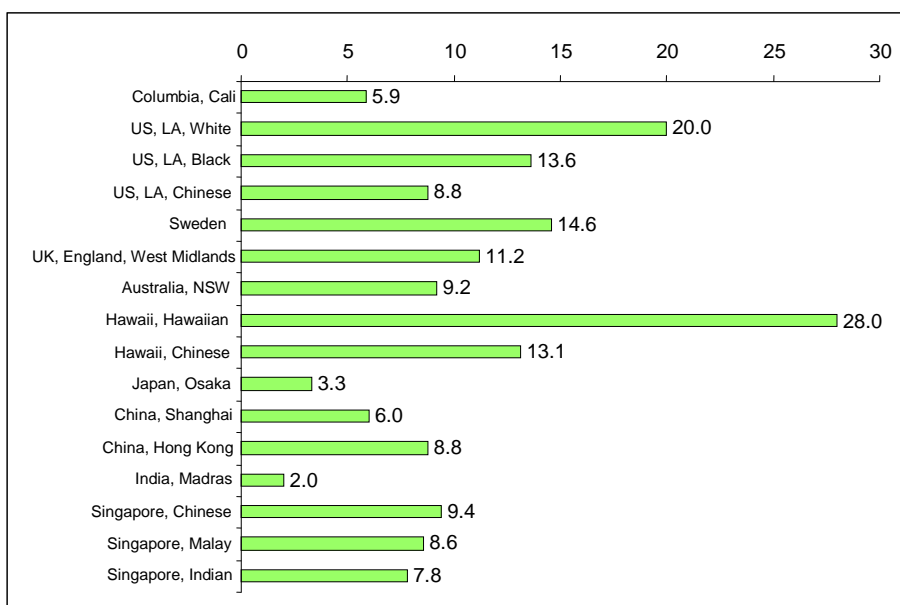


**UTERUS: AGE-STANDARDIZED INCIDENCE, 1968-2007**



**UTERUS: AGE-SPECIFIC INCIDENCE, 2003-2007**

**UTERUS: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.21 Ovary and uterine adnexa (ICD-9: 183 / ICD-O-3: C56-C57)

Rates for cancer of the ovary in Singapore fall between those of Western Europe and the US, and the rest of Asia. A steady increase has been observed over the last four decades. This cancer now ranks fifth, ahead of cervical cancer, for all women, and accounts for 5.7% of all female cancers diagnosed in 2003-2007. The rate of this cancer increases greatly after the age of 35-40.

An interesting feature is that this is one of the few cancers for which Malays have a higher risk than Chinese. The risk for ovarian cancer among Malay women has been, on average, 10-20% higher than for Chinese over the period 1968-2007.

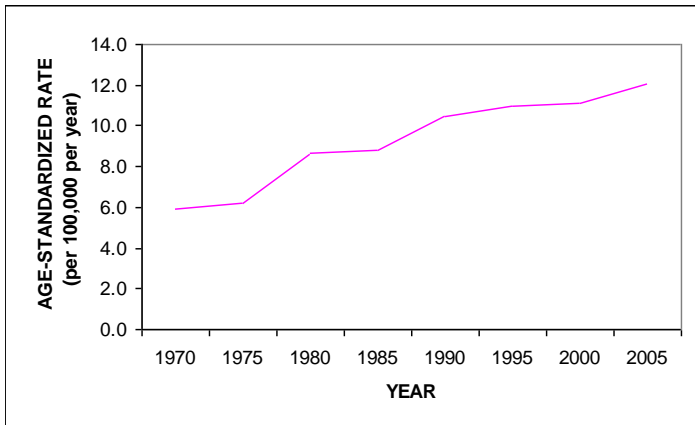
The rates of ovarian cancer are highest among Chinese women residing globally, except in Hawaii, but still lower than those among women living in Western countries.

INCIDENCE DATA (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All residents	1327	5.7	12.0	-
Chinese	1071	5.4	12.2	1.0
Malays	163	7.5	12.7	1.0 (0.9-1.2)
Indians	76	7.7	9.9	0.8 (0.7-1.0)

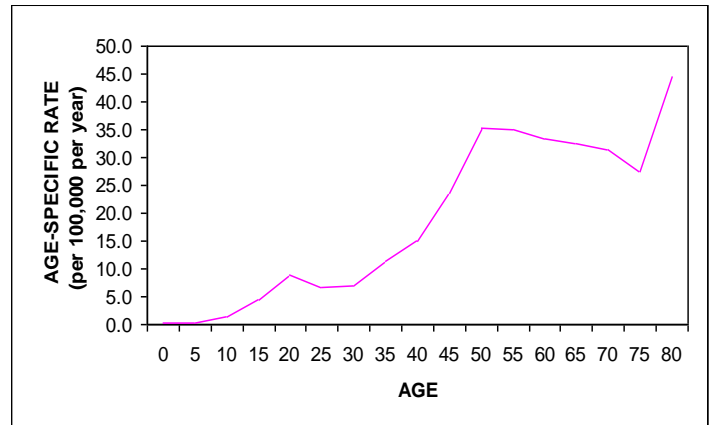
SUBSITES 2003-2007		
ICD9	SUBSITE	Female
183.0	Ovary	1300
183.2	Fallopian Tube	19
183.3	Broad Ligament	1
183.8	Other	5
183.9	NOS	2
<b>All cases</b>		<b>1327</b>

<b>HISTOLOGY 2003-2007</b>	<b>NO.</b>	<b>%</b>
Serous Cystadenocarcinoma	282	22.3
Mucinous Cystic Tumour, Borderline	186	14.7
Clear Cell Adenocarcinoma	170	13.4
Endometrioid Adenocarcinoma	159	12.5
Adenocarcinoma, Nos	80	6.3
Mucinous Adenocarcinoma	63	5.0
Serous Cystadenoma, Borderline	58	4.6
Mucinous Cystadenocarcinoma	47	3.7
Teratoma, Malignant	43	3.4
Granulosa Cell Tumour, Malignant	25	2.0
Carcinoma, Nos	23	1.8
Serous Papillary Carcinoma	16	1.3
Mullerian Mixed Tumour	14	1.1
Yolk Sac Tumour	13	1.0
Neoplasm, Malignant, Nos	8	0.6
Papillary Adenocarcinoma	7	0.6
Squamous Cell Carcinoma	6	0.5
Sertoli-Leydig Cell Tumour, Poorly Differentiated	6	0.5
Transitional Cell Carcinoma	5	0.4
Sarcoma, Nos	5	0.4
Leiomyosarcoma	5	0.4

<b>HISTOLOGY 2003-2007 (cont'd)</b>	<b>NO.</b>	<b>%</b>
Endometrial Stromal Sarcoma	5	0.4
Serous Adenocarcinofibroma	5	0.4
Neuroendocrine Carcinoma	4	0.3
Clear Cell Adenocarcinofibroma	4	0.3
Dysgerminoma	4	0.3
Mixed Germ Cell Tumour	4	0.3
Endometrioid Adenofibroma, Malignant	3	0.2
Small Cell Carcinoma	2	0.2
Clear Cell Cystic Tumour Of Borderline	2	0.2
Adenosquamous Carcinoma	2	0.2
Sex Cord-Gonadal Stromal Tumour, Malignant, Nos	2	0.2
Juvenile Granulosa Cell Tumour, Malignant	2	0.2
Adenofibroma, Malignant	2	0.2
Cystadenocarcinoma	1	0.1
Sex Cord Tumour With Annular Tubules	1	0.1
Steroid Cell Tumour, Malignant	1	0.1
Smooth Muscle Tumour, Borderline	1	0.1
Carcinosarcoma	1	0.1
<b>Total with histology</b>	<b>1267</b>	<b>100.0</b>
<b>All cases</b>	<b>1327</b>	

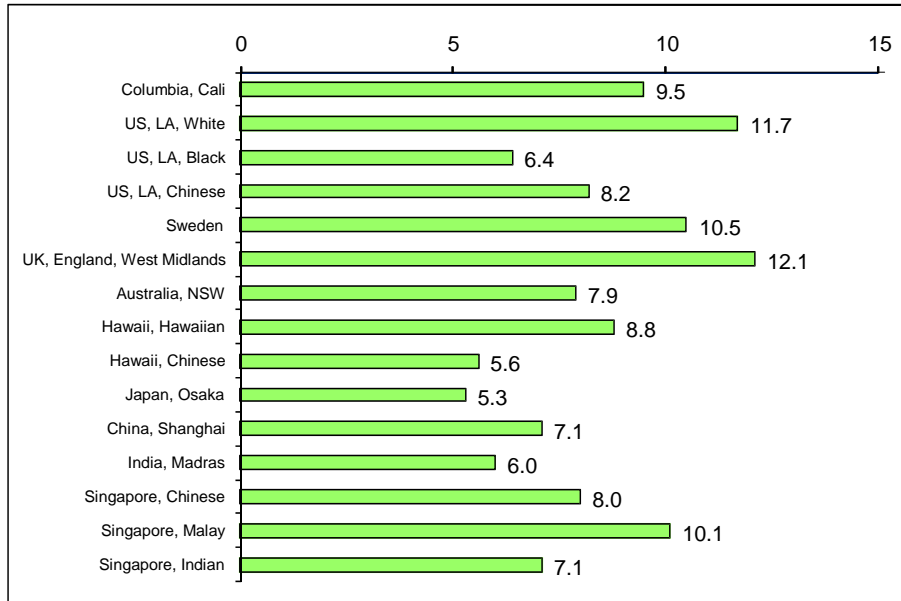


**OVARY: AGE-STANDARDIZED INCIDENCE, 1968-2007**



**OVARY: AGE-SPECIFIC INCIDENCE, 2003-2007**

**OVARY: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002  
(per 100,000 per year)**



## 12.22 Prostate (ICD-9: 185 / ICD-O-3: C61)

Prostate cancer is now the third most frequent cancer among Singapore males, up from 5<sup>th</sup> place in the previous five-year period, and the incidence has been steadily increasing over the last 40 years. The average annual rate of increase between 1968 and 2007 was 5.0%, with the last 15 years having seen a relatively steeper increase. The age-adjusted risk of this cancer in 2003-2007 was 5.7 times that observed in 1968-72 (4.2 per 100,000). The age-incidence curve rises sharply after 50 years of age.

Indian men appear to have a lower risk of this disease relative to Chinese. However, the increase in rates over time is observed in all ethnic groups. Prostate cancer is the third most frequent cancer among Malay and Indian men.

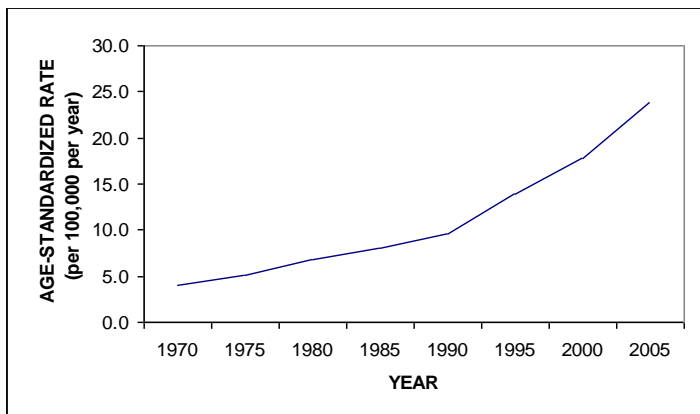
Singapore Chinese males have the highest rates of prostate cancer among Chinese males in Asia, but these rates are still much lower than those in Chinese residing in Western countries.

INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	2169	9.9	23.9	-
Chinese	1837	9.8	25.2	1.0
Malays	169	9.6	17.7	0.6 (0.5-0.7)
Indians	117	12.1	15.9	0.4 (0.3-0.5)

HISTOLOGY 2003-2007	NO.	%
Adenocarcinoma, Nos	1170	55.8
Acinar Cell Carcinoma	877	41.8
Carcinoma, Nos	20	1.0
Duct Carcinoma	13	0.6
Neoplasm, Malignant, Nos	5	0.2
Neuroendocrine Carcinoma	4	0.2
Transitional Cell Carcinoma	3	0.1
Mucinous Adenocarcinoma	3	0.1
Small Cell Carcinoma	1	0.0
Smooth Muscle Tumour, Borderline	1	0.0
<b>Total with histology</b>	<b>2097</b>	<b>100.0</b>
<b>All cases</b>	<b>2169</b>	

SUBSITES 2003-2007		
ICD9	SUBSITE	Male
185.9	NOS	2169
	<b>All cases</b>	<b>2169</b>

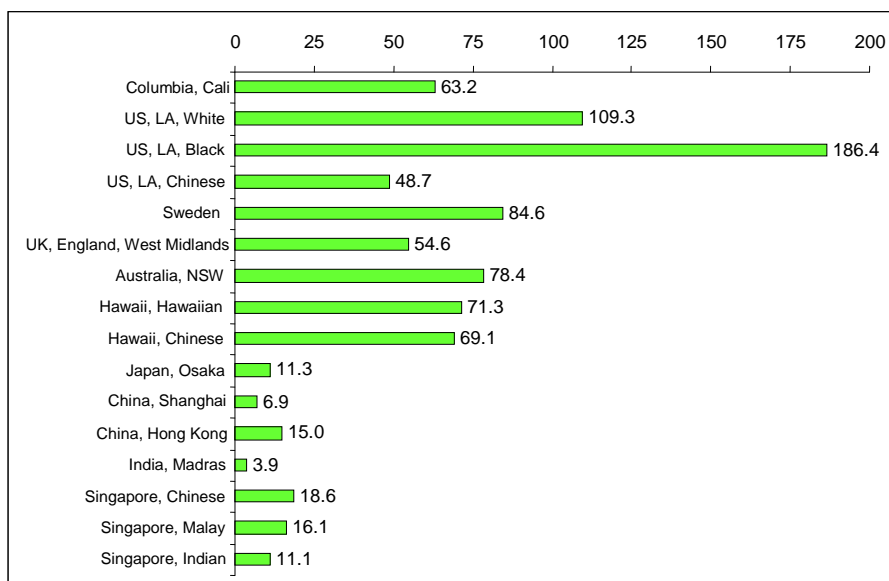




**PROSTATE: AGE-STANDARDIZED INCIDENCE, 1968-2007**

**PROSTATE: AGE-SPECIFIC INCIDENCE, 2003-2007**

**PROSTATE: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



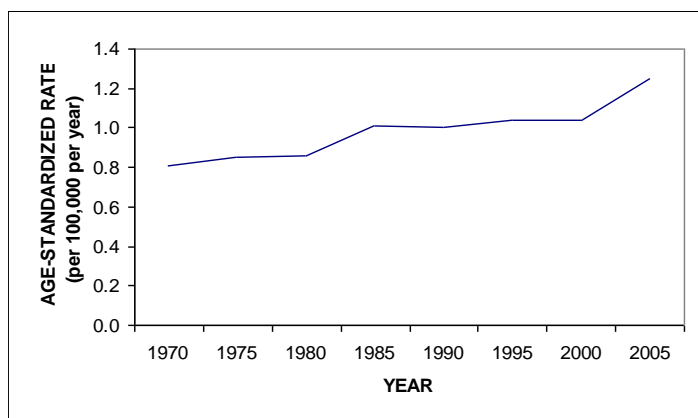
## 12.23 Testis (ICD-9: 186 / ICD-O-3: C62)

The incidence of testicular cancer is low and has remained fairly constant over the last 40 years, though it has increased by about 20% in the past 5 year period. There were 116 cases in 2003-2007, of which the majority were seminomas (57.0%) and mixed germ cell tumours (17.5%).

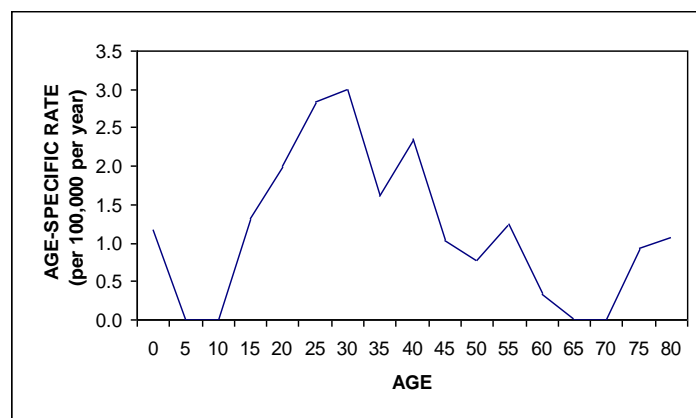
INCIDENCE DATA (2003-2007)	No.	%	Males	
			ASR	RR (95% CI)
All residents	116	0.5	1.2	-
Chinese	90	0.5	1.3	1.0
Malays	15	0.9	1.2	1.0 (0.6-1.7)
Indians	7	0.7	0.8	0.7 (0.3-1.5)

HISTOLOGY 2003-2007	NO.	%
Seminoma	65	57.0
Mixed Germ Cell Tumour	20	17.5
Yolk Sac Tumour	8	7.0
Embryonal Carcinoma	7	6.1
Leydig Cell Tumour, Malignant	3	2.6
Rhabdomyosarcoma	3	2.6
Teratoma, Malignant	3	2.6
Liposarcoma, Well Differentiated	2	1.8
Mucinous Cystadenocarcinoma	1	0.9
Spermatocytic Seminoma	1	0.9
Germ Cell Tumour, Nonseminomatous	1	0.9
<b>Total with histology</b>	<b>114</b>	<b>100.0</b>
<b>All cases</b>	<b>116</b>	

SUBSITES 2003-2007		
ICD9	SUBSITE	Male
186.9	NOS	116
	<b>All cases</b>	<b>116</b>

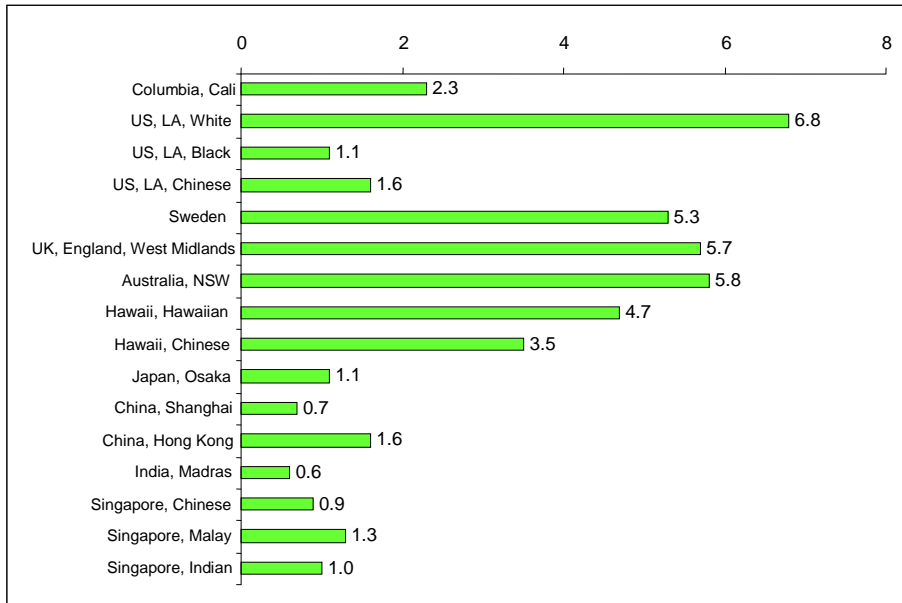


TESTIS: AGE-STANDARDIZED  
INCIDENCE, 1968-2007



TESTIS: AGE-SPECIFIC INCIDENCE,  
2003-2007

**TESTIS: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002  
(per 100,000 per year)**



## 12.24 Bladder (ICD-9: 188 / ICD-O-3: C67)

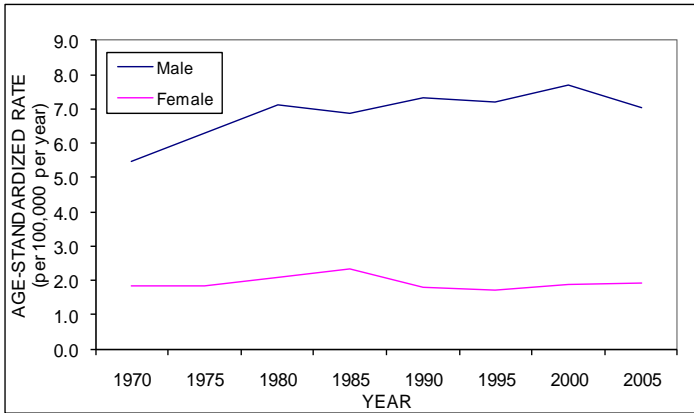
In Singapore, cancer of the bladder ranks ninth among males and is relatively less frequent among females. The male: female ratio is 3:1. Rates have been fairly stable throughout the period 1968-2003, with a suggestion of a slight increase among males.

Transitional cell (including papillary) carcinomas comprise 93.4% of all cases diagnosed in 2003-2007. In males, Indians have a lower risk compared with Chinese, while ethnic comparisons are difficult for females because of the small number of cases. Bladder cancer is the 7th most frequent cancer among both Indian and Malay males.

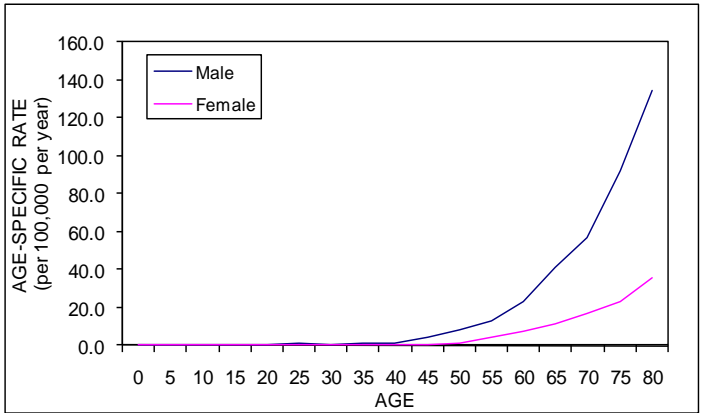
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	675	3.1	7.1	-
Chinese	552	2.9	7.3	1.0
Malays	63	3.6	6.0	0.8 (0.6-1.0)
Indians	38	4.0	5.1	0.5 (0.3-0.7)
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	223	1.0	1.9	-
Chinese	196	1.0	2.0	1.0
Malays	14	0.6	1.2	0.6 (0.3-1.0)
Indians	11	1.1	1.9	0.8 (0.4-1.4)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
188.0	Trigone	5	2
188.1	Dome	14	6
188.2	Lateral Wall	119	32
188.3	Anterior Wall	5	-
188.4	Posterior Wall	13	6
188.5	Bladder Neck	10	1
188.6	Ureteric Orifice	27	9
188.7	Urachus	3	1
188.8	Other	50	21
188.9	NOS	429	145
	<b>All cases</b>	<b>675</b>	<b>223</b>

HISTOLOGY 2003-2007	NO.	%
Papillary Transitional Cell Carcinoma	546	61.9
Transitional Cell Carcinoma, Nos	278	31.5
Adenocarcinoma, Nos	12	1.4
Squamous Cell Carcinoma	10	1.1
Neoplasm, Malignant, Nos	9	1.0
Carcinoma, Nos	9	1.0
Paraganglioma, Malignant	5	0.6
Mucinous Adenocarcinoma	4	0.5
Small Cell Carcinoma	3	0.3
Neuroendocrine Carcinoma	1	0.1
Sarcoma, Nos	1	0.1
Giant Cell Sarcoma	1	0.1
Myofibroblastic Tumour	1	0.1
Leiomyosarcoma	1	0.1
Carcinosarcoma	1	0.1
<b>Total with histology</b>	<b>882</b>	<b>100.0</b>
<b>All cases</b>	<b>898</b>	

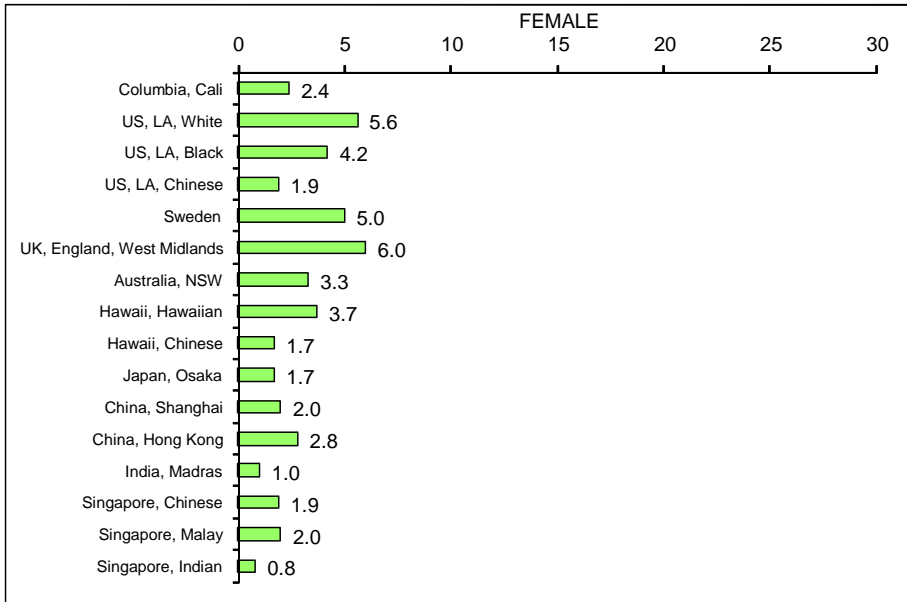
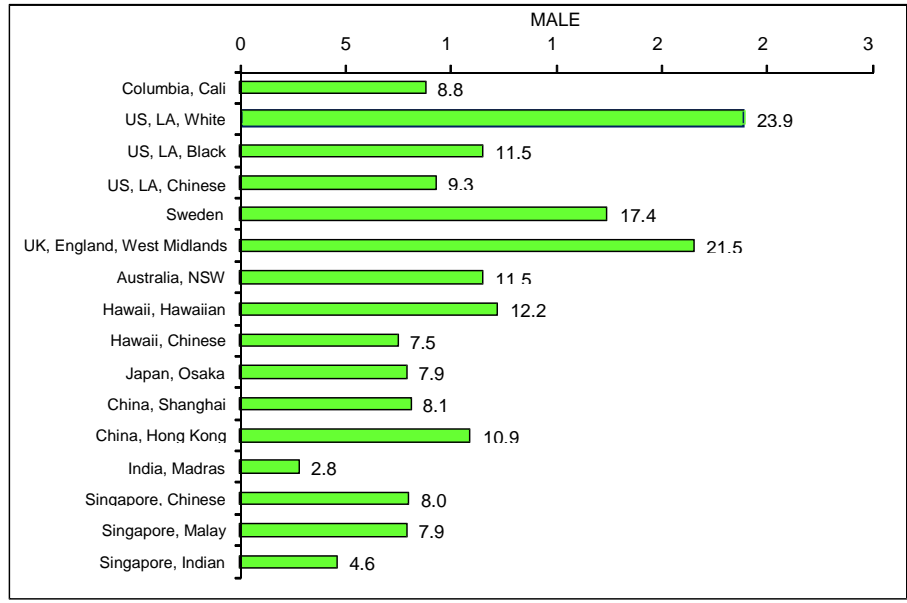


**BLADDER: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**BLADDER: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**BLADDER: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.25 Kidney and other urinary organs (ICD-9: 189 / ICD-O-3: C64-66, C68)

Of the 950 cases registered under this site for 2003-2007, 802 (84.4%) occurred in the renal parenchyma, 8.9% in the renal pelvis, and 5.1% in the ureter. Renal cell carcinomas comprised 72.3% of all cases with information on histology.

The upward trend in incidence has continued in both males and females, their rates having increased by 159.4% and 80.5% respectively over the last 40 years.

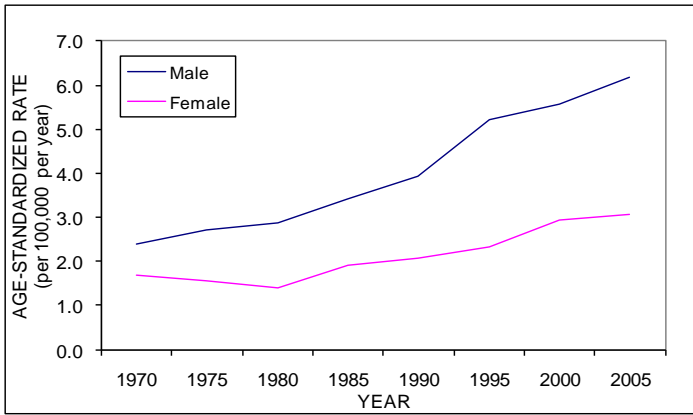
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	620	2.8	6.2	-
Chinese	514	2.7	6.4	1.0
Malays	53	3.0	4.9	0.7 (0.6-1.0)
Indians	35	3.6	4.8	0.5 (0.4-0.8)

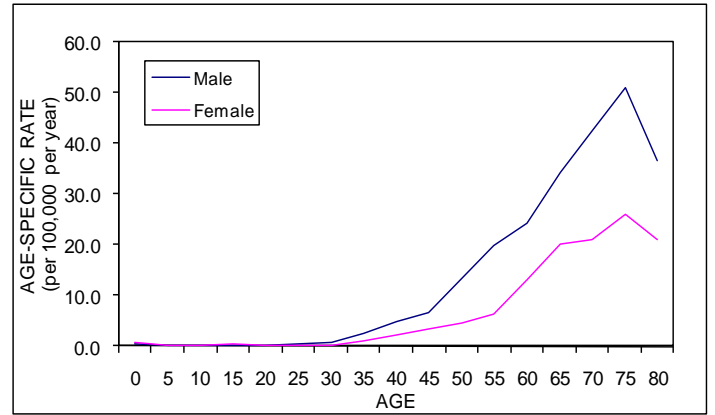
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	330	1.4	3.1	-
Chinese	276	1.4	3.1	1.0
Malays	27	1.2	2.3	0.7 (0.5-1.1)
Indians	21	2.1	3.2	0.9 (0.6-1.4)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
189.0	Kidney	537	265
189.1	Renal Pelvis	53	32
189.2	Ureter	24	24
189.3	Urethra	3	5
189.8	Other	1	2
189.9	NOS	2	2
<b>All cases</b>		<b>620</b>	<b>330</b>

HISTOLOGY 2003-2007		
	NO.	%
Renal Cell Carcinoma, Nos	593	72.3
Transitional Cell Carcinoma, Nos	133	16.2
Papillary Adenocarcinoma	22	2.7
Carcinoma, Nos	18	2.2
Renal Cell Carcinoma, Sarcomatoid	14	1.7
Chromophobe Carcinoma	11	1.3
Nephroblastoma	8	1.0
Adenocarcinoma, Nos	6	0.7
Squamous Cell Carcinoma	4	0.5
Neoplasm, Malignant, Nos	3	0.4
Collecting Duct Carcinoma	2	0.2
Sarcoma, Nos	2	0.2
Malignant Fibrous Histiocytoma	1	0.1
Malignant Cystic Nephroma	1	0.1
Malignant Rhabdoid Tumour	1	0.1
Primitive Neuroectodermal Tumour	1	0.1
<b>Total with histology</b>	<b>820</b>	<b>100.0</b>
<b>All cases</b>	<b>950</b>	

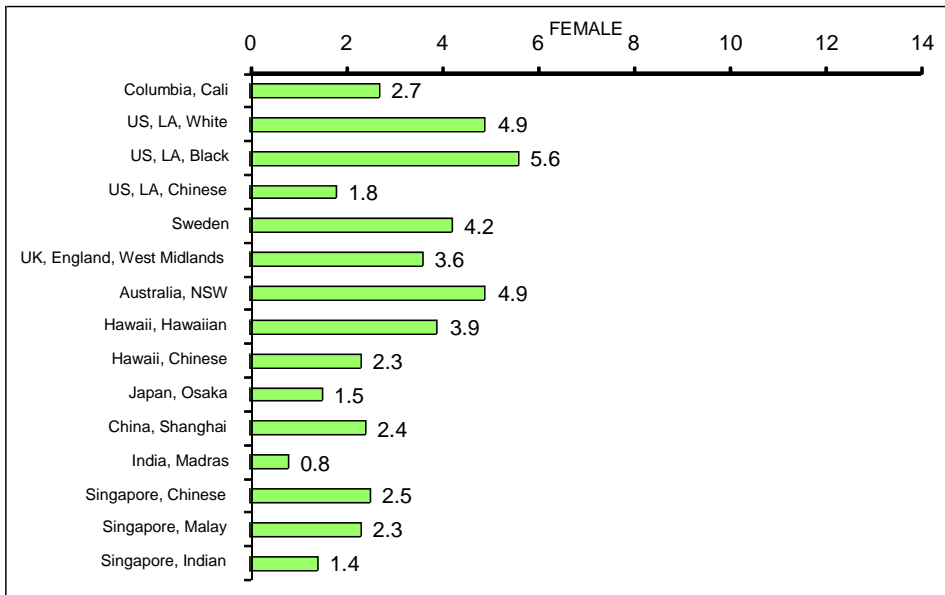
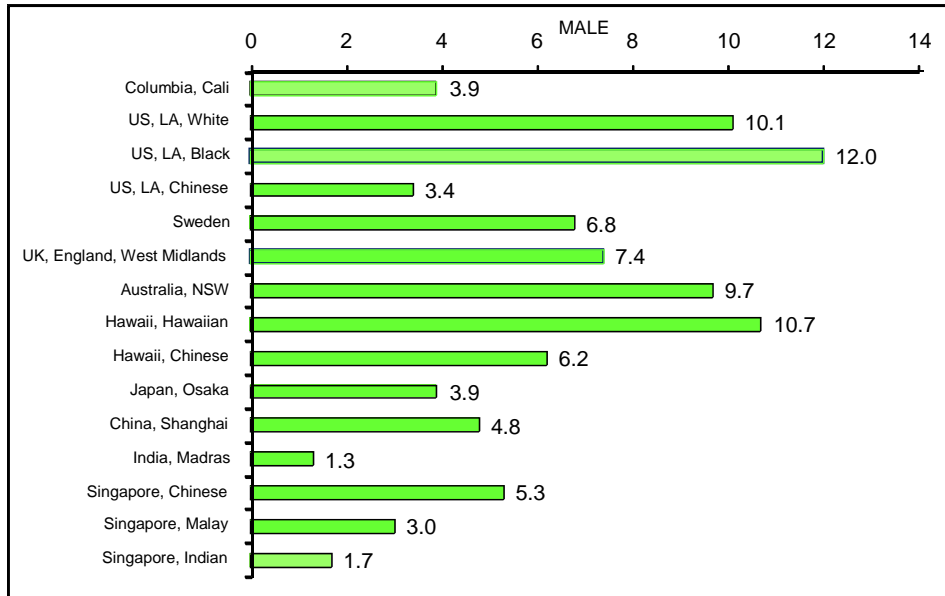


**KIDNEY: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**KIDNEY: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**KIDNEY: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



## 12.26 Brain and nervous system (ICD-9: 191-2 / ICD-O-3: C70-72)

This group of cancers continues to be relatively uncommon in Singapore, and incidence rates for all three major ethnic groups are lower than most other parts of the world. There is a suggestion of an increase in rates over time, although not consistent throughout the 40 years. Historically, the majority of primary brain tumours are astrocytic neoplasms. There are no significant ethnic differences in risk.

INCIDENCE DATA (2003-2007)		Males		
	No.	%	ASR	RR (95% CI)
All residents	280	1.3	3.1	-
Chinese	217	1.2	3.2	1.0
Malays	31	1.8	2.7	0.9 (0.6-1.3)
Indians	20	2.1	2.9	0.8 (0.5-1.3)

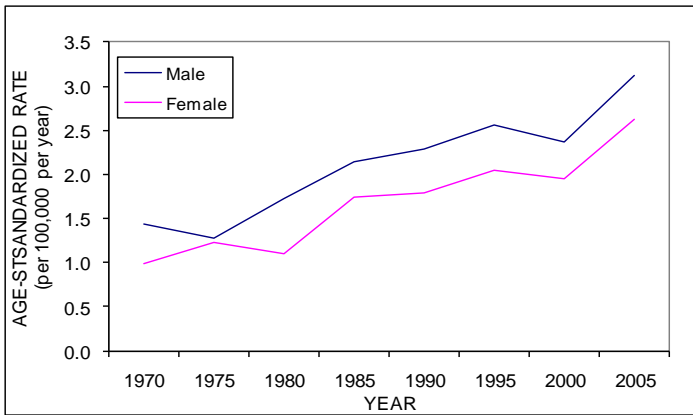
  

INCIDENCE DATA (2003-2007)		Females		
	No.	%	ASR	RR (95% CI)
All residents	240	1.0	2.6	-
Chinese	203	1.0	3.0	1.0
Malays	22	1.0	1.7	0.7 (0.4-1.0)
Indians	12	1.2	1.6	0.6 (0.3-1.1)

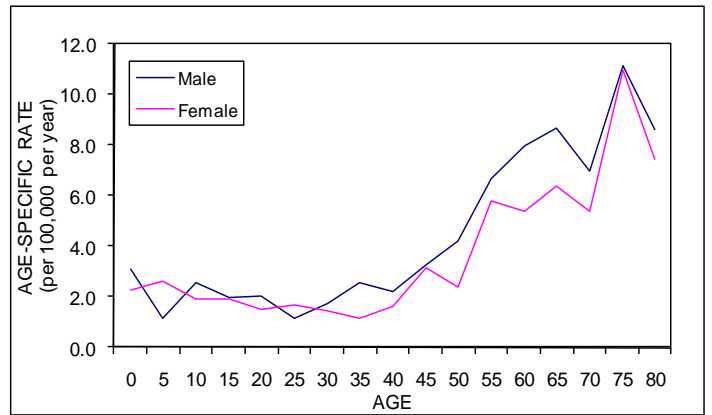
HISTOLOGY 2003-2007	NO.	%
Astrocytoma	178	39.2
Oligodendroglioma	39	8.6
Meningeal Sarcomatosis	33	7.3
Pilocytic Astrocytoma	31	6.8
Ependymoma	21	4.6
Medulloblastoma	21	4.6
Mixed Glioma	16	3.5
Glioma, Malignant, Nos	15	3.3
Germinoma	13	2.9
Hemangioblastoma	10	2.2
Meningioma, Malignant	9	2.0
Papillary Meningioma	9	2.0
Primitive Neuroectodermal Tumour	8	1.8
Central Neurocytoma	8	1.8
Gliosarcoma	7	1.5
Neoplasm, Malignant, Nos	5	1.1
Pleomorphic Xanthoastrocytoma	4	0.9
Ganglioglioma, Anaplastic	4	0.9
Hemangiopericytoma, Malignant	3	0.7
Myxopapillary Ependymoma	3	0.7
Fibrillary Astrocytoma	3	0.7
Neuroblastoma	3	0.7
Sarcoma, Nos	2	0.4
Mixed Germ Cell Tumour	2	0.4
Subependymoma	2	0.4
Desmoplastic Infantile Astrocytoma	2	0.4
Subependymal Giant Cell Astrocytoma	1	0.2
Astroblastoma	1	0.2
Chordoid Glioma	1	0.2
<b>Total with histology</b>	<b>454</b>	<b>100.0</b>
<b>All cases</b>	<b>520</b>	

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
191.0	Cerebrum	8	10
191.1	Frontal lobe	42	48
191.2	Temporal lobe	35	22
191.3	Parietal lobe	18	13
191.4	Occipital lobe	3	4
191.5	Ventricles	1	6
191.6	Cerebellum	23	21
191.7	Brain stem	6	11
191.8	Brain, other	24	13
191.9	Brain, NOS	90	54
192.0	Cranial nerves	2	1
192.1	Meninges	21	32
192.2	Spinal cord	4	3
192.3	Spinal meninges	-	1
192.9	NOS	3	1
	<b>All cases</b>	<b>280</b>	<b>240</b>



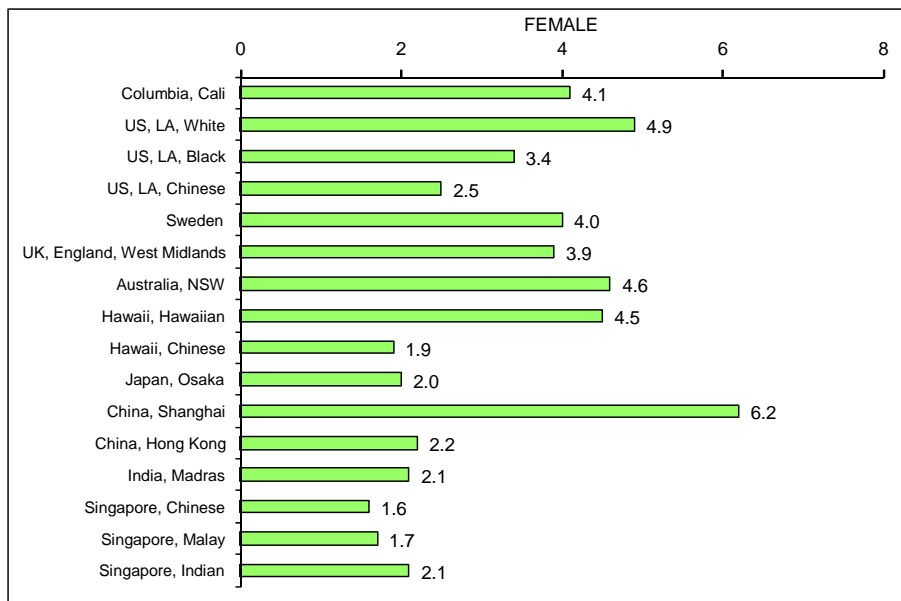
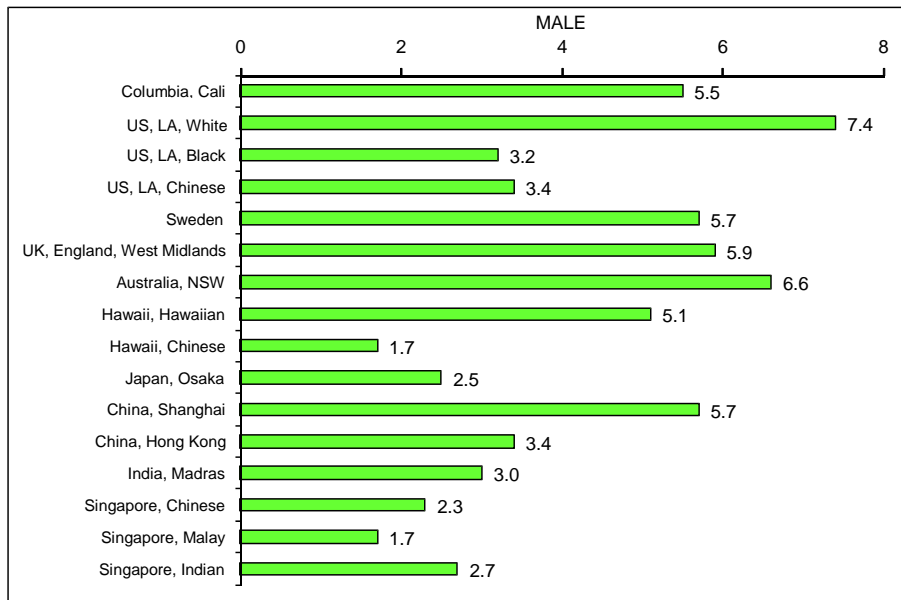


**BRAIN: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**BRAIN: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**BRAIN: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



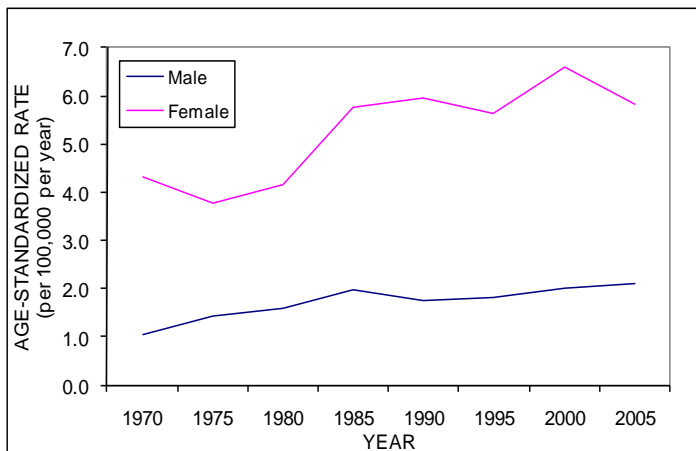
## 12.27 Thyroid (ICD-9: 193 / ICD-O-3: C73)

Thyroid cancer occurs more frequently in females; the female: male ratio in 2003-2007 is 3:1. Papillary carcinomas, including the follicular variant, account for 79.7% of cases, and follicular carcinomas for 12.3%. Rates appear to be fairly stable since 1983 for males, but there is an upward trend among females over the 40 year period. The age-standardized rate for females was 5.8 per 100,000 per year in 2003-2007 compared with 4.3 per 100,000 per year in 1968-72. There is no significant ethnic difference in risk. Singapore Chinese have rates similar to those in Hong Kong and Chinese in LA in the US. In contrast to many other cancers, the age-specific incidence begins to rise at a younger age, particularly in females.

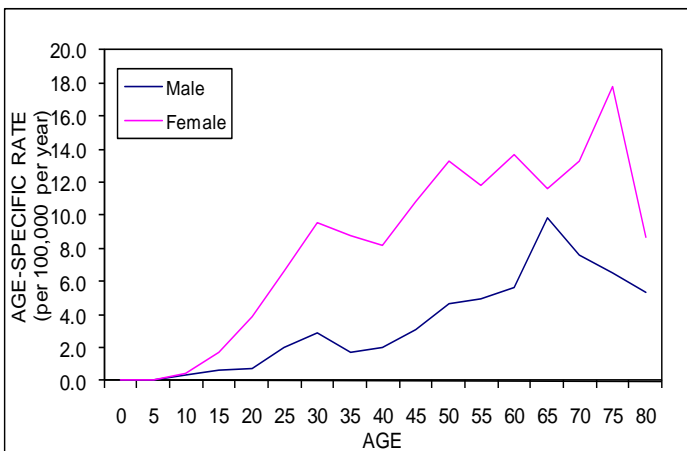
INCIDENCE DATA (2003-2007)			Males	
	No.	%	ASR	RR (95% CI)
All residents	215	1.0	2.1	-
Chinese	172	0.9	2.1	1.0
Malays	28	1.6	2.3	1.1 (0.8-1.7)
Indians	12	1.3	1.8	0.6 (0.3-1.1)
INCIDENCE DATA (2003-2007)			Females	
	No.	%	ASR	RR (95% CI)
All residents	645	2.8	5.8	-
Chinese	496	2.5	5.6	1.0
Malays	95	4.4	7.4	1.3 (1.0-1.6)
Indians	38	3.9	4.8	0.8 (0.6-1.1)

SUBSITES 2003-2007			
ICD9	SUBSITE	Male	Female
193.9	NOS	215	645
	<b>All cases</b>	<b>215</b>	<b>645</b>

HISTOLOGY 2003-2007		NO.	%
Papillary Carcinoma		444	52.1
Papillary Microcarcinoma		133	15.6
Papillary Carcinoma, Follicular Variant		84	9.8
Follicular Carcinoma, Minimally Invasive		78	9.1
Follicular Carcinoma		27	3.2
Medullary Carcinoma		19	2.2
Carcinoma, Anaplastic		15	1.8
Papillary Carcinoma, Encapsulated		15	1.8
Oxyphilic Carcinoma		12	1.4
Carcinoma, Nos		8	0.9
Neoplasm, Malignant, Nos		5	0.6
Insular Carcinoma		5	0.6
Papillary Carcinoma, Columnar Cell		3	0.4
Squamous Cell Carcinoma		2	0.2
Mixed Medullary-Papillary Carcinoma		2	0.2
Mixed Medullary-Follicular Carcinoma		1	0.1
<b>Total with histology</b>		<b>853</b>	<b>100.0</b>
<b>All cases</b>		<b>860</b>	

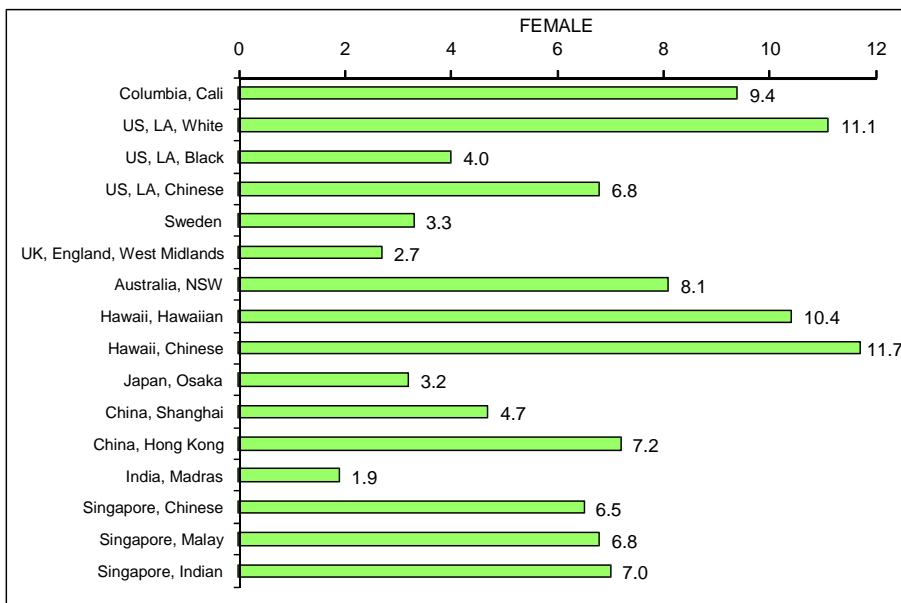
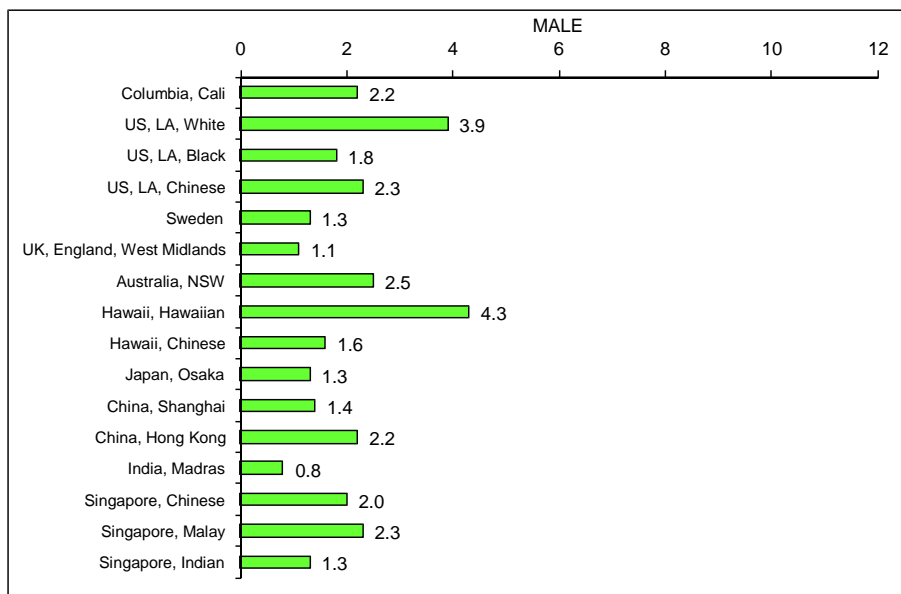


**THYROID: AGE-STANDARDIZED INCIDENCE BY SEX, 1968-2007**



**THYROID: AGE-SPECIFIC INCIDENCE BY SEX, 2003-2007**

**THYROID: AGE-STANDARDIZED INCIDENCE IN SELECTED COUNTRIES 1998-2002 (per 100,000 per year)**



### 13. CANCER REGISTRATIONS AMONG NON-RESIDENTS

This chapter presents data on cancer registrations among non-residents for the period 1968-2007. There were 52,908 non-resident cancers from 1968-2002, comprising 20.2% of all registered cases. In 2003-2007 alone, non-resident cancers numbered 14,147 and comprised 23.9% of all cases, slightly higher than the 19.3% in the preceding five-year period. The ratio of males to females has generally been close to unity in more recent years.

**Table 13.1 NUMBER (AND % OF ALL REGISTRATIONS) OF NON-RESIDENT CANCERS REGISTERED BY TIME PERIOD**

Period	Males	% <sup>1</sup>	Females	% <sup>1</sup>	Total	% <sup>1</sup>
1968-1972	942	11.9	662	11.5	1604	11.7
1973-1977	1242	12.7	1009	14.0	2251	13.2
1978-1982	2456	19.5	1967	19.7	4423	19.6
1983-1987	3206	21.5	2804	21.8	6010	21.7
1988-1992	3179	18.9	3230	20.2	6409	19.6
1993-1997	4350	21.2	4488	22.2	8838	21.7
1998-2002	4567	19.4	4659	19.1	9226	19.3
2003-2007	6807	23.7	7340	24.1	14147	23.9
Total	26749	19.8	26159	20.6	52908	20.2

<sup>1</sup>percentage of total resident and non-resident registrations

The sources of information and basis of diagnosis for all non-residents in 2003-2007 are given in Table 13.2. Similar data for 1968-2002 are presented in the previous publication [6].

Table 13.3 describes the ten most frequent cancers registered by five-year period since 1968. Among males, cancers of the lung have remained the most frequent, with colorectal cancer in second place. Cancers of the skin are more prominent among non-residents compared to residents, comprising about 10% of cases over the last decade in men, and 5-6% in women. Among women, one-third of all registrations over the last 35 years have been breast or cervical cancer. Bladder cancer and stomach cancer have fallen out of the top-ten ranked cancer sites among males and females respectively, in the recent 2003-2007 period.

**TABLE 13.2 SOURCES OF CASES, TYPES OF NOTIFICATIONS AND MOST VALID BASIS OF DIAGNOSIS FOR NON-RESIDENT REGISTRATIONS, 2003-2007**

<b>Source and type of notification</b>	<b>No.</b>	<b>%</b>	<b>%</b>
Cases notified by medical practitioners	8,024		56.7
- spontaneously	4,502	31.8	
- on request	3,522	24.9	
Cases registered by staff on the basis of:	6,123		43.3
- pathology reports	5,188	36.7	
- hospital records	816	5.8	
- death records	119	0.8	
<b>Total</b>	<b>14,147</b>	<b>100.0</b>	<b>100.0</b>
<b>Most valid basis of diagnosis</b>	<b>No.</b>	<b>%</b>	
Death Certificate Only	1	0.01	
Clinical Only	353	3.1	
Clinical Investigation	127	1.1	
Specific Tumour Markers	20	0.2	
Cytology	1,556	13.8	
Metastasis	850	7.6	
Primary Tumour	11,240	100.0	
<b>Total</b>	<b>14,147</b>	<b>100.0</b>	

**Table 13.3(a) TEN MOST FREQUENT CANCERS REGISTERED AMONG NON-RESIDENT MALES, 1968-2007**

1968-72			1973-77			1978-82			1983-87		
SITE	NO.	%	SITE	NO.	%	SITE	NO.	%	SITE	NO.	%
Lung	131	13.9	Lung	174	14.0	Lung	436	17.8	Lung	607	18.9
Nasopharynx	112	11.9	Nasopharynx	170	13.7	Nasopharynx	296	12.1	Colo-rectum	395	12.3
Skin <sup>1</sup>	107	11.4	Skin <sup>1</sup>	158	12.7	Colo-rectum	273	11.1	Nasopharynx	328	10.2
Stomach	100	10.6	Stomach	127	10.2	Stomach	245	10.0	Stomach	288	9.0
Colo-rectum	84	8.9	Colo-rectum	124	10.0	Skin <sup>1</sup>	190	7.7	Skin <sup>1</sup>	244	7.6
Liver	68	7.2	Liver	90	7.2	Liver	167	6.8	Liver	173	5.4
Oesophagus	52	5.5	Leukaemias	52	4.2	Lymphomas	95	3.9	Lymphomas	148	4.6
Larynx	31	3.3	Larynx	40	3.2	Leukaemias	86	3.5	Bladder	102	3.2
Lymphomas	31	3.3	Oesophagus	37	3.0	Bladder	71	2.9	Leukaemias	95	3.0
Leukaemias	24	2.5	Lymphomas	36	2.9	Oesophagus	69	2.8	Prostate	94	2.9
Others	202	21.4	Others	234	18.8	Others	528	21.5	Others	732	22.8
<b>All</b>	<b>942</b>	<b>100.0</b>	<b>All</b>	<b>1242</b>	<b>100.0</b>	<b>All</b>	<b>2456</b>	<b>100.0</b>	<b>All</b>	<b>3206</b>	<b>100.0</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	%	SITE	NO.	%	SITE	NO.	%	SITE	NO.	%
Lung	565	17.8	Lung	741	17.0	Lung	597	13.1	Lung	881	12.9
Colo-rectum	436	13.7	Colo-rectum	551	12.7	Colo-rectum	570	12.5	Colo-rectum	822	12.1
Nasopharynx	291	9.2	Skin <sup>1</sup>	403	9.3	Skin <sup>1</sup>	521	11.4	Prostate	653	9.6
Stomach	291	9.2	Stomach	298	6.9	Liver	383	8.4	Skin <sup>1</sup>	628	9.2
Skin <sup>1</sup>	274	8.6	Liver	290	6.7	Nasopharynx	311	6.8	Liver	499	7.3
Lymphomas	160	5.0	Nasopharynx	283	6.5	Prostate	274	6.0	Lymphomas	406	6.0
Liver	131	4.1	Prostate	283	6.5	Stomach	255	5.6	Nasopharynx	398	5.8
Prostate	120	3.8	Lymphomas	235	5.4	Lymphomas	242	5.3	Leukaemias	326	4.8
Bladder	95	3.0	Leukaemias	160	3.7	Leukaemias	238	5.2	Stomach	300	4.4
Leukaemias	94	3.0	Bladder	130	3.0	Bladder	133	2.9	Kidney <sup>2</sup>	222	3.3
Others	722	22.7	Others	976	22.4	Others	1043	22.8	Others	1672	24.6
<b>All</b>	<b>3179</b>	<b>100.0</b>	<b>All</b>	<b>4350</b>	<b>100.0</b>	<b>All</b>	<b>4567</b>	<b>100.0</b>	<b>All</b>	<b>6807</b>	<b>100.0</b>

<sup>1</sup> includes melanoma

<sup>2</sup> includes other urinary organs

**Table 13.3(b) TEN MOST FREQUENT CANCERS REGISTERED AMONG NON-RESIDENT FEMALES, 1968-2007**

1968-72			1973-77			1978-82			1983-87		
SITE	NO.	%	SITE	NO.	%	SITE	NO.	%	SITE	NO.	%
Cervix uteri	116	17.5	Breast	179	17.7	Cervix uteri	316	16.1	Breast	525	18.7
Breast	92	13.9	Cervix uteri	148	14.7	Breast	304	15.5	Cervix uteri	446	15.9
Colo-rectum	57	8.6	Colo-rectum	102	10.1	Colo-rectum	215	10.9	Colo-rectum	357	12.7
Skin <sup>1</sup>	51	7.7	Skin <sup>1</sup>	69	6.8	Lung	145	7.4	Lung	190	6.8
Nasopharynx	40	6.0	Stomach	67	6.6	Stomach	129	6.6	Stomach	154	5.5
Stomach	40	6.0	Nasopharynx	61	6.0	Nasopharynx	97	4.9	Skin <sup>1</sup>	139	5.0
Lung	34	5.1	Lung	54	5.4	Skin <sup>1</sup>	91	4.6	Nasopharynx	126	4.5
Thyroid	33	5.0	Corpus uteri	38	3.8	Ovary	85	4.3	Ovary	110	3.9
Corpus uteri	25	3.8	Ovary	38	3.8	Thyroid	66	3.4	Thyroid	94	3.4
Oesophagus	23	3.5	Thyroid	33	3.3	Leukaemias	53	2.7	Corpus uteri	79	2.8
Others	151	22.8	Others	220	21.8	Others	466	23.7	Others	584	20.8
<b>All</b>	<b>662</b>	<b>100.0</b>	<b>All</b>	<b>1009</b>	<b>100.0</b>	<b>All</b>	<b>1967</b>	<b>100.0</b>	<b>All</b>	<b>2804</b>	<b>100.0</b>

1988-1992			1993-1997			1998-2002			2003-2007		
SITE	NO.	%	SITE	NO.	%	SITE	NO.	%	SITE	NO.	%
Breast	682	21.1	Breast	1106	24.6	Breast	1288	27.6	Breast	2230	30.4
Cervix uteri	481	14.9	Cervix uteri	587	13.1	Cervix uteri	422	9.1	Colo-rectum	645	8.8
Colo-rectum	325	10.1	Colo-rectum	436	9.7	Colo-rectum	421	9.0	Cervix uteri	540	7.4
Lung	224	6.9	Lung	288	6.4	Lung	303	6.5	Lung	480	6.5
Ovary	171	5.3	Ovary	254	5.7	Skin <sup>1</sup>	286	6.1	Ovary	405	5.5
Stomach	165	5.1	Skin <sup>1</sup>	232	5.2	Ovary	244	5.2	Skin <sup>1</sup>	381	5.2
Skin <sup>1</sup>	150	4.6	Corpus uteri	185	4.1	Corpus uteri	198	4.2	Corpus uteri	338	4.6
Corpus uteri	113	3.5	Stomach	172	3.8	Thyroid	189	4.1	Lymphomas	293	4.0
Nasopharynx	103	3.2	Lymphomas	169	3.8	Lymphomas	176	3.8	Thyroid	284	3.9
Lymphomas	102	3.2	Thyroid	146	3.3	Stomach	139	3.0	Leukaemias	227	3.1
Others	714	22.1	Others	913	20.3	Others	993	21.3	Others	1517	20.7
<b>All</b>	<b>3230</b>	<b>100.0</b>	<b>All</b>	<b>4488</b>	<b>100.0</b>	<b>All</b>	<b>4659</b>	<b>100.0</b>	<b>All</b>	<b>7340</b>	<b>100.0</b>

<sup>1</sup> includes melanoma

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# **APPENDICES**

## APPENDIX A1

### Sources of cases, types of notifications and most valid basis of diagnosis, 2003-2007

<b>Source and type of notification</b>	<b>No.</b>	<b>%</b>	<b>%</b>
Cases notified by medical practitioners	18,680		41.4
- spontaneously	15,928	35.3	
- on request	2,752	6.1	
Cases registered by staff on the basis of:	26,460		58.6
- pathology reports	23,324	51.7	
- hospital records	2,536	5.6	
- death records	600	1.3	
<b>Total</b>	<b>45,140</b>	<b>100.0</b>	<b>100.0</b>
<b>Most valid basis of diagnosis</b>	<b>No.</b>	<b>%</b>	<b>%</b>
Microscopic Confirmation	41,351		91.6
- histology of primary	36,291	80.4	
- histology of metastasis	1,642	3.6	
- cytology	3,418	7.6	
Other basis of diagnosis	3,789		8.4
- clinical investigation	2,529	5.6	
- clinical Only	660	1.5	
- death certificate only	600	1.3	
<b>Total</b>	<b>45,140</b>	<b>100.0</b>	<b>100.0</b>

## APPENDIX A2 MOST VALID BASIS OF DIAGNOSIS FOR SELECTED SITES IN MALES, 2003-2007

Site	ICD9	Death Certificate Only	Clinical Only	Clinical Investigation	Specific Tumour Markers	Cytology	Metastasis	Primary Tumour	Total
Tongue	141	3	1	0	0	6	0	144	154
Salivary gland	142	0	0	0	0	11	5	52	68
Mouth	143-5	1	0	0	0	4	0	123	128
Oropharynx	146	1	1	0	0	2	2	75	81
Nasopharynx	147	2	7	2	0	9	18	1,160	1,198
Hypopharynx	148	0	0	1	0	4	3	101	109
Oesophagus	150	3	2	7	0	4	4	314	334
Stomach	151	8	12	13	0	6	11	1,325	1,375
Colon	153	26	13	41	8	5	30	2,069	2,192
Rectum	154	3	5	15	2	4	7	1,674	1,710
Liver	155	110	151	532	250	46	63	548	1,700
Gall bladder, etc.	156	1	6	21	2	10	26	105	171
Pancreas	157	25	19	88	33	117	108	176	566
Nose, sinuses, etc.	160	0	0	0	0	0	1	82	83
Larynx	161	1	3	7	0	5	3	333	352
Bronchus, trachea	162	77	80	330	3	894	379	2,065	3,828
Bone	170	1	0	0	0	0	0	75	76
Connective tissues	171	1	0	2	0	0	6	173	182
Melanoma of skin	172	0	0	0	0	0	5	44	49
Skin, others	173	0	3	0	0	18	0	903	924
Prostate	185	5	9	20	38	12	31	2,054	2,169
Testis	186	0	0	2	0	1	3	110	116
Penis	187	0	2	0	0	0	0	90	92
Bladder	188	2	3	7	0	23	3	637	675
Kidney & Oth.Urinary	189	9	11	53	1	19	32	495	620
Eye	190	0	0	0	0	0	1	18	19
Brain, nervous system	191-2	11	17	9	1	5	2	235	280
Thyroid	193	0	2	1	0	12	6	194	215
Lymphoid neoplasms		5	0	0	0	350	9	945	1,309
Myeloid neoplasms		5	0	0	0	372	1	61	439
Other and unspecified		14	19	92	10	66	161	52	414
<b>All</b>		<b>315</b>	<b>376</b>	<b>1256</b>	<b>350</b>	<b>2015</b>	<b>931</b>	<b>16,697</b>	<b>21,940</b>

**APPENDIX A3 MOST VALID BASIS OF DIAGNOSIS FOR SELECTED SITES IN FEMALES, 2003-2007**

Site	ICD9	Death Certificate Only	Clinical Only	Clinical Investigation	Specific Tumour Markers	Cytology	Metastasis	Primary Tumour	Total
Tongue	141	0	0	0	0	1	0	71	72
Salivary gland	142	0	0	0	0	2	1	59	62
Mouth	143-5	0	0	0	0	0	1	61	62
Oropharynx	146	0	0	0	0	0	1	23	24
Nasopharynx	147	0	0	0	0	5	10	388	403
Hypopharynx	148	1	0	0	0	0	0	11	12
Oesophagus	150	2	2	5	0	0	0	78	87
Stomach	151	9	8	14	1	7	12	834	885
Colon	153	31	20	67	6	7	27	2,082	2,240
Rectum	154	9	7	16	0	1	5	1,097	1,135
Liver	155	43	52	186	65	12	30	161	549
Gall bladder, etc.	156	5	7	30	3	6	31	134	216
Pancreas	157	39	25	105	26	72	75	128	470
Nose, sinuses, etc.	160	0	0	0	0	0	1	54	55
Larynx	161	1	0	2	0	0	0	30	33
Bronchus, trachea	162	61	53	184	7	473	216	874	1,868
Bone	170	0	0	1	0	0	1	54	56
Connective tissues	171	0	3	0	0	3	5	118	129
Melanoma of skin	172	0	0	0	0	2	5	50	57
Skin, others	173	0	5	1	0	17	3	757	783
Female Breast	174	21	31	12	0	44	41	6,649	6,798
Cervix uteri	180	2	2	0	0	7	4	994	1,009
Chorioepithelioma	181	0	0	0	0	0	2	8	10
Corpus uteri	182	0	2	4	1	2	10	1,313	1,332
Ovary, etc.	183	14	11	25	10	46	38	1,183	1,327
Other fem. genital	184	0	1	0	0	0	1	108	110
Bladder	188	0	2	2	0	8	1	210	223
Kidney & Oth. Urinary	189	4	10	42	1	7	15	251	330
Eye	190	0	0	0	0	0	1	15	16
Brain, nervous system	191-2	6	15	8	0	3	0	208	240
Thyroid	193	1	2	1	0	19	6	616	645
Lymphoid neoplasms		9	0	0	0	274	6	684	973
Myeloid neoplasms		7	0	0	0	302	6	46	361
Other and unspecified		18	23	80	13	77	141	42	394
<b>All</b>		<b>285</b>	<b>284</b>	<b>789</b>	<b>134</b>	<b>1403</b>	<b>711</b>	<b>19,594</b>	<b>23,200</b>

SINGAPORE : ALL RESIDENTS 2003-2007, MALES		NUMBER OF CASES BY AGE GROUP (YEARS)																	Appendix B1		
SITE	All	Unkn.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9	
Lip, Vermilion	6	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	1	-	140
Tongue	154	-	-	-	-	-	1	-	3	2	14	20	14	17	15	31	12	8	17	141	
Salivary gland	68	-	-	1	1	-	1	1	2	4	5	2	10	11	3	7	3	9	8	142	
Mouth	128	-	-	-	-	1	1	-	1	-	3	9	17	19	16	18	24	10	9	143-5	
Oropharynx	81	-	-	-	-	-	-	-	-	1	1	6	11	12	11	17	10	5	7	146	
Nasopharynx	1198	-	-	-	4	1	6	12	45	83	176	213	209	163	108	85	52	28	13	147	
Hypopharynx	109	-	-	-	-	-	-	-	-	-	4	5	12	12	20	16	18	11	11	148	
Oesophagus	334	-	-	-	-	-	-	-	-	5	5	14	25	43	56	46	57	36	47	150	
Stomach	1375	-	-	-	-	-	3	5	1	10	44	47	80	115	137	211	235	256	231	151	
Small intestines	83	-	-	-	-	-	-	2	-	2	2	8	9	11	8	16	14	5	6	152	
Colon	2192	-	-	-	-	1	4	6	13	24	59	92	181	256	255	366	339	285	311	153	
Rectum	1710	-	-	-	-	-	1	5	14	34	58	108	212	228	221	244	224	186	175	154	
Liver	1700	-	3	1	1	1	3	1	10	21	41	87	170	225	247	266	236	202	185	155	
Gall bladder, etc.	171	-	-	-	-	-	-	-	-	1	2	7	14	21	18	21	40	20	27	156	
Pancreas	566	-	-	-	-	-	1	1	4	4	19	27	63	71	53	92	90	67	74	157	
Retroperitoneum & Peritoneum	25	-	-	-	-	-	1	-	1	-	-	-	2	3	5	4	7	1	1	158	
Nose, sinuses, etc.	83	-	1	-	-	-	-	2	2	5	5	8	8	11	11	16	9	2	3	160	
Larynx	352	-	-	-	-	-	-	-	-	2	8	18	30	51	48	50	49	45	51	161	
Bronchus, trachea	3828	-	-	1	-	3	2	1	13	20	78	143	232	341	461	647	719	619	548	162	
Pleura	41	-	-	-	-	-	-	1	-	-	1	1	6	2	5	4	11	7	3	163	
Thymus, heart	92	-	1	1	3	8	7	6	3	6	8	8	4	11	8	8	3	4	3	164	
Bone	76	-	1	5	6	6	8	10	3	1	5	9	6	4	2	3	2	3	2	170	
Connective tissues	182	-	5	5	3	4	2	3	8	10	19	26	17	20	17	13	9	11	10	171	
Melanoma of skin	49	-	-	-	-	-	1	3	3	3	3	6	5	5	3	9	2	5	1	172	
Skin, others	924	-	-	1	1	-	4	3	13	21	40	52	68	87	109	127	114	115	169	173	
Male Breast	17	-	-	-	-	-	-	-	-	-	-	1	2	1	6	2	1	3	1	175	
Prostate	2169	-	-	-	-	-	-	-	-	2	3	17	68	218	320	444	434	367	296	185	
Testis	116	-	6	-	-	8	11	17	21	12	19	8	5	6	1	-	-	1	1	186	
Penis	92	-	-	-	-	-	-	-	-	1	5	3	13	9	10	14	16	14	7	187	
Bladder	675	-	-	-	-	-	-	5	4	11	10	36	55	63	70	99	98	99	125	188	
Kidney & Oth.Urinary	620	-	3	-	1	-	1	3	5	18	39	50	87	95	73	83	73	55	34	189	
Eye	19	-	9	-	-	-	1	-	-	-	1	-	2	3	-	1	-	-	2	190	
Brain, nervous system	280	-	16	7	17	12	11	7	12	19	18	25	27	32	24	21	12	12	8	191-2	
Thyroid	215	-	-	-	2	4	4	12	20	13	16	24	30	24	17	24	13	7	5	193	
Other endocrine	48	-	5	3	6	4	2	1	3	3	3	5	3	3	3	-	4	-	-	194	
Lymphoid neoplasms	1309	-	51	37	34	35	32	33	31	50	78	98	129	123	116	142	143	96	81		
Myeloid neoplasms	439	-	11	4	3	5	5	17	15	19	29	30	58	42	33	46	46	40	36		
Other and unspecified	414	-	1	-	-	-	1	2	4	8	11	22	38	48	39	68	57	44	71	OTH	
<b>All</b>	<b>21940</b>	<b>-</b>	<b>113</b>	<b>66</b>	<b>82</b>	<b>93</b>	<b>114</b>	<b>159</b>	<b>254</b>	<b>415</b>	<b>832</b>	<b>1236</b>	<b>1923</b>	<b>2407</b>	<b>2550</b>	<b>3262</b>	<b>3176</b>	<b>2679</b>	<b>2579</b>	<b>ALL</b>	

SINGAPORE : ALL RESIDENTS 2003-2007, FEMALES		NUMBER OF CASES BY AGE GROUP (YEARS)																	Appendix B2	
SITE	All	Unkn.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9
Lip, Vermilion	4	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	1	140
Tongue	72	-	-	-	-	1	-	-	2	1	3	5	7	8	4	13	6	9	13	141
Salivary gland	62	-	-	-	2	1	1	1	6	4	9	4	7	11	3	2	1	5	5	142
Mouth	62	-	-	-	-	-	-	-	1	3	1	6	4	5	5	8	5	5	19	143-5
Oropharynx	24	-	-	-	-	-	-	-	-	-	1	5	6	1	3	1	1	2	4	146
Nasopharynx	403	-	-	-	-	1	3	7	25	32	48	64	65	58	27	21	19	20	13	147
Hypopharynx	12	-	-	-	-	-	-	1	1	-	-	-	1	-	-	-	3	2	4	148
Oesophagus	87	-	-	-	-	-	-	-	-	2	4	4	-	4	5	4	8	15	41	150
Stomach	885	-	-	-	-	-	1	4	8	21	33	49	63	58	60	114	113	161	200	151
Small intestines	68	-	-	-	1	-	-	2	3	1	5	5	3	10	4	9	8	9	8	152
Colon	2240	-	-	-	-	1	9	8	12	23	66	109	212	234	210	233	314	307	502	153
Rectum	1135	-	-	-	-	-	1	1	7	25	37	76	109	145	112	161	137	141	183	154
Liver	549	-	5	1	-	2	1	-	2	6	12	16	22	36	43	61	94	119	129	155
Gall bladder, etc.	216	-	-	-	-	-	1	-	1	1	7	10	17	21	15	33	27	36	47	156
Pancreas	470	-	-	-	-	1	-	2	3	4	10	19	27	44	50	59	66	74	111	157
Retroperitoneum & Peritoneum	54	-	1	1	2	-	1	1	1	3	4	4	4	6	5	5	8	3	5	158
Nose, sinuses, etc.	55	-	-	-	-	-	-	1	2	5	11	6	3	6	1	4	7	4	5	160
Larynx	33	-	-	-	-	-	-	1	-	-	1	3	2	2	1	2	7	6	8	161
Bronchus, trachea	1868	-	-	-	1	1	2	3	7	22	55	99	131	191	180	226	275	255	420	162
Pleura	7	-	-	-	-	-	1	-	-	-	-	-	2	1	1	-	-	1	1	163
Thymus, heart	60	-	1	-	-	-	2	-	4	2	5	7	10	9	3	6	5	3	3	164
Bone	56	-	-	4	10	4	2	2	3	4	4	3	5	6	2	2	1	3	1	170
Connective tissues	129	-	3	1	3	4	2	3	12	7	12	12	17	13	9	6	8	3	14	171
Melanoma of skin	57	-	-	-	-	-	1	1	4	3	3	6	3	8	4	3	5	5	11	172
Skin, others	783	-	-	1	-	2	-	7	9	19	19	37	46	53	55	99	110	80	246	173
Female Breast	6798	-	-	-	-	4	6	49	178	422	892	1195	1149	945	607	501	324	252	274	174
Cervix uteri	1009	-	-	-	-	-	5	9	35	72	107	145	122	98	90	110	94	53	69	180
Chorioepithelioma	10	-	-	-	-	-	1	1	1	1	3	1	2	-	-	-	-	-	-	181
Corpus uteri	1332	-	-	-	-	-	4	16	32	53	109	203	262	234	131	120	80	44	44	182
Ovary, etc.	1327	-	1	1	8	25	48	44	53	87	120	179	223	170	105	87	64	40	72	183
Other fem. genital	110	-	-	1	-	-	-	-	3	2	3	12	8	17	12	14	8	18	12	184
Bladder	223	-	-	-	-	-	-	1	1	3	6	5	6	20	23	31	35	34	58	188
Kidney & Oth. Urinary	330	-	3	1	-	2	1	1	2	7	18	26	28	31	41	54	43	38	34	189
Eye	16	-	5	2	-	-	1	-	-	-	-	-	2	1	2	1	1	-	1	190
Brain, nervous system	240	-	11	15	11	11	8	11	11	9	13	24	15	28	17	17	11	16	12	191-2
Thyroid	645	-	-	-	3	10	21	43	72	67	65	82	84	57	43	31	27	26	14	193
Other endocrine	41	-	4	-	3	2	2	1	-	3	4	2	7	3	2	3	3	-	2	194
Lymphoid neoplasms	973	-	37	28	23	34	29	26	32	34	48	56	98	107	92	90	75	68	96	
Myeloid neoplasms	361	-	7	6	6	9	11	13	17	16	18	28	29	36	26	37	34	34	34	
Other and unspecified	394	-	1	-	-	2	1	1	4	8	10	20	43	37	32	35	50	53	97	OTH
<b>All</b>	<b>23200</b>	<b>-</b>	<b>79</b>	<b>62</b>	<b>73</b>	<b>117</b>	<b>166</b>	<b>261</b>	<b>554</b>	<b>973</b>	<b>1766</b>	<b>2528</b>	<b>2844</b>	<b>2714</b>	<b>2025</b>	<b>2203</b>	<b>2078</b>	<b>1944</b>	<b>2813</b>	<b>ALL</b>

SINGAPORE : CHINESE RESIDENTS 2003-2007, MALES		NUMBER OF CASES BY AGE GROUP (YEARS)																	Appendix B3	
SITE	All	Unkn.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9
Lip, Vermilion	5	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	-	140
Tongue	122	-	-	-	-	-	1	-	3	1	12	18	9	15	11	28	9	5	10	141
Salivary gland	57	-	-	-	-	-	-	1	2	4	3	2	9	10	3	6	3	6	8	142
Mouth	103	-	-	-	-	-	-	-	1	-	3	9	13	14	13	16	17	8	9	143-5
Oropharynx	70	-	-	-	-	-	-	-	-	1	-	2	11	12	10	14	9	4	7	146
Nasopharynx	1100	-	-	-	-	1	6	12	43	77	160	197	187	155	100	78	45	27	12	147
Hypopharynx	101	-	-	-	-	-	-	-	-	-	3	4	11	10	18	16	18	11	10	148
Oesophagus	306	-	-	-	-	-	-	-	-	4	4	14	20	40	53	45	52	32	42	150
Stomach	1235	-	-	-	-	-	1	5	1	8	39	36	69	101	126	186	215	235	213	151
Small intestines	67	-	-	-	-	-	-	2	-	2	2	6	6	9	6	12	11	5	6	152
Colon	1962	-	-	-	-	1	3	6	10	19	42	81	165	235	225	337	310	254	274	153
Rectum	1495	-	-	-	-	-	1	3	11	25	50	89	184	207	199	219	190	161	156	154
Liver	1482	-	3	1	1	1	3	1	9	19	37	73	145	188	227	237	210	163	164	155
Gall bladder, etc.	137	-	-	-	-	-	-	-	-	1	1	3	13	16	15	20	32	17	19	156
Pancreas	486	-	-	-	-	-	-	-	3	3	13	25	54	59	43	83	80	57	66	157
Retroperitoneum & Peritoneum	19	-	-	-	-	-	-	-	1	-	-	-	2	2	4	3	6	1	-	158
Nose, sinuses, etc.	75	-	1	-	-	-	-	2	2	5	4	7	8	9	11	15	6	2	3	160
Larynx	301	-	-	-	-	-	-	-	-	2	8	13	25	43	45	43	45	37	40	161
Bronchus, trachea	3315	-	-	1	-	2	1	1	11	19	58	113	184	285	406	576	635	543	480	162
Pleura	36	-	-	-	-	-	-	1	-	-	1	-	5	2	4	3	11	6	3	163
Thymus, heart	79	-	1	1	1	7	6	5	3	6	5	6	4	10	8	8	3	3	2	164
Bone	56	-	-	5	4	6	5	7	3	1	3	7	4	3	1	3	1	3	-	170
Connective tissues	157	-	4	4	1	3	1	2	6	8	15	24	15	18	17	12	9	11	7	171
Melanoma of skin	36	-	-	-	-	-	1	3	1	2	1	5	2	5	3	9	1	2	1	172
Skin, others	764	-	-	1	1	-	3	3	12	12	25	38	55	65	85	104	100	107	153	173
Male Breast	14	-	-	-	-	-	-	-	-	-	-	-	1	1	5	2	1	3	1	175
Prostate	1837	-	-	-	-	-	-	-	-	2	2	16	50	185	279	391	373	299	240	185
Testis	90	-	5	-	-	6	7	15	15	9	15	6	4	5	1	-	-	1	1	186
Penis	82	-	-	-	-	-	-	-	-	1	4	3	11	7	10	14	13	12	7	187
Bladder	552	-	-	-	-	-	-	4	4	7	8	22	41	53	61	79	84	81	108	188
Kidney & Oth.Urinary	514	-	2	-	-	-	-	3	5	16	27	39	77	79	64	68	66	40	28	189
Eye	16	-	8	-	-	-	1	-	-	-	1	-	1	3	-	1	-	-	1	190
Brain, nervous system	217	-	10	5	15	7	11	6	10	15	10	20	21	26	16	18	11	8	8	191-2
Thyroid	172	-	-	-	1	1	2	10	17	10	10	19	27	21	15	17	11	6	5	193
Other endocrine	37	-	4	3	5	3	1	1	1	1	2	5	3	1	3	-	4	-	-	194
Lymphoid neoplasms	1029	-	34	30	26	27	22	23	28	35	65	74	96	103	94	109	117	78	68	
Myeloid neoplasms	347	-	7	3	3	5	4	10	9	12	21	25	45	37	27	38	39	31	31	
Other and unspecified	339	-	-	-	-	-	-	1	2	7	10	19	32	43	27	53	45	38	62	OTH
<b>All</b>	<b>18812</b>	<b>-</b>	<b>79</b>	<b>54</b>	<b>58</b>	<b>70</b>	<b>80</b>	<b>127</b>	<b>213</b>	<b>334</b>	<b>664</b>	<b>1021</b>	<b>1610</b>	<b>2078</b>	<b>2236</b>	<b>2863</b>	<b>2782</b>	<b>2298</b>	<b>2245</b>	<b>ALL</b>



SINGAPORE : CHINESE RESIDENTS 2003-2007, FEMALES																			NUMBER OF CASES BY AGE GROUP (YEARS)																			Appendix B4	
SITE	All	Unkn.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+																				
Lip, Vermilion	3	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	140																		
Tongue	50	-	-	-	-	1	-	-	1	1	2	2	4	6	4	11	4	5	9	ICD-9																			
Salivary gland	52	-	-	-	1	-	-	1	6	4	7	3	5	10	3	2	1	4	5	142																			
Mouth	46	-	-	-	-	-	-	-	1	2	1	5	4	4	2	4	2	4	17	143-5																			
Oropharynx	22	-	-	-	-	-	-	-	-	-	1	5	6	1	2	1	1	1	4	146																			
Nasopharynx	381	-	-	-	-	1	3	6	25	30	44	63	60	54	25	20	18	19	13	147																			
Hypopharynx	10	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	2	2	4	148																			
Oesophagus	77	-	-	-	-	-	-	-	-	1	1	3	-	4	4	4	7	14	39	150																			
Stomach	811	-	-	-	-	-	-	1	7	17	28	43	57	52	57	105	101	151	192	151																			
Small intestines	52	-	-	-	-	-	-	2	2	-	4	3	2	9	4	6	6	8	6	152																			
Colon	2035	-	-	-	-	1	5	4	11	18	52	95	193	203	191	211	284	286	481	153																			
Rectum	1021	-	-	-	-	-	1	1	7	18	30	73	101	126	97	139	123	134	171	154																			
Liver	481	-	2	1	-	-	1	-	2	4	12	15	19	33	35	52	80	106	119	155																			
Gall bladder, etc.	189	-	-	-	-	-	-	-	1	-	6	8	16	21	14	28	22	31	42	156																			
Pancreas	407	-	-	-	-	1	-	2	3	4	6	15	24	29	45	48	61	67	102	157																			
Retroperitoneum & Peritoneum	41	-	1	1	1	-	-	1	1	2	4	2	4	4	5	4	5	2	4	158																			
Nose, sinuses, etc.	44	-	-	-	-	-	-	1	2	3	9	5	3	5	1	4	4	2	5	160																			
Larynx	24	-	-	-	-	-	-	-	-	-	1	2	1	1	1	2	5	5	6	161																			
Bronchus, trachea	1687	-	-	-	1	1	2	2	6	15	45	80	114	163	163	203	253	239	400	162																			
Pleura	4	-	-	-	-	-	1	-	-	-	-	-	-	1	1	-	-	1	-	163																			
Thymus, heart	56	-	1	-	-	-	2	-	4	2	3	7	10	8	3	6	5	2	3	164																			
Bone	42	-	-	3	7	3	1	1	3	4	3	3	4	3	2	1	1	3	-	170																			
Connective tissues	115	-	2	1	2	3	2	3	12	6	9	12	15	11	9	5	8	2	13	171																			
Melanoma of skin	50	-	-	-	-	-	1	1	3	2	3	4	3	8	4	3	5	5	8	172																			
Skin, others	701	-	-	-	-	1	-	6	9	13	14	24	39	44	48	87	103	76	237	173																			
Female Breast	5594	-	-	-	-	2	5	33	143	336	690	971	955	800	515	428	258	214	244	174																			
Cervix uteri	861	-	-	-	-	-	3	7	30	58	89	122	107	86	78	93	78	48	62	180																			
Chorioepithelioma	8	-	-	-	-	-	-	1	1	1	2	1	2	-	-	-	-	-	-	181																			
Corpus uteri	1101	-	-	-	-	-	2	16	25	45	84	168	229	195	110	93	62	34	38	182																			
Ovary, etc.	1071	-	1	1	5	18	33	37	40	73	80	150	189	134	88	75	47	36	64	183																			
Other fem. genital	95	-	-	1	-	-	-	-	1	2	2	12	7	13	12	12	8	14	11	184																			
Bladder	196	-	-	-	-	-	-	1	1	3	5	4	6	15	21	27	28	32	53	188																			
Kidney & Oth.Urinary	276	-	3	-	-	1	1	1	1	6	15	21	23	27	35	48	31	31	32	189																			
Eye	15	-	5	2	-	-	1	-	-	-	-	-	2	1	1	1	1	-	1	190																			
Brain, nervous system	203	-	11	11	9	9	8	10	9	7	10	16	11	26	15	16	11	13	11	191-2																			
Thyroid	496	-	-	-	2	5	15	34	52	47	47	64	71	45	31	25	23	23	12	193																			
Other endocrine	31	-	1	-	3	2	1	1	-	2	4	2	5	3	1	3	1	-	2	194																			
Lymphoid neoplasms	747	-	26	18	20	23	19	23	20	26	38	40	79	77	77	58	57	56	90																				
Myeloid neoplasms	290	-	5	4	5	7	9	10	15	12	15	22	20	28	24	31	28	27	28																				
Other and unspecified	345	-	1	-	-	2	1	1	3	7	7	17	38	33	31	31	38	48	87	OTH																			
<b>All</b>	<b>19730</b>	-	<b>59</b>	<b>43</b>	<b>56</b>	<b>81</b>	<b>117</b>	<b>207</b>	<b>448</b>	<b>772</b>	<b>1373</b>	<b>2083</b>	<b>2429</b>	<b>2283</b>	<b>1759</b>	<b>1887</b>	<b>1773</b>	<b>1745</b>	<b>2615</b>	<b>ALL</b>																			

<b>SINGAPORE : MALAY RESIDENTS 2003-2007, MALES</b>		<b>NUMBER OF CASES BY AGE GROUP (YEARS)</b>																	<b>Appendix B5</b>	
<b>SITE</b>	<b>All</b>	<b>Unkn.</b>	<b>0-</b>	<b>5-</b>	<b>10-</b>	<b>15-</b>	<b>20-</b>	<b>25-</b>	<b>30-</b>	<b>35-</b>	<b>40-</b>	<b>45-</b>	<b>50-</b>	<b>55-</b>	<b>60-</b>	<b>65-</b>	<b>70-</b>	<b>75-</b>	<b>80+</b>	<b>ICD-9</b>
Lip, Vermilion	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	140
Tongue	5	-	-	-	-	-	-	-	-	-	2	1	1	-	-	-	-	-	1	141
Salivary gland	6	-	-	-	-	-	1	-	-	-	1	-	-	1	-	1	-	2	-	142
Mouth	7	-	-	-	-	1	1	-	-	-	-	-	-	-	-	1	3	1	-	143-5
Oropharynx	2	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	146
Nasopharynx	84	-	-	-	2	-	-	-	2	4	15	15	19	7	7	7	4	1	1	147
Hypopharynx	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	148
Oesophagus	10	-	-	-	-	-	-	-	-	1	1	-	-	2	1	1	1	2	1	150
Stomach	54	-	-	-	-	-	2	-	-	1	2	5	4	6	6	9	7	5	7	151
Small intestines	8	-	-	-	-	-	-	-	-	-	-	1	1	-	2	3	1	-	-	152
Colon	146	-	-	-	-	-	1	-	1	4	10	8	12	12	21	19	16	20	22	153
Rectum	122	-	-	-	-	-	-	2	1	6	5	10	17	10	12	16	19	15	9	154
Liver	139	-	-	-	-	-	-	-	1	2	3	10	18	25	13	15	18	22	12	155
Gall bladder, etc.	15	-	-	-	-	-	-	-	-	-	1	2	1	1	1	1	4	1	3	156
Pancreas	46	-	-	-	-	-	1	-	-	1	3	1	5	5	6	7	5	7	5	157
Retroperitoneum & Peritoneum	6	-	-	-	-	-	1	-	-	-	-	-	-	1	1	1	1	-	1	158
Nose, sinuses, etc.	4	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	1	-	-	160
Larynx	24	-	-	-	-	-	-	-	-	-	-	2	3	3	1	2	1	4	8	161
Bronchus, trachea	356	-	-	-	-	1	1	-	2	1	14	23	34	39	32	52	58	55	44	162
Pleura	3	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	163
Thymus, heart	11	-	-	-	2	1	1	1	-	-	2	2	-	1	-	-	-	-	1	164
Bone	9	-	1	-	-	-	2	1	-	-	-	-	2	1	-	-	1	-	1	170
Connective tissues	16	-	-	1	1	1	1	1	2	1	3	2	-	1	-	1	-	-	1	171
Melanoma of skin	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	172
Skin, others	35	-	-	-	-	-	-	-	-	-	4	3	3	1	4	5	7	3	5	173
Male Breast	2	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	175
Prostate	169	-	-	-	-	-	-	-	-	-	-	-	10	14	21	31	25	35	33	185
Testis	15	-	1	-	-	1	3	2	2	2	2	1	1	-	-	-	-	-	-	186
Penis	3	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	187
Bladder	63	-	-	-	-	-	-	-	-	1	2	9	7	5	6	7	9	7	10	188
Kidney & Oth.Urinary	53	-	1	-	1	-	-	-	-	2	4	7	5	8	6	8	2	6	3	189
Eye	2	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	190
Brain, nervous system	31	-	3	1	1	5	-	1	1	1	4	2	3	3	2	-	1	3	-	191-2
Thyroid	28	-	-	-	-	2	2	2	2	2	5	4	2	1	1	3	1	1	-	193
Other endocrine	6	-	1	-	1	1	1	-	1	-	1	-	-	-	-	-	-	-	-	194
Lymphoid neoplasms	178	-	8	3	5	4	7	6	1	8	11	14	23	10	15	24	19	12	8	
Myeloid neoplasms	52	-	2	-	-	-	1	3	2	3	5	2	7	5	4	5	3	7	3	
Other and unspecified	38	-	-	-	-	-	-	-	1	-	-	3	4	2	9	8	4	4	3	OTH
<b>All</b>	<b>1752</b>	<b>-</b>	<b>18</b>	<b>5</b>	<b>13</b>	<b>17</b>	<b>26</b>	<b>19</b>	<b>19</b>	<b>41</b>	<b>102</b>	<b>131</b>	<b>185</b>	<b>167</b>	<b>171</b>	<b>229</b>	<b>213</b>	<b>214</b>	<b>182</b>	<b>ALL</b>

SINGAPORE : MALAY RESIDENTS 2003-2007, FEMALES			NUMBER OF CASES BY AGE GROUP (YEARS)																Appendix B6	
SITE	All	Unkn.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9
Lip, Vermilion	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	140
Tongue	12	-	-	-	-	-	-	-	-	-	1	3	-	2	-	-	-	3	3	141
Salivary gland	8	-	-	-	1	-	-	-	-	-	2	1	2	1	-	-	-	1	-	142
Mouth	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	143-5
Oropharynx	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	146
Nasopharynx	17	-	-	-	-	-	-	1	-	2	3	1	4	3	2	1	-	-	-	147
Hypopharynx	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	148
Oesophagus	3	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1	150
Stomach	35	-	-	-	-	-	1	1	-	1	3	3	5	3	-	2	8	5	3	151
Small intestines	2	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	152
Colon	140	-	-	-	-	-	4	2	1	3	9	7	10	23	17	18	20	8	18	153
Rectum	81	-	-	-	-	-	-	-	-	5	4	2	6	14	11	16	9	4	10	154
Liver	44	-	-	-	-	2	-	-	-	2	-	1	3	1	6	4	10	9	6	155
Gall bladder, etc.	17	-	-	-	-	-	1	-	-	1	1	1	1	-	1	3	5	2	1	156
Pancreas	46	-	-	-	-	-	-	-	-	-	2	4	3	13	3	10	1	4	6	157
Retroperitoneum & Peritoneum	7	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	3	-	1	158
Nose, sinuses, etc.	9	-	-	-	-	-	-	-	-	-	2	1	-	1	-	-	3	2	-	160
Larynx	6	-	-	-	-	-	-	1	-	-	-	-	1	1	-	-	-	1	2	161
Bronchus, trachea	141	-	-	-	-	-	-	-	1	5	8	17	11	22	13	19	16	15	14	162
Pleura	2	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	163
Thymus, heart	3	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	164
Bone	9	-	-	-	3	-	1	1	-	-	1	-	-	2	-	-	-	-	1	170
Connective tissues	8	-	-	-	1	-	-	-	-	1	2	-	1	2	-	1	-	-	-	171
Melanoma of skin	5	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	3	172
Skin, others	37	-	-	1	-	1	-	1	-	1	1	6	1	5	3	6	2	4	5	173
Female Breast	724	-	-	-	-	2	-	11	23	56	132	135	114	79	60	35	44	17	16	174
Cervix uteri	103	-	-	-	-	-	1	1	4	10	8	18	10	9	8	14	13	4	3	180
Chorioepithelioma	2	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	181
Corpus uteri	138	-	-	-	-	-	1	-	5	4	13	24	23	21	11	19	9	5	3	182
Ovary, etc.	163	-	-	-	-	7	14	3	6	8	28	21	20	22	12	7	11	-	4	183
Other fem. genital	9	-	-	-	-	-	-	-	1	-	1	-	1	1	-	1	-	3	1	184
Bladder	14	-	-	-	-	-	-	-	-	-	1	1	-	3	1	3	3	1	1	188
Kidney & Oth.Urinary	27	-	-	-	-	1	-	-	-	1	1	1	3	2	1	5	7	3	2	189
Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190
Brain, nervous system	22	-	-	3	2	1	-	-	2	2	1	3	2	1	-	1	-	3	1	191-2
Thyroid	95	-	-	-	1	5	5	5	10	10	11	12	9	10	8	2	3	3	1	193
Other endocrine	6	-	2	-	-	-	1	-	-	-	-	-	1	-	1	-	1	-	-	194
Lymphoid neoplasms	156	-	7	6	2	6	7	1	6	7	8	12	15	22	11	21	13	8	4	
Myeloid neoplasms	47	-	1	1	1	2	2	-	2	4	1	5	5	4	1	5	4	4	5	
Other and unspecified	27	-	-	-	-	-	-	-	-	-	2	2	2	2	1	3	6	3	6	OTH
<b>All</b>	<b>2170</b>	<b>-</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>27</b>	<b>39</b>	<b>29</b>	<b>61</b>	<b>125</b>	<b>249</b>	<b>283</b>	<b>255</b>	<b>271</b>	<b>172</b>	<b>197</b>	<b>191</b>	<b>114</b>	<b>124</b>	<b>ALL</b>

SINGAPORE : INDIAN RESIDENTS 2003-2007, MALES			NUMBER OF CASES BY AGE GROUP (YEARS)																	Appendix B7	
SITE	All	Unkn.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9	
Lip, Vermilion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140
Tongue	23	-	-	-	-	-	-	-	-	-	-	1	3	2	2	3	3	3	6	-	141
Salivary gland	5	-	-	1	1	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	142
Mouth	17	-	-	-	-	-	-	-	-	-	-	-	4	4	3	1	4	1	-	-	143-5
Oropharynx	9	-	-	-	-	-	-	-	-	-	-	3	-	-	1	3	1	1	-	-	146
Nasopharynx	8	-	-	-	2	-	-	-	-	1	-	-	3	1	1	-	-	-	-	-	147
Hypopharynx	7	-	-	-	-	-	-	-	-	-	1	1	1	1	2	-	-	-	-	1	148
Oesophagus	16	-	-	-	-	-	-	-	-	-	-	-	5	1	2	-	3	2	3	-	150
Stomach	70	-	-	-	-	-	-	-	-	1	2	6	6	7	3	14	11	12	8	-	151
Small intestines	3	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	152
Colon	55	-	-	-	-	-	-	-	2	1	3	1	3	5	7	6	11	6	10	-	153
Rectum	72	-	-	-	-	-	-	-	1	1	3	6	8	11	9	7	13	7	6	-	154
Liver	64	-	-	-	-	-	-	-	-	-	-	3	4	11	7	11	5	16	7	-	155
Gall bladder, etc.	16	-	-	-	-	-	-	-	-	-	-	2	-	3	2	-	4	2	3	-	156
Pancreas	31	-	-	-	-	-	-	-	1	-	3	-	4	6	4	2	5	3	3	-	157
Retroperitoneum & Peritoneum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	158
Nose, sinuses, etc.	3	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	-	-	160
Larynx	22	-	-	-	-	-	-	-	-	-	-	3	2	4	2	5	1	4	1	-	161
Bronchus, trachea	122	-	-	-	-	-	-	-	-	-	5	6	13	15	16	16	20	15	16	-	162
Pleura	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	163
Thymus, heart	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	164
Bone	7	-	-	-	2	-	-	1	-	-	-	2	-	-	1	-	-	-	1	-	170
Connective tissues	5	-	-	-	1	-	-	-	-	-	1	-	1	1	-	-	-	-	1	-	171
Melanoma of skin	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	172
Skin, others	25	-	-	-	-	-	1	-	-	1	1	1	1	6	3	6	-	1	4	-	173
Male Breast	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	175
Prostate	117	-	-	-	-	-	-	-	-	-	-	1	3	11	10	16	30	28	18	-	185
Testis	7	-	-	-	-	1	1	-	2	-	1	1	-	1	-	-	-	-	-	-	186
Penis	3	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	187
Bladder	38	-	-	-	-	-	-	1	-	2	-	2	4	4	2	7	4	7	5	-	188
Kidney & Oth.Urinary	35	-	-	-	-	-	1	-	-	-	4	3	2	7	3	7	2	6	-	-	189
Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190
Brain, nervous system	20	-	1	1	-	-	-	-	1	1	3	1	3	1	5	2	-	1	-	-	191-2
Thyroid	12	-	-	-	-	1	-	-	1	1	1	1	1	1	1	4	-	-	-	-	193
Other endocrine	4	-	-	-	-	-	-	-	1	2	-	-	-	1	-	-	-	-	-	-	194
Lymphoid neoplasms	80	-	7	4	3	2	3	3	2	3	2	7	10	8	5	6	7	5	3	-	
Myeloid neoplasms	27	-	1	1	-	-	-	4	-	4	3	3	5	-	2	1	2	-	1	-	
Other and unspecified	31	-	1	-	-	-	1	-	1	-	1	-	1	3	3	6	7	2	5	-	OTH
<b>All</b>	<b>960</b>	<b>-</b>	<b>10</b>	<b>7</b>	<b>9</b>	<b>4</b>	<b>7</b>	<b>9</b>	<b>12</b>	<b>18</b>	<b>37</b>	<b>54</b>	<b>90</b>	<b>118</b>	<b>97</b>	<b>125</b>	<b>134</b>	<b>127</b>	<b>102</b>	<b>ALL</b>	

SINGAPORE : INDIAN RESIDENTS 2003-2007, FEMALES				NUMBER OF CASES BY AGE GROUP (YEARS)															Appendix B8	
SITE	All	Unkn.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9
Lip, Vermilion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140
Tongue	9	-	-	-	-	-	-	-	1	-	-	-	2	-	-	2	2	1	1	141
Salivary gland	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	142
Mouth	14	-	-	-	-	-	-	-	-	1	-	1	-	1	3	4	3	1	-	143-5
Oropharynx	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	146
Nasopharynx	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	147
Hypopharynx	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	148
Oesophagus	7	-	-	-	-	-	-	-	-	1	3	-	-	-	-	-	1	1	1	150
Stomach	32	-	-	-	-	-	-	2	1	2	1	3	1	2	3	6	3	5	3	151
Small intestines	13	-	-	-	-	-	-	-	1	1	1	2	1	-	-	3	2	1	1	152
Colon	50	-	-	-	-	-	-	2	-	2	3	5	7	6	1	3	8	11	2	153
Rectum	27	-	-	-	-	-	-	-	-	1	3	1	1	5	4	5	5	2	-	154
Liver	20	-	2	-	-	-	-	-	-	-	-	-	-	2	2	4	4	4	2	155
Gall bladder, etc.	8	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	3	2	156
Pancreas	14	-	-	-	-	-	-	-	-	-	1	-	-	2	2	1	3	3	2	157
Retroperitoneum & Peritoneum	4	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	1	-	158
Nose, sinuses, etc.	2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	160
Larynx	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	161
Bronchus, trachea	26	-	-	-	-	-	-	-	-	2	2	1	4	2	2	4	4	-	5	162
Pleura	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	163
Thymus, heart	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	164
Bone	5	-	-	1	-	1	-	-	-	-	-	-	1	1	-	1	-	-	-	170
Connective tissues	4	-	1	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1	-	171
Melanoma of skin	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	172
Skin, others	14	-	-	-	-	-	-	-	-	3	-	3	1	1	2	1	2	-	1	173
Female Breast	367	-	-	-	-	-	1	2	4	20	51	70	63	54	28	33	17	14	10	174
Cervix uteri	25	-	-	-	-	-	1	-	-	-	4	3	4	2	4	2	3	-	2	180
Chorioepithelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	181
Corpus uteri	80	-	-	-	-	-	1	-	2	3	9	10	7	13	10	8	9	5	3	182
Ovary, etc.	76	-	-	-	3	-	1	4	7	4	9	7	13	11	2	5	6	1	3	183
Other fem. genital	4	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	1	-	184
Bladder	11	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	4	1	2	188
Kidney & Oth. Urinary	21	-	-	1	-	-	-	-	1	-	1	4	2	1	4	1	5	1	-	189
Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190
Brain, nervous system	12	-	-	-	-	1	-	1	-	-	2	3	2	1	2	-	-	-	-	191-2
Thyroid	38	-	-	-	-	-	-	3	3	7	6	5	4	2	3	3	1	-	1	193
Other endocrine	3	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	194
Lymphoid neoplasms	54	-	2	3	1	4	2	1	4	-	2	2	3	7	3	10	5	3	2	
Myeloid neoplasms	15	-	1	-	-	-	-	3	-	-	1	-	4	1	1	-	2	1	1	
Other and unspecified	16	-	-	-	-	-	-	-	1	-	1	1	3	1	-	1	4	2	2	OTH
<b>All</b>	<b>981</b>	<b>-</b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>7</b>	<b>7</b>	<b>18</b>	<b>25</b>	<b>49</b>	<b>100</b>	<b>126</b>	<b>125</b>	<b>122</b>	<b>78</b>	<b>101</b>	<b>97</b>	<b>63</b>	<b>47</b>	<b>ALL</b>

SINGAPORE : ALL RESIDENTS 2003-2007, MALES			INCIDENCE RATES BY AGE GROUP (YEARS)																Appendix C1		
SITE	CR	ASR	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9	
Lip, Vermilion	0.1	0.1	-	-	-	-	-	-	-	-	-	0.1	0.2	0.2	0.3	0.4	-	0.9	-	140	
Tongue	1.8	1.5	-	-	-	-	0.2	-	0.4	0.3	1.7	2.6	2.2	3.5	5.0	12.8	7.0	7.4	18.3	141	
Salivary gland	0.8	0.7	-	0.2	0.2	-	0.2	0.2	0.3	0.5	0.6	0.3	1.6	2.3	1.0	2.9	1.7	8.3	8.6	142	
Mouth	1.5	1.3	-	-	-	0.2	0.2	-	0.1	-	0.4	1.2	2.6	3.9	5.3	7.4	13.9	9.3	9.7	143-5	
Oropharynx	0.9	0.8	-	-	-	-	-	-	-	0.1	0.1	0.8	1.7	2.5	3.7	7.0	5.8	4.6	7.5	146	
Nasopharynx	13.9	10.8	-	-	0.6	0.2	1.1	2.0	6.4	11.1	21.8	27.6	32.4	33.9	36.0	35.1	30.2	26.0	14.0	147	
Hypopharynx	1.3	1.2	-	-	-	-	-	-	-	-	0.5	0.6	1.9	2.5	6.7	6.6	10.5	10.2	11.8	148	
Oesophagus	3.9	3.6	-	-	-	-	-	-	-	0.7	0.6	1.8	3.9	8.9	18.6	19.0	33.1	33.4	50.6	150	
Stomach	16.0	14.5	-	-	-	-	0.5	0.8	0.1	1.3	5.4	6.1	12.4	23.9	45.6	87.0	136.5	237.5	248.7	151	
Small intestines	1.0	0.9	-	-	-	-	-	0.3	-	0.3	0.2	1.0	1.4	2.3	2.7	6.6	8.1	4.6	6.5	152	
Colon	25.4	23.0	-	-	-	0.2	0.7	1.0	1.9	3.2	7.3	11.9	28.1	53.2	84.9	150.9	196.9	264.4	334.8	153	
Rectum	19.9	17.5	-	-	-	-	0.2	0.8	2.0	4.6	7.2	14.0	32.9	47.4	73.6	100.6	130.1	172.5	188.4	154	
Liver	19.7	17.8	0.6	0.2	0.2	0.2	0.5	0.2	1.4	2.8	5.1	11.3	26.4	46.7	82.2	109.7	137.0	187.4	199.1	155	
Gall bladder, etc.	2.0	1.8	-	-	-	-	-	-	-	0.1	0.2	0.9	2.2	4.4	6.0	8.7	23.2	18.6	29.1	156	
Pancreas	6.6	5.8	-	-	-	-	0.2	0.2	0.6	0.5	2.3	3.5	9.8	14.7	17.6	37.9	52.3	62.2	79.7	157	
Retroperitoneum & Peritoneum	0.3	0.3	-	-	-	-	0.2	-	0.1	-	-	-	0.3	0.6	1.7	1.6	4.1	0.9	1.1	158	
Nose, sinuses, etc.	1.0	0.9	0.2	-	-	-	-	0.3	0.3	0.7	0.6	1.0	1.2	2.3	3.7	6.6	5.2	1.9	3.2	160	
Larynx	4.1	3.7	-	-	-	-	-	-	-	0.3	1.0	2.3	4.7	10.6	16.0	20.6	28.5	41.7	54.9	161	
Bronchus, trachea	44.4	40.8	-	0.2	-	0.5	0.4	0.2	1.9	2.7	9.6	18.5	36.0	70.8	153.5	266.8	417.5	574.2	589.9	162	
Pleura	0.5	0.4	-	-	-	-	-	0.2	-	-	0.1	0.1	0.9	0.4	1.7	1.6	6.4	6.5	3.2	163	
Thymus, heart	1.1	1.0	0.2	0.2	0.5	1.3	1.3	1.0	0.4	0.8	1.0	1.0	0.6	2.3	2.7	3.3	1.7	3.7	3.2	164	
Bone	0.9	0.9	0.2	0.8	0.9	1.0	1.5	1.7	0.4	0.1	0.6	1.2	0.9	0.8	0.7	1.2	1.2	2.8	2.2	170	
Connective tissues	2.1	1.9	1.0	0.8	0.5	0.7	0.4	0.5	1.1	1.3	2.3	3.4	2.6	4.2	5.7	5.4	5.2	10.2	10.8	171	
Melanoma of skin	0.6	0.5	-	-	-	-	0.2	0.5	0.4	0.4	0.4	0.8	0.8	1.0	1.0	3.7	1.2	4.6	1.1	172	
Skin, others	10.7	9.6	-	0.2	0.2	-	0.7	0.5	1.9	2.8	4.9	6.7	10.6	18.1	36.3	52.4	66.2	106.7	181.9	173	
Male Breast	0.2	0.2	-	-	-	-	-	-	-	-	-	-	0.1	0.3	0.2	2.0	0.8	0.6	2.8	1.1	175
Prostate	25.2	23.9	-	-	-	-	-	-	-	0.3	0.4	2.2	10.6	45.3	106.5	183.1	252.0	340.4	318.6	185	
Testis	1.3	1.2	1.2	-	-	1.3	2.0	2.8	3.0	1.6	2.3	1.0	0.8	1.2	0.3	-	-	0.9	1.1	186	
Penis	1.1	0.9	-	-	-	-	-	-	-	0.1	0.6	0.4	2.0	1.9	3.3	5.8	9.3	13.0	7.5	187	
Bladder	7.8	7.1	-	-	-	-	-	0.8	0.6	1.5	1.2	4.7	8.5	13.1	23.3	40.8	56.9	91.8	134.6	188	
Kidney & Oth.Urinary	7.2	6.2	0.6	-	0.2	-	0.2	0.5	0.7	2.4	4.8	6.5	13.5	19.7	24.3	34.2	42.4	51.0	36.6	189	
Eye	0.2	0.3	1.7	-	-	-	0.2	-	-	-	0.1	-	0.3	0.6	-	0.4	-	-	2.2	190	
Brain, nervous system	3.3	3.1	3.1	1.1	2.6	2.0	2.0	1.2	1.7	2.5	2.2	3.2	4.2	6.6	8.0	8.7	7.0	11.1	8.6	191-2	
Thyroid	2.5	2.1	-	-	0.3	0.7	0.7	2.0	2.8	1.7	2.0	3.1	4.7	5.0	5.7	9.9	7.5	6.5	5.4	193	
Other endocrine	0.6	0.6	1.0	0.5	0.9	0.7	0.4	0.2	0.4	0.4	0.4	0.6	0.5	0.6	1.0	-	2.3	-	-	194	
Lymphoid neoplasms	15.2	14.4	9.9	6.0	5.1	5.8	5.8	5.5	4.4	6.7	9.6	12.7	20.0	25.6	38.6	58.6	83.0	89.1	87.2		
Myeloid neoplasms	5.1	4.6	2.1	0.7	0.5	0.8	0.9	2.8	2.1	2.5	3.6	3.9	9.0	8.7	11.0	19.0	26.7	37.1	38.8		
Other and unspecified	4.8	4.3	0.2	-	-	-	0.2	0.3	0.6	1.1	1.4	2.8	5.9	10.0	13.0	28.0	33.1	40.8	76.4	OTH	
<b>All</b>	<b>254.7</b>	<b>230.0</b>	<b>21.9</b>	<b>10.8</b>	<b>12.4</b>	<b>15.3</b>	<b>20.8</b>	<b>26.6</b>	<b>36.2</b>	<b>55.7</b>	<b>102.9</b>	<b>160.0</b>	<b>298.6</b>	<b>500.0</b>	<b>848.9</b>	<b>1345.2</b>	<b>1844.4</b>	<b>2485.2</b>	<b>2776.1</b>	<b>ALL</b>	

SINGAPORE : ALL RESIDENTS 2003-2007, FEMALES			INCIDENCE RATES BY AGE GROUP (YEARS)																	Appendix C2	
SITE	CR	ASR	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9	
Lip, Vermilion	0.0	0.0	-	-	-	-	-	-	-	0.1	-	0.1	-	-	-	-	0.5	-	0.6	140	
Tongue	0.8	0.6	-	-	-	0.2	-	-	0.3	0.1	0.4	0.7	1.1	1.7	1.3	4.9	2.9	6.2	8.1	141	
Salivary gland	0.7	0.5	-	-	0.3	0.2	0.2	0.2	0.8	0.5	1.1	0.5	1.1	2.3	1.0	0.7	0.5	3.4	3.1	142	
Mouth	0.7	0.5	-	-	-	-	-	-	0.1	0.4	0.1	0.8	0.6	1.0	1.6	3.0	2.5	3.4	11.8	143-5	
Oropharynx	0.3	0.2	-	-	-	-	-	-	-	-	0.1	0.7	0.9	0.2	1.0	0.4	0.5	1.4	2.5	146	
Nasopharynx	4.6	3.4	-	-	-	0.2	0.6	1.1	3.3	4.2	6.0	8.5	10.3	12.0	8.6	7.9	9.3	13.7	8.1	147	
Hypopharynx	0.1	0.1	-	-	-	-	-	0.2	0.1	-	-	-	0.2	-	-	-	1.5	1.4	2.5	148	
Oesophagus	1.0	0.7	-	-	-	-	-	-	-	0.3	0.5	0.5	-	0.8	1.6	1.5	3.9	10.3	25.5	150	
Stomach	10.1	7.4	-	-	-	-	0.2	0.6	1.1	2.7	4.1	6.5	9.9	12.0	19.0	42.7	55.5	110.4	124.1	151	
Small intestines	0.8	0.6	-	-	0.2	-	-	0.3	0.4	0.1	0.6	0.7	0.5	2.1	1.3	3.4	3.9	6.2	5.0	152	
Colon	25.6	19.1	-	-	-	0.2	1.7	1.2	1.6	3.0	8.3	14.4	33.5	48.3	66.6	87.2	154.2	210.6	311.6	153	
Rectum	13.0	9.9	-	-	-	-	0.2	0.2	0.9	3.3	4.6	10.0	17.2	29.9	35.5	60.3	67.3	96.7	113.6	154	
Liver	6.3	4.7	1.0	0.2	-	0.3	0.2	-	0.3	0.8	1.5	2.1	3.5	7.4	13.6	22.8	46.2	81.6	80.1	155	
Gall bladder, etc.	2.5	1.8	-	-	-	-	0.2	-	0.1	0.1	0.9	1.3	2.7	4.3	4.8	12.4	13.3	24.7	29.2	156	
Pancreas	5.4	4.0	-	-	-	0.2	-	0.3	0.4	0.5	1.3	2.5	4.3	9.1	15.9	22.1	32.4	50.8	68.9	157	
Retroperitoneum & Peritoneum	0.6	0.5	0.2	0.2	0.3	-	0.2	0.2	0.1	0.4	0.5	0.5	0.6	1.2	1.6	1.9	3.9	2.1	3.1	158	
Nose, sinuses, etc.	0.6	0.5	-	-	-	-	-	0.2	0.3	0.7	1.4	0.8	0.5	1.2	0.3	1.5	3.4	2.7	3.1	160	
Larynx	0.4	0.3	-	-	-	-	-	0.2	-	-	0.1	0.4	0.3	0.4	0.3	0.7	3.4	4.1	5.0	161	
Bronchus, trachea	21.4	16.0	-	-	0.2	0.2	0.4	0.5	0.9	2.9	6.9	13.1	20.7	39.4	57.1	84.6	135.1	174.9	260.7	162	
Pleura	0.1	0.1	-	-	-	-	0.2	-	-	-	-	-	0.3	0.2	0.3	-	-	0.7	0.6	163	
Thymus, heart	0.7	0.5	0.2	-	-	-	0.4	-	0.5	0.3	0.6	0.9	1.6	1.9	1.0	2.2	2.5	2.1	1.9	164	
Bone	0.6	0.6	-	0.7	1.6	0.7	0.4	0.3	0.4	0.5	0.5	0.4	0.8	1.2	0.6	0.7	0.5	2.1	0.6	170	
Connective tissues	1.5	1.2	0.6	0.2	0.5	0.7	0.4	0.5	1.6	0.9	1.5	1.6	2.7	2.7	2.9	2.2	3.9	2.1	8.7	171	
Melanoma of skin	0.7	0.5	-	-	-	-	0.2	0.2	0.5	0.4	0.4	0.8	0.5	1.7	1.3	1.1	2.5	3.4	6.8	172	
Skin, others	9.0	6.6	-	0.2	-	0.3	-	1.1	1.2	2.5	2.4	4.9	7.3	10.9	17.4	37.1	54.0	54.9	152.7	173	
Female Breast	77.8	58.5	-	-	-	0.7	1.1	7.5	23.5	55.0	112.0	157.9	181.3	195.0	192.5	187.6	159.1	172.8	170.1	174	
Cervix uteri	11.5	8.8	-	-	-	-	0.9	1.4	4.6	9.4	13.4	19.2	19.3	20.2	28.5	41.2	46.2	36.4	42.8	180	
Chorioepithelioma	0.1	0.1	-	-	-	-	0.2	0.2	0.1	0.1	0.4	0.1	0.3	-	-	-	-	-	-	181	
Corpus uteri	15.2	11.7	-	-	-	-	0.7	2.4	4.2	6.9	13.7	26.8	41.4	48.3	41.5	44.9	39.3	30.2	27.3	182	
Ovary, etc.	15.2	12.0	0.2	0.2	1.3	4.4	8.9	6.7	7.0	11.3	15.1	23.6	35.2	35.1	33.3	32.6	31.4	27.4	44.7	183	
Other fem. genital	1.3	1.0	-	0.2	-	-	-	-	0.4	0.3	0.4	1.6	1.3	3.5	3.8	5.2	3.9	12.3	7.4	184	
Bladder	2.6	1.9	-	-	-	-	-	0.2	0.1	0.4	0.8	0.7	0.9	4.1	7.3	11.6	17.2	23.3	36.0	188	
Kidney & Oth.Urinary	3.8	3.1	0.6	0.2	-	0.3	0.2	0.2	0.3	0.9	2.3	3.4	4.4	6.4	13.0	20.2	21.1	26.1	21.1	189	
Eye	0.2	0.2	1.0	0.3	-	-	0.2	-	-	-	-	-	0.3	0.2	0.6	0.4	0.5	-	0.6	190	
Brain, nervous system	2.7	2.6	2.3	2.6	1.8	1.9	1.5	1.7	1.5	1.2	1.6	3.2	2.4	5.8	5.4	6.4	5.4	11.0	7.4	191-2	
Thyroid	7.4	5.8	-	-	0.5	1.7	3.9	6.6	9.5	8.7	8.2	10.8	13.3	11.8	13.6	11.6	13.3	17.8	8.7	193	
Other endocrine	0.5	0.5	0.8	-	0.5	0.3	0.4	0.2	-	0.4	0.5	0.3	1.1	0.6	0.6	1.1	1.5	-	1.2	194	
Lymphoid neoplasms	11.1	10.0	7.6	4.9	3.7	5.9	5.4	4.0	4.2	4.4	6.0	7.4	15.5	22.1	29.2	33.7	36.8	46.6	59.6		
Myeloid neoplasms	4.1	3.5	1.4	1.0	1.0	1.6	2.0	2.0	2.2	2.1	2.3	3.7	4.6	7.4	8.2	13.9	16.7	23.3	21.1		
Other and unspecified	4.5	3.3	0.2	-	-	0.3	0.2	0.2	0.5	1.0	1.3	2.6	6.8	7.6	10.1	13.1	24.6	36.4	60.2	OTH	
<b>All</b>	<b>265.3</b>	<b>203.4</b>	<b>16.2</b>	<b>10.8</b>	<b>11.7</b>	<b>20.4</b>	<b>30.8</b>	<b>39.9</b>	<b>73.2</b>	<b>126.8</b>	<b>221.8</b>	<b>334.0</b>	<b>448.9</b>	<b>560.2</b>	<b>642.0</b>	<b>824.8</b>	<b>1020.6</b>	<b>1333.3</b>	<b>1746.1</b>	<b>ALL</b>	

SINGAPORE : CHINESE RESIDENTS 2003-2007, MALES			INCIDENCE RATES BY AGE GROUP (YEARS)																Appendix C3		
SITE	CR	ASR	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9	
Lip, Vermilion	0.1	0.1	-	-	-	-	-	-	-	-	-	-	0.2	0.2	0.3	0.4	-	-	1.2	-	140
Tongue	1.9	1.5	-	-	-	-	0.2	-	0.6	0.2	2.0	3.0	1.7	3.8	4.4	14.0	6.6	6.0	13.8	141	
Salivary gland	0.9	0.7	-	-	-	-	-	0.2	0.4	0.7	0.5	0.3	1.7	2.5	1.2	3.0	2.2	7.2	11.1	142	
Mouth	1.6	1.3	-	-	-	-	-	-	0.2	-	0.5	1.5	2.5	3.5	5.2	8.0	12.4	9.7	12.4	143-5	
Oropharynx	1.1	0.9	-	-	-	-	-	-	-	0.2	-	0.3	2.1	3.0	4.0	7.0	6.6	4.8	9.7	146	
Nasopharynx	16.9	12.5	-	-	-	0.2	1.5	2.6	8.1	14.0	26.4	32.8	36.1	39.2	39.8	38.9	32.9	32.6	16.6	147	
Hypopharynx	1.6	1.3	-	-	-	-	-	-	-	-	0.5	0.7	2.1	2.5	7.2	8.0	13.2	13.3	13.8	148	
Oesophagus	4.7	4.1	-	-	-	-	-	-	-	0.7	0.7	2.3	3.9	10.1	21.1	22.4	38.1	38.6	58.1	150	
Stomach	19.0	16.3	-	-	-	-	0.2	1.1	0.2	1.5	6.4	6.0	13.3	25.5	50.1	92.7	157.4	283.5	294.6	151	
Small intestines	1.0	0.9	-	-	-	-	-	0.4	-	0.4	0.3	1.0	1.2	2.3	2.4	6.0	8.1	6.0	8.3	152	
Colon	30.2	25.7	-	-	-	0.2	0.7	1.3	1.9	3.4	6.9	13.5	31.8	59.4	89.5	167.9	226.9	306.4	379.0	153	
Rectum	23.0	19.0	-	-	-	-	0.2	0.6	2.1	4.5	8.3	14.8	35.5	52.3	79.2	109.1	139.1	194.2	215.8	154	
Liver	22.8	19.4	0.9	0.2	0.2	0.2	0.7	0.2	1.7	3.4	6.1	12.2	28.0	47.5	90.3	118.1	153.7	196.6	226.8	155	
Gall bladder, etc.	2.1	1.8	-	-	-	-	-	-	-	0.2	0.2	0.5	2.5	4.0	6.0	10.0	23.4	20.5	26.3	156	
Pancreas	7.5	6.3	-	-	-	-	-	-	0.6	0.5	2.1	4.2	10.4	14.9	17.1	41.4	58.6	68.8	91.3	157	
Retroperitoneum & Peritoneum	0.3	0.3	-	-	-	-	-	-	0.2	-	-	-	0.4	0.5	1.6	1.5	4.4	1.2	-	158	
Nose, sinuses, etc.	1.2	1.0	0.3	-	-	-	-	0.4	0.4	0.9	0.7	1.2	1.5	2.3	4.4	7.5	4.4	2.4	4.1	160	
Larynx	4.6	3.9	-	-	-	-	-	-	-	0.4	1.3	2.2	4.8	10.9	17.9	21.4	32.9	44.6	55.3	161	
Bronchus, trachea	51.1	44.3	-	0.2	-	0.5	0.2	0.2	2.1	3.4	9.6	18.8	35.5	72.0	161.5	287.0	464.9	655.0	663.9	162	
Pleura	0.6	0.5	-	-	-	-	-	0.2	-	-	0.2	-	1.0	0.5	1.6	1.5	8.1	7.2	4.1	163	
Thymus, heart	1.2	1.1	0.3	0.2	0.2	1.6	1.5	1.1	0.6	1.1	0.8	1.0	0.8	2.5	3.2	4.0	2.2	3.6	2.8	164	
Bone	0.9	0.9	-	1.2	0.9	1.4	1.2	1.5	0.6	0.2	0.5	1.2	0.8	0.8	0.4	1.5	0.7	3.6	-	170	
Connective tissues	2.4	2.0	1.2	0.9	0.2	0.7	0.2	0.4	1.1	1.5	2.5	4.0	2.9	4.5	6.8	6.0	6.6	13.3	9.7	171	
Melanoma of skin	0.6	0.5	-	-	-	-	0.2	0.6	0.2	0.4	0.2	0.8	0.4	1.3	1.2	4.5	0.7	2.4	1.4	172	
Skin, others	11.8	10.0	-	0.2	0.2	-	0.7	0.6	2.2	2.2	4.1	6.3	10.6	16.4	33.8	51.8	73.2	129.1	211.6	173	
Male Breast	0.2	0.2	-	-	-	-	-	-	-	-	-	-	0.2	0.3	2.0	1.0	0.7	3.6	1.4	175	
Prostate	28.3	25.2	-	-	-	-	-	-	-	0.4	0.3	2.7	9.6	46.7	111.0	194.8	273.1	360.7	332.0	185	
Testis	1.4	1.3	1.4	-	-	1.4	1.7	3.2	2.8	1.6	2.5	1.0	0.8	1.3	0.4	-	-	1.2	1.4	186	
Penis	1.3	1.1	-	-	-	-	-	-	-	0.2	0.7	0.5	2.1	1.8	4.0	7.0	9.5	14.5	9.7	187	
Bladder	8.5	7.3	-	-	-	-	-	0.9	0.7	1.3	1.3	3.7	7.9	13.4	24.3	39.4	61.5	97.7	149.4	188	
Kidney & Oth.Urinary	7.9	6.4	0.6	-	-	-	-	0.6	0.9	2.9	4.5	6.5	14.8	20.0	25.5	33.9	48.3	48.3	38.7	189	
Eye	0.2	0.4	2.3	-	-	-	0.2	-	-	-	0.2	-	0.2	0.8	-	0.5	-	-	1.4	190	
Brain, nervous system	3.3	3.2	2.9	1.2	3.2	1.6	2.7	1.3	1.9	2.7	1.7	3.3	4.0	6.6	6.4	9.0	8.1	9.7	11.1	191-2	
Thyroid	2.6	2.1	-	-	0.2	0.2	0.5	2.1	3.2	1.8	1.7	3.2	5.2	5.3	6.0	8.5	8.1	7.2	6.9	193	
Other endocrine	0.6	0.6	1.2	0.7	1.1	0.7	0.2	0.2	0.2	0.2	0.3	0.8	0.6	0.3	1.2	-	2.9	-	-	194	
Lymphoid neoplasms	15.8	14.5	9.8	7.1	5.6	6.2	5.5	4.9	5.2	6.3	10.7	12.3	18.5	26.0	37.4	54.3	85.7	94.1	94.1		
Myeloid neoplasms	5.3	4.6	2.0	0.7	0.6	1.2	1.0	2.1	1.7	2.2	3.5	4.2	8.7	9.3	10.7	18.9	28.6	37.4	42.9		
Other and unspecified	5.2	4.3	-	-	-	-	-	0.2	0.4	1.3	1.7	3.2	6.2	10.9	10.7	26.4	32.9	45.8	85.8	OTH	
<b>All</b>	<b>289.7</b>	<b>247.5</b>	<b>22.8</b>	<b>12.7</b>	<b>12.4</b>	<b>16.2</b>	<b>19.8</b>	<b>27.1</b>	<b>39.9</b>	<b>60.6</b>	<b>109.6</b>	<b>170.2</b>	<b>310.5</b>	<b>524.9</b>	<b>889.4</b>	<b>1426.5</b>	<b>2036.6</b>	<b>2772.0</b>	<b>3105.1</b>	<b>ALL</b>	



<b>SINGAPORE : CHINESE RESIDENTS 2003-2007, FEMALES</b>			<b>INCIDENCE RATES BY AGE GROUP (YEARS)</b>																	<b>Appendix C4</b>	
<b>SITE</b>	<b>CR</b>	<b>ASR</b>	<b>0-</b>	<b>5-</b>	<b>10-</b>	<b>15-</b>	<b>20-</b>	<b>25-</b>	<b>30-</b>	<b>35-</b>	<b>40-</b>	<b>45-</b>	<b>50-</b>	<b>55-</b>	<b>60-</b>	<b>65-</b>	<b>70-</b>	<b>75-</b>	<b>80+</b>	<b>ICD-9</b>	
Lip, Vermilion	0.0	0.0	-	-	-	-	-	-	-	-	0.2	-	0.2	-	-	-	-	0.6	-	-	140
Tongue	0.8	0.5	-	-	-	0.2	-	-	0.2	0.2	0.3	0.3	0.8	1.5	1.5	5.0	2.4	4.1	6.3	141	
Salivary gland	0.8	0.5	-	-	0.2	-	-	0.2	1.0	0.7	1.2	0.5	1.0	2.5	1.1	0.9	0.6	3.3	3.5	142	
Mouth	0.7	0.4	-	-	-	-	-	-	0.2	0.3	0.2	0.8	0.8	1.0	0.8	1.8	1.2	3.3	11.8	143-5	
Oropharynx	0.3	0.2	-	-	-	-	-	-	-	-	0.2	0.8	1.2	0.3	0.8	0.5	0.6	0.8	2.8	146	
Nasopharynx	5.7	4.1	-	-	-	0.2	0.8	1.2	4.3	5.2	7.3	10.6	11.8	13.6	9.5	9.1	10.8	15.5	9.0	147	
Hypopharynx	0.2	0.1	-	-	-	-	-	-	0.2	-	-	-	0.2	-	-	-	1.2	1.6	2.8	148	
Oesophagus	1.2	0.7	-	-	-	-	-	-	-	0.2	0.2	0.5	-	1.0	1.5	1.8	4.2	11.4	27.1	150	
Stomach	12.2	8.1	-	-	-	-	-	0.2	1.2	2.9	4.6	7.3	11.2	13.1	21.6	47.7	60.8	123.1	133.3	151	
Small intestines	0.8	0.6	-	-	-	-	-	0.4	0.3	-	0.7	0.5	0.4	2.3	1.5	2.7	3.6	6.5	4.2	152	
Colon	30.6	20.8	-	-	-	0.2	1.3	0.8	1.9	3.1	8.6	16.1	37.9	51.0	72.5	95.8	171.0	233.1	334.0	153	
Rectum	15.4	10.7	-	-	-	-	0.3	0.2	1.2	3.1	5.0	12.3	19.8	31.7	36.8	63.1	74.1	109.2	118.8	154	
Liver	7.2	4.9	0.6	0.3	-	-	0.3	-	0.3	0.7	2.0	2.5	3.7	8.3	13.3	23.6	48.2	86.4	82.6	155	
Gall bladder, etc.	2.8	1.9	-	-	-	-	-	-	0.2	-	1.0	1.4	3.1	5.3	5.3	12.7	13.2	25.3	29.2	156	
Pancreas	6.1	4.2	-	-	-	0.2	-	0.4	0.5	0.7	1.0	2.5	4.7	7.3	17.1	21.8	36.7	54.6	70.8	157	
Retroperitoneum & Peritoneum	0.6	0.5	0.3	0.3	0.2	-	-	0.2	0.2	0.3	0.7	0.3	0.8	1.0	1.9	1.8	3.0	1.6	2.8	158	
Nose, sinuses, etc.	0.7	0.5	-	-	-	-	-	0.2	0.3	0.5	1.5	0.8	0.6	1.3	0.4	1.8	2.4	1.6	3.5	160	
Larynx	0.4	0.2	-	-	-	-	-	-	-	-	0.2	0.3	0.2	0.3	0.4	0.9	3.0	4.1	4.2	161	
Bronchus, trachea	25.4	17.4	-	-	0.2	0.2	0.5	0.4	1.0	2.6	7.5	13.5	22.4	41.0	61.9	92.2	152.3	194.8	277.8	162	
Pleura	0.1	0.1	-	-	-	-	0.3	-	-	-	-	-	-	0.3	0.4	-	-	0.8	-	163	
Thymus, heart	0.8	0.6	0.3	-	-	-	0.5	-	0.7	0.3	0.5	1.2	2.0	2.0	1.1	2.7	3.0	1.6	2.1	164	
Bone	0.6	0.6	-	0.8	1.6	0.7	0.3	0.2	0.5	0.7	0.5	0.5	0.8	0.8	0.8	0.5	0.6	2.4	-	170	
Connective tissues	1.7	1.4	0.6	0.3	0.5	0.7	0.5	0.6	2.1	1.0	1.5	2.0	2.9	2.8	3.4	2.3	4.8	1.6	9.0	171	
Melanoma of skin	0.8	0.5	-	-	-	-	0.3	0.2	0.5	0.3	0.5	0.7	0.6	2.0	1.5	1.4	3.0	4.1	5.6	172	
Skin, others	10.5	7.0	-	-	-	0.2	-	1.2	1.5	2.2	2.3	4.1	7.7	11.1	18.2	39.5	62.0	61.9	164.6	173	
<b>Female Breast</b>	<b>84.1</b>	<b>59.9</b>	-	-	-	0.5	1.3	6.6	24.5	57.7	114.5	164.0	187.5	201.2	195.6	194.4	155.3	174.4	169.4	174	
Cervix uteri	12.9	9.3	-	-	-	-	0.8	1.4	5.1	10.0	14.8	20.6	21.0	21.6	29.6	42.2	47.0	39.1	43.1	180	
Chorioepithelioma	0.1	0.1	-	-	-	-	-	0.2	0.2	0.2	0.3	0.2	0.4	-	-	-	-	-	-	181	
Corpus uteri	16.6	12.0	-	-	-	-	0.5	3.2	4.3	7.7	13.9	28.4	45.0	49.0	41.8	42.2	37.3	27.7	26.4	182	
Ovary, etc.	16.1	12.2	0.3	0.3	1.1	4.4	8.4	7.4	6.9	12.5	13.3	25.3	37.1	33.7	33.4	34.1	28.3	29.3	44.4	183	
Other fem. genital	1.4	1.0	-	0.3	-	-	-	-	0.2	0.3	0.3	2.0	1.4	3.3	4.6	5.4	4.8	11.4	7.6	184	
Bladder	2.9	2.0	-	-	-	-	-	0.2	0.2	0.5	0.8	0.7	1.2	3.8	8.0	12.3	16.9	26.1	36.8	188	
Kidney & Oth. Urinary	4.2	3.1	0.9	-	-	0.2	0.3	0.2	0.2	1.0	2.5	3.5	4.5	6.8	13.3	21.8	18.7	25.3	22.2	189	
Eye	0.2	0.3	1.5	0.5	-	-	0.3	-	-	-	-	-	0.4	0.3	0.4	0.5	0.6	-	0.7	190	
Brain, nervous system	3.1	2.9	3.4	2.8	2.1	2.2	2.0	2.0	1.5	1.2	1.7	2.7	2.2	6.5	5.7	7.3	6.6	10.6	7.6	191-2	
Thyroid	7.5	5.6	-	-	0.5	1.2	3.8	6.8	8.9	8.1	7.8	10.8	13.9	11.3	11.8	11.4	13.8	18.7	8.3	193	
Other endocrine	0.5	0.4	0.3	-	0.7	0.5	0.3	0.2	-	0.3	0.7	0.3	1.0	0.8	0.4	1.4	0.6	-	1.4	194	
Lymphoid neoplasms	11.2	9.6	7.9	4.5	4.6	5.7	4.8	4.6	3.4	4.5	6.3	6.8	15.5	19.4	29.2	26.3	34.3	45.6	62.5		
Myeloid neoplasms	4.4	3.6	1.5	1.0	1.1	1.7	2.3	2.0	2.6	2.1	2.5	3.7	3.9	7.0	9.1	14.1	16.9	22.0	19.4		
Other and unspecified	5.2	3.5	0.3	-	-	0.5	0.3	0.2	0.5	1.2	1.2	2.9	7.5	8.3	11.8	14.1	22.9	39.1	60.4	OTH	
<b>All</b>	<b>296.7</b>	<b>212.2</b>	<b>18.0</b>	<b>10.8</b>	<b>12.8</b>	<b>20.0</b>	<b>29.7</b>	<b>41.1</b>	<b>76.8</b>	<b>132.7</b>	<b>227.8</b>	<b>351.9</b>	<b>476.8</b>	<b>574.1</b>	<b>668.1</b>	<b>856.9</b>	<b>1067.4</b>	<b>1422.2</b>	<b>1816.0</b>	<b>ALL</b>	

SINGAPORE : MALAY RESIDENTS 2003-2007, MALES			INCIDENCE RATES BY AGE GROUP (YEARS)																	Appendix C5	
SITE	CR	ASR	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9	
Lip, Vermilion	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-	-	-	140
Tongue	0.4	0.3	-	-	-	-	-	-	-	-	1.8	1.0	1.4	-	-	-	-	-	-	9.5	141
Salivary gland	0.5	0.5	-	-	-	-	1.1	-	-	-	0.9	-	-	2.2	-	4.2	-	15.9	-	142	
Mouth	0.6	0.7	-	-	-	0.9	1.1	-	-	-	-	-	-	-	-	4.2	16.5	7.9	-	143-5	
Oropharynx	0.2	0.1	-	-	-	-	-	-	-	-	0.9	1.0	-	-	-	-	-	-	-	146	
Nasopharynx	7.0	6.8	-	-	1.6	-	-	-	2.5	4.2	13.5	15.4	27.1	15.1	27.0	29.3	22.0	7.9	9.5	147	
Hypopharynx	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	-	-	148	
Oesophagus	0.8	0.9	-	-	-	-	-	-	-	1.1	0.9	-	-	4.3	3.9	4.2	5.5	15.9	9.5	150	
Stomach	4.5	5.3	-	-	-	-	2.2	-	-	1.1	1.8	5.1	5.7	12.9	23.2	37.7	38.5	39.7	66.7	151	
Small intestines	0.7	0.9	-	-	-	-	-	-	-	-	-	1.0	1.4	-	7.7	12.6	5.5	-	-	152	
Colon	12.1	14.4	-	-	-	-	1.1	-	1.3	4.2	9.0	8.2	17.1	25.9	81.1	79.5	87.9	158.7	209.5	153	
Rectum	10.2	11.6	-	-	-	-	-	2.7	1.3	6.4	4.5	10.3	24.2	21.6	46.3	66.9	104.4	119.0	85.7	154	
Liver	11.6	13.2	-	-	-	-	-	-	1.3	2.1	2.7	10.3	25.6	53.9	50.2	62.8	98.9	174.6	114.3	155	
Gall bladder, etc.	1.2	1.4	-	-	-	-	-	-	-	-	0.9	2.1	1.4	2.2	3.9	4.2	22.0	7.9	28.6	156	
Pancreas	3.8	4.5	-	-	-	-	1.1	-	-	1.1	2.7	1.0	7.1	10.8	23.2	29.3	27.5	55.6	47.6	157	
Retroperitoneum & Peritoneum	0.5	0.7	-	-	-	-	1.1	-	-	-	-	-	-	2.2	3.9	4.2	5.5	-	9.5	158	
Nose, sinuses, etc.	0.3	0.3	-	-	-	-	-	-	-	-	0.9	1.0	-	2.2	-	-	5.5	-	-	160	
Larynx	2.0	2.2	-	-	-	-	-	-	-	-	-	2.1	4.3	6.5	3.9	8.4	5.5	31.7	76.2	161	
Bronchus, trachea	29.6	34.7	-	-	-	0.9	1.1	-	2.5	1.1	12.6	23.7	48.4	84.1	123.6	217.6	318.7	436.5	419.0	162	
Pleura	0.2	0.3	-	-	-	-	-	-	-	-	-	1.0	1.4	-	-	4.2	-	-	-	163	
Thymus, heart	0.9	0.8	-	-	1.6	0.9	1.1	1.4	-	-	1.8	2.1	-	2.2	-	-	-	-	9.5	164	
Bone	0.7	0.8	1.1	-	-	-	2.2	1.4	-	-	-	-	2.8	2.2	-	-	5.5	-	9.5	170	
Connective tissues	1.3	1.2	-	0.9	0.8	0.9	1.1	1.4	2.5	1.1	2.7	2.1	-	2.2	-	4.2	-	-	9.5	171	
Melanoma of skin	0.2	0.1	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	-	7.9	-	172	
Skin, others	2.9	3.4	-	-	-	-	-	-	-	-	3.6	3.1	4.3	2.2	15.4	20.9	38.5	23.8	47.6	173	
Male Breast	0.2	0.1	-	-	-	-	-	-	-	-	-	1.0	1.4	-	-	-	-	-	-	175	
Prostate	14.1	17.7	-	-	-	-	-	-	-	-	-	-	14.2	30.2	81.1	129.7	137.4	277.8	314.3	185	
Testis	1.2	1.2	1.1	-	-	0.9	3.2	2.7	2.5	2.1	1.8	1.0	1.4	-	-	-	-	-	-	186	
Penis	0.2	0.3	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	11.0	-	-	187	
Bladder	5.2	6.0	-	-	-	-	-	-	-	1.1	1.8	9.3	10.0	10.8	23.2	29.3	49.5	55.6	95.2	188	
Kidney & Oth.Urinary	4.4	4.9	1.1	-	0.8	-	-	-	-	2.1	3.6	7.2	7.1	17.2	23.2	33.5	11.0	47.6	28.6	189	
Eye	0.2	0.2	1.1	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	190	
Brain, nervous system	2.6	2.7	3.2	0.9	0.8	4.4	-	1.4	1.3	1.1	3.6	2.1	4.3	6.5	7.7	-	5.5	23.8	-	191-2	
Thyroid	2.3	2.3	-	-	-	1.8	2.2	2.7	2.5	2.1	4.5	4.1	2.8	2.2	3.9	12.6	5.5	7.9	-	193	
Other endocrine	0.5	0.5	1.1	-	0.8	0.9	1.1	-	1.3	-	0.9	-	-	-	-	-	-	-	-	194	
Lymphoid neoplasms	14.8	16.9	8.5	2.7	4.0	3.5	7.5	8.2	1.3	8.5	9.9	14.4	32.8	21.6	57.9	100.4	104.4	95.2	76.2		
Myeloid neoplasms	4.3	4.7	2.1	-	-	-	1.1	4.1	2.5	3.2	4.5	2.1	10.0	10.8	15.4	20.9	16.5	55.6	28.6		
Other and unspecified	3.2	4.2	-	-	-	-	-	-	1.3	-	-	3.1	5.7	4.3	34.7	33.5	22.0	31.7	28.6	OTH	
<b>All</b>	<b>145.8</b>	<b>167.4</b>	<b>19.0</b>	<b>4.4</b>	<b>10.4</b>	<b>15.0</b>	<b>28.0</b>	<b>25.8</b>	<b>23.9</b>	<b>43.5</b>	<b>91.7</b>	<b>134.9</b>	<b>263.5</b>	<b>359.9</b>	<b>660.2</b>	<b>958.2</b>	<b>1170.3</b>	<b>1698.4</b>	<b>1733.3</b>	<b>ALL</b>	

SINGAPORE : MALAY RESIDENTS 2003-2007, FEMALES			INCIDENCE RATES BY AGE GROUP (YEARS)																Appendix C6	
SITE	CR	ASR	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9
Lip, Vermilion	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.7	140
Tongue	1.0	0.9	-	-	-	-	-	-	-	-	0.9	3.1	-	4.0	-	-	-	21.4	29.1	141
Salivary gland	0.7	0.5	-	-	0.9	-	-	-	-	-	1.8	1.0	2.8	2.0	-	-	-	7.1	-	142
Mouth	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.4	143-5
Oropharynx	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-	146
Nasopharynx	1.4	1.3	-	-	-	-	-	1.3	-	2.0	2.7	1.0	5.5	6.0	6.6	3.7	-	-	-	147
Hypopharynx	0.1	0.1	-	-	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-	-	148
Oesophagus	0.2	0.3	-	-	-	-	-	-	-	-	-	1.0	-	-	3.3	-	-	-	9.7	150
Stomach	2.9	2.8	-	-	-	-	1.1	1.3	-	1.0	2.7	3.1	6.9	6.0	-	7.3	34.6	35.7	29.1	151
Small intestines	0.2	0.2	-	-	0.9	-	-	-	-	-	-	-	-	2.0	-	-	-	-	-	152
Colon	11.7	12.6	-	-	-	-	4.5	2.6	1.2	3.1	8.1	7.3	13.8	46.3	56.5	65.9	86.6	57.1	174.8	153
Rectum	6.7	7.4	-	-	-	-	-	-	-	5.1	3.6	2.1	8.3	28.2	36.5	58.6	39.0	28.6	97.1	154
Liver	3.7	4.0	-	-	-	1.8	-	-	-	2.0	-	1.0	4.1	2.0	19.9	14.7	43.3	64.3	58.3	155
Gall bladder, etc.	1.4	1.5	-	-	-	-	1.1	-	-	1.0	0.9	1.0	1.4	-	3.3	11.0	21.6	14.3	9.7	156
Pancreas	3.8	4.1	-	-	-	-	-	-	-	-	1.8	4.1	4.1	26.2	10.0	36.6	4.3	28.6	58.3	157
Retroperitoneum & Peritoneum	0.6	0.6	-	-	-	-	-	-	-	1.0	-	-	-	2.0	-	3.7	13.0	-	9.7	158
Nose, sinuses, etc.	0.7	0.7	-	-	-	-	-	-	-	-	1.8	1.0	-	2.0	-	-	13.0	14.3	-	160
Larynx	0.5	0.5	-	-	-	-	-	1.3	-	-	-	-	1.4	2.0	-	-	-	7.1	19.4	161
Bronchus, trachea	11.7	12.0	-	-	-	-	-	-	1.2	5.1	7.2	17.6	15.2	44.3	43.2	69.6	69.3	107.1	135.9	162
Pleura	0.2	0.1	-	-	-	-	-	-	-	-	-	-	2.8	-	-	-	-	-	-	163
Thymus, heart	0.2	0.2	-	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	7.1	-	164
Bone	0.7	0.7	-	-	2.6	-	1.1	1.3	-	-	0.9	-	-	4.0	-	-	-	-	9.7	170
Connective tissues	0.7	0.6	-	-	0.9	-	-	-	-	1.0	1.8	-	1.4	4.0	-	3.7	-	-	-	171
Melanoma of skin	0.4	0.4	-	-	-	-	-	-	-	1.0	-	1.0	-	-	-	-	-	-	29.1	172
Skin, others	3.1	3.2	-	0.9	-	0.9	-	1.3	-	1.0	0.9	6.2	1.4	10.1	10.0	22.0	8.7	28.6	48.5	173
Female Breast	60.3	54.5	-	-	-	1.8	-	14.6	27.7	57.0	118.3	139.9	157.0	159.0	199.3	128.2	190.5	121.4	155.3	174
Cervix uteri	8.6	8.4	-	-	-	-	1.1	1.3	4.8	10.2	7.2	18.7	13.8	18.1	26.6	51.3	56.3	28.6	29.1	180
Chorioepithelioma	0.2	0.1	-	-	-	-	1.1	-	-	-	0.9	-	-	-	-	-	-	-	-	181
Corpus uteri	11.5	11.1	-	-	-	-	1.1	-	6.0	4.1	11.6	24.9	31.7	42.3	36.5	69.6	39.0	35.7	29.1	182
Ovary, etc.	13.6	12.7	-	-	-	6.5	15.6	4.0	7.2	8.1	25.1	21.8	27.5	44.3	39.9	25.6	47.6	-	38.8	183
Other fem. genital	0.7	0.7	-	-	-	-	-	-	1.2	-	0.9	-	1.4	2.0	-	3.7	-	21.4	9.7	184
Bladder	1.2	1.2	-	-	-	-	-	-	-	-	0.9	1.0	-	6.0	3.3	11.0	13.0	7.1	9.7	188
Kidney & Oth.Urinary	2.2	2.3	-	-	-	0.9	-	-	-	1.0	0.9	1.0	4.1	4.0	3.3	18.3	30.3	21.4	19.4	189
Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190
Brain, nervous system	1.8	1.7	-	2.8	1.7	0.9	-	-	2.4	2.0	0.9	3.1	2.8	2.0	-	3.7	-	21.4	9.7	191-2
Thyroid	7.9	7.4	-	-	0.9	4.6	5.6	6.6	12.1	10.2	9.9	12.4	12.4	20.1	26.6	7.3	13.0	21.4	9.7	193
Other endocrine	0.5	0.6	2.3	-	-	-	1.1	-	-	-	-	-	1.4	-	3.3	-	4.3	-	-	194
Lymphoid neoplasms	13.0	13.6	7.9	5.7	1.7	5.5	7.8	1.3	7.2	7.1	7.2	12.4	20.7	44.3	36.5	76.9	56.3	57.1	38.8	
Myeloid neoplasms	3.9	3.9	1.1	0.9	0.9	1.8	2.2	-	2.4	4.1	0.9	5.2	6.9	8.0	3.3	18.3	17.3	28.6	48.5	
Other and unspecified	2.2	2.3	-	-	-	-	-	-	-	-	1.8	2.1	2.8	4.0	3.3	11.0	26.0	21.4	58.3	OTH
<b>All</b>	<b>180.7</b>	<b>175.8</b>	<b>11.3</b>	<b>10.4</b>	<b>10.2</b>	<b>24.9</b>	<b>43.6</b>	<b>38.4</b>	<b>73.6</b>	<b>127.2</b>	<b>223.1</b>	<b>293.3</b>	<b>351.2</b>	<b>545.3</b>	<b>571.4</b>	<b>721.6</b>	<b>826.8</b>	<b>814.3</b>	<b>1203.9</b>	<b>ALL</b>

SINGAPORE : INDIAN RESIDENTS 2003-2007, MALES			INCIDENCE RATES BY AGE GROUP (YEARS)																Appendix C7		
SITE	CR	ASR	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9	
Lip, Vermilion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140
Tongue	3.1	3.1	-	-	-	-	-	-	-	-	-	1.6	6.7	6.4	10.6	20.0	20.1	28.0	69.0	141	
Salivary gland	0.7	0.6	-	1.7	1.7	-	-	-	-	-	1.4	-	2.2	-	-	-	-	9.3	-	142	
Mouth	2.3	2.4	-	-	-	-	-	-	-	-	-	-	9.0	12.8	16.0	6.7	26.8	9.3	-	143-5	
Oropharynx	1.2	1.3	-	-	-	-	-	-	-	-	-	4.9	-	-	5.3	20.0	6.7	9.3	-	146	
Nasopharynx	1.1	1.1	-	-	3.5	-	-	-	-	1.3	-	-	6.7	3.2	5.3	-	-	-	-	147	
Hypopharynx	0.9	1.0	-	-	-	-	-	-	-	-	1.4	1.6	2.2	3.2	10.6	-	-	-	-	148	
Oesophagus	2.1	2.0	-	-	-	-	-	-	-	-	-	-	11.2	3.2	10.6	-	20.1	18.7	34.5	150	
Stomach	9.4	9.4	-	-	-	-	-	-	-	1.3	2.7	9.8	13.5	22.4	16.0	93.3	73.8	112.1	92.0	151	
Small intestines	0.4	0.4	-	-	-	-	-	-	-	-	-	-	2.2	3.2	-	6.7	-	-	-	152	
Colon	7.3	7.4	-	-	-	-	-	-	2.7	1.3	4.1	1.6	6.7	16.0	37.2	40.0	73.8	56.1	114.9	153	
Rectum	9.6	9.7	-	-	-	-	-	-	1.4	1.3	4.1	9.8	17.9	35.1	47.9	46.7	87.2	65.4	69.0	154	
Liver	8.5	8.8	-	-	-	-	-	-	-	-	-	4.9	9.0	35.1	37.2	73.3	33.6	149.5	80.5	155	
Gall bladder, etc.	2.1	2.1	-	-	-	-	-	-	-	-	-	3.3	-	9.6	10.6	-	26.8	18.7	34.5	156	
Pancreas	4.1	4.1	-	-	-	-	-	-	1.4	-	4.1	-	9.0	19.2	21.3	13.3	33.6	28.0	34.5	157	
Retroperitoneum & Peritoneum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	158	
Nose, sinuses, etc.	0.4	0.5	-	-	-	-	-	-	-	-	-	-	-	3.2	-	6.7	6.7	-	-	160	
Larynx	2.9	3.1	-	-	-	-	-	-	-	-	-	4.9	4.5	12.8	10.6	33.3	6.7	37.4	11.5	161	
Bronchus, trachea	16.3	16.9	-	-	-	-	-	-	-	-	6.9	9.8	29.1	47.9	85.1	106.7	134.2	140.2	183.9	162	
Pleura	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.3	-	163	
Thymus, heart	0.3	0.2	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	9.3	-	164	
Bone	0.9	1.0	-	-	3.5	-	-	2.1	-	-	-	3.3	-	-	5.3	-	-	-	11.5	170	
Connective tissues	0.7	0.6	-	-	1.7	-	-	-	-	-	1.4	-	2.2	3.2	-	-	-	-	11.5	171	
Melanoma of skin	0.3	0.2	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	9.3	-	172	
Skin, others	3.3	3.7	-	-	-	-	2.3	-	-	1.3	1.4	1.6	2.2	19.2	16.0	40.0	-	9.3	46.0	173	
Male Breast	0.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	5.3	-	-	-	-	175	
Prostate	15.6	15.9	-	-	-	-	-	-	-	-	-	1.6	6.7	35.1	53.2	106.7	201.3	261.7	206.9	185	
Testis	0.9	0.8	-	-	-	2.0	2.3	-	2.7	-	1.4	1.6	-	3.2	-	-	-	-	-	186	
Penis	0.4	0.3	-	-	-	-	-	-	-	-	-	-	2.2	3.2	-	-	-	9.3	-	187	
Bladder	5.1	5.1	-	-	-	-	-	2.1	-	2.5	-	3.3	9.0	12.8	10.6	46.7	26.8	65.4	57.5	188	
Kidney & Oth.Urinary	4.7	4.8	-	-	-	-	2.3	-	-	-	5.5	4.9	4.5	22.4	16.0	46.7	13.4	56.1	-	189	
Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190	
Brain, nervous system	2.7	2.9	1.7	1.7	-	-	-	-	1.4	1.3	4.1	1.6	6.7	3.2	26.6	13.3	-	9.3	-	191-2	
Thyroid	1.6	1.8	-	-	-	2.0	-	-	1.4	1.3	1.4	1.6	2.2	3.2	5.3	26.7	-	-	-	193	
Other endocrine	0.5	0.4	-	-	-	-	-	-	1.4	2.5	-	-	-	3.2	-	-	-	-	-	194	
Lymphoid neoplasms	10.7	11.4	12.0	6.7	5.2	4.0	6.8	6.3	2.7	3.8	2.7	11.5	22.4	25.6	26.6	40.0	47.0	46.7	34.5		
Myeloid neoplasms	3.6	3.5	1.7	1.7	-	-	-	8.4	-	5.0	4.1	4.9	11.2	-	10.6	6.7	13.4	-	11.5		
Other and unspecified	4.1	4.6	1.7	-	-	-	2.3	-	1.4	-	1.4	-	2.2	9.6	16.0	40.0	47.0	18.7	57.5	OTH	
<b>All</b>	<b>128.2</b>	<b>131.2</b>	<b>17.2</b>	<b>11.6</b>	<b>15.6</b>	<b>8.0</b>	<b>15.9</b>	<b>18.9</b>	<b>16.4</b>	<b>22.6</b>	<b>50.8</b>	<b>88.4</b>	<b>201.8</b>	<b>377.0</b>	<b>516.0</b>	<b>833.3</b>	<b>899.3</b>	<b>1186.9</b>	<b>1172.4</b>	<b>ALL</b>	

SINGAPORE : INDIAN RESIDENTS 2003-2007, FEMALES			INCIDENCE RATES BY AGE GROUP (YEARS)																Appendix C8	
SITE	CR	ASR	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80+	ICD-9
Lip, Vermilion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140
Tongue	1.3	1.4	-	-	-	-	-	-	1.5	-	-	-	4.7	-	-	12.2	16.9	14.1	20.8	141
Salivary gland	0.1	0.2	-	-	-	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	142
Mouth	2.0	2.4	-	-	-	-	-	-	-	1.6	-	1.8	-	3.2	16.3	24.4	25.4	14.1	-	143-5
Oropharynx	0.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	5.4	-	-	-	-	146
Nasopharynx	0.3	0.3	-	-	-	-	-	-	-	-	-	-	-	3.2	-	-	8.5	-	-	147
Hypopharynx	0.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	-	-	148
Oesophagus	1.0	0.9	-	-	-	-	-	-	-	1.6	4.8	-	-	-	-	-	8.5	14.1	20.8	150
Stomach	4.5	4.9	-	-	-	-	-	3.3	1.5	3.2	1.6	5.5	2.3	6.4	16.3	36.6	25.4	70.4	62.5	151
Small intestines	1.8	1.9	-	-	-	-	-	-	1.5	1.6	1.6	3.7	2.3	-	-	18.3	16.9	14.1	20.8	152
Colon	7.1	7.0	-	-	-	-	-	3.3	-	3.2	4.8	9.2	16.4	19.1	5.4	18.3	67.8	154.9	41.7	153
Rectum	3.8	4.2	-	-	-	-	-	-	-	1.6	4.8	1.8	2.3	15.9	21.7	30.5	42.4	28.2	-	154
Liver	2.8	3.5	3.6	-	-	-	-	-	-	-	-	-	-	6.4	10.9	24.4	33.9	56.3	41.7	155
Gall bladder, etc.	1.1	1.3	-	-	-	-	-	-	-	-	-	1.8	-	-	-	12.2	-	42.3	41.7	156
Pancreas	2.0	2.3	-	-	-	-	-	-	-	-	1.6	-	-	6.4	10.9	6.1	25.4	42.3	41.7	157
Retroperitoneum & Peritoneum	0.6	0.5	-	-	-	-	-	-	-	-	-	3.7	-	3.2	-	-	-	14.1	-	158
Nose, sinuses, etc.	0.3	0.2	-	-	-	-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	160
Larynx	0.3	0.3	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	8.5	-	-	161
Bronchus, trachea	3.7	4.1	-	-	-	-	-	-	-	3.2	3.2	1.8	9.3	6.4	10.9	24.4	33.9	-	104.2	162
Pleura	0.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.8	163
Thymus, heart	0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	3.2	-	-	-	-	-	164
Bone	0.7	0.8	-	1.7	-	2.0	-	-	-	-	-	-	2.3	3.2	-	6.1	-	-	-	170
Connective tissues	0.6	0.7	1.8	-	-	2.0	-	-	-	-	-	-	2.3	-	-	-	-	14.1	-	171
Melanoma of skin	0.1	0.1	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	172
Skin, others	2.0	2.0	-	-	-	-	-	-	-	4.7	-	5.5	2.3	3.2	10.9	6.1	16.9	-	20.8	173
Female Breast	51.9	48.6	-	-	-	-	2.2	3.3	5.9	31.6	81.5	128.4	147.2	172.0	152.2	201.2	144.1	197.2	208.3	174
Cervix uteri	3.5	3.8	-	-	-	-	2.2	-	-	-	6.4	5.5	9.3	6.4	21.7	12.2	25.4	-	41.7	180
Chorioepithelioma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	181
Corpus uteri	11.3	11.6	-	-	-	-	2.2	-	3.0	4.7	14.4	18.3	16.4	41.4	54.3	48.8	76.3	70.4	62.5	182
Ovary, etc.	10.8	9.9	-	-	5.3	-	2.2	6.6	10.4	6.3	14.4	12.8	30.4	35.0	10.9	30.5	50.8	14.1	62.5	183
Other fem. genital	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	6.4	-	6.1	-	14.1	-	184
Bladder	1.6	1.9	-	-	-	-	-	-	-	-	-	-	-	6.4	5.4	6.1	33.9	14.1	41.7	188
Kidney & Oth. Urinary	3.0	3.2	-	1.7	-	-	-	-	1.5	-	1.6	7.3	4.7	3.2	21.7	6.1	42.4	14.1	-	189
Eye	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	190
Brain, nervous system	1.7	1.6	-	-	-	2.0	-	1.6	-	-	3.2	5.5	4.7	3.2	10.9	-	-	-	-	191-2
Thyroid	5.4	4.8	-	-	-	-	-	4.9	4.4	11.1	9.6	9.2	9.3	6.4	16.3	18.3	8.5	-	20.8	193
Other endocrine	0.4	0.5	1.8	-	-	-	-	-	-	-	-	-	2.3	-	-	-	8.5	-	-	194
Lymphoid neoplasms	7.6	8.5	3.6	5.2	1.8	8.1	4.3	1.6	5.9	-	3.2	3.7	7.0	22.3	16.3	61.0	42.4	42.3	41.7	
Myeloid neoplasms	2.1	2.2	1.8	-	-	-	-	4.9	-	-	1.6	-	9.3	3.2	5.4	-	16.9	14.1	20.8	
Other and unspecified	2.3	2.3	-	-	-	-	-	-	1.5	-	1.6	1.8	7.0	3.2	-	6.1	33.9	28.2	41.7	OTH
<b>All</b>	<b>138.8</b>	<b>138.9</b>	<b>12.6</b>	<b>8.7</b>	<b>7.1</b>	<b>14.2</b>	<b>15.1</b>	<b>29.6</b>	<b>37.0</b>	<b>77.5</b>	<b>159.7</b>	<b>231.2</b>	<b>292.1</b>	<b>388.5</b>	<b>423.9</b>	<b>615.9</b>	<b>822.0</b>	<b>887.3</b>	<b>979.2</b>	<b>ALL</b>

**APPENDIX D1****CUMULATIVE RATES(%) FOR AGE 0-74 YEARS BY ETHNIC GROUP, 2003-2007, MALES**

<b>SITE</b>	<b>ALL</b>	<b>CHINESE</b>	<b>MALAY</b>	<b>INDIAN</b>	<b>ICD-9</b>
Lip, Vermilion	0.01	0.01	0.02	0.00	140
Tongue	0.18	0.18	0.02	0.33	141
Salivary gland	0.06	0.06	0.04	0.04	142
Mouth	0.18	0.17	0.11	0.36	143-5
Oropharynx	0.11	0.12	0.01	0.18	146
Nasopharynx	1.19	1.36	0.79	0.10	147
Hypopharynx	0.15	0.17	0.01	0.10	148
Oesophagus	0.43	0.50	0.10	0.23	150
Stomach	1.60	1.77	0.64	1.16	151
Small intestines	0.11	0.11	0.14	0.06	152
Colon	2.70	3.02	1.58	0.92	153
Rectum	2.07	2.23	1.44	1.26	154
Liver	2.12	2.32	1.54	0.97	155
Gall bladder, etc.	0.23	0.23	0.18	0.25	156
Pancreas	0.70	0.75	0.52	0.51	157
Retroperitoneum & Peritoneum	0.04	0.04	0.08	0.00	158
Nose, sinuses, etc.	0.11	0.12	0.05	0.08	160
Larynx	0.42	0.46	0.15	0.36	161
Lung	4.89	5.28	4.17	2.10	162
Pleura	0.06	0.06	0.03	0.00	163
Thymus, heart	0.09	0.11	0.05	0.01	164
Bone	0.07	0.06	0.08	0.07	170
Connective tissues	0.18	0.20	0.10	0.04	171
Melanoma of skin	0.05	0.05	0.01	0.01	172
Skin, others	1.01	1.01	0.44	0.42	173
Male Breast	0.02	0.02	0.01	0.03	175
Prostate	3.00	3.19	1.96	2.02	185
Testis	0.09	0.09	0.08	0.07	186
Penis	0.12	0.13	0.07	0.03	187
Bladder	0.76	0.77	0.67	0.57	188
Kidney & Oth.Urinary	0.75	0.79	0.53	0.58	189
Eye	0.02	0.02	0.01	0.00	190
Brain, nervous system	0.28	0.28	0.21	0.31	191-2
Thyroid	0.23	0.23	0.23	0.23	193
Other endocrine	0.05	0.05	0.03	0.04	194
Lymphoid neoplasms	1.49	1.48	1.93	1.12	
Myeloid neoplasms	0.47	0.48	0.47	0.34	
Other and unspecified	0.48	0.47	0.52	0.61	
<b>All</b>	<b>26.50</b>	<b>28.40</b>	<b>19.04</b>	<b>15.46</b>	

**APPENDIX D2****CUMULATIVE RATES(%) FOR AGE 0-74 YEARS BY ETHNIC GROUP, 2003-2007, FEMALES**

<b>SITE</b>	<b>ALL</b>	<b>CHINESE</b>	<b>MALAY</b>	<b>INDIAN</b>	<b>ICD-9</b>
Lip, Vermilion	0.00	0.00	0.00	0.00	140
Tongue	0.07	0.06	0.04	0.18	141
Salivary gland	0.05	0.05	0.04	0.01	142
Mouth	0.05	0.04	0.00	0.36	143-5
Oropharynx	0.02	0.02	0.00	0.03	146
Nasopharynx	0.36	0.42	0.14	0.06	147
Hypopharynx	0.01	0.01	0.01	0.04	148
Oesophagus	0.05	0.05	0.02	0.07	150
Stomach	0.77	0.85	0.32	0.51	151
Small intestines	0.07	0.06	0.01	0.23	152
Colon	2.10	2.30	1.48	0.74	153
Rectum	1.15	1.24	0.91	0.61	154
Liver	0.50	0.52	0.44	0.40	155
Gall bladder, etc.	0.20	0.21	0.21	0.07	156
Pancreas	0.44	0.46	0.44	0.25	157
Retroperitoneum & Peritoneum	0.06	0.06	0.10	0.03	158
Nose, sinuses, etc.	0.05	0.05	0.09	0.02	160
Larynx	0.03	0.03	0.02	0.05	161
Lung	1.81	1.98	1.36	0.47	162
Pleura	0.01	0.00	0.01	0.00	163
Thymus, heart	0.06	0.07	0.01	0.02	164
Bone	0.05	0.05	0.05	0.08	170
Connective tissues	0.11	0.13	0.06	0.03	171
Melanoma of skin	0.05	0.05	0.01	0.01	172
Skin, others	0.70	0.75	0.32	0.25	173
Female Breast	6.37	6.52	5.97	5.35	174
Cervix uteri	1.02	1.07	1.05	0.45	180
Chorioepithelioma	0.01	0.01	0.01	0.00	181
Corpus uteri	1.35	1.37	1.33	1.40	182
Ovary, etc.	1.23	1.23	1.37	1.08	183
Other fem. genital	0.10	0.11	0.05	0.06	184
Bladder	0.22	0.22	0.18	0.26	188
Kidney & Oth. Urinary	0.37	0.37	0.32	0.45	189
Eye	0.02	0.02	0.00	0.00	190
Brain, nervous system	0.22	0.25	0.11	0.16	191-2
Thyroid	0.57	0.55	0.71	0.49	193
Other endocrine	0.04	0.04	0.06	0.06	194
Lymphoid neoplasms	0.95	0.89	1.49	0.93	
Myeloid neoplasms	0.35	0.36	0.37	0.22	
Other and unspecified	0.34	0.36	0.25	0.28	
<b>All</b>	<b>21.91</b>	<b>22.82</b>	<b>19.36</b>	<b>15.68</b>	

**APPENDIX E Comparison of age standardized incidence rate in 2003-2007 using DOS and SCR population denominators**

E1) Males

<b>SITE</b>	<b>ASR (DOS)</b>	<b>ASR (SCR)</b>	<b>A-B</b>	<b>%A-B</b>
Lip, Vermilion	0.06	0.06	0.00	-0.51
Tongue	1.55	1.50	0.04	3.00
Salivary gland	0.66	0.67	-0.01	-1.28
Gum	0.12	0.11	0.01	5.24
Floor of mouth	0.29	0.29	0.00	0.12
Mouth, other parts	0.92	0.91	0.01	1.06
Mouth	1.32	1.31	0.02	1.20
Oropharynx	0.84	0.83	0.01	1.21
Nasopharynx	10.80	10.34	0.46	4.41
Hypopharynx	1.16	1.13	0.02	2.10
Oesophagus	3.55	3.52	0.03	0.96
Stomach	14.49	14.29	0.21	1.44
Small intestines	0.86	0.84	0.02	2.73
Colon	22.99	22.77	0.23	1.00
Rectum	17.46	17.27	0.19	1.09
Colo-rectum	40.45	40.03	0.42	1.04
Liver	17.78	17.64	0.14	0.79
Gall bladder, etc.	1.80	1.78	0.02	1.39
Pancreas	5.83	5.77	0.06	1.04
Retroperitoneum & Peritoneum	0.28	0.27	0.01	2.35
Nose, sinuses, etc.	0.86	0.83	0.03	3.38
Larynx	3.67	3.67	0.00	-0.11
Bronchus, trachea	40.83	40.09	0.74	1.85
Pleura	0.43	0.41	0.02	4.46
Thymus, heart	1.01	1.02	-0.01	-0.84
Bone	0.88	0.87	0.01	1.25
Connective tissues	1.86	1.80	0.06	3.12
Melanoma of skin	0.49	0.47	0.01	2.68
Skin, others	9.59	9.46	0.14	1.44
Skin, including melanoma	10.08	9.93	0.15	1.50
Male Breast	0.19	0.18	0.00	2.20
Prostate	23.89	23.61	0.28	1.19
Testis	1.25	1.23	0.02	1.49
Penis	0.94	0.92	0.02	2.47
Bladder	7.05	6.97	0.09	1.25
Kidney & Oth.Urinary	6.19	6.11	0.08	1.35
Eye	0.31	0.30	0.00	0.29
Brain	2.80	2.76	0.04	1.38
Nervous System	0.33	0.33	0.00	0.43
Brain, nervous system	3.12	3.09	0.04	1.28
Thyroid	2.11	2.06	0.05	2.42
Other endocrine	0.59	0.58	0.02	3.13
Lymphoid neoplasms	14.44	14.07	0.37	2.60
Myeloid neoplasms	4.57	4.46	0.11	2.50
All	230.02	226.45	3.57	1.58



## E2) Females

<b>SITE</b>	<b>ASR (DOS)</b>	<b>ASR (SCR)</b>	<b>A-B</b>	<b>%A-B</b>
Lip, Vermilion	0.03	0.03	0.00	11.83
Tongue	0.62	0.63	-0.01	-1.00
Salivary gland	0.53	0.54	-0.01	-2.14
Gum	0.11	0.11	0.00	-2.53
Floor of mouth	0.00	0.00	0.00	0.00
Mouth, other parts	0.41	0.40	0.01	1.92
Mouth	0.51	0.51	0.00	0.96
Oropharynx	0.20	0.19	0.01	4.99
Nasopharynx	3.44	3.35	0.08	2.52
Hypopharynx	0.10	0.10	0.00	0.06
Oesophagus	0.65	0.67	-0.01	-1.91
Stomach	7.40	7.43	-0.03	-0.40
Small intestines	0.60	0.61	-0.01	-1.59
Colon	19.07	19.33	-0.25	-1.30
Rectum	9.89	9.99	-0.10	-0.98
Colo-rectum	28.97	29.32	-0.35	-1.19
Liver	4.71	4.79	-0.08	-1.76
Gall bladder, etc.	1.83	1.86	-0.03	-1.55
Pancreas	4.04	4.10	-0.06	-1.53
Retroperitoneum & Peritoneum	0.52	0.51	0.01	2.07
Nose, sinuses, etc.	0.46	0.44	0.02	3.91
Larynx	0.27	0.27	0.00	-0.14
Bronchus, trachea	16.01	16.18	-0.17	-1.04
Pleura	0.06	0.07	0.00	-5.11
Thymus, heart	0.54	0.54	0.00	0.72
Bone	0.61	0.61	0.00	-0.08
Connective tissues	1.21	1.19	0.02	1.68
Melanoma of skin	0.48	0.48	-0.01	-1.14
Skin, others	6.56	6.54	0.02	0.32
Skin, including melanoma	7.04	7.02	0.02	0.22
Female Breast	58.46	56.44	2.02	3.59
Cervix uteri	8.84	8.48	0.36	4.25
Chorioepithelioma	0.09	0.08	0.01	9.52
Corpus uteri	11.72	11.57	0.15	1.30
Ovary, etc.	12.04	11.83	0.21	1.80
Other fem. genital	0.96	0.98	-0.02	-2.11
Bladder	1.92	1.95	-0.03	-1.44
Kidney & Oth.Urinary	3.06	3.02	0.04	1.25
Eye	0.25	0.24	0.01	3.92
Brain	2.22	2.19	0.04	1.61
Nervous System	0.39	0.40	-0.01	-3.50
Brain, nervous system	2.61	2.59	0.02	0.82
Thyroid	5.83	5.64	0.19	3.42
Other endocrine	0.47	0.46	0.01	2.26
Lymphoid neoplasms	9.97	9.95	0.02	0.21
Myeloid neoplasms	3.49	3.48	0.01	0.40
All	203.39	201.02	2.37	1.18