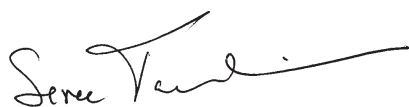


FOREWORD

Since the year of 2000, cancer has been the first leading cause of death in Thailand. The effective strategies to prevent and control cancer in urgently needed.

The monograph “Cancer in Thailand Vol. III”, containing data on incidence and distribution of different cancers is essential for running the National Cancer Control programme in Thailand and predicting benefits to the people of the kingdom of Thailand.

Contributions are from research institutes, universities and hospitals in Bangkok, Chiang Mai, Lampang, Khon Kaen, and Songkhla in Thailand, as well as from The International Agency for Research on Cancer, Lyon, France. This project was supported by the Cancer Research Foundation of the National Cancer Institute.



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FOREWORD

The cancer picture for Thailand, here presented as Cancer in Thailand 1995-2000 volume III, is published later than desired and planned. The cancer registry of the National Cancer Institute has some difficulties of registration due to insufficient resources and late reporting from the cancer centers and hospitals. The cancer registry has received electronic files from all cancer centers in Thailand. Although these files contain some errors, they have provided sources of data resulting in identification of a considerable number of previously unknown cancer cases from the preceding years. The cancer statistics have thus been corrected. The corrected numbers from 1995 to 2000 are now reliable.

I would like to thank all our collaborators for their help in providing data presented in this volume. I would like to express my gratitude to the devoted staffs of cancer registry in all cancer centers for the immense amount of work that has been done in preparation of the statistics and graphics for this volume.

I hope the data in this volume will be useful for those interested in cancer and cancer research as well for those who involve in the planning policies for combat cancer in Thailand.



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The registry could not function effectively without the funding of the Cancer Foundation Fund for National Cancer Institute, and the support by the Ministry of Public Health. Their sustained support is gratefully acknowledged.

Finally, the registry staffs, consultants and volunteers are to be praised for their diligence and enthusiasm in the performance of their duties in processing the data upon which this volume is based on.



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1. Maharaj Hospital, Chiang Mai University
2. Mae Rim Hospital
3. Nakorn Ping Hospital
4. Chiang Mai Army Hospital
5. Chiang Mai Police Hospital
6. Chiang Mai Municipal Hospital
7. McCormick Hospital
8. Lanna Hospital
9. Chiang Mai Ram Hospital
10. Roum-Paeth Hospital
11. Seiumpukdee Hospital
12. Chinda Hospital
13. Maccane Hospital
14. All Community Hospitals in Chiang Mai Province
15. Public Health Centers
16. Provincial Chief Medical Officer's Office

LAMPANG PROVINCE

17. Lampang Provincial Hospital
18. Lampang Cancer Center
19. All Community Hospitals in Lampang Province
20. Lampang Army Hospital
21. Kelang - Ram Hospital
22. Van San Wood Hospital
23. Maharaj Hospital, Chiang Mai University
24. All private Hospitals in Chiang Mai province

KHON KAEN PROVINCE

25. Srinagarind Hospital, Khon Kaen University
26. Khon Kaen Regional Hospital
27. Health Promotion Center Region 6
28. Sripacharin Hospital
29. Mother and Child Hospital
30. Rajapreuk Hospital
31. Khon Kaen Ram Hospital
32. Mokul Hospital
33. Samart Hospital
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41. Priest's Hospital
42. Nopparut Ratchatani Hospital
43. Institute of Dermatology
44. Prasat Neurological Institute
45. Institute of Pathology
46. Bamrasnaradura I.D. Hospital
47. Phranungklo Hospital
48. Mettapracharak Hospital
49. Central Chest Hospital
50. Cancer Institute, Siriraj Hospital
51. Ramathibodi Hospital
52. King Chulalongkorn Memorial Hospital
53. Thammasat Chalermprakit Hospital
54. Hospital for Tropical Disease
55. Phra Mongkutklao Hospital
56. Somdej Prapinklao Hospital
57. Bangkok Naval Hospital
58. Bhumibol Adulyadej Hospital
59. Police General Hospital
60. Vajira Hospital
61. Bangkok Metropolitan Administration General Hospital
62. Taksin Hospital
63. Charoenkrung Pracharaks Hospital
64. Ladkrabang Hospital
65. Veterans General Hospital
66. Thailand Tobacco Monopoly Hospital
67. Central General Hospital of Ministry of Interior
68. Prison Hospital, Department of Correction
69. Metropolitan Electricity Authority Hospital
70. Burachat Chaiyakorn Hospital
71. Yosae Hospital
72. Yaowarak Hospital
73. Royal Irrigation Hospital
74. Registration Processing Center
75. Division of Health Statistics Bureau of Health Policy and Plan Office
76. Aekamarin General Hospital (Bangkae)
77. Ananta Pattana Hospital
78. B Care Medical Center
79. Bangkok Adventist Hospital
80. Bangkok Cancer Center Hospital
81. Bangkok Chest Hospital
82. Bangkok General Hospital

83. Bangkok Nursing Home Hospital
84. Bangmod I Hospital
85. Bangmod II Hospital
86. Bangmod III Hospital
87. Bangna I Hospital
88. Bangna II Hospital
89. Bangpai Hospital
90. Bangpakok I Hospital
91. Bangpakok II Hospital
92. Bangpakok III Hospital
93. Bangpo General Hospital
94. Bomrungrad Hospital
95. Camillian Hospital
96. Central General Hospital
97. Chao Phraya Hospital
98. Chung Jen Hospital
99. Deja General Hospital
100. Dr. Panya General Hospital
101. Hua Chiew General Hospital
102. Jetanin Hospital
103. Jonjint Foundation Hospital
104. Karuna Pitak Hospital
105. Kasemrad Hospital Bang Khae
106. Kasemrad Hospital Prachachuen
107. Klongtun Hospital
108. Kluaynamthai Hospital
109. Krungdhon I Hospital
110. Krungdhon II Hospital
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112. Mahachai II Hospital
113. Mahaesuk Hospital
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115. Mitraparp Wong Wian Yai
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119. Pakkred Vejchakarn General Hospital
120. Paolo Memorial Hospital
121. Paya Thai I Hospital
122. Paya Thai II Hospital
123. Paya Thai III Hospital
124. Petcharavej Hospital
125. Piyavate Hospital Public Company Limited
126. Praram 2 Hospital
127. Prommitr Hospital
128. Rajburana Hospital
129. Rama 9 Hospital
130. Ramasuksawat Hospital

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HOSPITALS AND INSTITUTES

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132. Rattarin Hospital
133. Saint Louis Hospital
134. Salaya Hospital
135. Samitivej Hospital
136. Samitivej Srinakarin Hospital
137. Samrong Hospital
138. Siam Hospital
139. Sikarin Hospital
140. Sin Phat Hospital
141. Srisiam Hospital
142. Srivichai I Hospital
143. Srivichai II Hospital
144. Srivichai III Hospital
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151. Thon Buri II Hospital
152. Thian Fah Foundation Hospital
153. Vejsawad Hospital
154. Vejthani Hospital
155. Vibhavadi - Ikeda Hospital
156. Vichaiyud Hospital
157. Vichanyud Hospital*
158. Vibhavadi General Hospital
159. Yanhee General Hospital
160. Bangkok Pathology - Laboratory
161. Surgical Pathology - Cytology Service

SONGKHLA PROVINCE

162. Songklanagarind Hospital
163. Songkhla Hospital
164. Hat Yai Hospital
165. Songklanagarind Dental Hospital
166. Raj Yindee Hospital
167. All Community Hospitals in Songkhla Province
168. Provincial Chief Medical Officer's Office
169. Bangkok-Hat Yai Hospital
170. Sikharin Hospital

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REGISTRY PROCEDURE AND STATISTICAL METHODS

Chapter
I

CHAPTER

I

REGISTRY PROCEDURE AND STATISTICAL METHODS

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Hutcha Sriplung, M.D.*

Cancer registration in Thailand was established in 1963 as a hospital-based cancer registry by Prof. Okas Blangura head of the Department of Surgery, Chiang Mai University. The first relative frequency study of cancer in Chiang Mai was reported in the year 1971 (Menakanit *et al.*, 1971). In 1971, the National Cancer Institute (National Cancer Institute 1973) collected information on cancer patients treated in 53 hospitals throughout the country (7 in Bangkok and 46 provincial hospitals). Data collection was passive and relied upon notification from hospitals. Though the collaboration has increased lately, this system was still unsatisfactory, because almost all community hospitals were not included in the registry. Incidence rates are, therefore, under estimated.

The first population-based cancer registry started in 1986 in Chiang Mai, followed by Khon Kaen in 1988, Songkhla and Bangkok in 1990 and Lampang in 1993. In the year 1993, with the cooperation of the registries of Chiang Mai, Khon Kaen and Songkhla, the National Cancer Institute, and the International Agency for Research on Cancer (IARC), the first volume of Cancer in Thailand (Vatanasapt *et al.*, 1993) was published. Published in 1999, the second volume of Cancer in Thailand included the data from five registries of Bangkok, Chiang Mai, Khon Kaen, Songkhla and the recently established one of Lampang (Deerasamee *et al.*, 1999).

SOURCES OF DATA

BANGKOK CANCER REGISTRY

Data of cancer patients is col-

lected passively from 5 university hospitals, in both active and passive manner from 32 government hospitals, 82 private hospitals, 3 laboratories and death certificates. All certificates of death are reviewed and matched with the incident case records in the registry. Those without traces of other information are registered as death certificate only cases (DCO).

The minimum information for each cancer patient consists of : registry number, name, residential address, date of birth, age, sex, date of diagnosis, date of last contact (alive or death), site of cancer, cancer histology, method of diagnosis, extension of cancer, and number of primary tumors. In each hospital, cases are ascertained from medical records, both in and out-patient departments, pathology records (including cytology, hematology, and autopsy reports), imaging reports, and from hospital tumor registry, if available. Data notification forms are checked for duplication and keyed into the database, using the CanReg program for data entry and analysis.

CHIANG MAI CANCER REGISTRY

The cancer registry of Chiang Mai University was established in 1963 as a hospital-based cancer registry. The first statistical report was published in 1978. The population-base cancer registry was started in 1986 (Martin *et al.*, 1989) as a research project to study the incidence and mortality of cancer in Chiang Mai in the period 1983-1987. This project was a collaboration with and received financial support from China Medical Board and Faculty of Medicine, Chiang Mai University. The result was

published in Cancer Incidence in Five Continents, Volume VI (Parkin *et al.*, 1992). The incidence data of Chiang Mai Cancer Registry during the period 1988-1992 was published in Cancer Incidence in Five Continents, Volume VII (Parkin *et al.*, 1997), and the incidence data in the period 1993-1997 was published in Cancer in Five Continents, Volume VIII (Parkin *et al.*, 2002).

Chiang Mai Cancer Registry is operated by the Cancer Unit, Faculty of Medicine, Chiang Mai University and Cancer Committee. Four registered nurses and three practical nurses form the registration team of the unit. Method of data collection and verification the validity of the collected information are supervised by members of the Cancer Committee.

Data on patients diagnosed with cancer are collected actively from every hospitals in Chiang Mai province, composed of one university hospital (Maharaj Nakorn Chiang Mai Hospital), 8 government hospitals, 1 municipal hospital, 14 private hospitals, and 21 community hospitals, with the total number of 6 846 beds. The data are also collected from medical clinics and pathological clinics and also from death certificates from Department of Local Administration, Ministry of Interior. Sources in hospitals include the medical record sections, pathological laboratory records, section of hematology, radiation oncology, outpatients departments and hospital tumor registrations. All patient identifications are compared and matched to exclude multiple registration.

LAMPANG CANCER REGISTRY

A hospital-based cancer reg-

istry was established in Lampang provincial hospital in 1989 (Pongnikorn *et al.*, 1990). The first report of population-based cancer registration in Lampang from 1988 to 1992 was published in 1993 by retrospective finding of cancer cases in the province (Srivatanakul *et al.*, 1994) and the results in the period 1992 to 1994 was reported in Cancer in Thailand 1999 (Martin in Deerasamee *et al.*, 1999). The statistical report in the period 1993-1997 was published in 2002 (Pongnikorn *et al.*, 2002) and also in the Cancer Incidence in Five Continents Vol. VIII (Parkin *et al.*, 2002).

Lampang Regional Cancer Center was established in 1994 for cancer prevention and control, cancer research, as well as continuing education of health professionals particularly family physicians and general nurses. Therefore, the population-based cancer registration in the province has been set up at Lampang Regional Cancer Center.

All data on cancer patients are collected by passive methods. Sources of data include the provincial hospital, the Lampang Cancer Center, 1 military hospital, 2 private hospitals, 13 community hospitals, 1 laboratory in Chiang Mai, Cancer Registration Unit of Maharaj Nakorn Chiang Mai hospital, National Cancer Institute in Bangkok and death certificates from the Provincial Chief Medical Officer's Office of Lampang. All data are checked for duplication and keyed into CanReg programme.

KHON KAEN CANCER REGISTRY

Khon Kaen Cancer Registry was established in 1984 at the Fac-

ulty of Medicine, Srinagarind hospital, Khon Kaen University as a hospital-based cancer registry started in January 1988. The first published report was in 1989 (Vatanasapt *et al.*, 1989).

The data on cancer patient is collected by both active and passive methods from 1 university hospital (Srinagarind hospital), 1 Regional hospital (Khon Kaen Central hospital), 1 military hospital (Sripacharin), 8 private and 19 community hospitals, 2 health promotion centers (region 4 and 6), the Provincial Chief Medical Officer's Office and Civil Registration Section of all districts.

The data of those who are registered as Khon Kaen residents are extracted from hospital-based cancer registry of Srinagarind hospital. The medical charts of patients diagnosed as cancer are reviewed and registered from other hospital medical records by Khon Kaen Cancer Unit staff. Death certificates are collected from the Provincial Chief Medical Officer's Office and Civil Registration Section of all districts. All data are verified, checked for duplication, coded, and entered into the CanReg programme.

SONGKHLA CANCER REGISTRY

The Cancer Registry of Songkhla was set up in the Faculty of Medicine, Prince of Songkla University in 1990. The first statistical report of the registry appeared in 1991. Sources of data are from the Songklanagarind hospital, Hat Yai hospital (both of which have hospital cancer registries), Songkhla hospital, all community hospitals, one dental hospital and private hospitals. New cancer cases

are collected from the out-patient departments and wards, radiotherapy unit, cytology and surgical pathology records in Songklanagarind, Songkhla and Hat Yai hospitals and cancer clinics. Death certificates are collected from the Department of Local Administration, Ministry of Interior. The data are abstracted onto the registry forms, checked for duplication, verified, coded, and keyed into CanReg programme.

REGISTRY METHODS

The methods specific to each registry are described in the corresponding paragraph above. Briefly, data on cancer cases are collected from hospitals, laboratories and death certificates. The data collected for each cancer patient consists of registry number, name, residential address, date of birth, age, sex, date of diagnosis, method of diagnosis, site of cancer, extension of cancer, histology, date of last contact and status of cancer patient (alive or death). The methods of collection differ between registries, depending on the presence of hospital registries (which can supply information to the population-based cancer registry), and the use of registry staff for active case finding.

Copies of death certificates are collected from the Chief Medical Officer's Offices. All certificates of death are reviewed and matched with the incident case records of the registries. The cases for which no matching records are found are traced back to the data sources together relevant data. Cases which cannot be trace are registered as a death certificate only (DCO).

The primary site and histology are coded according to ICD-O, 2nd edition (Percy *et al.*, 1990). Second and subsequent primary cancers are also registered. A new registration number is given for each new primary cancer as indicated by the 3-digit code, (or cancers with different histology at the same site), as specified in the ICD-O manual.

Cases of carcinoma in situ are registered but not included in the calculation of incidence rates. Those that become invasive are re-registered as invasive carcinomas, with the behavior code changed to "3" (malignant). The most valid basis of diagnosis is recorded for all registered cases.

FOLLOW UP

Follow-up of registered patients were performed in all registries. It was done by both active and passive methods. Registered cases are first matched with death certificates, for the remaining cases thought to be alive, follow-up information was obtained by repeated scrutiny of hospital case records, postal inquiries and, if this measures failed to established a patient's vital status, by home visits. For more than 50% of cancer cases, information on vital status was obtained by reply paid postal inquiries. The result of follow-up was very important for calculation of survival rate and to evaluate outcome of cancer care and cancer control program.

STATISTICAL METHODS

Population denominators

The population denominators

used for the calculation of rates were estimated from 1990 and 2000 censuses published by the National Statistical Office (National Statistical Office, 1994; National Statistical Office, in press) which provide annual estimate by age group and sex for each province in Thailand. Inter census estimates of the population in 1996 and 1999 by age group and sex were calculated with the assumption of an exponential change of the population between the two censuses.

The annual populations at risk are calculated for the two periods (1995-1997 and 1998-2000) in each registry area. They are shown in the section of each particular registry.

The population of Thailand and of the four regions in 1996 were estimated based on the two censuses with the procedure described above.

National estimate

The data from the two Northern cancer registries of Chiang Mai and Lampang were first pooled by adding together the cases and the person-years at risk from the two registries. Then the age (five-year age groups) and sex specific rates for Chiang Mai plus Lampang (North), Khon Kaen (Northeast), Bangkok (Central), and Songkhla (South) were applied to the populations of the representative regions in 1996.

The sum of these provided the estimated total by sex, site and age group for the country as a whole and the corresponding incidence rates were calculated using the 1996 population of Thailand.

Childhood cancer

The result for cancer in Childhood are presented according to the diagnostic groups defined in "In-

ternational Classification of Childhood cancer 1996” (Kramarova *et al.*, 1996). Because of the relatively small number of cases from each registry, their results have been pooled to produce a national estimate. This was done by simply adding together the cases from the different registries in age groups 0, 1-4, 5-9 and 10-14 as well as person-years at risk and calculating a “pooled” combined incidence rate. Results are expressed as a number of cases, relative frequency of different cancer types, age-specific incidence rates, the crude incidence rate and age-standardized and cumulative incidence in the 0-14 year age range as annual rate per million.

Crude Incidence Rate (CR)

Crude incidence rate is the number of new cancer cases observed during a defined period of population divided by the population at risk in the same period. It is

expressed per 100 000 of population.

Age-Specific Incidence Rate

Age-specific incidence rate is the incidence rate in a specific age group. So age-specific rates are calculated by dividing the number of cancer cases in each five years age and sex structure of population in that age group and multiplied by 100 000. The rates are expressed per 100 000 of population.

$$AR = Ni/Pi \times 100\ 000$$

Ni = Number of new cancer occurring in the i th age group

Pi = Population of the i th age group

Age-Standardized Incidence Rate (ASR)

The age-standardized incidence rate is a summary measure of a rate that a population will have if it has a standard age structure. It is calculated first by estimating the

age-specific incidence rates and then applying these rates to the standard population. The world standard population is used in this book. It is also expressed per 100 000 population. Standardization is necessary when comparing several populations that differ with respect to age because age has powerful influence on the risk of cancer.

Quality control was carried out though the following indices:

1. Percentage of Histologically Verified Cases (%HV) : The percentage of cases diagnosed was based on histology examination of tissue from primary site or from metastatic site, bone marrow, cytology and peripheral blood for leukaemia.

2. Percentage of Death Certificate Only Cases (%DCO): The percentage of cases where diagnosis was based on information obtained from a death certificate.

Chapter II

CANCER INCIDENCE IN THAILAND

Chapter II

1

CANCER
INCIDENCE AND
LEADING SITES

Nimit Martin, M.D.
Nilubol Patel, M.D.

Cancer incidence refers to the number of new cases of cancers seen in the population of defined geographic area over a definite period of time. Site-specific annual cancer incidence rates are the numbers of site-specific cancers in a year per 100 000 persons at risk. The data of the three-year periods (1995-1997 and 1998-2000) from each of five registries are shown in Appendices A-F.

The geographic area covered by the five population based registries are shown in Table 2.1.1 and Figure 2.1.1

The age-standardized incidence rates (ASR) of all cancer sites ranged from 91.4 per 100 000 in male in Songkhla to 182.5 per 100 000 in Khon Kaen and from 81.3 per 100 000 in female in Songkhla to 148.6 per 100 000 in Chiang Mai (Table 2.1.2 and Figure 2.1.2).

Figures 2.1.3-2.1.8 show the 10 leading cancers in each registry, in terms of age-standardized incidence rate and the estimated age-standardized incidence rate for the whole country.

In Chiang Mai, the leading cancer in men is lung cancer, followed by liver cancer and colorectal cancer. In women, cervix cancer is the first, followed by lung cancer and breast cancer. The incidence of cervix cancer in women is the highest among the five registries and lymphoma is the highest in men (Figure 2.1.4).

In Lampang during 1995-1997, lung cancer is the most important cancer in both males and females. Liver cancer is in the second place in men whereas cervix cancer is in women. The incidences of lung cancer and gallbladder cancer including that of extra-hepatic bile duct in Lampang are

Table 2.1.1 Land area and estimated population in 1996

	Population density (Person/km ²)	Land area (km ²)	Doctor/ Population ratio	Estimated population Male	Estimated population Female
Chiang Mai	79.1	20 107	1:2 082	716 202	716 186
Lampang	60.1	12 534	1:4 193	378 468	374 773
Khon Kaen	159.0	10 886	1:2 928	836 531	842 914
Bangkok	4 061.0	1 565	1:793	2 921 143	3 181 895
Songkhla	154.1	7 394	1:3 086	538 258	601 170

Table 2.1.2 Age-standardized incidence rates (ASR), all sites, 1995-1997

	Male		Female	
	Cases	ASR	Cases	ASR
Chiang Mai	3 029	142.5	3 325	148.6
Lampang	2 196	178.0	1 991	146.1
Khon Kaen	3 661	182.5	2 899	125.3
Bangkok	9 447	143.6	10 807	125.9
Songkhla	1 355	91.4	1 383	81.3
Thailand	35 539	149.2	38 467	125.0

the highest among five registries in both males and females (Figure 2.1.5).

In Khon Kaen, liver cancer is the most common cancer in both males (ASR = 85.0) and females (ASR = 32.7). The incidence of liver cancer is the highest among five registries in both sexes. In males liver cancer is in the first rank followed by lung cancer and colorectal cancer. Liver cancer is in the first rank in females followed by cervix and breast cancers (Figure 2.1.6).

In Bangkok, lung cancer is the most common cancer in men, followed by colorectal cancer and then liver cancer. In women, breast cancer is the first leading cancer followed by cancer of cervix. Colorectal cancer is the third in frequency. The incidence of breast cancer in females and colorectal cancer in both sexes are the highest among the five registries (Figure 2.1.7).

In Songkhla, lung cancer is in the first rank (ASR = 13.6) followed by oral cavity cancer (ASR = 7.8) and colorectal cancer among men. Cervical cancer is the first followed by breast cancer and thyroid cancer among women. The incidence rates of oral cavity cancer and esophageal cancer in males are higher than elsewhere. In females, the incidence rate of thyroid cancer is the highest among five registries; liver cancer is not even in the first ten cancers (Figure 2.1.8).

The estimated total number of new cancer cases in the year 1996 is 35 539 (ASR = 149.2) in males and 38 467 (ASR = 125.0) in females. Comparison of the estimated incidence rates of cancer in Thailand from 1990 to 1996 is shown in Table 2.1.3

Figure 2.1.1 Thailand : regions and areas covered by the cancer registries.



Table 2.1.3 Estimated cancer incidence in Thailand.

	Male		Female	
	Number	ASR	Number	ASR
1990	29 195	149.6	28 773	125.2
1993	32 801	151.3	30 940	123.8
1996	35 539	149.2	38 467	125.0

In 1996, liver cancer is the most common cancer in males (9 031 cases, ASR = 37.6), followed by lung cancer (5 916 cases, ASR = 25.9), colorectal cancer (2 533 cases, ASR = 10.8), and cancer of the oral cavity and pharynx (1 576 cases, ASR = 7.1). In females, cervix cancer is the most common (6 268 cases, ASR = 19.5), followed by breast (5 592 cases, ASR = 17.2), liver cancer (4 696 cases, ASR = 16.0) and lung cancer (2 964 cases, ASR = 10.0) (Table 2.1.4).

Figure 2.1.2 Age-standardized incidence rates in different regions

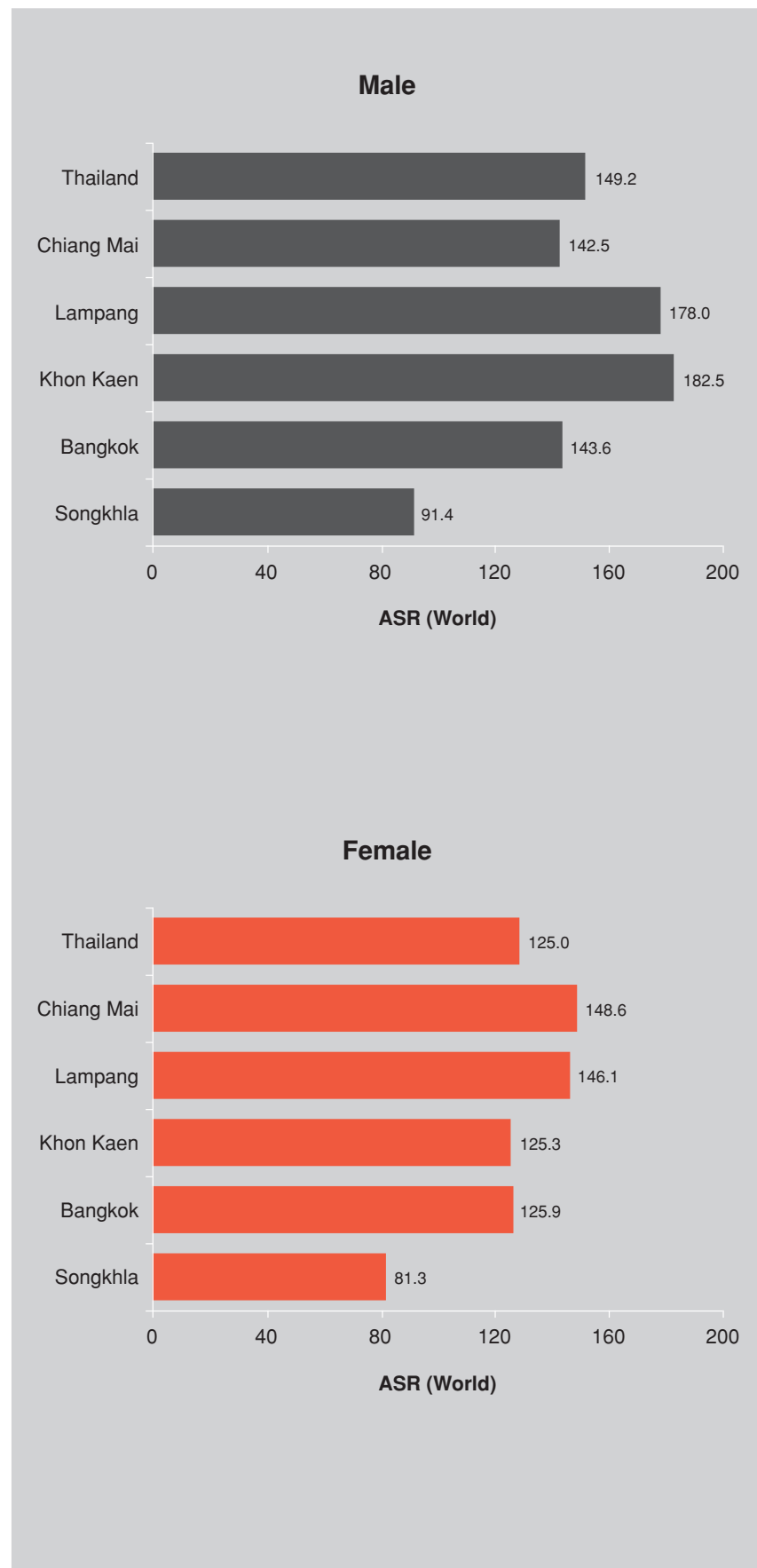


Table 2.1.4 Thailand (estimate) 1996

Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Oral & pharynx	1 576	0	-	-	0.2	0.3	0.8	0.4	0.8	2.4	4.0	6.7	11.5	21.1	25.7	39.8	47.8	60.5	5.5	6.8	C00-C10; C12-C14
Nasopharynx	872	0	-	-	0.2	0.4	0.1	1.1	1.7	3.5	4.6	5.6	8.3	12.0	10.5	16.7	14.4	10.4	3.1	3.4	C11
Oesophagus	720	0	-	-	-	-	-	-	0.2	0.5	1.0	3.3	3.8	12.4	15.8	18.0	19.5	31.7	2.5	3.2	C15
Stomach	945	0	-	-	-	-	-	0.1	0.4	1.0	2.5	3.7	5.4	11.1	17.3	28.0	29.6	36.4	3.3	4.1	C16
Colon & rectum	2 532	0	-	-	0.1	0.2	0.8	1.2	2.8	3.7	8.0	8.5	17.7	29.6	45.1	63.1	76.3	99.6	8.9	10.9	C18-C21
Liver	9 031	0	0.3	-	0.1	0.2	1.1	3.3	9.0	14.6	30.1	62.9	89.4	142.6	180.9	219.8	160.6	150.8	31.7	37.6	C22
Larynx	684	0	-	-	0.0	0.0	0.0	0.0	0.4	0.6	0.9	1.5	3.9	8.7	15.9	20.2	29.1	24.6	2.4	3.1	C32
Lung	5 916	0	-	-	0.1	0.4	1.2	2.5	4.8	5.1	11.5	17.9	44.2	86.1	137.3	177.9	171.8	161.8	20.7	25.9	C33-C34
Prostate	1 019	0	-	-	-	-	-	-	-	-	0.2	0.4	2.6	4.5	23.4	23.9	49.1	90.7	3.6	4.8	C61
Bladder	1 024	0	0.2	-	-	0.1	-	-	0.1	1.2	1.6	3.8	3.3	11.2	19.0	29.9	36.4	56.2	3.6	4.6	C67
Thyroid	289	0	-	0.1	-	-	0.5	0.8	0.2	0.9	1.5	2.9	2.0	3.4	2.6	4.1	5.2	5.5	1.0	1.1	C73
Non Hodgkin lymphoma	1 120	0	0.7	0.7	0.9	1.0	1.8	2.7	2.8	4.3	4.1	4.6	7.8	9.4	11.3	20.3	20.6	24.6	3.9	4.3	C82-C85; C95
Leukemia	1 012	0	6.0	3.0	1.6	2.3	2.4	3.5	3.2	1.6	2.5	3.5	3.8	5.9	8.8	9.7	8.8	9.7	3.5	3.9	C91-C95
All sites	35 539	0	13.2	5.9	7.5	9.6	15.3	31.7	45.2	60.8	101.4	163.7	266.9	461.7	647.6	845.2	837.2	983.2	124.6	149.2	

Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Oral & pharynx	1 386	0	-	-	-	0.3	0.1	0.2	1.2	1.1	3.1	2.5	4.7	9.8	21.1	32.3	36.0	48.6	4.6	4.6	C00-C10; C12-C14
Nasopharynx	405	0	-	-	-	-	0.4	0.7	0.6	1.7	2.1	2.3	4.1	3.5	4.7	4.8	2.9	2.1	1.3	1.3	C11
Oesophagus	248	0	-	-	-	-	-	0.2	-	0.1	0.1	0.8	0.3	2.0	3.4	6.5	10.1	7.2	0.8	0.9	C15
Stomach	793	0	-	-	-	-	0.1	0.7	1.5	1.8	2.9	3.1	4.3	5.3	10.5	14.4	15.1	18.5	2.6	2.6	C16
Colon & rectum	2 215	0	-	0.1	-	-	0.6	1.2	2.2	3.0	7.5	10.1	11.3	18.8	34.9	37.7	47.2	50.8	7.4	7.3	C18-C21
Liver	4 696	0	0.6	0.1	-	0.5	0.6	0.6	1.2	3.6	9.3	19.2	41.9	58.6	80.8	98.6	87.2	70.5	15.6	16.0	C22
Larynx	79	0	-	-	-	-	-	-	0.1	0.1	0.1	-	0.4	0.8	0.9	2.7	2.5	2.0	0.3	0.3	C32
Lung	2 964	0	-	0.1	0.1	0.1	0.7	0.8	2.3	3.1	5.6	11.0	20.9	33.7	50.3	62.9	61.9	51.6	9.9	10.0	C33-C34
Breast	5 592	0	-	-	-	0.1	0.5	3.1	10.5	23.1	39.9	54.2	48.8	49.8	48.4	44.9	41.2	36.5	18.6	17.2	C50
Cervix uteri	6 268	0	-	-	0.1	0.4	1.0	3.6	11.4	24.4	40.5	51.0	56.6	63.0	64.8	56.1	53.8	39.1	20.9	19.5	C53
Bladder	324	0	-	-	-	-	-	0.1	0.4	0.2	0.3	0.4	1.6	1.6	5.0	7.6	8.7	12.8	1.1	1.1	C67
Thyroid	39 514	0	-	9.6	9.0	15.1	21.0	43.4	73.9	125.2	200.3	259.1	306.6	353.1	424.6	427.8	410.9	422.3	4.0	3.6	C73
Non Hodgkin lymphoma	964	0	0.7	0.4	0.5	0.8	1.1	1.9	2.0	2.9	2.1	3.7	4.7	7.3	9.6	16.6	13.8	17.1	3.2	3.1	C82-C85; C95
Leukemia	998	0	5.5	2.8	2.0	1.3	1.6	1.7	1.0	2.5	3.2	5.0	4.9	5.7	6.8	6.3	6.8	10.3	3.3	3.5	C91-C95
All sites	38 467	0	13.4	6.3	5.9	9.5	14.7	30.1	55.5	96.6	158.5	221.0	281.6	363.0	486.3	540.9	551.0	530.0	128.1	125.0	

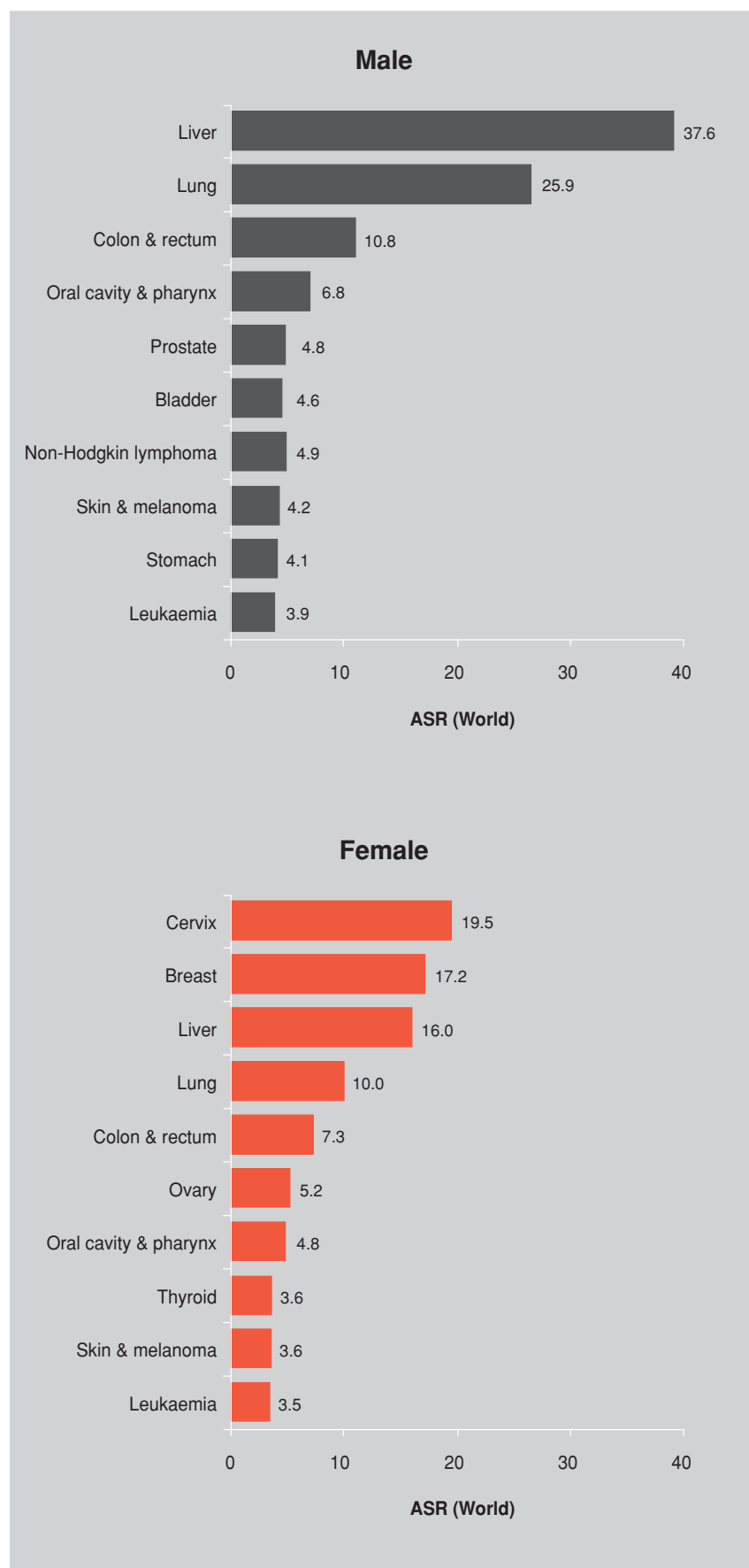
Figure 2.1.3 Leading cancers in Thailand (estimated), 1996

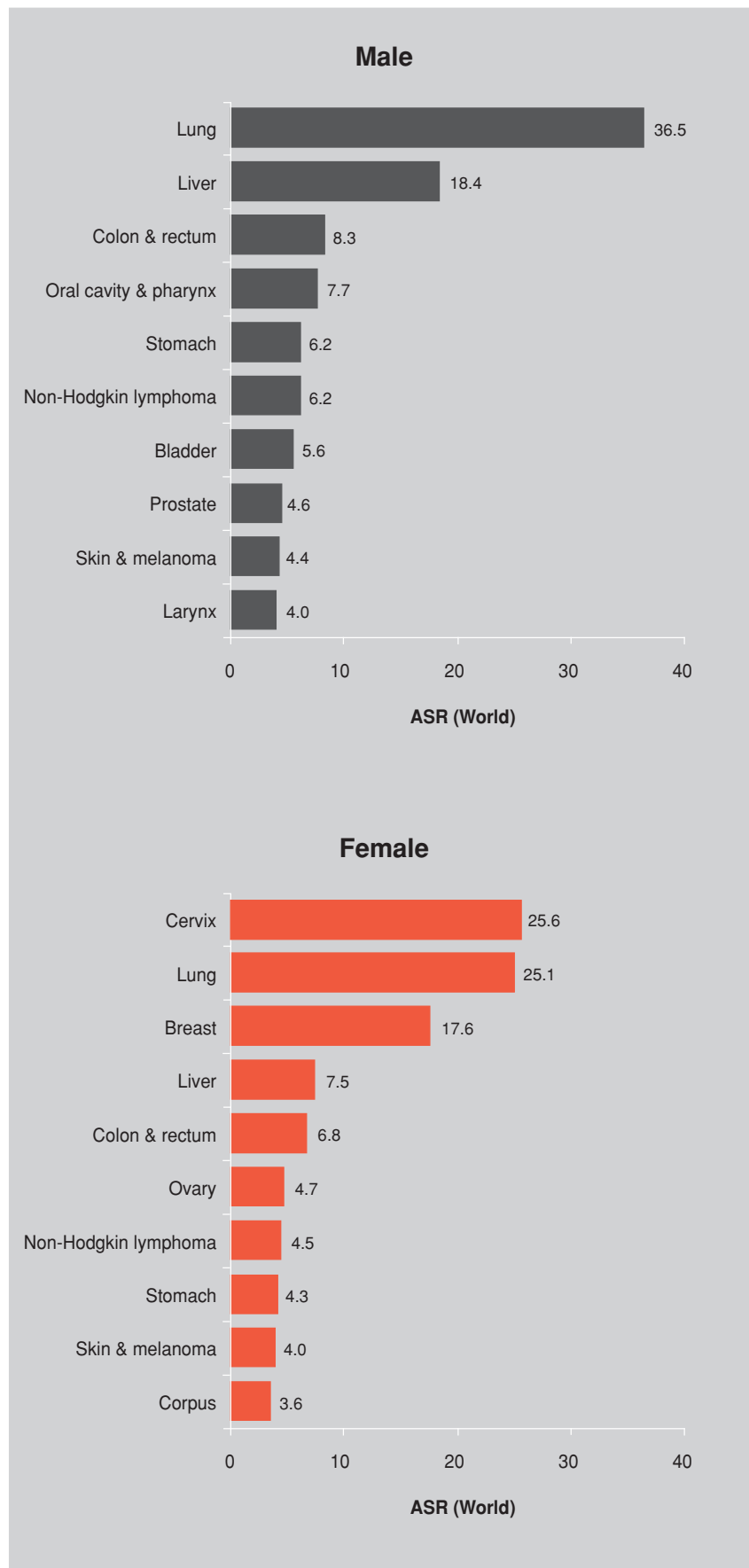
Figure 2.1.4 Leading cancers in Chiang Mai, 1995-1997

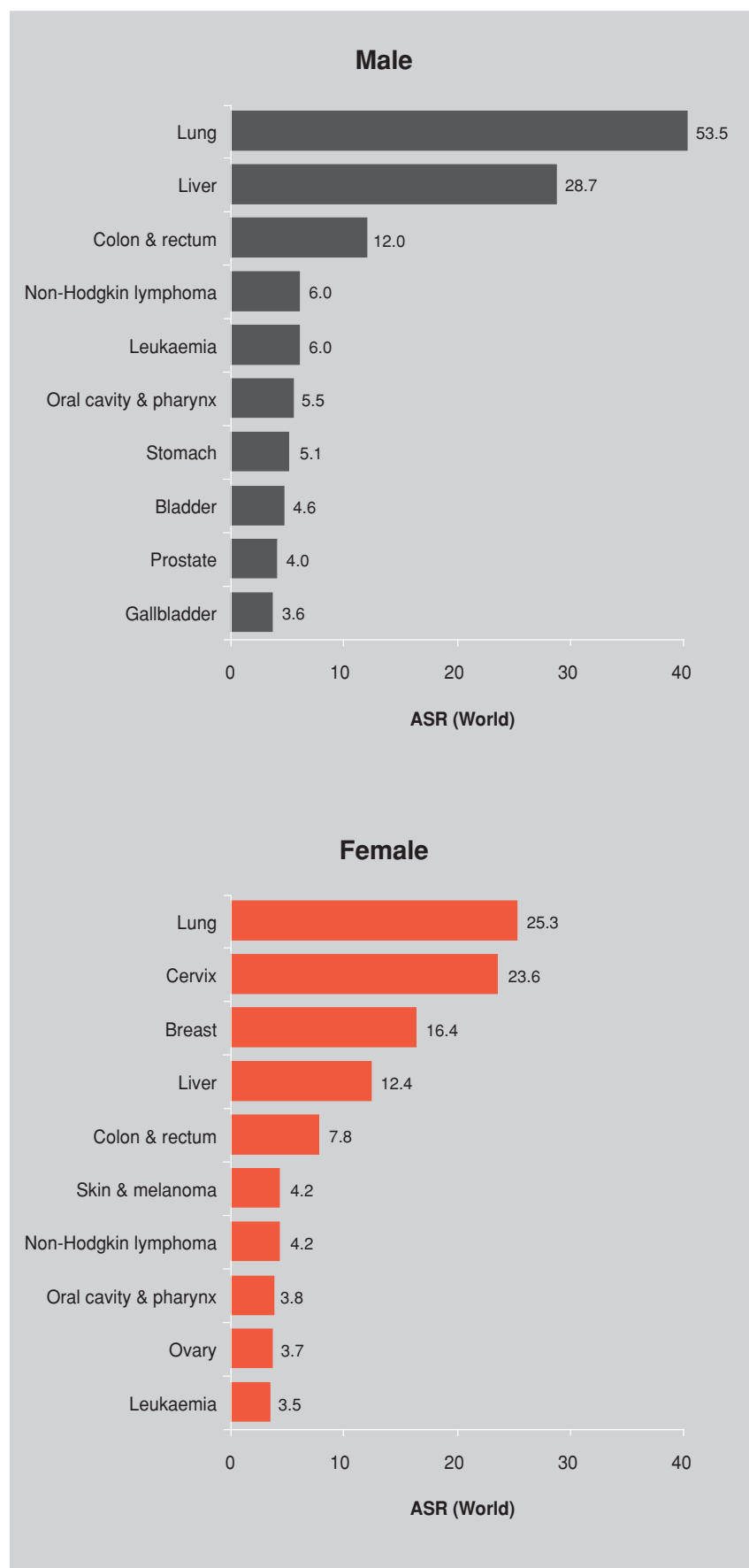
Figure 2.1.5 Leading cancers in Lampang, 1995-1997

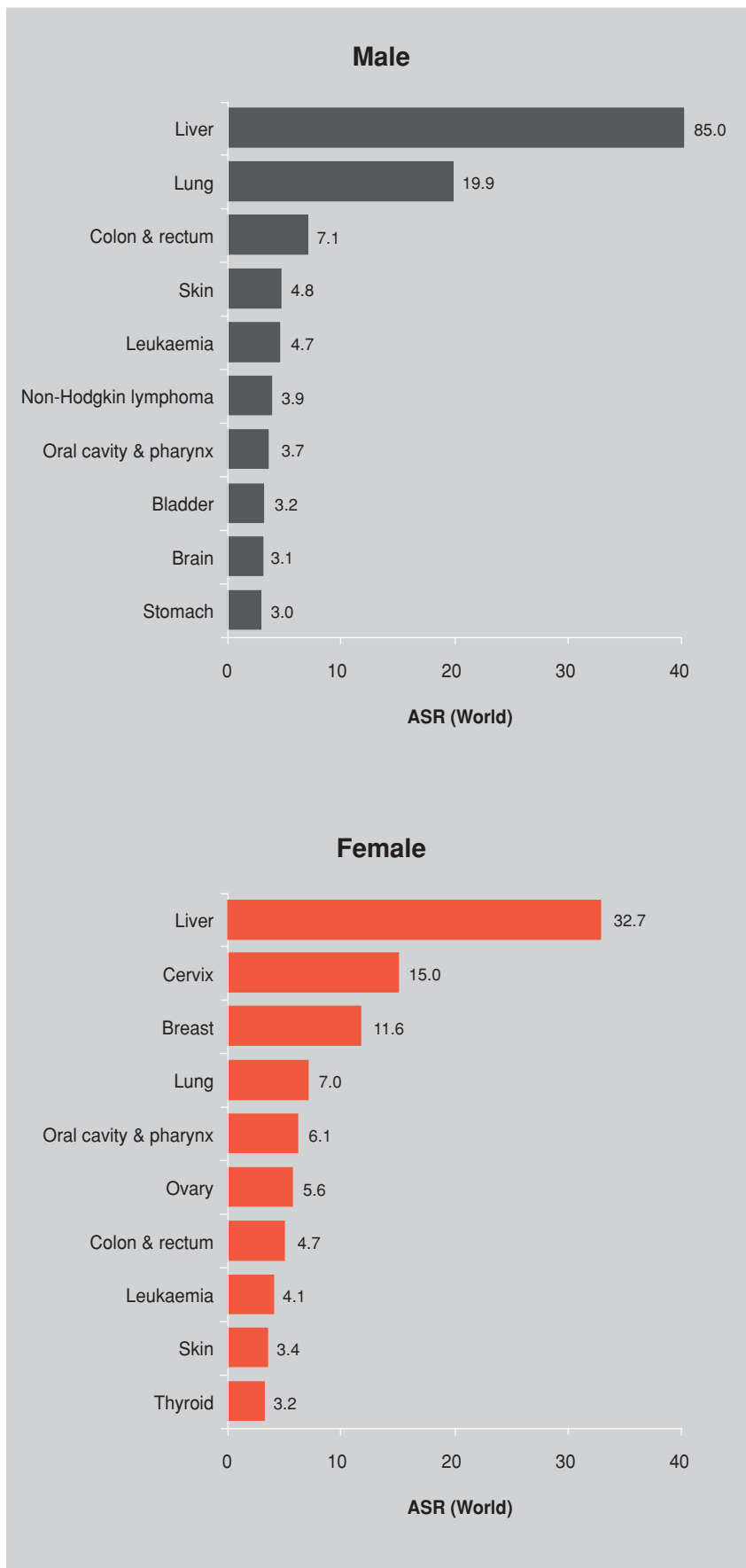
Figure 2.1.6 Leading cancers in Khon Kaen, 1995-1997

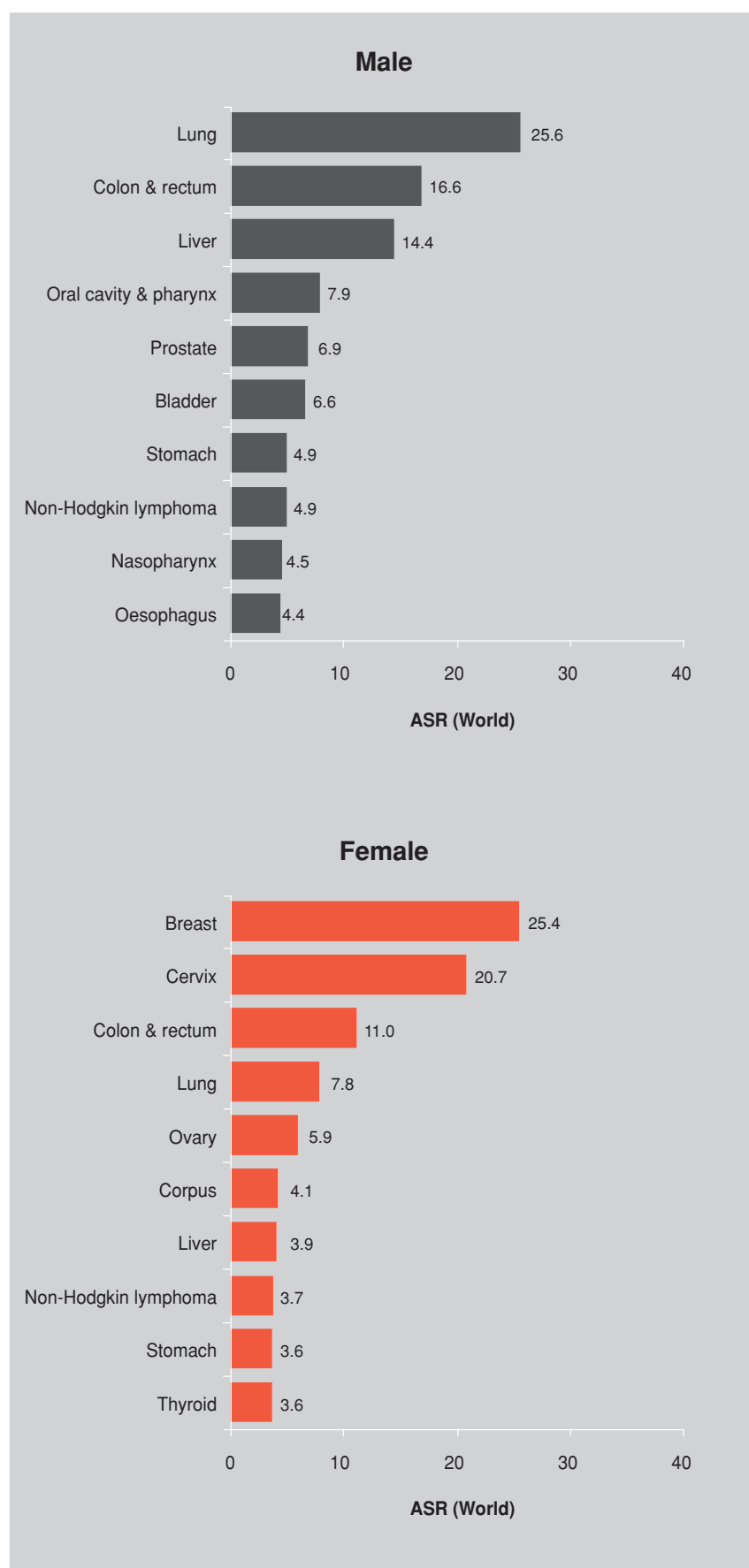
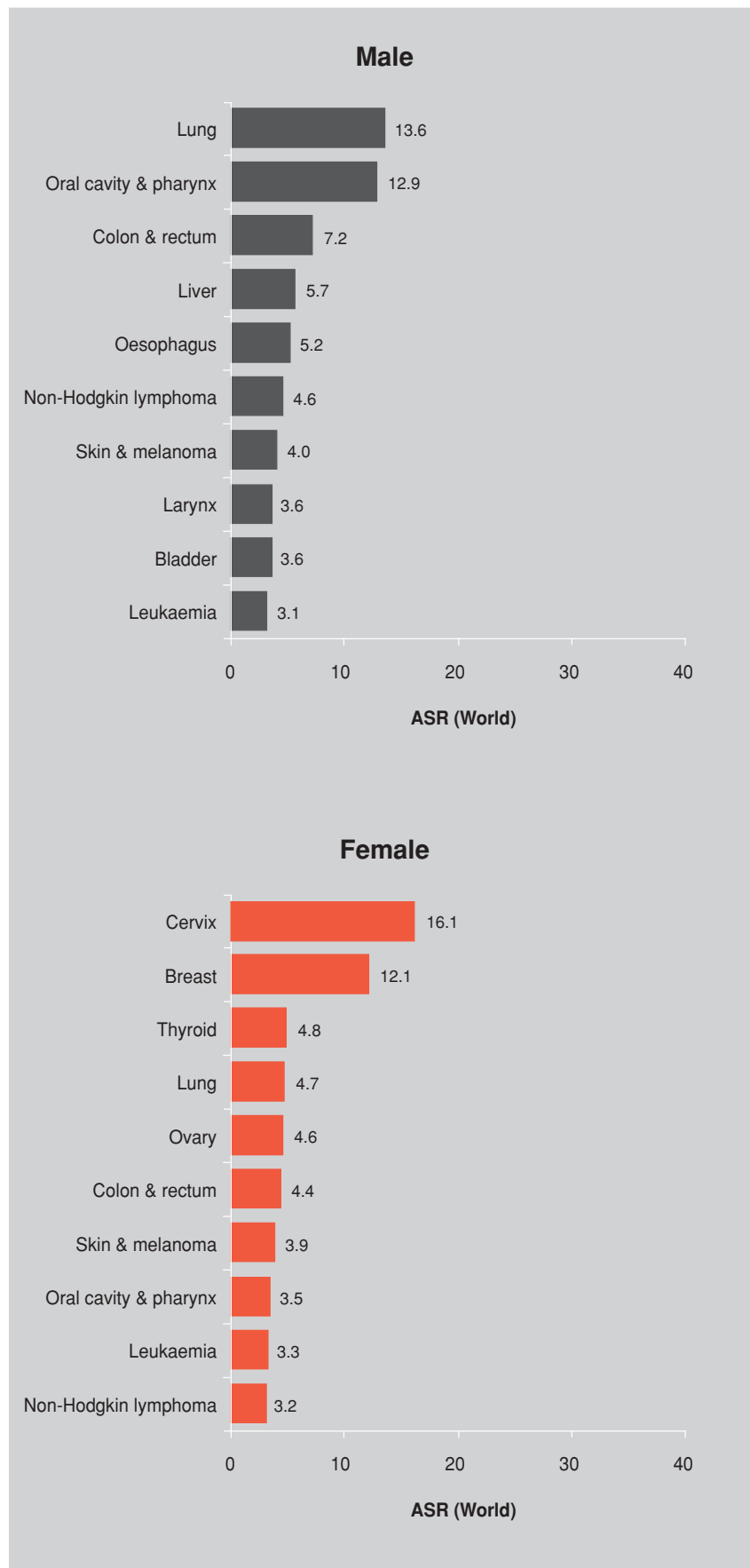
Figure 2.1.7 Leading cancers in Bangkok, 1995-1997

Figure 2.1.8 Leading cancers in Songkhla, 1995-1997

Chapter II

2

ORAL CAVITY
AND PHARYNX

ICD-10 C00-C14, EXCL. C11

Hutcha Sriplung, M.D.

Compared with other parts of the world, Thailand is among the low incident countries for oral cavity and pharynx cancers. The estimated incidence rate of oral cavity and pharynx cancers in Thailand is 6.8 per 100 000 population in males and 4.8 in females. The highest incidence of the cancers is observed in the South (Songkhla) in males and in the Northeast (Khon Kaen)

in females (Figure 2.2.1). Beginning to appear at the age of 20 years, the age-specific incidence rates of these two cancers rapidly rise with age (Figure 2.2.2).

The incidence rate for oral cavity and pharynx cancers in both males and females shows a stable or slightly declining trend in all registries throughout the past decade (Figure 2.2.3).

Figure 2.2.1 Oral cavity & pharynx cancers in different regions, 1995-1997

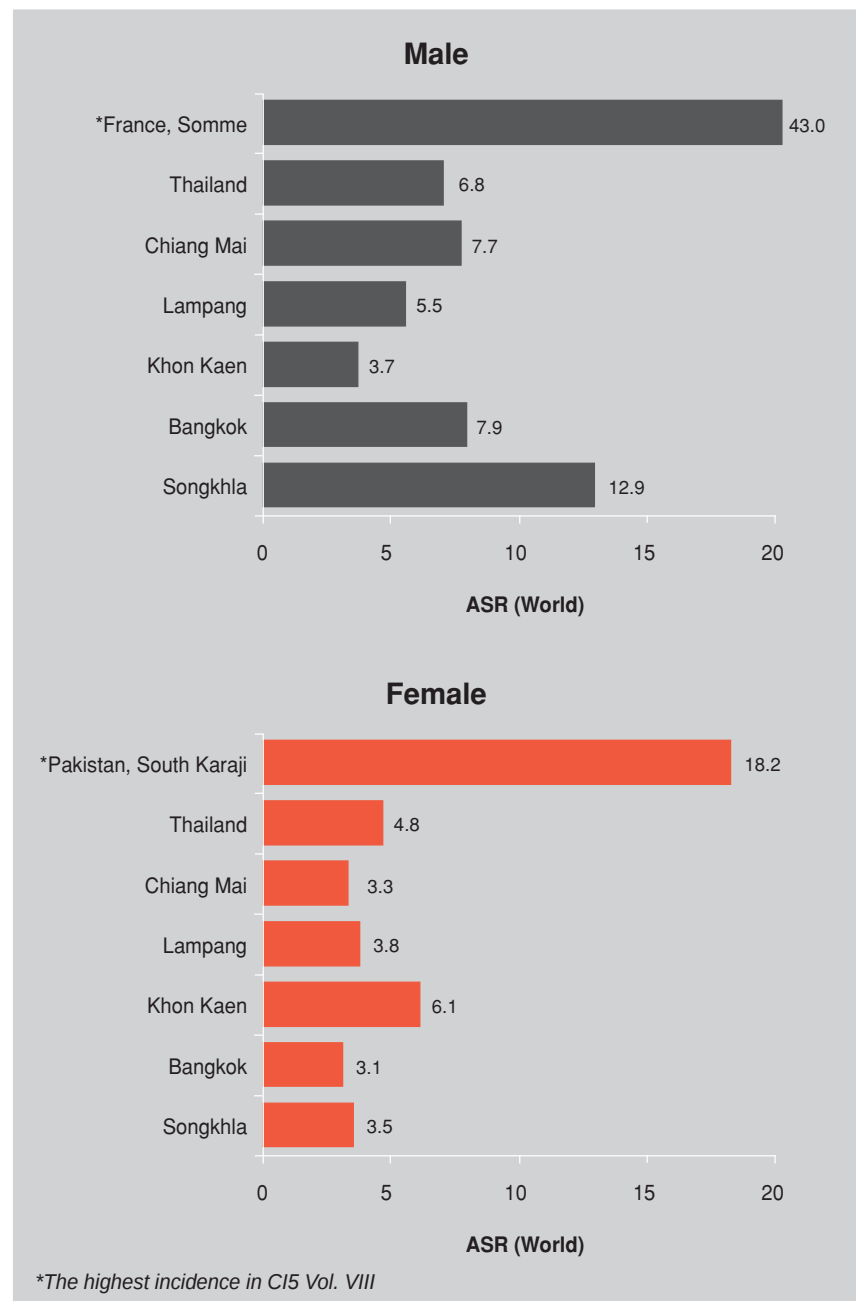


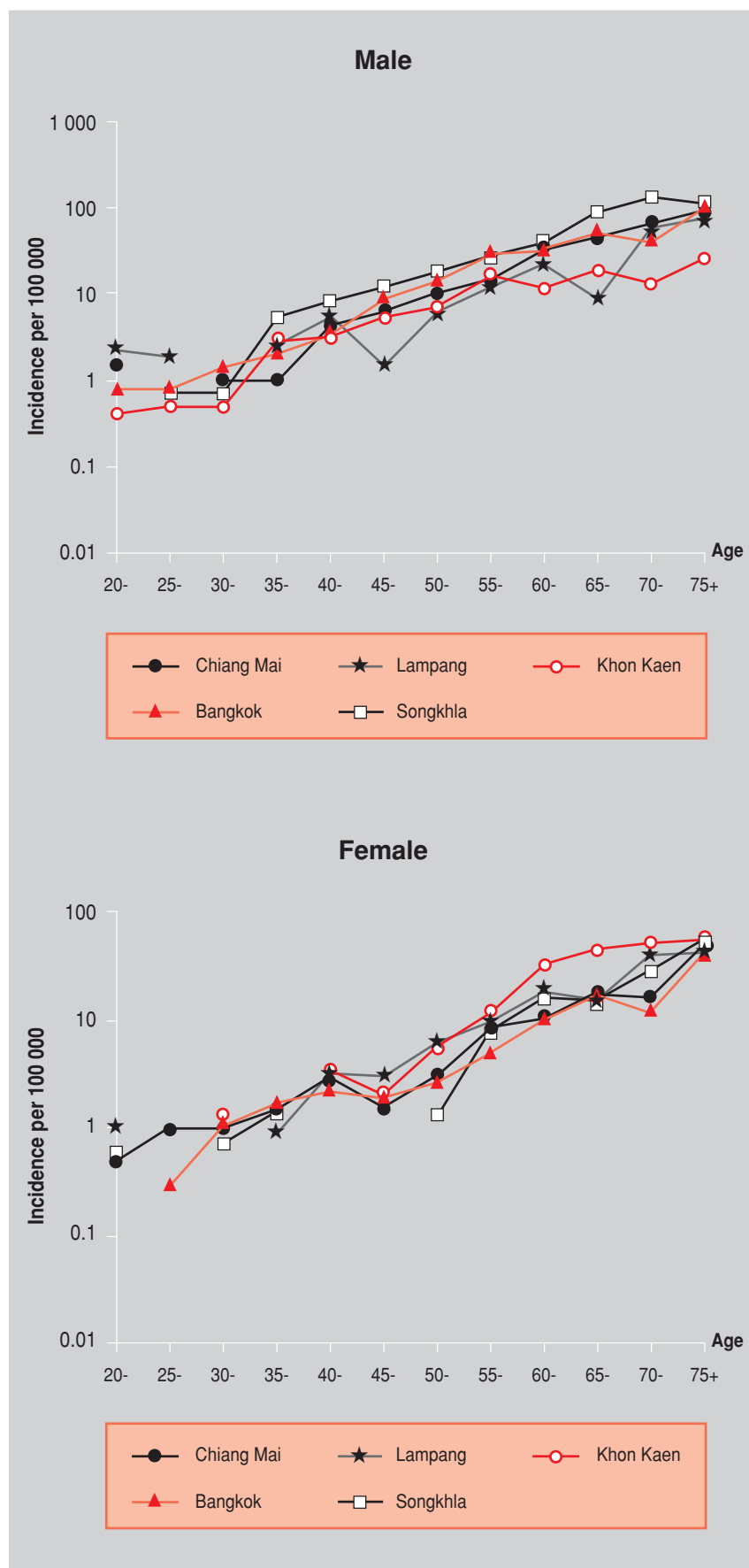
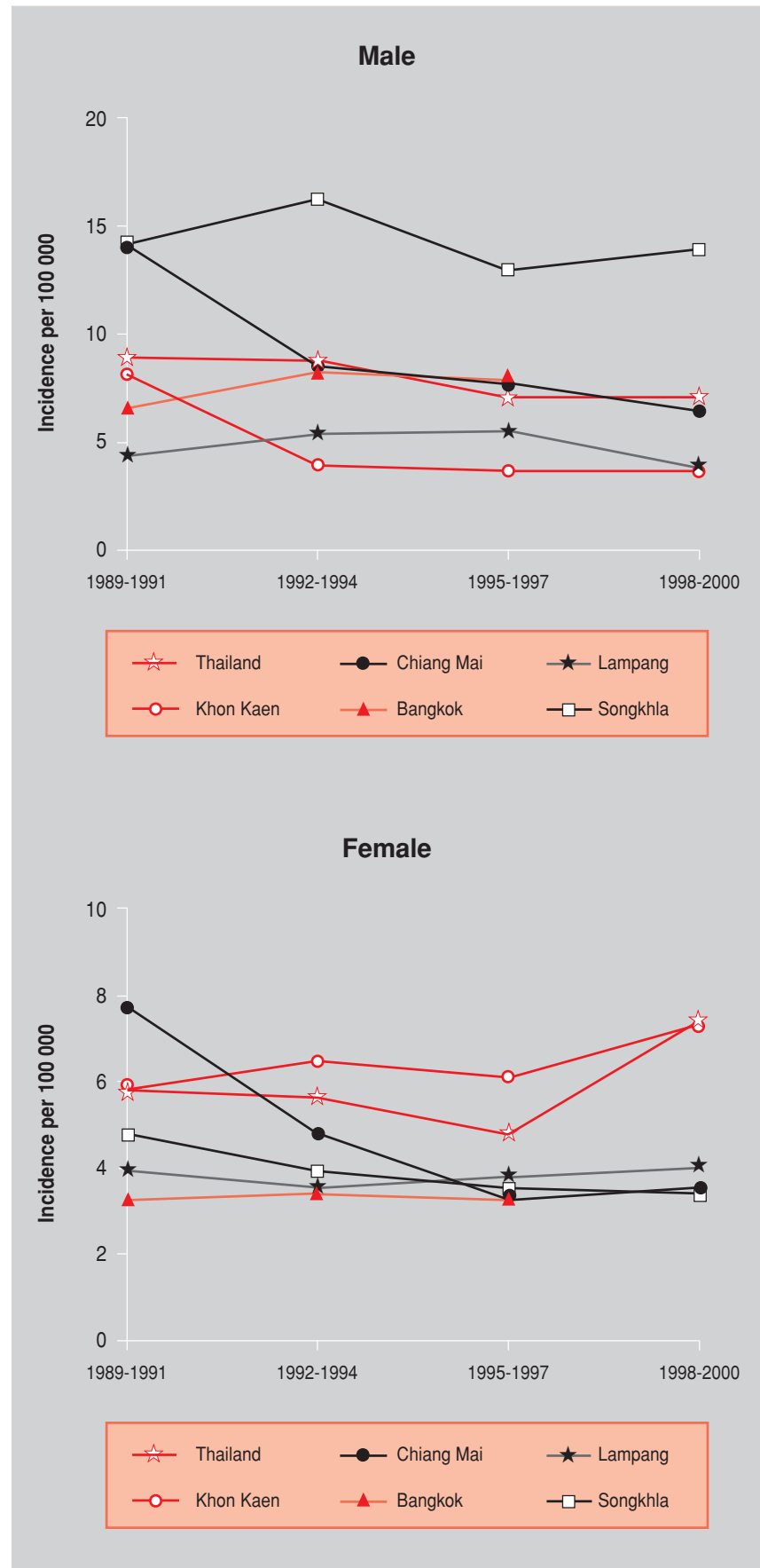
Figure 2.2.2 Age-specific incidence rates of oral cavity & pharynx cancers, 1995-1997

Figure 2.2.3 Trend in incidence of oral cavity & pharynx cancers



Chapter II

3

NASOPHARYNX

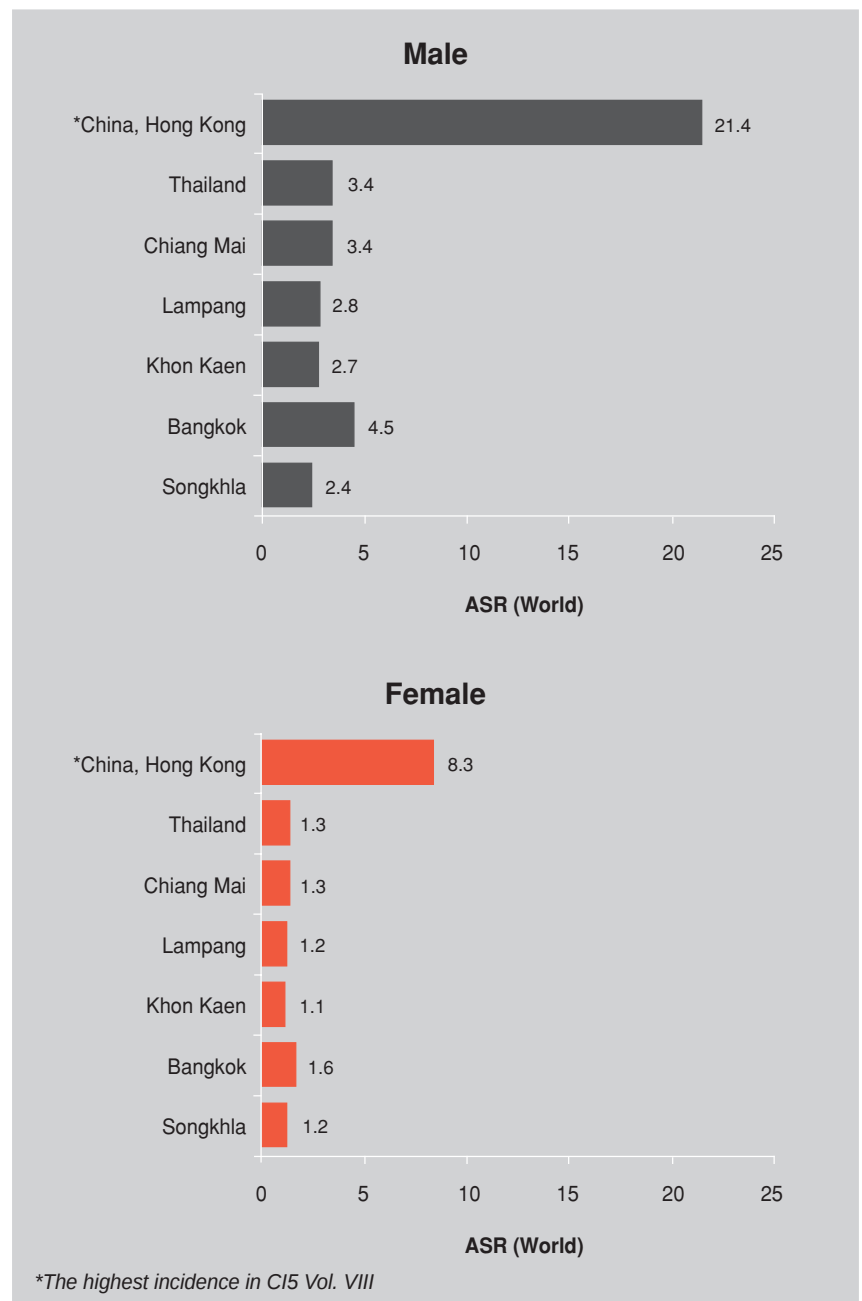
ICD-10 C11

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Songphol Srisukho, M.D.

Nasopharyngeal cancer is the most common head and neck cancer in Thailand. The incidence of nasopharyngeal cancer is highest in both males and females in Bangkok with age-standardized rate of 4.5 per 100 000 male population and 1.6 per 100 000 female population (Figure 2.3.1). The lowest incidence rate is among females in Khon Kaen (ASR = 1.1). The age

distribution is similar in all registration sites (Figure 2.3.2). It starts rather early at 10-15 years old and rises gradually. The peak is not prominent but can be noted at age 60-65 in both males and females. There is high histologically confirmed percentage ranging from 91.7% in Chiang Mai in males to the lowest 72.7% among Khon Kaen in females. Death certificate

Figure 2.3.1 Nasopharynx cancer in different regions, 1995-1997



only in three registry sites are zero. The highest DCO is in Chiang Mai (7.1%) as shown in Table 2.3.1.

Trend in incidence of nasopharyngeal cancer is almost unchanged in both sexes (Figure 2.3.3).

It is well known that the etiology of nasopharyngeal cancer relates to particular ethnic groups especially in South China and Hong Kong. The ASR in Hong Kong is 21.4 for males and 8.3 for females. Incidence in Thailand is intermediate (3.6 in males, 1.2 in females).

Figure 2.3.2 Age-specific incidence rates of nasopharynx cancer, 1995-1997

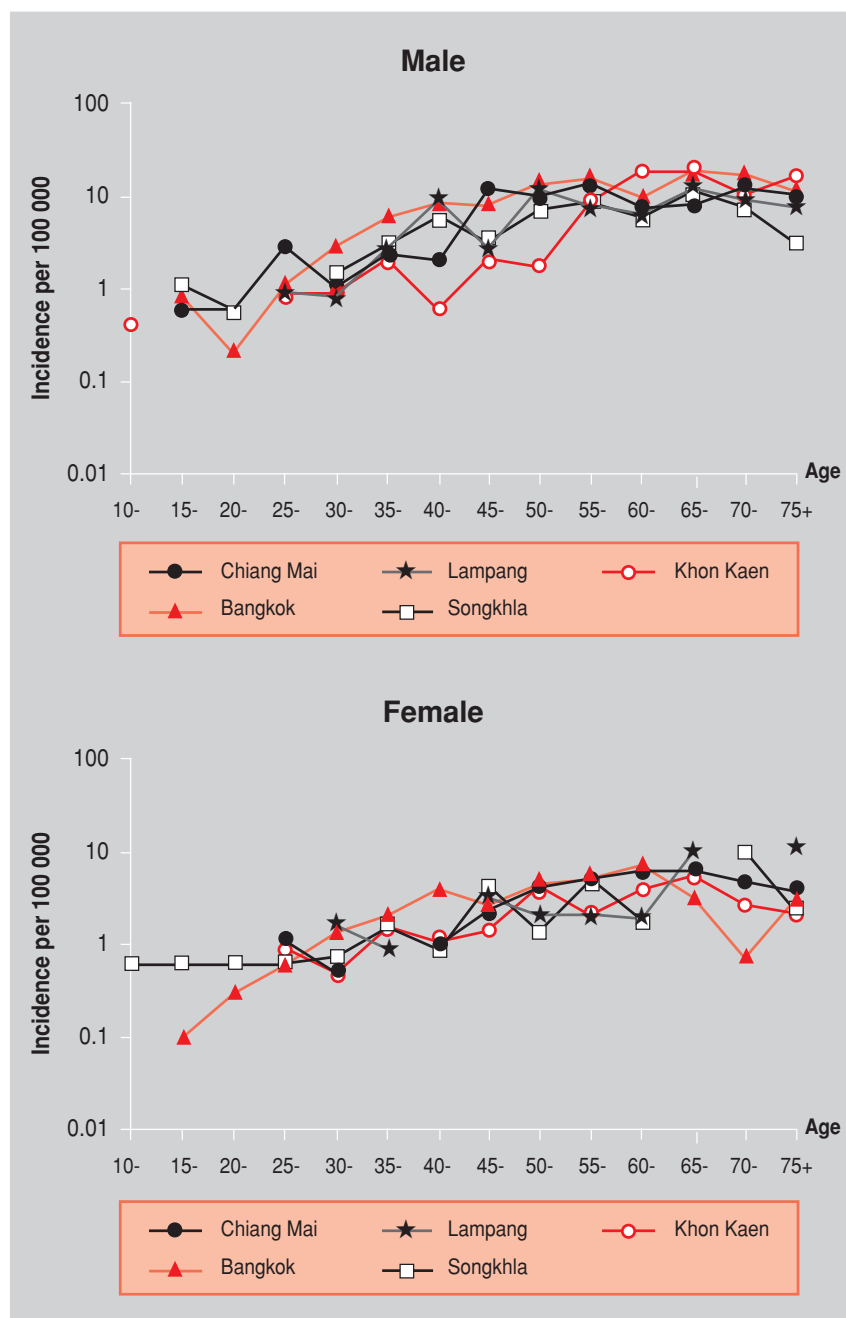
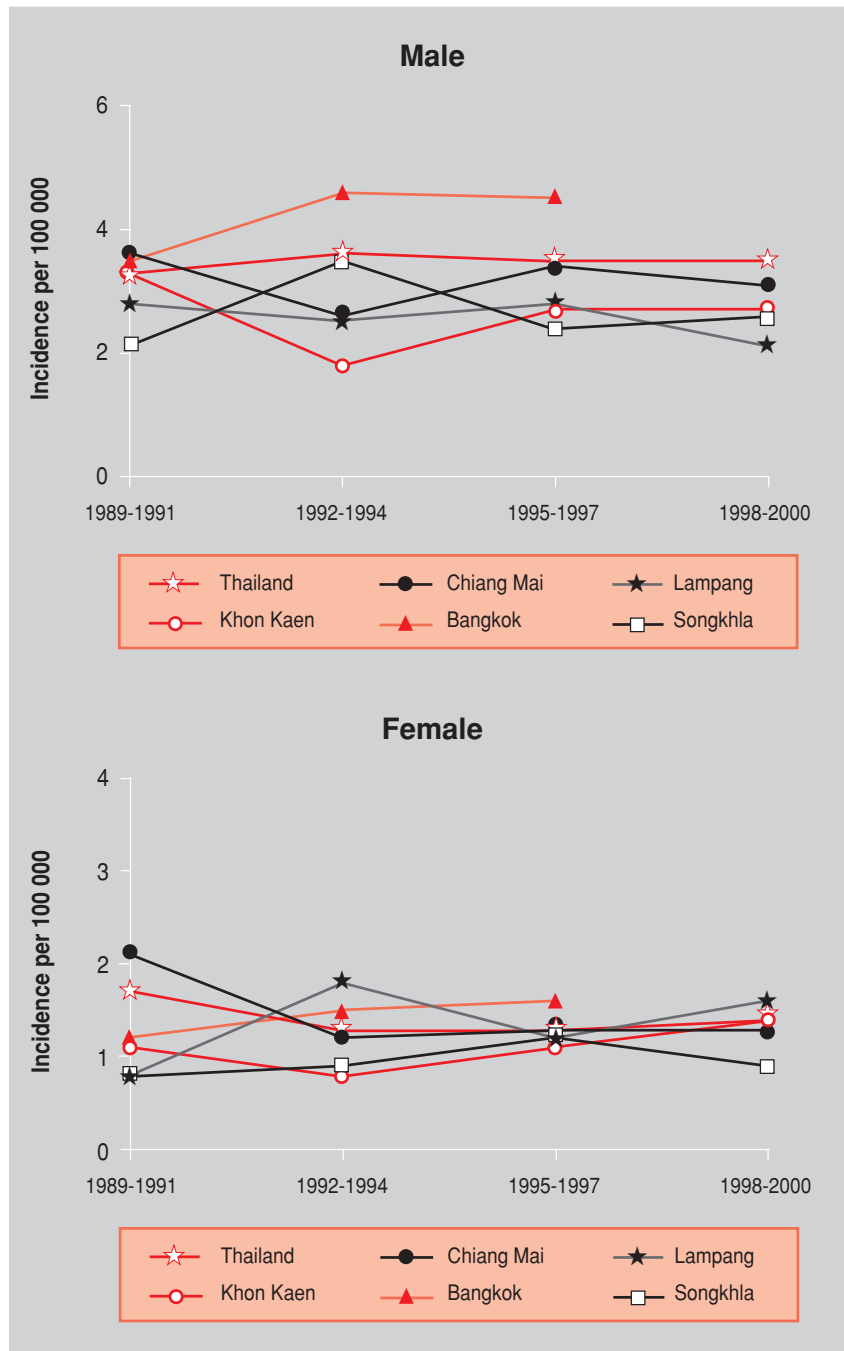


Table 2.3.1 Percentage of histologically verified and death certificate only cases, nasopharynx cancer

	1995-1997				1998-2000			
	% HV		% DCO		% HV		% DCO	
	Male	Female	Male	Female	Male	Female	Male	Female
Chiang Mai	91.7	75.0	2.8	7.1	93.2	96.8	0.0	0.0
Lampang	83.3	82.4	0.0	0.0	85.2	81.0	0.0	0.0
Khon Kaen	84.3	72.7	0.0	0.0	83.1	80.6	0.0	0.0
Bangkok	83.1	88.2	1.7	2.0				
Songkhla	100.0	95.2	0.0	0.0	97.7	100.0	0.0	0.0

%HV = percentage of histologically verified cases, %DCO = percentage of death certificate only cases

Figure 2.3.3 Trend in incidence of nasopharynx cancer

Chapter II

4

OESOPHAGUS

ICD-10 C15

Hutcha Sriplung, M.D.

Compared with other parts of the world, Thailand is among the low incident countries for oesophagus cancer. The estimated incidence rate of oesophagus cancer in Thailand is 3.2 per 100 000 population in males and 0.9 in females. The highest incidence of oesophagus cancer is observed in the south (Songkhla) in both sexes (Figure 2.4.1). The incidence rate in males is about 3 times higher than in the

other provinces except Bangkok. The ratio is less in females. Very low below the age of 40 years, the age-specific incidence rates of oesophagus cancer rapidly rise with age (Figure 2.4.2).

The incidence rate for oesophagus cancer in males shows a stable trend while it is slightly declining in females in all registries throughout the past decade (Figure 2.4.3).

Figure 2.4.1 Oesophagus cancer in different regions, 1995-1997

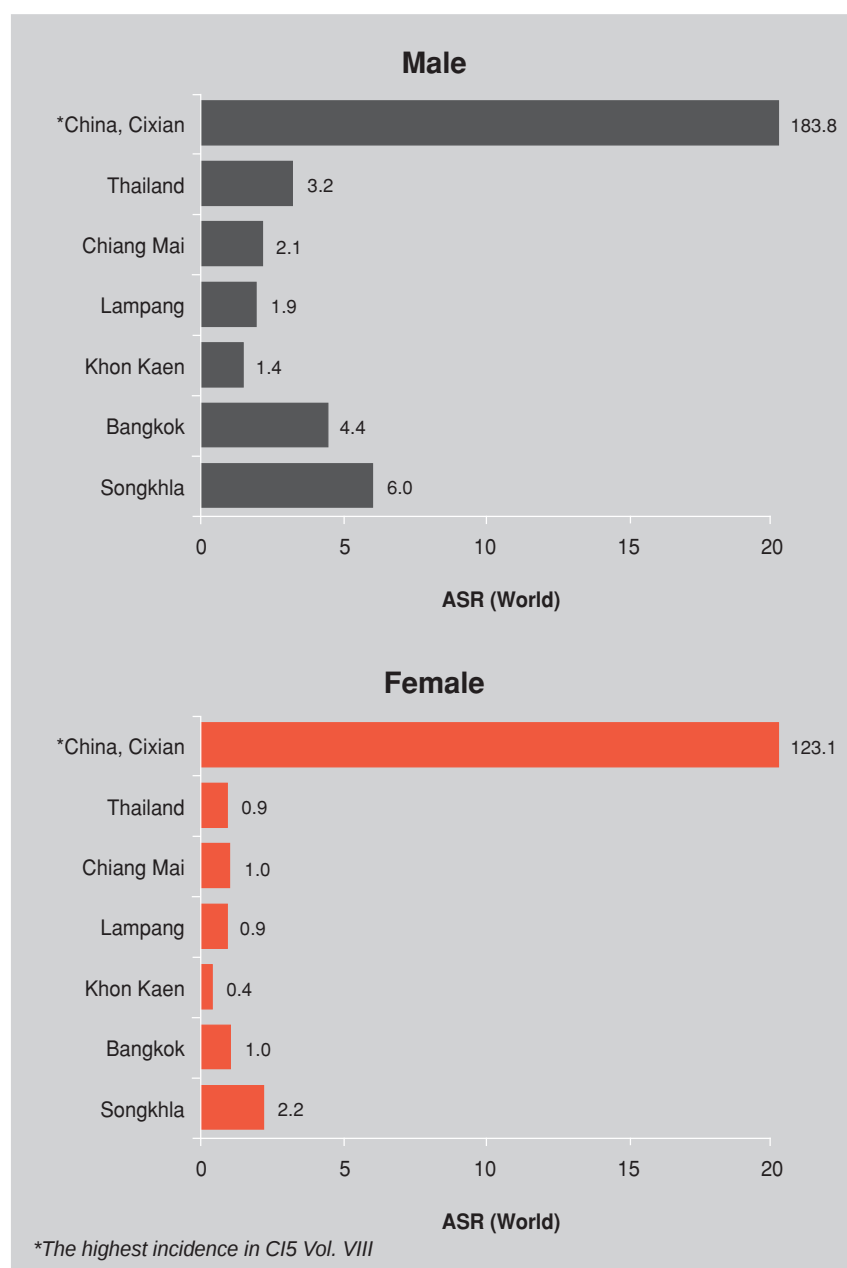


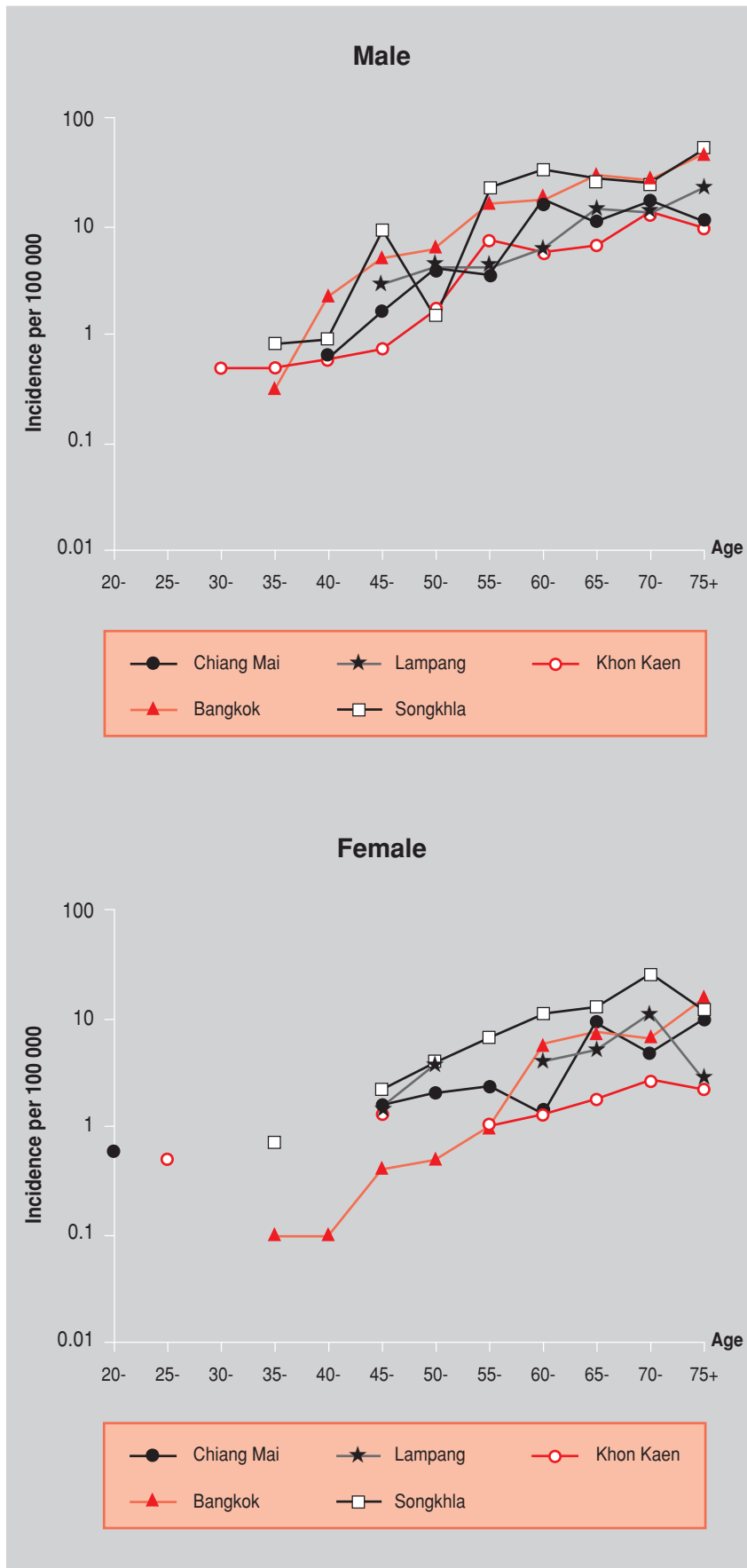
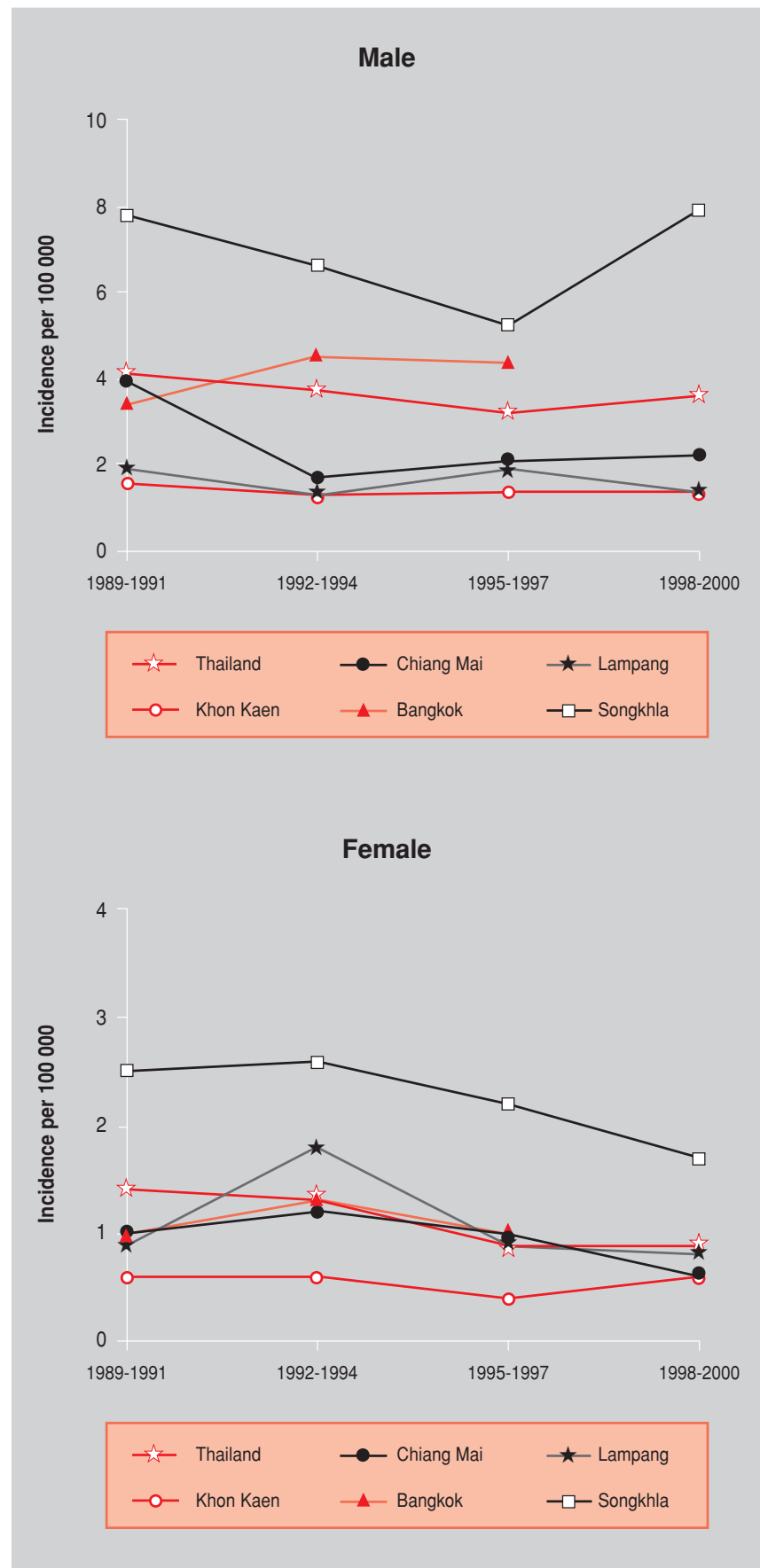
Figure 2.4.2 Age-specific incidence rates of oesophagus cancer, 1995-1997

Figure 2.4.3 Trend in incidence of oesophagus cancer

Chapter II

5

STOMACH

ICD-10 C16

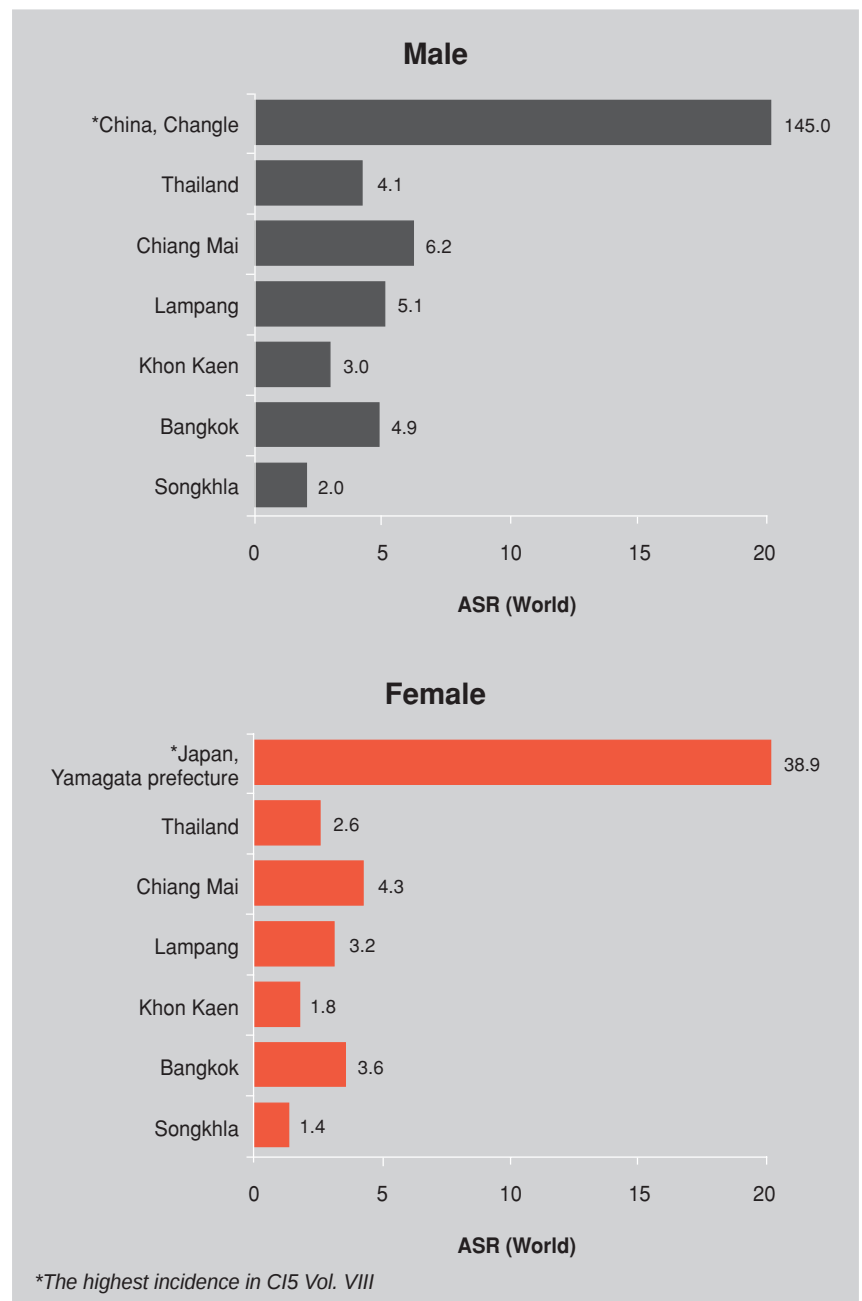
Yupa Sumitsawan, M.D.
Songphol Srisukho, M.D.

Incidence of cancer of the stomach in Thailand is highest in Chiang Mai for both genders (ASR : male = 6.2, female = 4.3). The lowest incidence rate is in Songkhla for males (ASR = 2.0) and for females (ASR = 1.4) (Figure 2.5.1). Age-specific incidence rates show a rise that starts at age 25 to a maximum around age 50 with plateau at older ages (Figure 2.5.2).

Histological verification varies from 42.7% in females in Khon Kaen to 95.4% in males in Songkla. Death certificate notification only was found to be zero at Songkhla up to 7.9% in Bangkok (Table 2.5.1).

Trends of stomach cancer has minimal change except Chiang Mai that slopes down in both males and females (Figure 2.5.3).

Figure 2.5.1 Stomach cancer in different regions, 1995-1997



There is big difference between the incidence rate of the highest in the world (ASR = 145 in males and 38.9 in females) and in Thailand (4.1 in males and 2.6 in females).

Figure 2.5.2 Age-specific incidence rates of stomach cancer, 1995-1997

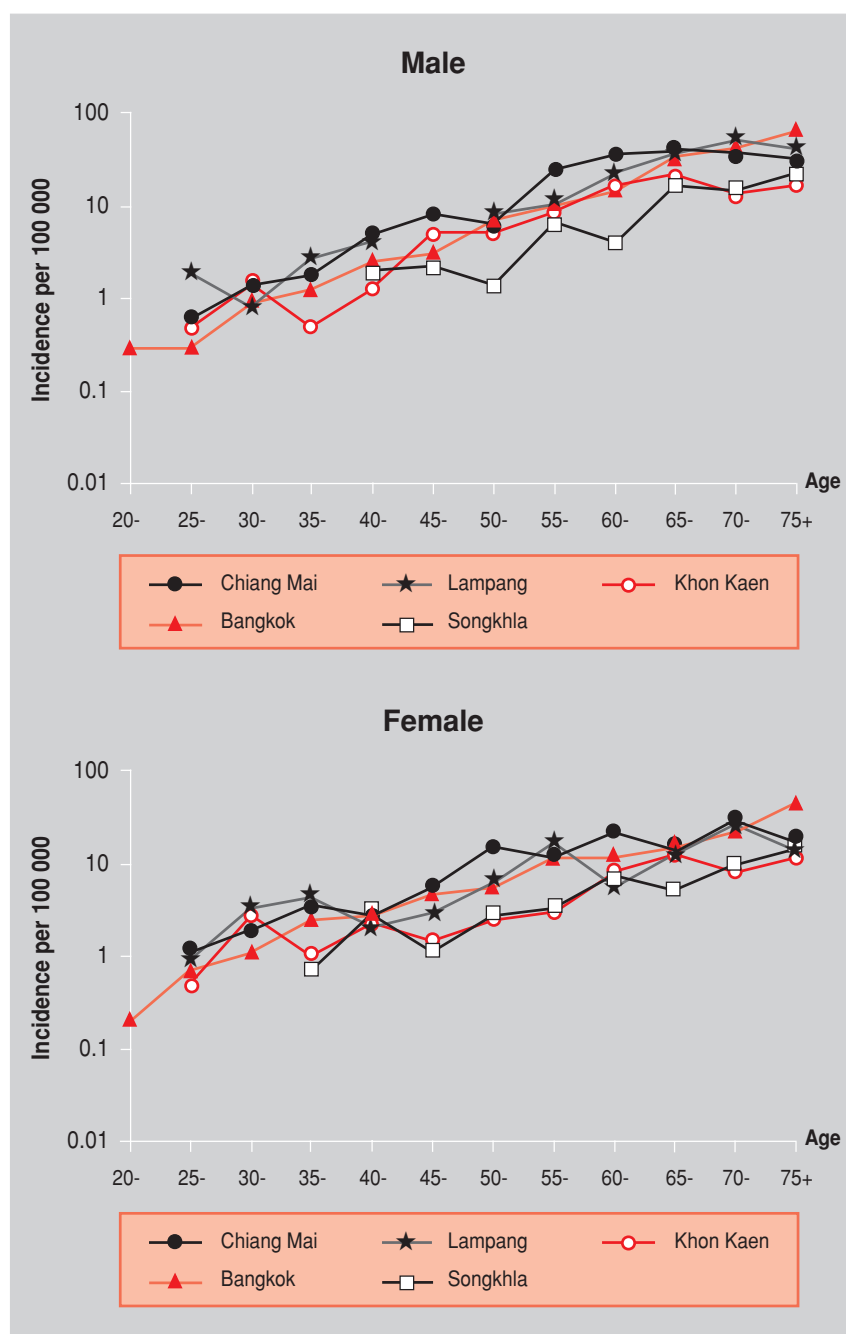
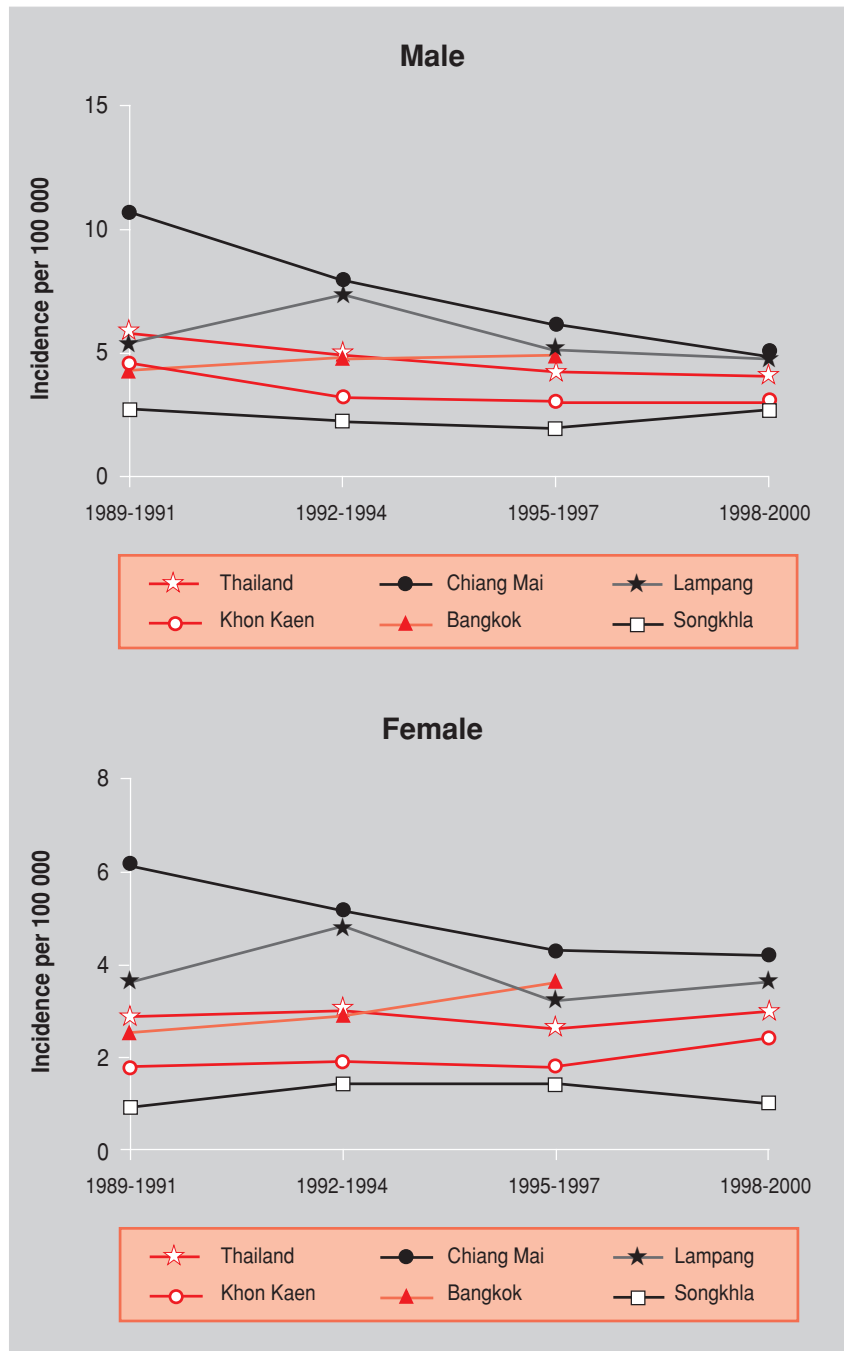


Table 2.5.1 Percentage of histologically verified and death certificate only cases, stomach cancer

	1995-1997				1998-2000			
	% HV		% DCO		% HV		% DCO	
	Male	Female	Male	Female	Male	Female	Male	Female
Chiang Mai	87.9	79.8	2.3	2.1	88.4	100.0	0.0	0.0
Lampang	65.5	60.0	6.3	6.7	68.8	66.7	17.2	10.0
Khon Kaen	49.1	42.7	5.3	7.1	81.9	50.8	1.2	0.0
Bangkok	81.8	79.6	7.9	7.0				
Songkhla	96.4	87.5	0.0	0.0	95.4	100.0	2.3	0.0

%HV = percentage of histologically verified cases, %DCO = percentage of death certificate only cases

Figure 2.5.3 Trend in incidence of stomach cancer

Chapter II

6

COLON AND
RECTUM

ICD-10 C18-21

Nimit Martin, M.D.
Surathat Pongnikorn, M.D.

In Thailand during the period 1995-1997, colorectal cancer is the third in frequency in males after liver cancer and lung cancer, and the fifth after cancer of the cervix, liver, breast and lung in females. The estimated standardized incidence rate is 10.9 per 100 000 in men and 7.3 in women. The estimated sex ratio of colorectal cancer in Thailand is 1.2:1 (2 619

males and 2 215 females). Colonic cancer (1 605 cases) is more frequent than rectal cancer (1 014 cases) with a ratio of 1.6:1.

The highest incidence rate of colorectal cancer in both sexes is in Bangkok (age-standardized incidence rate 16.6 in males and 11.0 in females) followed by Lampang, Chiang Mai, Songkhla and Khon Kaen (Figure 2.6.1).

Figure 2.6.1 Colorectum cancer in different regions, 1995-1997

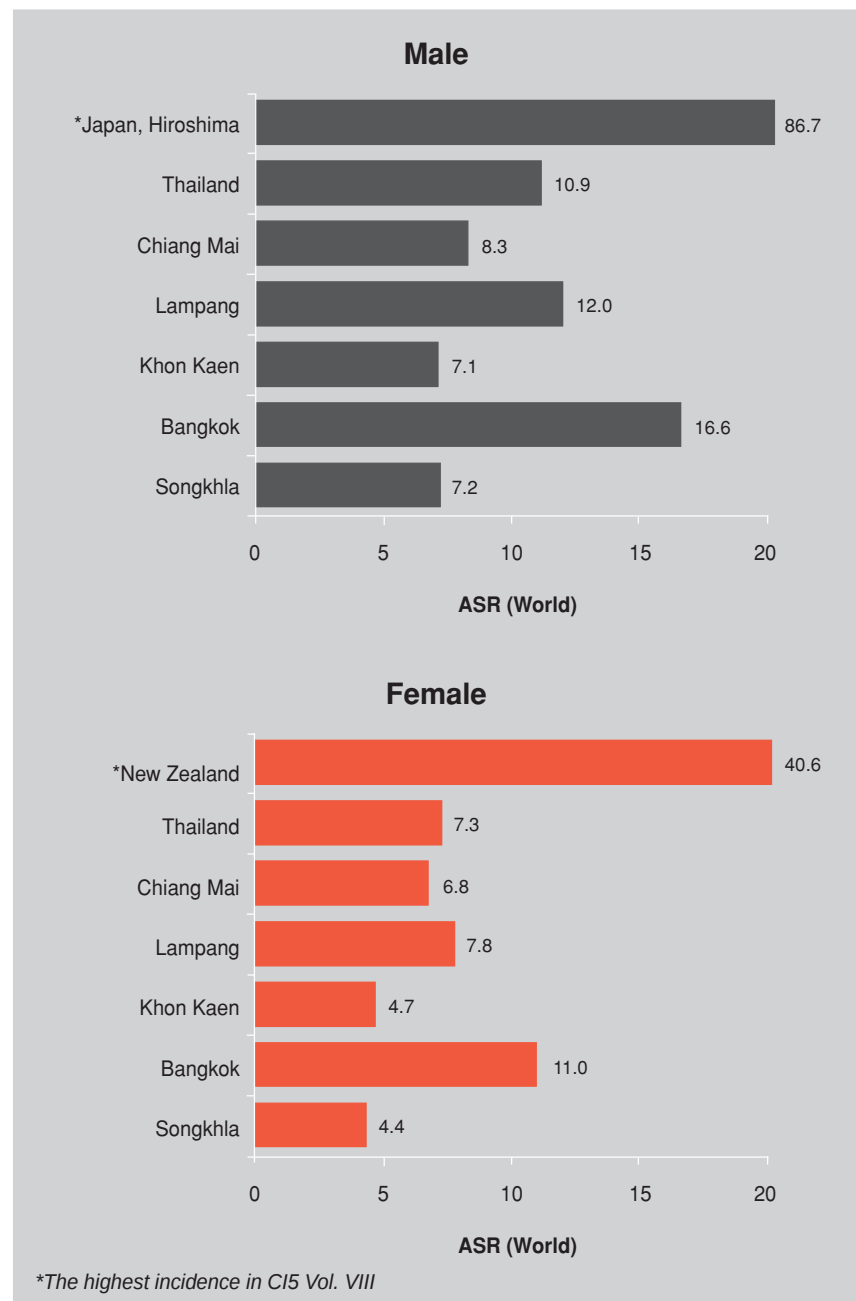
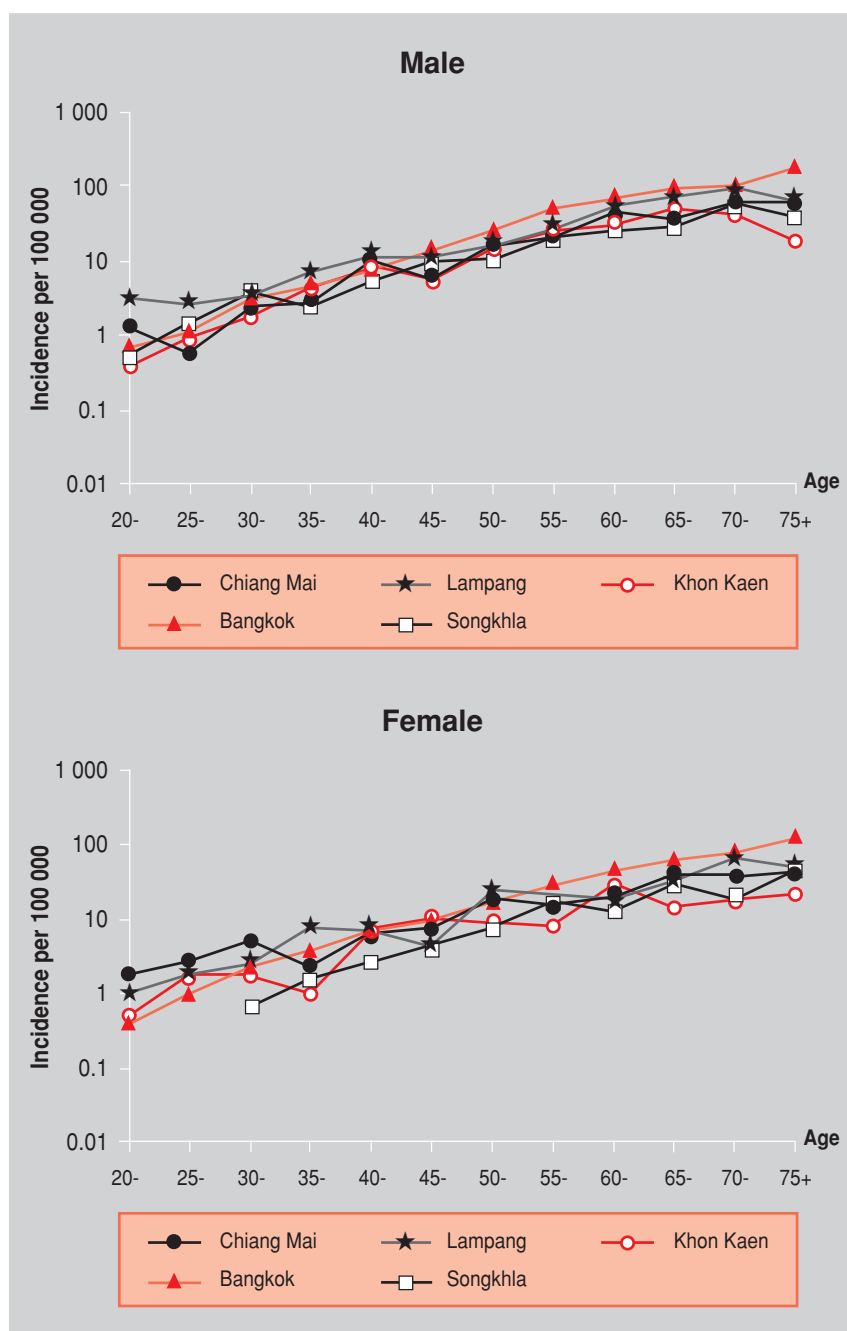


Figure 2.6.2 Age-specific incidence rates of colorectum cancer, 1995-1997

Male colorectal cancer ranks the second in Bangkok, the third in Lampang, Chiang Mai, Songkhla and Khon Kaen. Female colorectal cancer ranks the third in Bangkok, the fifth in Lampang and Chiang Mai and the sixth in Songkhla and Khon Kaen. Males are affected more frequently than females with the sex ratio varying from 1.15 in Chiang Mai to 1.39 in Khon Kaen.

Age-specific incidence rates in both males and females are higher in Bangkok than in the other regions. The majority of cases occur after the age of 50 in both sexes (Figure 2.6.2). Colorectal carcinoma is usually a disease of the elderly with the peak incidence in the seventh decade, however the disease is seen before age twenty.

The percentage of histologically verified cases varies from 64.5% in Khon Kaen to 86.2% in Chiang Mai in men and from 61.3% in Khon Kaen to 89.5% in Songkhla in women. The most common histological type is adenocarcinoma. The percentage of death certificate only cases varies from 0.0% in Khon Kaen to 10.6% in Lampang in males and from 0.0% in Khon Kaen and Songkhla to 10.0% in Lampang in females (Table 2.6.1).

From the two books of cancer in Thailand during 1988-1991

Table 2.6.1 Percentage of histologically verified and death certificate only cases, colorectum cancer

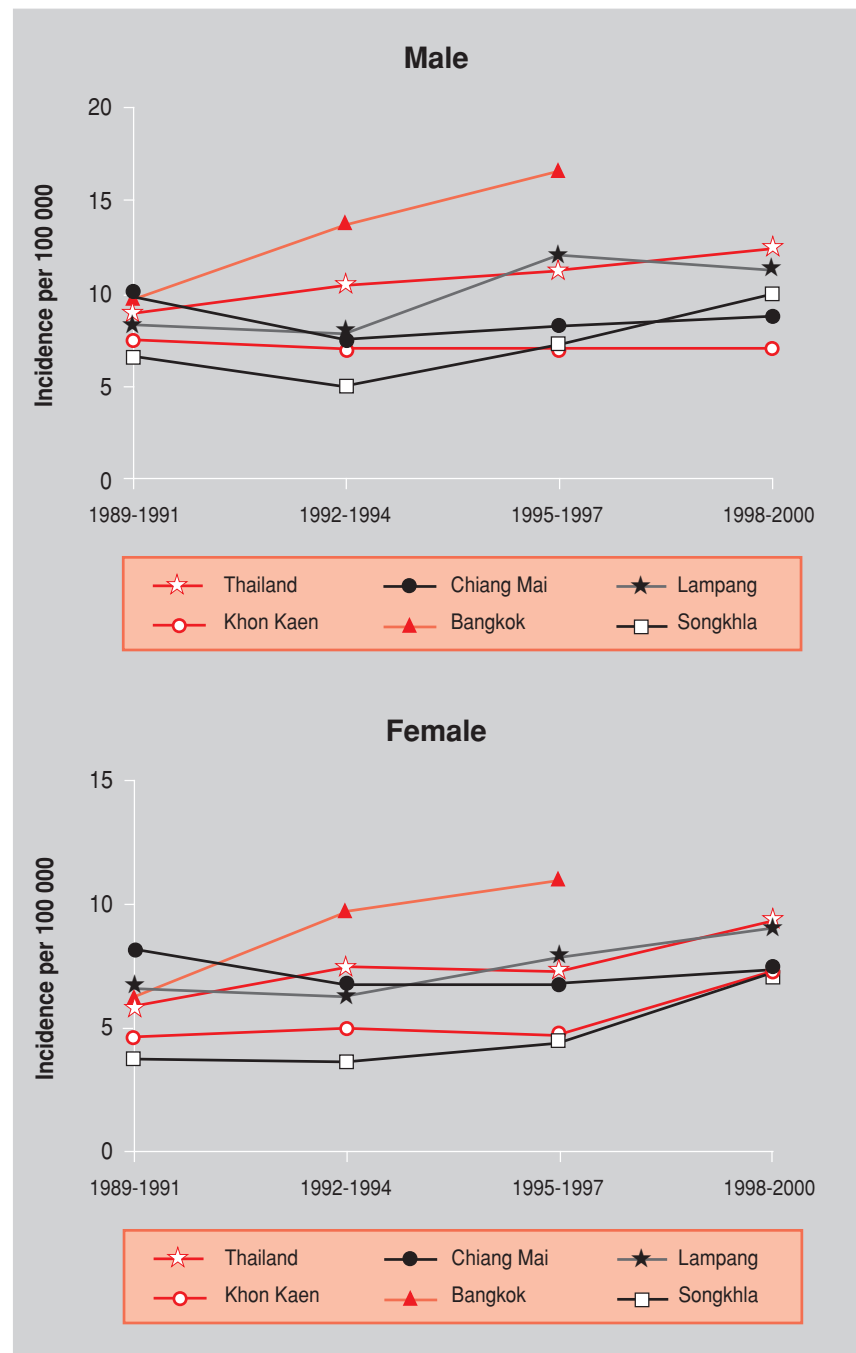
	1995-1997				1998-2000			
	% HV		% DCO		% HV		% DCO	
	Male	Female	Male	Female	Male	Female	Male	Female
Chiang Mai	86.2	84.3	0.5	2.2	90.2	93.4	0.0	0.0
Lampang	70.2	67.4	10.6	10.0	67.0	65.5	15.0	20.3
Khon Kaen	64.5	61.3	0.0	0.0	53.5	59.5	0.0	0.0
Bangkok	81.6	80.8	6.5	7.0				
Songkhla	84.5	89.5	4.5	0.0	93.1	87.9	0.0	0.8

%HV = percentage of histologically verified cases, %DCO = percentage of death certificate only cases

(Vatanasapt *et al.*, 1993) and 1992-1994 (Deerasamee *et al.*, 1999), colorectal cancer shows an increasing trend in both males and females in all centers (Figure 2.6.3).

The highest incidence rate in the world in men is seen in Hiroshima in Japan (ASR = 86.7) and in women in New Zealand (ASR = 40.6) (Figure 2.6.1).

Figure 2.6.3 Trend in incidence of colorectum cancer



Chapter II

7

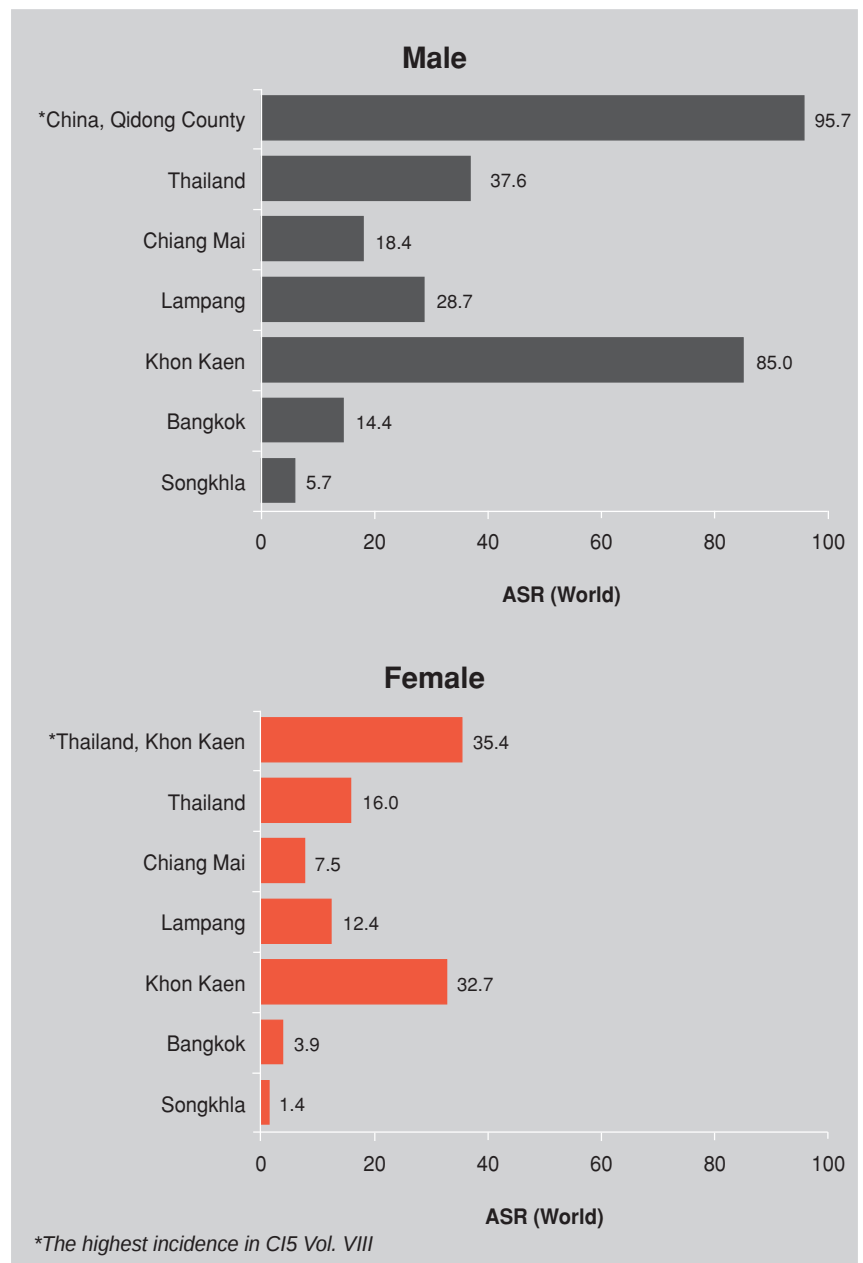
LIVER
ICD-10 C22

Supanee Sriamporn, Ph.D.
Darunee Jintakanon, D.D.S., M.Sc.
Supot Kamsa-ard, M.P.H.

The overall incidence rates of liver cancer during 1995-1997 ranged from 5.7 per 100 000 to 85.0 per 100 000 in males and 1.4 to 32.7 in females. Data of 1993-1997 were included in CI5 Vol.VIII, Khon Kaen continues to have the highest incidence in the world in female but not male (Parkin et al., 2002) (Figures 2.7.1). The age distribution is similar in all centers (Figures 2.7.2).

The percentage of different histological types varies greatly between the regions of Thailand. In Khon Kaen, 86.5% of cases are cholangiocarcinoma (CCA) (Figure 2.7.4). The proportion of liver cases which are CCA is also relatively high in Chiang Mai (51.5%) and Lampang (61.5%), but it is lower in Bangkok (29.7%). In Songkhla cholangiocarcinomas are rare (21.5%) (Figure 2.7.4). These

Figure 2.7.1 Liver cancer in different regions, 1995-1997



findings are still similar to the previous reports of Cancer in Thailand volume 1 and volume 2 (Vatanasapt *et al.*, 1993, Deerasamee *et al.*, 1999).

The incidence data of 1998-2000 is available in Khon Kaen and Chiang Mai. A slight decline in incidence of liver cancer in male is noted in Khon Kaen (Figure 2.7.3).

Figure 2.7.2 Age-specific incidence rates of liver cancer, 1995-1997

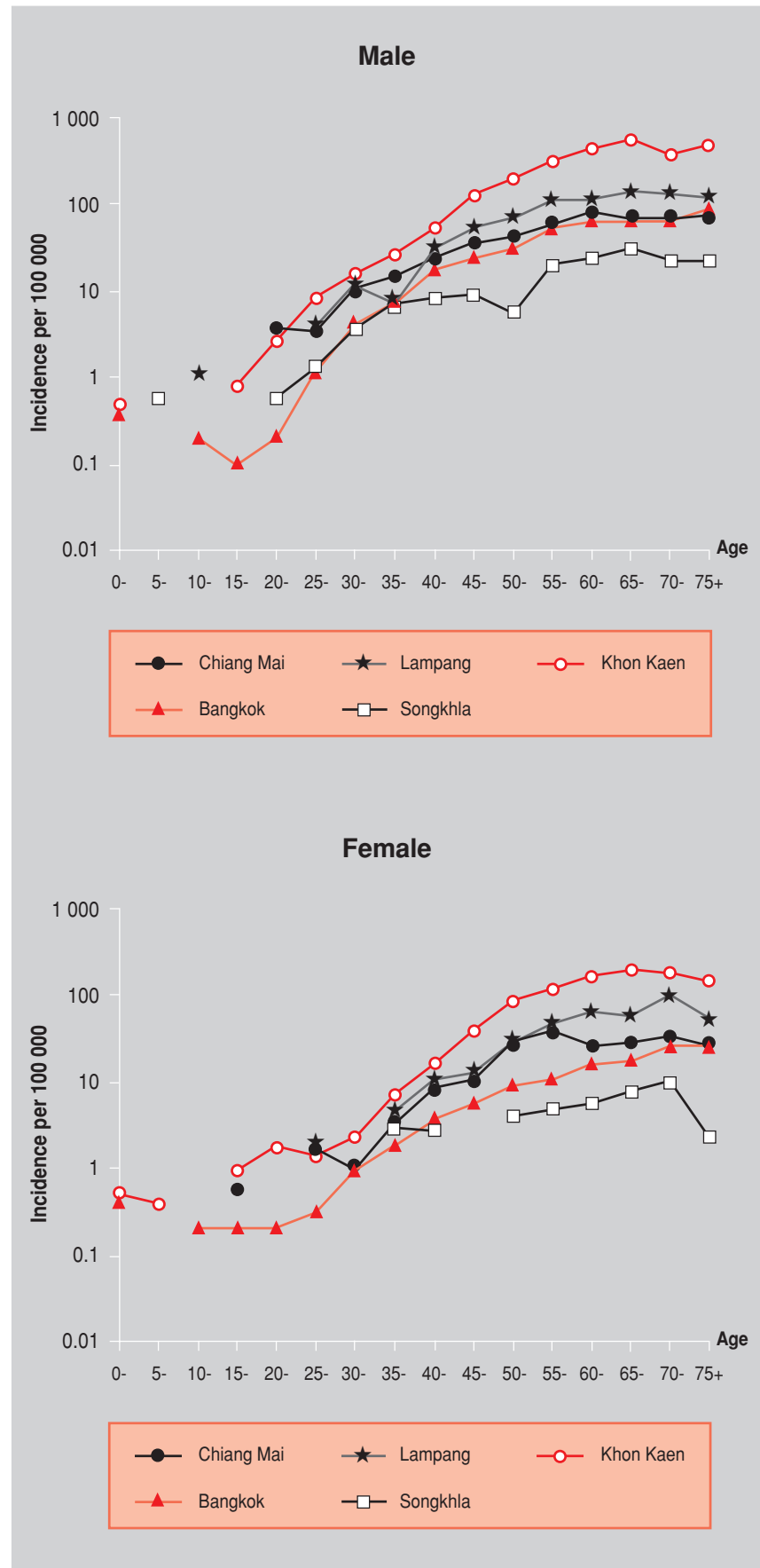


Figure 2.7.3 Trend in incidence of liver cancer

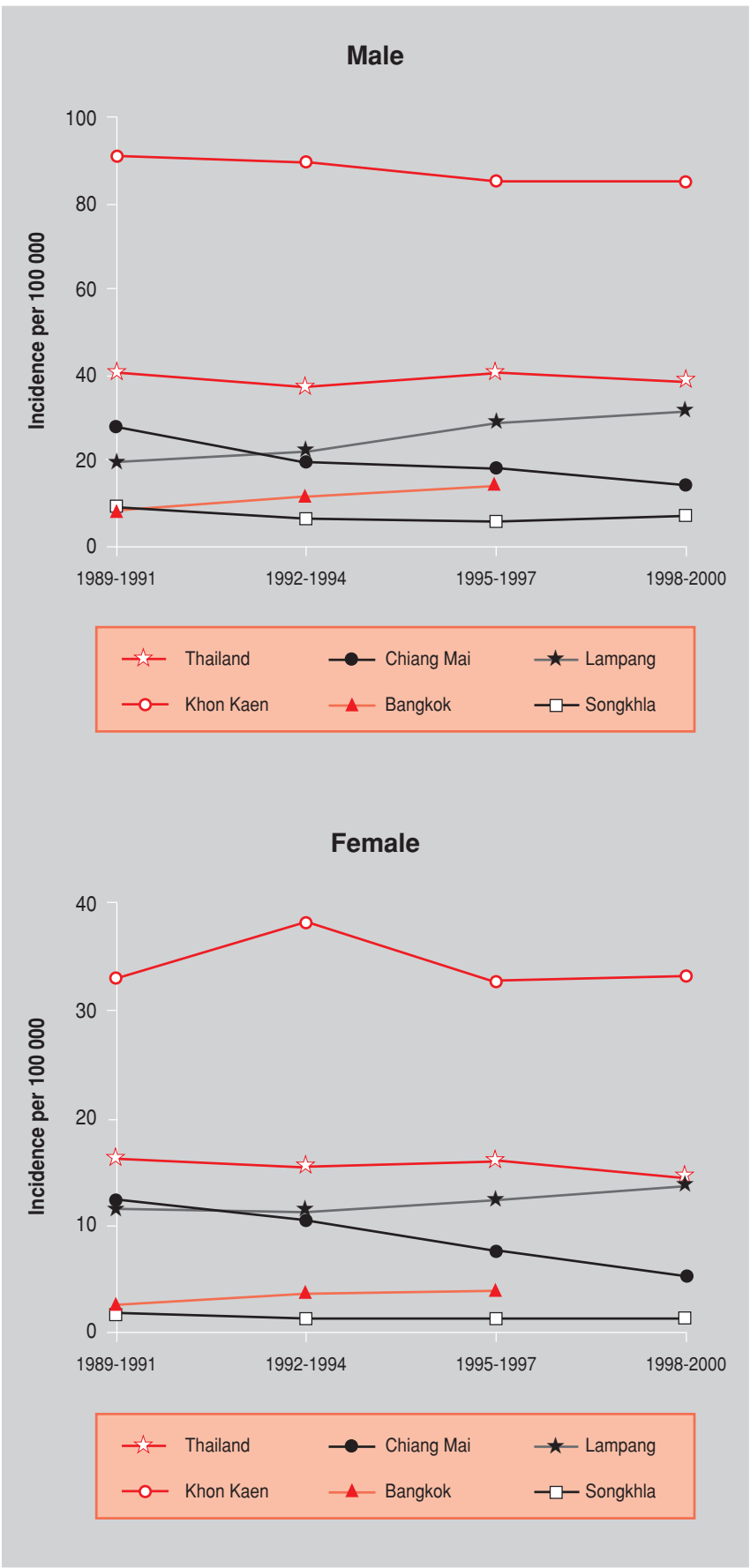
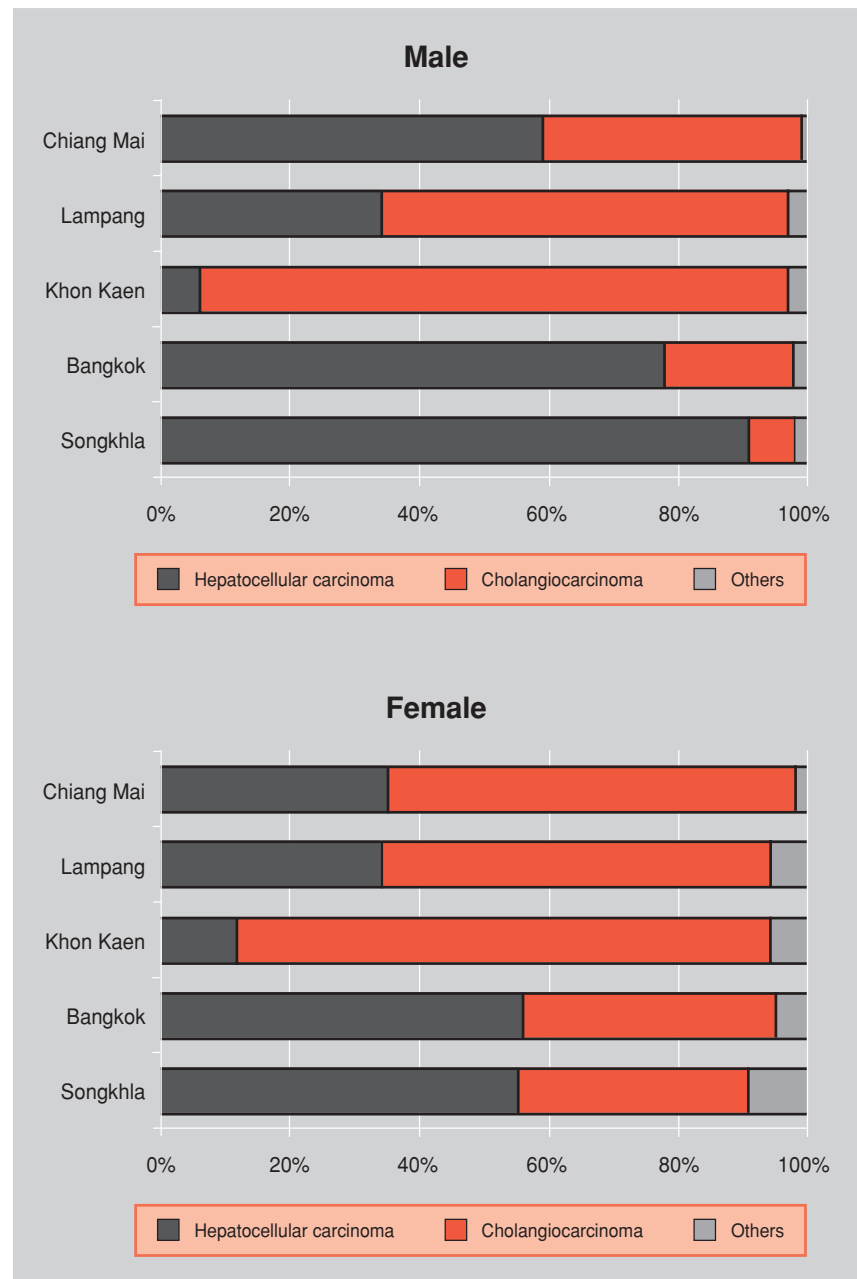


Figure 2.7.4 Histological type of liver cancer

Chapter II

8

GALLBLADDER AND EXTRAHEPATIC BILE DUCT

ICD-10 C23-24

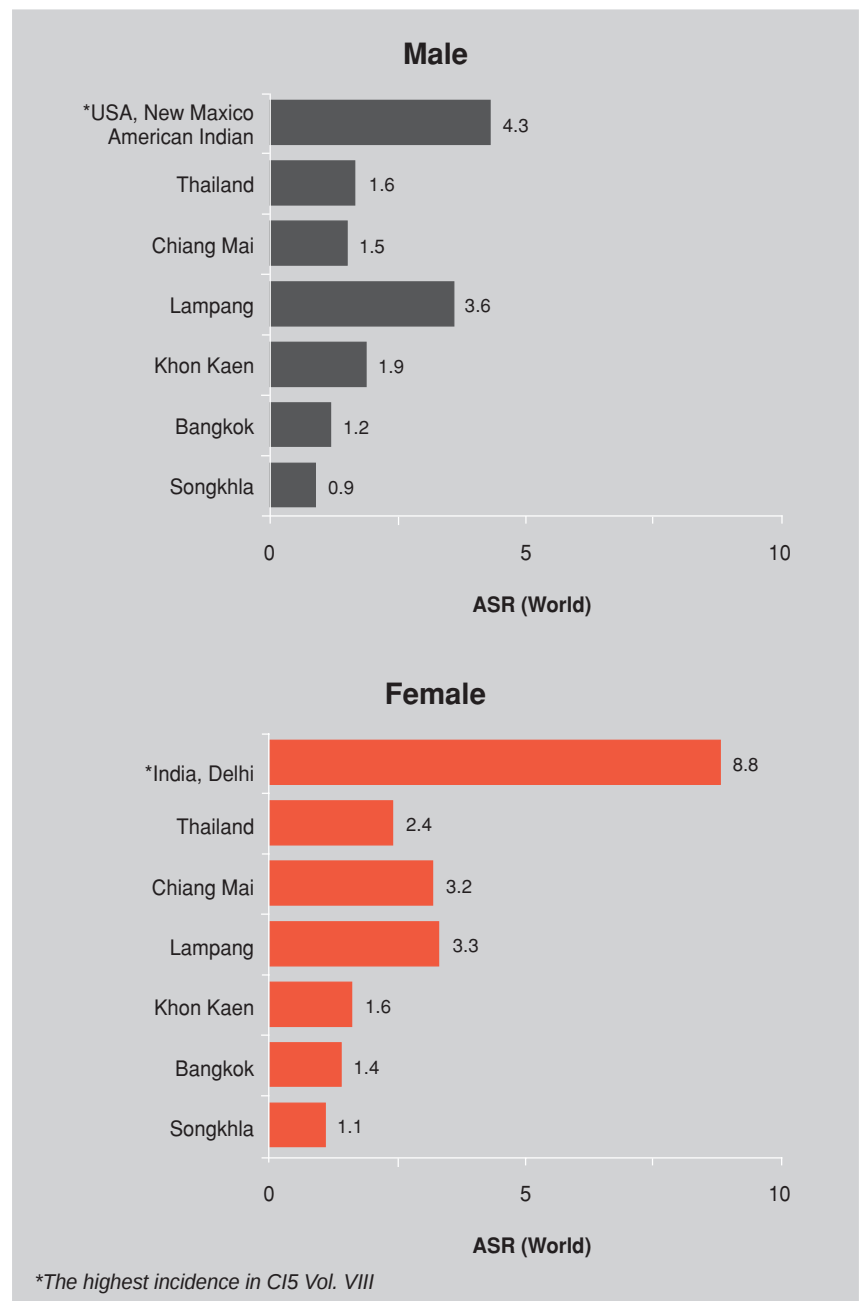
*Surathat Pongnikorn, M.D.
Nimit Martin, M.D.*

In Thailand during the period 1995-1997, carcinoma of gallbladder and extrahepatic duct is not included in the top ten of the most frequency. The estimated incidence rate is 1.6 per 100 000 among males and 2.4 per 100 000 among females. Females (728 cases) are affected by gallbladder and extrahepatic bile duct cancer more than

males (377 cases) in a ratio of 1.9:1.

Gallbladder cancer and extrahepatic bile duct carcinoma are the tenth in frequency in Lampang in both males (ASR = 3.6) and females (ASR = 3.3) which is the highest incidence rate among five centers. Female are affected more than males in Chiang Mai, Bangkok and Songkhla although in

Figure 2.8.1 Gallbladder and extrahepatic bile duct cancer in different regions, 1995-1997



Lampang and Khon Kaen males are affected more than females. The lowest incidence is in Songkhla in both males (ASR = 0.9) and females (ASR = 1.1) (Figure 2.8.1).

Age-specific incidence rates in both males and females are higher in Chiang Mai and Lampang than the other regions. Cancer of gallbladder and extrahepatic duct is hardly seen below 25 years of age. The majority of cases occurs after the age of 55 in men and 45 in women with the peak incidence in the seventh decade for both sexes (Figure 2.8.2).

The percentage of histologically verified cases varies from 27.3% in Khon Kaen to 84.6% in Songkhla in men and from 32.4% in Khon Kaen to 76.5% in Songkhla in women. The percentage of death certificate only cases varies from 0.0% in Songkhla to 15.2% in Khon Kaen in men and from 0.0% in Songkhla to 14.3% in Bangkok in women (Table 2.8.1). The most common histological type is adenocarcinoma.

From the two volumes of Cancer in Thailand during 1988-1991 (Vatanasapt *et al.*, 1993) and 1992-1994 (Deerasamee *et al.*, 1999), gallbladder and extrahepatic bile duct cancer shows an increase trend in both males and females in Khon Kaen, Bangkok and Song-

Figure 2.8.2 Age-specific incidence rates of gallbladder and extrahepatic bile duct cancer, 1995-1997

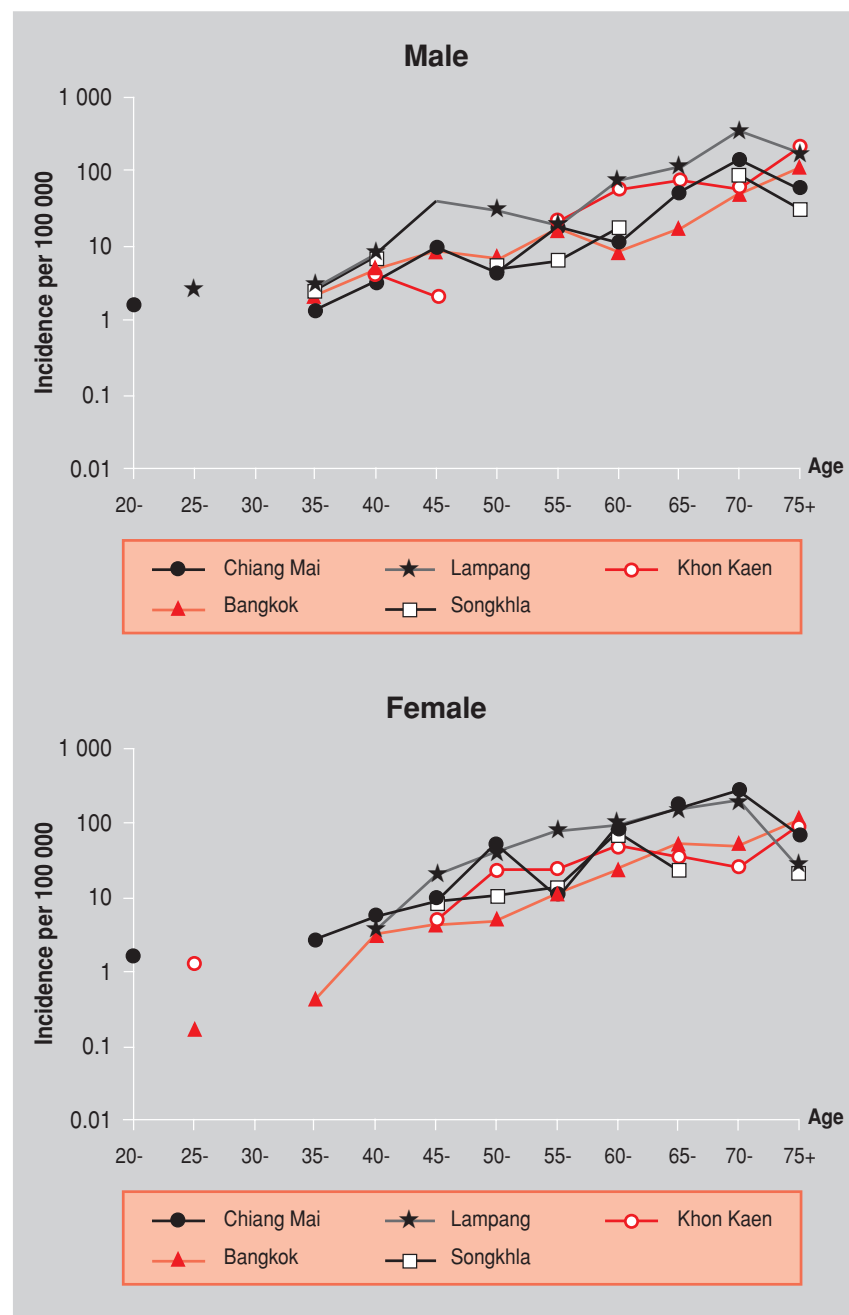
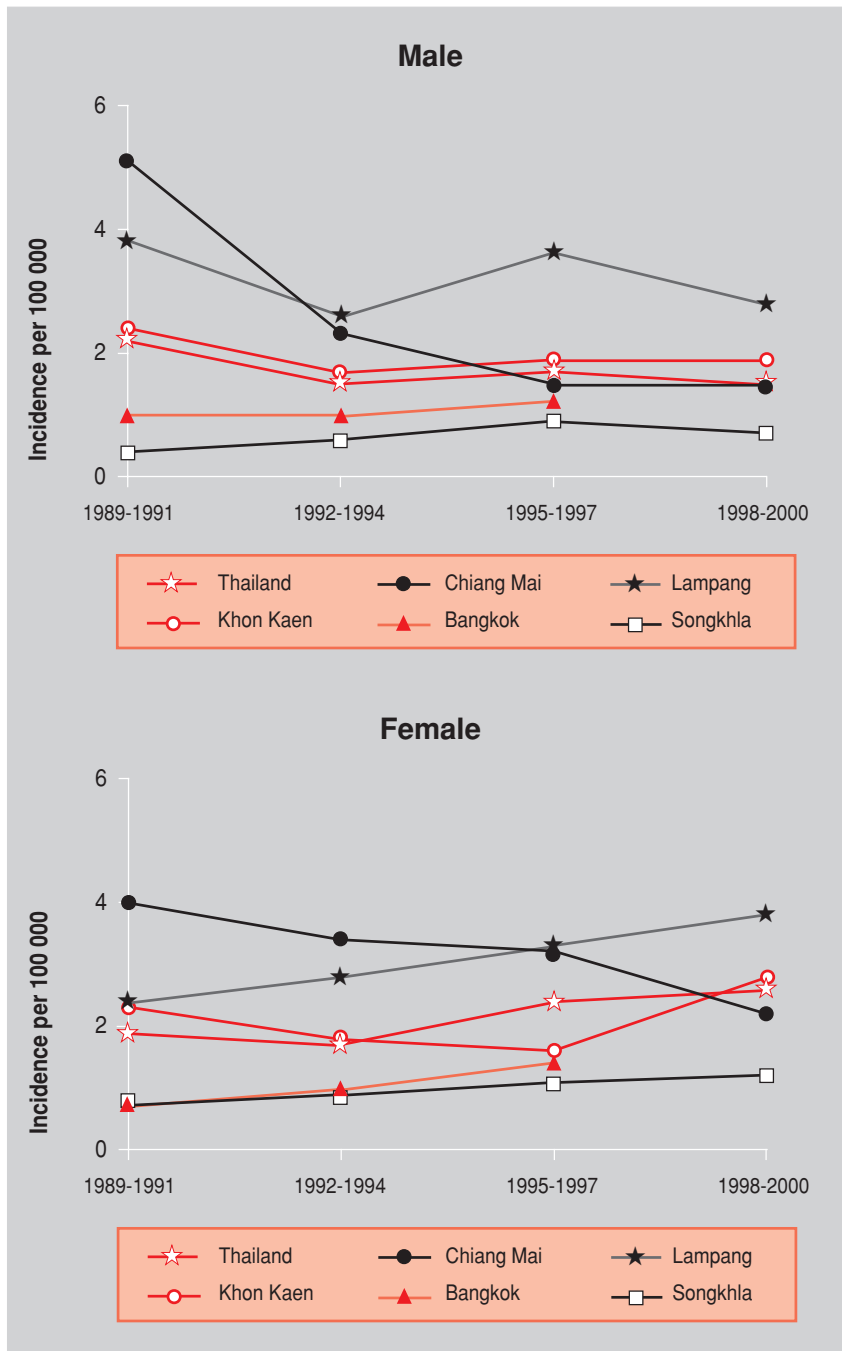


Table 2.8.1 Percentage of histologically verified and death certificate only cases, gallbladder and extra hepatic bile duct

	1995-1997				1998-2000			
	% HV		% DCO		% HV		% DCO	
	Male	Female	Male	Female	Male	Female	Male	Female
Chiang Mai	69.7	60.3	3.0	1.5	75.0	78.8	0.0	0.0
Lampang	53.5	54.8	4.7	9.5	55.6	51.8	8.3	3.6
Khon Kaen	27.3	32.4	15.2	2.9	40.8	47.1	0.0	0.0
Bangkok	72.6	69.5	13.1	14.3				
Songkhla	84.6	76.5	0.0	0.0	54.6	90.9	0.0	0.8

%HV = percentage of histologically verified cases, %DCO = percentage of death certificate only cases

Figure 2.8.3 Trend in incidence of gallbladder and extrahepatic bile duct cancers

khla. In Lampang it shows an increasing incidence rate especially in females. Although in Chiang Mai it shows a declining trend in both sexes (Figure 2.8.3).

The highest incidence rate in the world in men is seen in USA, New Mexico, American Indian (ASR = 4.3) and in women in India, Delhi (ASR = 8.8) (Figure 2.8.1).

Chapter II

9

LARYNX

ICD-10 C32

Yupa Sumitsawan, M.D.
Songphol Srisukho, M.D.

The age standardized incidence rate of laryngeal cancer in Chiang Mai, Lampang, Songkhla and Bangkok is almost equal (4.0, 3.4, 3.6 and 4.0) in males. The incidence is low in males in Khon Kaen (ASR = 1.4). Among females the incidence rate is higher in the northern part of the country (Chiang Mai and Lampang). There was no case of female laryngeal

cancer in Khon Kaen (Table 2.9.1).

The age-specific incidence rates of laryngeal cancer rise as the age increases to reach a peak at age 65-70 in every registration sites in both sexes (Figure 2.9.2).

Most of the cases were histologically verified (73.9%-95.0%) and those diagnosed on the basis of death certificate only were few (Table 2.9.1).

Figure 2.9.1 Larynx cancer in different regions, 1995-1997

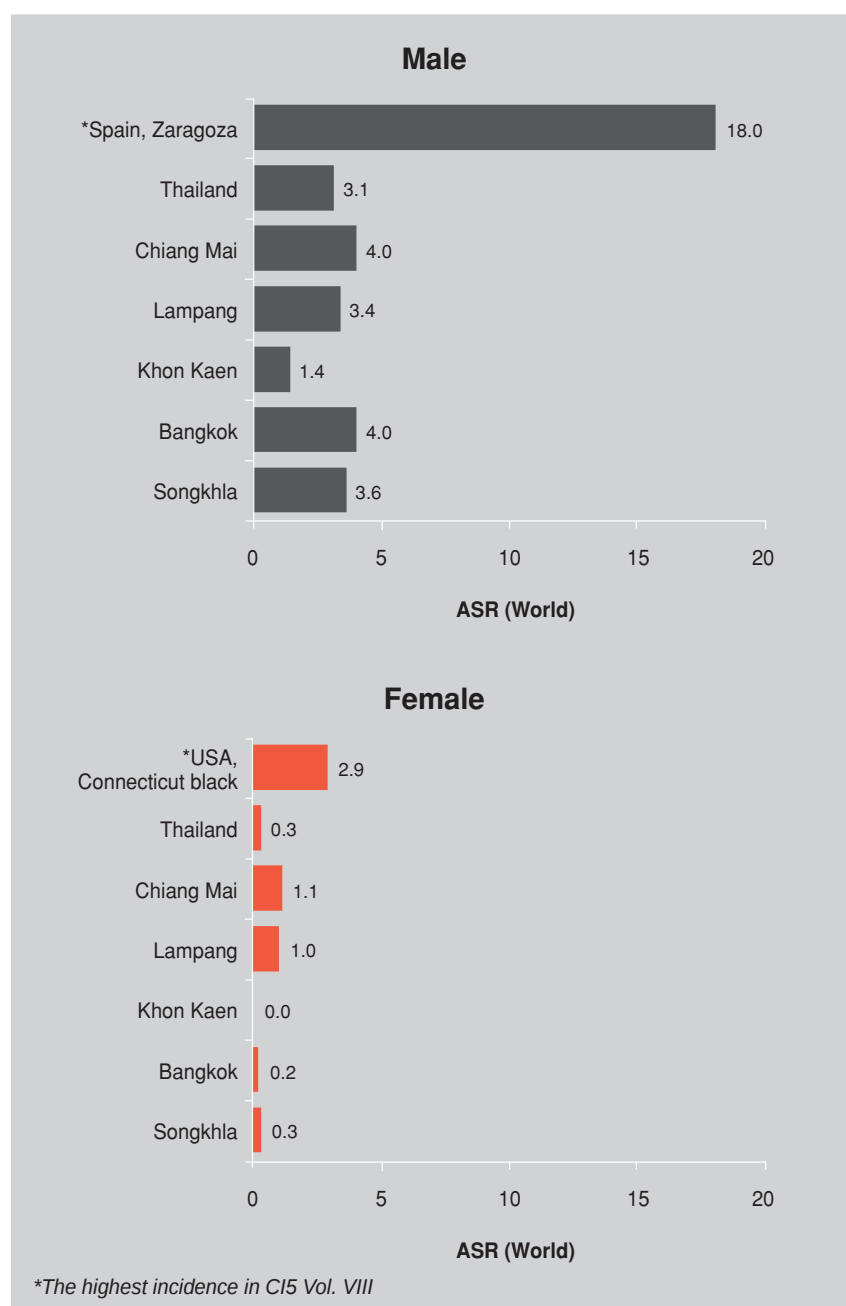
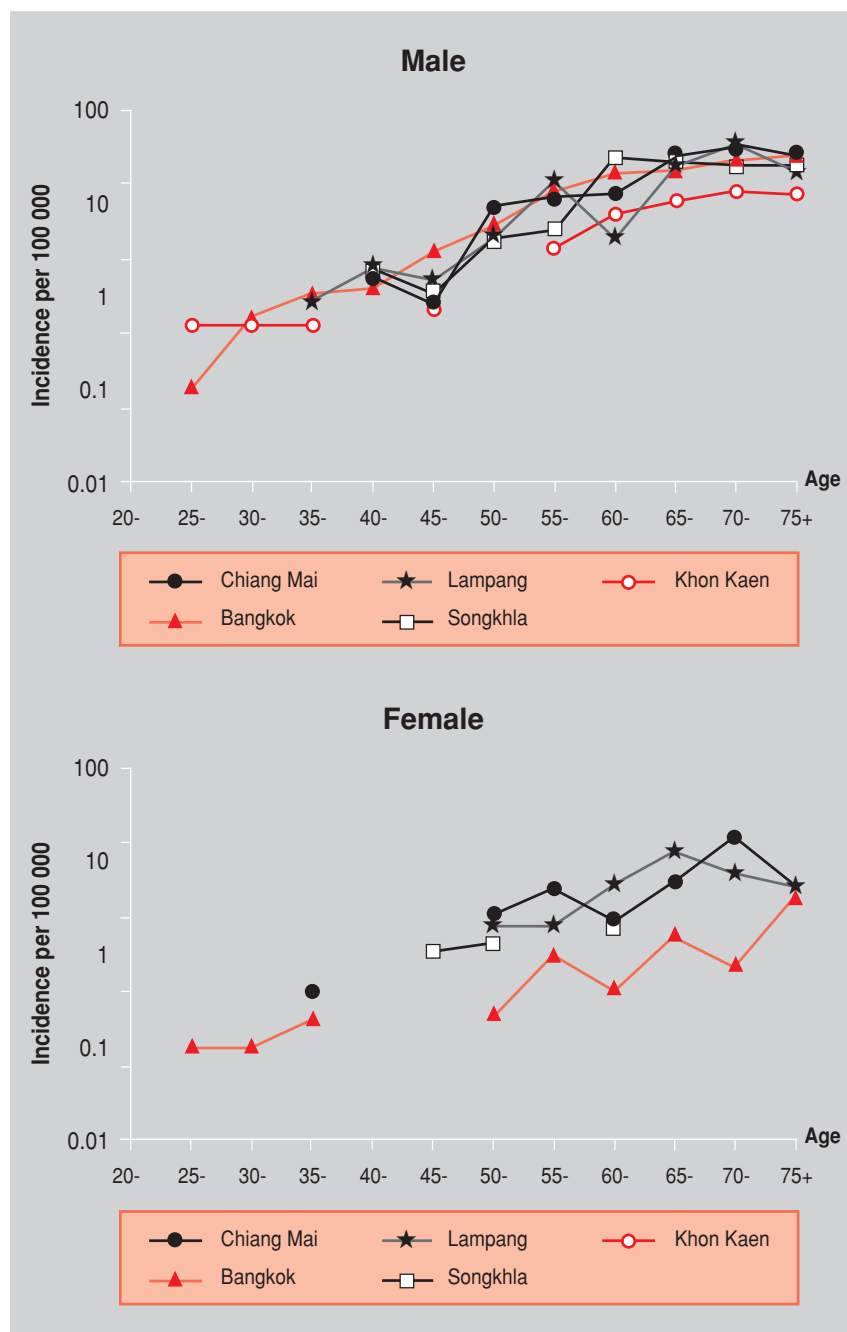


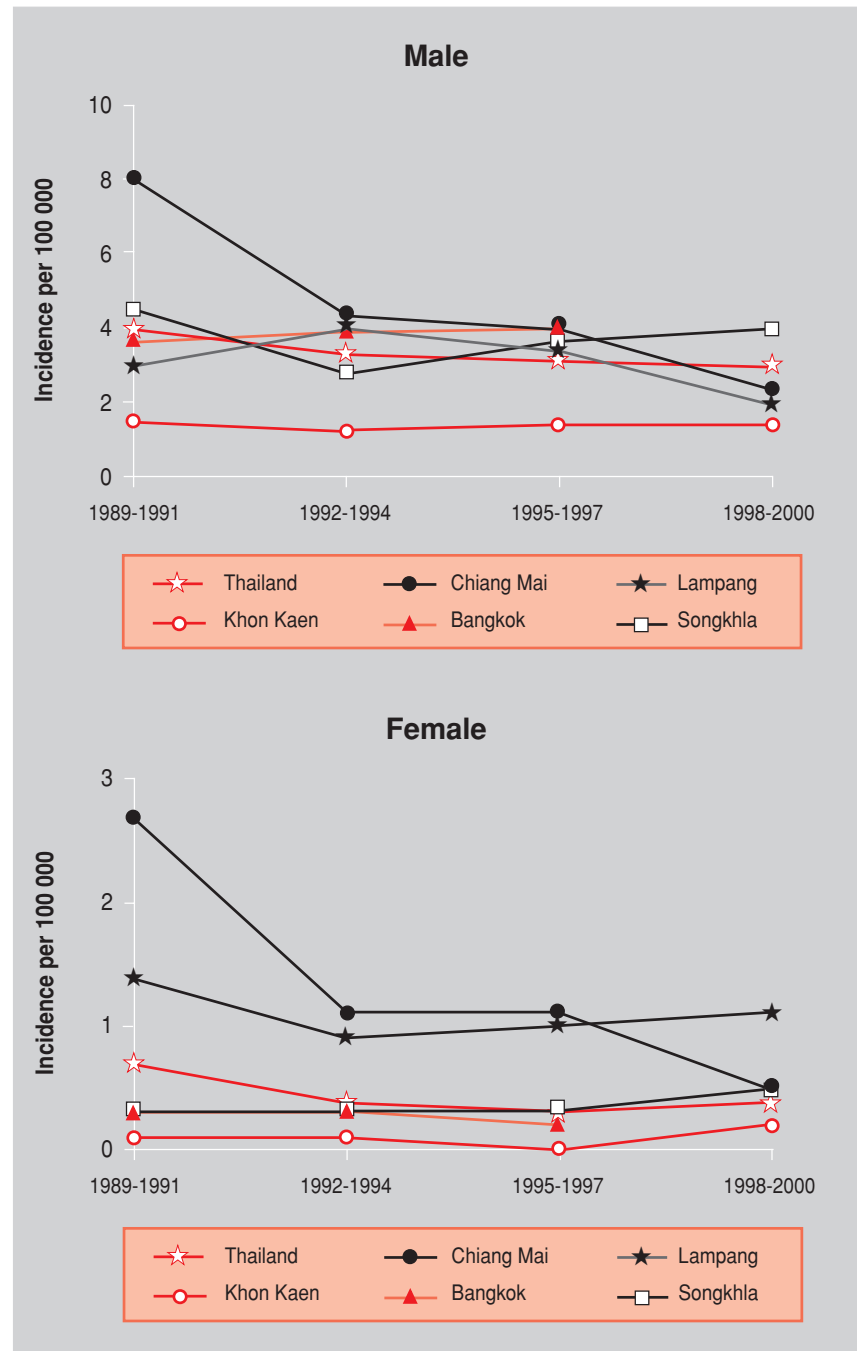
Figure 2.9.2 Age-specific incidence rates of larynx cancer, 1995-1997

Trend in the incidence rate of carcinoma of larynx is almost stable except the declining rate in Chiang Mai registry center from the period of 1998-1991 and 1992-1994 in both males and females (Figure 2.9.3).

Table 2.9.1 Percentage of histologically verified and death certificate only cases, larynx cancer

	1995-1997				1998-2000			
	% HV		% DCO		% HV		% DCO	
	Male	Female	Male	Female	Male	Female	Male	Female
Chiang Mai	83.1	87.5	1.2	4.2	87.3	93.2	0.0	0.0
Lampang	78.0	85.7	2.4	0.0	80.0	81.3	16.0	0.0
Khon Kaen	73.9	0.0	0.0	0.0	69.6	60.0	0.0	0.0
Bangkok	87.6	95.0	6.8	5.0				
Songkhla	94.0	80.0	0.0	0.0	95.1	75.0	0.0	0.0

%HV = percentage of histologically verified cases, %DCO = percentage of death certificate only cases

Figure 2.9.3 Trend in incidence of larynx cancer

Chapter II

10

LUNG

ICD-10 C34

Nimit Martin, M.D.

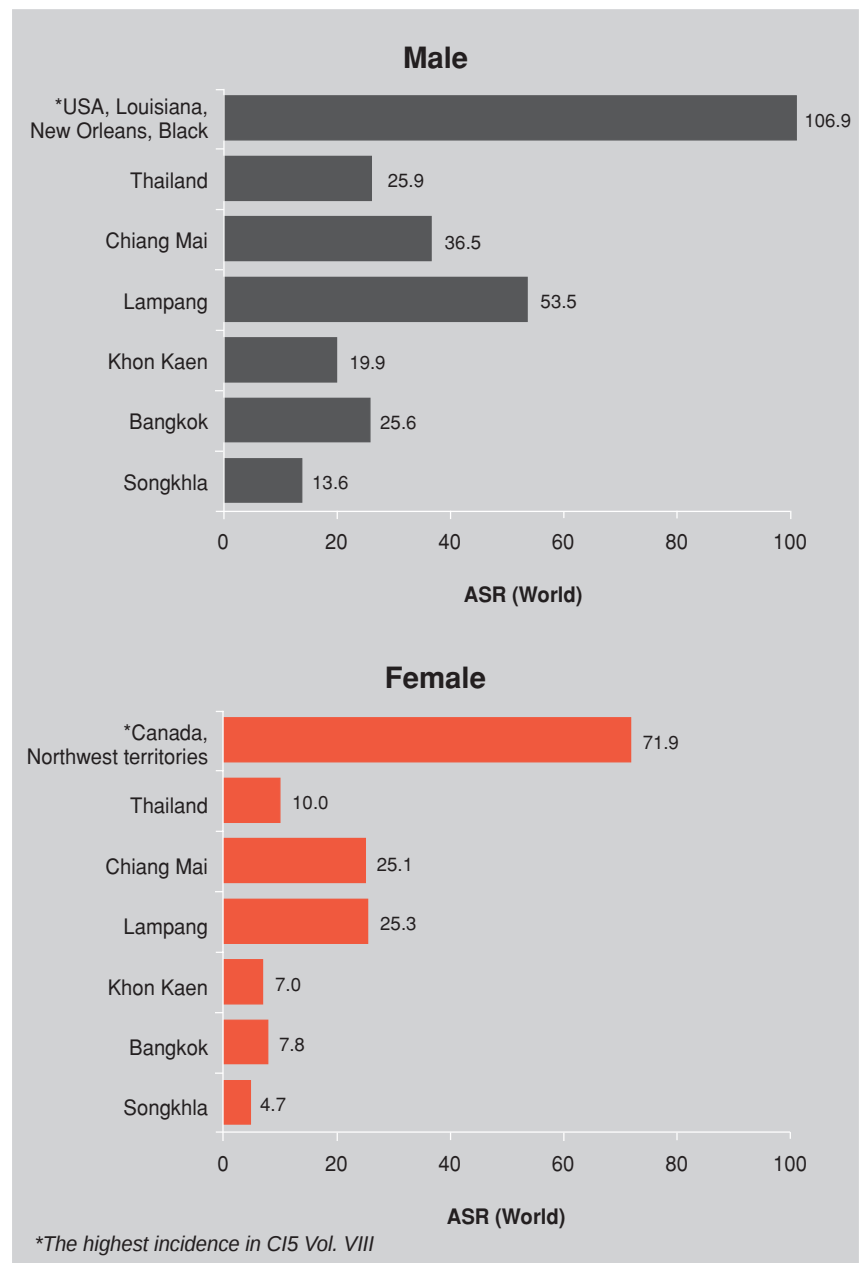
Surathat Pongnikorn, M.D.

Lung cancer is common in developed countries. The incidence is high in North America and Europe and low in Africa. In Thailand, lung cancer is the second most common cancer in men and the fourth in women during 1995-1997. The estimated incidence rate is 25.9 per 100 000 in men after liver cancer (ASR = 37.6) and 10.0 per 100 000 after cervical cancer (ASR = 19.5), breast cancer

(ASR = 17.2) and liver cancer (ASR = 16.0) in women. The ratio of males (5 916 cases) to females (2 964 cases) is 2:1.

Lung cancer is the most common cancer in both men and women in the northern part of Thailand especially in Lampang. This is probably due to native cigarette smoking. It is the most common cancer in males in all centers except in Khon Kaen.

Figure 2.10.1 Lung cancer in different regions, 1995-1997



The highest incidence rate in men is seen in Lampang (ASR = 53.5) followed by Chiang Mai (ASR = 36.5), Bangkok (ASR = 25.6), Khon Kaen (ASR = 19.9) and the lowest is observed in Songkhla (ASR = 13.6) (Figure 2.10.1).

In women, lung cancer ranks the first among all cancers in Lampang (ASR = 25.3), the second in Chiang Mai (ASR = 25.1) after cervical cancer (ASR = 25.4) and the fourth in Bangkok, Khon Kaen and Songkhla. The lowest incidence rate is seen in Songkhla in both males and females. Males are affected more than females, with male to female ratio varying between 1.4:1 in Chiang Mai and 2.6:1 in Bangkok.

Age-specific incidence rates in both males and females are higher in Chiang Mai and Lampang than in other regions. The majority of cases age above 45 in both males and females (Figure 2.10.2).

The percentage of histologically verified cases varies from 30.6% in Khon Kaen to 70.8% in Songkhla in men and from 34.0% to 68.0% in women. The percentage of death certificate only cases varies from 6.8% in Songkhla to 17.1% in Bangkok in men and from 3.9% to 13.3% in women (Table 2.10.1).

Figure 2.10.2 Age-specific incidence rates of lung cancer, 1995-1997

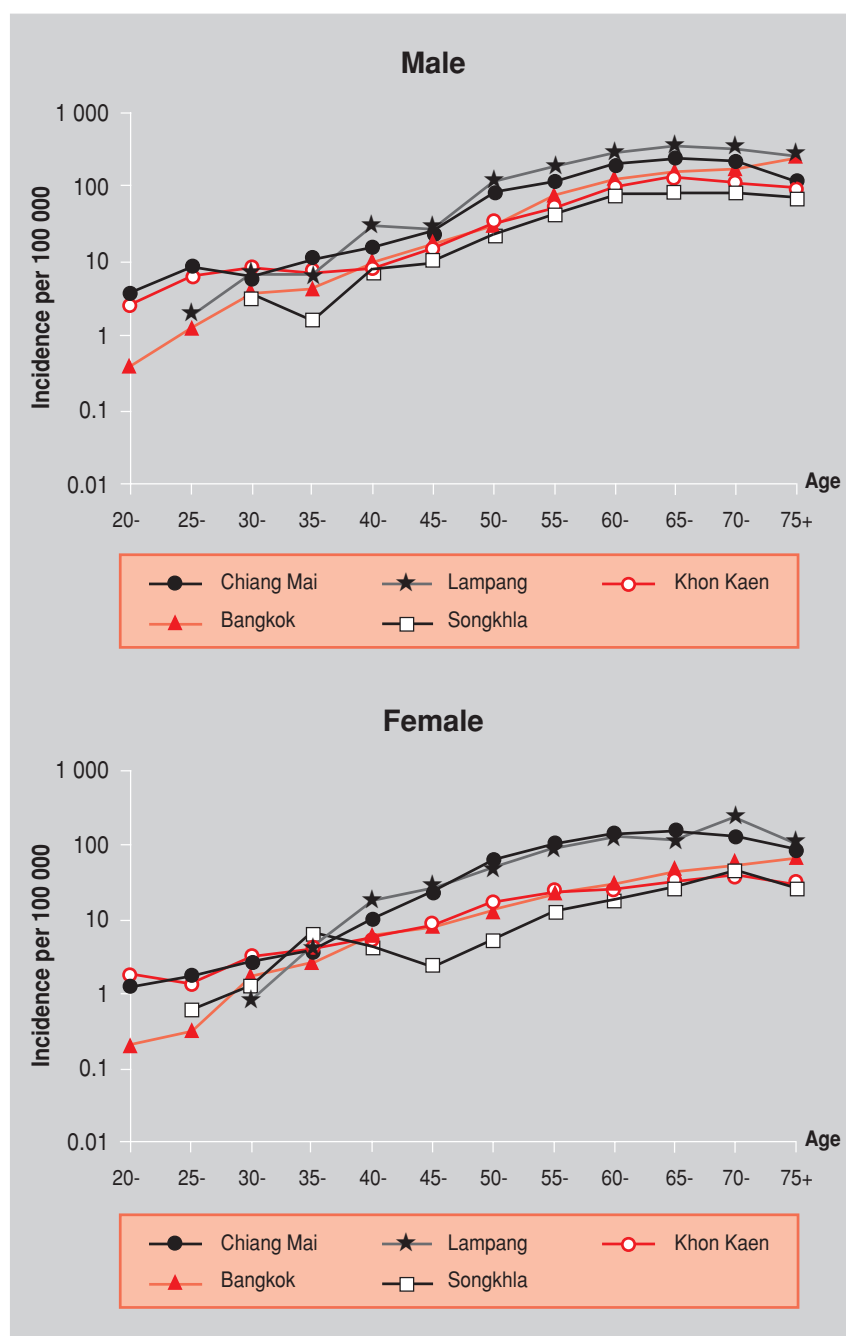
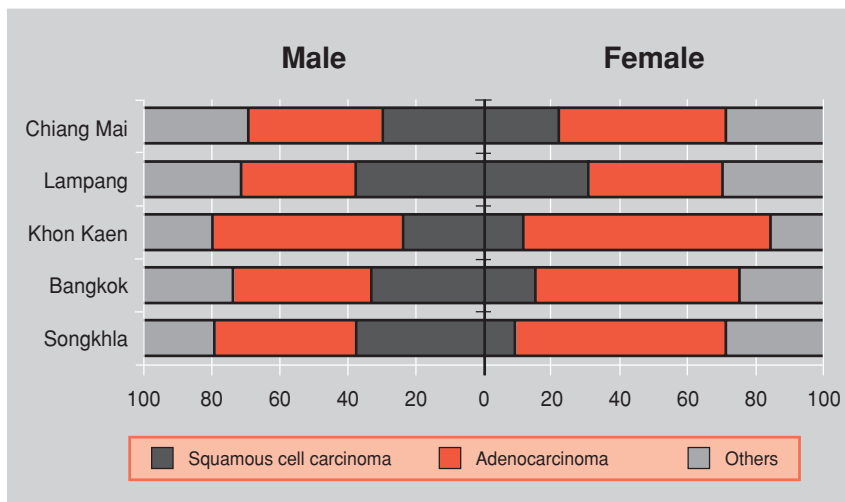
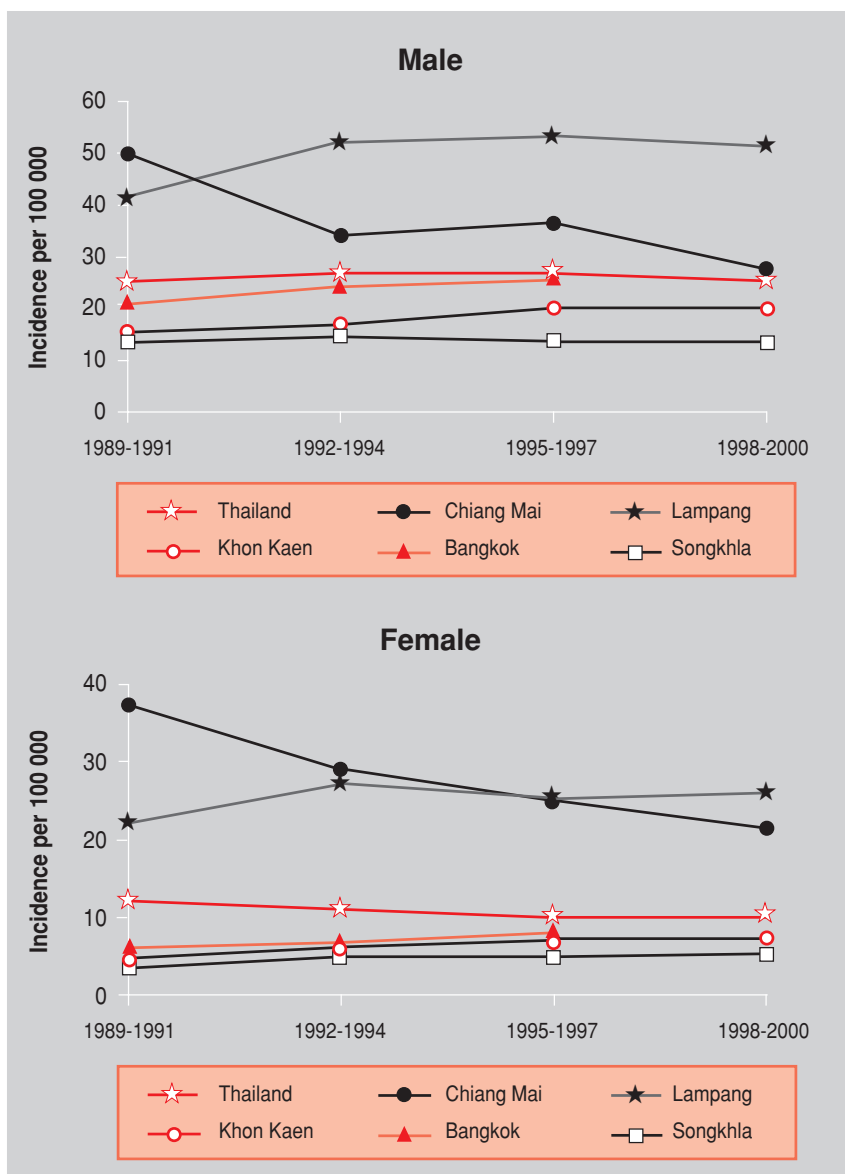


Table 2.10.1 Percentage of histologically verified and death certificate only cases, lung cancer

	1995-1997				1998-2000			
	% HV		% DCO		% HV		% DCO	
	Male	Female	Male	Female	Male	Female	Male	Female
Chiang Mai	67.6	64.0	11.6	9.8	76.8	80.4	0.0	0.0
Lampang	65.2	63.3	9.9	10.4	65.1	67.9	17.2	15.1
Khon Kaen	30.6	34.0	10.2	8.0	35.9	40.2	0.5	1.8
Bangkok	58.8	62.0	17.1	13.3				
Songkhla	70.8	68.0	6.8	3.9	79.0	74.4	1.4	0.0

%HV = percentage of histologically verified cases, %DCO = percentage of death certificate only cases

Figure 2.10.3 Histological type of lung cancer**Figure 2.10.4** Trend in incidence of lung cancer

Although squamous cell carcinoma is slightly more frequent in men in Lampang, adenocarcinoma is commoner than squamous cell carcinoma in both males and females in all registries among cases with known histology. The proportion of adenocarcinoma varies from 33.5-56.8% in males and 39.7-72.5% among females. Squamous cell carcinoma is 23.4-37.8% of lung cancer in males and 11.8-30.8% in females (Figure 2.10.3).

Lung cancer in Lampang, Khon Kaen, Bangkok and Songkhla shows an upward trend in both males and females. Chiang Mai shows a downward trend in both men and women (Figure 2.10.4).

Chapter II

11

BREAST
ICD-10 C50

Nimit Martin, M.D.
Arkom Cheirsilpa, M.D.

In Thailand during the period 1995-1997, female breast cancer is the second in frequency after cervical cancer. The estimated incidence rate is 17.2 per 100 000. The highest incidence rate of female breast cancer is in Bangkok (ASR = 25.4), the lowest incidence rate is in Khon Kaen (ASR = 11.6) as shown in Figure 2.11.1.

Breast cancer is the most common cancer in females in Bangkok, the second in Songkhla after cervix cancer, the third in Chiang Mai, and Lampang after cervix and lung cancers and the third in Khon Kaen after liver and cervix cancers.

The age-specific incidence rates reach a peak at age 45 in most

Figure 2.11.1 Breast cancer in different regions, 1995-1997

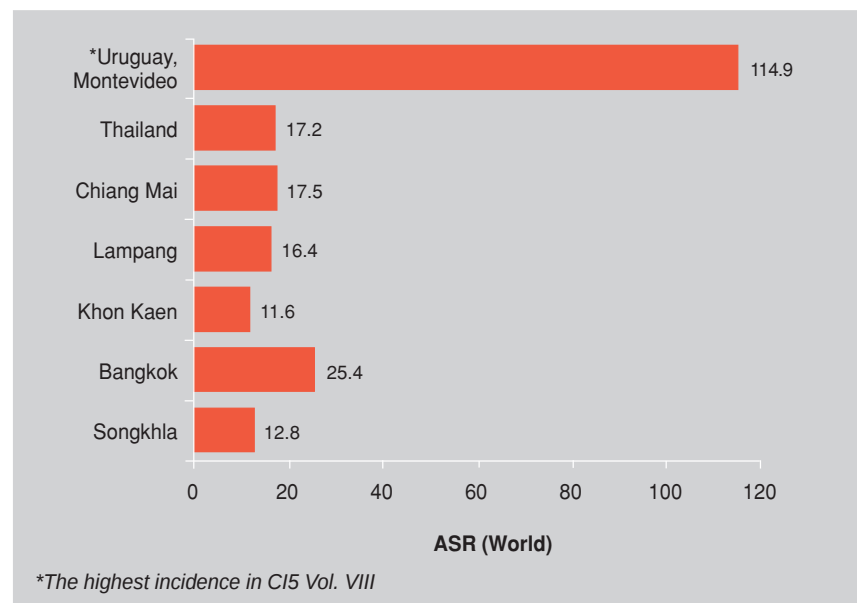


Figure 2.11.2 Age-specific incidence rates of breast cancer, 1995-1997

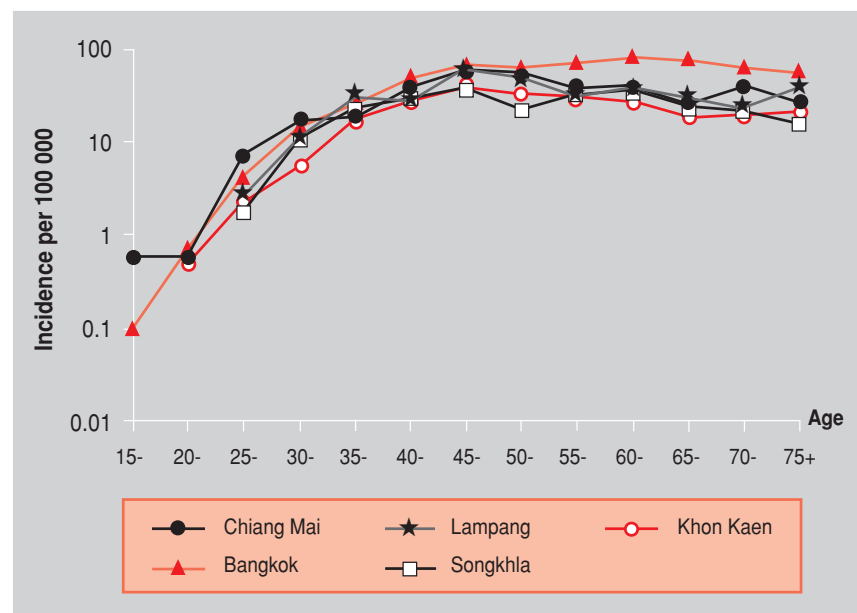
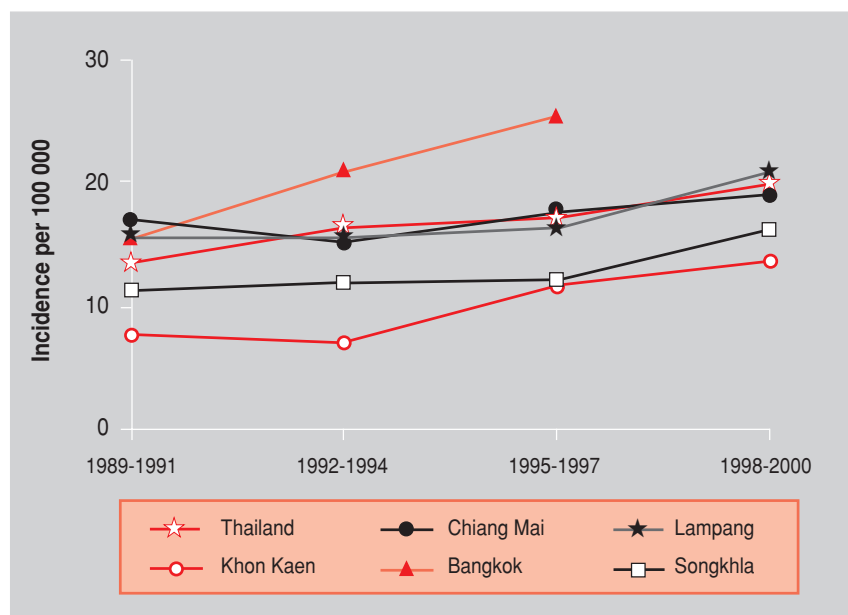


Figure 2.11.3 *Trend in incidence of breast cancer*

registries except Bangkok (Figure 2.11.2). The incidence increased in all parts of the country during the past decade (Figure 2.11.3).

Chapter II

12

CERVIX UTERI

ICD-10 C53

Prasit Pengsaa, M.D.
Sangduan Jindawijak, M.D.

Cancer of the cervix uteri is still the most common cancer among Thai women in 1995-1997 with the age-standardized incidence rate (ASR) 19.5 for Thailand. When compared the incidence in different regions, the highest incidence is in Chiang Mai (ASR = 25.6) followed by Lampang (ASR = 23.6), Bangkok (ASR = 20.7), Songkhla (ASR = 16.1), and Khon

Kaen (ASR = 15.0) (Figure 2.12.1).

The age-specific incidence curves (Figure 2.12.2) show that the disease can be diagnosed as early as the age of 20 years old and gradually increase to the peak at the age of 45-50 years then plateau to the old ages.

The data from four registries collected from 1998-2000, reveals the highest incidence in Chiang

Figure 2.12.1 Cervix cancer in different regions, 1995-1997

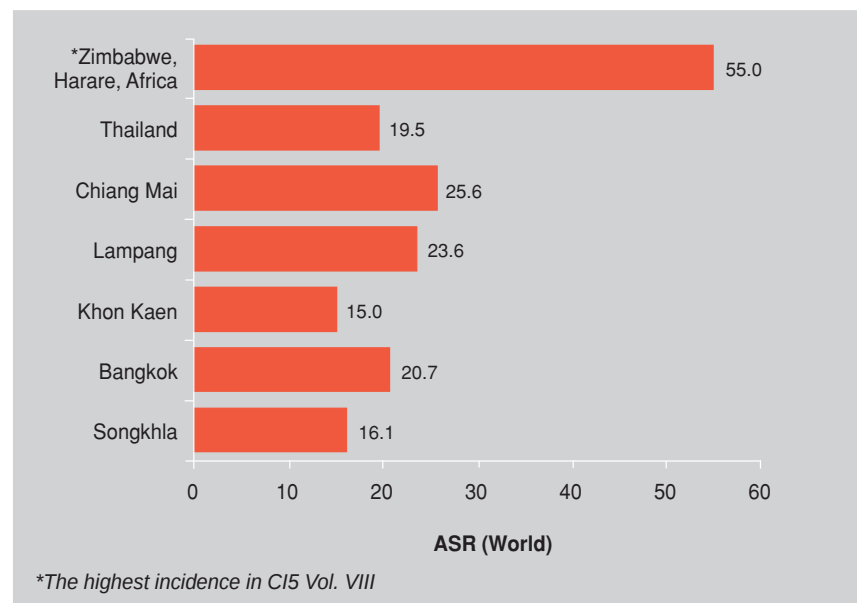


Figure 2.12.2 Age-specific incidence rates of cervix cancer, 1995-1997

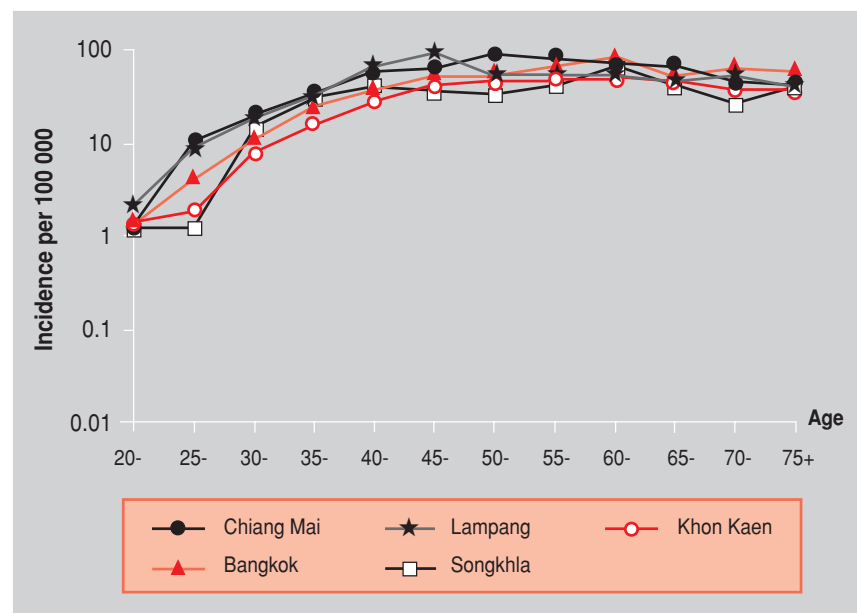
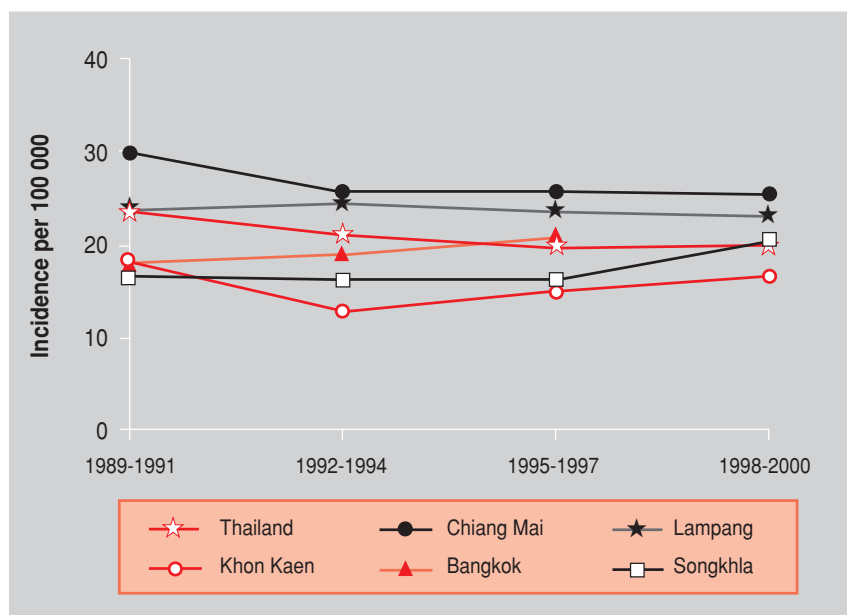


Figure 2.12.3 Trend in incidence of cervix cancer

Mai (ASR = 25.6) followed by Lampang (ASR = 23.6). Songkhla (20.1) and Khon Kaen (ASR = 15.0). The pattern of age-specific incidence rates in the four registries is the same as the period of 1995-1997 (Figure 2.12.3).

From the early years of population-based cancer registration in Thailand in 1988 (Vatanasapt *et al.*, 1993; Deerasamee *et al.*, 1999) the incidence rates of cervical cancer are minimally declined in some registries and increased in others.

The primary cause of cervical cancer is a sexually transmitted infection by human papillomavirus (HPV) (Bosch *et al.*, 1995). The different types of HPV infection are classified as higher-risk (e.g. 16, 18, 31 and 35) or lower-risk (e.g. 6 and 11).

HPV infection is common among young reproductive women, it can be regressed to become undetectable, stable, or progress to low-grade, high-grade cervical dysplasia or invasive cancer. The direct precursor of cervical cancer is high-grade dysplasia which progresses to invasive cervical cancer over a period of up to 10 years.

The policy of cervical cancer prevention worldwide has focused on screening women at risk of the disease using Pap smear and early treating precancerous lesions. Pap smear programs or cytological screening programs have resulted in reducing incidence and mortality of cervical cancer in some developed countries especially those who have higher screening quality and coverage. In Thailand there is no national screening program at present, so the incidence of cervical cancer is still high.

Chapter II

13

OVARY

ICD-10 C56

Kamol Pataradool, M.D.
Tavin Kosiyatrakul, M.D.

Ovarian cancer is one of the leading problems in gynecologic malignancy worldwide. High incidence rates occur in developed countries (e.g. Europe, North America) and low in developing countries (e.g. Asia, Africa). In Thailand between 1995 and 1997, ovarian cancer is the sixth most common cancer in women, after cervix, breast, liver, lung, and co-

lon & rectum. The age-standardized incidence rates (ASR) of ovarian cancer is 5.2 per 100 000 women per year, or 1 655 new cases are found. It is almost the same as previous report. Comparing to the different registries, highest incidence rate of ovarian cancer is in Bangkok (ASR = 5.9 per 100 000) and lowest in Lampang (ASR = 3.7 per 100 000) (Figure 2.13.1).

Figure 2.13.1 Ovarian cancer in different regions, 1995-1997

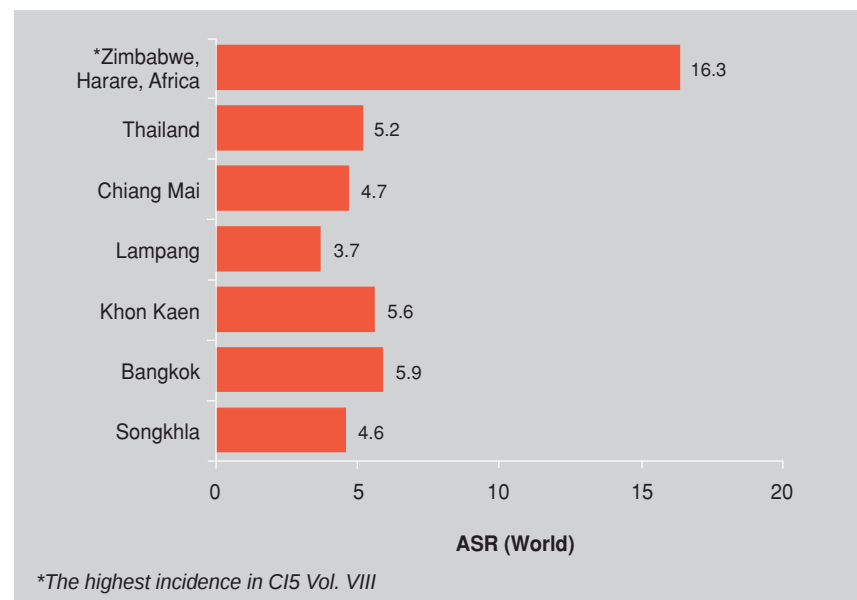


Figure 2.13.2 Age-specific incidence rates of ovarian cancer, 1995-1997

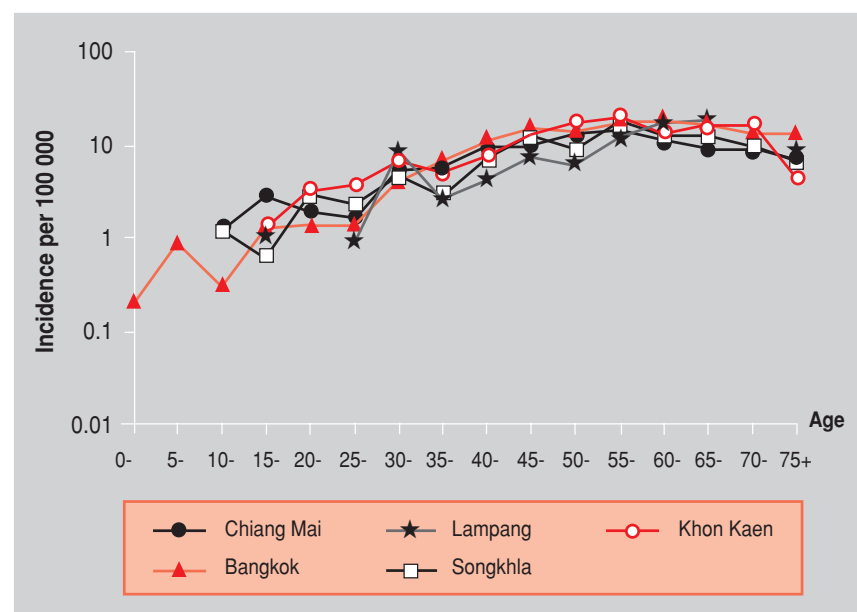
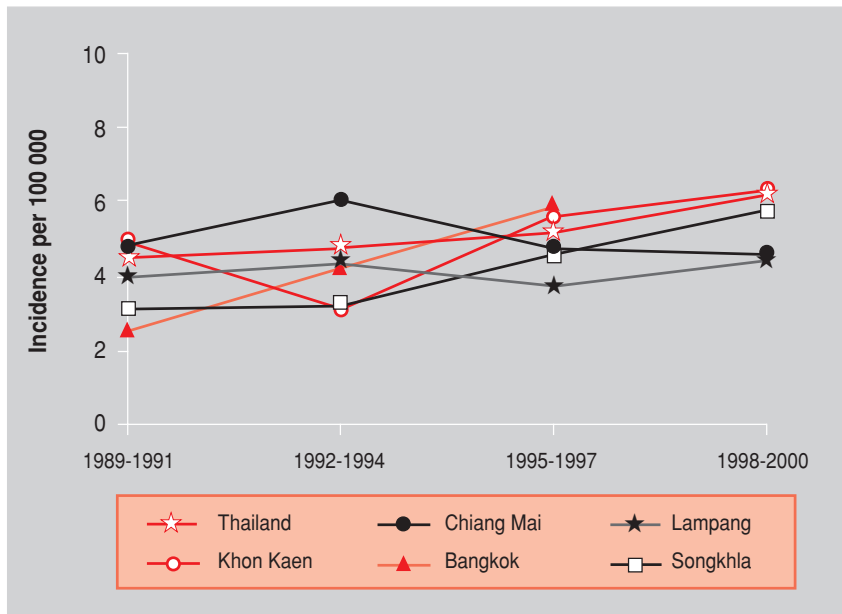


Figure 2.13.3 Trend in incidence of ovarian cancer

Peak incident of ovarian cancer is around age 55, which is slightly increasing from the previous report. Ovarian cancer is found less than 30% under age 40 (Figure 2.13.2).

The most common histological subgroup of ovarian cancer in Thailand is epithelial ovarian cancer, which is found over 80% of cases; followed by germ cell tumor and sex-cord stromal tumor.

The incidence of ovarian cancer is slightly increasing in the past decade (Figure 2.13.3).

Chapter II

14

PENIS AND
PROSTATE
ICD-10 C60-61

Visoot Vootiprux, M.D.

The incidence rate of cancer of penis is 1.5 per 100 000 population in Thailand. It varies from 0.8 in Bangkok to 2.5 in Chiang Mai (Figure 2.14.1). Starting at age 25, the age-specific incidence rate is not much changed with age. The trend does not change during the past 10 years.

The estimate incidence rate of

prostate cancer in Thailand is 4.9 per 100 000 persons. It varies from 6.9 in Bangkok to 2.1 in Khon Kaen (Figure 2.14.4). The age-specific incidence rate of this cancer rapidly rises with age (Figure 2.14.5). The trend is gradually increasing during the past decade (Figure 2.14.6).

Figure 2.14.1 Penis cancer in different regions, 1995-1997

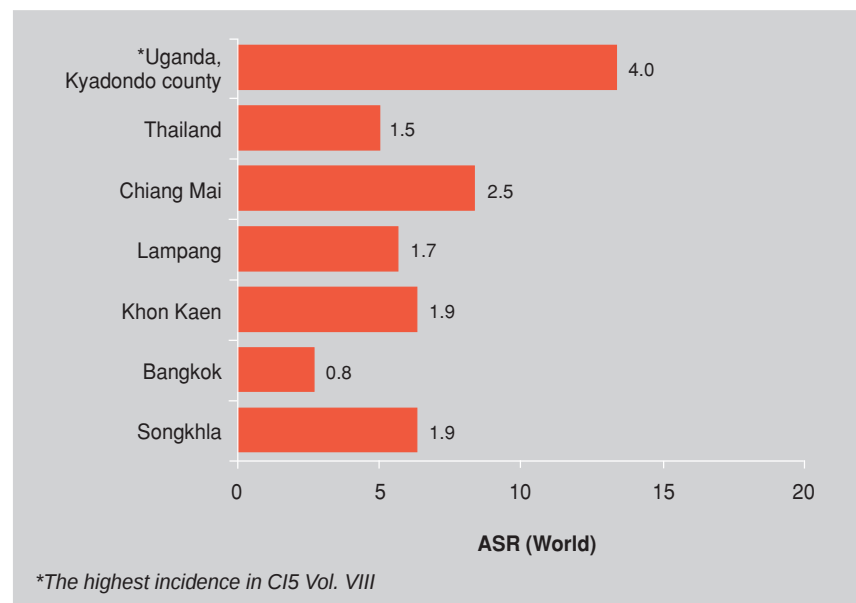


Figure 2.14.2 Age-specific incidence rates of penis cancer, 1995-1997

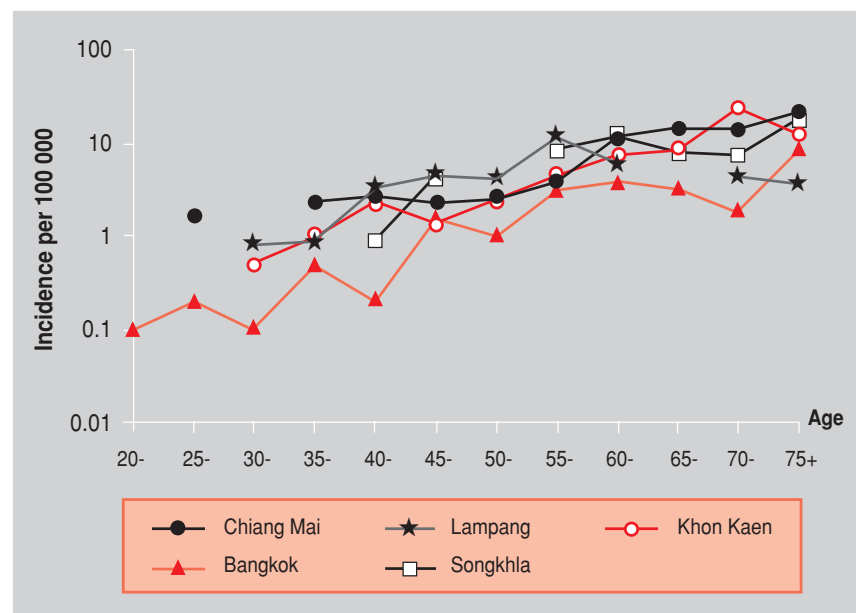


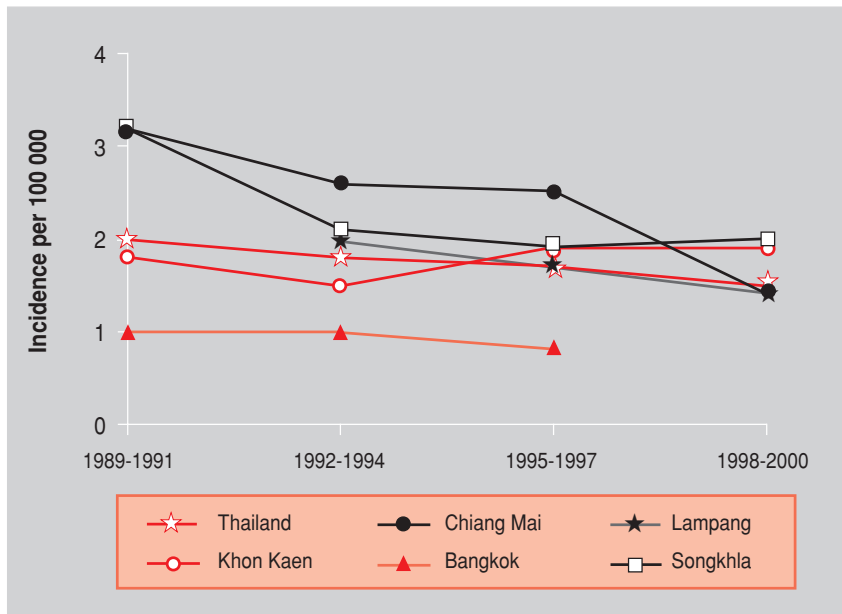
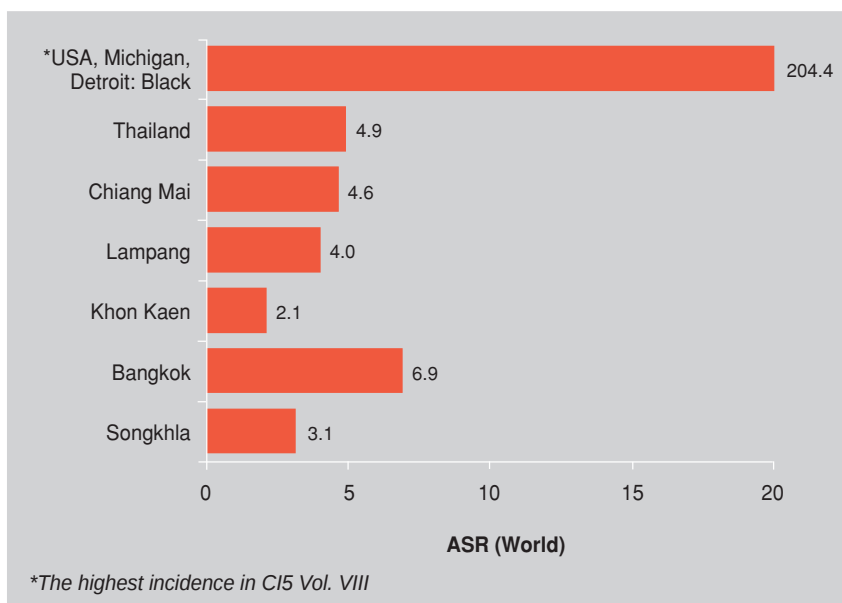
Figure 2.14.3 Trend in incidence of penis cancer**Figure 2.14.4** Prostate cancer in different regions, 1995-1997

Figure 2.14.4 Age-specific incidence rates of prostate cancer, 1995-1997

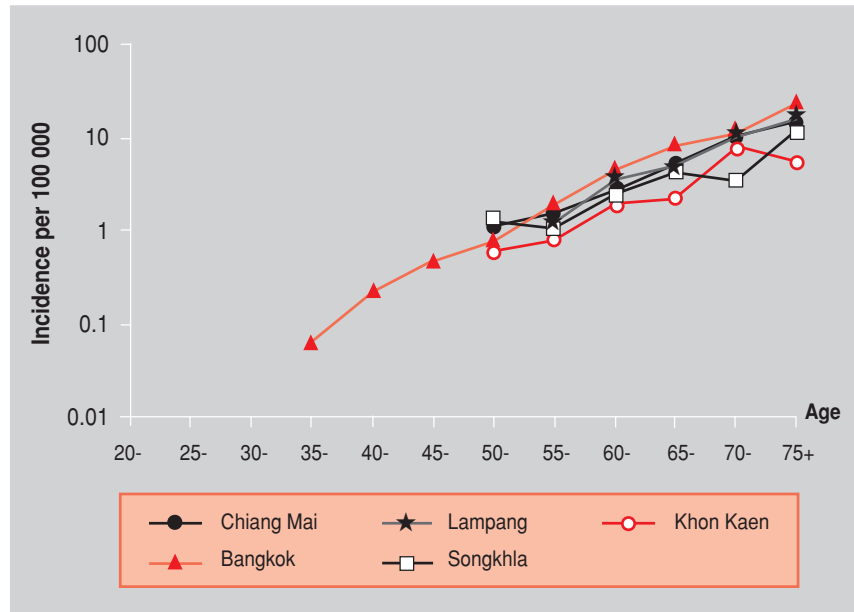
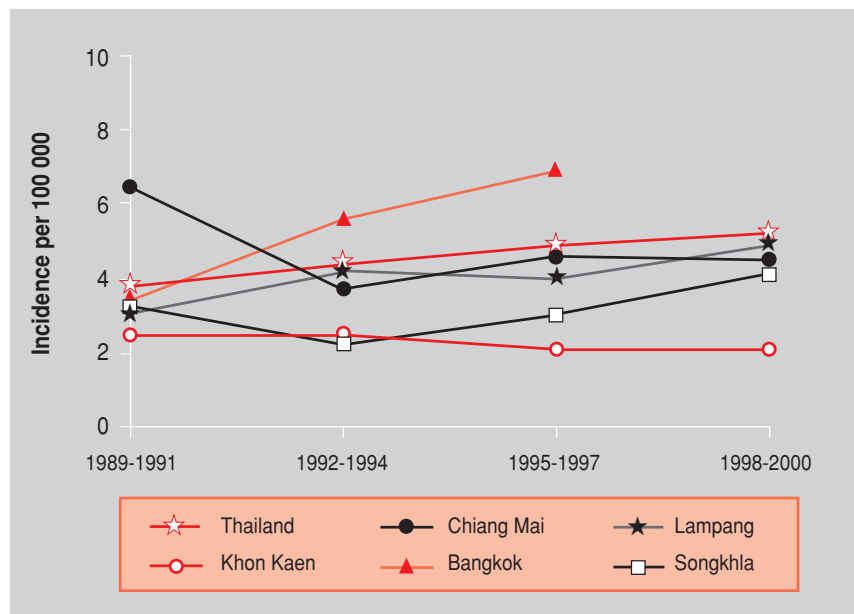


Figure 2.14.5 Trend in incidence of prostate cancer



Chapter II

15

URINARY
BLADDER

ICD-10 C67

Sineenat Sontipong, M.Ed.

Thailand has a low incidence of bladder cancer compared to other countries. The estimated incidence rate is 5.0 per 100 000 population in males and 1.1 per 100 000 population in females. Comparing among regions, the highest incidence in males (ASR = 6.6) is in Bangkok, while in females (ASR

= 2.3) it is in Chiang Mai (Figure 2.15.1). The age-specific incidence rates in both sexes rise with age (Figure 2.15.2).

Trend in incidence of bladder cancer is almost the same in all regions, except a striking declining trend in Chiang Mai (Figure 2.15.3).

Figure 2.15.1 Bladder cancer in different regions, 1995-1997

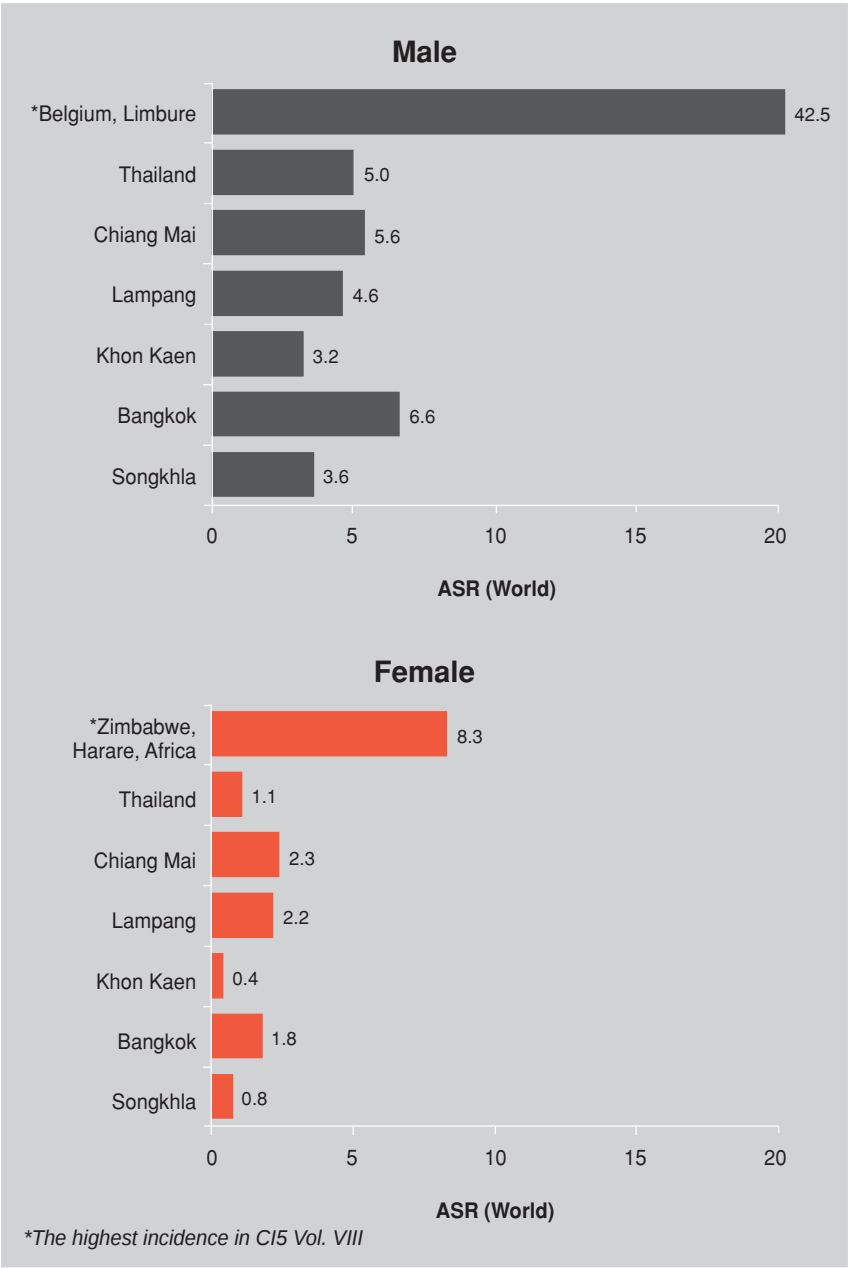


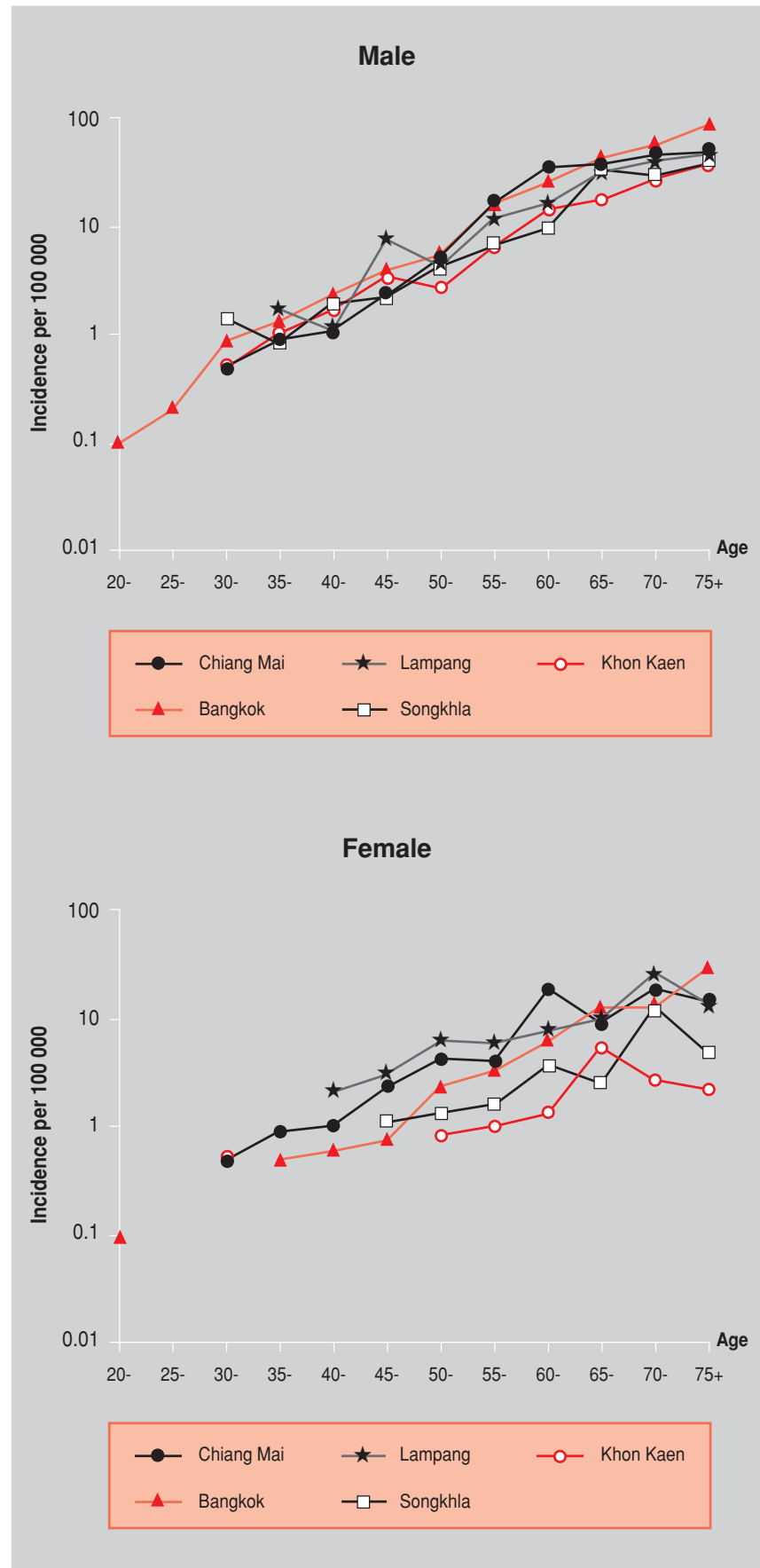
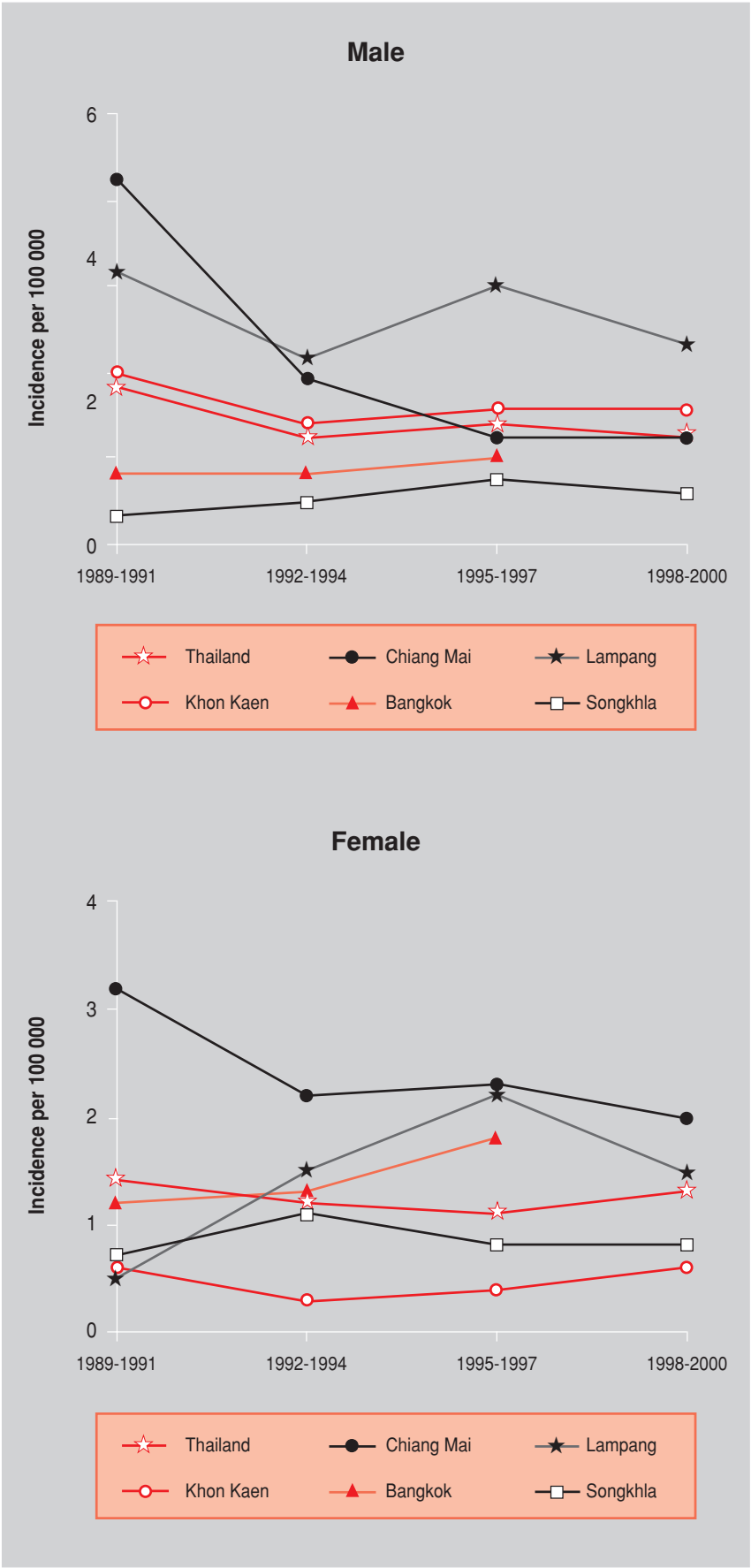
Figure 2.15.2 Age-specific incidence rates of bladder cancer, 1995-1997

Figure 2.15.3 Trend in incidence of bladder cancer



Chapter II

16

THYROID

ICD-10 C73

Hutcha Sriplung, M.D.

Compared with other parts of the world, Thailand is among the low incident countries for thyroid cancer. The estimated incidence rate of thyroid cancer in Thailand is 1.1 per 100 000 population in males and 3.6 in females. The highest incidence of thyroid cancer is observed in the South (Songkhla) in both sexes (Figure 2.16.1). The age-specific incidence rates reach a plateau at early adult-

hood (Figure 2.16.2). There are two major types of thyroid cancer, papillary and follicular carcinoma (Figure 2.16.3).

In this period, papillary carcinoma exceeds follicular carcinoma in all registries. The ratio of papillary to follicular carcinoma varies from 1.6:1 in Lampang to 3.2:1 in Bangkok. It is approximately 2.3:1 in other registries. The ratio is different from that reported

Figure 2.16.1 Thyroid cancer in different regions, 1995-1997

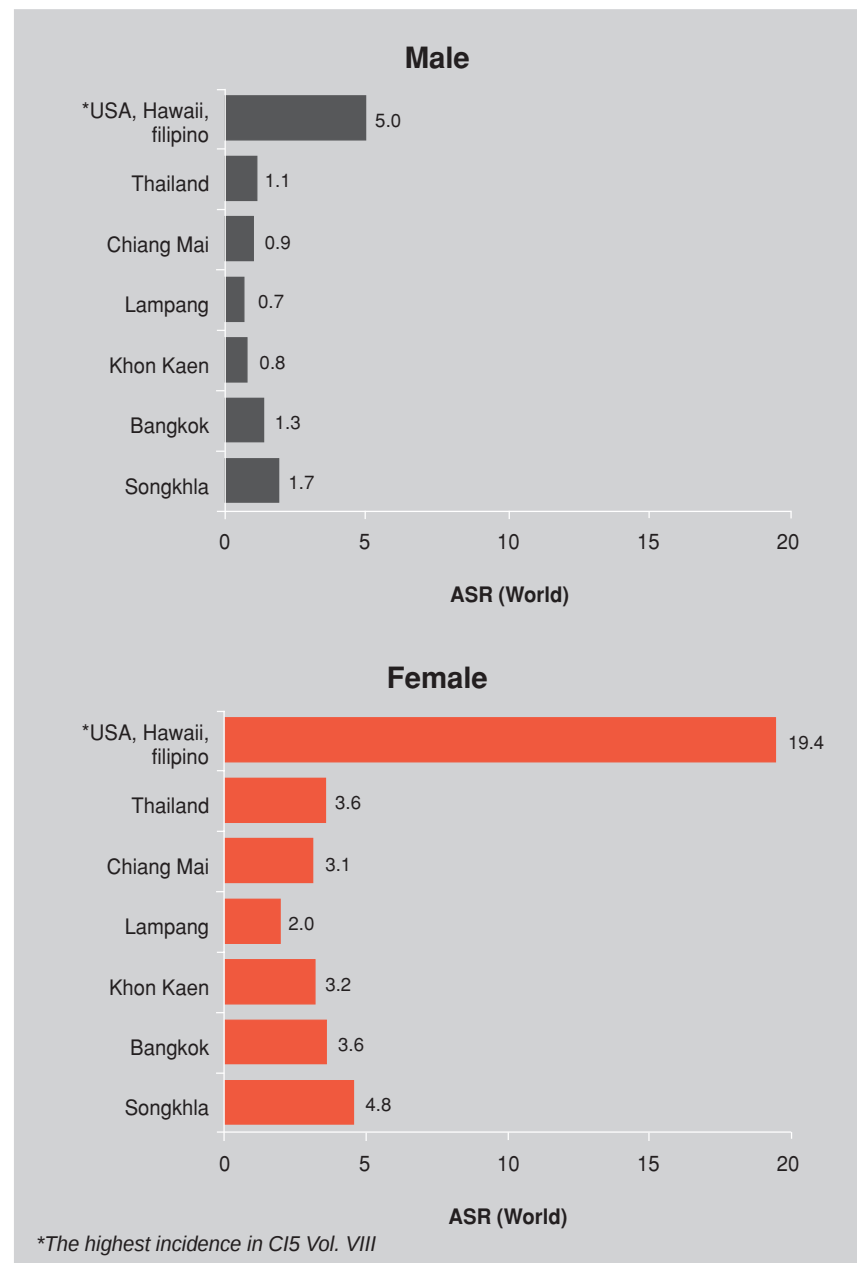
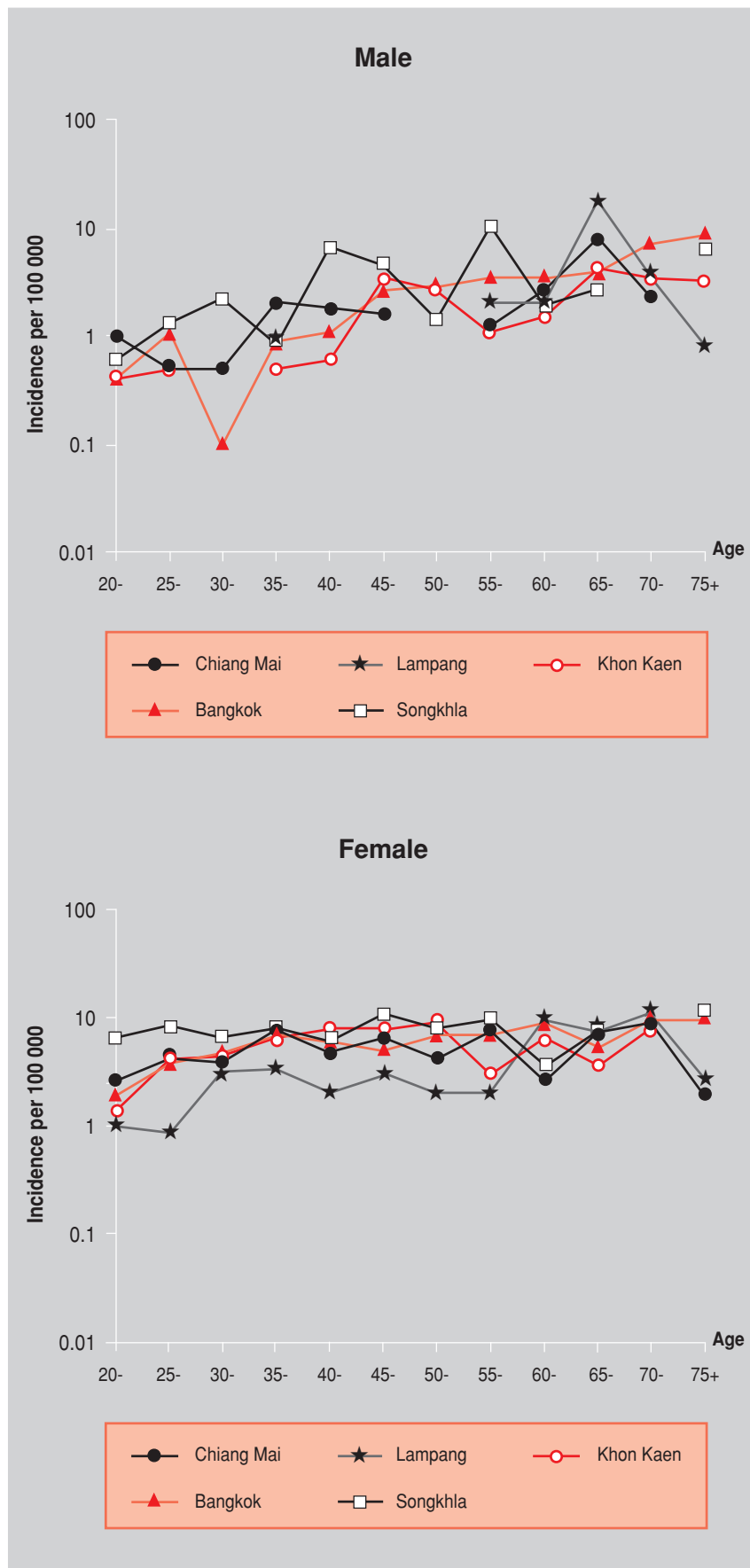


Figure 2.16.2 Age-specific incidence rates of thyroid cancer, 1995-1997

in the period of 1988-1991 and 1992-1994 in the Northern and Northeastern regions where follicular carcinoma was previously predominant. In Khon Kaen, for example, it was 1:1.4 to 1:1.7 and 1:1.3 in the periods 1988-1991 and 1992-1994, respectively.

There was a slightly increasing trend in incidence rates of thyroid cancer during the past decade (Figure 2.16.4).

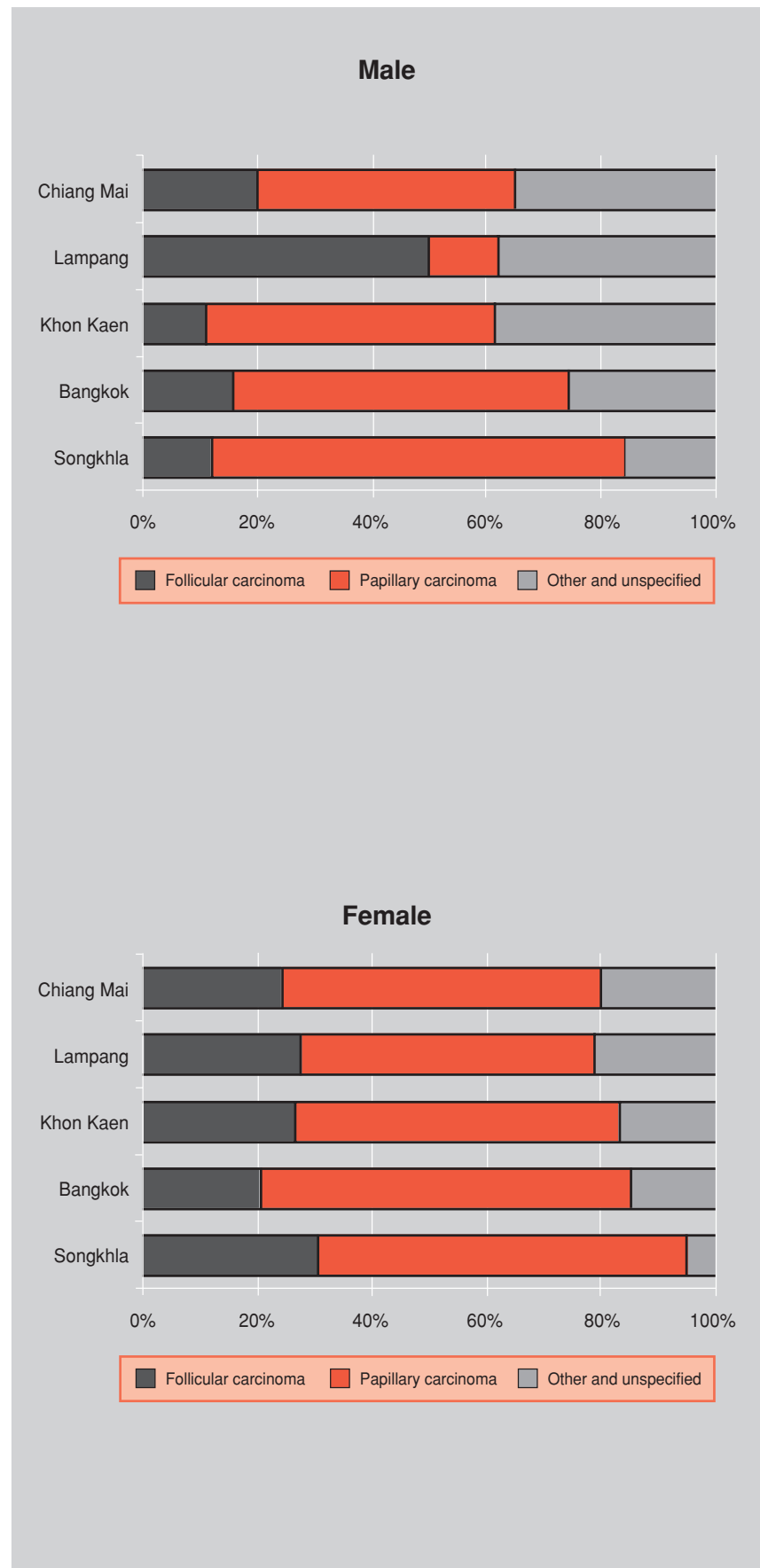
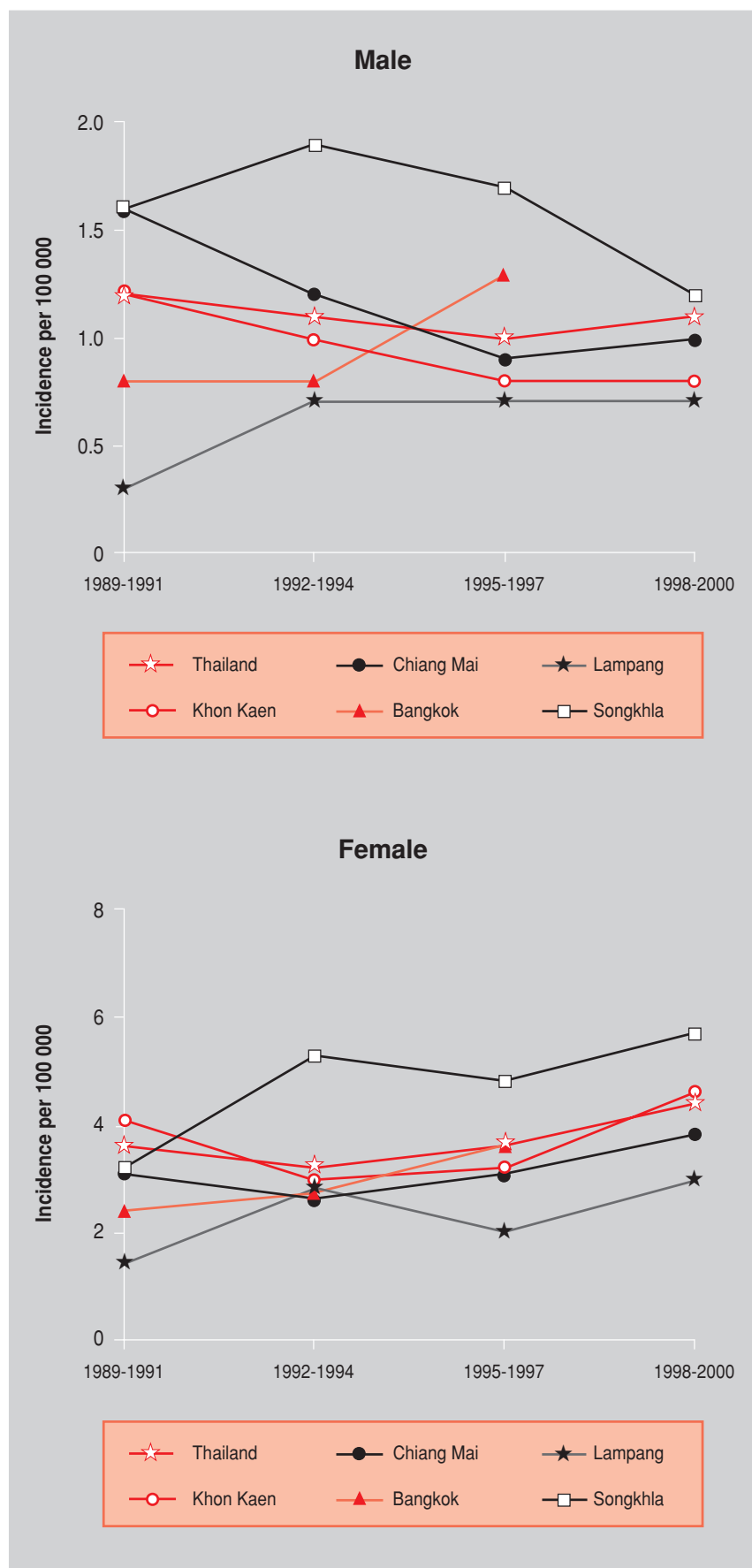
Figure 2.16.3 Histological type of thyroid cancer

Figure 2.16.4 Trend in incidence of thyroid cancer

Chapter II

17

NON-HODGKIN
LYMPHOMA

ICD-10 C82-C85, C96

Sangsuree Jootar, M.D.

The estimated incidence of non-Hodgkin lymphoma (NHL) in Thailand was increased in the last few years. It was 3.7 in males and 2.7 in females per 100 000 population respectively during 1992-1994. It increased to 4.9 in males and 3.5 in females in 1995-1997. Then it is 5.1 in males and 3.7 per 100 000 population respectively in females in 1998-2000. But it is still relatively low by the world

standard. The incidence is slightly higher in males than in females in all centers. The overall male to female ratio was 1.25:1. Lampang is the only province where the incidence of NHL decreased. It was 6.0 in males and 4.6 in females in 1995-1997 and decreased to 5.5 in males and 3.5 in females respectively in 1998-2000.

The highest incidence is observed in Chiang Mai in males

Figure 2.17.1 Non-Hodgkin lymphoma in different regions, 1995-1997

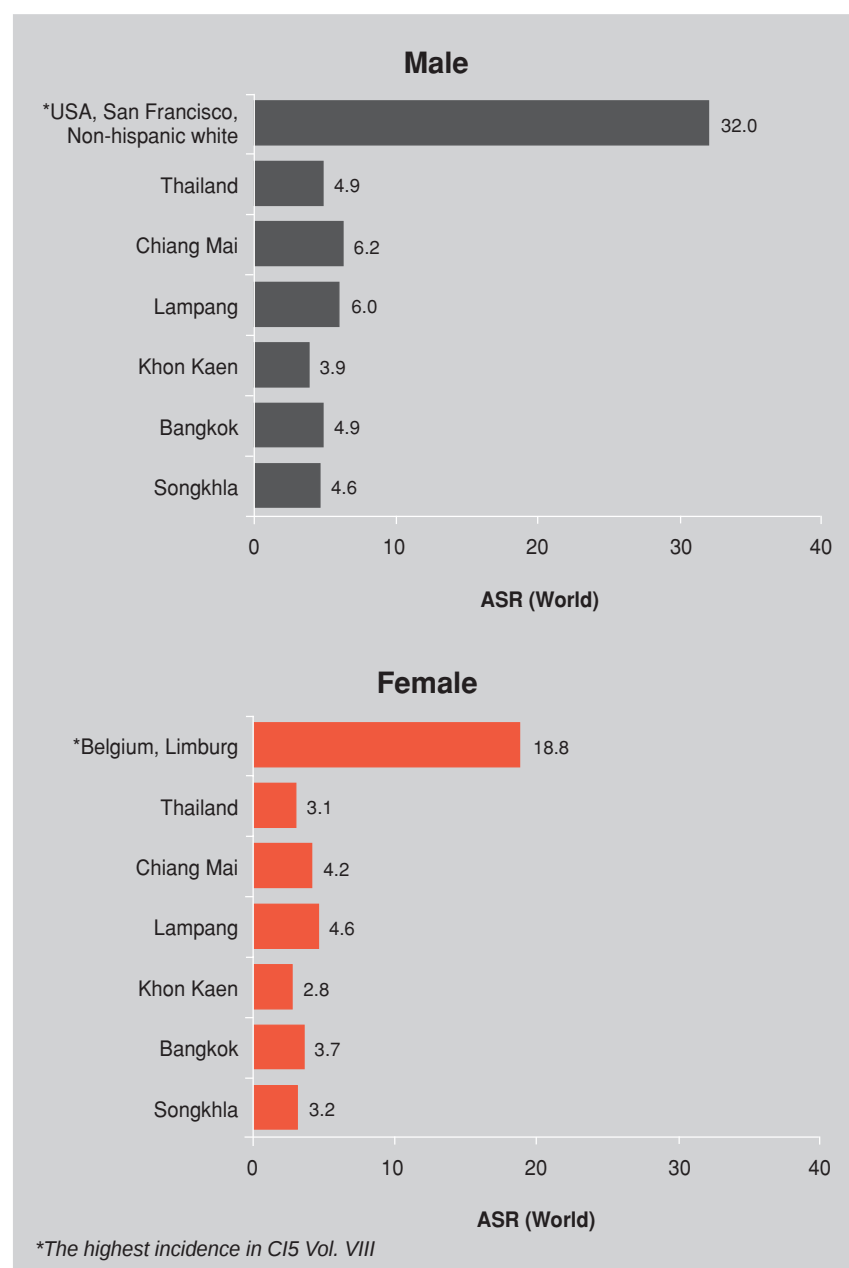
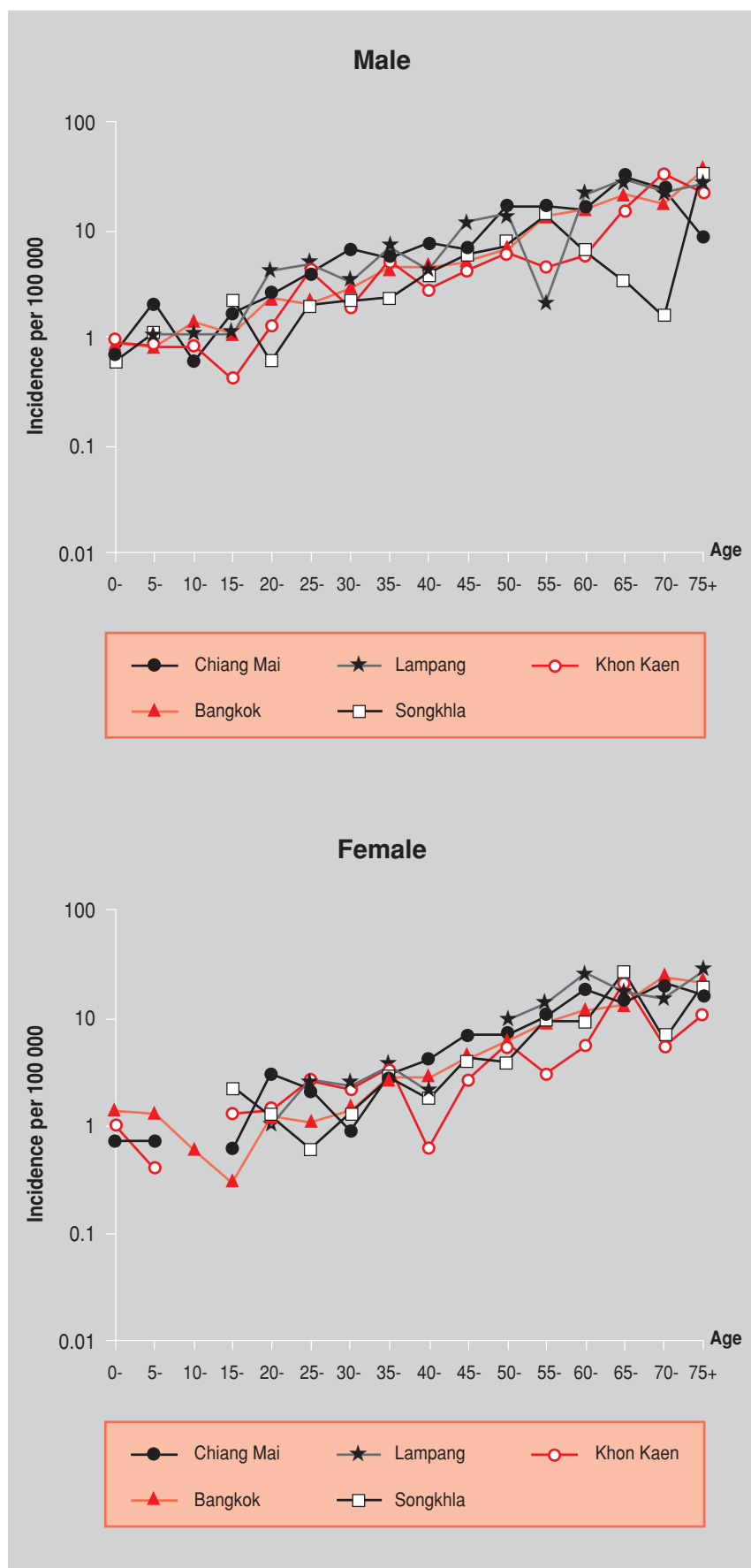
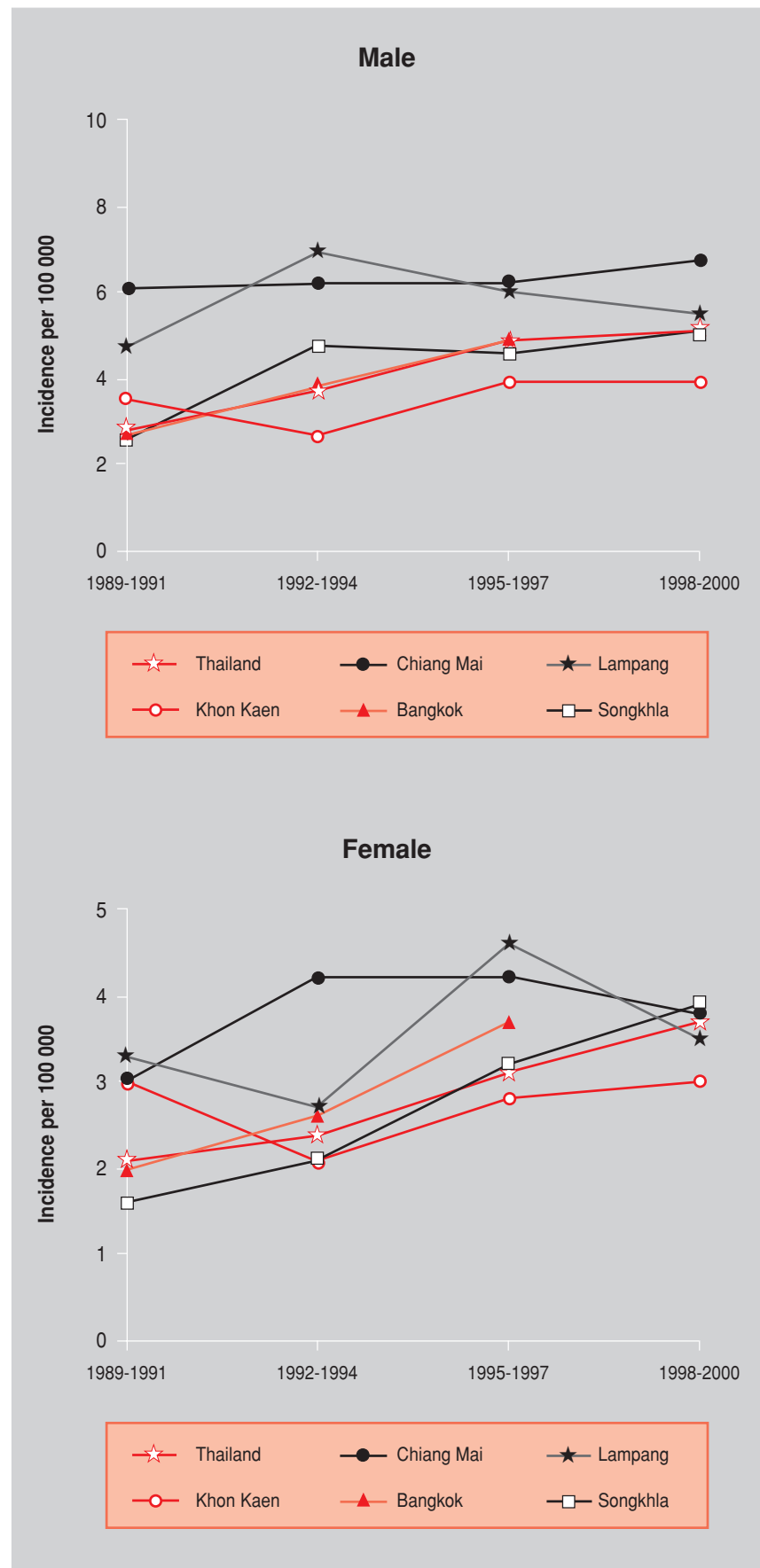


Figure 2.17.2 Age-specific incidence rates of non-Hodgkin lymphoma, 1995-1997

(ASR = 6.2), and in Lampang in females (ASR = 4.6) and the lowest in Khon Khaen (ASR = 3.9 in males and 2.8 in females) (Figure 2.17.1). The incidence rises with age (Figure 2.17.2).

The information on specific subtypes of lymphoma is not available from registry data, because of imprecise and inconsistent classification and coding in the majority of cases.

The trend in incidence of non-Hodgkin lymphoma is increasing in females more than males in the past 10 years (Figure 2.17.3).

Figure 2.17.3 Trend in incidence of non-Hodgkin lymphoma

Chapter II

18

LEUKAEMIA

ICD-10 C91-C95

Sangsuree Jootar, M.D.

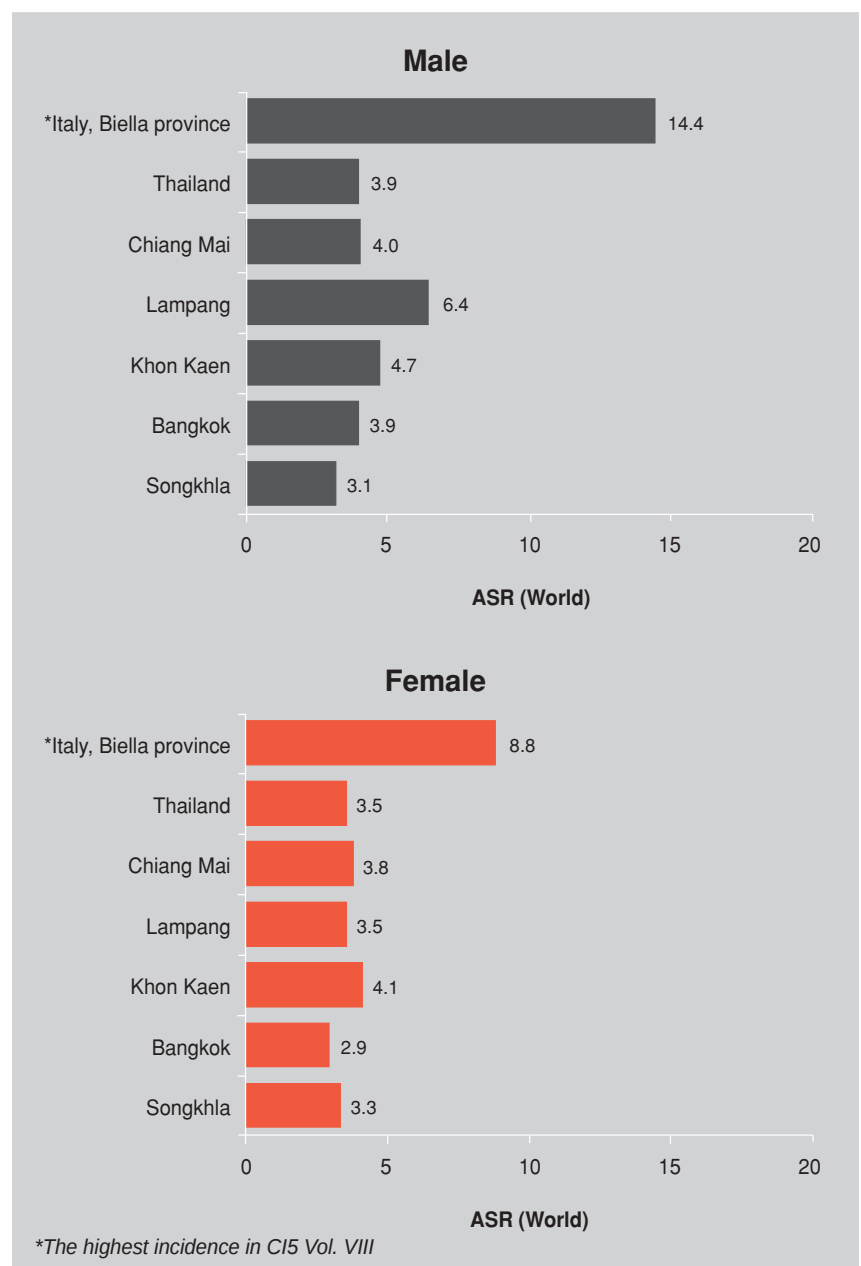
The incidence of leukaemia in Thailand is relatively low by world standard. The estimated ASR for Thailand is 4.1 per 100 000 in men and 3.5 per 100 000 in women. The highest incidence is in Lampang and lowest in Bangkok (Figure 2.18.1).

Myeloid leukaemia is more common than lymphoid (Figure 2.18.3). Age-specific incidence rates are shown in Figure 2.18.2.

There is no information on chronic myeloid leukaemia from registry data. Chronic lymphocytic leukaemia is very rare in Thailand, as in most countries of South East Asia.

Acute lymphoblastic leukaemia is significantly more common in males than in females (ratio 1.39:1) and shows a marked peak in childhood with highest incidence at age 0-4. The sex ratio

Figure 2.18.1 Leukaemia in different regions, 1995-1997



of acute myeloid leukaemia is close to unity (1:1). The incidence is relatively constant until the age around 45, after which the risk increases slightly (Figure 2.18.2).

Chronic myeloid leukaemia (CML) is mainly a disease of young adults and middle age, with few cases before age 20. The median age of CML patients in Thailand is one decade younger than that from the western countries (Jootar, *et al.*, 1996). It is slightly more common in males (ratio 1.3:1).

Figure 2.18.2 Age-specific incidence rates of leukaemia, 1995-1997

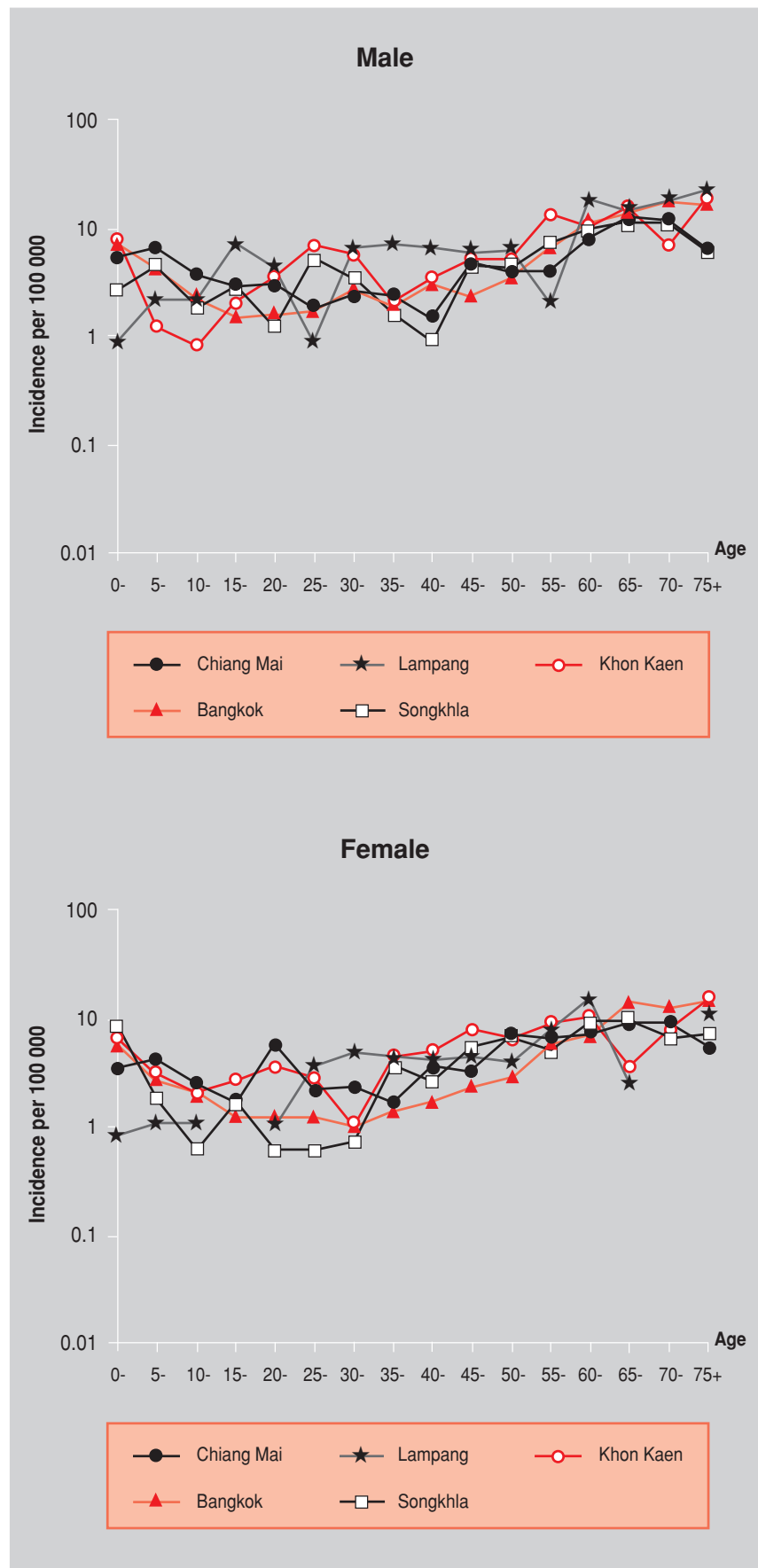


Figure 2.18.3 Histological type of leukaemia

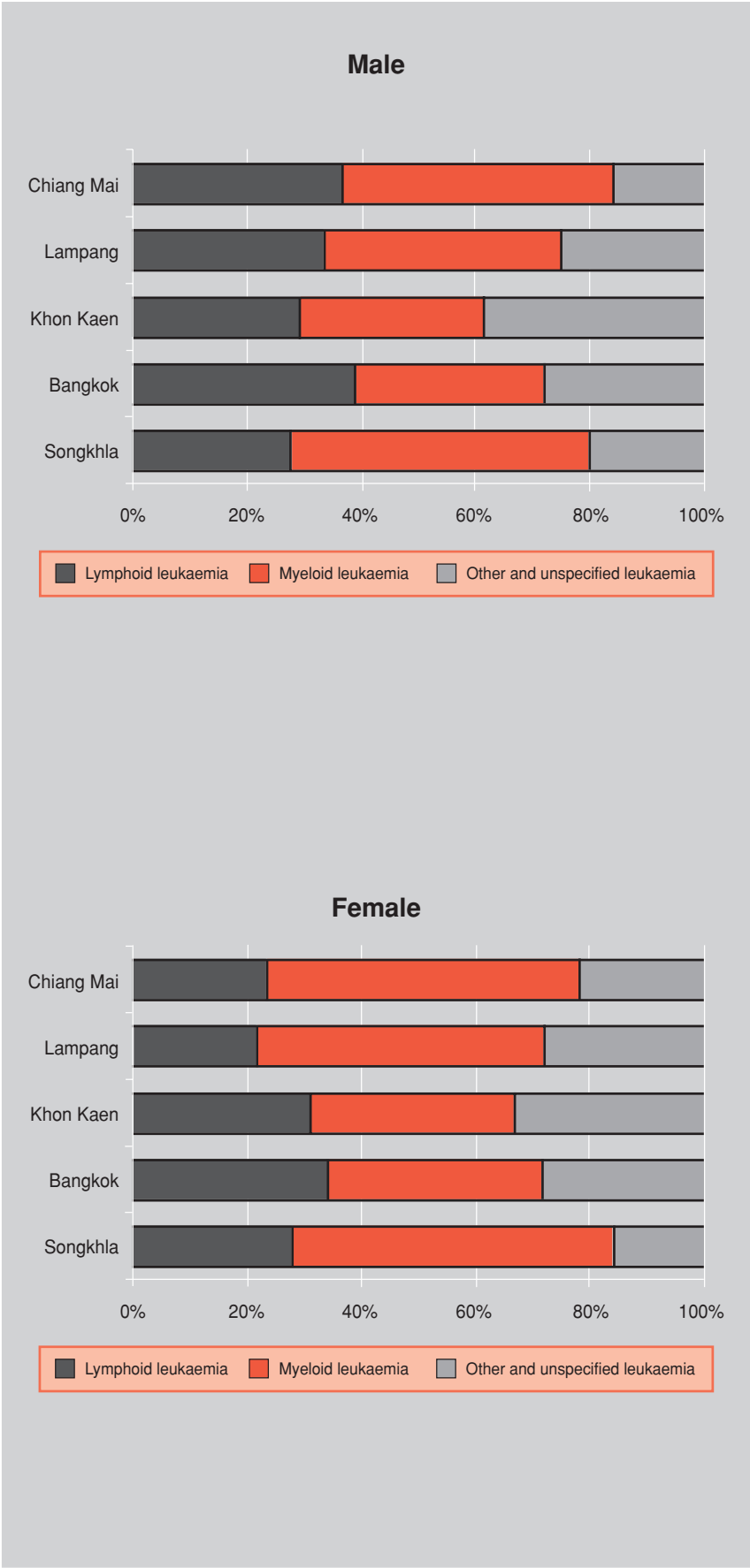
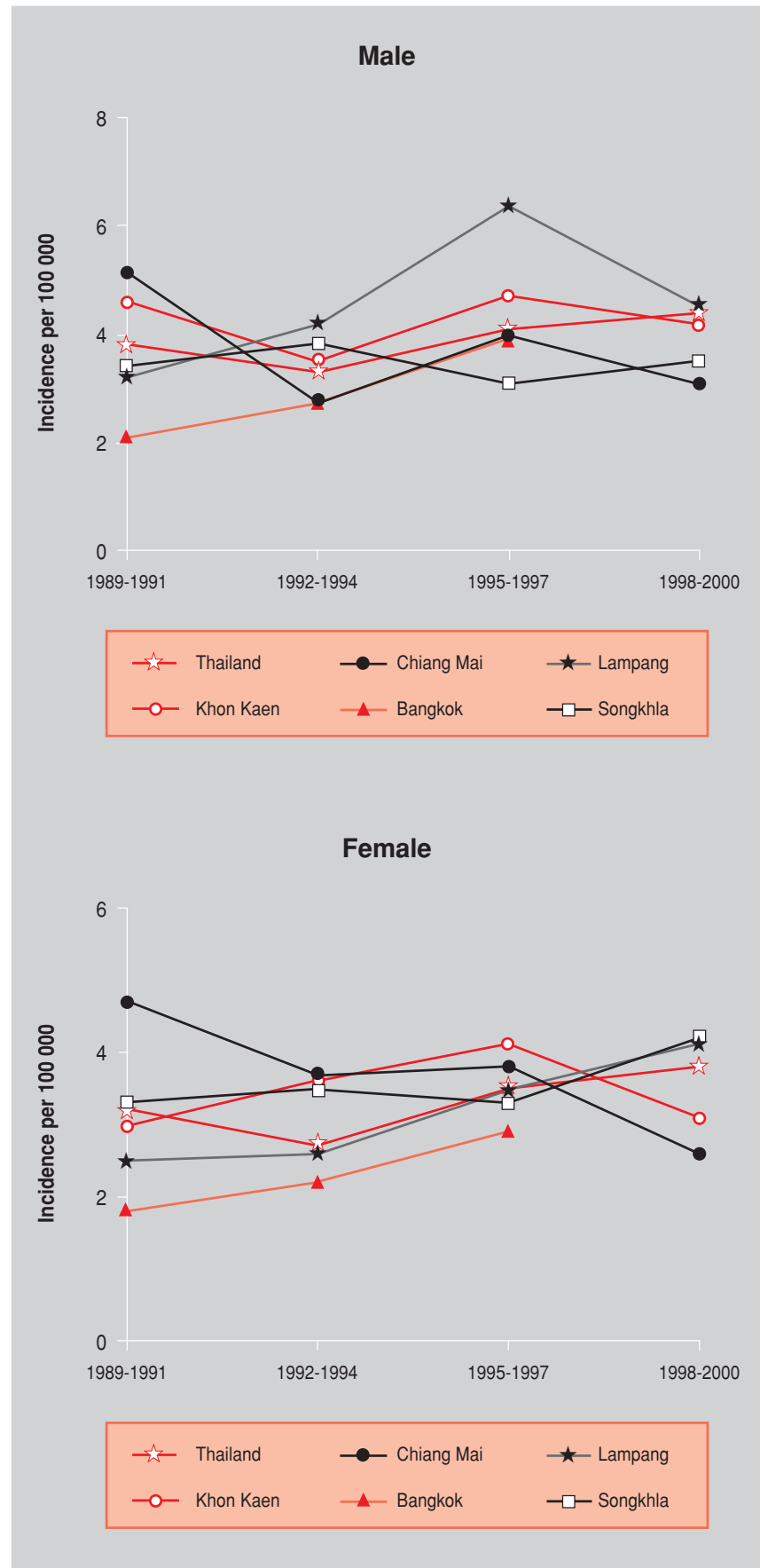


Figure 2.18.4 Trend in incidence of leukaemia

Chapter III

CHILDHOOD CANCER

CHAPTER

CHILDHOOD
CANCER

Surapon Wiangnon, M.D.
Supot Kamsa-ard, M.D.

Nearly 24.4 percent of Thailand population is younger than 15 years of age (National Statistical Office 2002). Although cancer is rare among those younger than 15 years of age, it is estimated that approximately 1 500 children younger than 15 years of age were diagnosed with cancer in 2000 (Vatanasapt *et al.*, 1999). In 1982 cancer ranked fifth as a cause of death behind infectious diseases, accident, cardiac diseases and respiratory diseases, (Porapakkham *et al.*, 1986) and ranked sixth behind drowning, accident, dengue hemorrhagic fever, malformation and HIV during 1987-1998 (Chooprapawan, 2000)

The population-based data for incidence of childhood cancer are from cancer registries in Khon Kaen, Chiang Mai, Songkhla, Lampang, and Bangkok. Information from five provinces comprising about 22 percent of Thailand

population are used in this monograph. These data series includes 636 cancers diagnosed between 1995 and 1997 in persons younger than 15 years of age who resided in Khon Kaen, Chiang Mai, Songkhla, Lampang, and Bangkok (Table 3.1).

In order to calculate rates, population estimates were obtained from the Bureau of the Census. In 1996 there were 2 449 580 children residing in Khon Kaen, Chiang Mai, Songkhla, Lampang, and Bangkok areas. In the 1996 census, there were about 16 million children younger than 15 years of age which were 27.4 percent of Thailand population (Table 3.2).

In these data series most of the pediatric cancers (87.9%) are histologically confirmed. The percentage of histologically confirmed cases, however, does vary by ICCC category ranging from a low of 65.3 percent for the central nervous sys-

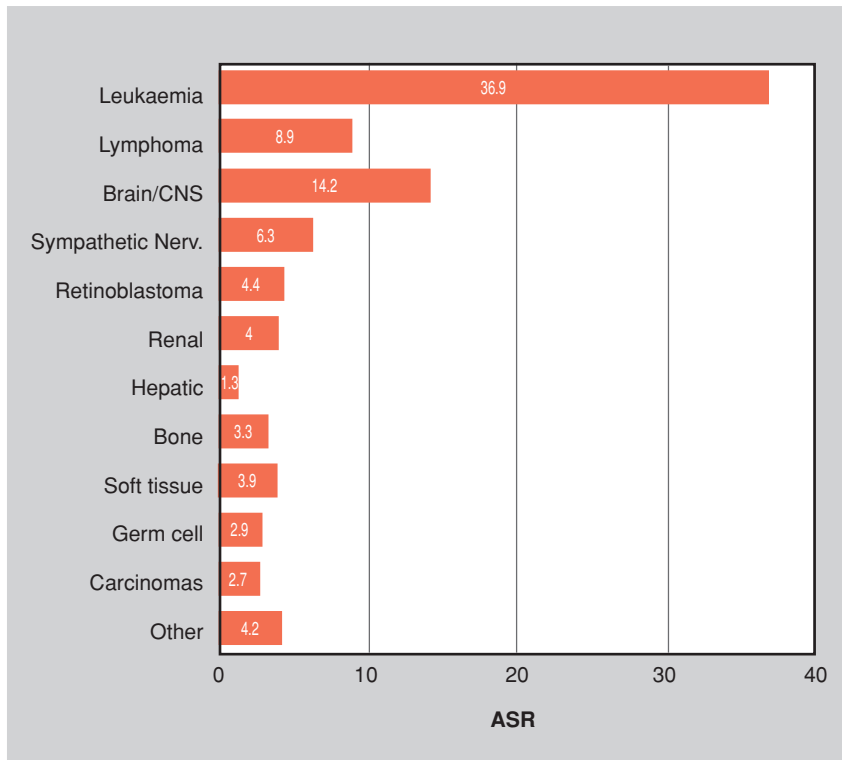
Table 3.1 Contributing registries

Registry	Cases	(%)	Person-years	(%)
Bangkok	356	56.0	3 499 122	47.6
Chiang Mai	86	13.5	963 339	13.1
Khon Kaen	83	13.1	1 385 306	18.8
Lampang	36	5.7	511 357	7.0
Songkhla	75	11.8	990 015	13.5
Thailand	636	100.0	7 349 138	100.0

Table 3.2 Sites and population

Site	1996	
	Age <15	%
Bangkok	1 166 292	47.6
Khon Kaen	461 729	18.8
Chiang Mai	321 112	13.1
Songkhla	330 000	13.5
Lampang	170 448	7.0
Total (5 Sites)	2 449 580	14.9
Total (Thailand)	16 447 000	

Figure 3.1 Incidence rates for childhood cancers by ICCC group age <15 both sexes, Thailand, 1995-1997



tem (ICCC group III) to a high of 97.0 percent for leukaemia (ICCC group I).

INCIDENCE

A total of 636 childhood cancers were registered, 354 boys and 282 girls, in the three year period (1995-1997). The corresponding combined incidence rate for all cancers is 99.7 per million in boys and 85.9 per million in girls. For both sexes combined the age-standardized rate is 93.0 per million (Figure 3.1, Tables 3.3 & 3.4).

The incidence of most cancer is higher in boys than girls, particularly Hodgkin's disease. The incidences of other selected site childhood cancers are shown in Figure 3.1. Age-specific incidences of selected site are shown in Figure 3.3.

Figure 3.2 Number of cases of all childhood cancers by ICCC and age both sexes, Thailand, 1995-1997

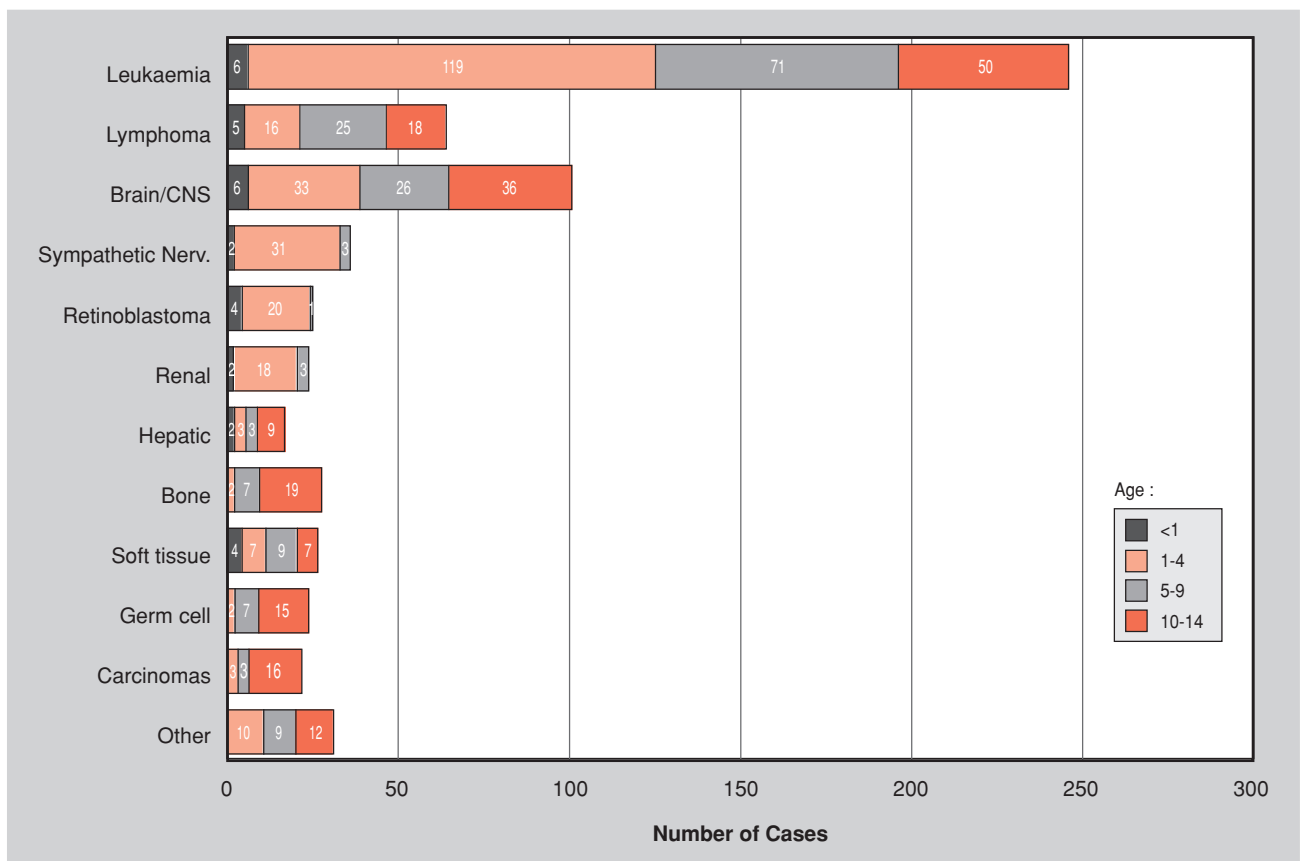


Table 3.3 Incidence of cancer in childhood, both sexes, Thailand (1995-1997)

	Number of Cases					Rel. Freq. (%)		Rates per Million					Cum.	%MV
	0	1-4	5-9	10-14	All	M/F	Overall	0-4	5-9	10-14	Crude	ASR		
Leukaemia	6	119	71	50	246	1.3	38.7	57.6	28.5	18.6	33.5	36.9	523	97.6
Lymphoid	3	92	51	30	176	1.3	27.7	43.8	20.5	11.2	23.9	26.8	377	100.0
Acute non-lymphocytic	-	15	10	10	36	1.4	5.7	7.4	4.0	3.7	4.9	5.2	75	100.0
Chronic myeloid	-	1	2	4	7	1.3	1.1	0.5	0.8	1.5	1.0	0.9	13	100.0
Other specified	-	-	1	-	1	-	0.2	-	0.4	-	0.1	0.1	2	100.0
Unspecified	2	11	7	6	26	1.2	4.1	6.0	2.8	2.2	3.5	3.9	55	76.9
Lymphomas	5	16	25	18	64	1.7	10.1	9.7	10.0	6.7	8.7	8.9	132	96.9
Hodgkin's disease	-	3	4	1	8	7.0	1.3	1.4	1.6	0.4	1.1	1.2	16	100.0
Non-Hodgkin lymphomas	2	1	8	6	17	3.3	0.7	1.4	3.2	2.2	2.3	2.2	34	100.0
Burkitt's lymphoma	-	2	1	1	4	3.0	0.6	0.9	0.4	0.4	0.5	0.6	8	100.0
Miscellaneous lymphoreticular neoplasms	3	4	1	1	9	0.3	1.4	3.2	0.4	0.4	1.2	1.5	19	100.0
Unspecified	-	6	11	9	26	1.4	4.1	2.8	4.4	3.3	3.5	3.5	52	92.3
Brain and Spinal Neoplasms	6	33	26	36	101	1.1	15.9	18.0	10.4	13.4	13.7	14.2	209	65.3
Ependymoma	-	3	-	1	4	0.3	0.6	1.4	-	0.4	0.5	0.6	8	100.0
Astrocytoma	2	7	8	14	31	0.7	4.9	4.1	3.2	5.2	4.2	4.2	62	100.0
Primitive neuroectodermal tumours	1	9	4	7	21	1.6	3.3	4.6	1.6	2.6	2.9	3.1	44	100.0
Other gliomas	-	2	5	2	9	2.0	1.4	0.9	2.0	0.7	1.2	1.2	18	100.0
Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unspecified	3	12	9	12	36	1.3	5.7	6.9	3.6	4.5	4.9	5.1	74	2.8
Sympathetic Nervous System Tumors	2	31	3	-	36	1.8	5.7	15.2	1.2	-	4.9	6.3	82	100.0
Neuroblastoma	2	31	3	-	36	1.8	5.7	15.2	1.2	-	4.9	6.3	82	100.0
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retinoblastoma	4	20	1	-	25	0.7	3.9	11.1	0.4	-	3.4	4.4	57	100.0
Renal Tumours	2	18	3	-	23	0.8	3.6	9.2	1.2	-	3.1	4.0	52	73.9
Wilms' tumour	1	15	1	-	17	0.5	2.7	7.4	0.4	-	2.3	3.0	38	100.0
Renal carcinoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unspecified	1	3	2	-	6	2.0	0.9	1.8	0.8	-	0.8	1.0	13	0.0
Hepatic Tumours	2	3	1	3	9	1.3	1.4	2.3	0.4	1.1	1.2	1.3	19	77.8
Hepatoblastoma	1	2	1	-	4	1.0	0.6	1.4	0.4	-	0.5	0.7	8	100.0
Hepatic carcinoma	-	1	-	2	3	0.5	0.5	0.5	0.5	-	0.7	0.4	0.4	6100.0
Unspecified	1	-	-	1	2	-	0.3	0.5	-	0.4	0.3	0.3	4	-
Malignant Bone Tumours	-	2	7	19	28	2.5	4.4	0.9	2.8	7.1	3.8	3.3	53	100.0
Osteosarcoma	-	-	6	19	25	2.6	3.9	-	2.4	7.1	3.4	2.8	47	100.0
Chondrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ewing's sarcoma	-	2	1	-	3	2.0	0.5	0.9	0.4	-	0.4	0.5	6	100.0
Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soft Tissue Sarcomas	4	7	9	7	27	0.9	4.2	5.1	3.6	2.6	3.7	3.9	56	100.0
Rhabdomyosarcoma	1	6	7	2	16	1.3	2.5	3.2	2.8	0.7	2.2	2.4	33	100.0
Fibrosarcoma	1	-	1	2	4	1.0	0.6	0.5	0.4	0.7	0.5	0.5	8	100.0
Kaposi's sarcoma	-	1	-	-	1	-	0.2	0.5	-	-	0.1	0.2	2	100.0
Other specified	2	-	-	3	5	0.7	0.8	0.9	-	1.1	0.7	0.7	10	100.0
Unspecified	-	-	1	-	1	-	0.2	-	0.4	-	0.1	0.1	2	100.0
Germ Cell and Gonadal Neoplasms	-	2	7	15	24	1.0	3.8	0.9	2.8	5.6	3.3	2.9	46	100.0
Intracranial and intraspinal germ cell	-	-	1	4	5	4.0	0.8	-	0.4	1.5	0.7	0.6	9	100.0
Other and unspecified non-gonadal germ cell	-	-	-	4	4	1.5	0.6	-	-	1.5	0.5	0.4	7	100.0
Gonadal germ cell	-	2	4	7	13	0.4	2.0	0.9	1.6	2.6	1.8	1.6	25	100.0
Gonadal carcinoma	-	-	2	-	2	-	0.3	-	0.8	-	0.3	0.3	4	100.0
Other and unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carcinomas and Epithelial Neoplasms	-	3	3	16	22	0.8	3.5	1.4	1.2	6.0	3.0	2.7	42	100.0
Adrenocortical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thyroid	-	-	2	3	5	0.3	0.8	-	0.8	1.1	0.7	0.6	9	100.0
Nasopharyngeal	-	-	-	3	3	0.5	0.5	-	-	1.1	0.4	0.3	5	100.0
Melanoma	-	1	-	3	4	0.3	0.6	0.5	-	1.1	0.5	0.5	7	100.0
Skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other and unspecified	-	2	1	7	10	2.3	1.6	0.9	0.4	2.6	1.4	1.2	19	100.0
Other and Unspecified Neoplasms	-	10	9	12	31	1.4	4.9	4.6	3.6	4.5	4.2	4.2	63	12.9
Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other unspecified	-	10	9	12	31	1.4	4.9	4.6	3.6	4.5	4.2	4.2	63	12.9
Total	31	264	165	176	636	1.3	100.0	135.9	66.3	65.5	86.5	93.0	1 338	87.7

Table 3.4 Incidence of cancer in childhood, male and female, Thailand (1995-1997)

	Male							Female						
	Number of Cases							Number of Cases						
	0	1-4	5-9	10-14	All	Crude	ASR Cum.	0	1-4	5-9	10-14	All	Crude	ASR Cum.
Leukaemia	2	66	45	27	140	37.2	40.6	4	53	26	23	106	29.6	33.0
Lymphoid	2	51	32	16	101	26.8	29.8	1	41	19	14	75	20.9	23.6
Acute non-lymphocytic	-	8	7	6	21	5.6	5.8	1	7	3	4	15	4.2	4.6
Chronic myeloid	-	1	2	1	4	1.1	1.1	-	-	-	3	3	0.8	0.7
Other specified	-	-	-	-	-	-	-	-	-	1	-	1	0.3	0.3
Unspecified	-	6	4	4	14	3.7	3.9	2	5	3	2	12	3.3	3.8
Lymphomas	1	10	15	14	40	10.6	10.6	4	6	10	4	24	6.7	7.2
Hodgkin's disease	-	3	3	1	7	1.9	2.0	-	-	1	-	1	0.3	0.3
Non-Hodgkin lymphomas	1	7	12	6	26	6.7	6.7	1	5	9	4	14	3.7	4.0
Burkitt's lymphoma	-	1	1	1	3	0.8	0.8	-	-	-	-	-	-	-
Miscellaneous lymphoreticular neoplasms	-	1	1	1	3	0.5	0.6	3	3	1	-	7	2.0	2.5
Unspecified	-	4	6	5	15	4.0	4.0	-	2	5	4	11	3.1	3.0
Brain and spinal Neoplasms	3	17	18	15	53	14.1	14.6	3	16	8	21	48	13.4	13.7
Ependymoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Astrocytoma	-	3	4	6	13	3.5	3.3	2	4	4	8	18	5.0	5.0
Primitive neuroectodermal tumours	1	6	3	3	13	3.5	3.8	-	3	1	4	8	2.2	2.2
Other gliomas	-	1	5	-	6	1.6	1.6	-	1	-	2	3	0.8	0.8
Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unspecified	2	7	6	5	20	5.3	5.7	1	5	3	7	16	4.5	4.5
Sympathetic Nervous System Tumours	2	19	2	-	23	6.1	7.8	-	12	1	-	13	3.6	4.7
Neuroblastoma	2	19	2	-	23	6.1	7.8	-	12	1	-	13	3.6	4.7
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retinoblastoma	1	9	-	-	10	2.7	3.5	3	11	1	-	15	4.2	5.4
Renal Tumours	1	7	2	-	10	2.7	3.3	1	11	1	-	13	3.6	4.7
Wilms' tumour	1	7	2	-	10	2.7	3.3	1	11	1	-	13	3.6	4.7
Renal carcinoma	-	5	-	-	6	1.6	2.1	-	10	-	-	11	3.1	3.9
Unspecified	-	2	2	-	4	1.1	1.2	1	1	-	-	2	0.6	0.7
Hepatic Tumours	1	1	1	2	5	1.3	1.4	1	2	-	1	4	1.1	1.3
Hepatoblastoma	-	1	1	-	2	0.5	0.6	1	1	-	-	2	0.6	0.7
Hepatic carcinoma	-	-	-	1	1	0.3	0.2	-	-	-	1	2	0.6	0.6
Unspecified	1	-	-	1	2	0.5	0.6	-	-	-	-	-	-	-
Malignant Bone Tumours	-	1	4	15	20	5.3	4.6	-	1	3	4	8	2.2	2.0
Osteosarcoma	-	-	3	15	18	4.8	4.0	-	-	3	4	7	2.0	1.7
Chondrosarcoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ewing's sarcoma	-	1	1	-	2	0.5	0.6	-	1	-	-	1	0.3	0.4
Other specified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Soft Tissue Sarcomas	2	2	6	3	13	3.5	3.5	2	5	3	4	14	3.9	4.3
Rhabdomyosarcoma	1	2	5	1	9	2.4	2.5	-	4	2	1	7	2.0	2.2
Fibrosarcoma	-	-	1	1	2	0.5	0.5	1	-	-	1	2	0.6	0.6
Kaposi's sarcoma	-	-	-	-	-	-	-	-	1	-	-	1	0.3	0.4
Other specified	1	-	-	1	2	0.5	0.6	1	-	-	2	3	0.8	0.8
Unspecified	-	-	-	-	-	-	-	-	-	1	-	1	0.3	0.3
Germ Cell and Gonadal Neoplasms	-	1	2	9	12	3.2	2.8	-	1	5	6	12	3.3	3.0
Intracranial and intraspinal germ cell	-	-	-	4	4	1.1	0.9	-	-	1	-	1	0.3	0.3
Other and unspecified non-gonadal germ cell	-	-	-	4	4	1.1	0.9	-	-	-	-	-	-	-
Gonadal germ cell	-	1	2	1	4	1.1	1.1	-	1	2	6	9	2.5	2.2
Gonadal carcinoma	-	-	-	-	-	-	-	-	-	2	-	2	0.6	0.5
Other and unspecified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carcinomas and Epithelial Neoplasms	-	2	2	6	10	2.7	2.5	-	1	1	10	12	3.3	2.8
Adrenocortical	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thyroid	-	-	1	-	1	0.3	0.3	-	-	-	-	-	-	-
Nasopharyngeal	-	-	-	1	1	0.3	0.2	-	-	1	3	4	1.1	0.9
Melanoma	-	-	-	1	1	0.3	0.2	-	1	-	2	3	0.6	0.4
Skin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other and unspecified	-	2	1	4	7	1.9	1.8	-	-	-	3	3	0.8	0.7
Other and Unspecified Neoplasms	-	5	6	7	18	4.8	4.7	-	5	3	5	13	3.6	3.7
Other specified	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Other unspecified	-	5	6	7	18	4.8	4.7	-	5	3	5	13	3.6	3.7
Total	13	140	103	98	354	94.0	99.7	18	124	62	282	282	78.7	85.9
							1 444							1 225

AGE (5-YEAR AGE GROUPS)

The average age-specific incidence rates for each of the three calendar periods of observation show much higher cancer rates for the youngest (younger than 5 years of age) particularly leukemia, sympathetic nervous system, retinoblastoma, renal tumor and older age group for tumors of the central nervous system and bone tumors (Figure 3.2).

AGE AND ICCG GROUP

Sixty-five percent of the cancers found among children younger than 15 years of age were leukemia, malignant tumors of the central nervous system and lymphoma. The relative percentage, however, varied by age group (Figure 3.2). Leukemia was the most common diagnosis for those younger than 5, 5-9, and 10-14 years of age but the relative proportion of it decreased as age increased, from 42.4 percent in those younger than 5 years of age to only 28.4 percent in adolescents 10-14 years of age. Leukemias comprised 38.7 percent of all childhood cancers. Acute lymphocytic leukemia comprised 71.5 percent of all leukaemia. The second most common type of cancer was malignant tumors of the central nervous system. Lymphoma ranked third among male and female (Figure 3.1 & 3.2).

COMMENTARY

The incidence rates of childhood cancer in Thailand are rather low by international standards, compared to other registries. However, it is higher than the incidence rate registered in 1988-1994 (Vatanasapt *et al.*, 1999, Sriamporn *et al.*, 1996). The incidence still low compared to incidence in some

Figure 3.3 Age-specific incidence rate per million of childhood cancer (selected sites) boys and girls (1995-1997)

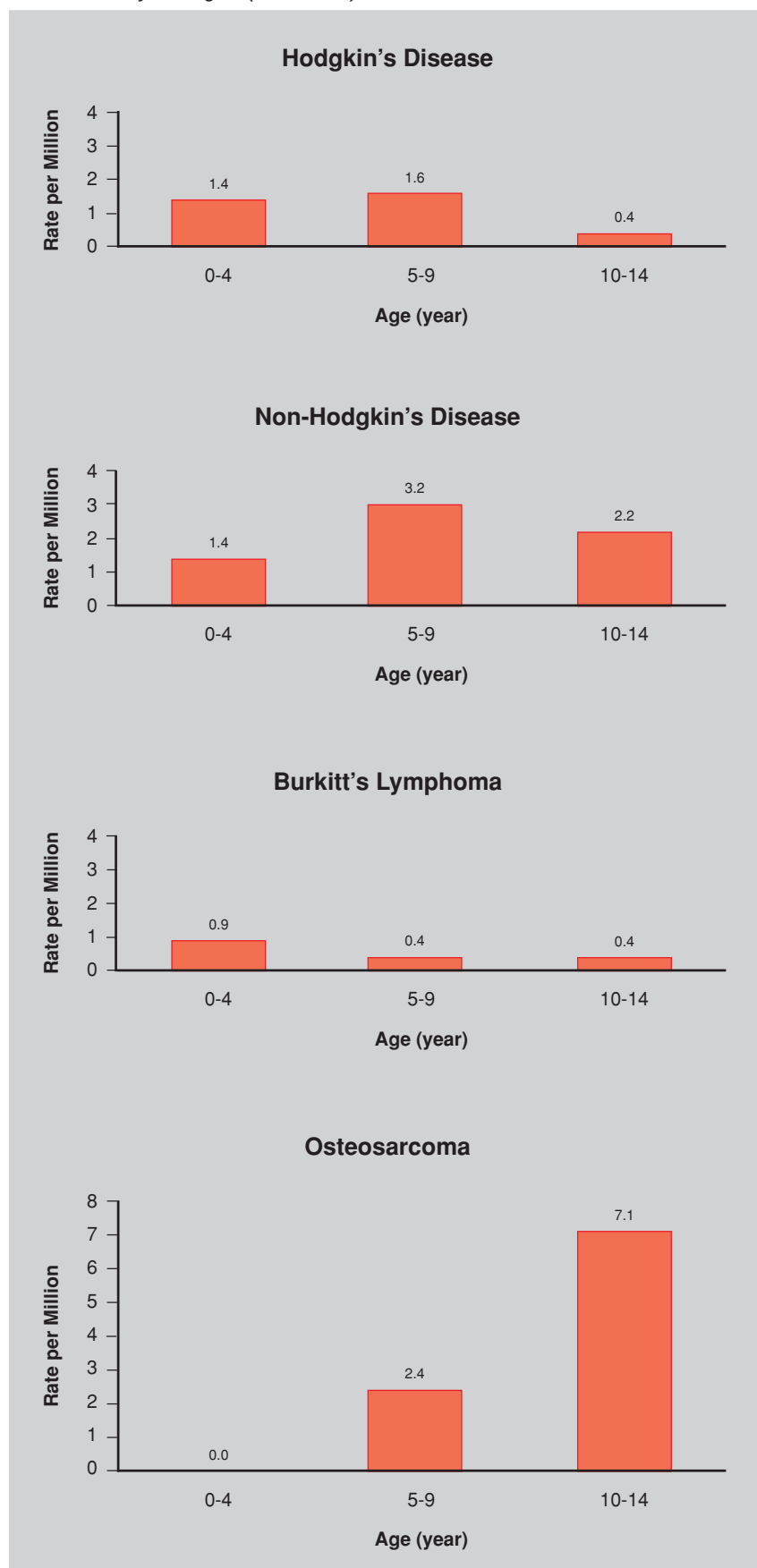
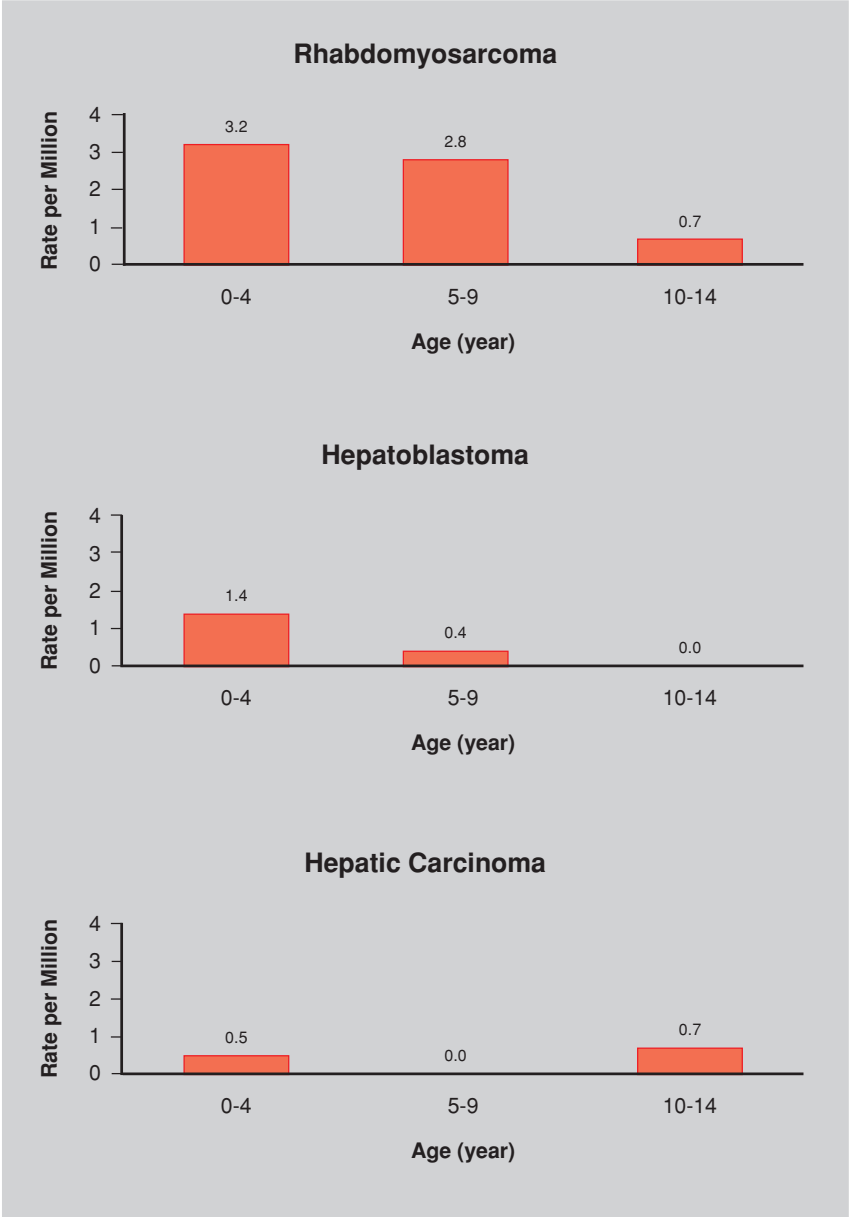


Figure 3.3 (continued) Age-specific incidence rate per million of childhood cancer (selected sites) boys and girls (1995-1997)



Asian countries. Some underreporting is possible in all five cancer registries. There are increasing difficulties in ascertaining cases from private hospitals due to confidentiality, particularly in Bangkok. In addition, in order to receive the best medical treatment available, some non-residents register as Bangkok residents.

As frequently noted in other Asian countries, a relatively small number of children aged less than one year is registered. This may be because parents are unaware of possibility of cancer in such a young child, and prefer home treatment rather than seeking professional help. Moreover, no screening program for childhood cancer has operated in areas covered by population based cancer registries.

Chapter IV

PROJECTION OF CANCER PROBLEMS

CHAPTER

IV

PROJECTION OF
CANCER
PROBLEMS*Hutcha Sriplung, M.D.*

Until 2003, four cancer registries in Thailand have been working for more than 10 years. Though Lampang registry has not completed 10 years of activity, it retrospectively collected the data from 1989. This enables projection of cancer trend beyond the year 2000.

There have been a lot of changes in environmental and life-style factors in Thai population. The momentum of change has been moving from the capital, Bangkok, to big cities such as the municipalities of Chiang Mai, Khon Kaen, and Hat Yai in Songkhla, and to suburban and rural levels. Though people in rural areas in different parts of Thailand are still resistant to such changes, they are gradually forced to acquire modern life through better transportation, communication, and public media. Influences of radio and television programmes cannot be underestimated. People are forced to move into big cities for better jobs and opportunities. Changes in these factors in the past decades affects cancer incidence in the recent years. Though it is not possible to project cancer incidence providing the change in exposure factors, the trend can be estimated by the change in incidence of cancer in the near past.

Scanning through the incidence of cancers in the past decade, the evidence is clear that some cancers show an increasing trend and some are not changing or even seem to be decreasing. Statistical modeling of the trend is needed for projection of cancer problems in the near future.

PROJECTION METHOD**DATA SOURCES**

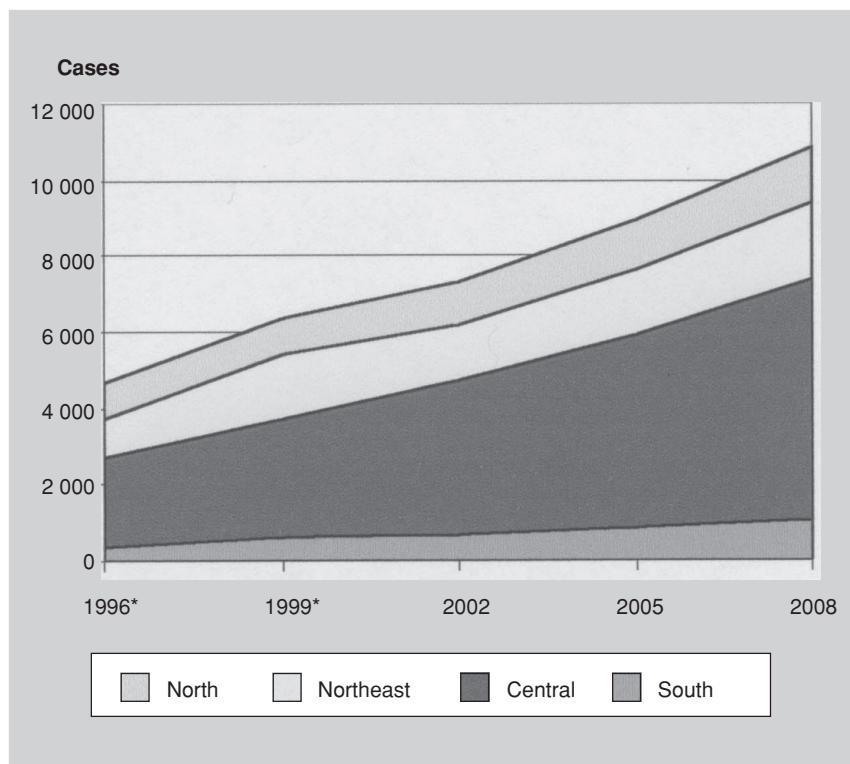
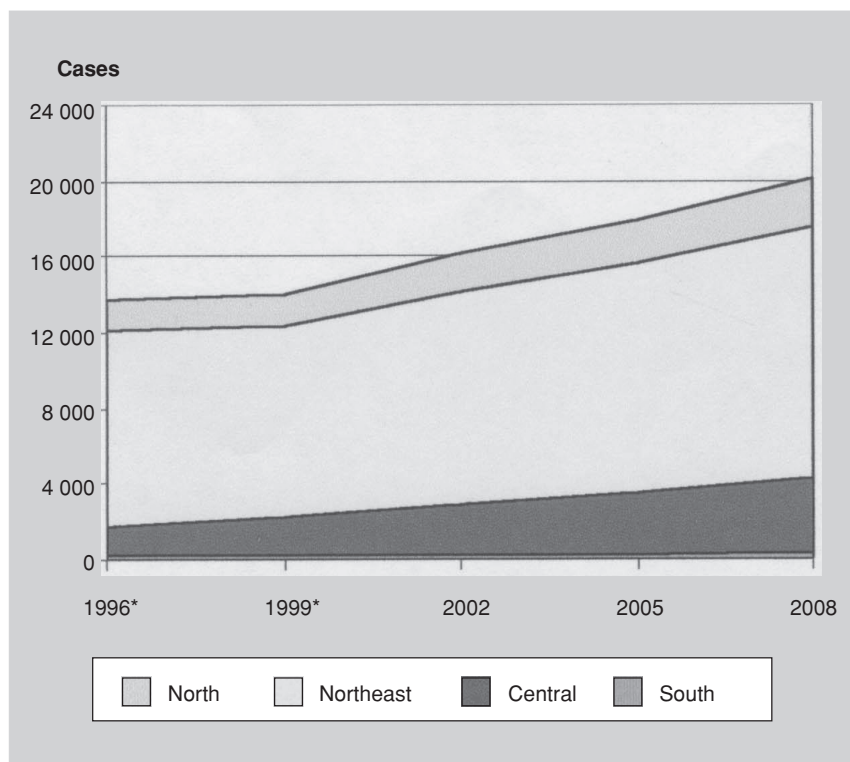
Incidence rates in periods

1995-1997 and 1998-2000 are those shown in the Appendices. The rates in periods 1989-1991 and 1992-1994 are recalculated using population denominators estimated from the 1990 and 2000 censuses as mentioned in Chapter I, Statistical Methods (page 5). The rates are slightly different from those published in the two previous volumes of Cancer in Thailand by two factors. One is the fact that cancer registry databases are regularly updated by registry staff and another is the change in population denominators used to calculate the rates. In Cancer in Thailand volume I, the population data available was the population projection from the 1990 census by the National Statistical Office (National Statistical Office, 1992), and in Cancer in Thailand volume II, the population denominators used for the calculation of rates were from the Population Projections for Thailand 1990-2020 (Human Resources Planning Division, 1995). The difference of the recalculated incidence rates is so slight that they are not shown here.

Only common cancer sites - liver, lung, colon-rectum, cervix uteri, and female breast were selected for trend projection for the sake of public health impact. The trend of all cancer sites was also projected.

STATISTICAL METHOD

Age-specific incidence rates of each 5-year age group in the periods 2001-2003, 2004-2006, 2007-2009 in all registries were projected from the rates in the four previous periods except Bangkok registry where the rates in the period 1998-2000 had to be projected since the observed rates were not available.

Figure 4.1 Projection of colon-rectum cancer cases, both sexes**Figure 4.2** Projection of liver cancer cases, both sexes

A linear regression model was used when the trend was increasing and a logarithmic regression model was applied when it was a declining trend to prevent a negative age-specific incidence rate. Age-standardized incidence rates (ASR) for cancer sites were calculated but not shown here.

The population in four regions in Thailand for future time periods by 5-year age group was projected based on the 1990 and 2000 censuses using a log-linear model. Expected cancer cases for each region were calculated based on the age specific incidence rates and the population in each 5-year age group. The incidence rates in Chiang Mai and Lampang were used for the calculation of expected cancer cases in the northern region. Khon Kaen was the representative of the North-eastern region. Bangkok was used to represent the Central region, and the Southern region was represented by Songkhla. All the cases were added to make the expected number of cancer cases for the whole Kingdom of Thailand in future time periods.

RELIABILITY OF PROJECTIONS

Reliability of projections depends largely on the quality of data in five registries. A continuously declining trend in incidence of most cancer sites in Chiang Mai while an increasing trend was observed in most cancer sites in Lampang reflects some degree of under-ascertainment of cancer cases in Chiang Mai registry. A steep increase in incidence in Bangkok registry can be explained by an improvement of case collection in recent years.

Some registries are not good representatives for the region.

Bangkok is a unique city and differs in many aspects from other provinces in the Central region. Songkhla is on the Malaysia border and the people may be slightly different from the rest in the Southern region.

Despite the possible imprecision of trend projection mentioned above, a figure of cancers in the present decade is informative enough for public health policy planning.

RESULTS

Cancer of the colon and rectum is increasing rapidly in both sexes. Over 10 000 new cases are expected in 2008 (Figure 4.1). The largest proportion of cases is in the central region. The rate of increase is greater in the Central region than the others. It might not be that much since a rapid increasing trend of Bangkok can be an artifact as mentioned above. However, an increasing trend is not objected.

Liver cancer is expected to continuously increase in both sexes and over 20 000 new cases are expected in 2008 for the whole country (Figure 4.2). The largest proportion is expected in the Northeastern region, accounting for approximately 64%, followed by the Central and Northern regions. Though the incidence rate of liver cancer in males in the Northeastern region is expected to be decreasing, the expected number of cases continues to slightly increase due to an expansion of the population. The incidence of liver cancer in the Northern and Central regions is expected to be increasing. The trend is slightly declining in the South since most of cases are hepatocellular carcinoma which is ex-

Figure 4.3 Projection of lung cancer cases, both sexes

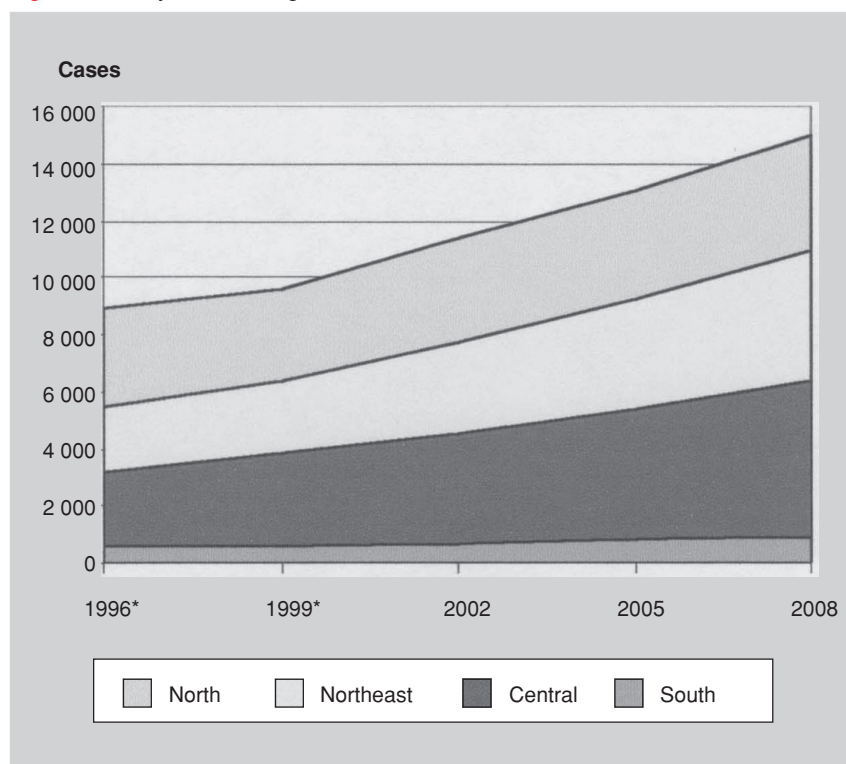


Figure 4.4 Projection of cervix uteri cancer cases

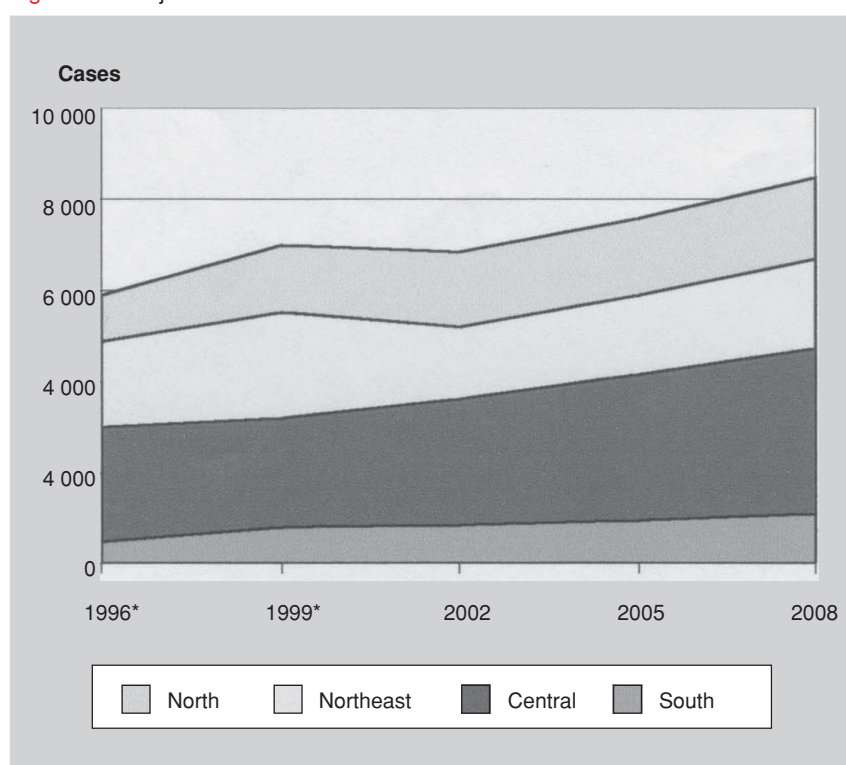


Figure 4.5 Projection of female breast cancer cases

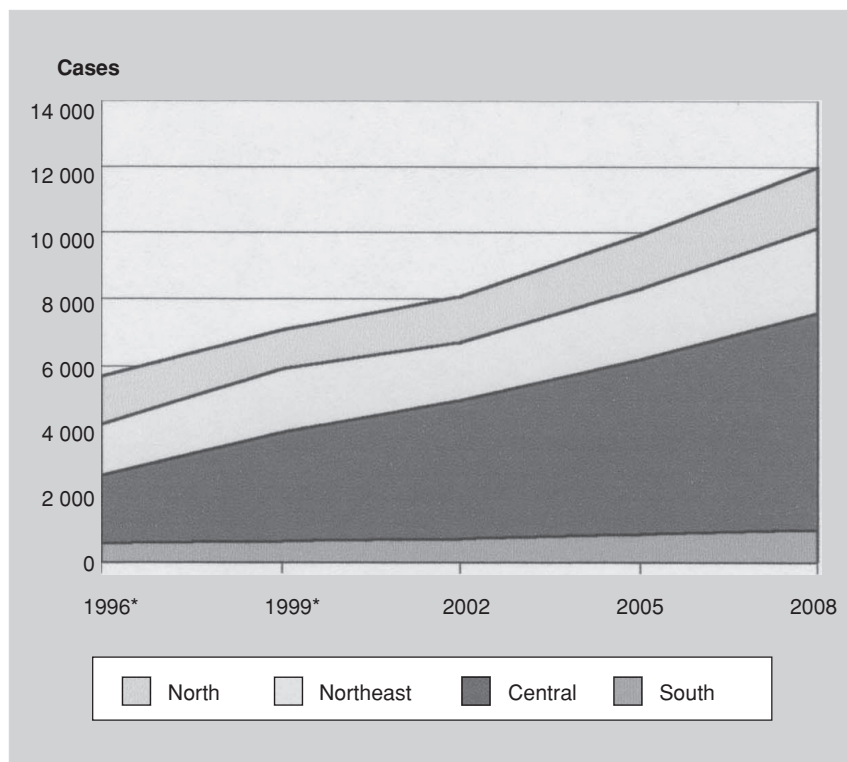
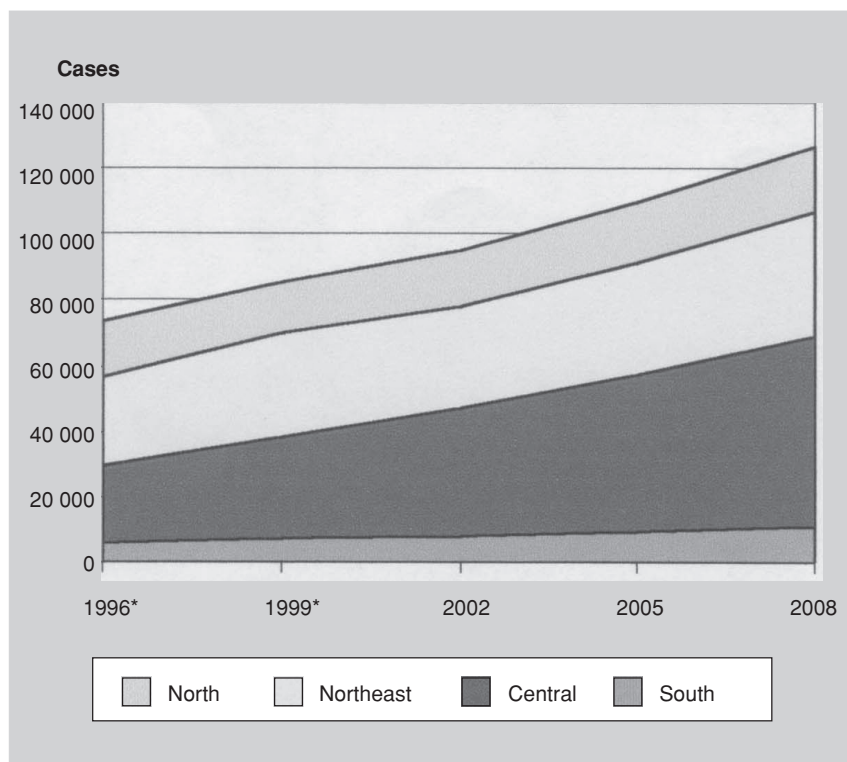


Figure 4.6 Projection of all cancer cases, both sexes



pected to be effectively controlled by the screening programme for hepatitis B virus in blood transfusion.

Though the highest incidence rate of lung cancer in both sexes is observed in the Northern region, a large proportion of population in the Northeastern and Central regions makes the number of cancer cases in the two regions not different from that in the North (Figure 4.3). Approximately 15 000 new lung cancer cases are expected in 2008.

Both incidence rate and number of new case of cervical cancer are increasing. Over 8 000 new cases are projected in 2008 for the whole country (Figure 4.4). The largest proportion of cases is in the Central region, though the incidence rate is higher in the North. The projection can be underestimated if the population-wide screening programme for the cancer is successfully implemented.

The incidence rate of breast cancer is rapidly increasing in Thailand. The number of 12 000 new cases per year expected in 2008 (figure 4.5) is greater than that of cervical cancer. The largest proportion is observed in the Central region. However, this figure can be overestimated since Bangkok, as mentioned above, is not a good proxy of the region.

Over 120 000 new cancer cases are projected by the end of the first decade of the 21st century (figure 4.6). This number reflects approximately 50% increment rate per 10 years. The consistently low number of new cases in the Southern region is due to the lower incidence rate of cancers and the smallest proportion of population in the region.

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APPENDICES

APPENDIX

A

CHIANG MAI
CANCER
REGISTRY

*Yupa Sumitsawan, M.D.
Songphol Srisukho, M.D.*

GEOGRAPHY AND POPULATION

Chiang Mai is one of the 19 provinces of the northern region of Thailand, situated in the upper part of the region about 310 meters above sea level at latitude 16°-18° N and longitude 99° E. To the north of Chiang Mai are Myanmar and Chiang Rai province, Lampang province is to the east, Lamphun to the south, and Mae Hong Son to the west.

The land area is 20 107 square kilometers. Chiang Mai province is divided into 22 districts and 2 subdistricts. Chiang Mai administration consists of one municipal and 8 sanitary districts. The population of Chiang Mai is 1.5 million, with 12.2% living in municipal area. The population density is 79 persons per square kilometer. The highest population density is in Muang district (1 541 per km²), followed by Saraphi, San Patong, San Kamphaeng, and San Sai. The lowest is in Mae Chaem district (19.1 per km²).

The population is mainly

Thai, and the other ethnics are Chinese, Laotian, Burmese, and hill-tribes.

The most important occupations are farming of rice, peanuts, sugar beans, longans, lynchies, strawberries and tobacco. Weaving, wood-carving and handicrafts are the main industries. An important feature of the lifestyle of males and females in old generations is smoking of home produced cigars and cigarettes. People start this behaviour since they were young.

REGISTRY PROCEDURES

Hospital based registry was established since 1963 by Prof. Okas Blangura, head of the Department of Surgery. The first population based cancer registration in Thailand was established in Chiang Mai province in 1986 and the first report was published in 1989 (Martin *et al.*, 1989). The data of cancer patients are collected from university hospital, provincial hospitals, community hospitals, pathology laboratories, medical clinics, and death certificates.

Figure 1 Population pyramid, Chiang Mai, 1996

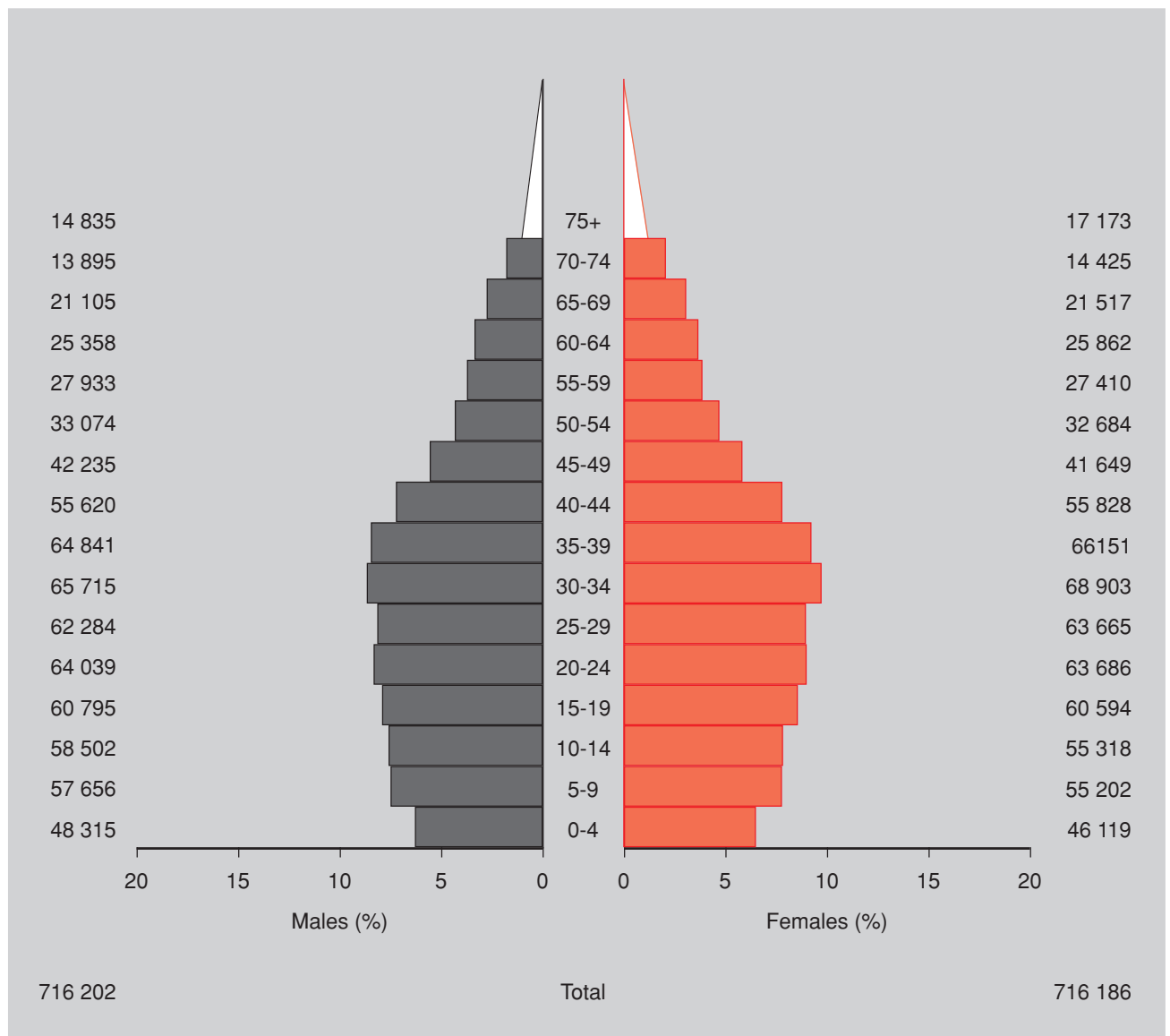


Figure 2 Leading cancers in Chiang Mai, 1995-1997

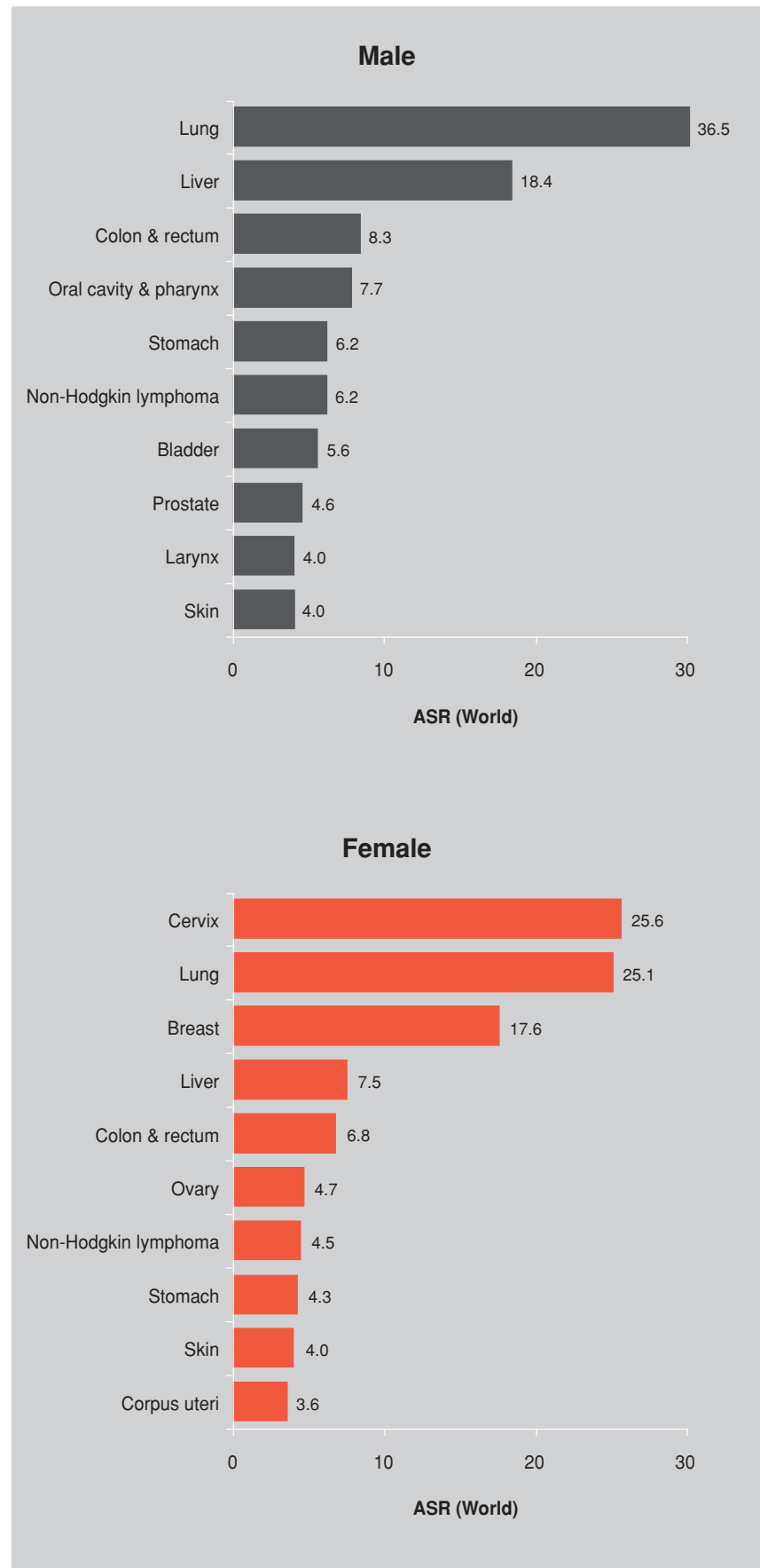


Table 1 Chiang Mai (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	3	0	-	-	-	-	-	-	-	-	0.5	-	-	-	-	1.6	-	2.1	0.1	0.1	C00
Tongue	44	0	-	-	-	-	0.6	-	-	0.9	0.5	3.2	2.5	4.0	9.0	11.1	9.7	27.5	2.1	2.1	C01-C02
Salivary gland	7	0	-	-	-	-	-	-	0.5	-	-	-	1.3	-	1.3	3.2	4.8	-	0.3	0.3	C07-C08
Mouth	44	0	-	-	-	-	0.6	-	0.5	-	1.1	1.6	6.3	5.3	6.5	11.1	19.3	19.0	2.1	2.1	C03-C06
Oropharynx	23	0	-	-	-	-	0.6	-	-	-	1.6	0.8	2.5	1.3	5.2	6.4	2.4	12.7	1.1	1.1	C09-C10
Nasopharynx	72	0	-	-	-	0.6	0.6	2.9	1.0	2.3	2.1	12.0	10.1	13.2	7.7	8.0	12.1	10.6	3.4	3.4	C11
Hypopharynx	41	0	-	-	-	-	-	-	-	-	-	0.8	-	5.3	9.0	11.1	24.2	25.4	1.9	1.9	C12-C13
Pharynx unspecified	3	0	-	-	-	-	-	-	-	-	-	-	-	-	1.3	1.6	2.4	-	0.1	0.1	C14
Oesophagus	43	0	-	-	-	-	-	-	-	0.5	0.5	1.6	5.1	4.0	16.8	11.1	16.9	10.6	2.0	2.1	C15
Stomach	132	0	-	-	-	-	-	0.6	1.4	1.8	4.8	8.0	6.3	23.8	36.1	36.6	38.7	31.7	6.3	6.2	C16
Small intestine	10	0	-	-	-	-	-	-	-	0.5	-	1.6	1.3	1.3	1.3	3.2	2.4	2.1	0.5	0.5	C17
Colon	100	0	-	-	-	-	1.2	-	1.4	0.5	6.4	4.8	8.9	9.3	29.7	20.7	36.2	23.3	4.7	4.7	C18
Rectum	79	0	-	-	-	-	-	0.6	1.0	2.3	3.2	0.8	7.6	9.3	16.8	15.9	24.2	38.1	3.7	3.6	C19-C21
Liver	404	0	-	-	-	3.7	0.6	3.5	10.5	14.7	24.2	35.9	41.9	60.8	78.7	71.7	70.1	71.9	19.2	18.4	C22
Gallbladder etc.	33	0	-	-	-	-	-	-	-	0.5	1.1	2.4	1.3	4.0	2.6	9.6	21.7	10.6	1.6	1.5	C23-C24
Pancreas	28	0	-	-	-	-	-	-	-	-	2.1	1.6	2.5	4.0	2.6	8.0	2.4	19.0	1.3	1.3	C25
Nose, sinuses etc.	8	0	-	-	-	-	-	-	-	0.5	1.1	-	1.3	1.3	1.3	1.6	-	2.1	0.4	0.3	C30-C31
Larynx	83	0	-	-	-	-	-	-	-	-	1.6	0.8	8.9	11.9	12.9	31.9	41.1	33.8	3.9	4.0	C32
Bronchus, lung	749	0	-	-	-	-	3.7	8.6	6.7	10.6	16.1	26.4	86.3	124.2	207.7	248.4	224.7	118.4	35.5	36.5	C33-C34
Other thoracic organs	6	0	-	-	-	-	-	0.5	0.5	0.5	-	-	-	1.3	-	-	2.4	-	0.3	0.3	C37-C38
Bone	20	0	-	0.7	1.2	1.7	1.2	1.7	0.5	0.5	0.5	1.6	1.3	1.3	-	1.6	2.4	2.1	0.9	1.0	C40-C41
Connective tissue	14	0	1.3	0.7	-	-	-	0.6	0.5	-	1.1	-	3.8	1.3	1.3	-	-	4.2	0.7	0.7	C47, C49
Mesothelioma	10	0	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	1	0	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	10	0	-	-	-	0.6	-	-	0.5	1.4	2.1	5.6	5.1	5.3	12.9	28.7	31.4	44.4	0.5	0.4	C43
Other skin	86	0	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	4.1	4.0	C44
Breast	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C50
Prostate	98	0	-	-	-	-	-	-	-	-	-	-	3.8	5.3	10.3	23.9	60.4	90.9	4.6	4.6	C61
Testis	13	0	-	-	-	0.6	1.2	1.2	1.0	1.4	0.5	0.8	2.5	-	-	-	-	2.1	0.6	0.5	C62
Penis	55	0	-	-	-	-	-	1.7	-	-2.3	2.7	22.4	2.5	4.0	11.6	14.3	14.5	21.1	2.6	2.5	C60
Other male genital	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C63
Bladder	117	0	-	-	-	-	-	-	0.5	0.9	1.1	2.4	5.1	15.9	34.8	38.2	45.9	48.6	5.5	5.6	C67
Kidney etc.	24	0	1.3	-	-	-	-	1.2	-	-	-	1.6	3.8	4.0	7.7	4.8	2.4	4.2	1.1	1.3	C64-C66; C68
Eye	10	0	0.7	-	-	-	-	0.6	0.5	0.9	-	1.6	-	-	1.3	1.6	-	2.1	0.5	0.4	C69
Brain, nervous system	31	0	2.6	1.3	0.6	0.6	-	0.6	0.5	1.8	1.6	3.2	2.5	-	5.2	3.2	2.4	2.1	1.5	1.5	C70-C72
Thyroid	22	0	-	-	-	-	1.2	0.6	0.5	1.8	1.6	1.6	-	1.3	2.6	8.0	2.4	-	1.0	0.9	C73
Other endocrine	5	0	1.3	-	0.6	-	-	-	-	-	-	-	1.3	-	-	1.6	-	-	0.2	0.3	C74-C75
Hodgkin's disease	15	0	-	0.7	-	-	-	0.6	-	0.9	1.1	0.8	-	-	5.2	1.6	2.4	4.2	0.7	0.7	C81
Non-Hodgkin lymphoma	137	0	0.7	2.0	0.6	1.7	2.5	4.0	6.7	5.5	7.5	6.4	16.5	15.9	15.5	30.3	24.2	8.5	6.5	6.2	C82-C85; C96
Multiple myeloma	8	0	-	-	-	-	-	-	-	-	0.5	-	-1.3	-	-	8.0	2.4	-	0.4	0.4	C88; C90
Lymphoid leukaemia	28	0	3.3	3.3	3.0	1.1	-	0.6	1.0	0.5	0.5	0.8	-	2.6	1.3	3.2	-	-	1.3	1.6	C91
Myeloid leukaemia	36	0	0.7	2.7	0.6	1.7	1.9	0.6	0.5	1.4	0.5	4.0	2.5	1.3	6.5	1.6	9.7	-	1.7	1.8	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	12	0	1.3	0.7	-	-	1.2	0.6	1.0	0.5	-	-	-	-	-	-	-	-	0.6	0.6	C95
Other and unspecified	373	0	-	0.7	-	1.1	6.8	12.7	13.3	17.0	18.8	25.6	40.6	43.6	59.4	66.9	60.4	57.1	17.7	16.7	O&U
All sites	3 029	0	13	13	8	9	28	44	49	73	108	161	284	387	623	752	824	759	143.6	142.5	ALL

Table 2 Chiang Mai (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (w)	ICD (10th)
Lip	6	0	-	-	-	-	-	1.1	-	-	-	-	-	-	1.2	1.5	-	3.6	0.3	0.3	C00
Tongue	17	0	-	-	-	-	-	-	0.5	0.4	1.0	-	-	1.3	1.2	3.0	6.9	10.8	0.8	0.7	C01-C02
Salivary gland	9	0	-	-	-	-	0.6	-	-	-	0.5	0.8	1.4	-	2.4	4.5	-	-	0.4	0.4	C07-C08
Mouth	28	0	-	-	-	-	-	-	-	0.4	1.0	0.8	1.4	6.5	1.2	3.0	4.6	23.4	1.3	1.2	C03-C06
Oropharynx	7	0	-	-	-	-	-	-	0.5	-	-	-	1.4	-	1.2	3.0	2.3	1.8	0.3	0.3	C09-C10
Nasopharynx	28	0	-	-	-	-	-	1.1	0.5	-	1.0	2.4	4.1	5.2	6.0	6.0	4.6	3.6	1.3	1.3	C11
Hypopharynx	7	0	-	-	-	-	-	-	-	-	-	-	-	1.3	1.2	1.5	-	7.2	0.3	0.3	C12-C13
Pharynx unspecified	3	0	-	-	-	-	-	-	-	0.4	-	-	-	-	1.2	-	2.3	-	0.1	0.1	C14
Oesophagus	21	0	-	-	-	-	0.6	-	-	-	-	1.6	2.7	2.6	1.2	9.0	4.6	9.0	1.0	1.0	C15
Stomach	94	0	-	-	-	-	-	1.1	1.8	3.6	2.6	5.6	14.9	11.6	21.7	13.5	27.4	16.2	4.4	4.3	C16
Small intestine	6	0	-	-	-	-	-	-	-	-	-	-	1.3	1.3	-	3.0	2.3	1.8	0.3	0.3	C17
Colon	90	0	-	-	-	-	0.6	1.7	3.6	0.4	4.7	5.6	10.8	10.3	13.2	13.5	22.9	26.9	4.2	3.9	C18
Rectum	65	0	-	-	-	-	1.2	1.1	1.4	1.8	1.6	2.4	8.1	5.2	7.2	24.1	16.0	16.2	3.1	2.9	C19-C21
Liver	161	0	-	-	-	0.6	-	1.7	0.9	3.1	8.4	10.4	28.5	38.8	25.3	28.6	32.0	25.2	7.6	7.5	C22
Gallbladder etc.	68	0	-	-	-	0.6	0.6	-	-	0.9	1.6	2.4	9.5	2.6	14.4	24.1	34.3	12.6	3.2	3.2	C23-C24
Pancreas	43	0	-	-	-	-	0.6	-	0.5	-	0.5	2.4	4.1	6.5	10.8	9.0	20.6	9.0	2.0	2.0	C25
Nose, sinuses etc.	6	0	-	-	-	-	-	-	-	-	1.0	-	1.4	1.3	2.4	-	-	-	0.3	0.3	C30-C31
Larynx	24	0	-	-	-	-	-	-	-	0.4	-	-	2.7	5.2	2.4	6.0	18.3	5.4	1.1	1.1	C32
Bronchus, lung	530	0	-	-	-	-	1.2	1.7	2.7	3.6	10.0	23.3	65.0	105.9	148.1	153.3	132.6	89.8	24.9	25.1	C33-C34
Other thoracic organs	1	0	-	-	-	-	-	-	-	-	-	-	-	-	1.2	-	2.3	-	0.0	0.0	C37-C38
Bone	13	0	-	0.7	0.6	1.1	-	-	0.5	1.3	1.6	-	-	1.3	1.2	-	2.3	-	0.6	0.5	C40-C41
Connective tissue	19	0	0.7	0.7	-	-	-	1.7	0.5	0.9	0.5	2.4	-	3.9	-	1.5	4.6	-	0.0	0.9	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	1	0	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	13	0	-	-	-	-	0.6	0.6	0.6	0.4	-	-	2.7	-	2.4	1.5	6.9	3.6	0.6	0.6	C43
Other skin	77	0	-	-	-	-	-	-	0.5	0.4	1.6	2.4	6.8	9.0	15.6	22.5	18.3	37.7	3.6	3.4	C44
Breast	416	0	-	-	-	0.6	0.6	7.3	17.2	20.0	40.9	61.9	58.3	40.0	43.3	27.1	43.4	28.7	19.6	17.6	C50
Uterus unspecified	1	0	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	0.0	0.0	C55
Cervix uteri	601	0	-	-	-	-	1.2	10.1	19.5	32.9	57.6	62.7	89.4	81.4	72.2	64.6	48.0	41.3	28.3	25.6	C53
Placenta	4	0	-	-	-	-	0.6	-	1.4	-	-	-	-	-	-	-	-	-	0.2	0.1	C58
Corpus uteri	78	0	-	-	-	-	1.2	1.1	0.9	3.1	4.7	9.6	16.3	14.2	9.6	12.0	9.1	1.8	3.7	3.6	C54
Ovary etc.	112	0	-	-	1.2	2.8	1.9	1.7	5.4	5.8	9.4	9.6	13.6	14.2	10.8	9.0	9.1	7.2	5.3	4.7	C56
Other female genital	28	0	-	-	-	-	1.2	0.6	-	0.9	0.5	2.4	-	3.9	4.8	3.0	11.4	9.0	1.3	1.2	C51-C52; C57
Bladder	51	0	-	-	-	-	-	-	0.5	0.9	1.0	2.4	4.1	3.9	18.1	9.0	18.3	14.4	4	2.3	C67
Kidney etc.	22	0	0.7	-	-	1.1	0.6	1.1	0.5	-	-	1.6	-	3.9	1.2	-	9.1	9.0	1.0	1.0	C64-C66; C68
Eye	5	0	2.1	-	-	-	-	-	-	0.4	-	-	1.4	-	-	-	-	-	0.2	0.3	C69
Brain, nervous system	34	0	-	1.4	1.2	1.7	1.9	0.6	1.4	1.3	1.0	1.6	1.4	5.2	2.4	1.5	9.1	1.8	1.6	1.6	C70-C72
Thyroid	77	0	-	-	-	1.1	3.1	4.5	3.6	7.1	4.2	6.4	5.4	7.8	2.4	7.5	9.1	1.8	3.6	3.1	C73
Other endocrine	6	0	0.7	-	-	-	-	-	-	-	-	-	1.4	1.3	1.2	3.0	-	-	0.3	0.3	C74-C75
Hodgkin's disease	6	0	-	-	-	-	-	1.1	0.5	-	-	-	-	-	2.4	1.5	-	-	0.3	0.3	C81
Non-Hodgkin lymphoma	93	0	0.7	0.7	-	0.6	3.1	2.2	0.9	3.1	4.2	7.2	6.8	10.3	18.1	13.5	20.6	16.2	4.4	4.2	C82-C85; C96
Multiple myeloma	3	0	-	-	-	-	-	-	-	-	-	0.8	2.7	-	-	-	-	-	0.1	0.2	C88; C90
Lymphoid leukaemia	18	0	2.8	2.8	0.6	-	-	-	0.9	-	0.5	1.6	1.4	2.6	-	-	2.3	-	0.8	1.1	C91
Myeloid leukaemia	42	0	-	1.4	1.9	0.6	5.0	2.2	0.9	1.3	2.6	0.8	2.7	1.3	3.6	4.5	2.3	5.4	2.0	1.9	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	17	0	0.7	-	-	1.1	0.6	-	0.5	0.4	0.5	-	-	-	3.6	4.5	4.6	-	0.8	0.8	C95
Other and unspecified	374	0	-	-	1.2	1.1	5.0	13.4	11.8	9.3	17.8	26.5	63.7	49.1	65.0	64.6	48.0	37.7	17.6	17.0	O&U
All sites	3 325	0	8	8	7	13	32	58	80	105	183	258	435	461	540	558	610	478	156.4	148.6	ALL

Table 3 Chiang Mai (1995-1997), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0.1 %	C00
Tongue	44	0	0	0	0	0	1	0	0	2	1	4	2	3	7	7	4	13	1.5 %	C01-C02
Salivary gland	7	0	0	0	0	0	0	0	1	1	0	0	1	0	1	2	2	0	0.2 %	C07-C08
Mouth	44	0	0	0	0	0	1	0	1	0	2	2	5	4	5	7	8	9	1.5 %	C03-C06
Oropharynx	23	0	0	0	0	0	1	0	0	0	3	1	2	1	4	4	1	6	0.8 %	C09-C10
Nasopharynx	72	0	0	0	0	1	1	5	2	5	4	15	8	10	6	5	5	5	2.4 %	C11
Hypopharynx	41	0	0	0	0	0	0	0	0	0	0	1	0	4	7	7	10	12	1.4 %	C12-C13
Pharynx unspecified	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.1 %	C14
Oesophagus	43	0	0	0	0	0	0	0	0	1	1	2	4	3	13	7	7	5	1.4 %	C15
Stomach	132	0	0	0	0	0	0	1	3	4	9	10	5	18	28	23	16	15	4.4 %	C16
Small intestine	10	0	0	0	0	0	0	0	0	1	0	2	1	1	1	2	1	1	0.3 %	C17
Colon	100	0	0	0	0	0	2	0	3	1	12	6	7	7	23	13	15	11	3.3 %	C18
Rectum	79	0	0	0	0	0	6	1	2	5	6	1	6	7	13	10	10	18	2.6 %	C19-C21
Liver	404	0	0	0	0	0	0	6	22	32	45	45	33	46	61	45	29	34	13.3 %	C22
Gallbladder etc.	33	0	0	0	0	0	1	0	0	1	2	3	1	3	2	6	9	5	1.1 %	C23-C24
Pancreas	28	0	0	0	0	0	0	0	0	0	4	2	2	3	2	5	1	9	0.9 %	C25
Nose, sinuses etc.	8	0	0	0	0	0	0	0	0	1	2	0	1	1	1	1	0	1	0.3 %	C30-C31
Larynx	83	0	0	0	0	0	0	0	0	0	3	1	7	9	10	20	17	16	2.7 %	C32
Bronchus, lung	749	0	0	0	0	0	6	15	14	23	30	33	68	94	161	156	93	56	24.7 %	C33-C34
Other thoracic organs	6	0	0	0	2	0	0	0	1	1	0	0	0	1	0	0	1	0	0.2 %	C37-C38
Bone	20	0	0	1	2	3	2	3	0	1	1	2	1	1	1	1	1	1	0.7 %	C40-C41
Connective tissue	14	0	2	1	0	0	0	1	1	1	2	0	3	1	1	0	0	2	0.5 %	C47, C49
Mesothelioma	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	10	0	0	0	0	0	0	0	0	0	2	1	0	1	1	1	3	1	0.3 %	C43
Other skin	86	0	0	0	0	1	0	0	1	3	4	7	4	4	10	18	13	21	2.8 %	C44
Breast	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.0 %	C50
Prostate	98	0	0	0	0	0	0	0	0	0	0	0	3	4	8	15	25	43	3.2 %	C61
Testis	13	0	0	0	0	1	2	2	2	3	1	1	0	0	0	0	0	1	0.4 %	C62
Penis	55	0	0	0	0	0	0	3	0	5	5	3	2	3	9	9	6	10	1.8 %	C60
Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C63
Bladder	117	0	0	0	0	0	0	0	1	2	2	3	4	12	27	24	19	23	3.9 %	C67
Kidney etc.	24	0	2	0	0	0	0	2	0	0	0	2	3	3	6	3	1	2	0.8 %	C64-C66; C68
Eye	10	0	1	0	0	0	0	0	0	0	0	0	2	0	1	1	0	1	0.3 %	C69
Brain, nervous system	31	0	4	2	1	1	0	1	1	4	3	4	2	0	4	2	1	1	1.0 %	C70-C72
Thyroid	22	0	0	0	0	0	2	1	1	4	3	2	0	1	2	5	1	0	0.7 %	C73
Other endocrine	5	0	2	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0.2 %	C74-C75
Hodgkin's disease	15	0	0	1	0	0	0	0	1	0	2	1	0	0	4	1	1	2	0.5 %	C81
Non-Hodgkin lymphoma	137	0	1	3	1	3	4	7	14	12	14	8	13	12	12	19	10	4	4.5 %	C82-C85; C96
Multiple myeloma	8	0	5	5	5	2	0	0	0	0	1	1	0	1	0	5	1	0	0.3 %	C88; C90
Lymphoid leukaemia	28	0	1	4	1	3	3	1	1	3	1	5	2	1	5	1	2	0	0.9 %	C91
Myeloid leukaemia	36	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	1.2 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	12	0	2	1	0	0	2	1	2	1	0	0	0	0	0	0	0	3	0.4 %	C95
Other and unspecified	373	0	0	1	0	2	11	22	28	37	35	32	32	33	46	42	25	27	12.3 %	O&U
All sites	3 029	0	20	19	13	17	45	77	104	160	201	201	224	293	483	472	341	359	100.0 %	ALL

Table 4 Chiang Mai (1995-1997), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	6	0	0	0	0	0	0	2	0	0	0	0	0	0	1	1	0	2	0.2 %	C00
Tongue	17	0	0	0	0	0	0	0	1	1	2	0	0	1	1	2	3	6	0.5 %	C01-C02
Salivary gland	9	0	0	0	0	0	1	0	0	0	1	1	1	0	2	2	0	0	0.3 %	C07-C08
Mouth	28	0	0	0	0	0	0	0	0	1	2	1	1	5	2	2	2	13	0.8 %	C03-C06
Oropharynx	7	0	0	0	0	0	0	0	1	0	0	0	1	0	1	2	1	1	0.2 %	C09-C10
Nasopharynx	28	0	0	0	0	0	0	2	1	0	2	3	3	4	5	4	2	2	0.8 %	C11
Hypopharynx	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	4	0.2 %	C12-C13
Pharynx unspecified	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0.1 %	C14
Oesophagus	21	0	0	0	0	0	1	0	0	0	0	2	2	2	1	6	2	5	0.6 %	C15
Stomach	94	0	0	0	0	0	0	2	4	8	5	7	11	9	18	9	12	9	2.8 %	C16
Small intestine	6	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	1	1	0.2 %	C17
Colon	90	0	0	0	0	0	1	3	8	1	9	7	8	8	11	9	10	15	2.7 %	C18
Rectum	65	0	0	0	0	0	2	2	3	4	3	3	6	4	6	16	7	9	2.0 %	C19-C21
Liver	161	0	0	0	0	1	0	3	2	3	16	13	21	30	21	19	14	14	4.8 %	C22
Gallbladder etc.	68	0	0	0	0	0	1	0	1	2	3	3	7	2	12	16	15	7	2.0 %	C23-C24
Pancreas	43	0	0	0	0	0	0	1	1	0	1	3	3	5	9	6	9	5	1.3 %	C25
Nose, sinuses etc.	6	0	0	0	0	0	0	0	0	0	2	0	1	1	2	0	0	0	0.2 %	C30-C31
Larynx	24	0	0	0	0	0	0	0	0	0	0	0	2	4	2	4	8	3	0.7 %	C32
Bronchus, lung	530	0	0	0	0	0	2	3	6	8	19	29	48	82	123	102	58	50	15.9 %	C33-C34
Other thoracic organs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.0 %	C37-C38
Bone	13	0	0	1	0	2	0	0	1	3	3	0	0	1	1	0	1	0	0.4 %	C40-C41
Connective tissue	19	0	0	1	0	0	0	3	1	2	1	3	0	3	0	1	2	0	0.6 %	C47; C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	13	0	0	0	0	0	0	0	1	1	0	0	2	0	2	1	3	2	0.4 %	C43
Other skin	77	0	0	0	0	0	1	1	0	1	3	3	5	7	13	15	8	21	2.3 %	C44
Breast	416	0	0	0	0	1	1	13	38	45	78	77	43	31	36	18	19	16	12.5 %	C50
Uterus unspecified	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C55
Cervix uteri	601	0	0	0	0	0	2	18	43	74	110	78	66	63	60	43	21	23	18.1 %	C53
Placenta	4	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0.1 %	C58
Corpus uteri	78	0	0	0	0	0	2	2	2	7	9	12	12	11	8	8	4	1	2.3 %	C54
Ovary etc.	112	0	0	0	5	3	3	3	12	13	18	12	10	11	9	6	4	4	3.4 %	C56
Other female genital	28	0	0	0	0	0	2	1	0	2	1	3	0	3	4	2	5	5	0.8 %	C51-C52; C57
Bladder	51	0	0	0	0	0	0	2	1	2	2	3	3	3	15	6	8	8	1.5 %	C67
Kidney etc.	22	0	1	0	0	2	1	2	1	0	0	0	0	3	1	0	4	5	0.7 %	C64-C66; C68
Eye	5	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0.2 %	C69
Brain, nervous system	34	0	0	2	2	3	3	1	3	3	2	2	1	4	2	1	4	1	1.0 %	C70-C72
Thyroid	77	0	0	0	2	2	5	8	8	16	8	8	4	6	2	5	4	1	2.3 %	C73
Other endocrine	6	0	1	0	0	0	0	0	0	0	0	0	1	1	1	2	0	0	0.2 %	C74-C75
Hodgkin's disease	6	0	0	0	0	0	0	2	1	0	0	0	0	0	2	1	0	0	0.2 %	C81
Non-Hodgkin lymphoma	93	0	1	1	0	1	5	4	2	7	8	9	5	8	15	9	9	9	2.8 %	C82-C85; C96
Multiple myeloma	3	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0.1 %	C88; C90
Lymphoid leukaemia	18	0	4	4	1	0	0	0	2	0	1	2	1	2	1	0	1	3	0.5 %	C91
Myeloid leukaemia	42	0	0	2	3	1	8	4	2	3	5	1	2	1	3	3	1	3	1.3 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	17	0	1	0	0	2	1	0	1	1	1	0	0	2	3	3	2	0	0.5 %	C95
Other and unspecified	374	0	0	0	2	2	8	24	26	21	34	33	47	38	54	43	21	21	11.2 %	O&U
All sites	3 325	0	12	11	11	22	52	103	176	237	349	321	321	357	449	371	267	266	100.0 %	ALL

Figure 3 Population pyramid, Chiang Mai, 1999

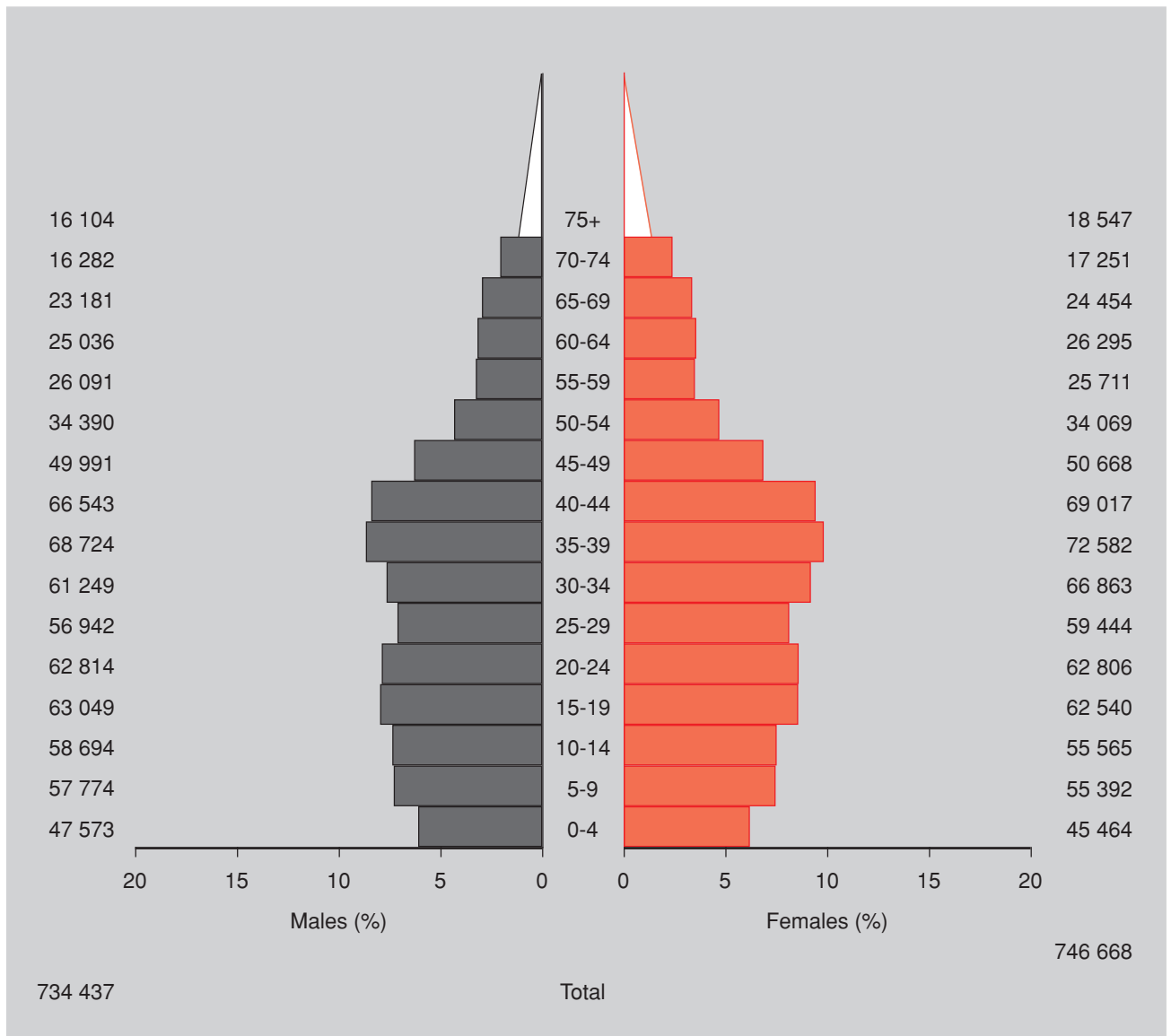


Figure 4 Leading cancers in Chiang Mai, 1998-2000

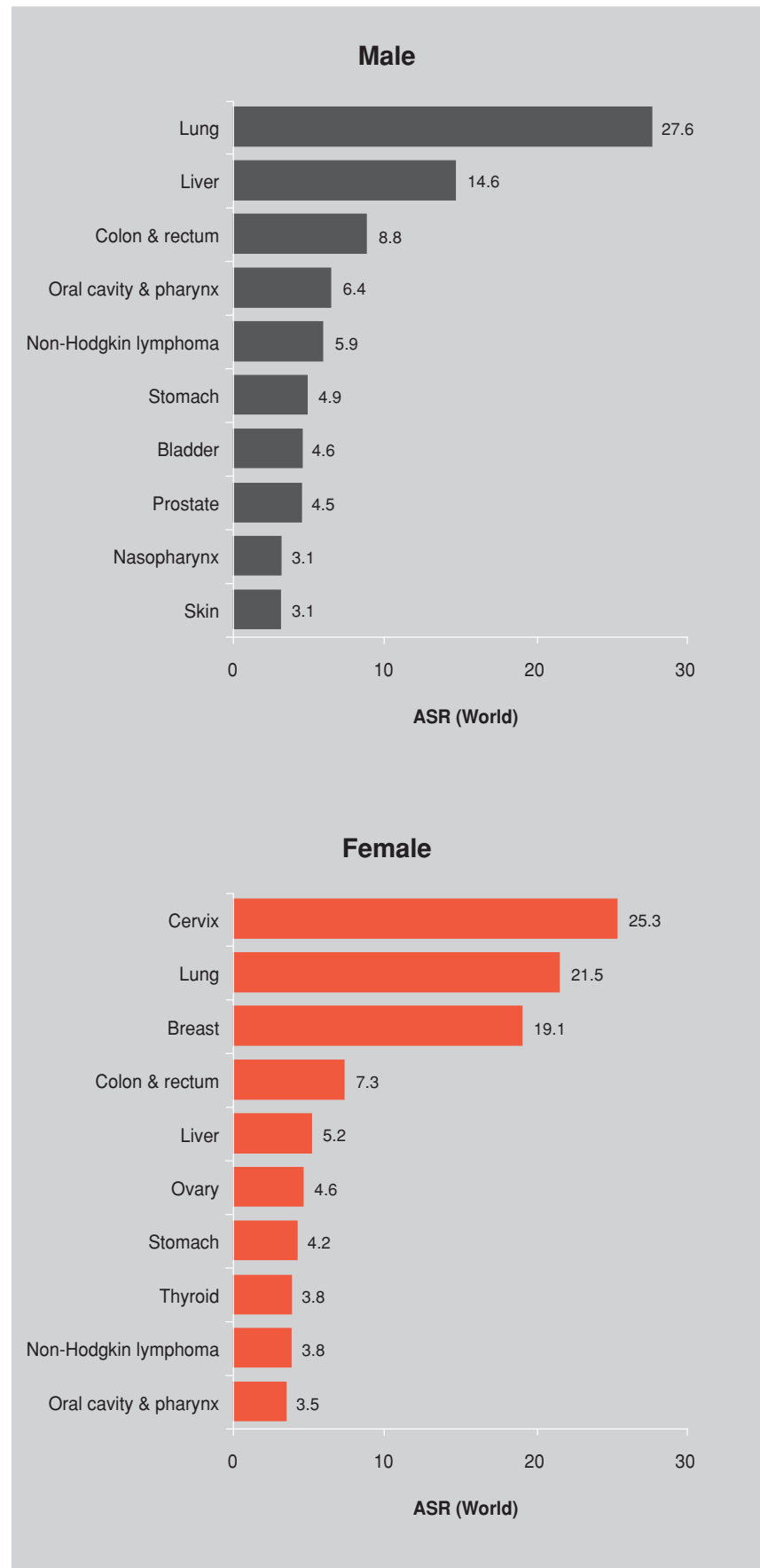


Table 5 Chiang Mai (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	6	0	-	-	-	-	-	-	-	-	-	-	-	2.6	-	1.4	4.1	2.1	0.3	0.3	C00
Tongue	33	0	-	-	-	-	-	0.6	0.5	0.5	1.0	0.7	3.9	2.6	9.3	4.3	4.1	18.6	1.5	1.5	C01-C02
Salivary gland	14	0	-	-	-	-	-	0.6	-	0.5	-	1.3	-	1.3	2.7	4.3	2.0	2.1	0.6	0.6	C07-C08
Mouth	41	0	-	-	-	0.5	-	-	-	-	2.0	2.0	1.0	3.8	1.3	8.6	12.3	33.1	1.9	1.7	C03-C06
Oropharynx	28	0	-	-	-	-	0.5	-	0.5	-	0.5	0.7	1.9	5.1	5.3	4.3	12.3	10.3	1.3	1.2	C09-C10
Nasopharynx	74	0	-	-	-	-	-	0.6	0.5	2.9	6.0	6.7	8.7	8.9	10.6	15.8	8.2	10.3	3.4	3.1	C11
Hypopharynx	23	0	-	-	-	-	-	-	0.5	-	0.5	-	1.0	2.6	2.7	2.9	10.2	18.6	1.0	1.0	C12-C13
Pharynx unspecified	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.0	4.1	0.1	0.1	C14
Oesophagus	49	0	-	-	-	-	-	-	-	-	0.5	1.3	3.9	3.8	12.0	8.6	24.6	24.8	2.2	2.2	C15
Stomach	112	0	-	-	-	1.1	0.5	1.2	1.1	1.0	4.0	6.0	10.7	15.3	22.6	23.0	28.7	33.1	5.1	4.9	C16
Small intestine	8	0	-	-	-	-	-	0.6	-	-	0.5	-	-	1.3	1.3	2.9	2.0	2.1	0.4	0.3	C17
Colon	102	0	-	-	0.6	0.5	-	-	2.7	2.4	2.5	4.0	9.7	10.2	17.3	25.9	26.6	35.2	4.6	4.4	C18
Rectum	101	0	-	-	-	0.5	0.5	1.8	1.1	3.4	1.0	6.7	7.8	16.6	12.0	23.0	22.5	37.2	4.6	4.4	C19-C21
Liver	337	0	0.7	-	-	0.5	-	1.8	5.4	9.2	14.0	31.3	33.9	40.9	74.5	67.6	73.7	45.5	15.3	14.6	C22
Gallbladder etc.	36	0	-	-	-	-	-	0.6	-	-	1.5	2.7	1.0	2.6	9.3	11.5	14.3	6.2	1.6	1.6	C23-C24
Pancreas	28	0	-	-	-	-	-	-	-	0.5	0.5	2.7	1.0	2.6	9.3	10.1	4.1	6.2	1.3	1.3	C25
Nose, sinuses etc.	13	0	-	-	-	-	0.5	-	0.5	0.5	-	-	6.8	5.1	8.0	20.1	12.3	24.8	0.6	0.6	C30-C31
Larynx	55	0	-	-	-	-	-	-	0.5	-	-	2.7	5.0	50.4	166.4	158.1	194.4	184.2	27.8	27.6	C32
Bronchus, lung	612	0	-	-	-	-	0.5	1.2	2.7	1.5	11.5	24.0	50.4	90.7	166.4	158.1	194.4	184.2	27.8	27.6	C33-C34
Other thoracic organs	9	0	0.7	-	0.6	0.5	0.5	0.6	-	-	-	0.7	-	-	-	1.4	2.0	2.1	0.4	0.4	C37-C38
Bone	10	0	-	0.6	0.6	0.5	1.1	1.2	-	-	-	-	1.0	1.3	-	-	2.0	-	0.5	0.5	C40-C41
Connective tissue	27	0	0.7	-	-	0.5	0.5	0.6	1.1	1.0	0.5	2.0	2.9	2.6	1.3	7.2	4.1	4.1	1.2	1.2	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	1	0	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	13	0	-	-	-	-	-	-	-	-	1.0	2.7	1.9	-	1.3	1.4	2.0	4.1	0.6	0.5	C43
Other skin	73	0	-	-	0.5	1.1	0.6	-	-	1.9	3.0	2.0	2.9	6.4	10.6	14.4	24.6	37.2	3.3	3.1	C44
Breast	8	0	-	-	-	-	-	-	-	-	-	0.7	1.0	1.3	-	2.9	2.0	4.1	0.4	0.3	C50
Prostate	105	0	-	-	-	-	-	-	-	-	-	0.7	1.9	7.7	5.3	28.2	45.0	103.5	4.8	4.5	C61
Testis	16	0	-	-	0.6	1.1	-	1.2	0.5	2.9	1.5	0.7	-	-	-	-	-	-	0.7	0.6	C62
Penis	36	0	-	-	-	-	-	0.6	0.5	1.0	2.0	3.3	1.9	6.4	2.7	7.2	8.2	10.3	1.6	1.5	C60
Other male genital	3	0	-	-	-	-	-	-	0.5	-	-	-	-	1.3	-	-	2.0	-	0.1	0.1	C63
Bladder	106	0	-	-	-	-	-	-	-	1.0	1.5	0.7	3.9	10.2	20.0	34.5	47.1	53.8	4.8	4.6	C67
Kidney etc.	42	0	-	-	-	0.5	-	0.6	-	1.5	0.5	1.3	5.8	6.4	8.0	10.1	8.2	12.4	1.9	1.9	C64-C66; C68
Eye	8	0	0.7	-	-	-	-	-	-	1.0	1.0	-	-	-	-	1.4	-	4.1	0.4	0.3	C69
Brain, nervous system	16	0	1.4	0.6	1.1	1.6	1.1	-	1.1	1.0	0.5	1.3	1.9	2.6	5.3	5.8	4.1	6.2	1.1	0.8	C70-C72
Thyroid	24	0	-	-	-	-	-	0.6	0.5	1.0	0.5	-	-	-	-	-	-	-	0.1	0.1	C74-C75
Other endocrine	3	0	-	-	-	0.5	-	-	-	-	0.5	-	1.0	-	-	-	-	-	0.1	0.1	C81
Hodgkin's disease	18	0	0.7	-	-	0.5	-	1.2	1.1	1.0	0.5	-	-	-	2.7	2.9	6.1	4.1	0.8	0.8	C82-C85; C96
Non-Hodgkin lymphoma	138	0	2.1	0.6	1.7	4.2	1.6	2.3	3.3	4.8	8.0	6.7	13.6	3.8	18.6	20.1	34.8	24.8	6.3	5.9	C82-C85; C96
Multiple myeloma	7	0	-	-	-	-	-	0.6	-	0.5	-	-	-	2.6	2.7	1.4	-	-	0.3	0.3	C88; C90
Lymphoid leukaemia	22	0	3.5	1.2	1.7	-	2.1	-	-	-	1.0	0.7	1.0	-	-	2.9	-	4.1	1.0	1.2	C91
Myeloid leukaemia	40	0	2.1	0.6	0.6	1.6	2.1	0.6	0.5	1.9	1.5	2.0	3.9	3.8	4.0	2.9	4.1	4.1	1.8	1.8	C92
Monocytic leukaemia	1	0	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.1	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	6	0	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C95
Other and unspecified	477	1	-	-	-	1.6	2.1	6.4	13.1	17.9	24.5	28.0	40.7	54.9	90.5	83.4	104.4	91.1	21.6	20.1	O&U
All sites	2 884	1	13	3	7	17	15	26	38	61	95	146	228	331	540	631	770	873	130.9	125.8	ALL

Table 6 Chiang Mai (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (w)	ICD (10th)	
Lip	6	0	-	-	-	-	-	-	-	0.5	-	-	-	1.3	-	1.4	1.9	3.6	0.3	0.2	C00	
Tongue	18	0	-	-	-	-	-	-	1.5	-	0.5	-	1.0	1.3	2.5	5.5	3.9	7.2	0.8	0.7	C01-C02	
Salivary gland	10	0	-	-	-	-	-	-	-	-	1.4	1.3	-	1.3	1.3	-	-	5.4	0.4	0.4	C07-C08	
Mouth	36	0	-	-	-	-	-	-	-	0.5	1.0	0.7	2.9	2.6	6.3	9.5	11.6	16.2	1.6	1.5	C03-C06	
Oropharynx	13	0	-	-	-	-	-	-	-	-	-	-	-	2.6	-	-	5.8	14.4	0.6	0.5	C09-C10	
Nasopharynx	31	0	-	-	-	-	0.5	0.6	-	0.9	2.4	2.0	2.9	6.5	6.3	4.1	3.9	1.8	1.4	1.3	C11	
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	-	1.8	0.1	0.1	C12-C13	
Pharynx unspecified	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	-	1.8	0.1	0.1	C14	
Oesophagus	16	0	-	-	-	-	-	-	-	0.5	-	0.7	-	1.3	1.3	-	11.6	10.8	0.7	0.6	C15	
Stomach	104	0	-	-	-	-	0.5	1.1	3.0	1.8	6.3	7.9	10.8	6.5	16.5	15.0	34.8	14.4	4.6	4.2	C16	
Small intestine	9	0	-	-	-	-	-	-	0.5	0.5	0.5	-	-	1.3	1.3	2.7	3.9	-	0.4	0.3	C17	
Colon	100	0	-	0.6	-	-	0.5	1.7	1.0	3.2	4.3	5.9	6.8	13.0	12.7	24.5	27.0	16.2	4.5	4.1	C18	
Rectum	83	0	-	-	-	1.1	-	-	1.0	1.8	5.3	4.6	5.9	9.1	13.9	17.7	17.4	19.8	3.7	3.3	C19-C21	
Liver	125	0	0.7	-	-	1.1	-	-	0.5	1.8	4.3	7.9	11.7	10.4	19.0	31.3	42.5	28.7	5.6	5.2	C22	
Gallbladder etc.	53	0	-	-	-	-	-	-	-	0.5	1.0	1.3	2.9	7.8	6.3	19.1	15.5	21.6	2.4	2.2	C23-C24	
Pancreas	27	0	-	-	-	-	-	-	-	-	1.4	3.3	2.0	1.3	6.3	5.5	7.7	5.4	1.2	1.1	C25	
Nose, sinuses etc.	10	0	-	-	-	-	-	0.6	-	0.9	-	0.7	1.0	1.3	2.5	-	1.9	1.8	0.4	0.4	C30-C31	
Larynx	12	0	-	-	-	-	-	-	-	-	-	0.7	2.0	-	2.5	2.7	5.8	3.6	0.5	0.5	C32	
Bronchus, lung	493	0	-	-	-	-	0.5	0.6	2.5	2.3	6.8	17.8	46.0	71.3	141.9	144.5	131.4	93.4	22.0	21.5	C33-C34	
Other thoracic organs	2	0	0.7	-	-	-	-	-	-	-	0.5	-	1.0	-	-	-	-	3.6	0.4	0.5	C37-C38	
Bone	10	0	0.7	0.6	1.8	-	-	0.6	-	-	0.5	1.4	1.3	1.0	-	1.3	1.4	1.9	-	0.6	0.5	C40-C41
Connective tissue	13	0	-	-	1.2	-	-	-	0.5	0.5	1.4	-	-	-	-	-	-	-	-	0.5	0.5	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45	
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46	
Melanoma of skin	7	0	-	-	-	-	-	-	-	-	0.5	0.7	-	-	1.3	4.1	1.9	-	0.3	0.3	C43	
Other skin	82	0	-	-	-	-	-	-	2.0	2.3	2.9	4.6	2.9	3.9	21.5	10.9	21.2	32.3	3.7	3.3	C44	
Breast	504	0	-	-	-	0.5	-	2.8	12.0	25.3	54.6	68.4	49.9	44.1	39.3	54.5	46.4	39.5	22.5	19.1	C50	
Uterus unspecified	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	0.0	0.0	C55	
Cervix uteri	660	0	-	-	-	-	1.6	9.0	18.4	43.6	61.3	70.4	64.6	76.5	77.3	60.0	58.0	27.0	29.5	25.3	C53	
Placenta	10	0	-	-	-	-	1.1	1.1	0.5	0.5	1.4	-	1.0	-	-	-	-	-	0.4	0.4	C58	
Corpus uteri	75	0	-	-	-	-	-	-	1.5	2.3	2.9	7.9	12.7	9.1	13.9	12.3	9.7	7.2	3.3	3.1	C54	
Ovary etc.	114	0	-	0.6	-	0.5	1.1	1.1	2.0	6.0	5.8	15.8	10.8	13.0	21.5	9.5	15.5	3.6	5.1	4.6	C56	
Other female genital	33	0	-	-	-	-	-	0.6	0.5	1.4	1.4	2.6	3.9	2.6	3.8	5.5	5.8	9.0	1.5	1.3	C51-C52; C57	
Bladder	47	0	-	-	-	-	-	-	0.6	0.5	-	-	-	2.0	15.2	10.9	21.2	21.6	2.1	2.0	C67	
Kidney etc.	27	0	1.5	-	-	-	-	-	-	-	-	2.0	1.0	1.3	11.4	4.1	3.9	10.8	1.2	1.3	C64-C66; C68	
Eye	2	0	0.7	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	0.1	0.1	C69	
Brain, nervous system	15	0	-	2.4	-	0.5	-	0.6	0.5	0.5	0.5	1.3	1.0	-	1.3	-	1.9	1.8	0.7	0.7	C70-C72	
Thyroid	93	0	-	-	0.6	3.2	2.7	3.9	4.5	3.7	2.9	6.6	8.8	9.1	10.1	8.2	11.6	9.0	4.2	3.8	C73	
Other endocrine	3	0	-	0.6	-	-	0.5	-	-	-	-	-	-	1.3	-	-	-	-	0.1	0.2	C74-C75	
Hodgkin's disease	8	0	-	-	-	-	-	-	-	-	-	1.0	1.3	1.0	-	-	1.9	-	0.4	0.3	C81	
Non-Hodgkin lymphoma	95	0	-	-	0.6	0.5	1.6	2.8	4.5	4.1	2.9	7.2	3.9	14.3	10.1	15.0	15.5	14.4	4.2	3.8	C82-C85; C96	
Multiple myeloma	11	0	-	-	-	-	-	-	0.5	-	0.5	-	2.9	-	1.3	4.1	1.9	1.8	0.5	0.5	C88; C90	
Lymphoid leukaemia	15	0	2.2	3.0	0.6	-	1.1	-	-	-	0.5	0.7	2.0	-	-	-	-	-	0.7	0.9	C91	
Myeloid leukaemia	36	0	0.7	-	0.6	-	-	-	-	-	1.0	2.0	4.9	3.9	2.5	1.4	9.7	3.6	1.6	1.5	C92	
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93	
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94	
Leukaemia unspecified	4	0	-	-	-	-	-	-	-	0.5	-	-	1.0	-	-	-	-	-	0.2	0.2	C95	
Other and unspecified	393	0	0.7	0.6	-	-	1.6	8.4	14.0	13.8	11.6	20.4	24.5	51.8	73.5	76.3	92.7	59.3	17.5	16.1	O&U	
All sites	3411	0	8	8	5	6	15	38	74	121	189	268	297	373	548	567	647	514	152.2	138.1	ALL	

Table 7 Chiang Mai (1998-2000), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	6	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	2	1	0.2 %	C00
Tongue	33	0	0	0	0	0	0	1	1	1	2	1	4	2	7	3	2	9	1.1 %	C01-C02
Salivary gland	14	0	0	0	0	0	0	0	0	0	2	2	1	1	2	3	3	1	0.5 %	C07-C08
Mouth	41	0	0	0	0	1	0	0	0	0	4	3	1	3	4	6	6	16	1.4 %	C03-C06
Oropharynx	28	0	0	0	0	0	1	0	1	0	1	1	2	4	4	3	6	5	1.0 %	C09-C10
Nasopharynx	74	0	0	0	0	0	0	1	1	6	12	10	9	7	8	11	4	5	2.6 %	C11
Hypopharynx	23	0	0	0	0	0	0	0	1	0	1	0	1	2	2	2	5	9	0.8 %	C12-C13
Pharynx unspecified	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.1 %	C14
Oesophagus	49	0	0	0	0	0	0	0	0	0	1	2	4	3	9	6	12	12	1.7 %	C15
Stomach	112	0	0	0	0	2	1	2	2	2	8	9	11	12	17	16	14	16	3.9 %	C16
Small intestine	8	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2	1	1	0.3 %	C17
Colon	102	0	0	0	1	1	1	0	5	5	5	6	10	8	13	18	13	17	3.5 %	C18
Rectum	101	0	0	0	0	1	1	3	2	7	2	10	8	13	9	16	11	18	3.5 %	C19-C21
Liver	337	0	1	0	0	1	0	3	10	19	28	47	35	32	56	47	36	22	11.7 %	C22
Gallbladder etc.	36	0	0	0	0	0	0	1	0	0	3	4	1	2	7	8	7	3	1.2 %	C23-C24
Pancreas	28	0	0	0	0	0	0	0	0	1	1	4	1	2	1	7	2	3	1.0 %	C25
Nose, sinuses etc.	13	0	0	0	0	0	1	0	0	0	0	0	1	2	1	4	2	1	0.5 %	C30-C31
Larynx	55	0	0	0	0	0	0	0	1	1	0	4	7	4	6	14	6	12	1.9 %	C32
Bronchus, lung	612	0	0	0	0	0	1	2	5	3	23	36	52	71	125	110	95	89	21.2 %	C33-C34
Other thoracic organs	9	0	1	0	1	1	1	1	0	0	0	1	0	0	0	1	1	1	0.3 %	C37-C38
Bone	10	0	0	1	1	1	2	2	0	0	0	0	1	1	1	0	1	0	0.3 %	C40-C41
Connective tissue	27	0	1	0	0	1	1	1	2	2	1	3	3	2	1	5	2	2	0.9 %	C47, C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	13	0	0	0	0	0	0	0	0	0	2	4	2	0	0	1	1	2	0.5 %	C43
Other skin	73	0	0	0	0	1	2	1	0	4	6	3	3	5	8	10	12	18	2.5 %	C44
Breast	8	0	0	0	0	0	0	0	0	0	0	1	2	1	0	2	2	2	0.3 %	C50
Prostate	105	0	0	0	0	0	0	0	0	0	0	1	2	6	4	20	22	50	3.6 %	C61
Testis	16	0	0	0	1	2	0	2	1	6	3	1	0	5	0	5	0	0	0.6 %	C62
Penis	36	0	0	0	0	0	0	0	1	1	4	5	2	5	2	5	4	5	1.2 %	C60
Other male genital	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0.1 %	C63
Bladder	106	0	0	0	0	0	0	0	0	2	3	1	4	8	15	24	23	26	3.7 %	C67
Kidney etc.	42	0	0	0	0	0	1	1	0	3	1	2	6	5	6	7	4	6	1.5 %	C64-C66; C68
Eye	8	0	1	0	0	0	0	0	0	0	2	0	0	0	1	1	0	2	0.3 %	C69
Brain, nervous system	16	0	2	1	2	3	2	0	0	2	0	0	0	1	1	1	1	0	0.6 %	C70-C72
Thyroid	24	0	0	0	0	0	0	1	1	2	1	2	2	2	4	4	2	3	0.8 %	C73
Other endocrine	3	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0.1 %	C74-C75
Hodgkin's disease	18	0	1	0	0	1	0	2	2	2	1	0	0	0	2	2	3	2	0.6 %	C81
Non-Hodgkin lymphoma	138	0	3	1	3	8	3	4	6	10	16	10	14	3	14	14	17	12	4.8 %	C82-C85; C96
Multiple myeloma	7	0	0	0	0	0	0	1	0	1	0	0	0	2	2	1	0	0	0.2 %	C88; C90
Lymphoid leukaemia	22	0	5	2	3	0	4	0	0	0	2	1	1	0	0	2	0	2	0.8 %	C91
Myeloid leukaemia	40	0	3	1	1	3	4	1	1	4	3	3	4	3	3	2	2	2	1.4 %	C92
Monocytic leukaemia	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0.2 %	C95
Other and unspecified	477	1	0	0	0	3	4	11	24	37	49	42	42	43	68	58	51	44	16.5 %	O&U
All sites	2 884	1	19	6	13	32	29	44	70	125	189	219	235	259	406	439	376	422	100.0 %	ALL

Table 8 Chiang Mai (1998-2000), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0.2 %	C00
Tongue	18	0	0	0	0	0	0	0	0	0	1	0	1	1	2	4	2	4	0.5 %	C01-C02
Salivary gland	10	0	0	0	0	0	0	0	0	0	3	2	0	1	1	0	0	3	0.3 %	C07-C08
Mouth	36	0	0	0	0	0	0	0	0	1	2	1	3	2	5	7	6	9	1.1 %	C03-C06
Oropharynx	13	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	8	0.4 %	C09-C10
Nasopharynx	31	0	0	0	0	0	1	1	0	2	5	3	3	5	5	3	2	1	0.9 %	C11
Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.1 %	C12-C13
Pharynx unspecified	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0.1 %	C14
Oesophagus	16	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	6	6	0.5 %	C15
Stomach	104	0	0	0	0	0	1	2	6	4	13	12	11	5	13	11	18	8	3.0 %	C16
Small intestine	9	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2	0	0	0.3 %	C17
Colon	100	0	0	1	0	0	1	3	2	7	9	7	9	10	10	18	14	9	2.9 %	C18
Rectum	83	0	0	0	0	0	2	0	2	4	11	7	6	7	11	13	9	11	2.4 %	C19-C21
Liver	125	0	1	0	0	2	0	0	1	4	9	12	12	8	15	23	22	16	3.7 %	C22
Gallbladder etc.	53	0	0	0	0	0	0	0	0	1	2	2	3	6	5	14	8	12	1.6 %	C23-C24
Pancreas	27	0	0	0	0	0	0	0	0	0	3	5	2	1	5	4	4	3	0.8 %	C25
Nose, sinuses etc.	10	0	0	0	0	0	0	1	0	2	0	1	1	0	2	0	1	1	0.3 %	C30-C31
Larynx	12	0	0	0	0	0	0	0	0	0	0	1	2	1	2	2	3	2	0.4 %	C32
Bronchus, lung	493	0	0	0	0	0	1	1	5	5	14	27	47	55	112	106	68	52	14.5 %	C33-C34
Other thoracic organs	2	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1 %	C37-C38
Bone	10	0	1	1	3	0	0	1	0	0	1	0	1	0	0	0	0	2	0.3 %	C40-C41
Connective tissue	13	0	0	0	2	0	0	0	1	1	3	2	1	0	1	1	1	0	0.4 %	C47; C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	7	0	0	0	0	0	0	0	0	0	1	1	0	0	1	3	1	0	0.2 %	C43
Other skin	82	0	0	0	0	0	0	0	0	4	6	7	3	3	17	8	11	18	2.4 %	C44
Breast	504	0	0	0	0	1	0	5	24	55	113	104	51	34	31	40	24	22	14.8 %	C50
Uterus unspecified	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0 %	C55
Cervix uteri	660	0	0	0	0	0	3	16	37	95	127	107	66	59	61	44	30	15	19.3 %	C53
Placenta	10	0	0	0	0	0	2	2	1	1	3	0	0	0	0	0	0	0	0.3 %	C58
Corpus uteri	75	0	0	0	0	0	0	0	3	5	6	12	13	7	11	9	5	4	2.2 %	C54
Ovary etc.	114	0	0	1	0	1	2	2	4	13	12	24	11	10	17	7	8	2	3.3 %	C56
Other female genital	33	0	0	0	0	0	0	1	1	3	3	4	4	2	3	4	3	5	1.0 %	C51-C52; C57
Bladder	47	0	0	0	0	0	0	0	0	0	0	0	2	2	12	8	11	12	1.4 %	C67
Kidney etc.	27	0	2	0	0	0	0	0	0	0	0	3	1	1	9	3	2	6	0.8 %	C64-C66; C68
Eye	2	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1 %	C69
Brain, nervous system	15	0	0	4	0	1	0	1	1	1	1	2	1	0	1	0	1	1	0.4 %	C70-C72
Thyroid	93	0	0	0	1	6	5	7	9	8	6	10	9	7	8	6	6	5	2.7 %	C73
Other endocrine	3	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0.1 %	C74-C75
Hodgkin's disease	8	0	0	0	0	0	0	0	0	0	2	2	1	1	0	1	0	0	0.2 %	C81
Non-Hodgkin lymphoma	95	0	0	0	1	1	3	5	9	9	6	11	4	11	8	11	8	8	2.8 %	C82-C85; C96
Multiple myeloma	11	0	0	0	0	0	0	0	1	0	1	1	3	0	0	3	1	1	0.3 %	C88; C90
Lymphoid leukaemia	15	0	3	5	1	0	2	0	0	0	1	1	2	3	2	1	5	2	0.4 %	C92
Myeloid leukaemia	36	0	1	0	1	0	0	4	4	3	2	3	5	3	2	1	0	0	0.0 %	C93
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C95
Leukaemia unspecified	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0.1 %	O&U
Other and unspecified	393	0	1	1	0	0	3	15	28	30	24	31	25	40	58	56	48	33	11.5 %	
All sites	3 411	0	11	14	9	12	28	67	148	263	391	407	304	288	432	416	335	286	100.0 %	ALL

APPENDIX

B

LAMPANG
CANCER
REGISTRY

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GEOGRAPHY AND POPULATION

Lampang is a province among 17 provinces located in the northern part of Thailand between 170-190 N and 980-1000E, 268.8 meters above sea level with the land area of 12 534 kilometers. It has common boundary with Chiang Mai and Chiang Rai to the north, Phrae to the east, Tak and Sukhothai to the south, and Lamphun and Chiang Mai to the west. This registry covers the population of 13 districts. The total population (inter census population estimation) in 1996 was 753 241 with 378 468 males and 374 773 females whereas it was 773 874 with 386 813 males and 387 061 females in 1999. About 30% of the population lives in urban areas; 97% of people are Buddhists and the rest are mainly Christians.

CANCER CARE FACILITIES

General health care in the region is provided in all 13 districts. In the urban area (Muang district), there is one cancer center (Lampang Regional Cancer Center), two private hospitals and one military hospital. Cancer diagnostic services (clinical consultations and radiological and pathological investigations), cancer surgery services and chemotherapy are available in Lampang Regional Cancer Center and Lampang provincial hospital. Radiation therapy is provided in Lampang Regional Cancer Center.

Doctor-patient ratio in the province is 1:3 715.

Patients suspected to have cancer in the primary and secondary health cares in the registry area are mostly referred to Lampang Regional Cancer Center and Lampang provincial hospital.

REGISTRY STRUCTURE AND METHODS

The registry is located within Lampang Regional Cancer Center, and has been funded by cancer research foundation for the National Cancer Institute. The registry is staffed by a part time expert consultant, a part time doctor, two part time nurses and two full time health workers.

The Lampang cancer registry was set up in 1995 with the back up data of cancer cases in Lampang since 1963 which was collected by Dr. Nimit Martin, our expert consultant. The registry applied both active and passive methods by gathering information from 21 sources of data consisting of cancer centers, general hospitals, community hospitals, private hospitals, university hospital, provincial public health service of Lampang and pathological laboratories. The death registration system is inadequate and incomplete; the cause of death is often not mentioned or given as cardiorespiratory arrest. We carried out follow-up of registered cases by matching of cases with all death certificates.

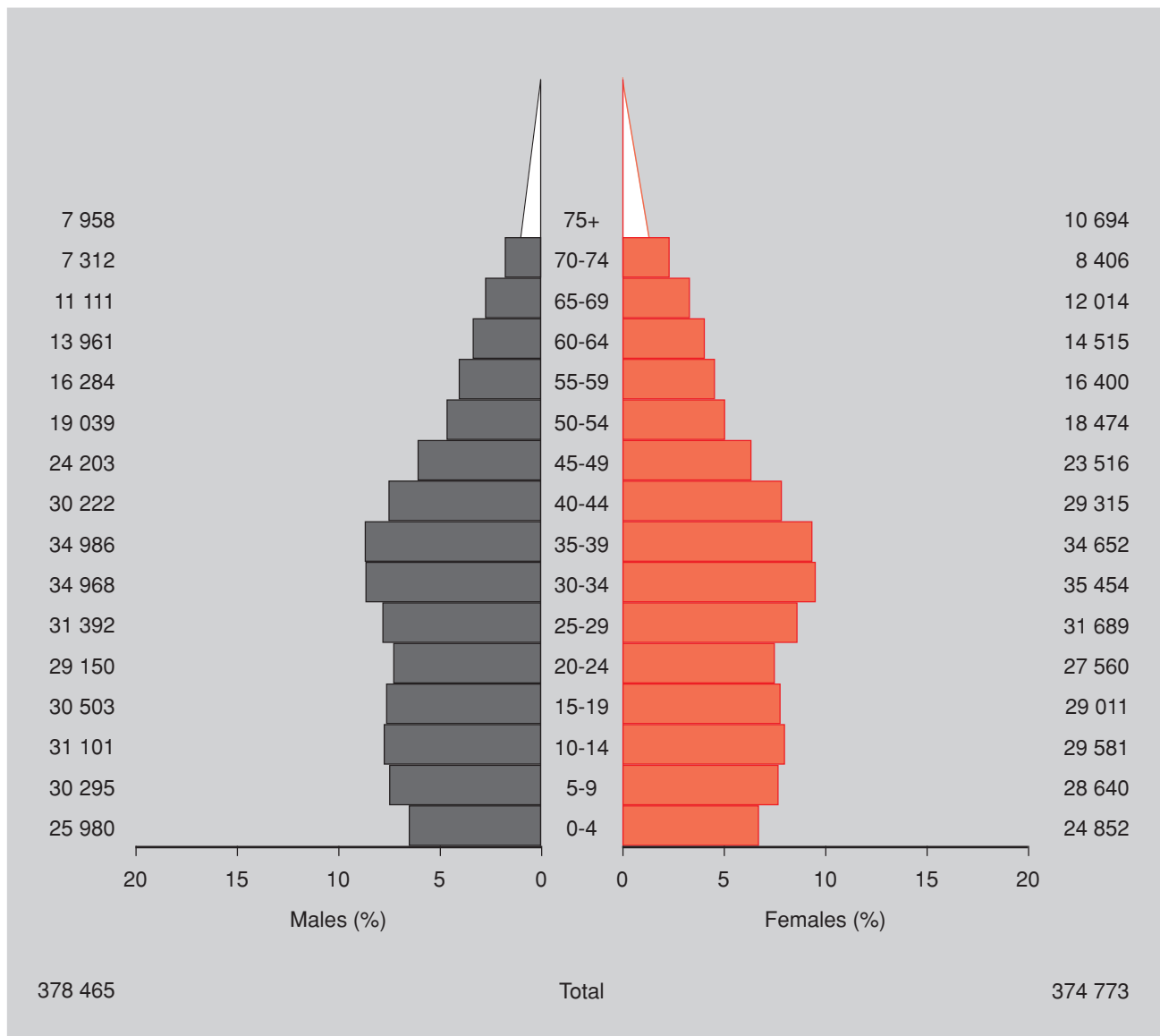
Figure 1 Population pyramid, Lampang, 1996

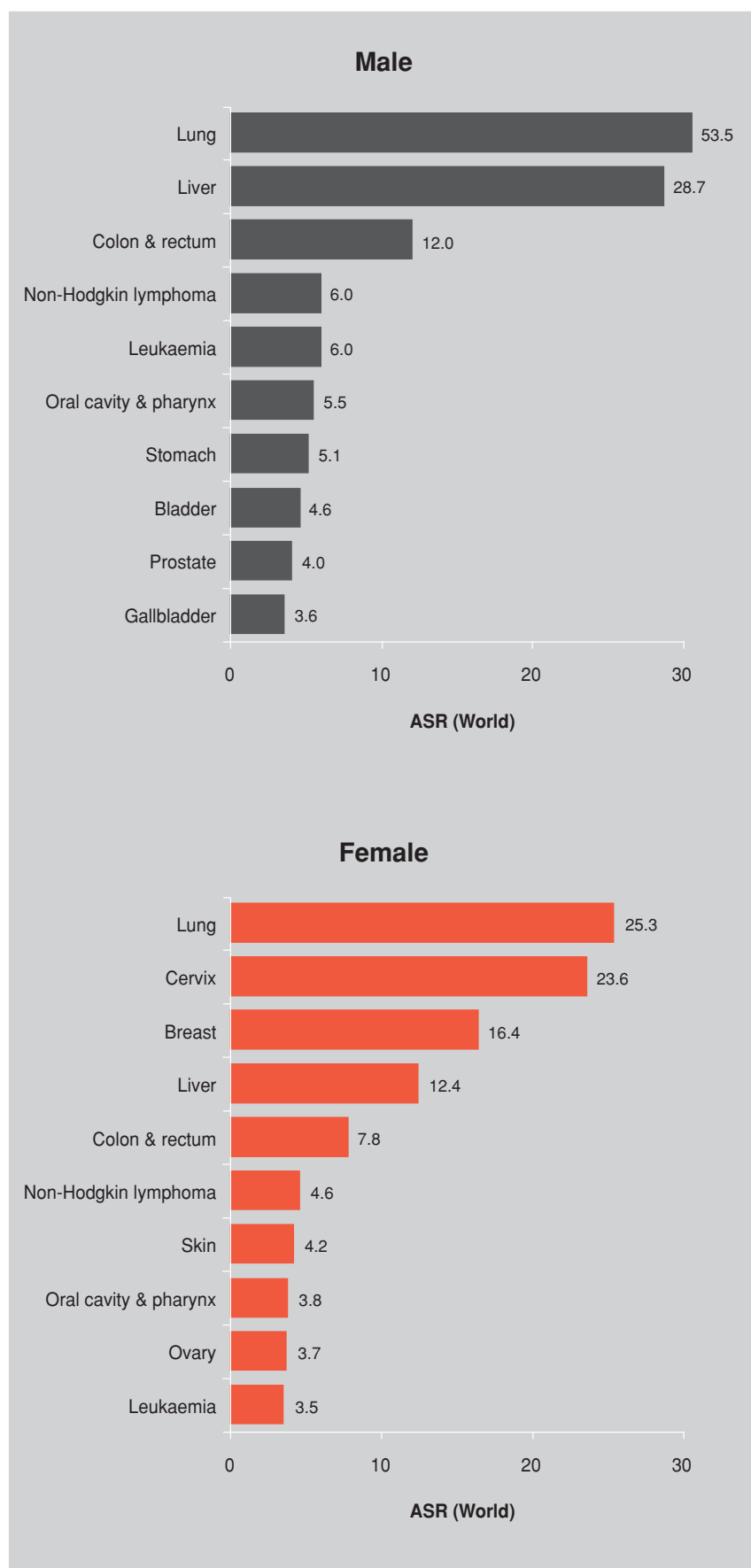
Figure 2 Leading cancers in Lampang, 1995-1997

Table 1 Percentage of histologically verified and death certificate only cases, Lampang 1995-1997

	Male			Female		
	Cases	%HV	%DCO	Cases	%HV	%DCO
Oral cavity	46	84.8	4.3	46	76.1	8.7
Oropharynx	14	85.7	0.0	5	80.0	0.0
Nasopharynx	36	83.3	0.0	17	82.4	0.0
Hypopharynx	7	100.0	0.0	2	100.0	0.0
Pharynx unspecified	4	75.0	0.0	1	100.0	0.0
Oesophagus	23	34.8	8.7	11	54.5	9.1
Stomach	64	65.6	6.3	45	60.0	6.7
Small intestine	4	75.0	0.0	2	100.0	0.0
Colon	99	54.5	19.2	75	56.0	20.0
Rectum	50	86.0	2.0	33	78.8	0.0
Liver	354	27.4	20.6	167	21.6	15.6
Gallbladder etc.	43	53.5	4.7	42	54.8	9.5
Pancreas	32	50.0	0.0	23	34.8	4.3
Nose, sinuses etc.	6	66.7	0.0	7	85.7	0.0
Larynx	41	78.0	2.4	14	85.7	0.0
Bronchus, lung	646	65.2	9.9	338	63.3	10.4
Bone	2	50.0	50.0	11	72.7	27.3
Connective tissue	8	87.5	0.0	9	100.0	0.0
Mesothelioma	3	100.0	0.0	2	100.0	0.0
Melanoma of skin	8	100.0	0.0	8	100.0	0.0
Other skin	28	89.3	10.7	50	96.0	4.0
Breast	5	80.0	0.0	225	88.4	1.3
Cervix uteri	0	0.0	0.0	325	89.8	3.4
Placenta	0	0.0	0.0	2	100.0	0.0
Corpus uteri	0	0.0	0.0	39	76.9	15.4
Ovary etc.	0	0.0	0.0	52	71.2	1.9
Other female genital	0	0.0	0.0	8	100.0	0.0
Prostate	51	82.4	3.9	0	0.0	0.0
Testis	6	66.7	0.0	0	0.0	0.0
Penis	21	71.4	4.8	0	0.0	0.0
Bladder	56	82.1	0.0	30	83.3	0.0
Kidney etc.	19	57.9	10.5	8	87.5	12.5
Brain, nervous system	17	70.6	17.6	5	60.0	20.0
Thyroid	9	33.3	22.2	29	82.8	0.0
Lymphoma	82	100.0	0.0	64	100.0	0.0
Leukaemia	77	100.0	0.0	48	100.0	0.0
All sites	2 196	58.5	15.9	1 991	68.9	11.0

Table 2 Lampang (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	3	0	-	-	1.1	-	-	-	-	-	1.1	1.5	-	-	-	-	4.4	-	0.3	0.2	C00
Tongue	20	0	-	-	-	-	1.1	-	-	0.9	1.1	-	-	-	12.4	-	13.2	25.9	1.7	1.6	C01-C02
Salivary gland	5	0	-	-	-	-	-	0.9	-	-	-	-	-	4.1	-	-	8.8	-	0.4	0.4	C07-C08
Mouth	18	0	-	-	-	-	1.1	-	-	0.9	-	-	-	4.1	4.1	-	22.1	25.9	1.5	1.4	C03-C06
Oropharynx	14	0	-	-	-	-	-	0.9	-	0.9	2.1	-	4.1	2.0	4.1	5.7	4.4	7.4	1.2	1.1	C09-C10
Nasopharynx	36	0	-	-	-	-	-	0.9	0.8	2.6	8.5	2.9	12.0	8.1	6.2	11.4	8.8	7.4	3.0	2.8	C11
Hypopharynx	7	0	-	-	-	-	-	-	-	-	-	-	-	2.0	2.1	-	4.4	14.8	0.6	0.5	C12-C13
Pharynx unspecified	4	0	-	-	-	-	-	-	-	-	1.1	-	2.0	2.0	-	2.9	-	-	0.3	0.3	C14
Oesophagus	23	0	-	-	-	-	-	-	-	-	-	2.9	4.1	4.1	6.2	14.3	13.2	22.2	1.9	1.9	C15
Stomach	64	0	-	-	-	-	-	1.8	0.8	2.6	4.2	-	8.2	10.0	22.7	34.3	48.5	40.8	5.3	5.1	C16
Small intestine	4	0	-	-	-	-	-	-	-	-	-	-	-	4.1	2.1	-	-	3.7	0.3	0.3	C17
Colon	99	0	-	-	-	-	-	2.7	2.5	4.3	9.5	7.3	10.0	16.0	30.9	57.1	57.3	44.5	8.3	7.9	C18
Rectum	50	0	-	-	-	-	2.1	-	0.8	2.6	2.1	4.4	6.1	10.0	22.7	20.0	35.3	18.5	4.2	4.1	C19-C21
Liver	354	0	-	-	1.1	-	-	3.7	12.0	6.9	31.8	55.0	71.0	111.0	115.4	140.0	132.3	126.0	29.6	28.7	C22
Gallbladder etc.	43	0	-	-	-	-	-	0.9	-	0.9	2.1	7.3	6.1	4.1	12.4	17.1	44.1	25.9	3.6	3.6	C23-C24
Pancreas	32	0	-	-	-	-	-	-	0.8	1.7	1.1	5.8	6.1	8.1	10.3	25.7	8.8	3.7	2.7	2.6	C25
Nose, sinuses etc.	6	0	-	-	-	-	-	-	0.8	0.9	-	1.5	-	-	-	2.9	4.4	3.7	0.5	0.4	C30-C31
Larynx	41	0	-	-	-	-	-	-	-	0.9	2.1	1.5	4.1	16.0	4.1	25.7	44.1	22.2	3.4	3.4	C32
Bronchus, lung	646	0	-	-	-	-	-	1.8	7.4	6.9	30.8	29.0	118.0	199.0	290.5	365.7	339.6	281.7	54.0	53.5	C33-C34
Other thoracic organs	1	0	-	-	-	-	-	-	-	-	-	-	2.0	-	-	-	-	-	0.1	0.1	C37-C38
Bone	2	0	-	-	-	-	-	-	-	-	-	1.5	-	-	-	2.9	-	-	0.2	0.2	C40-C41
Connective tissue	8	0	-	-	-	1.1	1.1	-	0.8	-	-	1.5	4.1	-	-	2.9	-	3.7	0.7	0.7	C47; C49
Mesothelioma	3	0	-	-	-	-	-	-	-	0.9	-	-	-	2.0	-	-	-	3.7	0.3	0.2	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	8	0	-	-	-	-	-	-	-	0.9	-	1.5	-	-	4.1	5.7	-	7.4	0.7	0.6	C43
Other skin	28	0	-	-	-	-	1.1	-	-	-	1.1	2.9	4.1	2.0	12.4	11.4	26.5	18.5	2.3	2.3	C44
Breast	5	0	-	-	-	-	-	-	-	-	2.1	-	-	-	2.1	-	4.4	3.7	0.4	0.4	C50
Prostate	51	0	-	-	-	-	-	-	-	-	-	-	-	4.1	144.4	22.9	30.9	100.1	4.3	4.0	C61
Testis	6	0	-	-	-	-	1.1	0.9	0.8	-	-	-	2.0	-	2.1	-	4.4	-	0.5	0.5	C62
Penis	21	0	-	-	-	-	-	-	0.8	0.9	3.2	4.4	4.1	12.0	6.2	-	4.4	3.7	1.8	1.7	C60
Other male genital	2	0	-	-	-	-	-	-	-	-	-	-	-	2.0	-	-	-	3.7	0.2	0.2	C63
Bladder	56	0	-	-	-	-	-	-	-	1.7	1.1	7.3	4.1	12.0	16.5	31.4	39.7	44.5	4.7	4.6	C67
Kidney etc.	19	0	0.1	-	-	-	-	-	0.8	0.9	1.1	-	4.1	6.1	6.2	11.4	8.8	3.7	1.6	1.6	C64-C66; C68
Eye	3	0	-	-	-	-	-	-	-	0.9	-	-	-	4.1	-	-	-	-	0.3	0.2	C69
Brain, nervous system	17	0	-	-	1.1	-	-	0.9	1.6	-	4.2	-	4.1	2.0	4.1	8.6	4.4	-	1.4	1.3	C70-C72
Thyroid	9	0	-	-	-	-	-	-	-	0.9	-	-	-	2.0	2.1	2.9	17.6	3.7	0.8	0.7	C73
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C74-C75
Hodgkin's disease	6	0	0.3	-	-	-	2.1	-	-	-	-	-	-	-	-	2.9	-	3.7	0.5	0.6	C81
Non-Hodgkin lymphoma	76	0	-	1.1	1.1	1.1	4.2	4.6	3.3	6.9	4.2	12.0	14.0	2.0	20.6	28.6	22.1	25.9	6.4	6.0	C82-C85; C96
Multiple myeloma	5	0	-	-	-	-	-	-	-	-	-	1.5	2.0	2.0	2.1	-	4.4	-	0.4	0.4	C88; C90
Lymphoid leukaemia	24	0	0.8	1.1	2.2	3.4	1.1	-	1.6	-	-	-	-	-	2.1	8.6	8.8	11.1	2.0	2.3	C91
Myeloid leukaemia	30	0	0.1	1.1	-	1.1	3.2	-	3.3	4.3	3.2	2.9	2.0	0	12.4	2.9	-	7.4	2.5	2.3	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	18	0	-	-	-	2.3	-	0.9	1.6	2.6	3.2	1.5	2.0	-	2.1	2.9	4.4	3.7	1.5	1.4	C95
Other and unspecified	329	0	0.1	1.1	-	2.3	5.3	28.0	24.0	16.0	23.3	26.0	59.0	77.0	88.6	120.0	132.3	77.8	27.5	25.7	O&U
All sites	2 196	0	13	4	6	11	24	49	64	69	144	182	361	535	744	988	1 107	1 001	183.5	178.0	ALL

Table 3 Lampang (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (w)	ICD (10th)
Lip	6	0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	11.1	5.4	0.5	0.4	C00
Tongue	7	0	-	-	-	-	-	-	-	0.9	2.1	-	-	3.9	-	-	7.4	-	0.6	0.5	C01-C02
Salivary gland	6	0	-	-	-	-	1.0	-	-	-	1.1	1.5	2.0	2.0	1.9	-	-	-	0.5	0.5	C07-C08
Mouth	27	0	-	-	-	-	-	-	-	-	-	-	2.0	3.9	9.5	4.9	18.4	29.5	2.2	1.8	C03-C06
Oropharynx	5	0	-	-	-	-	-	-	-	-	-	-	2.0	-	-	2.5	3.7	5.4	0.4	0.4	C09-C10
Nasopharynx	17	0	-	-	1.1	-	-	-	1.6	0.9	-	3.0	2.0	2.0	1.9	9.9	-	10.7	1.4	1.2	C11
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4.9	-	-	0.2	0.1	C12-C13
Pharynx unspecified	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	0.1	0.1	C14
Oesophagus	11	0	-	-	-	-	-	-	-	-	-	1.5	4.0	-	3.8	4.9	11.1	2.7	0.9	0.9	C15
Stomach	45	0	-	-	-	-	-	0.9	3.3	4.4	2.1	3.0	6.0	15.8	5.7	12.3	25.8	13.4	3.7	3.2	C16
Small intestine	2	0	-	-	1.1	-	-	-	-	-	-	-	-	-	1.9	-	-	-	0.2	0.2	C17
Colon	75	0	-	-	-	-	1.0	9.0	2.4	3.5	5.3	3.0	16.0	17.8	15.3	19.8	44.3	37.5	6.2	5.4	C18
Rectum	33	0	-	-	-	1.1	-	0.9	-	4.4	2.1	1.5	8.0	3.9	3.8	12.3	22.1	10.7	2.7	2.4	C19-C21
Liver	167	0	-	-	-	-	-	1.8	-	4.4	11.0	13.0	27.9	47.4	61.1	59.3	99.6	53.6	13.7	12.4	C22
Gallbladder etc.	42	0	-	-	-	-	-	-	-	-	1.1	4.5	8.0	13.8	15.3	22.2	29.5	5.4	3.5	3.3	C23-C24
Pancreas	23	0	-	-	-	-	-	-	-	-	-	1.5	2.0	7.9	7.6	12.3	7.4	16.1	1.9	1.6	C25
Nose, sinuses etc.	7	0	-	-	-	-	1.0	0.9	0.8	-	-	1.5	-	-	1.9	-	3.7	2.7	0.6	0.5	C30-C31
Larynx	14	0	-	-	-	-	-	-	-	-	-	-	2.0	2.0	5.7	12.3	7.4	5.4	1.2	1.0	C32
Bronchus, lung	338	0	-	-	-	-	2.1	-	0.8	4.4	17.0	25.0	51.8	98.7	128.0	126.0	236.0	105.0	27.8	25.3	C33-C34
Other thoracic organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C37-C38
Bone	11	0	0.2	-	-	1.1	1.0	0.9	0.8	0.9	2.1	-	2.0	2.0	1.9	2.5	-	-	0.9	0.8	C40-C41
Connective tissue	9	0	-	-	-	-	1.0	-	-	0.9	-	-	2.0	2.0	1.9	2.5	3.7	-	0.7	0.7	C47, C49
Mesothelioma	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.1	C45
Kaposi's sarcoma	0	0	0.2	-	1.1	-	-	-	-	-	1.1	-	-	2.0	1.9	-	7.4	2.7	0.7	0.7	C43
Melanoma of skin	8	0	-	-	-	-	-	-	-	0.9	5.3	6.0	6.0	9.9	13.4	12.3	21.2	34.8	4.1	3.5	C44
Other skin	50	0	-	-	-	-	-	-	-	-	31.0	63.0	53.8	33.6	42.0	32.1	25.8	40.2	18.5	16.4	C50
Breast	225	0	-	-	-	-	-	2.7	12.2	30.8	31.0	-	-	-	-	-	-	-	0.0	0.0	C55
Uterus unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C53
Cervix uteri	325	0	-	-	-	-	2.1	8.9	18.8	31.7	66.0	94.0	53.8	51.3	53.5	46.9	51.6	40.2	26.7	23.6	C53
Placenta	2	0	-	-	-	-	-	0.9	0.8	-	-	-	-	-	-	-	-	-	0.2	0.1	C58
Corpus uteri	39	0	-	-	-	-	-	2.7	2.4	1.8	3.2	6.0	14.0	11.8	5.7	9.9	11.1	2.7	3.2	3.0	C54
Ovary etc.	52	0	-	-	-	1.1	-	0.9	8.2	2.6	4.2	7.4	6.0	11.8	17.2	17.3	-	8.0	4.3	3.7	C56
Other female genital	8	0	-	-	-	-	-	-	-	0.9	-	-	2.0	2.0	1.9	7.4	-	2.7	0.7	0.6	C51-C52; C57
Bladder	30	0	-	-	-	-	-	-	-	-	2.1	3.0	6.0	5.9	7.6	9.9	25.8	13.4	2.5	2.2	C67
Kidney etc.	8	0	0.4	1.1	-	-	-	-	-	-	-	-	2.0	2.0	1.9	-	3.7	2.7	0.7	0.8	C64-C66; C68
Eye	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	0.2	0.1	C69
Brain, nervous system	5	0	-	-	-	-	1.0	-	-	0.9	1.1	1.5	-	-	1.9	-	-	-	0.4	0.4	C70-C72
Thyroid	29	0	-	-	-	1.1	1.0	0.9	3.3	3.5	2.1	3.0	2.0	2.0	9.5	7.4	11.1	2.7	2.4	2.0	C73
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C74-C75
Hodgkin's disease	5	0	-	-	-	1.1	1.0	1.8	-	-	-	-	-	-	-	-	-	-	0.4	0.4	C81
Non-Hodgkin lymphoma	59	0	-	-	-	-	1.0	2.7	2.4	3.5	2.1	-	10.0	13.8	24.8	17.3	14.8	26.8	4.8	4.2	C82-C85; C96
Multiple myeloma	2	0	-	-	-	-	-	-	-	-	-	-	-	2.0	1.9	-	-	-	0.2	0.2	C88; C90
Lymphoid leukaemia	10	0	0.2	1.1	1.1	-	1.0	0.9	1.6	0.9	4.2	-	-	2.0	-	2.5	-	-	0.8	0.8	C91
Myeloid leukaemia	23	0	0.2	-	-	-	-	0.9	1.6	0.9	-	3.0	4.0	2.0	9.5	-	-	10.7	1.9	1.7	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	13	0	0.4	-	-	-	-	1.8	1.6	2.6	-	1.5	-	2.0	3.8	-	-	-	1.1	1.0	C95
Other and unspecified	246	0	-	-	-	4.5	4.1	2.7	9.0	11.4	22.0	15.0	47.9	59.2	91.7	81.5	81.1	61.6	20.2	18.1	O&U
All sites	1 991	0	10	3	4	10	19	34	73	117	188	263	345	436	556	558	789	563	163.6	146.1	ALL

Table 4 Lampang (1995-1997), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	3	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0.1 %	C00
Tongue	20	0	0	0	0	0	1	0	0	0	1	1	0	0	6	0	3	7	0.9 %	C01-C02
Salivary gland	5	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	2	0	0.2 %	C07-C08
Mouth	18	0	0	0	0	0	1	0	0	1	0	0	0	2	2	0	5	7	0.8 %	C03-C06
Oropharynx	14	0	0	0	0	0	0	1	0	1	2	0	2	1	2	2	1	2	0.6 %	C09-C10
Nasopharynx	36	0	0	0	0	0	0	0	1	3	8	2	6	4	3	4	2	2	1.6 %	C11
Hypopharynx	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	4	0.3 %	C12-C13
Pharynx unspecified	4	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	4	0.2 %	C14
Oesophagus	23	0	0	0	0	0	0	0	0	0	0	2	2	2	3	5	3	6	1.0 %	C15
Stomach	64	0	0	0	0	0	0	2	1	3	4	0	4	5	11	12	11	11	2.9 %	C16
Small intestine	4	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0.2 %	C17
Colon	99	0	0	0	0	0	0	1	3	5	9	5	5	8	15	20	13	12	4.5 %	C18
Rectum	50	0	0	0	0	0	2	0	1	3	2	3	3	5	11	7	6	5	2.3 %	C19-C21
Liver	354	0	0	0	1	0	0	4	14	8	30	38	35	55	56	49	30	34	16.1 %	C22
Gallbladder etc.	43	0	0	0	0	0	0	1	0	1	2	5	3	2	6	6	10	7	1.5 %	C23-C24
Pancreas	32	0	0	0	0	0	0	0	1	2	1	4	3	4	5	9	2	1	1.5 %	C25
Nose, sinuses etc.	6	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	1	1	0.3 %	C30-C31
Larynx	41	0	0	0	0	0	0	0	0	1	2	1	2	8	2	9	10	6	1.9 %	C32
Bronchus, lung	646	0	0	0	0	0	0	2	9	8	29	20	58	98	141	128	77	76	29.4 %	C33-C34
Other thoracic organs	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0 %	C37-C38
Bone	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	0	0	0.1 %	C40-C41
Connective tissue	8	0	0	0	1	1	1	0	1	1	0	0	2	0	0	0	1	1	0.4 %	C47, C49
Mesothelioma	3	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0.1 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	8	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	0	2	0.4 %	C43
Other skin	28	0	0	0	0	0	1	0	0	0	1	2	2	1	6	4	6	5	1.3 %	C44
Breast	5	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	1	1	0.2 %	C50
Prostate	51	0	0	0	0	0	0	0	0	0	0	0	0	2	7	8	7	27	2.3 %	C61
Testis	6	0	0	0	0	0	1	1	1	1	0	0	1	0	1	0	1	0	0.3 %	C62
Penis	21	0	0	0	0	0	0	0	1	1	3	3	2	6	3	0	1	1	1.0 %	C60
Other male genital	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.1 %	C63
Bladder	56	0	0	0	0	0	0	0	0	2	1	5	2	6	8	11	9	12	2.6 %	C67
Kidney etc.	19	0	1	0	0	0	0	0	1	1	1	0	2	3	3	4	2	1	0.9 %	C64-C66; C68
Eye	3	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0.1 %	C69
Brain, nervous system	17	0	0	0	0	0	0	0	1	2	4	0	2	1	2	3	1	0	0.8 %	C70-C72
Thyroid	9	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	4	1	0.4 %	C73
Other endocrine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C74-C75
Hodgkin's disease	6	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	0	1	0.3 %	C81
Non-Hodgkin lymphoma	76	0	0	1	1	1	4	5	4	8	4	8	7	1	10	10	5	7	3.5 %	C82-C85; C96
Multiple myeloma	5	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0.2 %	C88; C90
Lymphoid leukaemia	24	0	6	1	2	3	1	0	2	0	0	0	0	0	1	3	2	3	1.1 %	C91
Myeloid leukaemia	30	0	1	1	0	1	3	0	4	5	3	2	1	0	6	1	0	2	1.4 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	18	0	1	0	0	2	0	1	2	3	3	1	1	0	1	1	1	1	0.8 %	C95
Other and unspecified	329	0	0	1	0	2	5	31	29	18	22	18	29	38	43	42	30	21	15.0 %	O&U
All sites	2 196	0	11	4	6	10	23	54	78	80	136	125	177	264	361	346	251	270	100.0 %	ALL

Table 5 Lampang (1995-1997), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0.3 %	C00
Tongue	7	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	0.4 %	C01-C02
Salivary gland	6	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0.4 %	C07-C08
Mouth	27	0	0	0	0	0	0	0	0	0	0	1	1	2	5	2	5	11	1.4 %	C03-C06
Oropharynx	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0.3 %	C09-C10
Nasopharynx	17	0	0	0	0	0	0	0	2	1	0	2	1	1	1	4	0	4	0.9 %	C11
Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C12-C13
Pharynx unspecified	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1 %	C14
Oesophagus	11	0	0	0	0	0	0	0	0	0	0	1	2	0	2	2	3	1	0.6 %	C15
Stomach	45	0	0	0	0	0	0	1	4	5	2	2	3	8	3	5	7	5	2.3 %	C16
Small intestine	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1 %	C17
Colon	75	0	0	0	0	0	1	1	3	4	5	2	8	9	8	8	12	14	3.8 %	C18
Rectum	33	0	0	0	0	1	0	1	0	5	2	1	4	2	2	5	6	4	1.7 %	C19-C21
Liver	167	0	0	0	0	0	0	2	0	5	10	9	14	24	32	24	27	20	8.4 %	C22
Gallbladder etc.	42	0	0	0	0	0	0	0	0	0	1	3	4	7	8	9	8	2	2.1 %	C23-C24
Pancreas	23	0	0	0	0	0	0	0	0	0	0	1	1	4	5	2	2	6	1.2 %	C25
Nose, sinuses etc.	7	0	0	0	0	0	1	1	1	0	0	1	0	0	1	0	1	1	0.4 %	C30-C31
Larynx	14	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	5	2	0.7 %	C32
Bronchus, lung	338	0	0	0	0	0	2	0	1	5	16	17	26	50	67	51	64	39	17.0 %	C33-C34
Other thoracic organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C37-C38
Bone	11	0	0	0	0	1	1	1	1	1	2	0	1	1	1	1	1	0	0.6 %	C40-C41
Connective tissue	9	0	1	0	0	0	1	0	0	1	0	0	1	1	1	1	1	0	0.5 %	C47; C49
Mesothelioma	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	8	0	1	0	1	0	0	0	0	0	1	0	0	1	1	1	2	1	0.4 %	C43
Other skin	50	0	0	0	0	0	0	0	1	1	5	4	3	5	7	5	6	13	2.5 %	C44
Breast	225	0	0	0	0	0	0	3	15	35	29	42	27	17	22	13	7	15	11.3 %	C50
Uterus unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C55
Cervix uteri	325	0	0	0	0	0	2	10	23	36	62	63	27	26	28	19	14	15	16.3 %	C53
Placenta	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0.1 %	C58
Corpus uteri	39	0	0	0	0	0	0	3	3	2	3	4	7	6	3	4	3	1	2.0 %	C54
Ovary etc.	52	0	0	0	0	1	0	1	10	3	4	5	3	6	9	7	0	3	2.6 %	C56
Other female genital	8	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	3	0	0.4 %	C51-C52; C57
Bladder	30	0	0	0	0	0	0	0	0	0	2	2	3	3	4	4	7	5	1.5 %	C67
Kidney etc.	8	0	2	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0.4 %	C64-C66; C68
Eye	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1 %	C69
Brain, nervous system	5	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0.3 %	C70-C72
Thyroid	2.9	0	0	0	0	1	1	1	4	4	2	2	1	1	5	3	3	1	1.5 %	C73
Other endocrine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C74-C75
Hodgkin's disease	5	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0.3 %	C81
Non-Hodgkin lymphoma	59	0	0	0	0	0	1	3	3	4	2	0	5	7	13	7	4	10	3.0 %	C82-C85; C96
Multiple myeloma	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.1 %	C91
Lymphoid leukaemia	10	0	1	1	1	0	1	1	2	1	0	2	2	1	5	0	0	4	1.2 %	C92
Myeloid leukaemia	23	0	1	0	0	0	0	0	1	1	4	2	0	0	0	0	0	0	0.0 %	C93
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C95
Leukaemia unspecified	13	0	2	0	0	0	0	2	2	0	0	1	0	1	2	0	0	0	0.7 %	O&U
Other and unspecified	246	0	0	0	0	4	4	3	11	13	21	10	24	30	48	33	22	23	12.4 %	
All sites	1 991	0	8	3	4	9	18	38	89	133	177	177	173	221	291	226	214	210	100.0 %	ALL

Figure 3 Population pyramid, Lampang, 1999

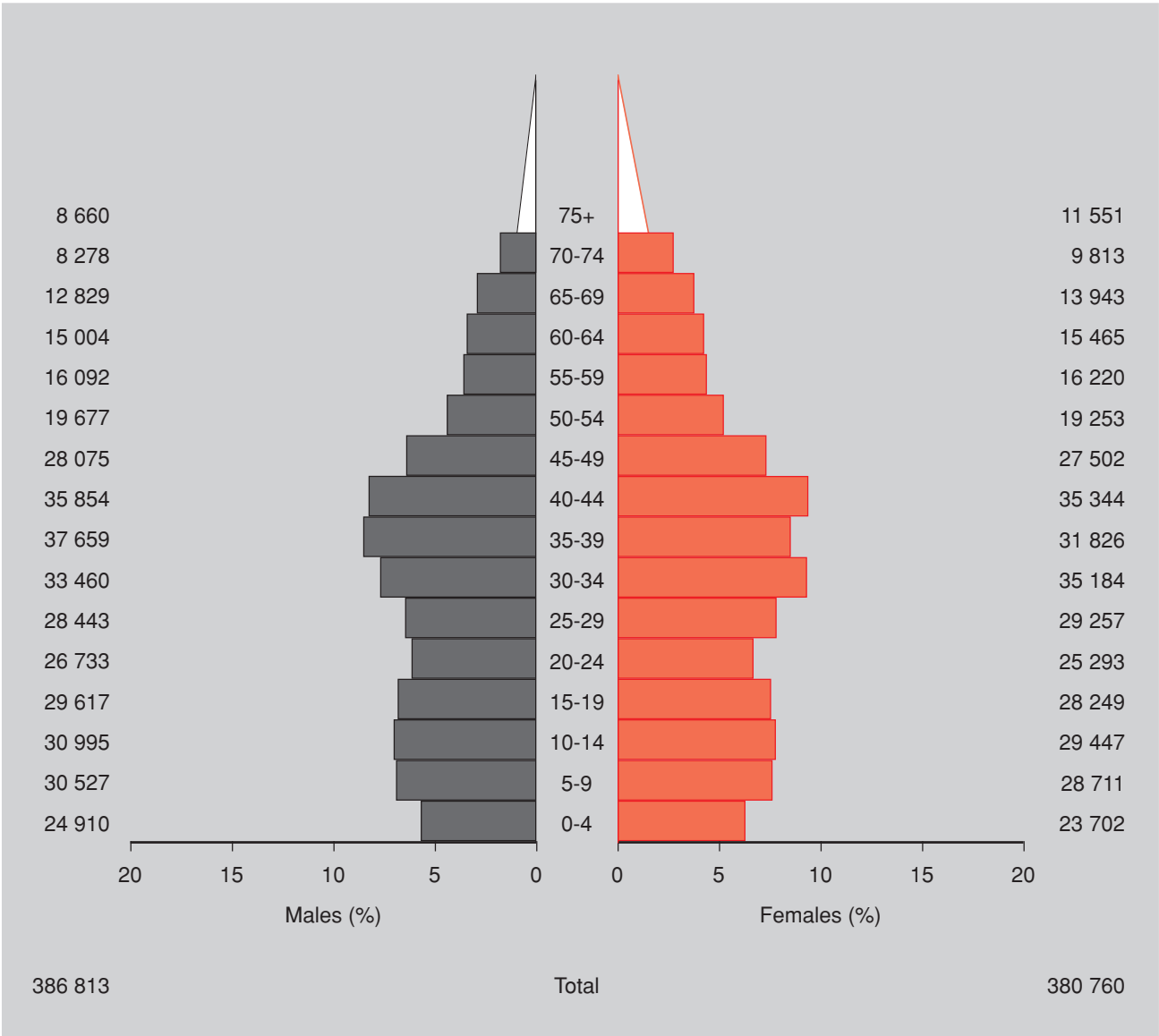


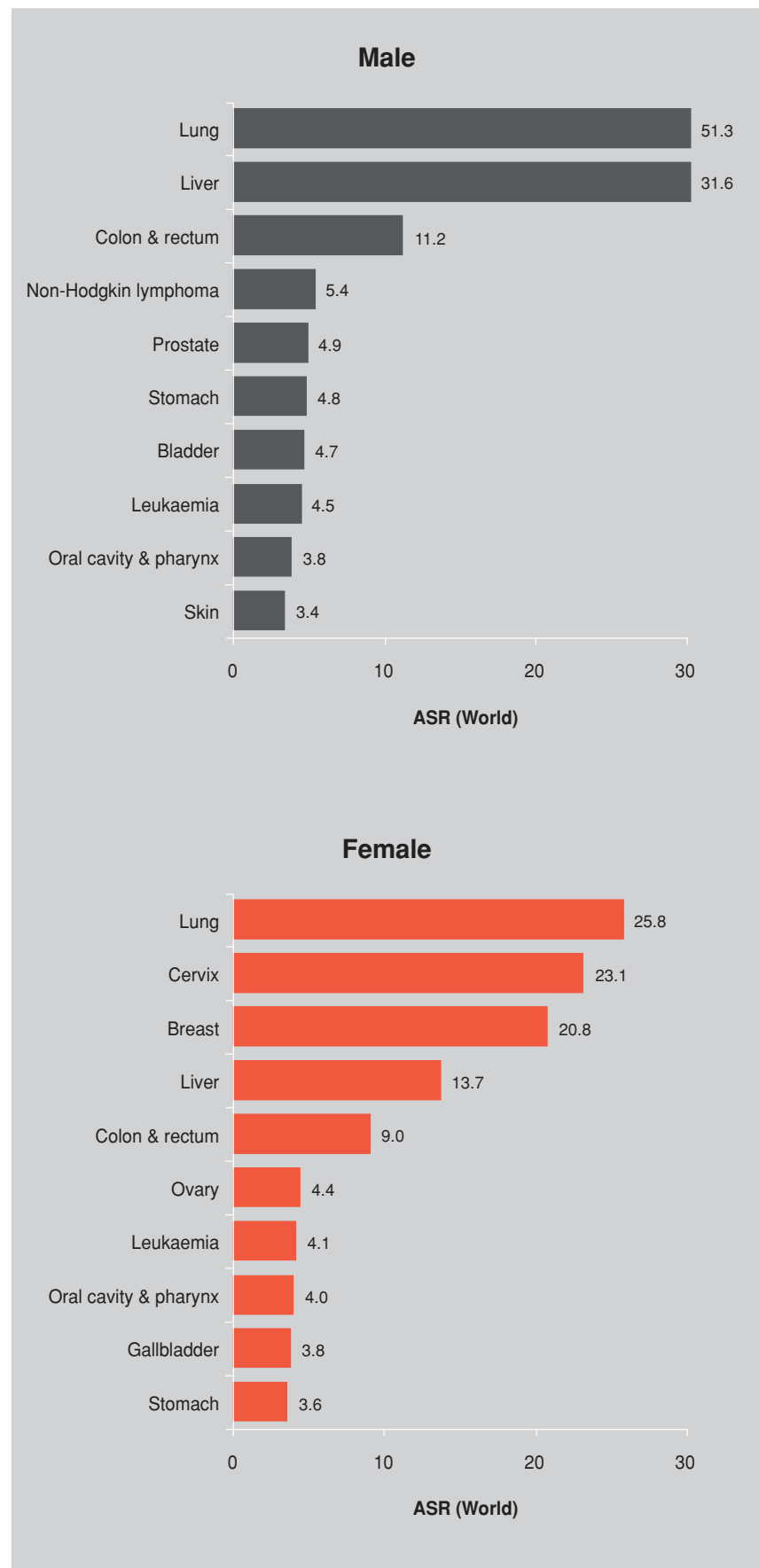
Figure 4 Leading cancers in Lampang, 1998-2000

Table 6 Percentage of histologically verified and death certificate only cases, Lampang 1998-2000

	Male			Female		
	Cases	%HV	%DCO	Cases	%HV	%DCO
Oral cavity	29	82.8	6.9	54	88.9	3.7
Oropharynx	15	93.3	0.0	3	100.0	0.0
Nasopharynx	27	85.2	0.0	21	81.0	0.0
Hypopharynx	6	83.3	0.0	2	50.0	0.0
Pharynx unspecified	0	0.0	0.0	1	100.0	0.0
Oesophagus	19	68.4	10.5	11	45.5	18.2
Stomach	64	68.8	17.2	51	66.7	19.6
Colon	101	53.5	27.7	106	38.7	40.6
Rectum	46	80.4	2.2	26	92.3	0.0
Liver	416	25.0	25.5	193	23.3	30.1
Gallbladder etc.	36	55.6	8.3	56	51.8	3.6
Pancreas	22	36.4	13.6	31	41.9	0.0
Nose, sinuses etc.	6	100.0	0.0	6	50.0	0.0
Larynx	25	80.0	16.0	16	81.3	0.0
Bronchus, lung	656	65.1	17.2	364	67.9	15.1
Bone	2	50.0	50.0	13	23.1	61.5
Connective tissue	14	100.0	0.0	7	100.0	0.0
Mesothelioma	1	100.0	0.0	0	0.0	0.0
Melanoma of skin	9	100.0	0.0	3	100.0	0.0
Other skin	44	97.7	0.0	50	100.0	0.0
Breast	1	100.0	0.0	298	87.9	3.7
Cervix uteri	0	0.0	0.0	328	94.5	0.3
Placenta	0	0.0	0.0	1	100.0	0.0
Corpus uteri	0	0.0	0.0	41	73.2	17.1
Ovary etc.	0	0.0	0.0	61	70.5	0.0
Other female genital	0	0.0	0.0	11	81.8	0.0
Prostate	66	87.9	4.5	0	0.0	0.0
Testis	8	75.0	0.0	0	0.0	0.0
Penis	19	94.7	0.0	0	0.0	0.0
Bladder	62	79.0	1.6	24	70.8	8.3
Kidney etc.	18	61.1	16.7	9	66.7	11.1
Eye	2	100.0	0.0	1	100.0	0.0
Brain, nervous system	13	69.2	30.8	15	66.7	26.7
Thyroid	9	55.6	11.1	43	79.1	7.0
Lymphoma	73	100.0	2.7	52	100.0	1.9
Leukaemia and multiple myeloma	57	100.0	0.0	57	100.0	0.0
All sites	2 045	61.8	15.5	2 080	71.7	11.3

Table 7 Lampang (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (w)	ICD (10h)
Lip	2	0	-	-	-	-	-	-	-	-	-	1.2	-	-	-	2.5	-	-	0.2	0.1	C00
Tongue	11	0	-	-	-	-	-	-	-	-	1.8	1.2	1.8	4.4	4.3	5.0	3.9	-	0.9	0.9	C01-C02
Salivary gland	4	0	-	-	-	-	-	-	-	-	0.9	0.9	-	-	2.2	-	3.9	3.5	0.3	0.3	C07-C08
Mouth	12	0	-	-	-	1.1	-	-	-	0.8	0.9	5.0	-	2.2	-	-	3.9	10.4	1.0	0.9	C03-C06
Oropharynx	15	0	-	-	-	-	-	-	0.0	0.0	1.8	3.7	0.0	4.4	4.3	0.0	11.6	10.4	1.2	1.1	C09-C10
Nasopharynx	27	0	-	-	-	2.2	-	0.9	2.5	2.8	1.2	1.2	13.0	2.2	4.3	10.0	7.7	3.5	2.2	2.1	C11
Hypopharynx	6	0	-	-	-	-	-	-	-	-	-	-	-	2.2	4.3	-	7	3.5	0.5	0.5	C12-C13
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C14
Oesophagus	19	0	-	-	-	-	-	-	-	-	1.8	1.2	1.8	6.6	6.5	10.0	-	17.3	1.6	1.4	C15
Stomach	64	0	-	-	-	1.1	-	1.0	-	3.4	5.5	5.0	13.0	4.4	6.5	39.9	42.5	31.1	5.3	4.8	C16
Small intestine	4	0	-	-	-	-	-	-	-	-	-	1.2	1.8	-	-	2.5	3.9	-	0.3	0.3	C17
Colon	101	0	-	-	2.2	-	1.2	2.0	3.5	5.9	5.5	6.2	14.0	15.0	36.8	39.9	30.9	45.0	8.4	7.7	C18
Rectum	46	0	-	-	-	-	-	1.0	1.0	2.5	0.9	3.7	3.6	6.6	10.8	27.4	38.7	24.2	3.8	3.5	C19-C21
Liver	416	1	-	1.1	-	-	-	2.0	12.0	13.0	33.2	50.0	80.0	93.0	134.2	147.2	220.4	148.8	34.6	31.6	C22
Gallbladder etc.	36	0	-	-	-	-	-	-	-	-	0.9	3.7	5.5	6.6	17.3	7.5	27.1	27.7	3.0	2.8	C23-C24
Pancreas	22	0	-	-	-	-	-	-	-	-	2.8	2.5	3.6	6.6	4.3	7.5	3.9	20.8	1.8	1.7	C25
Nose, sinuses etc.	6	0	-	-	-	-	-	-	0.9	-	-	1.2	1.8	-	-	-	3.9	6.9	0.5	0.4	C30-C31
Larynx	25	0	-	-	-	-	-	-	-	0.8	-	1.2	1.8	2.2	4.3	15.0	11.6	34.6	2.1	1.9	C32
Bronchus, lung	656	0	-	-	-	-	-	2.0	6.2	8.4	17.5	37.0	107.0	157.0	257.6	331.8	417.7	339.2	54.6	51.3	C33-C34
Other thoracic organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C37-C38
Bone	2	0	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	3.5	0.2	0.2	C40-C41
Connective tissue	14	0	1.3	-	-	-	-	1.0	0.9	0.8	0.9	2.5	7.3	-	-	2.5	3.9	3.5	1.2	1.1	C47; C49
Mesothelioma	1	0	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	0.1	0.1	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	9	0	-	-	-	-	-	-	-	-	-	1.2	3.6	-	4.3	5.0	3.9	3.5	0.7	0.7	C43
Other skin	44	0	-	-	-	-	-	1.0	0.9	-	1.8	2.5	3.6	13.0	10.8	17.5	34.8	31.1	3.7	3.4	C44
Breast	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.5	0.1	0.1	C50
Prostate	66	0	-	-	-	-	-	-	-	-	-	-	-	8.8	10.8	25.0	69.6	100.4	5.5	4.9	C61
Testis	8	0	-	-	-	-	1.0	0.9	2.5	2.5	0.9	1.2	1.8	-	-	-	-	-	0.7	0.5	C62
Penis	19	0	-	-	-	-	-	-	-	-	2.8	3.7	3.6	2.2	8.7	2.5	3.9	13.8	1.6	1.4	C60
Other male genital	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.9	-	0.1	0.1	C63
Bladder	62	0	-	-	-	-	-	-	2.6	0.8	-	-	5.5	8.8	23.8	29.9	50.3	51.9	5.2	4.7	C67
Kidney etc.	18	0	-	-	-	-	-	-	-	2.5	1.8	1.2	1.8	8.8	6.5	7.5	-	3.5	1.5	1.3	C64-C66; C68
Eye	2	0	1.3	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	0.2	0.2	C69
Brain, nervous system	13	0	1.3	-	-	1.1	-	1.0	2.6	-	1.8	-	1.8	2.2	4.3	2.5	-	-	1.1	1.0	C70-C72
Thyroid	9	0	-	-	-	-	-	-	-	-	-	-	-	-	4.3	7.5	7.7	3.5	0.7	0.7	C73
Other endocrine	2	0	1.3	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	0.2	0.2	C74-C75
Hodgkin's disease	2	0	-	-	-	-	-	-	-	-	-	1.2	-	-	-	2.5	-	-	0.2	0.1	C81
Non-Hodgkin lymphoma	71	0	-	1.1	1.1	1.1	1.2	3.0	2.6	3.4	7.4	5.0	9.1	18.0	19.5	2.4	7.7	27.7	5.9	5.4	C82-C85; C96
Multiple myeloma	4	0	-	-	-	-	-	-	-	-	0.9	-	-	-	2.2	-	7.7	-	0.3	0.3	C88; C90
Lymphoid leukaemia	20	0	6.3	4.3	1.1	-	1.2	1.0	-	0.8	1.8	1.2	-	-	4.3	2.5	-	3.5	1.7	2.0	C91
Myeloid leukaemia	22	0	-	1.1	-	-	-	-	2.6	0.8	0.9	3.7	1.8	-	4.3	10.0	11.6	10.4	1.8	1.6	C92
Monocytic leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	-	0.1	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	10	0	1.3	-	1.1	-	2.3	1.0	0.9	0.8	0.9	-	1.8	-	-	2.5	-	-	0.8	0.8	C95
Other and unspecified	172	0	-	1.1	-	3.4	-	2.0	7.0	10.0	4.6	22.0	26.0	40.0	54.1	59.9	100.6	55.4	14.3	13.2	O&U
All sites	2 045	1	13	9	7	10	6	19	45	60	103	171	326	415	662	558	1 145	1 042	170.2	157.5	ALL

Table 8 Lampang (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	7	0	-	-	-	-	-	-	-	-	-	-	1.8	-	2.1	4.4	-	7.6	0.6	0.5	C00
Tongue	13	0	-	-	-	-	-	-	0.8	-	1.9	2.5	-	4.2	-	2.2	9.6	5.0	1.1	0.8	C01-C02
Salivary gland	6	0	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	3.2	-	0.5	0.4	C07-C08
Mouth	28	0	-	-	-	1.1	-	-	-	-	0.9	2.5	-	6.4	12.4	4.4	6.4	27.7	2.3	1.9	C03-C06
Oropharynx	3	0	-	-	-	1.1	-	-	-	-	0.9	-	-	-	-	-	-	5.0	0.2	0.2	C09-C10
Nasopharynx	21	0	-	-	-	-	1.0	1.7	0.8	0.9	0.9	3.7	9.1	-	8.3	4.4	6.4	-	1.7	1.6	C11
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-	-	2.5	0.2	0.1	C12-C13
Pharynx unspecified	1	0	-	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	0.1	0.1	C14
Oesophagus	11	0	-	-	-	-	-	-	-	0.8	-	-	-	6.4	2.1	4.4	9.6	2.5	0.9	0.8	C15
Stomach	51	0	-	-	-	-	2.9	-	-	3.4	2.8	6.2	9.1	8.5	16.5	17.8	19.2	12.6	4.2	3.6	C16
Small intestine	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	0.1	0.1	C17
Colon	106	0	-	-	-	-	2.2	2.9	3.4	3.4	5.6	8.7	10.9	29.7	33.0	33.3	32.0	47.8	8.6	7.3	C18
Rectum	26	0	-	-	-	-	1.1	-	1.7	2.5	0.9	5.0	1.8	6.4	2.1	8.9	12.8	7.6	2.1	1.7	C19-C21
Liver	193	0	1.3	-	-	-	-	0.8	0.8	2.5	7.4	14.0	25.5	50.9	84.6	71.1	76.9	83.1	15.7	13.7	C22
Gallbladder etc.	56	0	-	-	-	-	-	1.0	-	0.8	3.7	3.7	5.5	8.5	14.4	33.3	32.0	20.1	4.6	3.8	C23-C24
Pancreas	31	0	-	-	-	-	-	-	-	0.9	0.9	1.2	7.3	2.1	14.4	17.8	6.4	17.6	2.5	2.2	C25
Nose, sinuses etc.	6	0	-	-	-	-	-	-	-	-	-	3.7	-	-	2.1	-	-	5.0	0.5	0.4	C30-C31
Larynx	16	0	-	-	-	-	-	-	-	-	-	-	1.8	-	4.1	17.8	6.4	7.6	1.3	1.1	C32
Bronchus, lung	364	1	-	-	1.1	-	-	4.2	6.7	6.7	7.4	32.0	65.6	82.6	124.0	189.0	154.0	116.0	29.7	25.8	C33-C34
Other thoracic organs	1	0	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-	0.1	0.1	C37-C38
Bone	13	0	-	-	-	3.4	-	1.9	0.8	-	1.9	-	-	2.1	4.1	-	3.2	2.5	1.1	1.0	C40-C41
Connective tissue	7	0	-	-	-	-	-	1.0	-	-	2.8	1.2	-	-	2.1	-	3.2	-	0.6	0.5	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	3	0	-	-	-	-	-	-	-	-	-	-	1.8	-	-	2.2	-	2.5	0.2	0.2	C43
Other skin	50	0	1.3	-	-	-	-	-	1.7	0.8	0.9	2.5	3.6	10.6	8.3	22.2	22.4	37.8	4.1	3.3	C44
Breast	298	0	-	-	-	-	1.1	2.9	10.1	27.7	45.0	57.0	74.7	61.5	70.2	37.8	54.5	42.8	24.3	20.8	C50
Uterus unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C55
Cervix uteri	328	0	-	-	1.1	-	3.8	10.1	10.1	26.8	58.0	53.0	94.8	80.5	70.2	51.1	38.4	35.2	26.8	23.1	C53
Placenta	1	0	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	0.1	0.1	C58
Corpus uteri	41	0	-	-	-	-	-	-	0.8	2.5	3.7	6.2	5.5	23.3	8.3	8.9	16.0	2.5	3.3	3.0	C54
Ovary etc.	61	0	-	-	-	2.3	2.2	2.9	4.2	4.2	5.6	8.7	14.6	10.6	18.6	8.9	6.4	7.6	5.0	4.4	C56
Other female genital	11	0	-	-	-	-	-	1.0	1.7	0.8	-	1.2	1.8	-	4.1	6.7	-	2.5	0.9	0.7	C51-C52; C57
Bladder	24	0	-	-	-	-	-	-	1.7	-	-	1.2	1.8	-	8.3	8.9	6.4	25.2	2.0	1.5	C67
Kidney etc.	9	0	-	-	-	-	-	-	-	1.8	-	1.2	1.8	-	4.1	4.4	6.4	-	0.7	0.6	C64-C66; C68
Eye	1	0	-	-	-	-	-	-	-	-	-	-	-	-	2.1	-	-	-	0.1	0.1	C69
Brain, nervous system	15	0	1.3	1.1	-	-	1.0	0.8	0.8	2.5	0.9	1.2	1.8	2.1	2.1	2.2	3.2	2.5	1.2	1.1	C70-C72
Thyroid	43	0	-	-	-	-	3.3	-	1.7	1.7	4.7	8.7	5.5	10.6	8.3	11.1	12.8	7.6	3.5	3.0	C73
Other endocrine	3	0	-	-	-	-	-	-	-	-	-	2.5	-	-	-	-	3.2	-	0.2	0.2	C74-C75
Hodgkin's disease	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C81
Non-Hodgkin lymphoma	52	0	-	-	2.3	-	1.0	2.5	0.8	0.8	3.7	1.2	5.5	19.1	10.3	13.3	12.8	32.7	4.2	3.5	C82-C85; C96
Multiple myeloma	6	0	-	-	-	-	-	-	-	-	-	1.2	-	2.1	2.1	2.2	-	5.0	0.5	0.4	C88; C90
Lymphoid leukaemia	16	0	4.0	2.3	1.1	-	1.0	-	-	0.8	0.9	2.5	-	-	4.1	2.2	3.2	2.5	1.3	1.5	C91
Myeloid leukaemia	20	0	-	-	-	-	-	1.9	-	2.5	0.9	-	3.6	2.1	10.3	4.4	3.2	7.6	1.6	1.4	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	1	0	-	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	0.1	0.1	C94
Leukaemia unspecified	14	0	-	-	-	1.1	-	-	0.8	0.8	0.9	2.5	3.6	6.4	2.1	4.4	-	-	1.1	1.1	C95
Other and unspecified	120	0	27	-	-	-	3.8	3.4	3.4	3.4	7.4	8.7	16.4	21.2	37.1	40.0	57.7	45.3	9.8	8.4	O&U
All sites	2 080	0	11	3	6	9	12	30	54	99	173	244	374	458	598	644	628	632	169.7	146.0	ALL

Table 9 Lampang (1998-2000), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0.1 %	C00
Tongue	11	0	0	0	0	0	0	0	0	0	2	1	1	2	2	2	1	1	0.5 %	C01-C02
Salivary gland	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0.2 %	C07-C08
Mouth	12	0	0	0	1	0	0	0	0	1	1	4	0	0	1	0	1	3	0.6 %	C03-C06
Oropharynx	15	0	0	0	0	0	0	0	0	0	2	3	0	2	2	0	3	3	0.7 %	C09-C10
Nasopharynx	27	0	0	0	0	2	0	0	1	3	3	1	7	1	2	4	2	1	1.3 %	C11
Hypopharynx	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0.3 %	C12-C13
Pharynx unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C14
Oesophagus	19	0	0	0	0	0	0	0	0	0	2	1	1	3	3	4	0	5	0.9 %	C15
Stomach	64	0	0	0	0	1	0	1	0	4	6	4	7	2	3	16	11	9	3.1 %	C16
Small intestine	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0.2 %	C17
Colon	101	0	0	0	2	0	1	2	4	7	6	5	13	7	17	16	8	13	4.9 %	C18
Rectum	46	0	0	0	0	0	0	1	2	3	1	3	2	3	5	11	10	7	2.2 %	C19-C21
Liver	416	1	0	1	0	0	0	2	14	15	36	40	44	42	62	59	57	43	20.3 %	C22
Gallbladder etc.	36	0	0	0	0	0	0	0	0	0	1	3	3	3	8	3	7	8	1.8 %	C23-C24
Pancreas	22	0	0	0	0	0	0	0	0	0	3	2	2	3	2	3	1	6	1.1 %	C25
Nose, sinuses etc.	6	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2	0.3 %	C30-C31
Larynx	25	0	0	0	0	0	0	0	0	1	0	1	1	0	2	6	3	10	1.2 %	C32
Bronchus, lung	656	0	0	0	0	0	0	2	7	10	19	3	059	71	119	133	108	98	32.1 %	C33-C34
Other thoracic organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C37-C38
Bone	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.1 %	C40-C41
Connective tissue	14	0	1	0	0	0	0	1	1	1	1	2	4	0	0	1	1	1	0.7 %	C47, C49
Mesothelioma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.0 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	9	0	0	0	0	0	0	0	0	0	0	1	2	0	2	2	1	1	0.4 %	C43
Other skin	44	0	0	0	0	0	0	1	1	0	2	2	2	6	5	7	9	9	2.2 %	C44
Breast	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0 %	C50
Prostate	66	0	0	0	0	0	0	0	0	0	0	0	0	4	5	10	18	29	3.2 %	C61
Testis	8	0	0	0	0	0	0	1	1	3	1	1	1	0	0	0	0	0	0.4 %	C62
Penis	19	0	0	0	0	0	0	0	0	0	3	3	2	1	4	1	1	4	0.9 %	C60
Other male genital	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.0 %	C63
Bladder	62	0	0	0	0	0	0	0	3	1	0	0	3	4	11	12	13	15	3.0 %	C67
Kidney etc.	18	0	0	0	0	0	0	0	0	3	2	1	1	4	3	3	0	1	0.9 %	C64-C66; C68
Eye	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1 %	C69
Brain, nervous system	13	0	1	0	0	1	0	1	3	0	2	0	1	1	2	1	0	0	0.6 %	C70-C72
Thyroid	9	0	0	0	1	0	0	0	0	0	0	0	0	0	2	3	2	1	0.4 %	C73
Other endocrine	2	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1 %	C74-C75
Hodgkin's disease	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C81
Non-Hodgkin lymphoma	71	0	0	1	1	1	1	3	3	4	8	4	5	8	9	13	2	8	3.5 %	C82-C85; C96
Multiple myeloma	4	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0.2 %	C88; C90
Lymphoid leukaemia	20	0	5	4	1	0	1	1	1	1	2	1	3	1	2	1	0	1	1.0 %	C91
Myeloid leukaemia	22	0	0	1	0	0	0	0	3	1	1	3	1	0	2	4	3	3	1.1 %	C92
Monocytic leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	10	0	1	0	0	0	2	1	1	1	1	0	1	0	0	1	0	0	0.5 %	C95
Other and unspecified	172	0	0	1	0	3	0	2	8	12	5	18	14	18	25	24	26	16	8.4 %	O&U
All sites	2 045	1	10	8	6	9	5	19	51	72	112	138	179	188	306	344	296	301	100.0 %	ALL

Table 10 Lampang (1998-2000), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	7	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	3	0.3 %	C00
Tongue	13	0	0	0	0	0	0	0	0	1	2	2	0	2	0	1	3	2	0.6 %	C01-C02
Salivary gland	6	0	0	0	0	1	0	0	0	0	1	1	0	0	0	2	1	0	0.3 %	C07-C08
Mouth	28	0	0	0	0	1	0	0	0	0	1	2	0	3	6	2	2	11	1.3 %	C03-C06
Oropharynx	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0.1 %	C09-C10
Nasopharynx	21	0	0	0	0	0	0	0	1	1	1	3	5	0	4	2	2	0	1.0 %	C11
Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1 %	C12-C13
Pharynx unspecified	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.0 %	C14
Oesophagus	11	0	0	0	0	0	0	0	0	0	1	0	0	3	1	2	3	1	0.5 %	C15
Stomach	51	0	0	0	0	0	0	0	3	4	3	5	5	4	8	8	6	5	2.5 %	C16
Small intestine	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0 %	C17
Colon	106	0	0	0	0	0	0	0	4	4	6	7	6	14	16	15	10	19	5.1 %	C18
Rectum	26	0	0	0	0	0	0	0	2	3	1	4	1	3	4	4	4	3	1.2 %	C19-C21
Liver	193	0	1	0	0	0	0	0	1	3	8	11	14	24	41	32	24	33	9.3 %	C22
Gallbladder etc.	56	0	0	0	0	0	0	1	0	1	4	3	3	4	7	15	10	8	2.7 %	C23-C24
Pancreas	31	0	0	0	0	0	0	0	0	0	1	1	4	1	7	8	2	7	1.5 %	C25
Nose, sinuses etc.	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0.3 %	C30-C31
Larynx	16	0	0	0	0	0	0	0	0	0	0	0	1	0	2	8	2	3	0.8 %	C32
Bronchus, lung	364	1	0	0	1	0	1	0	5	8	8	26	36	39	60	85	48	46	17.5 %	C33-C34
Other thoracic organs	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.0 %	C37-C38
Bone	13	0	0	0	0	3	0	2	1	0	2	0	0	1	2	0	1	1	0.6 %	C40-C41
Connective tissue	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C42
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C43
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C44
Melanoma of skin	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0.1 %	C45
Other skin	50	0	1	0	0	0	0	0	2	1	1	2	2	5	4	10	7	15	2.4 %	C46
Breast	298	0	0	0	0	0	1	3	12	33	48	46	41	29	34	17	17	17	14.3 %	C47, C49
Uterus unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C50
Cervix uteri	328	0	0	0	1	0	1	4	12	32	62	43	52	38	34	23	12	14	15.8 %	C51-C52; C57
Placenta	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.0 %	C53
Corpus uteri	41	0	0	0	0	0	0	0	1	3	4	5	3	11	4	4	5	1	2.0 %	C54
Ovary etc.	61	0	0	0	0	2	2	3	5	5	6	7	8	5	9	4	2	3	2.9 %	C55
Other female genital	11	0	0	0	0	0	0	1	2	1	0	1	0	0	2	3	0	1	0.5 %	C56
Bladder	24	0	0	0	0	0	0	0	0	0	0	0	1	0	4	4	2	10	1.2 %	C58
Kidney etc.	9	0	0	0	0	0	0	0	0	1	0	1	1	0	2	2	2	0	0.4 %	C64-C66; C68
Eye	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.0 %	C69
Brain, nervous system	15	0	1	1	0	0	0	1	1	3	1	1	1	1	1	1	1	1	0.7 %	C70-C72
Thyroid	43	0	0	0	0	0	3	0	2	0	5	7	3	5	4	5	4	3	2.1 %	C73
Other endocrine	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0.1 %	C74-C75
Hodgkin's disease	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C81
Non-Hodgkin lymphoma	52	0	0	0	2	0	0	1	3	1	4	1	3	9	5	6	4	13	2.5 %	C82-C85; C96
Multiple myeloma	6	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	2	0.3 %	C88; C90
Lymphoid leukaemia	16	0	3	2	1	0	0	1	0	1	1	2	0	1	2	1	1	1	0.8 %	C91
Myeloid leukaemia	20	0	0	0	0	0	0	2	0	3	1	0	2	1	5	2	1	3	1.0 %	C92
Monocytic leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	14	0	0	0	0	1	0	0	1	1	1	2	2	3	1	2	0	0	0.7 %	C95
Other and unspecified	120	0	2	0	0	0	0	4	4	4	8	7	9	10	18	18	18	18	5.8 %	O&U
All sites	2 080	1	8	3	5	8	11	31	64	118	186	197	205	216	290	290	196	251	100.0 %	ALL

APPENDIX

C

KHON KAEN
CANCER
REGISTRY

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GEOGRAPHY AND POPULATION

Khon Kaen is one of the 19 provinces of the northeastern region of Thailand, between 15-17°N and 103° to 102°E, 200 meters above the sea level. It covers an area of about 10 886 square kilometers with a population of 1.7 million. It has a common boundary with Loei and Udon Thani provinces to the north, Kalasin and Maha Sarakham to the east, Nakhon Ratchasima and Buriram to the south, and Phetchabun and Chaiyaphum to the west. Khon Kaen is divided into 20 sanitary districts, 5 new districts and 4 municipal areas. The climate is hot and dry. The mean temperature is around 28°C. The average annual rainfall is 1 188 millimeters. The traditional occupation of the people is rice farming. New industrial plants have been established in this area and cause problems of environmental pollution. An important feature of the lifestyle is the consumption of raw fish (koi pla) as an accompaniment to the staple food of sticky rice.

REGISTRY PROCEDURES

Khon Kaen Cancer Registry was established in 1984 at the Faculty of Medicine, Srinagarind hos-

pital, Khon Kaen University as a hospital-based cancer registry. The population-based cancer registry started in January 1988. The first published report was in 1989 (Vatanasapt et al., 1989). The data on cancer patients are collected by both active and passive methods from one university hospital (Srinagarind hospital), 1 regional hospital, (Khon Kaen Central hospital), military hospital (Sripatcharin), 8 private and 19 community hospitals, 2 health promotion centers (region 4 and 6), the Provincial Chief Medical officer's Office and Civil Registration Section of all districts.

The data of those who are registered as Khon Kaen residents are extracted from the hospital-based cancer registry of Srinagarind hospital. The medical charts of patients diagnosed as cancer are reviewed and registered from other hospital medical records by the Khon Kaen Cancer Unit staff. Death certificates are collected from the Provincial Chief Medical Officer's Office and Civil Registration Section of all districts. All the data are verified, checked for duplication, coded and entered into the CanReg software.

Figure 1 Population pyramid, Khon Kaen, 1996

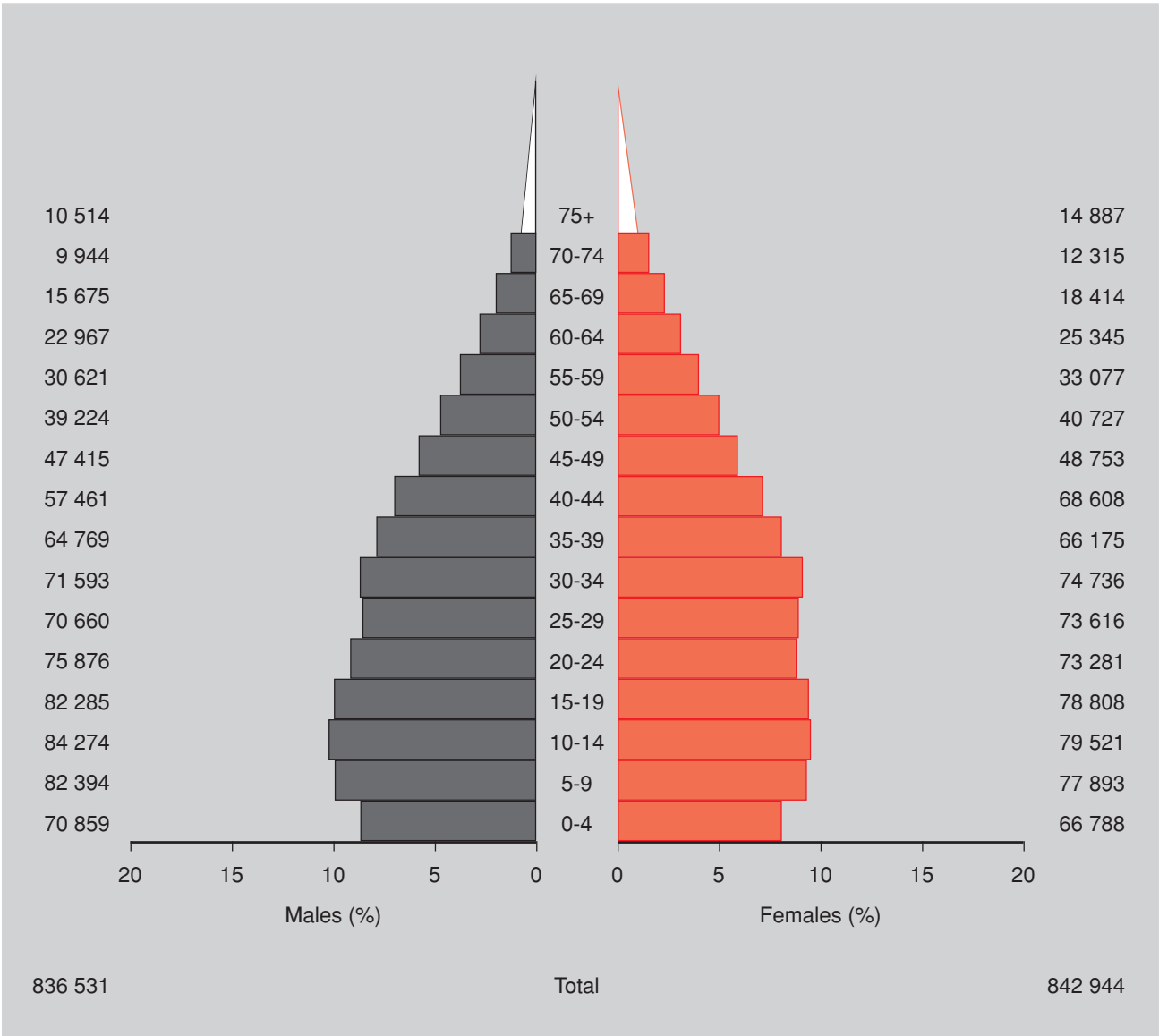


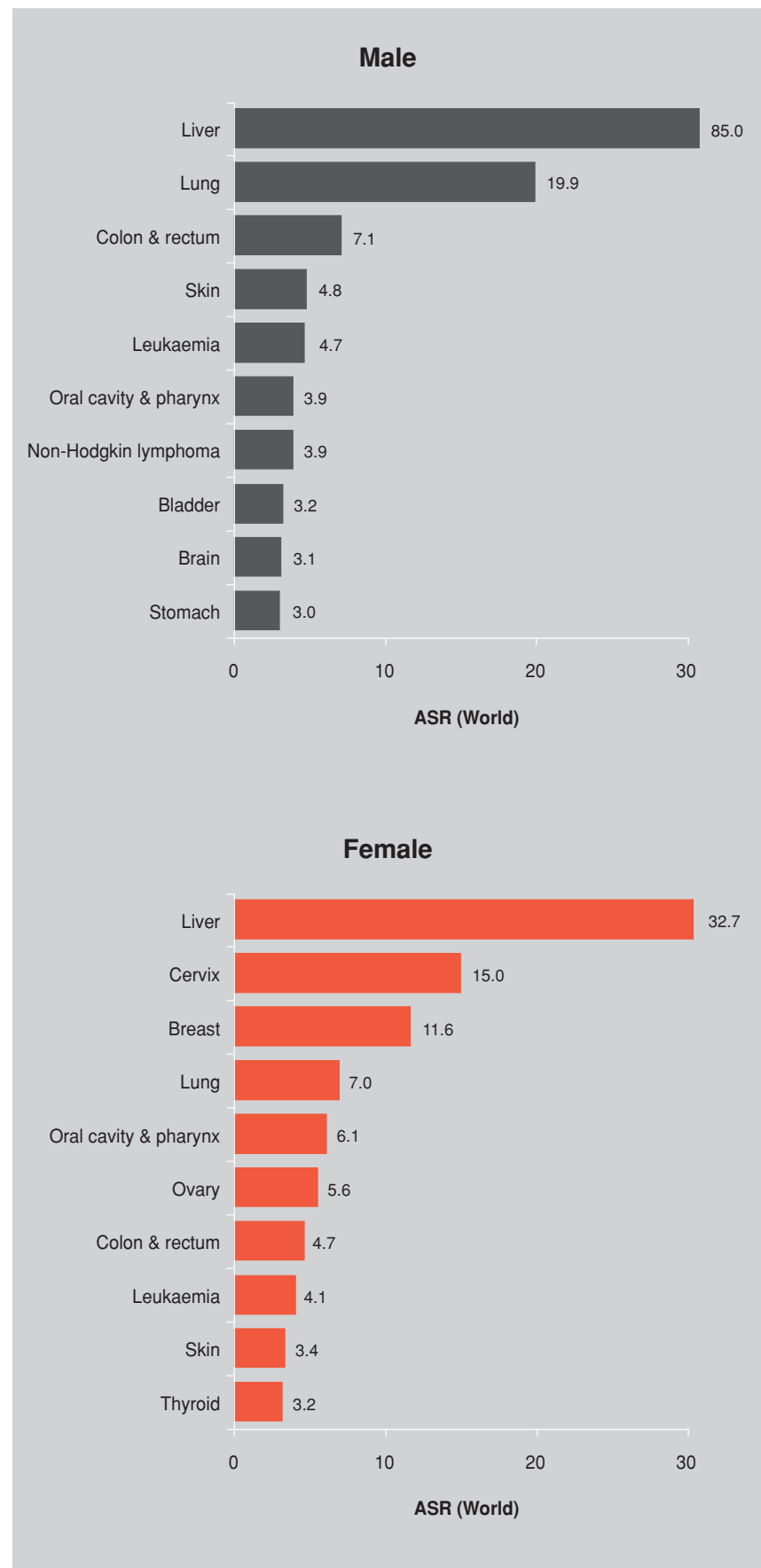
Figure 2 Leading cancers in Khon Kaen, 1995-1997

Table 1 Percentage of histologically verified and death certificate only cases, Khon Kaen 1995-1997

	Male			Female		
	Cases	%HV	%DCO	Cases	%HV	%DCO
Oral cavity	43	72.1	0.0	110	81.8	1.0
Oropharynx	8	75.0	0.0	1	100.0	0.0
Nasopharynx	51	84.3	0.0	22	72.7	0.0
Pharynx unspecified	11	54.5	0.0	1	100.0	0.0
Oesophagus	28	28.6	0.0	8	12.5	0.0
Stomach	57	49.1	5.3	42	42.7	7.1
Small intestine	8	62.5	25.0	3	66.7	33.3
Colon	89	50.6	0.0	53	56.6	0.0
Rectum	46	78.3	0.0	44	65.9	0.0
Liver	1 686	3.9	8.8	716	5.4	8.2
Gallbladder etc.	33	27.3	15.2	34	32.4	2.9
Pancreas	20	20.0	5.0	14	0.0	0.0
Nose, sinuses etc.	13	76.9	0.0	8	100.0	0.0
Larynx	23	73.9	0.0	0	0.0	0.0
Bronchus, lung	363	30.6	10.2	150	34.0	8.0
Other thoracic organ	9	11.1	0.0	7	14.3	0.0
Bone	32	40.6	21.9	23	39.1	21.7
Connective tissue	18	83.3	0.0	27	88.9	0.0
Melanoma of skin	11	100.0	0.0	9	100.0	0.0
Other skin	85	81.2	0.0	63	87.3	0.0
Breast	3	33.3	33.3	192	83.3	0.5
Prostate	35	68.6	0.0	0	0.0	0.0
Testis	20	60.0	5.0	0	0.0	0.0
Penis	36	86.1	0.0	0	0.0	0.0
Cervix uteri	0	0.0	0.0	213	68.1	3.3
Placenta	0	0.0	0.0	21	85.7	0.0
Corpus uteri	0	0.0	0.0	47	83.0	0.0
Ovary etc.	0	0.0	0.0	98	80.6	1.0
Other male genital	2	100.0	0.0	0	0.0	0.0
Other female genital	0	0.0	0.0	18	61.1	0.0
Bladder	41	82.9	0.0	7	85.7	0.0
Kidney etc.	30	76.7	3.3	13	61.5	7.7
Eye	2	50.0	0.0	3	66.7	0.0
Brain, nervous system	70	11.4	17.1	62	17.7	6.5
Thyroid	18	94.4	0.0	86	86.0	0.0
Lymphoma	60	100.0	0.0	61	98.4	0.0
Leukaemia	106	89.6	9.4	96	87.5	11.5
All sites	3 423	26.2	10.7	2 492	45.1	7.1

Table 2 Khon Kaen (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (w)	ICD (10th)
Lip	6	0	-	-	-	-	-	-	-	0.5	0.6	0.7	0.9	1.1	-	-	6.7	-	0.3	0.3	C00
Tongue	17	0	-	-	-	-	-	-	-	1.5	-	0.7	0.9	3.3	1.5	6.4	3.4	-	0.5	0.6	C01-C02
Salivary gland	4	0	-	-	-	-	-	-	0.5	-	0.9	-	-	-	-	2.1	-	3.2	0.2	0.2	C07-C08
Mouth	2.9	0	-	-	-	0.4	0.5	-	-	0.5	0.6	3.5	3.4	7.6	5.8	6.4	3.4	3.2	1.2	1.4	C03-C06
Oropharynx	10	0	-	-	-	-	-	-	-	-	1.2	-	0.9	2.2	2.9	2.1	3.4	3.2	0.4	0.5	C09-C10
Nasopharynx	53	0	-	-	0.4	-	0.9	0.9	0.9	2.1	0.6	2.1	1.7	8.7	18.9	19.1	10.1	15.9	2.1	2.7	C11
Hypopharynx	10	0	-	-	-	-	-	-	-	-	-	0.7	0.9	2.2	1.5	2.1	-	12.7	0.4	0.6	C12-C13
Pharynx unspecified	3	0	-	-	0.4	-	-	-	-	0.5	-	-	-	-	-	-	3.2	-	0.1	0.1	C14
Oesophagus	27	0	-	-	-	-	-	-	0.5	0.5	0.6	0.7	1.7	7.6	5.8	6.4	13.4	9.5	1.1	1.4	C15
Stomach	58	0	-	-	-	-	0.5	1.4	0.5	1.2	1.2	4.9	5.1	8.7	16.0	21.3	13.4	15.9	2.3	3.0	C16
Small intestine	16	0	-	-	-	-	0.9	0.9	0.5	2.3	2.3	-	1.7	3.3	2.9	-	3.4	3.2	0.6	0.7	C17
Colon	103	0	-	-	-	0.4	0.4	0.9	0.9	3.1	7.5	4.9	11.1	15.2	17.4	25.5	30.2	3.2	3.7	4.4	C18
Rectum	50	0	-	-	-	-	-	0.9	1.1	1.2	1.2	0.7	3.4	9.8	13.1	25.5	13.4	15.9	2.0	2.7	C19-C21
Liver	1 682	0	0.5	-	-	0.8	2.6	8.5	15.4	27.1	53.4	131.5	192.9	310.2	434.0	544.4	385.5	342.4	67.0	85.0	C22
Gallbladder etc.	32	0	-	-	-	-	-	-	-	-	1.2	0.7	-	4.4	10.2	12.8	10.1	28.5	1.3	1.9	C23-C24
Pancreas	20	0	-	-	-	0.4	-	-	0.5	-	1.2	0.7	3.4	1.1	5.8	8.5	6.7	-	0.8	1.0	C25
Nose, sinuses etc.	14	0	-	-	0.4	-	-	0.5	0.5	-	-	0.7	1.7	2.2	1.5	8.5	3.4	3.2	0.6	0.7	C30-C31
Larynx	24	0	-	-	-	-	-	0.5	0.5	0.5	-	0.7	-	3.3	7.3	10.6	13.4	12.7	1.0	1.4	C32
Bronchus, lung	387	0	-	-	-	1.2	2.6	6.6	8.4	7.2	8.1	16.2	33.1	55.5	101.6	140.4	124.0	101.5	15.4	19.9	C33-C34
Other thoracic organs	8	0	-	-	0.4	-	0.4	-	0.5	1.0	-	0.7	-	-	1.5	-	3.4	-	0.3	0.3	C37-C38
Bone	36	0	-	-	1.6	0.4	0.9	-	1.4	1.0	1.2	1.4	3.4	5.4	7.3	8.5	6.7	-	1.4	1.6	C40-C41
Connective tissue	17	0	0.9	-	0.4	1.2	0.4	-	0.5	-	0.6	-	1.7	-	3.0	2.1	3.4	6.3	0.7	0.8	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	0.5	-	1.0	-	-	1.7	1.1	1.5	-	-	-	0.0	0.0	C46
Melanoma of skin	10	0	-	-	0.4	-	-	-	-	0.5	1.7	7.7	3.4	21.8	14.5	23.4	33.5	31.7	0.4	0.5	C43
Other skin	83	0	-	-	0.4	0.4	-	-	0.5	0.5	1.7	-	0.9	-	2.9	-	-	-	3.3	4.3	C44
Breast	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	0.2	0.2	C50
Prostate	34	0	-	-	-	-	0.4	0.9	3.3	0.5	1.2	-	1.7	2.2	7.3	8.5	43.6	25.4	1.4	2.1	C61
Testis	19	0	-	-	-	-	-	-	0.5	1.0	2.3	1.4	2.6	4.4	7.3	8.5	23.5	12.7	0.8	0.7	C62
Penis	36	0	-	-	-	-	-	-	0.5	0.5	0.6	-	-	-	-	-	-	-	1.4	1.9	C60
Other male genital	2	0	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	0.1	0.1	C63
Bladder	59	0	0.5	-	-	-	-	-	0.5	1.0	1.7	3.5	2.6	6.5	14.5	17.0	26.8	38.0	2.4	3.2	C67
Kidney etc.	30	0	0.5	0.4	-	-	-	-	0.5	-	1.2	2.1	6.0	1.1	13.1	8.5	3.4	-	1.2	1.5	C64-C66; C68
Eye	2	0	-	0.4	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	0.1	0.1	C69
Brain, nervous system	78	0	2.8	2.0	0.8	1.2	2.2	4.7	3.7	6.2	4.1	2.1	4.3	3.3	4.4	8.5	-	6.3	3.1	3.1	C70-C72
Thyroid	18	0	-	-	-	0.4	0.5	-	-	0.5	0.6	3.5	2.6	1.1	1.5	4.3	3.4	3.2	0.7	0.8	C73
Other endocrine	5	0	-	0.8	0.4	0.4	-	-	-	0.5	-	-	-	-	-	-	-	-	0.2	0.2	C74-C75
Hodgkin's disease	6	0	-	-	-	-	-	-	0.9	0.5	-	-	0.9	1.1	-	-	-	-	0.2	0.2	C81
Non-Hodgkin lymphoma	83	0	0.9	0.8	0.8	0.4	1.3	4.3	1.9	5.2	2.9	4.2	6.0	4.4	5.8	14.9	33.5	22.2	3.3	3.9	C82-C85; C96
Multiple myeloma	10	0	-	-	-	-	-	-	-	0.5	-	0.7	-	3.3	-	4.3	3.4	6.3	0.4	0.5	C88; C90
Lymphoid leukaemia	32	0	6.1	0.8	0.4	0.4	0.4	1.4	0.9	0.5	1.7	-	0.9	-	2.9	4.3	-	-	1.3	1.5	C91
Myeloid leukaemia	35	0	0.9	-	0.4	0.8	0.4	1.9	2.8	-	1.2	2.1	1.7	5.4	4.4	2.1	-	9.5	1.4	1.5	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	-	1.1	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	41	0	0.9	0.4	-	0.8	2.6	3.8	1.9	1.0	0.6	2.1	2.6	3.3	2.9	4.3	3.4	3.2	1.6	1.7	C95
Other and unspecified	470	0	2.4	0.4	0.8	2.0	6.2	20.8	10.2	9.3	13.9	16.2	52.7	77.3	92.9	121.2	90.5	98.3	18.7	22.6	O&U
All sites	3 661	0	35	15	19	26	51	125	128	148	198	311	424	542	575	511	277	276	145.9	182.5	ALL

Table 3 Khon Kaen (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	54	0	-	-	-	0.4	-	-	-	-	0.6	0.7	2.5	6.1	15.8	21.7	29.8	15.7	29	2.7	C00
Tongue	15	0	-	-	-	-	-	-	-	-	1.7	0.7	-	3.0	1.3	5.4	5.4	4.5	0.6	0.7	C01-C02
Salivary gland	10	0	-	-	-	-	-	-	1.3	-	0.6	-	0.8	1.0	1.3	1.8	2.7	2.2	0.4	0.4	C07-C08
Mouth	45	0	-	-	-	-	-	-	-	-	0.6	-	2.5	2.0	14.5	16.3	10.8	33.7	1.8	2.2	C03-C06
Oropharynx	1	0	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	0.0	0.0	C09-C10
Nasopharynx	25	0	-	-	-	-	-	0.9	0.5	1.5	1.1	1.4	4.1	2.0	4.0	5.4	2.7	2.2	1.0	1.1	C11
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	2.7	-	0.1	0.1	C12-C13
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C14
Oesophagus	8	0	-	-	-	-	-	0.5	-	-	-	1.4	-	1.0	1.3	1.8	2.7	2.2	0.3	0.4	C15
Stomach	42	0	-	-	-	-	-	0.5	2.7	1.0	2.3	1.4	2.5	3.0	7.9	12.7	8.1	11.2	1.7	1.8	C16
Small intestine	4	0	-	-	-	-	-	-	-	-	-	-	-	-	1.3	1.8	2.7	2.2	0.2	0.2	C17
Colon	63	0	-	-	-	-	-	1.8	0.5	1.0	4.6	4.8	7.4	6.1	18.4	7.2	10.8	9.0	2.5	2.8	C18
Rectum	43	0	-	-	-	-	0.5	-	1.3	-	2.8	4.8	1.6	2.0	13.2	7.2	8.1	13.5	1.7	1.9	C19-C21
Liver	711	0	0.5	0.4	-	0.9	1.8	1.4	2.2	7.1	16.5	37.6	85.9	123.0	169.7	202.7	181.4	139.1	28.1	32.7	C22
Gallbladder etc.	34	0	-	-	-	-	-	0.5	-	-	-	1.4	4.9	5.0	9.2	7.2	5.4	15.7	1.3	1.6	C23-C24
Pancreas	14	0	-	-	-	-	-	-	-	-	2.3	0.7	0.8	1.0	5.3	3.6	2.7	-	0.6	0.6	C25
Nose, sinuses etc.	7	0	-	-	-	-	-	-	-	-	1.1	-	2.5	-	1.3	1.8	-	-	0.3	0.3	C30-C31
Larynx	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C32
Bronchus, lung	159	0	-	-	-	0.4	1.8	1.4	3.1	4.0	5.7	8.2	18.0	23.2	26.3	34.4	43.3	31.4	6.3	7.0	C33-C34
Other thoracic organs	7	0	-	-	-	0.9	0.5	0.5	-	-	0.6	-	0.8	-	2.6	-	-	-	0.3	0.3	C37-C38
Bone	24	0	-	-	1.3	0.9	0.5	-	0.5	0.5	0.6	-	1.6	4.0	2.6	3.6	5.4	6.7	0.9	1.0	C40-C41
Connective tissue	29	0	-	-	0.4	0.4	-	1.8	1.8	1.5	2.3	0.7	-	2.0	5.3	1.8	-	-	1.1	1.2	C47-C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	9	0	-	-	-	-	-	0.5	0.5	-	-	1.4	0.8	2.0	2.6	-	-	-	0.4	0.4	C43
Other skin	63	0	-	-	-	-	-	-	-	0.5	0.6	1.4	3.3	7.1	17.1	9.1	35.2	38.1	2.5	3.0	C44
Breast	293	0	-	-	-	-	0.5	2.3	5.8	18.1	29.6	40.3	35.2	33.3	28.9	19.9	21.7	22.4	11.6	11.6	C50
Uterus unspecified	6	0	-	-	-	-	-	-	-	0.5	0.6	1.4	0.8	-	-	1.8	-	-	0.2	0.2	C55
Cervix uteri	365	0	-	-	-	1.3	1.4	1.8	7.6	15.1	28.4	41.7	45.8	47.4	48.7	47.1	37.9	38.1	14.4	15.0	C53
Placenta	21	0	-	-	0.4	1.3	1.4	3.2	0.9	1.0	0.6	1.4	-	-	-	-	-	-	0.8	0.7	C58
Corpus uteri	47	0	-	-	-	-	-	3.6	6.7	5.0	3.4	6.8	9.8	6.1	6.6	5.4	8.1	-	1.9	2.0	C54
Ovary etc.	141	0	-	-	-	1.3	3.2	-	-	-	7.4	12.3	17.8	19.2	13.2	16.3	16.2	4.5	5.6	5.6	C56
Other female genital	12	0	-	-	-	-	-	-	-	-	0.6	0.7	-	1.0	1.3	7.2	2.7	6.7	0.5	0.6	C51-C52; C57
Bladder	9	0	-	-	-	-	-	-	0.5	-	-	-	0.8	1.0	1.3	5.4	2.7	2.2	0.4	0.4	C67
Kidney etc.	11	0	0.5	-	-	-	-	-	-	-	0.6	0.7	2.5	1.0	-	5.4	-	2.2	0.4	0.5	C64-C66; C68
Eye	4	0	1.0	-	-	-	-	0.5	0.5	-	-	-	-	-	-	-	-	-	0.2	0.1	C69
Brain, nervous system	67	0	2.0	1.3	1.3	1.3	0.9	3.2	1.8	3.5	4.0	4.1	4.1	5.0	6.6	7.2	5.4	-	2.6	2.7	C70-C72
Thyroid	86	0	-	0.4	-	-	1.4	4.1	4.5	6.6	8.0	8.2	9.0	3.0	6.6	3.6	8.1	-	3.4	3.2	C73
Other endocrine	8	0	-	0.9	0.4	-	-	0.5	-	1.0	0.7	0.8	-	-	-	-	-	-	0.3	0.3	C74-C75
Hodgkin's disease	8	0	-	-	-	-	-	0.9	0.5	0.5	0.6	1.4	-	-	-	1.8	-	-	0.3	0.3	C81
Non-Hodgkin lymphoma	65	0	1.0	0.4	-	1.3	1.4	2.7	2.2	3.5	0.6	2.7	5.7	3.0	5.3	21.7	5.4	11.2	2.6	2.8	C82-C85; C96
Multiple myeloma	17	0	-	-	-	-	0.5	0.5	0.5	1.0	1.1	-	0.8	3.0	4.0	-	5.4	2.2	0.7	0.7	C88; C90
Lymphoid leukaemia	30	0	5.0	2.6	0.8	0.9	0.5	0.5	-	0.5	1.1	0.7	0.8	1.0	1.3	-	-	2.2	1.2	1.4	C91
Myeloid leukaemia	34	0	1.0	-	0.8	0.4	-	1.8	-	1.5	2.8	3.4	3.3	1.0	2.6	1.8	-	9.0	1.3	1.4	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	32	0	0.5	0.4	0.4	1.3	2.3	-	0.5	1.5	-	4.1	1.6	4.0	2.6	1.8	2.7	2.2	1.3	1.3	C95
Other and unspecified	274	0	1.0	0.4	0.4	-	2.7	4.1	6.2	7.1	8.5	13.7	24.6	38.3	67.1	65.2	51.4	40.4	10.8	12.1	O&U
All sites	2 899	0	29	16	15	30	45	86	117	168	249	309	370	358	393	309	195	210	114.6	125.3	ALL

Table 4 Khon Kaen (1995-1997), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	6	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	1	0	0.2 %	C00
Tongue	17	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3	5	0	0.5 %	C01-C02
Salivary gland	4	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0.1 %	C07-C08
Mouth	29	0	0	0	0	0	1	1	0	1	1	5	4	7	4	3	1	1	0.8 %	C03-C06
Oropharynx	10	0	0	0	0	0	0	0	0	0	2	0	1	2	2	1	1	1	0.3 %	C09-C10
Nasopharynx	53	0	0	0	0	0	0	2	2	4	1	3	2	8	13	9	3	5	1.4 %	C11
Hypopharynx	10	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	4	0.3 %	C12-C13
Pharynx unspecified	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.1 %	C14
Oesophagus	27	0	0	0	0	0	0	0	0	1	1	1	2	7	4	3	4	3	0.7 %	C15
Stomach	58	0	0	0	0	0	0	1	3	1	2	7	6	8	11	10	4	5	1.6 %	C16
Small intestine	16	0	0	0	0	0	0	2	0	1	4	0	2	3	2	0	1	1	0.4 %	C17
Colon	103	0	0	0	0	1	1	2	2	6	13	7	13	14	12	12	9	11	2.8 %	C18
Rectum	50	0	0	0	0	0	0	2	2	2	2	1	4	9	9	12	4	5	1.4 %	C19-C21
Liver	1 682	0	1	0	0	2	6	18	33	53	92	187	227	285	299	256	115	108	45.9 %	C22
Gallbladder etc.	32	0	0	0	0	0	0	0	0	0	2	1	0	4	7	6	3	9	0.9 %	C23-C24
Pancreas	20	0	0	0	0	0	1	0	1	0	2	1	4	1	4	4	2	0	0.5 %	C25
Nose, sinuses etc.	14	0	0	0	0	0	0	1	0	0	0	1	2	2	1	4	1	1	0.4 %	C30-C31
Larynx	24	0	0	0	0	0	0	0	0	1	0	1	0	3	5	5	4	4	0.7 %	C32
Bronchus, lung	387	0	0	0	0	3	6	14	18	14	14	23	39	51	70	66	37	32	10.6 %	C33-C34
Other thoracic organs	8	0	0	0	1	0	1	0	1	2	0	2	0	0	0	0	1	0	0.2 %	C37-C38
Bone	36	0	0	0	4	1	2	0	3	2	2	2	4	5	5	4	2	0	1.0 %	C40-C41
Connective tissue	17	0	2	0	1	3	0	0	1	0	1	0	2	0	2	0	1	2	0.5 %	C47, C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	10	0	0	0	0	0	0	1	0	2	0	0	0	1	1	1	1	0	0.3 %	C43
Other skin	83	0	0	0	1	1	0	0	1	1	3	11	4	20	10	11	10	10	2.3 %	C44
Breast	4	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0.1 %	C50
Prostate	34	0	0	0	0	0	0	0	0	0	0	0	2	2	5	4	13	8	0.9 %	C61
Testis	19	0	0	0	0	0	1	2	7	1	2	0	2	1	1	1	1	0	0.5 %	C62
Penis	36	0	0	0	0	0	0	0	0	1	4	2	3	4	5	4	7	4	1.0 %	C60
Other male genital	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0.1 %	C63
Bladder	59	0	1	0	0	0	0	0	1	2	3	5	3	6	10	8	8	12	1.6 %	C67
Kidney etc.	30	0	1	1	0	0	0	0	1	1	0	3	0	0	1	4	1	0	0.8 %	C64-C66; C68
Eye	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C69
Brain, nervous system	78	0	6	5	2	3	5	10	8	12	7	3	5	3	3	4	0	2	2.1 %	C70-C72
Thyroid	18	0	0	0	0	0	1	1	0	1	1	5	3	1	1	2	1	1	0.5 %	C73
Other endocrine	5	0	0	0	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0.1 %	C74-C75
Hodgkin's disease	6	0	0	0	0	0	0	2	1	0	0	1	1	1	1	0	0	0	0.2 %	C81
Non-Hodgkin lymphoma	83	0	2	2	2	1	3	9	4	10	5	6	7	4	4	7	10	7	2.3 %	C82-C85; C96
Multiple myeloma	10	0	0	0	0	0	0	0	0	1	0	1	0	3	0	2	1	2	0.3 %	C88; C90
Lymphoid leukaemia	32	0	13	2	1	1	1	3	2	1	3	0	1	0	2	2	0	0	0.9 %	C91
Myeloid leukaemia	35	0	2	0	1	2	1	4	6	0	2	3	2	5	3	1	0	3	1.0 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	41	0	2	1	0	2	6	8	4	2	1	3	3	3	2	2	1	1	1.1 %	C95
Other and unspecified	470	0	5	1	2	5	14	44	22	18	24	23	62	71	64	57	27	31	12.8 %	O&U
All sites	3 661	0	35	15	19	26	51	125	128	148	198	311	424	542	575	511	277	276	100 %	ALL

Table 5 Khon Kaen (1995-1997), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	54	0	0	0	0	0	0	0	0	0	0	1	3	6	12	12	11	7	1.9 %	C00
Tongue	15	0	0	0	0	0	0	0	0	0	0	1	0	3	1	3	2	2	0.5 %	C01-C02
Salivary gland	10	0	0	0	0	0	0	0	3	0	1	0	1	1	1	1	1	1	0.3 %	C07-C08
Mouth	45	0	0	0	0	0	0	0	0	0	1	0	3	2	11	9	4	15	1.6 %	C03-C06
Oropharynx	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C09-C10
Nasopharynx	25	0	0	0	0	0	0	2	1	3	2	2	5	2	3	3	1	1	0.9 %	C11
Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1 %	C12-C13
Pharynx unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C14
Oesophagus	8	0	0	0	0	0	0	1	6	0	0	2	0	1	1	1	1	1	0.3 %	C15
Stomach	42	0	0	0	0	0	0	1	0	2	4	2	3	3	6	7	3	5	1.4 %	C16
Small intestine	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.1 %	C17
Colon	63	0	0	0	0	0	0	4	1	2	8	7	9	6	14	4	4	4	2.2 %	C18
Rectum	43	0	0	0	0	0	1	0	3	0	5	7	2	2	10	4	3	6	1.5 %	C19-C21
Liver	711	0	1	1	0	2	4	3	5	14	29	55	105	122	129	112	67	62	24.5 %	C22
Gallbladder etc.	34	0	0	0	0	0	0	1	0	0	0	2	6	5	7	4	2	7	1.2 %	C23-C24
Pancreas	14	0	0	0	0	0	0	0	0	0	4	1	1	1	4	2	1	0	0.5 %	C25
Nose, sinuses etc.	7	0	0	0	0	0	0	0	0	0	2	0	3	0	1	1	0	0	0.2 %	C30-C31
Larynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C32
Bronchus, lung	159	0	0	0	0	1	4	3	7	8	10	12	22	23	20	19	16	14	5.5 %	C33-C34
Other thoracic organs	7	0	0	0	0	2	1	0	1	0	1	0	1	0	2	0	0	0	0.2 %	C37-C38
Bone	24	0	0	0	0	0	0	0	0	0	1	0	2	4	2	2	2	3	0.8 %	C40-C41
Connective tissue	29	0	4	0	1	1	0	4	4	3	4	1	0	2	4	1	0	0	1.0 %	C47, C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	9	0	0	0	0	0	0	1	1	0	0	2	1	2	2	0	0	0	0.3 %	C43
Other skin	63	0	0	0	0	0	0	0	0	1	1	2	4	7	13	5	13	17	2.2 %	C44
Breast	293	0	0	0	0	0	1	5	13	36	52	59	43	33	22	11	8	10	10.1 %	C50
Uterus unspecified	6	0	0	0	0	0	0	0	0	1	1	2	1	0	0	1	0	0	0.2 %	C55
Cervix uteri	365	0	0	0	0	3	3	4	17	30	50	61	56	47	37	26	14	17	12.6 %	C53
Placenta	21	0	0	0	1	3	3	7	2	2	1	2	0	0	0	0	0	0	0.7 %	C58
Corpus uteri	47	0	0	0	0	0	0	0	0	2	6	10	12	6	5	3	3	0	1.6 %	C54
Ovary etc.	141	0	0	0	0	3	7	8	15	10	13	18	21	19	10	9	6	2	4.9 %	C56
Other female genital	12	0	0	0	0	0	0	0	0	0	1	1	0	1	1	4	1	3	0.5 %	C51-C52; C57
Bladder	9	0	0	0	0	0	0	0	1	0	0	0	1	1	1	3	1	1	0.3 %	C67
Kidney etc.	11	0	1	0	0	0	0	0	0	0	1	1	3	1	0	0	0	1	0.4 %	C64-C66; C68
Eye	4	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0.1 %	C69
Brain, nervous system	67	0	4	3	3	3	2	7	4	7	7	6	5	5	5	4	2	0	2.3 %	C70-C72
Thyroid	86	0	0	1	0	0	3	9	10	13	14	12	11	3	5	2	3	0	3.0 %	C73
Other endocrine	8	0	0	2	1	0	0	1	0	2	0	1	1	0	0	0	0	0	0.3 %	C74-C75
Hodgkin's disease	8	0	0	0	0	0	0	2	1	1	1	2	0	0	0	1	0	0	0.3 %	C81
Non-Hodgkin lymphoma	65	0	2	1	0	3	3	6	5	7	1	4	7	3	4	12	2	5	2.2 %	C82-C85; C96
Multiple myeloma	17	0	0	0	0	1	1	1	1	1	2	0	1	1	3	0	2	1	1.0 %	C91
Lymphoid leukaemia	30	0	10	6	2	2	1	1	0	1	2	1	1	1	1	0	0	4	1.2 %	C92
Myeloid leukaemia	34	0	2	0	2	1	0	4	0	3	5	5	4	1	2	1	0	0	0.0 %	C93
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C95
Leukaemia unspecified	32	0	1	1	1	3	5	0	1	3	0	6	2	4	2	1	1	1	1.1 %	O&U
Other and unspecified	274	0	2	1	1	0	6	9	14	14	15	20	30	38	51	36	19	18	9.5 %	
All sites	2 899	0	29	16	15	30	45	86	117	168	249	309	370	358	393	309	195	210	100 %	ALL

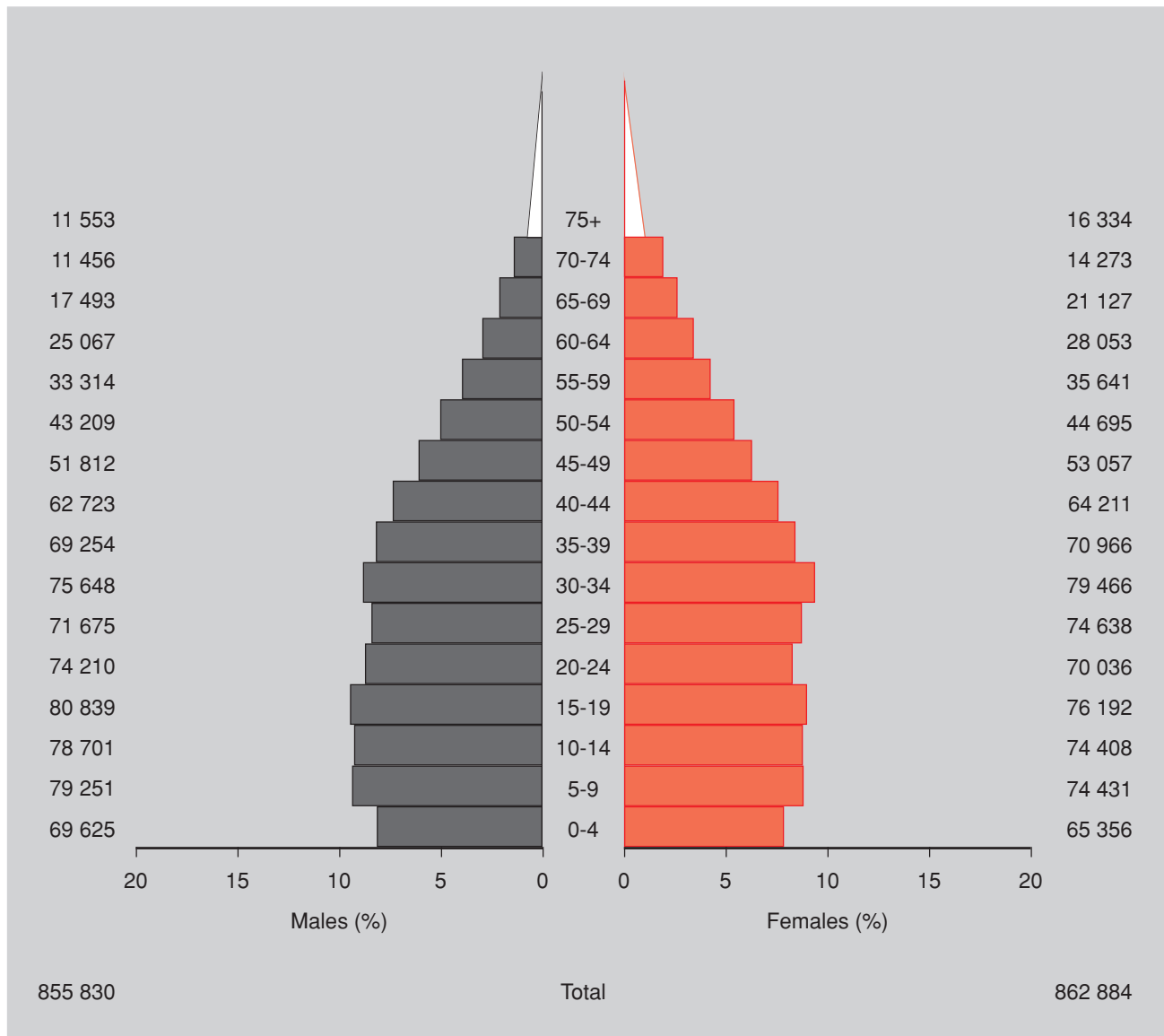
Figure 3 Population pyramid, Khon Kaen, 1999

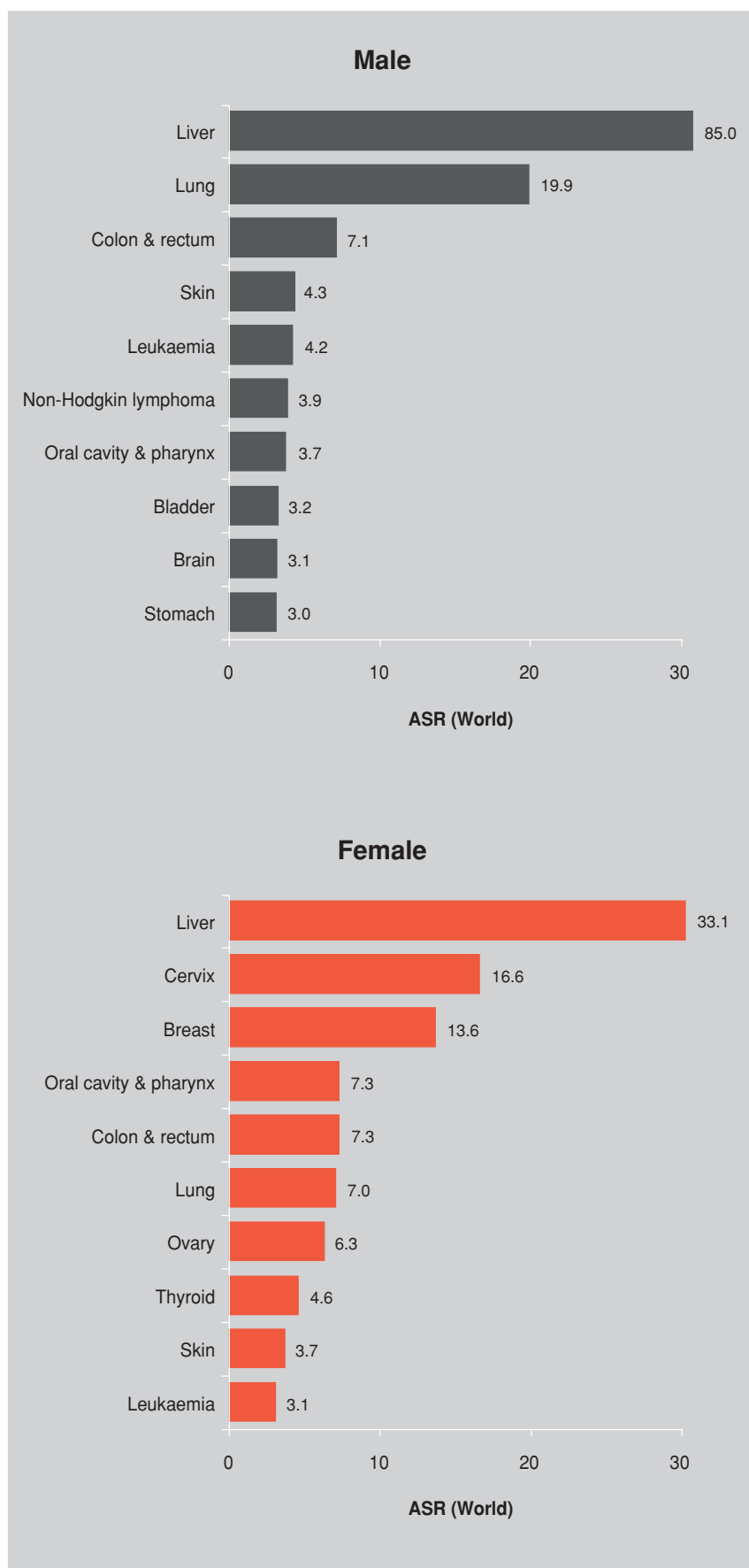
Figure 4 Leading cancers in Khon Kaen, 1998-2000

Table 6 Percentage of histologically verified and death certificate only cases, Khon Kaen 1998-2000

	Male			Female		
	Cases	%HV	%DCO	Cases	%HV	%DCO
Oral cavity	80	80.0	0.0	168	86.1	0.6
Oropharynx	16	81.3	0.0	2	0.0	0.0
Nasopharynx	65	83.1	0.0	36	80.6	0.0
Other pharynx	9	100.0	0.0	4	100.0	0.0
Oesophagus	39	48.7	0.0	15	46.7	0.0
Stomach	83	81.9	1.2	59	50.8	0.0
Small intestine	8	62.5	0.0	3	33.3	0.0
Colon	111	43.2	0.0	122	50.8	0.0
Rectum	72	63.9	0.0	60	68.3	0.0
Liver	1 656	6.4	0.4	794	7.6	0.1
Gallbladder etc.	71	40.8	0.0	68	47.1	0.0
Pancreas	23	30.4	0.0	23	17.4	0.0
Nose, sinuses etc.	16	81.3	0.0	6	100.0	0.0
Larynx	46	69.6	0.0	5	60.0	0.0
Bronchus, Lung	435	35.9	0.5	169	40.2	1.8
Other thoracic organ	11	9.1	0.0	2	0.0	0.0
Bone	16	43.8	0.0	13	38.5	0.0
Connective tissue	26	65.4	0.0	32	78.1	0.0
Melanoma of skin	10	100.0	0.0	13	100.0	0.0
Other skin	77	94.9	0.0	87	92.0	0.0
Breast	1	100.0	0.0	378	88.4	0.0
Prostate	49	65.3	0.0	0	0.0	0.0
Testis	14	57.1	0.0	0	0.0	0.0
Penis	42	71.4	0.0	0	0.0	0.0
Cervix uteri	0	0.0	0.0	445	80.0	0.0
Placenta	0	0.0	0.0	24	100.0	0.0
Corpus uteri	0	0.0	0.0	66	84.8	0.0
Ovary etc.	0	0.0	0.0	169	68.0	0.0
Other female genital	0	0.0	0.0	16	82.4	0.0
Bladder	86	68.6	0.0	16	68.8	0.0
Kidney etc.	36	77.8	0.0	28	67.9	0.0
Eye	8	62.5	0.0	6	50.0	0.0
Brain, nervous system	63	23.8	0.0	75	20.0	0.0
Thyroid	30	90.0	0.0	131	80.9	0.0
Other endocrine	14	21.4	0.0	13	7.7	0.0
Lymphoma	129	100.0	0.0	78	100.0	0.0
Leukemia and multiple myeloma	133	98.5	0.8	88	100.0	0.0
All sites	3 673	35.7	0.6	3 357	55.9	0.4

Table 7 Khon Kaen (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	5	0	-	-	-	-	-	-	-	-	-	-	1.5	-	1.3	-	-	5.8	0.2	0.2	C00
Tongue	37	0	-	-	-	-	-	-	-	0.5	1.1	4.5	0.8	8.0	5.3	3.8	8.7	26.0	1.4	1.7	C01-C02
Salivary gland	8	0	-	-	-	-	0.5	-	-	-	1.1	-	-	-	2.7	-	2.9	2.9	0.3	0.3	C07-C08
Mouth	30	0	-	-	-	-	-	-	-	-	1.1	2.6	2.3	3.0	5.3	5.7	8.7	23.1	1.2	1.5	C03-C06
Oropharynx	16	0	-	-	-	-	-	-	-	-	2.7	1.3	-	1.0	1.3	1.9	8.7	8.7	0.6	0.7	C09-C10
Nasopharynx	65	0	-	0.4	-	-	0.5	0.4	3.4	3.4	3.2	7.1	3.9	9.0	14.6	11.4	17.5	2.9	2.5	2.8	C11
Hypopharynx	8	0	-	-	-	-	-	-	-	-	0.5	0.6	-	-	1.3	3.8	2.9	5.8	0.3	0.4	C12-C13
Pharynx unspecified	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.9	-	0.0	0.1	C14
Oesophagus	39	0	-	-	-	-	-	-	0.4	-	1.1	1.9	0.8	6.0	5.3	13.3	20.4	23.1	1.5	2.0	C15
Stomach	83	0	-	-	-	-	-	-	0.9	2.4	2.1	6.4	6.9	10.0	16.0	26.7	32.0	17.3	3.2	3.9	C16
Small intestine	8	0	-	-	-	-	-	-	-	-	-	-	0.8	1.0	-	3.8	5.8	5.8	0.3	0.4	C17
Colon	111	0	-	-	-	-	0.4	0.9	2.2	1.0	4.3	7.1	8.5	11.0	23.9	28.6	37.8	40.4	4.3	5.2	C18
Rectum	72	0	-	-	-	-	-	0.4	1.4	1.4	3.2	3.9	3.1	16.0	9.3	19.1	23.3	31.7	2.8	3.4	C19-C21
Liver	1 656	1	-	0.4	-	1.2	0.4	3.3	10.1	26.9	53.1	71.4	159.7	238.1	396.2	462.9	593.4	470.2	64.5	78.7	C22
Gallbladder etc.	71	0	-	-	-	-	-	-	-	-	1.1	4.5	8.5	12.0	17.3	17.1	23.3	26.0	2.8	3.4	C23-C24
Pancreas	23	0	-	-	-	-	-	0.5	0.4	-	2.1	1.3	0.8	2.0	2.7	9.5	5.8	8.7	0.9	1.1	C25
Nose, sinuses etc.	16	0	-	-	-	-	-	-	-	0.5	-	1.9	1.5	5.0	-	3.8	5.8	2.9	0.6	0.7	C30-C31
Larynx	46	0	-	-	-	-	-	-	-	-	1.1	3.9	3.1	7.0	13.3	9.5	11.6	23.1	1.8	2.2	C32
Bronchus, lung	435	0	-	-	-	-	1.3	1.9	2.6	4.8	10.6	24.4	33.2	56.0	97.1	150.5	148.4	150.0	16.9	21.1	C33-C34
Other thoracic organs	11	0	0.5	-	-	-	-	0.5	0.4	1.0	-	-	0.8	1.0	1.3	-	2.9	2.9	0.4	0.5	C37-C38
Bone	16	0	-	-	-	-	1.3	0.9	-	0.5	-	0.6	2.3	1.0	4.0	1.9	-	2.9	0.6	0.7	C40-C41
Connective tissue	26	0	2.4	-	-	-	0.5	-	-	1.0	2.1	0.6	1.5	1.0	5.3	5.7	2.9	-	1.0	1.2	C47, C49
Mesothelioma	1	0	-	-	-	-	-	-	-	-	-	-	-	1.0	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	10	0	-	-	-	-	-	-	-	0.5	0.5	0.6	-	1.0	2.7	5.7	2.9	-	0.4	0.5	C43
Other skin	77	0	-	-	-	-	-	1.9	-	0.5	1.6	1.9	8.5	7.0	16.0	19.1	34.9	40.4	3.0	3.8	C44
Breast	1	0	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	0.0	0.0	C50
Prostate	49	0	-	-	-	-	-	-	-	0.5	-	-	-	5.0	6.6	7.6	34.9	63.5	1.9	2.7	C61
Testis	14	0	0.5	0.4	-	0.4	0.4	-	1.8	1.0	0.5	-	0.8	1.0	-	1.9	-	-	0.5	0.5	C62
Penis	42	0	-	-	-	-	-	0.5	0.9	1.0	0.5	1.9	3.9	9.0	5.3	13.3	11.6	11.5	1.6	1.9	C60
Other male genital	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C63
Bladder	86	0	-	-	-	-	0.9	-	0.4	-	1.1	4.5	5.4	10.0	21.3	26.7	37.8	40.4	3.3	4.3	C67
Kidney etc.	36	0	0.5	-	-	-	0.4	-	-	1.0	1.1	2.6	3.9	4.0	9.3	13.3	5.8	2.9	1.4	1.7	C64-C66; C68
Eye	9	0	1.4	-	-	-	-	-	-	-	-	-	0.6	0.8	-	-	5.8	5.8	0.4	0.5	C69
Brain, nervous system	63	0	1.0	1.7	1.7	-	1.3	2.3	1.3	1.9	2.7	5.1	3.1	7.0	9.3	3.8	8.7	5.8	2.5	2.6	C70-C72
Thyroid	30	0	-	-	0.4	0.4	-	1.4	0.4	1.0	1.1	2.6	3.1	1.0	8.0	1.9	5.8	5.8	1.2	1.3	C73
Other endocrine	14	0	0.5	0.4	0.4	0.4	-	0.9	0.9	1.0	0.5	0.6	0.8	-	1.3	-	-	-	0.5	0.5	C74-C75
Hodgkin's disease	10	0	-	0.4	-	0.4	0.4	-	0.4	0.5	0.5	-	1.5	1.0	-	-	-	2.9	0.4	0.4	C81
Non-Hodgkin lymphoma	119	0	1.4	0.8	0.8	0.4	1.3	2.8	4.0	4.3	6.4	8.4	8.5	11.0	12.0	17.1	29.1	26.0	4.6	5.0	C82-C85; C96
Multiple myeloma	24	0	-	-	-	-	-	-	0.4	0.5	1.1	0.6	2.3	4.0	4.0	7.6	8.7	5.8	0.9	1.1	C88, C90
Lymphoid leukaemia	51	0	6.7	3.4	3.4	0.4	1.3	1.4	0.9	1.0	2.1	0.6	1.5	2.0	1.3	-	-	-	2.0	2.2	C91
Myeloid leukaemia	39	0	0.5	1.3	-	0.8	-	0.9	0.9	2.4	1.1	1.3	4.6	4.0	6.6	5.7	2.9	2.9	1.5	1.6	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	19	0	1.0	-	-	0.4	0.4	-	1.8	1.9	0.5	-	1.5	-	1.3	1.9	2.9	2.9	0.7	0.7	C95
Other and unspecified	196	0	0.5	-	-	0.8	1.3	5.6	4.0	3.4	4.8	7.7	17.7	26.0	33.2	55.2	55.3	54.8	7.6	9.0	O&U
All sites	3 673	1	17	9	8	6	12	27	37	65	116	183	309	482	762	960	1 213	1 151	1 430	1 72.6	ALL

Table 8 Khon Kaen (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (w)	ICD (10th)
Lip	68	0	-	-	-	-	-	-	0.4	0.5	-	0.6	0.7	5.6	10.7	33.1	28.0	32.6	2.6	3.0	C00
Tongue	24	0	-	-	-	-	-	0.9	-	1.4	-	1.3	1.5	5.6	2.4	4.7	-	8.2	0.9	0.9	C01-C02
Salivary gland	10	0	-	-	-	-	0.5	0.9	-	-	1.0	0.6	1.5	-	-	1.6	-	2.0	0.4	0.4	C07-C08
Mouth	64	0	-	-	-	-	-	0.4	0.4	-	0.5	1.9	4.5	7.5	7.1	23.7	28.0	24.5	2.5	2.7	C03-C06
Oropharynx	2	0	-	-	-	-	-	-	-	-	-	0.6	-	0.9	-	-	-	-	0.1	0.1	C09-C10
Nasopharynx	36	0	-	-	-	-	0.5	0.4	0.8	2.3	1.0	2.5	4.5	2.8	3.6	4.7	4.7	8.2	1.4	1.4	C11
Hypopharynx	4	0	-	-	-	-	-	-	-	-	-	1.9	0.7	-	-	-	-	-	0.2	0.2	C12-C13
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C14
Oesophagus	15	0	-	-	-	-	-	-	-	0.5	1.0	0.6	2.2	2.8	2.4	-	2.3	4.1	0.6	0.6	C15
Stomach	59	0	-	-	-	-	0.5	-	0.4	0.9	3.1	1.3	8.2	7.5	10.7	11.0	21.0	6.1	2.3	2.4	C16
Small intestine	3	0	-	-	-	-	-	-	-	-	-	-	-	0.9	1.2	1.6	-	-	0.1	0.1	C17
Colon	122	0	-	-	-	-	-	0.4	1.3	2.3	2.6	8.2	11.2	17.8	17.8	25.2	32.7	32.6	4.7	4.9	C18
Rectum	60	0	-	-	-	-	0.5	-	0.8	1.4	2.1	6.9	3.7	8.4	7.1	14.2	11.7	10.2	2.3	2.4	C19-C21
Liver	794	2	-	-	-	-	1.4	0.4	3.4	7.0	16.1	42.7	64.1	119.7	187.7	192.4	191.5	183.6	30.7	33.1	C22
Gallbladder etc.	68	0	-	-	-	-	-	0.4	1.4	1.0	3.1	8.2	11.2	13.1	14.2	16.3	14.3	2.6	2.8	2.8	C23-C24
Pancreas	23	0	-	-	-	-	-	-	-	-	0.5	3.8	1.5	0.9	4.8	3.2	4.7	10.2	0.9	1.0	C25
Nose, sinuses etc.	6	0	-	-	-	-	-	-	-	0.5	1.0	-	-	0.9	1.2	-	-	2.0	0.2	0.2	C30-C31
Larynx	5	0	-	-	-	-	-	-	-	-	-	1.3	-	-	1.2	3.2	-	-	0.2	0.2	C32
Bronchus, lung	169	0	-	-	-	-	1.0	0.4	1.3	1.4	-	9.4	14.2	22.4	35.6	31.5	56.0	40.8	6.5	7.0	C33-C34
Other thoracic organs	2	0	-	-	-	-	-	-	-	-	4.2	-	-	-	-	-	-	-	0.1	0.1	C37-C38
Bone	13	0	-	-	-	-	0.5	-	-	0.5	1.0	-	-	-	3.6	-	2.3	2.0	0.5	0.5	C40-C41
Connective tissue	32	0	3.1	-	0.4	0.4	0.5	0.4	0.4	1.4	1.6	0.6	3.0	5.6	1.2	-	2.3	6.1	1.2	1.3	C47; C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	1.0	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	13	0	-	0.4	0.4	0.9	0.5	-	-	-	-	0.6	0.7	1.9	-	-	4.7	4.1	0.5	0.5	C43
Other skin	87	0	-	-	-	0.4	-	-	2.1	0.5	1.0	1.3	3.0	5.6	11.9	36.3	25.7	44.9	3.4	3.7	C44
Breast	378	0	-	-	-	-	0.5	1.8	12.6	19.3	35.8	37.1	44.7	36.5	38.0	28.4	18.7	34.7	14.6	13.6	C50
Uterus unspecified	1	0	-	-	-	-	-	-	-	-	-	-	-	0.9	-	-	-	-	0.0	0.0	C55
Cervix uteri	445	1	-	-	-	-	-	1.8	8.0	20.7	32.7	38.3	55.9	58.9	52.3	47.3	51.4	38.8	17.2	16.6	C53
Placenta	24	0	-	-	-	-	3.3	0.9	1.3	0.5	3.1	-	-	-	-	-	-	-	0.9	0.8	C58
Corpus uteri	66	0	-	-	-	-	-	0.4	0.4	1.4	5.7	6.9	6.0	13.1	10.7	9.5	4.7	-	2.5	2.5	C54
Ovary etc.	169	0	0.5	0.4	1.3	2.6	1.9	2.7	5.5	8.5	6.7	15.1	12.7	21.5	21.4	15.8	14.0	12.2	6.5	6.3	C56
Other female genital	16	0	-	-	-	-	-	-	0.8	-	-	1.3	3.0	0.9	1.2	4.7	-	6.1	0.6	0.6	C51-C52; C57
Bladder	16	0	-	-	-	-	-	-	-	0.5	0.5	0.6	1.5	3.7	2.4	4.7	-	4.1	0.6	0.6	C67
Kidney etc.	28	0	-	-	-	-	-	0.4	0.8	0.5	2.1	1.3	4.5	2.8	1.2	6.3	7.0	2.0	1.1	1.0	C64-C66; C68
Eye	6	0	0.5	-	-	-	-	-	0.4	-	0.5	-	-	-	2.4	-	2.3	-	0.2	0.3	C69
Brain, nervous system	75	0	0.5	0.9	2.7	0.4	1.9	1.3	3.8	1.9	2.6	8.8	6.0	2.8	5.9	11.0	2.3	4.1	2.9	2.8	C70-C72
Thyroid	131	0	-	-	0.4	0.4	3.3	3.6	7.1	7.5	9.3	10.0	9.7	10.3	9.5	11.0	7.0	10.2	5.1	4.6	C73
Other endocrine	13	0	-	0.9	-	0.4	0.5	1.8	-	0.5	0.5	0.6	0.7	0.9	-	-	-	-	0.5	0.5	C74-C75
Hodgkin's disease	4	0	-	-	-	-	-	-	-	-	1.0	-	-	1.9	-	-	-	-	0.2	0.1	C81
Non-Hodgkin lymphoma	74	0	0.5	0.9	0.4	1.3	1.4	0.9	1.7	2.3	2.6	1.9	3.7	9.4	11.9	4.7	30.4	8.2	2.9	3.0	C82-C85; C96
Multiple myeloma	15	0	-	-	-	-	-	-	-	-	-	0.6	0.7	4.7	3.6	3.2	4.7	2.0	0.6	0.6	C88; C90
Lymphoid leukaemia	30	0	6.6	0.9	0.4	0.9	-	-	0.4	0.5	1.0	0.6	1.5	0.9	1.2	3.2	2.3	-	1.2	1.5	C91
Myeloid leukaemia	27	0	0.5	-	-	1.3	1.9	0.9	1.3	1.4	1.0	0.6	0.7	-	4.8	3.2	2.3	-	1.0	1.0	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	15	0	-	0.4	0.4	-	1.9	0.4	0.4	-	0.5	0.6	0.7	0.9	2.4	1.6	-	-	0.6	0.6	C95
Other and unspecified	144	0	-	-	-	-	1.4	3.1	2.9	0.5	3.1	3.8	11.9	18.7	30.9	33.1	42.0	26.5	5.6	5.9	O&U
All sites	3 357	3	12	5	8	12	24	24	59	88	148	217	298	417	523	588	621	588	129.7	132.6	ALL

Table 9 Khon Kaen (1998-2000), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	5	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	2	0.1 %	C00
Tongue	37	0	0	0	0	0	0	0	0	1	2	7	1	8	4	2	3	9	1.0 %	C01-C02
Salivary gland	8	0	0	0	0	0	0	1	1	0	2	0	0	0	2	0	1	1	0.2 %	C07-C08
Mouth	30	0	0	0	0	0	0	0	0	0	2	4	3	3	4	3	3	8	0.8 %	C03-C06
Oropharynx	16	0	0	0	0	0	0	0	0	0	5	2	0	1	1	1	3	3	0.4 %	C09-C10
Nasopharynx	65	0	0	1	0	0	0	1	1	7	6	11	5	9	11	6	6	1	1.8 %	C11
Hypopharynx	8	0	0	0	0	0	0	0	0	0	1	1	0	0	1	2	1	2	0.2 %	C12-C13
Pharynx unspecified	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C14
Oesophagus	39	0	0	0	0	0	0	0	1	0	2	3	1	6	4	7	7	8	1.1 %	C15
Stomach	83	0	0	0	0	0	0	0	0	2	4	10	9	10	12	14	11	6	2.3 %	C16
Small intestine	8	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2	2	0.2 %	C17
Colon	111	0	0	0	0	0	1	2	5	2	8	11	11	11	18	15	13	14	3.0 %	C18
Rectum	71	0	0	0	0	0	0	0	1	3	6	6	4	16	7	10	8	11	2.0 %	C19-C21
Liver	1 656	1	01	0	0	3	1	7	23	56	100	111	207	238	298	243	204	163	45.1 %	C22
Gallbladder etc.	71	0	0	0	0	0	0	0	0	0	2	7	11	12	13	9	8	9	1.9 %	C23-C24
Pancreas	23	0	0	0	0	0	0	1	1	0	4	2	1	2	2	5	2	3	0.6 %	C25
Nose, sinuses etc.	16	0	0	0	0	0	0	0	0	1	0	3	2	5	0	2	2	1	0.4 %	C30-C31
Larynx	46	0	0	0	0	0	0	0	0	0	2	6	4	7	10	5	4	8	1.3 %	C32
Bronchus, lung	435	0	0	0	0	0	3	4	6	10	20	38	43	56	73	79	51	52	11.8 %	C33-C34
Other thoracic organs	11	0	1	0	0	1	0	1	1	2	0	0	1	1	1	0	1	1	0.3 %	C37-C38
Bone	16	0	5	0	0	0	3	2	0	1	0	1	3	1	3	1	0	1	0.4 %	C40-C41
Connective tissue	26	0	0	0	0	0	0	1	0	2	4	1	2	1	4	3	1	0	0.7 %	C47, C49
Mesothelioma	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	10	0	0	0	0	0	0	0	0	1	1	1	0	1	2	3	1	0	0.3 %	C43
Other skin	77	0	0	0	0	0	0	4	0	1	3	3	11	7	12	10	12	14	2.1 %	C44
Breast	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0 %	C50
Prostate	49	0	0	0	0	0	0	0	0	1	0	0	0	5	5	4	12	22	1.3 %	C61
Testis	14	0	1	1	0	1	1	0	4	2	1	0	1	1	0	1	0	0	0.4 %	C62
Penis	42	0	0	0	0	0	0	1	2	2	1	3	5	9	4	7	4	4	1.1 %	C60
Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C63
Bladder	86	0	0	0	0	0	2	0	1	0	2	7	7	10	16	14	13	14	2.3 %	C67
Kidney etc.	36	0	1	0	0	0	1	0	0	2	2	4	5	4	7	7	2	1	1.0 %	C64-C66; C68
Eye	9	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0.2 %	C69
Brain, nervous system	63	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3	2	1.7 %	C70-C72
Thyroid	30	0	0	0	1	1	0	3	3	4	5	8	4	7	6	2	2	2	0.8 %	C73
Other endocrine	14	0	1	1	1	1	0	2	2	2	1	1	1	0	1	0	0	0	0.4 %	C74-C75
Hodgkin's disease	10	0	0	2	1	1	3	6	9	11	13	13	11	11	9	9	10	9	3.2 %	C81
Non-Hodgkin lymphoma	119	0	3	2	2	1	0	1	1	2	4	1	2	4	3	4	3	2	0.7 %	C82-C85; C96
Multiple myeloma	24	0	0	0	0	0	0	0	1	1	2	1	3	4	3	4	3	2	0.7 %	C88; C90
Lymphoid leukaemia	51	0	14	8	8	1	3	3	2	2	4	1	2	2	1	0	0	0	1.4 %	C91
Myeloid leukaemia	39	0	1	3	0	2	0	2	2	5	2	2	6	4	5	3	1	1	1.1 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	19	0	2	0	0	1	1	0	4	4	1	0	2	0	1	1	1	1	0.5 %	C95
Other and unspecified	196	0	1	0	0	2	3	12	9	7	9	12	23	26	25	29	19	19	5.3 %	O&U
All sites	3 673	1	35	22	18	15	26	58	83	136	219	285	400	482	573	504	417	399	100.0 %	ALL

Table 10 Khon Kaen (1998-2000), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	68	0	0	0	0	0	0	0	1	1	0	0	1	6	9	21	12	16	2.0 %	C00
Tongue	24	0	0	0	0	0	0	2	0	3	0	2	2	6	2	3	0	4	0.7 %	C01-C02
Salivary gland	10	0	0	0	0	0	0	1	2	0	2	1	2	6	0	0	0	1	0.3 %	C07-C08
Mouth	64	0	0	0	0	0	0	0	1	0	1	3	6	8	6	15	12	12	1.9 %	C03-C06
Oropharynx	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0.1 %	C09-C10
Nasopharynx	36	0	0	0	0	0	1	1	2	5	2	4	6	3	3	3	2	4	1.1 %	C11
Hypopharynx	4	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0.1 %	C12-C13
Pharynx unspecified	15	0	0	0	0	0	0	0	0	0	0	1	3	3	2	0	1	0	0.0 %	C14
Oesophagus	59	0	0	0	0	0	0	0	0	1	2	2	11	8	9	7	9	3	0.4 %	C15
Stomach	3	0	0	0	0	0	0	0	0	2	0	0	0	1	1	1	0	0	1.8 %	C16
Small intestine	122	0	0	0	0	0	0	1	3	5	5	13	15	19	15	16	14	16	0.1 %	C17
Colon	60	0	0	0	0	0	1	0	2	3	4	11	5	9	6	9	5	5	3.6 %	C18
Rectum	794	2	0	0	0	0	3	0	8	15	31	68	86	128	158	122	82	90	1.8 %	C19-C21
Liver	68	0	0	0	0	0	0	0	1	3	2	5	11	12	11	4	7	7	23.7 %	C22
Gallbladder etc.	23	0	0	0	0	0	0	0	0	0	1	6	2	1	4	2	2	5	2.0 %	C23-C24
Pancreas	6	0	0	0	0	0	0	0	0	1	2	0	0	1	1	0	0	1	0.7 %	C25
Nose, sinuses etc.	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2 %	C30-C31
Larynx	169	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	0	0	0.1 %	C32
Bronchus, lung	13	0	0	0	0	0	0	0	3	3	8	15	19	24	30	20	24	20	5.0 %	C33-C34
Other thoracic organs	32	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0.1 %	C37-C38
Bone	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	1	0.4 %	C40-C41
Connective tissue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0 %	C47; C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4 %	C43
Other skin	378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6 %	C44
Breast	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.3 %	C50
Uterus unspecified	445	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C55
Cervix uteri	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.3 %	C53
Placenta	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7 %	C58
Corpus uteri	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0 %	C54
Ovary etc.	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0 %	C56
Other female genital	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5 %	C51-C52; C57
Bladder	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8 %	C67
Kidney etc.	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5 %	C64-C66; C68
Eye	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2 %	C69
Brain, nervous system	131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2 %	C70-C72
Thyroid	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9 %	C73
Other endocrine	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4 %	C74-C75
Hodgkin's disease	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C81
Non-Hodgkin lymphoma	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2 %	C82-C85; C96
Multiple myeloma	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4 %	C88; C90
Lymphoid leukaemia	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9 %	C91
Myeloid leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8 %	C92
Monocytic leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4 %	C95
Other and unspecified	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3 %	O&U
All sites	3 357	3	24	11	17	27	50	54	141	187	285	346	399	446	440	373	266	288	100.0 %	ALL

APPENDIX

D

BANGKOK
CANCER
REGISTRY*Sineenat Sontipong, M.Ed.**Nimit Martin, M.D.**Visoot Vootiprux, M.D.***GEOGRAPHY
AND POPULATION**

Bangkok Metropolis is the capital city of Thailand, located in the Central part covering an area of 1 565 square kilometers (National Statistical Office, 1994). It is bordered by Nonthaburi and Pathumthani province to the north, Chachaeng Soa to the east, Samut Prakan to the south, and Nakhon pathom, Samut Sakhon to the west. The climate is about 21 to 38°C. The total population at the 2000 census was 6.32 million. Nearly all people (98.9%) are Thai nationality. The density of population is about 4 061 per square kilometer. About 95.5% are Buddhists, a few are Muslims (4.3%), and the rest are Christians or others (National Statistical Office, 2002).

Data form Public Health statistics shows that Bangkok has the highest level of facilities for general health care. The ratio of population per physician is 793:1, while in other provinces is 6 237:1. National Cancer Institute and oncological units in the major teaching hospitals have provided specialized treatment for cancer patients not only in Bangkok, but for other provinces by mean of referral system.

REGISTRY PROCEDURES

National Cancer Institute developed a population-based cancer registry for Bangkok Metropolis in 1990. The work began with a retrospective review of records covering the period 1988-1990, which involved data collection from 42 hospitals, and 3 private laboratories. Smaller private hospitals and those under 50 beds were not included in the registry when the statistical report was published in

Cancer in Thailand (1988-1991).

The cancer registry gradually obtained increased cooperation from large hospitals and small private hospitals. In the period 1992-1994 the Bangkok Cancer registry collected information of cancer patients from 95 hospitals and 3 laboratories, and finally in the period 1995-1997, it collected data from 122 hospitals and 3 private laboratories.

The minimum information for each cancer patient consists of: registry number, name, residential address, date of birth, age, sex, date of diagnosis, tumors, date of last contact (alive or dead), site of cancer, cancer histology, method of diagnosis, extension of cancer, number of primary tumors. In each hospital, cases were ascertained from medical records, both in and outpatient departments, pathology records (including cytology, hematology, and autopsy reports), radiotherapy records, imaging reports, and from hospital tumor registry, if available. Data notification forms are checked for duplication and keyed into the data base, using the CanReg programme for data entry and analysis.

The primary site and histology are coded according to ICD-O second edition (Percy *et al.*, 1990). Second and subsequent primary cancers are also registered. A new registration number is given for each new primary cancer as indicated by the 3 digit ICD-O code, as specified in the ICD-O manual. Cases of carcinoma in situ are registered but not included in the calculation of incidence rates. Those that become invasive are re-registered as invasive carcinoma, with the behavior code changed to "3" (malignant).

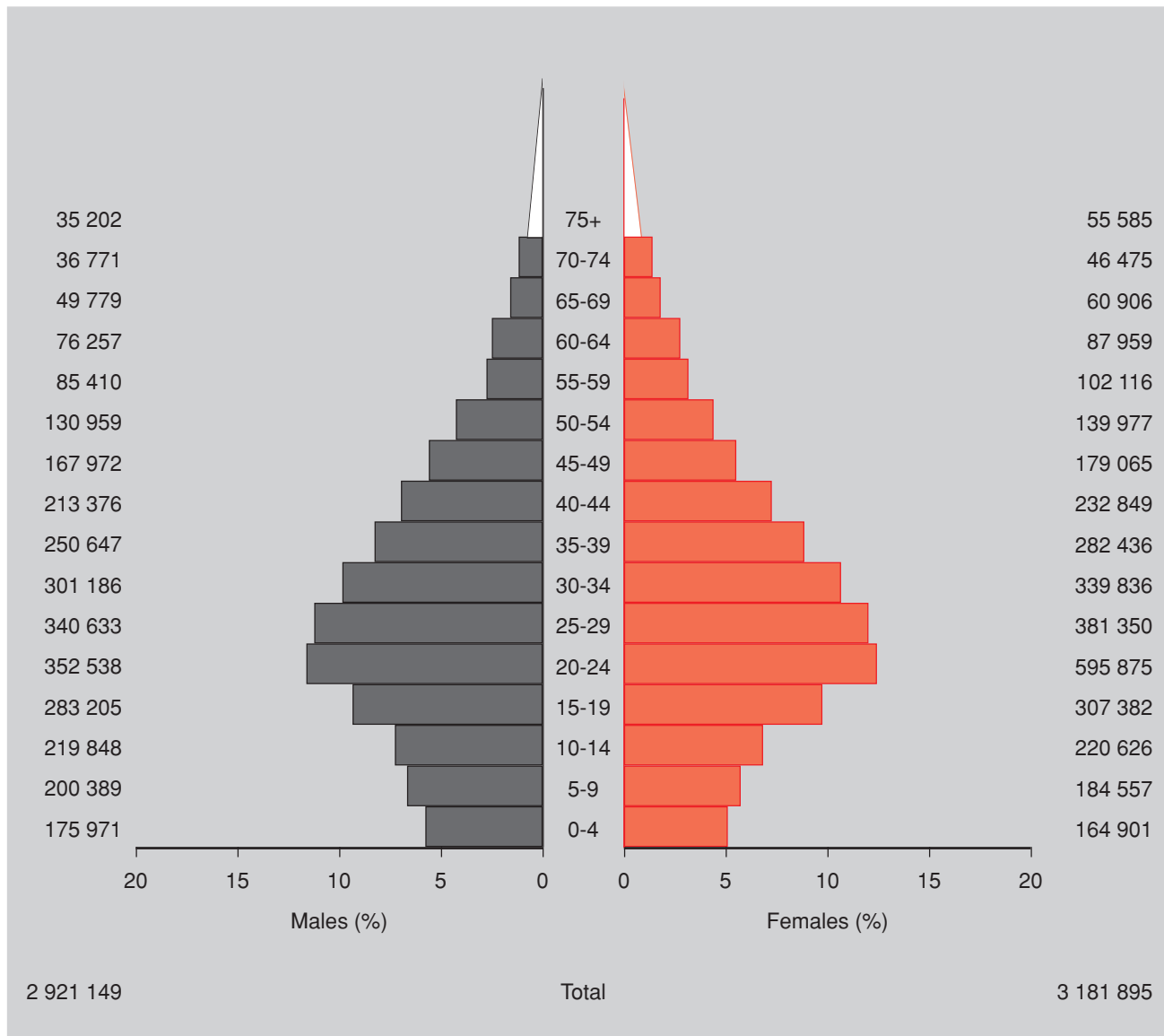
Figure 1 Population pyramid, Bangkok, 1996

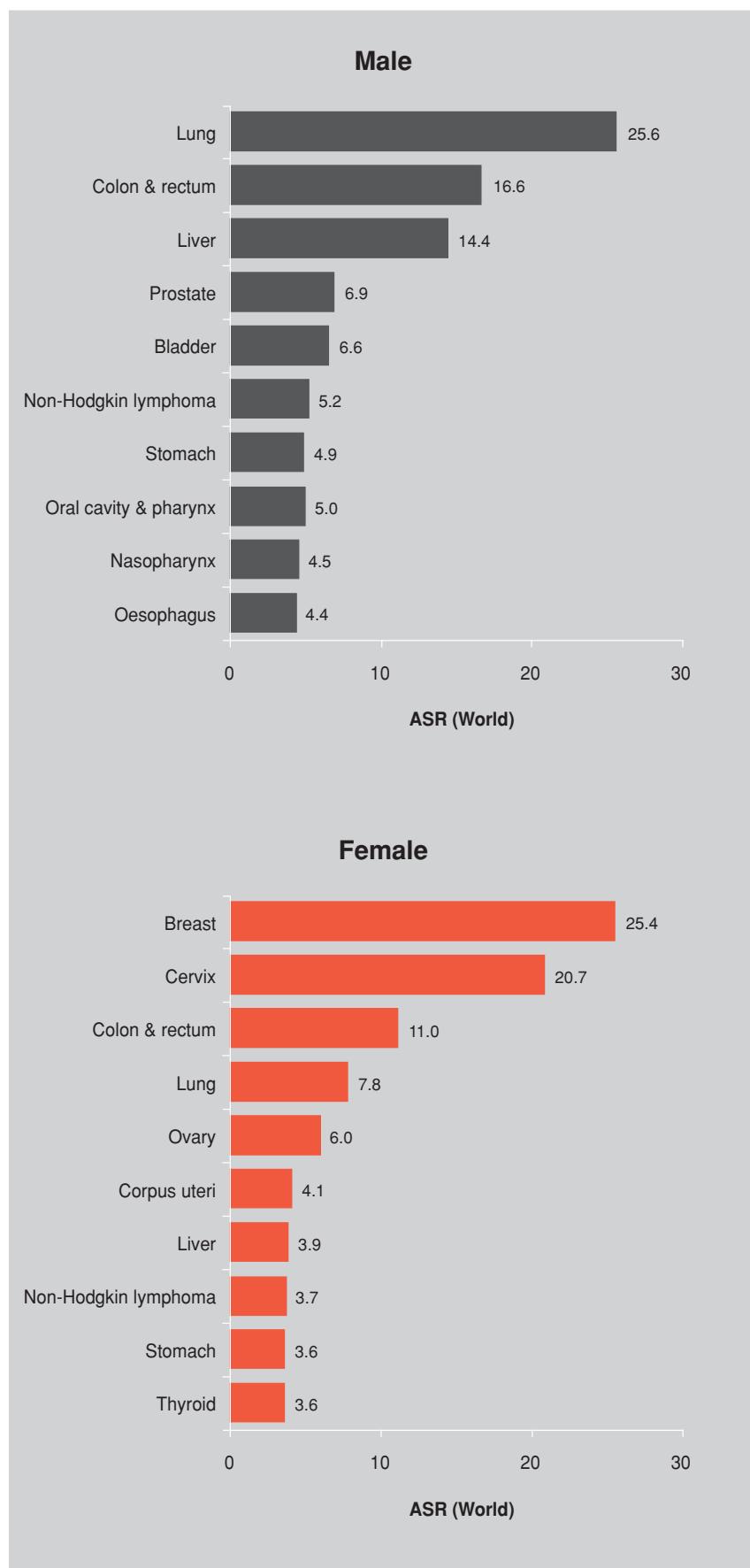
Figure 2 Leading cancers in Bangkok, 1995-1997

Table 1 Percentage of histologically verified and death certificate only cases, Bangkok 1995-1997

	Male			Female		
	Cases	%HV	%DCO	Cases	%HV	%DCO
Oral cavity	325	91.9	1.2	212	88.9	2.3
Nasopharynx	357	83.1	1.7	150	88.2	2.0
Other pharynx	105	89.6	3.3	14	86.7	6.7
Oesophagus	271	76.3	7.0	73	78.1	5.5
Stomach	304	81.8	7.9	304	79.6	7.0
Colon	659	80.4	5.8	574	79.8	4.9
Rectum	390	83.1	7.1	303	81.9	9.2
Liver	1 006	46.7	28.2	313	47.8	27.7
Gallbladder etc.	84	72.6	13.1	105	69.8	14.2
Pancreas	114	38.6	21.1	94	43.2	18.9
Larynx	248	87.6	6.8	20	95.0	5.0
Bronchus, lung	1 572	58.7	17.0	614	61.8	13.3
Bone	54	87.3	7.3	39	74.4	12.8
Skin	263	97.8	1.5	284	96.5	2.1
Female breast	0	0.0	0.0	2 296	86.7	2.6
Cervix uteri	0	0.0	0.0	1 880	87.0	1.9
Corpus uteri	0	0.0	0.0	337	92.3	2.7
Ovary, etc.	0	0.0	0.0	548	81.0	2.2
Prostate	383	58.2	3.6	0	0.0	0.0
Testis	33	84.2	2.6	0	0.0	0.0
Penis, other male genital	35	87.7	1.8	0	0.0	0.0
Bladder	402	88.6	2.0	140	100.0	0.0
Kidney, etc.	123	84.8	5.6	82	83.6	3.6
Brain, nervous system	186	61.3	24.6	167	89.3	0.3
Thyroid	96	84.4	1.0	381	78.7	12.1
Lymphoma	399	91.4	6.7	325	93.9	5.7
Leukaemia and multiple myeloma	305	91.1	8.4	225	87.7	11.4
All sites	9 447	65.8	20.3	10 807	78.6	10.3

Table 2 Bangkok (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	4	0	-	-	-	-	-	-	-	0.1	-	-	-	-	-	0.7	-	-	0.0	0.1	C00
Tongue	157	1	-	-	-	0.1	0.3	0.2	0.3	0.4	0.9	3.6	6.1	10.1	12.2	14.7	6.3	12.0	1.8	2.4	C01-C02
Salivary gland	28	0	-	-	-	-	0.3	0.1	0.3	0.4	0.3	0.2	0.8	0.8	0.4	1.3	1.8	4.6	0.3	0.4	C07-C08
Mouth	136	0	-	-	-	0.1	-	0.3	0.6	0.3	0.6	2.2	3.3	9.4	7.0	12.0	14.5	21.2	1.6	2.1	C03-C06
Oropharynx	73	0	-	-	-	-	0.1	0.1	0.2	0.3	0.8	1.6	0.5	3.9	5.2	9.4	7.2	7.4	0.8	1.2	C09-C10
Nasopharynx	357	1	-	-	-	0.8	0.2	1.1	2.8	5.6	8.4	8.1	13.5	15.6	9.6	18.7	17.2	11.0	4.1	4.5	C11
Hypopharynx	87	0	-	-	-	-	-	0.1	-	-	0.4	0.5	0.8	2.8	5.1	7.4	9.1	10.1	1.0	1.4	C12-C13
Pharynx unspecified	18	0	-	-	-	-	0.1	-	-	0.1	0.3	0.2	0.3	0.4	0.4	4.7	0.9	1.8	0.2	0.3	C14
Oesophagus	271	1	-	-	-	-	-	-	-	0.3	2.2	5.0	6.1	16.0	17.5	28.8	26.3	47.8	3.1	4.4	C15
Stomach	304	0	-	-	-	-	0.3	0.3	0.9	1.2	2.5	3.0	6.9	9.7	14.4	33.4	40.7	64.4	3.5	4.9	C16
Small intestine	20	0	-	-	-	-	-	-	0.1	0.1	0.2	0.8	0.3	0.4	0.9	1.3	2.7	3.7	0.2	0.3	C17
Colon	659	2	-	-	0.2	0.1	0.6	0.9	2.1	3.2	4.4	8.9	16.8	26.5	41.9	57.5	64.3	126.0	7.5	10.4	C18
Rectum	390	0	-	-	0.2	0.1	0.1	0.2	1.1	1.2	3.3	5.0	8.6	23.0	25.8	36.8	50.7	52.4	4.4	6.2	C19-C21
Liver	1 006	2	0.4	-	0.2	0.1	0.2	1.2	4.0	7.4	18.0	24.0	30.8	52.2	62.9	61.5	61.6	89.2	11.5	14.4	C22
Gallbladder etc.	83	1	-	-	-	-	-	-	-	0.7	1.4	2.2	1.8	3.9	2.2	4.0	9.1	17.5	0.9	1.2	C23-C24
Pancreas	114	0	-	-	-	-	-	0.1	-	0.1	0.9	2.2	5.1	5.8	7.0	11.4	5.4	19.3	1.3	1.8	C25
Nose, sinuses etc.	49	0	-	0.2	-	-	0.2	0.2	0.2	0.4	0.5	0.4	1.5	2.3	0.9	6.0	2.7	7.4	0.6	0.7	C30-C31
Larynx	248	2	-	-	-	-	-	0.1	0.6	1.1	1.2	3.0	5.8	13.6	21.4	21.4	29.9	34.0	2.8	4.0	C32
Bronchus, lung	1 572	8	-	-	0.2	0.1	0.4	1.3	3.6	4.3	10.0	17.0	29.7	78.7	127.0	165.0	184.0	247.0	17.9	25.6	C33-C34
Other thoracic organs	23	0	0.2	-	0.2	0.4	0.5	0.1	0.2	0.4	0.2	0.2	0.3	-	0.4	0.7	1.8	-	0.3	0.3	C37-C38
Bone	54	0	0.2	0.3	1.2	1.2	0.6	0.5	0.7	0.1	0.6	0.2	0.3	-	1.3	1.3	2.7	0.9	0.6	0.6	C40-C41
Connective tissue	89	0	2.3	1.0	0.2	0.4	0.2	0.3	0.1	0.8	0.6	1.0	1.5	5.5	2.2	6.7	1.8	8.3	1.0	1.4	C47, C49
Mesothelioma	3	0	-	-	-	-	0.1	-	-	-	0.2	-	-	-	0.4	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	4	0	-	-	-	0.1	-	0.1	-	-	0.2	-	-	0.4	-	-	-	-	0.0	0.0	C46
Melanoma of skin	24	0	-	-	-	-	-	-	-	0.3	0.2	0.8	0.5	-	3.1	2.7	0.9	2.8	0.3	0.4	C43
Other skin	239	2	-	-	-	0.1	0.2	0.3	0.8	0.9	2.2	2.6	4.8	7.0	13.5	20.1	20.8	63.5	2.7	3.8	C44
Breast	28	0	-	-	-	-	-	0.2	-	0.7	0.8	0.4	0.8	0.4	1.7	0.7	0.9	3.7	0.3	0.4	C50
Prostate	383	0	-	-	-	-	-	-	-	0.1	0.5	1.2	2.3	7.4	20.1	40.8	63.4	155.0	4.4	6.9	C61
Testis	33	1	0.2	0.3	0.2	0.5	0.3	0.3	0.4	0.9	-	0.2	0.5	0.4	0.4	-	1.8	-	0.4	0.3	C62
Penis	55	1	-	-	-	-	0.1	0.2	0.1	0.5	0.2	1.6	1.0	3.1	3.9	3.3	1.8	8.3	0.6	0.8	C60
Other male genital	6	0	-	-	-	-	-	-	0.1	-	-	-	-	-	0.9	-	1.8	0.9	0.1	0.1	C63
Bladder	402	3	-	-	-	0.2	0.1	0.2	0.9	1.3	2.3	3.8	5.3	16.4	25.3	42.1	54.3	90.1	4.6	6.6	C67
Kidney etc.	123	1	0.8	0.2	-	-	0.1	-	0.3	0.7	1.6	2.0	0.8	6.2	11.4	11.4	10.9	12.9	1.4	1.9	C64-C66; C68
Eye	17	0	1.5	-	-	-	-	0.1	-	0.1	0.2	-	0.3	-	0.9	0.7	-	1.8	0.2	0.3	C69
Brain, nervous system	186	1	2.3	2.0	1.4	1.2	0.5	0.9	1.8	2.4	4.1	3.0	1.8	5.1	5.7	8.7	1.8	4.6	2.1	2.4	C70-C72
Thyroid	96	0	-	0.2	-	0.1	0.4	1.1	0.1	0.9	1.1	2.6	2.8	3.5	3.5	4.0	7.2	8.3	1.1	1.3	C73
Other endocrine	13	0	-	-	0.5	0.1	-	-	0.1	0.1	0.5	-	0.3	-	0.9	0.7	-	-	0.1	0.2	C74-C75
Hodgkin's disease	25	0	0.2	0.3	0.2	0.1	0.2	0.3	0.6	-	0.3	0.4	0.5	0.4	-	-	2.7	-	0.3	0.3	C81
Non-Hodgkin lymphoma	374	3	0.9	0.8	1.4	1.1	2.3	2.1	2.8	4.5	4.5	5.0	6.6	13.6	15.3	21.4	17.2	34.9	4.3	4.9	C82-C85; C96
Multiple myeloma	36	0	-	-	-	0.1	0.1	-	0.1	-	0.5	0.6	0.3	1.9	2.6	4.7	3.6	3.7	0.4	0.6	C88; C90
Lymphoid leukaemia	105	1	5.1	3.7	1.1	0.6	0.6	0.5	0.6	0.1	0.6	-	0.3	1.9	2.2	1.3	4.5	3.7	1.2	1.7	C91
Myeloid leukaemia	88	0	0.9	0.3	0.6	0.8	0.2	0.8	1.1	0.7	0.9	0.8	2.0	0.8	3.5	4.0	4.5	5.5	1.0	1.2	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	6	0	0.4	-	-	-	0.1	-	-	-	0.2	-	-	-	0.4	0.7	-	-	0.1	0.1	C94
Leukaemia unspecified	70	0	0.6	0.2	0.5	-	0.6	0.4	0.9	1.1	0.9	1.0	0.8	1.9	2.2	2.7	4.5	3.7	0.8	0.9	C95
Other and unspecified	1 389	8	0.9	0.7	-	1.3	1.2	4.4	9.9	11.0	16.0	22.6	27.7	67.1	81.6	103.0	94.2	171.0	15.8	20.1	O&U
All sites	9 447	39	17	10	8	10	11	19	38	56	96	138	202	421	567	780	838	1 360	108.0	143.6	ALL

Table 3 Bangkok (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	35	0	-	-	-	-	-	-	-	0.1	0.1	-	0.2	1.0	-	3.8	2.1	11.4	0.4	0.5	C00
Tongue	58	0	-	-	0.2	-	-	0.4	0.6	0.6	0.6	0.4	0.6	1.0	3.4	3.8	5.0	6.6	0.6	0.7	C01-C02
Salivary gland	28	0	-	-	-	-	0.1	0.5	0.6	0.4	0.4	0.6	0.5	1.6	0.4	1.1	-	0.6	0.3	0.3	C07-C08
Mouth	91	0	-	-	-	-	0.2	0.1	0.2	0.4	0.7	0.7	1.2	1.6	3.4	8.2	6.4	21.6	1.0	1.2	C03-C06
Oropharynx	21	0	-	-	-	-	-	0.1	0.1	0.4	0.2	0.2	0.5	1.0	1.5	-	1.4	2.4	0.2	0.2	C09-C10
Nasopharynx	150	0	-	-	-	0.1	0.3	0.6	1.3	2.1	4.0	2.6	4.5	5.2	6.8	3.3	0.7	3.0	1.6	1.6	C11
Hypopharynx	9	0	-	-	-	-	-	-	0.1	-	-	-	0.2	0.3	1.1	-	0.7	1.2	0.1	0.1	C12-C13
Pharynx unspecified	5	0	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	0.4	0.6	0.1	0.1	C14
Oesophagus	73	0	-	-	-	-	-	-	0.1	0.1	0.1	0.4	0.5	1.0	5.7	7.7	6.4	15.6	0.8	1.0	C15
Stomach	304	1	-	-	-	-	0.2	0.7	1.1	2.5	2.6	4.8	5.5	11.4	11.0	15.3	20.8	43.7	3.2	3.6	C16
Small intestine	15	0	-	-	-	-	-	-	-	-	0.4	0.2	0.7	0.3	1.1	-	-	2.4	0.2	0.2	C17
Colon	574	4	-	-	-	-	0.2	0.7	1.3	3.1	4.7	4.5	10.5	19.2	30.3	37.2	51.6	84.5	6.0	7.2	C18
Rectum	303	2	-	-	-	-	0.2	0.3	1.0	0.7	2.6	5.2	6.2	9.8	14.4	24.1	27.2	34.7	3.2	3.8	C19-C21
Liver	313	2	0.4	-	0.2	0.2	0.2	0.3	0.9	1.8	3.6	5.4	9.3	10.4	15.5	17.5	25.8	25.2	3.3	3.9	C22
Gallbladder etc.	105	0	-	-	-	-	-	0.1	-	-	0.2	1.0	1.3	1.4	2.9	4.9	9.3	17.4	1.1	1.4	C23-C24
Pancreas	94	0	-	-	0.2	-	-	0.3	0.2	0.5	1.0	0.9	1.4	3.9	2.6	5.5	10.0	13.8	1.0	1.2	C25
Nose, sinuses etc.	39	0	-	-	-	0.2	0.2	0.1	0.3	0.1	0.4	0.6	1.0	1.0	0.4	1.6	3.6	4.8	0.4	0.4	C30-C31
Larynx	20	0	-	-	-	-	-	0.1	0.1	0.2	-	-	0.2	1.0	0.4	1.6	0.7	4.2	0.2	0.2	C32
Bronchus, lung	614	4	-	-	-	-	0.2	0.3	1.7	2.6	5.9	8.2	13.6	21.5	31.0	45.9	53.0	70.1	6.4	7.8	C33-C34
Other thoracic organs	11	0	-	-	-	0.1	-	-	-	-	0.2	0.1	0.6	0.2	0.3	0.4	-	0.6	0.1	0.1	C37-C38
Bone	39	1	-	0.4	0.2	0.2	0.6	0.3	0.3	0.6	0.4	0.4	0.2	0.3	0.8	1.6	-	1.2	0.4	0.4	C40-C41
Connective tissue	97	1	1.8	0.4	-	0.5	0.4	0.9	0.9	0.9	0.7	0.4	2.1	3.3	3.4	2.2	4.3	1.8	1.0	1.1	C47; C49
Mesothelioma	1	0	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	3	0	0.2	-	-	-	-	-	-	-	-	0.1	0.2	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	22	0	-	-	-	-	0.1	-	0.1	0.4	0.3	0.6	0.2	1.0	-	1.6	-	3.0	0.2	0.2	C43
Other skin	262	8	-	-	-	0.2	0.3	0.3	1.0	0.9	1.9	3.0	2.6	6.5	8.7	13.7	23.6	50.9	2.7	3.1	C44
Breast	2296	6	-	-	0.1	0.7	4.4	15.0	28.0	51.0	72.9	68.5	75.0	88.2	88.2	83.6	66.6	57.7	24.0	25.4	C50
Uterus unspecified	26	0	-	-	-	-	-	0.1	0.1	0.4	0.6	0.2	0.5	1.3	1.5	1.1	0.7	1.8	0.3	0.3	C55
Cervix uteri	1 880	15	-	-	-	-	1.3	4.0	11.0	25.0	38.0	53.7	51.9	65.5	84.4	53.0	64.5	59.3	19.7	20.7	C53
Placenta	23	0	-	-	-	0.3	0.3	0.4	0.4	0.6	0.1	0.2	-	-	-	-	-	-	0.2	0.2	C58
Corpus uteri	337	1	-	-	-	-	-	0.3	0.9	2.6	4.6	7.3	13.1	18.9	17.8	20.8	13.6	7.8	3.5	4.1	C54
Ovary etc.	548	2	0.2	0.9	0.3	1.3	1.4	1.4	4.1	6.6	11.0	15.2	14.5	17.3	18.2	16.4	13.6	13.8	5.8	5.9	C56
Other female genital	77	0	-	-	-	0.1	0.1	0.1	-	0.8	0.6	1.5	1.7	2.9	2.3	4.4	7.2	9.6	0.8	0.9	C51-C52; C57
Bladder	140	1	-	-	-	0.1	0.1	-	-	0.5	0.6	0.7	2.4	3.3	6.1	12.6	12.9	28.8	1.5	1.8	C67
Kidney etc.	82	0	1.4	-	-	0.1	-	0.1	0.2	0.5	0.4	0.6	0.5	3.6	3.8	6.0	7.2	10.2	0.9	1.1	C64-C66; C68
Eye	17	0	2.0	0.2	-	-	-	0.1	0.1	-	0.1	0.2	-	0.3	-	0.5	-	-	0.2	0.3	C69
Brain, nervous system	167	1	2.0	0.5	1.7	0.8	0.7	1.4	1.3	1.9	3.3	3.3	2.4	5.2	3.4	6.6	5.7	4.8	1.8	2.0	C70-C72
Thyroid	381	4	-	-	0.3	1.5	1.9	3.8	4.7	7.1	6.1	5.2	6.9	7.2	9.1	5.5	10.0	9.6	4.0	3.6	C73
Other endocrine	17	0	-	-	0.2	-	-	0.3	0.3	0.1	0.4	0.4	-	0.3	0.4	1.1	-	-	0.2	0.2	C74-C75
Hodgkin's disease	15	0	-	-	-	-	-	0.1	0.3	0.1	0.3	0.2	-	-	0.8	1.1	1.4	0.6	0.2	0.2	C81
Non-Hodgkin lymphoma	310	0	1.4	1.3	0.6	0.3	1.2	1.1	1.4	2.9	2.9	4.3	6.2	8.8	12.1	13.7	24.4	21.6	3.3	3.7	C82-C85; C96
Multiple myeloma	34	0	-	-	-	0.1	-	-	-	-	0.1	0.6	0.2	0.7	2.3	4.9	3.6	3.6	0.4	0.5	C88; C90
Lymphoid leukaemia	77	0	4.8	2.0	1.5	0.3	0.2	0.1	0.1	0.1	0.3	0.4	0.5	1.0	0.8	1.1	5.7	1.8	0.8	1.3	C91
Myeloid leukaemia	84	0	0.4	0.4	0.3	0.2	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.6	2.6	3.8	2.1	6.0	0.9	0.9	C92
Monocytic leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	0.0	0.0	C93
Other leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	62	0	0.4	0.2	0.3	0.6	0.4	0.5	0.3	0.4	0.4	0.4	0.7	2.6	1.1	4.4	1.4	3.0	0.6	0.7	C95
Other and unspecified	946	4	0.8	0.4	0.3	0.8	0.9	1.4	2.6	5.3	10.7	14.5	21.9	31.0	46.6	60.1	65.9	97.6	9.9	11.7	O&U
All sites	10 807	57	16	6	6	8	13	25	54	102	164	223	257	352	449	507	560	758	114.0	125.9	ALL

Table 4 Bangkok (1995-1997), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0.0 %	C00
Tongue	157	1	0	0	0	1	3	2	3	3	6	18	24	26	28	22	7	13	1.7 %	C01-C02
Salivary gland	28	0	0	0	0	0	3	1	3	3	2	1	3	2	1	2	2	5	0.3 %	C07-C08
Mouth	136	0	0	0	0	1	0	3	5	2	4	11	13	24	16	18	16	23	1.4 %	C03-C06
Oropharynx	73	0	0	0	0	0	1	1	2	2	5	8	2	10	12	14	8	8	0.8 %	C09-C10
Nasopharynx	357	1	0	0	0	7	2	11	25	42	54	41	53	40	22	28	19	12	3.8 %	C11
Hypopharynx	87	0	0	0	0	0	0	1	0	0	3	4	11	13	17	14	10	11	0.9 %	C12-C13
Pharynx unspecified	18	0	0	0	0	0	1	0	0	1	2	1	1	1	1	7	1	2	0.2 %	C14
Oesophagus	271	1	0	0	0	0	3	0	0	2	14	25	24	41	40	43	29	52	2.9 %	C15
Stomach	304	0	0	0	0	0	3	3	8	9	16	15	27	25	33	50	45	70	3.2 %	C16
Small intestine	20	0	0	0	0	0	0	0	0	1	1	4	0	0	0	0	3	4	0.2 %	C17
Colon	659	2	0	0	1	1	6	9	19	24	2	45	66	68	96	86	71	137	7.0 %	C18
Rectum	390	0	0	0	1	1	1	1	10	9	21	25	34	59	59	55	56	57	4.1 %	C19-C21
Liver	1 006	2	2	0	1	1	2	12	36	56	117	121	121	134	144	92	68	97	10.6 %	C22
Gallbladder etc.	83	1	0	0	0	0	0	0	0	5	9	11	7	10	5	6	10	19	0.9 %	C23-C24
Pancreas	114	0	0	0	0	0	0	2	1	0	6	11	20	15	16	17	6	21	1.2 %	C25
Nose, sinuses etc.	49	0	0	0	0	0	0	2	2	3	3	2	6	6	2	9	3	8	0.5 %	C30-C31
Larynx	248	2	0	0	0	0	0	1	5	8	8	15	23	35	49	32	33	37	2.6 %	C32
Bronchus, lung	1 572	8	0	0	1	1	4	13	33	32	66	86	117	202	290	247	203	269	16.6 %	C33-C34
Other thoracic organs	23	0	1	0	1	3	5	1	2	3	1	1	1	0	1	1	2	0	0.2 %	C37-C38
Bone	54	0	1	2	8	10	6	5	6	1	4	1	1	0	3	2	3	1	0.6 %	C40-C41
Connective tissue	89	0	12	6	1	3	2	3	1	6	4	5	6	14	5	10	2	9	0.9 %	C47, C49
Mesothelioma	3	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0.0 %	C45
Kaposi's sarcoma	4	0	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0.0 %	C46
Melanoma of skin	24	0	0	0	0	0	0	0	0	0	1	4	2	0	7	4	1	3	0.3 %	C43
Other skin	239	2	0	0	0	1	2	3	7	7	14	13	19	18	31	30	23	69	2.5 %	C44
Breast	28	0	0	0	0	0	0	2	0	5	5	2	3	1	4	1	1	4	0.3 %	C50
Prostate	383	0	0	0	0	0	0	0	0	1	3	6	9	19	46	61	70	168	4.1 %	C61
Testis	33	1	1	2	1	4	0	3	4	7	0	1	2	1	1	1	0	2	0.3 %	C62
Penis	55	1	0	0	0	0	1	2	1	4	1	8	4	8	9	5	2	9	0.6 %	C60
Other male genital	6	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	2	1	0.1 %	C63
Bladder	402	3	0	0	0	2	1	2	8	10	15	19	21	42	58	63	60	98	4.3 %	C67
Kidney etc.	123	1	4	1	0	0	1	0	3	5	10	10	3	16	26	17	12	14	1.3 %	C64-C66; C68
Eye	17	0	8	0	0	0	0	1	0	1	1	0	1	0	2	1	0	2	0.2 %	C69
Brain, nervous system	186	1	12	12	9	10	5	9	16	18	26	15	7	13	13	13	2	5	2.0 %	C70-C72
Thyroid	96	0	0	2	0	2	4	11	1	7	7	13	11	9	8	6	8	9	1.0 %	C73
Other endocrine	13	0	0	0	3	1	0	0	1	1	3	0	1	0	2	1	0	0	0.1 %	C74-C75
Hodgkin's disease	25	0	1	2	1	1	2	3	5	0	2	2	2	1	0	0	3	0	0.3 %	C81
Non-Hodgkin lymphoma	374	3	5	5	9	9	24	21	25	34	29	25	26	35	35	32	19	38	4.0 %	C82-C85; C96
Multiple myeloma	36	0	0	0	0	1	1	0	1	0	3	3	0	5	6	7	4	4	0.4 %	C88; C90
Lymphoid leukaemia	105	1	27	22	7	5	6	5	5	1	4	0	1	5	5	2	5	4	1.1 %	C91
Myeloid leukaemia	88	0	5	2	4	7	2	8	10	5	6	4	8	2	8	6	5	6	0.9 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	6	0	2	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0.1 %	C94
Leukaemia unspecified	70	0	3	1	3	0	6	4	8	8	6	5	3	5	5	4	5	4	0.7 %	C95
Other and unspecified	1 389	8	5	4	0	11	13	45	90	85	102	114	109	172	187	154	104	186	14.7 %	O&U
All sites	9 447	39	89	61	51	83	114	191	347	418	615	695	796	1 079	1 299	1 166	925	1 479	100.0 %	ALL

Table 5 Bangkok (1995-1997), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	35	0	0	0	0	0	0	0	0	1	1	0	1	3	0	7	3	19	0.3 %	C00
Tongue	58	0	0	0	1	0	0	0	4	5	4	2	4	4	9	7	7	11	0.5 %	C01-C02
Salivary gland	28	0	0	0	0	0	0	1	5	5	3	3	2	5	1	2	0	1	0.3 %	C07-C08
Mouth	91	0	0	0	0	0	0	2	1	2	3	4	5	5	9	15	9	36	0.8 %	C03-C06
Oropharynx	21	0	0	0	0	0	0	0	1	1	3	1	2	3	4	0	2	4	0.2 %	C09-C10
Nasopharynx	150	0	0	0	0	1	4	7	13	18	28	14	19	16	18	6	1	5	1.4 %	C11
Hypopharynx	9	0	0	0	0	0	0	0	0	1	0	0	1	1	3	0	1	2	0.1 %	C12-C13
Pharynx unspecified	5	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	1	1	0.0 %	C14
Oesophagus	73	0	0	0	0	0	0	0	0	1	1	2	2	3	15	14	0	26	0.7 %	C15
Stomach	304	1	0	0	0	0	2	8	11	21	18	26	23	35	29	28	29	73	2.8 %	C16
Small intestine	15	0	0	0	0	0	0	0	0	0	3	1	3	1	3	0	0	4	0.1 %	C17
Colon	574	4	0	0	0	0	2	8	13	26	33	24	44	59	80	68	72	141	5.3 %	C18
Rectum	303	2	0	0	0	0	2	3	10	6	18	28	26	30	38	44	38	58	2.8 %	C19-C21
Liver	313	2	2	0	1	2	2	4	9	15	25	29	39	32	41	32	36	42	2.9 %	C22
Gallbladder etc.	105	0	0	0	0	0	0	1	0	2	4	7	6	9	13	18	13	29	1.0 %	C23-C24
Pancreas	94	0	0	0	0	0	0	0	2	4	7	5	6	12	7	10	14	23	0.9 %	C25
Nose, sinuses etc.	39	0	0	0	0	2	2	1	3	1	3	3	4	3	1	3	5	8	0.4 %	C30-C31
Larynx	20	0	0	0	0	0	0	1	1	2	0	0	1	3	1	3	1	7	0.2 %	C32
Bronchus, lung	614	4	0	0	0	0	2	4	17	22	41	44	57	66	82	84	74	117	5.7 %	C33-C34
Other thoracic organs	11	0	0	0	0	1	0	0	0	2	1	3	1	1	1	0	0	1	0.1 %	C37-C38
Bone	39	1	0	2	1	2	7	4	3	5	3	2	1	1	2	3	0	2	0.4 %	C40-C41
Connective tissue	97	1	9	2	0	5	5	10	9	8	5	2	9	10	9	4	6	3	0.9 %	C47; C49
Mesothelioma	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	3	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	22	0	0	0	0	0	1	0	1	3	2	3	1	3	0	3	0	5	0.2 %	C43
Other skin	262	8	0	0	0	2	4	4	10	8	13	16	11	20	23	25	33	85	2.4 %	C44
Breast	2 296	6	0	0	0	1	8	50	151	239	356	392	288	230	233	153	93	96	21.2 %	C50
Uterus unspecified	26	0	0	0	0	0	0	1	1	3	4	1	2	4	4	2	1	3	0.2 %	C55
Cervix uteri	1 880	15	0	0	0	0	15	46	107	213	267	289	218	201	223	97	90	99	17.4 %	C53
Placenta	23	0	0	0	0	0	4	5	4	5	1	1	0	0	0	0	0	0	0.2 %	C58
Corpus uteri	337	1	0	0	0	0	0	4	9	22	32	39	55	58	47	38	19	13	3.1 %	C54
Ovary etc.	548	2	1	5	2	12	17	16	42	56	79	82	61	53	48	30	19	23	5.1 %	C56
Other female genital	77	0	0	0	0	0	1	1	0	7	4	8	7	9	6	8	10	16	0.7 %	C51-C52; C57
Bladder	140	1	0	0	0	1	1	0	0	4	4	4	10	10	16	23	18	48	1.3 %	C67
Kidney etc.	82	0	7	0	0	1	0	1	2	4	3	3	2	11	10	11	10	17	0.8 %	C64-C66; C68
Eye	17	0	10	1	0	0	0	1	1	0	1	1	0	1	0	1	0	0	0.2 %	C69
Brain, nervous system	167	1	10	3	11	7	8	8	14	11	13	18	10	16	9	12	8	8	1.5 %	C70-C72
Thyroid	381	4	0	0	0	2	23	44	48	60	43	28	29	22	24	10	14	16	3.5 %	C73
Other endocrine	17	0	0	0	0	0	0	3	3	1	3	2	0	1	1	2	0	0	0.2 %	C74-C75
Hodgkin's disease	15	0	0	0	0	0	0	1	3	1	2	1	0	0	2	2	2	1	0.1 %	C81
Non-Hodgkin lymphoma	310	0	7	7	4	3	14	13	14	25	20	23	26	27	32	25	34	36	2.9 %	C82-C85; C96
Multiple myeloma	34	0	0	0	0	1	0	0	0	0	1	3	1	2	6	9	5	6	0.3 %	C88; C90
Lymphoid leukaemia	77	0	24	11	10	3	2	1	1	1	2	2	2	3	2	2	8	3	0.7 %	C91
Myeloid leukaemia	84	0	2	2	2	2	7	7	6	8	6	5	5	5	7	7	3	10	0.8 %	C92
Monocytic leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0.0 %	C93
Other leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0 %	C94
Leukaemia unspecified	62	0	2	1	2	6	5	6	3	3	3	2	3	8	3	6	2	5	0.6 %	C95
Other and unspecified	946	4	4	2	2	7	11	16	27	45	75	78	92	95	123	110	92	163	8.8 %	O&U
All sites	10 807	57	79	36	40	76	149	285	549	867	1 145	1 202	1 080	1 081	1 186	927	782	1 266	100.0 %	ALL

APPENDIX

E

SONGKHLA
CANCER
REGISTRY*Hutcha Sriplung, M.D.***GEOGRAPHY
AND POPULATION**

Songkhla is one of the 14 provinces of the Southern Region of Thailand, situated at latitude 6°N and longitude 100°E, and covering an area of about 7 394 square kilometers. The population is about 1.2 million. The province borders on Malaysia to the south, Nakorn Si Thammarat and Patthalung provinces to the north, Satun to the west, and the Gulf of Thailand to the east. Songkhla has only two seasons; a rainy season lasting from October to January and summer lasting from February to September. Rubber planting, fishing and shrimp farming are the main occupations. Songkhla is divided into 15 sani-

tary districts.

REGISTRY PROCEDURES

The Cancer Registry of Songkhla was set up in the Faculty of Medicine, Prince of Songkla University in 1990. The first statistical report of the registry appeared in 1991. The sources of data are from the Songklanagarind hospital, Hat Yai hospital (both of which have hospital cancer registries), Songkhla hospital, all community hospitals, one dental hospital and private hospitals. The data were abstracted onto the registry forms, checked for duplication, verified, coded, and keyed into CanReg programme.

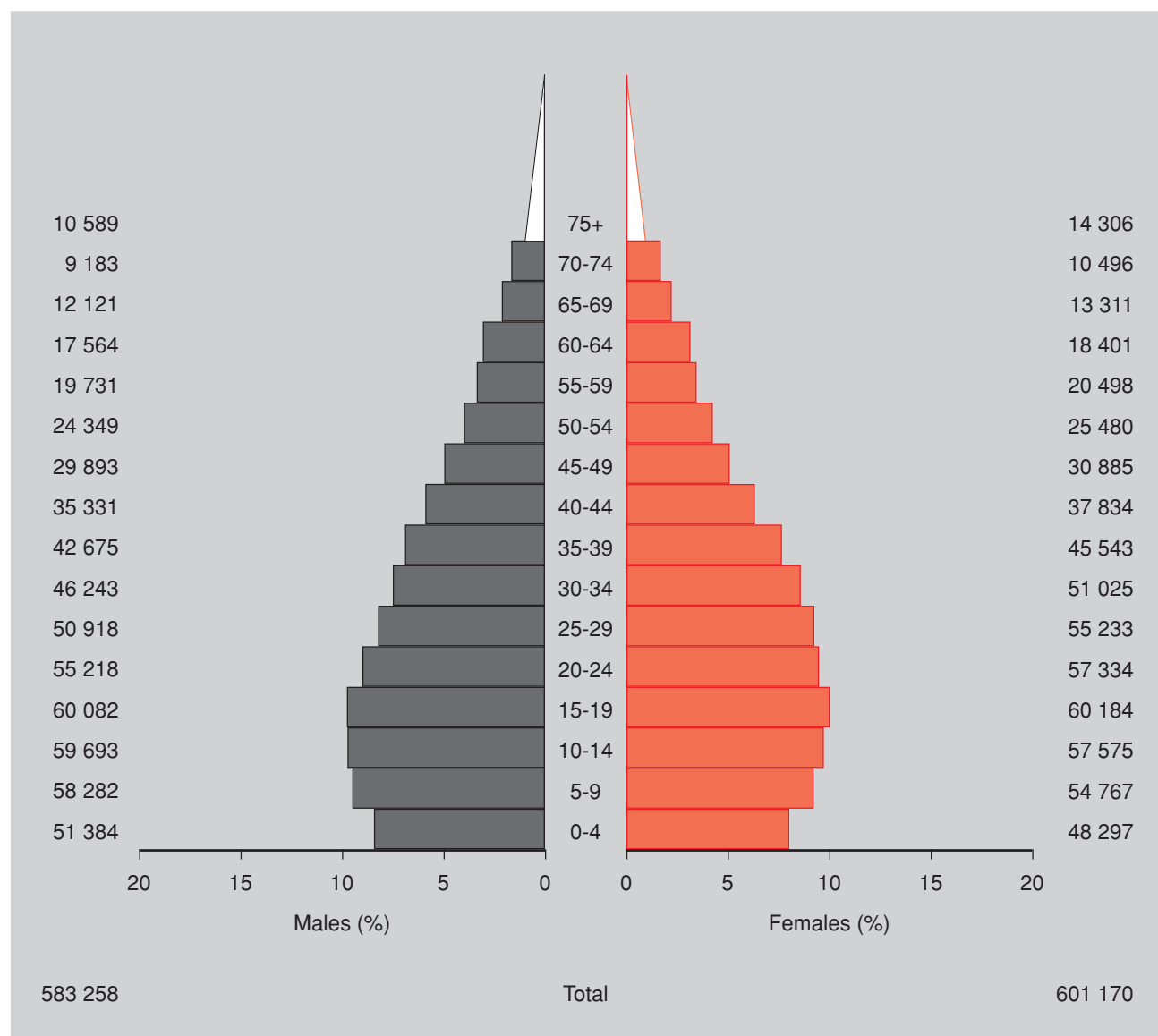
Figure 1 Population pyramid, Songkhla, 1996

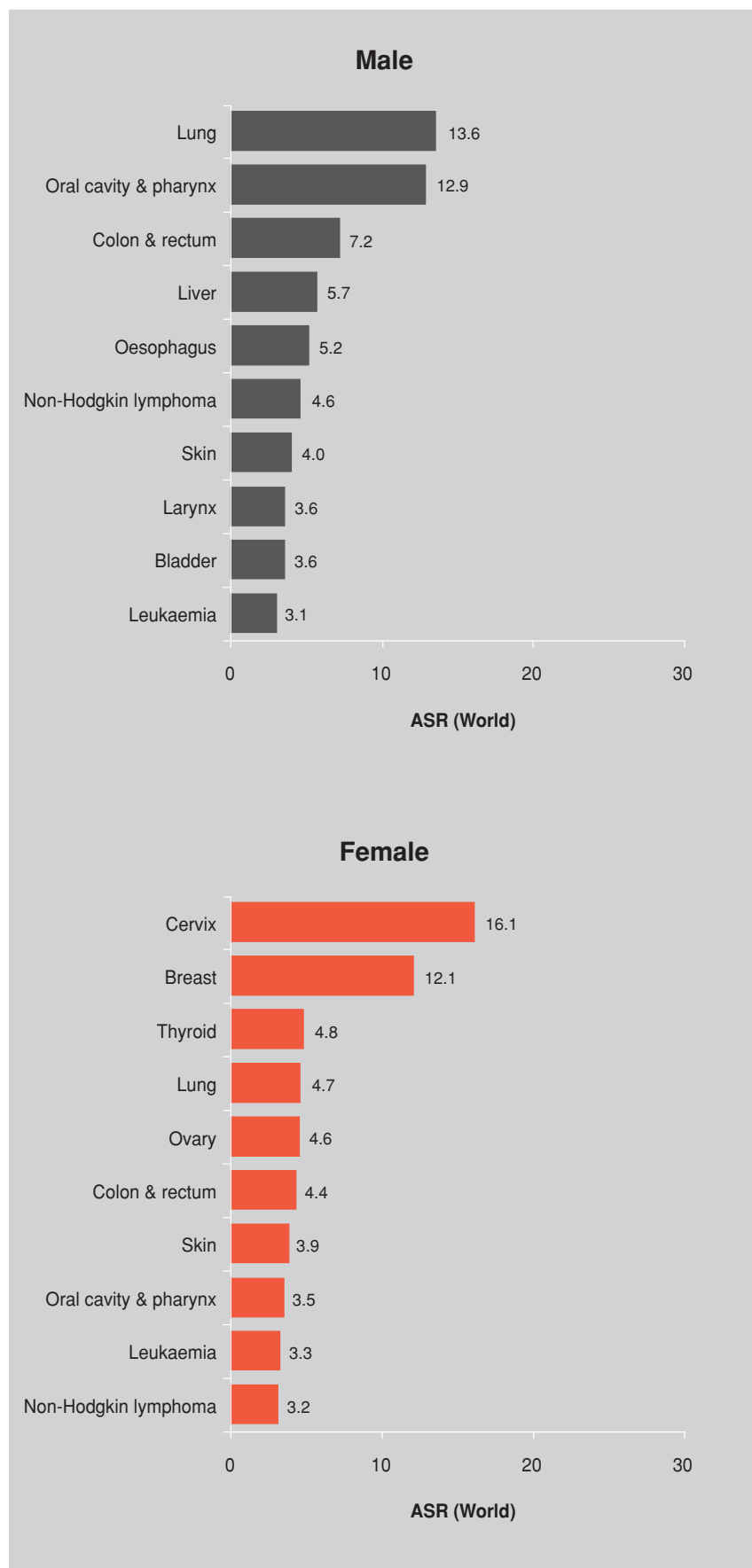
Figure 2 Leading cancers in Songkhla, 1995-1997

Table 1 Percentage of histologically verified and death certificate only cases, Songkhla 1995-1997

	Male			Female		
	Cases	%HV	%DCO	Cases	%HV	%DCO
Oral cavity	118	96.6	0.9	53	96.2	0.0
Nasopharynx	38	100.0	0.0	21	95.2	0.0
Other pharynx	69	94.2	0.0	7	100.0	0.0
Oesophagus	74	89.2	0.0	34	79.4	5.9
Stomach	28	96.4	0.0	24	87.5	0.0
Colon	56	78.6	8.9	39	82.1	0.0
Rectum	52	90.4	0.0	33	97.0	0.0
Liver	88	50.0	12.5	23	52.2	8.7
Gallbladder etc.	13	84.6	0.0	17	76.5	0.0
Pancreas	18	44.4	0.0	16	62.5	0.0
Larynx	50	94.0	0.0	5	80.0	0.0
Bronchus, lung	192	70.8	6.8	78	68.0	3.9
Bone	5	80.0	0.0	2	100.0	0.0
Melanoma of skin	4	100.0	0.0	4	100.0	0.0
Other skin	54	100.0	0.0	66	98.5	0.0
Female breast	0	0.0	0.0	210	94.3	0.0
Cervix uteri	0	0.0	0.0	279	93.9	1.1
Corpus uteri	0	0.0	0.0	32	87.5	6.3
Ovary, etc.	0	0.0	0.0	79	94.9	0.0
Prostate	43	86.1	0.0	0	0.0	0.0
Testis	4	75.0	0.0	0	0.0	0.0
Penis, other male genital	27	77.8	0.0	0	0.0	0.0
Bladder	51	86.3	0.0	12	83.3	0.0
Kidney, etc.	16	93.8	0.0	4	100.0	0.0
Brain, nervous system	28	57.1	7.1	35	48.6	17.1
Thyroid	29	96.6	0.0	92	96.7	0.0
Lymphoma	82	97.6	0.0	57	98.3	0.0
Leukaemia	50	76.0	4.0	50	78.0	0.0
All sites	1 355	80.1	7.2	1 383	85.7	3.0

Table 2 Songkhla (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.6	3.1	0.1	0.1	C00
Tongue	49	0	-	-	-	-	-	-	-	2.3	1.9	3.3	4.1	11.8	15.2	19.2	25.4	28.3	2.8	3.4	C01-C02
Salivary gland	5	0	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	2.7	3.6	0.3	0.3	C07-C08
Mouth	62	0	-	-	-	0.6	-	-	0.7	0.8	1.9	2.2	4.1	10.1	7.6	35.7	58.0	40.9	3.5	4.3	C03-C06
Oropharynx	29	0	-	-	-	0.6	-	-	-	2.3	1.9	3.3	2.7	1.7	3.8	13.7	18.1	18.9	1.7	2.0	C09-C10
Nasopharynx	38	0	-	-	-	1.1	0.6	-	-	3.1	5.7	3.3	6.8	8.4	5.7	11.0	7.3	3.1	2.2	2.4	C11
Hypopharynx	37	0	-	-	-	-	-	-	-	2.8	2.8	3.3	6.8	1.7	11.4	19.2	21.8	18.9	2.1	2.6	C12-C13
Pharynx unspecified	3	0	-	-	-	-	-	-	-	-	-	-	-	1.7	1.9	2.7	-	-	0.2	0.2	C14
Oesophagus	74	0	-	-	-	-	-	-	-	0.8	0.9	8.9	1.4	21.9	32.2	27.5	25.4	50.3	4.2	5.2	C15
Stomach	28	0	-	-	-	-	-	-	-	-	1.9	2.2	1.4	6.7	3.8	16.5	14.5	22.0	1.6	2.0	C16
Small intestine	3	0	-	-	-	-	-	-	-	0.8	-	-	-	-	-	1.9	2.7	-	0.2	0.2	C17
Colon	56	0	-	-	-	1.1	0.6	0.7	2.9	1.6	2.8	6.7	4.1	6.7	11.4	8.2	32.6	37.7	3.2	3.6	C18
Rectum	52	0	-	-	-	0.6	-	0.7	0.7	0.8	2.8	3.3	6.8	13.5	15.2	19.2	25.4	22.0	3.0	3.6	C19-C21
Liver	88	0	-	0.6	-	-	0.6	1.3	3.6	7.0	8.5	8.9	5.5	20.2	24.6	30.2	21.8	22.0	5.0	5.7	C22
Gallbladder etc.	13	0	-	-	-	-	-	-	-	0.8	1.9	-	1.4	1.7	3.8	-	14.5	6.3	0.7	0.9	C23-C24
Pancreas	18	0	-	-	-	-	1.2	-	-	-	-	3.3	2.7	5.1	3.8	5.5	-	12.6	1.0	1.2	C25
Nose, sinuses etc.	9	0	-	-	-	-	-	-	0.7	-	0.9	2.2	-	3.4	1.9	-	-	6.3	0.5	0.6	C30-C31
Larynx	50	0	-	-	-	-	-	-	-	-	1.9	1.1	4.1	5.1	30.3	27.5	25.4	25.2	2.9	3.6	C32
Bronchus, lung	192	0	-	-	-	0.6	-	-	3.6	1.6	7.5	10.0	23.2	45.6	79.6	90.6	90.6	72.3	11.0	13.6	C33-C34
Other thoracic organs	5	0	-	-	0.6	-	0.7	-	-	-	-	1.1	-	-	1.9	-	-	3.1	0.3	0.3	C37-C38
Bone	5	0	-	0.6	1.1	0.6	-	-	0.7	-	-	2.2	1.4	1.7	-	-	-	-	0.3	0.3	C40-C41
Connective tissue	11	0	-	0.6	0.6	-	-	-	1.4	1.6	-	-	-	-	-	-	-	-	0.6	0.6	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	4	0	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2	C43
Other skin	54	0	-	-	-	-	-	-	0.7	-	0.9	5.6	5.5	8.4	22.7	27.5	18.1	34.6	3.1	3.8	C44
Breast	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C50
Prostate	43	0	-	-	-	-	-	-	-	-	-	-	4.1	3.4	9.5	19.2	14.5	69.2	2.5	3.0	C61
Testis	4	0	-	-	-	-	-	-	0.7	0.8	0.9	-	-	-	1.9	-	-	-	0.2	0.2	C62
Penis	27	0	-	-	-	-	-	-	-	-	0.9	4.5	-	8.4	11.4	8.2	7.3	18.9	1.5	1.9	C60
Other male genital	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C63
Bladder	51	0	-	-	-	-	-	-	1.4	0.8	1.9	2.2	4.1	6.7	9.5	33.0	29.0	37.7	2.9	3.6	C67
Kidney etc.	16	0	-	-	-	-	-	-	0.7	-	-	1.1	4.1	-	1.9	11.0	3.6	15.7	0.9	1.1	C64-C66; C68
Eye	4	0	1.3	-	-	-	-	-	-	-	-	-	-	-	-	2.7	3.6	-	0.2	0.3	C69
Brain, nervous system	28	0	1.9	0.6	1.1	-	-	2.6	0.7	3.1	5.7	1.1	-	5.1	3.8	-	-	3.1	1.6	1.7	C70-C72
Thyroid	29	0	-	-	-	-	0.6	1.3	2.2	0.8	6.6	4.5	1.4	10.1	1.9	2.7	-	6.3	1.7	1.7	C73
Other endocrine	3	0	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2	C74-C75
Hodgkin's disease	11	0	-	-	-	-	-	0.7	1.4	0.8	-	3.3	1.4	-	3.8	-	3.6	-	0.6	0.7	C81
Non-Hodgkin lymphoma	71	0	0.6	1.1	-	-	0.6	2.0	2.2	2.3	3.8	5.6	6.8	13.5	7.6	24.7	29.0	34.6	4.1	4.6	C82-C85; C96
Multiple myeloma	13	0	-	-	-	-	-	0.7	-	-	0.9	3.3	-	1.7	5.7	2.7	7.3	3.1	0.7	0.9	C88; C90
Lymphoid leukaemia	14	0	2.6	2.3	0.6	-	0.6	1.3	-	0.8	-	-	-	-	-	-	3.6	-	0.8	0.9	C91
Myeloid leukaemia	26	0	-	1.1	0.6	2.2	-	2.6	1.4	0.8	-	-	4.1	5.1	3.8	8.2	-	3.1	1.5	1.6	C92
Monocytic leukaemia	1	0	-	-	-	-	-	-	-	-	-	1.1	-	-	-	-	-	-	0.1	0.1	C93
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	9	0	-	1.1	0.6	0.6	0.6	1.3	1.4	-	-	-	-	-	-	-	-	-	0.5	0.5	C95
Other and unspecified	118	1	0.6	-	-	-	1.2	7.2	2.9	7.0	4.7	14.5	17.8	28.7	26.5	41.2	29.0	15.7	6.7	7.7	O&U
All sites	1 355	1	9	7	6	11	7	23	32	41	70	112	126	258	366	516	544	638	77.4	91.4	ALL

Table 3 Songkhla (1995-1997), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	11	0	-	-	-	-	-	-	-	-	-	-	-	-	1.8	-	6.3	18.6	0.6	0.6	C00
Tongue	13	0	-	-	-	0.6	-	-	0.7	0.7	-	-	-	1.6	5.4	5.0	3.2	9.3	0.7	0.8	C01-C02
Salivary gland	4	0	-	-	-	-	-	0.7	0.7	-	-	-	-	-	5.4	2.5	-	-	0.2	0.2	C03-C06
Mouth	25	0	-	-	-	0.6	-	-	-	-	-	-	1.3	6.5	3.6	5.0	12.7	27.9	1.4	1.4	C07-C08
Oropharynx	3	0	-	-	-	-	-	-	-	-	-	-	-	-	3.6	-	3.2	-	0.2	0.2	C09-C10
Nasopharynx	21	0	-	-	0.6	0.6	0.6	0.7	1.5	0.9	0.9	4.3	1.3	4.9	1.8	-	9.5	2.3	1.2	1.2	C11
Hypopharynx	3	0	-	-	-	-	-	-	-	-	-	-	-	1.6	1.8	2.5	-	-	0.2	0.2	C12-C13
Pharynx unspecified	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-	0.1	0.1	C14
Oesophagus	34	0	-	-	-	-	-	-	0.7	0.7	-	2.2	3.9	6.5	10.9	12.5	25.4	11.6	1.9	2.2	C15
Stomach	24	0	-	-	-	-	-	-	0.7	0.7	2.6	1.1	2.6	3.2	7.2	5.0	9.5	14.0	1.3	1.4	C16
Small intestine	5	0	-	-	-	-	-	-	-	-	0.9	1.1	1.3	-	-	-	3.2	-	0.3	0.3	C17
Colon	39	0	-	-	-	-	-	-	1.5	1.5	2.6	1.1	3.9	6.5	5.4	15.0	9.5	32.6	2.2	2.3	C18
Rectum	33	0	-	-	-	-	-	0.7	-	-	3.2	3.9	3.9	11.4	7.2	15.0	9.5	14.0	1.8	2.1	C19-C21
Liver	23	0	-	-	-	-	-	-	2.9	2.9	2.6	-	3.9	4.9	5.4	7.5	9.5	2.3	1.3	1.4	C22
Gallbladder etc.	17	0	-	-	-	-	-	-	-	-	2.2	2.2	.6	3.2	12.7	5.0	4.7	0.9	1.1	1.1	C23-C24
Pancreas	16	0	-	-	-	0.6	-	-	0.7	-	0.9	-	-	1.6	7.2	5.0	9.5	7.0	0.9	1.0	C25
Nose, sinuses etc.	2	0	-	-	-	-	-	-	-	-	-	-	-	-	3.6	-	-	-	0.1	0.1	C30-C31
Larynx	5	0	-	-	-	-	-	-	-	-	-	1.1	1.3	-	1.8	-	-	4.7	0.3	0.3	C32
Bronchus, lung	78	0	-	-	-	-	0.6	1.3	6.6	4.4	4.4	2.2	5.2	13.0	18.1	27.5	44.4	27.9	4.3	4.7	C33-C34
Other thoracic organs	2	0	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	2.3	0.1	0.1	C37-C38
Bone	2	0	0.7	-	0.6	0.6	-	-	0.7	-	0.9	-	3.9	3.2	3.6	-	-	-	0.7	0.7	C40-C41
Connective tissue	12	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	4	0	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2	C43
Other skin	66	0	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-	4.7	0.2	0.2	C43
Breast	210	0	-	-	-	-	-	1.8	11.7	24.1	31.7	39.9	23.5	32.5	38.0	25.0	22.2	16.3	3.7	3.7	C44
Uterus unspecified	2	0	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	11.6	12.1	C50
Cervix uteri	279	0	-	-	-	-	1.2	1.2	15.0	30.7	39.6	36.7	34.0	42.2	65.1	42.5	28.5	39.6	15.5	16.1	C53
Placenta	4	0	-	-	-	-	-	0.6	-	-	0.9	2.2	-	-	-	-	-	-	0.2	0.2	C58
Corpus uteri	32	0	-	-	-	-	-	-	-	2.2	2.6	6.5	6.5	3.2	7.2	12.5	12.7	-	1.8	2.1	C54
Ovary etc.	79	0	-	-	1.2	0.6	2.9	4.6	2.9	7.0	7.0	12.9	9.1	17.9	12.7	12.5	9.5	7.0	4.4	4.6	C56
Other female genital	13	0	-	-	-	-	-	-	1.5	0.9	0.9	4.3	-	1.6	-	2.5	-	9.3	0.7	0.7	C51-C52; C57
Bladder	12	0	-	-	-	-	-	-	-	-	-	1.1	1.3	1.6	3.6	2.5	12.7	4.7	0.7	0.8	C67
Kidney etc.	4	0	0.7	-	-	-	-	-	-	-	-	-	-	1.3	3.2	-	-	-	0.2	0.3	C64-C66; C68
Eye	3	0	0.7	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-	0.2	0.2	C69
Brain, nervous system	35	0	4.1	1.2	0.6	0.6	1.2	1.8	0.7	3.7	-	1.1	1.3	11.4	-	-	3.2	-	0.2	0.2	C70-C72
Thyroid	92	0	-	-	0.6	3.3	6.4	8.4	6.5	8.0	6.2	10.8	7.8	9.7	3.6	7.5	-	11.6	1.9	2.1	C73
Other endocrine	4	0	0.7	-	1.2	-	-	-	-	0.7	-	-	-	-	-	-	-	-	5.1	4.8	C74-C75
Hodgkin's disease	3	0	-	-	-	-	-	-	-	0.7	-	2.2	-	-	-	-	-	-	0.2	0.2	C81
Non-Hodgkin lymphoma	54	0	-	-	-	-	2.2	1.2	0.6	1.3	2.9	1.8	4.3	3.9	9.7	25.0	6.3	20.9	3.0	3.2	C82-C85; C96
Multiple myeloma	7	0	-	-	-	-	-	-	-	0.7	-	1.1	2.6	-	1.8	-	3.2	2.3	0.4	0.4	C88; C90
Lymphoid leukaemia	14	0	6.2	1.2	0.6	-	-	-	-	-	-	2.2	-	-	-	-	-	-	0.8	1.0	C91
Myeloid leukaemia	28	0	0.7	-	-	1.7	0.6	0.6	0.7	2.9	0.9	2.2	3.9	4.9	5.4	7.5	3.2	2.3	1.6	1.7	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	0.1	0.1	C94
Leukaemia unspecified	7	0	1.4	0.6	-	-	-	-	-	-	1.8	-	-	-	1.8	-	-	2.3	0.4	0.5	C95
Other and unspecified	57	0	0.7	-	0.6	1.1	0.6	1.8	2.6	0.7	3.5	4.3	7.8	8.1	7.2	25.0	6.3	20.9	3.2	3.4	O&U
All sites	1 383	0	16	3	6	12	15	21	51	99	117	154	141	223	264	298	311	379	76.6	81.3	ALL

Table 4 Songkhla (1995-1997), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)	
Lip	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.1 %	C00	
Tongue	49	0	0	0	0	0	0	1	0	0	2	3	3	7	8	7	7	9	3.6 %	C01-C02	
Salivary gland	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0.4 %	C07-C08	
Mouth	62	0	0	0	0	1	0	0	1	1	2	2	2	6	4	13	16	13	4.6 %	C03-C06	
Oropharynx	29	0	0	0	0	0	0	0	0	3	2	3	2	1	2	5	5	6	2.1 %	C09-C10	
Nasopharynx	38	0	0	0	0	2	1	0	2	4	6	3	5	5	3	4	2	1	2.8 %	C11	
Hypopharynx	37	0	0	0	0	0	0	0	0	0	3	3	5	1	6	7	6	6	2.7 %	C12-C13	
Pharynx unspecified	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0.2 %	C14	
Oesophagus	74	0	0	0	0	0	0	0	0	1	1	8	1	13	17	10	7	16	5.5 %	C15	
Stomach	28	0	0	0	0	0	0	0	0	0	2	2	1	4	2	6	4	7	2.1 %	C16	
Small intestine	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0.2 %	C17	
Colon	56	0	0	0	0	2	1	1	4	2	3	6	3	4	6	3	9	12	4.1 %	C18	
Rectum	52	0	0	0	0	1	0	1	1	1	3	3	5	8	8	7	7	7	3.8 %	C19-C21	
Liver	88	0	0	1	0	0	1	2	5	9	9	8	4	12	13	11	6	7	6.5 %	C22	
Gallbladder etc.	13	0	0	0	0	0	0	0	0	1	2	0	1	1	2	0	4	2	1.0 %	C23-C24	
Pancreas	18	0	0	0	0	0	2	0	0	0	0	3	2	3	2	2	0	4	1.3 %	C25	
Nose, sinuses etc.	9	0	0	0	0	0	0	0	1	0	0	2	1	2	1	0	0	2	0.7 %	C30-C31	
Larynx	50	0	0	0	0	0	0	0	0	0	2	1	3	3	16	10	7	8	3.7 %	C32	
Bronchus, lung	192	0	0	0	0	1	0	0	5	2	8	9	17	27	42	33	25	23	14.2 %	C33-C34	
Other thoracic organs	5	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0.4 %	C37-C38	
Bone	5	0	0	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0.4 %	C40-C41	
Connective tissue	11	0	0	0	0	1	0	0	2	2	0	2	1	1	0	1	0	0	0.8 %	C47, C49	
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45	
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46	
Melanoma of skin	4	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	0	0.3 %	C43	
Other skin	54	0	0	0	0	0	0	0	1	0	1	5	4	5	12	10	5	11	4.0 %	C44	
Breast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C50	
Prostate	43	0	0	0	0	0	0	0	0	0	0	0	3	2	5	7	4	22	3.2 %	C61	
Testis	4	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0.3 %	C62	
Penis	27	0	0	0	0	0	0	0	0	0	1	4	0	5	6	3	2	6	2.0 %	C60	
Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C63	
Bladder	51	0	0	0	0	0	0	0	2	1	2	2	3	4	5	12	8	12	3.8 %	C67	
Kidney etc.	16	0	0	0	0	0	0	0	1	0	0	1	3	0	1	4	1	5	1.2 %	C64-C66; C68	
Eye	4	0	2	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0.3 %	C69	
Brain, nervous system	28	0	3	1	2	0	0	4	1	4	6	1	0	3	2	0	1	1	0	2.1 %	C70-C72
Thyroid	29	0	0	0	0	0	1	2	3	1	7	4	1	6	1	1	0	2	2.1 %	C73	
Other endocrine	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2 %	C74-C75	
Hodgkin's disease	11	0	0	0	0	0	0	0	1	2	3	4	5	8	2	0	1	0	0.8 %	C81	
Non-Hodgkin lymphoma	71	0	1	2	0	4	1	3	3	3	4	5	5	8	4	9	8	11	5.2 %	C82-C85; C96	
Multiple myeloma	13	0	0	0	0	0	0	0	1	0	1	3	0	1	3	1	2	1	1.0 %	C88; C90	
Lymphoid leukaemia	14	0	4	4	1	0	1	2	0	1	0	0	0	0	0	0	1	0	1.0 %	C91	
Myeloid leukaemia	26	0	0	2	1	4	0	4	2	1	0	0	3	3	2	3	0	1	1.9 %	C92	
Monocytic leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C93	
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94	
Leukaemia unspecified	9	0	0	2	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0.7 %	C95	
Other and unspecified	118	1	1	0	0	0	2	11	4	9	5	13	13	17	14	15	8	5	8.7 %	O&U	
All sites	1 355	1	14	13	10	19	11	35	45	53	74	101	92	153	193	188	150	203	100.0 %	ALL	

Table 5 Songkhla (1995-1997), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	11	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	8	0.8 %	C00
Tongue	13	0	0	0	0	0	1	0	0	1	0	0	0	1	3	2	1	4	0.9 %	C01-C02
Salivary gland	4	0	0	0	0	1	0	0	0	1	0	0	0	0	2	2	0	0	0.3 %	C07-C08
Mouth	25	0	0	0	0	0	0	0	0	0	0	0	1	4	2	2	4	12	1.8 %	C03-C06
Oropharynx	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0.2 %	C09-C10
Nasopharynx	21	0	0	0	1	1	1	1	1	2	1	4	1	3	1	0	3	1	1.5 %	C11
Hypopharynx	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0.2 %	C12-C13
Pharynx unspecified	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1 %	C14
Oesophagus	34	0	0	0	0	0	0	0	0	1	0	2	3	4	6	5	8	5	2.5 %	C15
Stomach	24	0	0	0	0	0	0	0	0	1	3	1	2	2	4	2	3	6	1.7 %	C16
Small intestine	5	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	1	0	0.4 %	C17
Colon	39	0	0	0	0	0	0	0	0	2	3	1	3	7	4	6	3	14	2.8 %	C18
Rectum	33	0	0	0	0	0	0	0	1	0	0	3	3	7	4	6	3	6	2.4 %	C19-C21
Liver	23	0	0	0	0	0	0	0	0	4	3	0	3	2	3	3	3	1	1.7 %	C22
Gallbladder etc.	17	0	0	0	0	0	0	0	0	0	0	2	2	2	7	2	0	2	1.2 %	C23-C24
Pancreas	16	0	0	0	0	1	0	0	1	0	1	0	0	1	4	2	3	3	1.2 %	C25
Nose, sinuses etc.	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0.1 %	C30-C31
Larynx	5	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0.4 %	C32
Bronchus, lung	78	0	0	0	0	0	0	1	2	9	5	2	4	8	10	11	14	12	5.6 %	C33-C34
Other thoracic organs	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1 %	C37-C38
Bone	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C40-C41
Connective tissue	12	0	0	0	1	1	0	0	1	0	1	1	3	2	2	0	0	0	0.9 %	C47; C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	4	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0.3 %	C43
Other skin	66	0	0	0	0	1	0	0	3	2	4	2	2	5	4	6	13	24	4.8 %	C44
Breast	210	0	0	0	0	0	0	3	18	33	36	37	18	20	21	10	7	7	15.2 %	C50
Uterus unspecified	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1 %	C55
Cervix uteri	279	0	0	0	0	0	2	2	23	42	45	34	26	26	36	17	9	17	20.2 %	C53
Placenta	4	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0.3 %	C58
Corpus uteri	32	0	0	0	0	0	0	0	0	3	3	6	5	2	4	5	4	0	2.3 %	C54
Ovary etc.	79	0	0	0	2	1	5	4	7	4	8	12	7	11	7	5	3	3	5.7 %	C56
Other female genital	13	0	0	0	0	0	0	0	0	2	1	4	1	1	2	1	0	4	0.9 %	C51-C52; C57
Bladder	12	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	4	2	0.9 %	C67
Kidney etc.	4	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.3 %	C64-C66; C68
Eye	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.2 %	C69
Brain, nervous system	35	0	6	2	1	1	2	3	10	11	7	10	6	6	2	3	0	5	2.5 %	C70-C72
Thyroid	92	0	0	0	1	6	11	14	10	11	7	10	6	6	2	3	0	0	6.7 %	C73
Other endocrine	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3 %	C74-C75
Hodgkin's disease	3	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0.2 %	C81
Non-Hodgkin lymphoma	54	0	0	0	0	4	2	1	2	4	2	4	3	6	5	10	2	9	3.9 %	C82-C85; C96
Multiple myeloma	7	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	1	0	0.5 %	C88; C90
Lymphoid leukaemia	14	0	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1.0 %	C91
Myeloid leukaemia	28	0	1	0	3	1	1	1	0	4	1	2	3	3	3	3	1	1	2.0 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1 %	C94
Leukaemia unspecified	7	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5 %	C95
Other and unspecified	57	0	1	0	1	2	1	3	4	1	4	4	6	5	4	10	2	9	4.1 %	O&U
All sites	1 383	0	23	5	11	22	26	35	78	136	133	143	108	137	146	119	98	163	100.0 %	ALL

Figure 3 Population pyramid, Songkhla, 1999

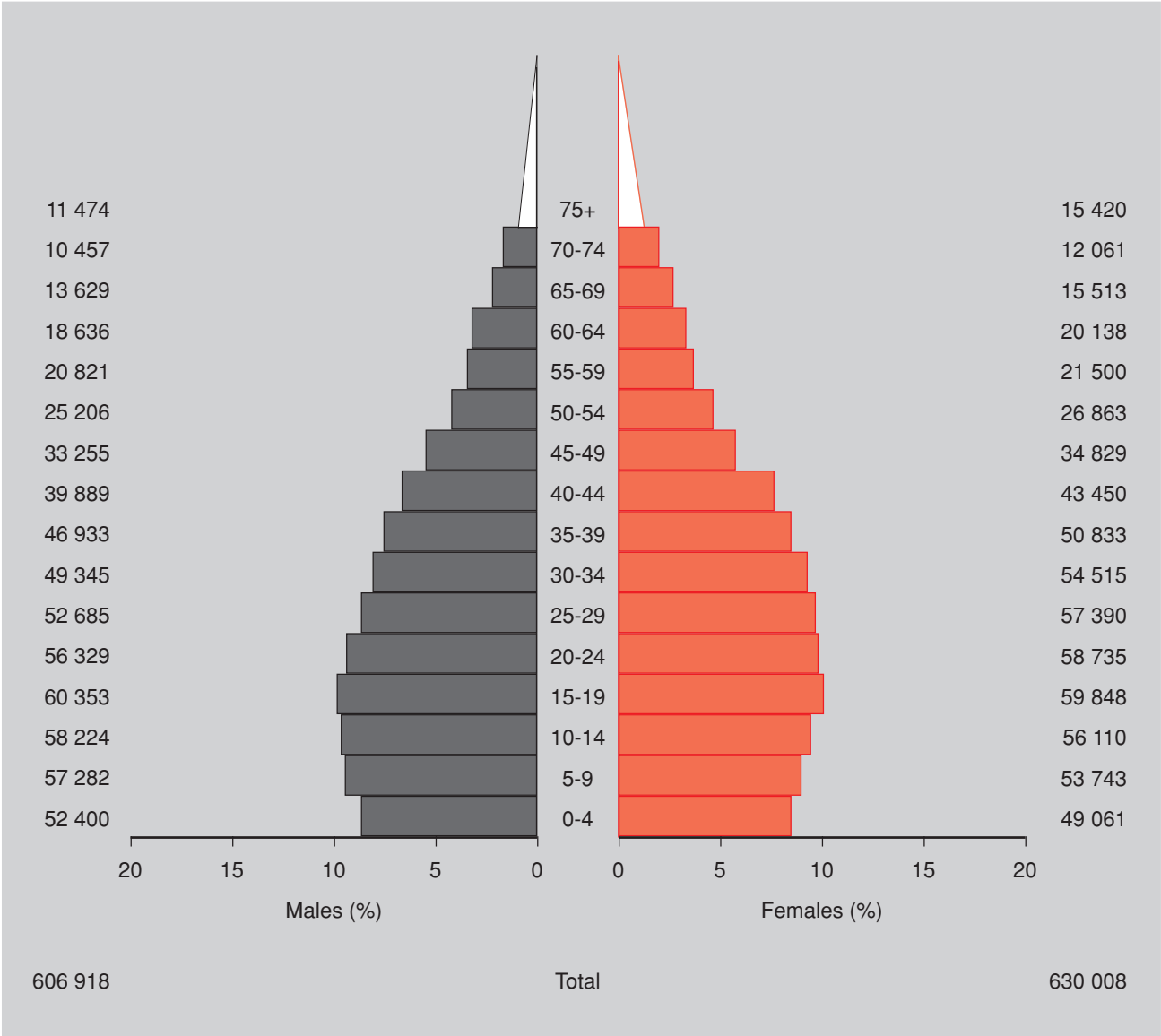


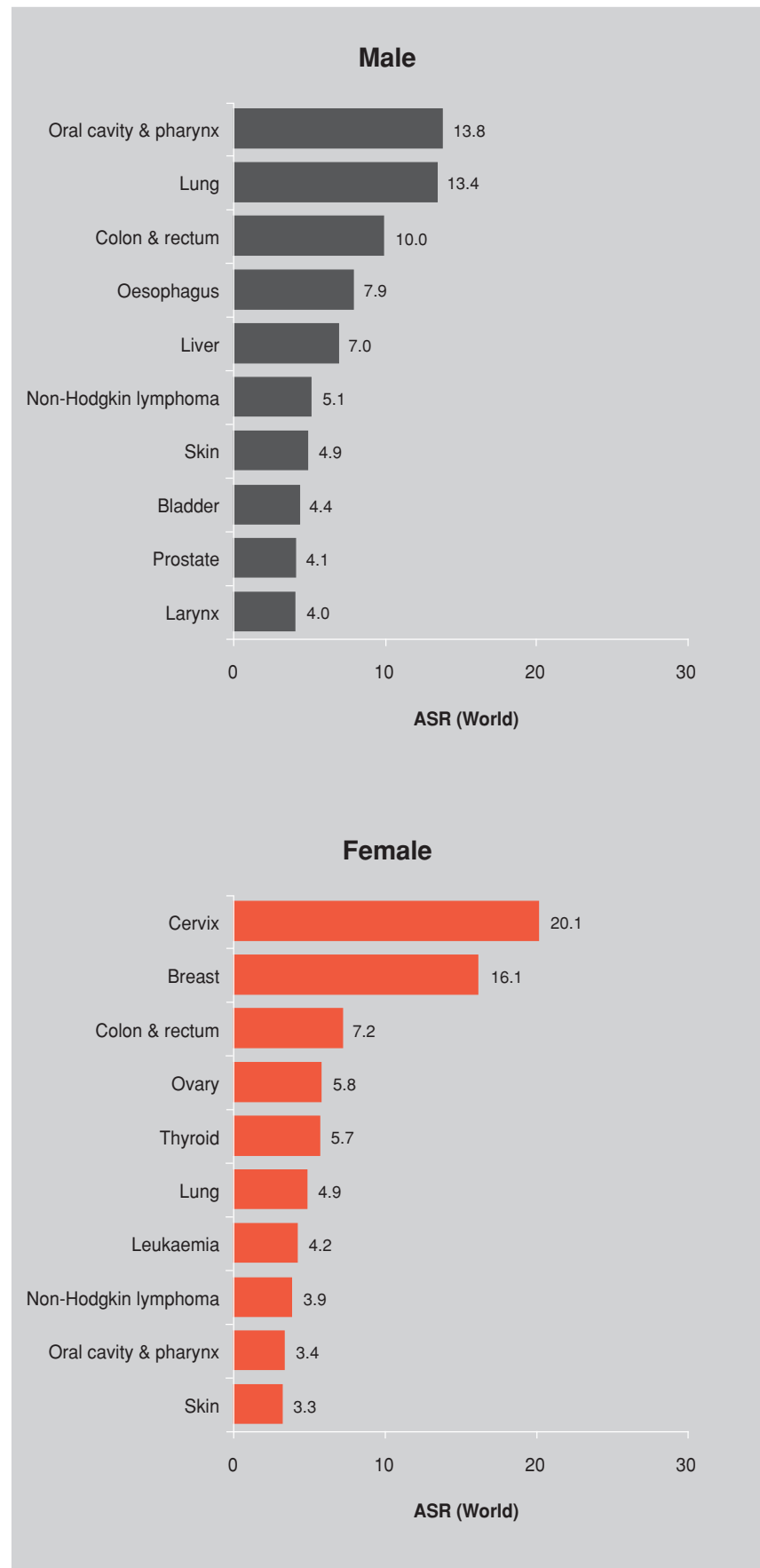
Figure 4 Leading cancers in Songkhla, 1998-2000

Table 6 Percentage of histologically verified and death certificate only cases, Songkhla 1998-2000

	Male			Female		
	Cases	%HV	%DCO	Cases	%HV	%DCO
Oral cavity	149	96.0	0.0	52	90.4	0.0
Nasopharynx	44	97.7	0.0	17	100.0	0.0
Other pharynx	67	97.0	0.0	13	92.3	0.0
Oesophagus	120	90.0	0.8	29	86.2	0.0
Stomach	43	95.4	2.3	17	100.0	0.0
Colon	86	93.0	0.0	69	82.6	1.5
Rectum	72	93.1	0.0	59	93.2	0.0
Liver	111	40.5	0.9	25	32.0	0.0
Gallbladder etc.	11	54.6	0.0	22	90.9	0.0
Pancreas	22	59.1	0.0	8	75.0	0.0
Larynx	61	95.1	0.0	8	75.0	0.0
Bronchus, lung	209	79.0	1.4	86	74.4	0.0
Bone	8	87.5	0.0	8	87.5	0.0
Melanoma of skin	7	100.0	0.0	5	100.0	0.0
Other skin	77	98.7	0.0	66	100.0	0.0
Female breast	0	0.0	0.0	303	92.4	0.0
Cervix uteri	0	0.0	0.0	375	94.9	0.0
Corpus uteri	0	0.0	0.0	56	98.2	0.0
Ovary, etc.	0	0.0	0.0	108	94.4	0.0
Prostate	66	97.0	1.5	0	0.0	0.0
Testis	5	100.0	0.0	0	0.0	0.0
Penis, other male genital	31	90.3	0.0	0	0.0	0.0
Bladder	71	87.3	0.0	15	86.7	0.0
Kidney, etc.	14	92.9	0.0	10	80.0	0.0
Brain, nervous system	22	54	0.0	22	68.2	4.6
Thyroid	22	95.5	0.0	114	97.4	0.0
Lymphoma	96	99.0	0.0	77	98.7	0.0
Leukaemia	58	74.1	1.7	75	60.0	0.0
All sites	1 637	81.7	1.8	1 782	87.2	0.7

Table 7 Songkhla (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	3	0	-	-	-	-	-	-	-	0.7	-	-	-	-	1.8	-	-	2.9	0.2	0.2	C00
Tongue	69	0	-	-	-	-	-	-	-	0.7	-	-	5.3	11.2	14.3	29.3	44.6	55.1	3.8	4.4	C01-C02
Salivary gland	4	0	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	8.7	0.2	0.2	C07-C08
Mouth	73	0	-	-	-	-	-	-	-	-	5.0	-	4.0	8.0	25.0	26.3	35.0	55.1	4.0	4.7	C03-C06
Oropharynx	22	0	-	-	-	-	-	-	-	-	-	1.0	1.3	8.0	7.1	7.3	3.2	20.3	1.2	1.4	C09-C10
Nasopharynx	44	0	-	-	-	1.1	1.2	-	-	2.1	8.3	4.0	4.0	8.0	3.6	17.1	3.2	14.5	2.4	2.6	C11
Hypopharynx	40	0	-	-	-	-	-	-	-	-	-	2.0	2.6	6.4	7.1	12.2	35.0	34.8	2.2	2.6	C12-C13
Pharynx unspecified	5	0	-	-	-	-	-	-	-	-	0.8	-	1.3	-	1.8	-	-	5.8	0.3	0.3	C14
Oesophagus	120	0	-	-	-	-	-	-	-	-	1.7	7.0	7.9	16.0	46.5	61.1	79.6	55.1	6.6	7.9	C15
Stomach	43	0	-	-	-	-	-	1.3	-	0.7	1.7	3.0	6.6	6.4	8.9	9.8	19.1	31.9	2.4	2.7	C16
Small intestine	4	0	-	-	-	-	-	-	-	-	-	-	1.3	1.6	-	-	-	5.8	0.2	0.2	C17
Colon	86	0	-	-	-	-	0.6	-	1.3	0.7	4.2	4.0	7.9	12.8	16.1	44.0	35.0	60.9	4.7	5.5	C18
Rectum	72	0	-	-	-	1.8	0.6	0.7	1.4	1.4	2.5	4.0	2.6	9.6	28.6	26.9	22.3	46.6	3.9	4.5	C19-C21
Liver	111	0	-	-	-	-	0.6	0.7	2.8	2.8	9.2	11.0	26.4	19.2	19.7	39.1	41.4	31.9	6.1	7.0	C22
Gallbladder etc.	11	0	-	-	-	-	-	-	1.3	-	-	2.0	5.3	1.6	5.4	-	-	2.9	0.6	0.7	C23-C24
Pancreas	22	0	-	-	-	-	-	-	-	-	-	1.0	-	8.0	3.6	7.3	19.1	8.7	1.2	1.4	C25
Nose, sinuses etc.	15	0	-	-	-	-	1.2	0.6	-	-	2.5	-	-	6.4	-	7.3	-	5.8	0.8	0.9	C30-C31
Larynx	61	0	-	-	-	-	0.6	0.6	-	-	2.5	4.0	6.6	6.4	16.1	36.6	22.3	34.8	3.3	4.0	C32
Bronchus, lung	209	0	-	-	-	-	0.6	0.6	2.0	4.3	5.8	13.0	14.5	40.0	60.7	73.3	149.6	92.9	11.5	13.4	C33-C34
Other thoracic organs	4	0	-	-	-	1.1	0.6	-	-	-	-	-	1.3	-	-	-	-	-	0.2	0.2	C37-C38
Bone	8	0	0.6	-	1.7	-	0.6	0.6	-	-	-	1.0	1.3	-	-	-	-	-	0.4	0.5	C40-C41
Connective tissue	19	0	0.6	0.6	-	0.6	0.6	0.6	1.3	1.4	1.7	-	2.6	3.2	-	-	6.4	5.8	1.0	1.1	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	7	0	-	-	-	-	-	-	0.7	-	-	-	-	-	3.6	-	6.4	5.8	0.4	0.4	C43
Other skin	77	0	-	-	-	-	-	1.3	0.7	0.7	1.7	5.0	5.3	12.8	12.5	31.8	38.2	63.8	4.2	4.9	C44
Breast	5	0	-	-	-	-	-	-	-	-	-	-	1.3	1.6	3.6	2.4	-	-	0.3	0.3	C50
Prostate	66	0	-	-	-	-	-	-	-	-	-	-	1.3	6.4	-	31.8	41.4	101.6	3.6	4.1	C61
Testis	5	0	-	-	-	0.6	-	0.6	0.7	-	0.8	-	-	-	-	2.4	-	-	0.3	0.3	C62
Penis	31	0	-	-	-	-	-	-	-	0.7	1.7	2.0	2.6	4.8	10.7	19.5	3.2	17.4	1.7	2.0	C60
Other male genital	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C63
Bladder	71	0	-	-	-	-	-	1.3	-	0.7	1.7	3.0	7.9	6.4	10.7	17.1	44.6	75.4	3.9	4.4	C67
Kidney etc.	14	0	-	-	-	-	-	-	-	0.7	0.8	2.0	1.3	1.6	1.8	9.8	6.4	2.9	0.8	0.9	C64-C66; C68
Eye	6	0	1.3	-	-	-	-	0.6	-	-	0.8	-	-	-	1.8	-	-	2.9	0.3	0.4	C69
Brain, nervous system	22	0	0.6	1.2	-	-	-	0.6	1.3	0.7	2.5	2.0	2.6	6.4	1.8	2.4	-	5.8	1.2	1.3	C70-C72
Thyroid	22	0	-	-	-	0.6	-	1.3	2.7	2.1	-	2.0	-	1.6	5.4	7.3	3.2	5.8	1.2	1.2	C73
Other endocrine	5	0	1.9	0.6	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	0.3	0.3	C74-C75
Hodgkin's disease	9	0	-	-	1.1	0.6	0.6	0.6	1.3	-	0.8	-	-	-	-	2.4	-	-	0.5	0.5	C81
Non-Hodgkin lymphoma	87	0	-	0.6	1.1	0.6	1.8	1.9	6.7	2.8	6.7	6.	11.9	11.2	10.7	24.4	25.5	26.1	4.8	5.1	C82-C85; C96
Multiple myeloma	13	0	-	-	-	-	-	-	-	0.7	1.7	-	2.6	1.6	1.8	4.9	9.6	2.9	0.7	0.8	C88; C90
Lymphoid leukaemia	19	0	3.2	2.3	1.1	1.1	-	0.6	0.7	-	0.8	-	1.3	-	-	-	3.2	2.9	1.0	1.1	C91
Myeloid leukaemia	25	0	-	-	-	0.6	0.6	-	-	1.4	0.8	2.0	2.6	4.8	5.4	12.2	6.4	8.7	1.4	1.6	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	2	0	-	-	-	-	-	-	-	0.7	-	-	1.3	-	-	-	-	-	0.1	0.1	C94
Leukaemia unspecified	12	0	1.3	0.6	0.6	-	0.6	0.6	-	2.1	-	-	1.3	1.6	-	2.4	-	-	0.7	0.7	C95
Other and unspecified	94	1	0.6	-	-	-	1.2	1.9	0.7	2.8	4.2	6.0	13.2	11.2	28.6	34.2	44.6	29.0	5.2	5.9	O&U
All sites	1 637	1	10	6	6	7	12	17	24	31	71	95	160	246	364	603	748	931	89.8	102.6	ALL

Table 8 Songkhla (1998-2000), Annual Incidence per 100 000 by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	8	0	-	-	-	-	-	-	-	-	0.8	-	-	1.5	-	-	2.8	10.8	0.4	0.4	C00
Tongue	13	0	-	-	-	-	-	-	-	-	-	-	-	3.1	1.7	-	11.0	4.3	0.7	0.7	C01-C02
Salivary gland	5	0	-	-	-	-	-	-	1.2	0.7	-	-	-	-	-	-	-	-	0.3	0.2	C07-C08
Mouth	26	0	-	-	-	-	-	-	-	-	0.8	-	-	-	6.6	12.9	16.6	15.5	1.4	1.4	C03-C06
Oropharynx	6	0	-	-	-	-	-	-	-	1.3	1.5	-	-	-	-	-	2.8	2.2	0.3	0.3	C09-C10
Nasopharynx	17	0	-	-	-	-	1.7	1.2	-	2.6	0.8	1.0	3.7	-	1.7	2.1	2.8	-	0.9	0.9	C11
Hypopharynx	7	0	-	-	-	-	-	-	0.6	-	-	1.0	-	-	-	8.6	-	2.2	0.4	0.4	C12-C13
Pharynx unspecified	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C14
Oesophagus	29	0	-	-	-	-	-	-	-	-	-	-	1.2	1.5	8.3	21.5	30.4	2.2	1.5	1.7	C15
Stomach	17	0	-	-	-	-	-	-	-	1.3	1.5	-	1.2	-	3.3	10.7	11.0	2.2	0.9	1.0	C16
Small intestine	2	0	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-	2.8	-	0.1	0.1	C17
Colon	69	0	-	-	-	-	-	-	1.2	1.3	3.8	3.8	3.7	7.7	11.6	27.9	41.4	28.1	3.6	3.8	C18
Rectum	59	0	-	-	-	-	-	-	-	0.7	2.3	3.8	3.7	9.3	24.8	23.6	22.1	17.3	3.1	3.5	C19-C21
Liver	25	0	0.7	-	-	-	-	-	-	0.7	4.6	1.0	1.2	3.1	1.7	15.0	5.5	8.6	1.3	1.4	C22
Gallbladder etc.	22	0	-	-	-	-	-	-	0.6	-	0.8	1.0	-	3.1	9.9	4.3	8.3	13.0	1.2	1.2	C23-C24
Pancreas	8	0	-	-	-	-	-	-	0.6	-	-	-	-	4.6	3.3	2.1	-	2.2	0.4	0.5	C25
Nose, sinuses etc.	4	0	-	-	-	0.6	-	-	-	0.7	-	-	-	-	-	-	2.8	2.2	0.2	0.2	C30-C31
Larynx	8	0	-	-	-	-	-	-	-	-	0.8	-	-	-	-	4.3	5.5	2.2	0.4	0.5	C32
Bronchus, lung	86	0	-	0.6	-	-	-	0.6	1.2	2.0	2.3	9.6	6.2	12.4	23.1	32.2	24.8	32.4	4.5	4.9	C33-C34
Other thoracic organs	3	0	-	-	-	-	-	-	-	-	0.8	1.0	-	1.5	1.7	-	-	-	0.2	0.2	C37-C38
Bone	8	0	0.7	0.6	1.2	1.1	-	-	0.6	-	-	1.0	-	-	-	-	-	-	0.4	0.4	C40-C41
Connective tissue	9	0	-	-	0.6	0.6	-	-	-	-	0.8	1.0	2.5	3.1	1.7	-	-	-	0.5	0.5	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	5	0	-	-	-	-	-	-	-	-	-	1.9	-	-	-	-	-	-	0.3	0.3	C43
Other skin	66	1	-	-	-	0.6	-	0.6	0.6	1.3	6.1	2.9	2.5	4.6	6.6	19.3	19.3	51.8	3.5	3.3	C44
Breast	303	0	-	-	-	-	-	4.6	14.7	22.9	23.8	53.5	49.6	43.4	43.0	36.5	49.7	43.2	16.0	16.1	C50
Uterus unspecified	3	0	-	-	-	-	-	-	-	-	0.8	-	-	1.5	-	2.1	-	-	0.2	0.2	C55
Cervix uteri	375	1	-	-	-	-	1.1	3.5	13.4	24.2	49.0	56.4	57.0	58.8	49.6	57.9	71.8	36.7	19.8	20.1	C53
Placenta	9	0	-	-	-	-	1.1	0.6	0.6	1.3	0.8	-	1.2	-	-	-	2.2	-	0.5	0.4	C58
Corpus uteri	56	0	-	-	-	-	0.6	0.6	0.6	0.7	3.8	8.6	22.3	12.4	9.9	8.6	5.5	-	3.0	3.3	C54
Ovary etc.	108	0	-	-	-	2.2	2.8	3.5	6.1	6.5	6.9	14.3	14.9	23.2	18.2	10.7	11.0	4.3	5.7	5.8	C56
Other female genital	19	0	-	-	-	-	-	0.6	-	1.3	-	1.9	2.5	3.1	8.3	2.1	2.8	6.5	1.0	1.1	C51-C52; C57
Bladder	15	0	-	-	-	-	-	0.6	-	-	0.8	-	2.5	-	1.7	4.3	5.5	13.0	0.8	0.8	C67
Kidney etc.	10	0	0.7	-	-	-	-	-	-	-	-	-	-	1.5	5.0	2.1	-	8.6	0.5	0.6	C64-C66; C68
Eye	6	0	1.4	-	-	0.6	-	-	0.6	-	-	-	-	-	-	2.1	-	2.2	0.3	0.4	C69
Brain, nervous system	22	0	2.0	0.6	-	1.7	0.6	-	-	2.0	0.8	2.9	2.5	-	1.7	4.3	-	4.3	1.2	1.2	C70-C72
Thyroid	114	0	-	-	1.2	1.7	4.5	7.0	7.3	11.8	9.2	11.5	8.7	13.9	13.2	8.6	13.8	4.3	6.0	5.7	C73
Other endocrine	6	0	1.4	-	-	0.6	-	-	-	-	-	-	-	3.1	1.7	-	-	-	0.3	0.4	C74-C75
Hodgkin's disease	5	0	-	-	-	1.1	0.6	-	0.6	-	0.8	-	-	-	-	-	-	-	0.3	0.2	C81
Non-Hodgkin lymphoma	72	0	0.7	0.6	0.6	1.1	1.7	1.7	1.2	1.3	3.1	5.7	1.2	7.7	18.2	12.9	27.6	30.2	3.8	3.9	C82-C85; C96
Multiple myeloma	18	0	-	-	-	-	-	-	-	-	-	1.9	1.2	1.5	6.6	8.6	13.8	2.2	1.0	1.1	C88; C90
Lymphoid leukaemia	23	0	4.8	1.9	1.2	0.6	0.6	-	-	-	1.5	-	1.2	1.5	1.7	4.3	-	4.3	1.2	1.5	C91
Myeloid leukaemia	32	0	0.7	1.2	1.2	-	1.1	1.2	0.6	2.6	1.5	1.9	2.5	3.1	6.6	4.3	5.5	4.3	1.7	1.7	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	1	0	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	0.1	0.1	C94
Leukaemia unspecified	19	0	1.4	0.6	1.2	-	0.6	-	-	-	2.3	1.0	1.2	1.5	1.7	-	5.5	8.6	1.0	1.0	C95
Other and unspecified	63	0	0.7	-	-	0.6	-	-	1.2	3.3	6.1	5.7	3.7	9.3	9.9	27.9	8.3	19.4	3.3	3.5	O&U
All sites	1 782	2	15	6	7	13	17	26	54	92	139	194	201	245	304	386	436	395	94.2	96.6	ALL

Table 9 Songkhla (1998-2000), Number of Cases by Age Group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0.2 %	C00
Tongue	69	0	0	0	0	0	0	0	0	1	0	4	4	7	8	12	14	19	4.2 %	C01-C02
Salivary gland	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0.2 %	C07-C08
Mouth	73	0	0	0	0	0	0	0	0	0	6	4	3	5	14	11	11	19	4.5 %	C03-C06
Oropharynx	22	0	0	0	0	0	0	0	0	0	0	1	1	5	4	3	1	7	1.3 %	C09-C10
Nasopharynx	44	0	0	0	0	0	0	0	0	3	10	4	3	5	2	7	1	5	2.7 %	C11
Hypopharynx	40	0	0	0	0	0	0	0	0	0	0	2	2	4	4	5	11	12	2.4 %	C12-C13
Pharynx unspecified	5	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	2	0.3 %	C14
Oesophagus	120	0	0	0	0	0	0	0	0	0	2	7	6	10	26	25	25	19	7.3 %	C15
Stomach	43	0	0	0	0	0	0	2	0	1	2	3	5	4	5	4	6	11	2.6 %	C16
Small intestine	4	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	2	0.2 %	C17
Colon	86	0	0	0	0	0	1	0	0	2	5	4	6	8	9	18	11	21	5.3 %	C18
Rectum	72	0	0	0	0	0	3	1	1	2	3	4	2	6	16	11	7	16	4.4 %	C19-C21
Liver	111	0	0	0	0	0	0	1	1	4	11	11	20	12	11	16	13	11	6.8 %	C22
Gallbladder etc.	11	0	0	0	0	0	0	0	0	0	0	2	4	1	3	0	0	1	0.7 %	C23-C24
Pancreas	22	0	0	0	0	0	0	0	0	2	0	0	0	5	2	3	6	3	1.3 %	C25
Nose, sinuses etc.	15	0	0	0	0	0	2	1	0	0	3	0	0	4	4	0	3	0	0.9 %	C30-C31
Larynx	61	0	0	0	0	0	1	1	0	0	3	4	5	4	9	15	7	12	3.7 %	C32
Bronchus, lung	209	0	0	0	0	0	0	1	3	6	7	13	11	25	34	30	47	32	12.8 %	C33-C34
Other thoracic organs	4	0	0	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0.2 %	C37-C38
Bone	8	0	1	0	3	0	1	1	0	0	0	1	1	0	0	0	0	0	0.5 %	C40-C41
Connective tissue	19	0	0	0	0	0	0	0	0	2	2	0	2	2	0	0	2	2	1.2 %	C47, C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0.4 %	C43
Other skin	77	0	0	0	0	0	0	2	1	1	2	5	4	8	7	13	12	22	4.7 %	C44
Breast	5	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0.3 %	C50
Prostate	66	0	0	0	0	0	0	0	0	0	0	0	1	4	0	13	13	35	4.0 %	C61
Testis	5	0	0	0	0	1	0	1	1	0	1	0	2	0	0	1	0	0	0.3 %	C62
Penis	31	0	0	0	0	0	0	0	0	1	2	2	2	3	6	8	1	6	1.9 %	C60
Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C63
Bladder	71	0	0	0	0	0	0	2	0	1	2	3	6	4	6	7	14	26	4.3 %	C67
Kidney etc.	14	0	0	0	0	0	0	0	0	1	1	2	1	1	1	4	2	1	0.9 %	C64-C66; C68
Eye	6	0	2	0	0	0	0	1	0	0	1	0	0	0	1	1	0	1	0.4 %	C69
Brain, nervous system	22	0	1	2	0	0	0	1	2	1	3	2	2	4	1	1	0	2	1.3 %	C70-C72
Thyroid	22	0	0	0	0	1	0	2	4	3	0	2	0	1	3	3	1	2	1.3 %	C73
Other endocrine	5	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.3 %	C74-C75
Hodgkin's disease	9	0	0	0	2	1	1	1	2	0	1	0	0	0	0	1	0	0	0.5 %	C81
Non-Hodgkin lymphoma	87	0	0	1	2	1	3	3	10	4	8	6	9	7	6	10	8	9	5.3 %	C82-C85; C96
Multiple myeloma	13	0	0	0	0	0	0	0	0	1	2	0	2	1	1	1	3	1	0.8 %	C88; C90
Lymphoid leukaemia	19	0	5	4	2	2	0	1	1	0	1	0	1	0	0	0	1	1	1.2 %	C91
Myeloid leukaemia	25	0	0	0	0	1	1	0	0	2	1	2	2	3	3	5	2	3	1.5 %	C92
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C93
Other leukaemia	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0.1 %	C94
Leukaemia unspecified	12	0	2	1	1	0	1	1	0	3	0	0	1	1	0	1	0	0	0.7 %	C95
Other and unspecified	94	1	1	0	0	0	2	3	1	4	5	6	10	7	16	14	14	10	5.7 %	O&U
All sites	1 637	1	16	10	10	12	20	27	35	44	85	95	121	154	204	247	235	321	100.0 %	ALL

Table 10 Songkhla (1998-2000), Number of Cases by Age Group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	8	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	5	0.4 %	C00
Tongue	13	0	0	0	0	0	0	0	0	0	0	1	1	2	1	2	4	2	0.7 %	C01-C02
Salivary gland	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0.3 %	C07-C08
Mouth	26	0	0	0	0	0	0	0	0	2	1	0	0	0	4	6	6	7	1.5 %	C03-C06
Oropharynx	6	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	1	0.3 %	C09-C10
Nasopharynx	17	0	0	0	0	0	3	2	0	4	1	1	3	0	1	1	1	0	1.0 %	C11
Hypopharynx	7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	1	0.4 %	C12-C13
Pharynx unspecified	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0 %	C14
Oesophagus	29	0	0	0	0	0	0	0	0	0	0	0	1	1	5	10	11	1	1.6 %	C15
Stomach	17	0	0	0	0	0	0	0	0	0	2	0	1	0	2	5	4	1	1.0 %	C16
Small intestine	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1 %	C17
Colon	69	0	0	0	0	0	0	0	2	2	5	4	3	5	7	13	15	13	3.9 %	C18
Rectum	59	0	0	0	0	0	0	0	0	1	3	4	3	6	15	11	8	8	3.3 %	C19-C21
Liver	25	0	1	0	0	0	0	0	0	1	6	0	1	2	6	7	2	4	1.4 %	C22
Gallbladder etc.	22	0	0	0	0	0	0	0	0	1	1	0	0	3	2	2	3	6	1.2 %	C23-C24
Pancreas	8	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0.4 %	C25
Nose, sinuses etc.	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2 %	C30-C31
Larynx	8	0	0	0	0	0	0	0	0	0	1	0	0	2	14	15	9	15	4.8 %	C32
Bronchus, lung	86	0	0	1	0	0	0	0	2	3	3	10	5	8	14	15	9	15	4.8 %	C33-C34
Other thoracic organs	3	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0.2 %	C37-C38
Bone	8	0	1	1	2	2	0	0	1	0	0	1	0	1	0	0	0	0	0.4 %	C40-C41
Connective tissue	9	0	0	0	1	1	0	0	0	0	1	1	2	2	1	0	0	0	0.5 %	C47, C49
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C45
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C46
Melanoma of skin	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3 %	C43
Other skin	66	1	0	0	1	1	0	1	1	2	8	3	2	3	4	9	6	24	3.7 %	C44
Breast	303	0	0	0	0	0	0	8	24	35	31	56	40	28	26	17	18	20	17.0 %	C50
Uterus unspecified	3	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0.2 %	C55
Cervix uteri	375	1	0	0	0	0	2	6	22	37	64	59	46	38	30	27	26	17	21.0 %	C53
Placenta	9	0	0	0	0	0	2	1	1	2	1	0	1	0	0	0	0	1	0.5 %	C58
Corpus uteri	56	0	0	0	0	0	1	1	1	1	5	9	18	8	6	4	2	0	3.1 %	C54
Ovary etc.	108	0	0	0	0	4	5	6	10	10	9	15	12	15	11	5	4	2	6.1 %	C56
Other female genital	19	0	0	0	0	0	0	1	0	2	0	2	2	2	5	1	1	3	1.1 %	C51-C52; C57
Bladder	15	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	2	6	0.8 %	C59
Kidney etc.	10	0	1	0	0	0	0	0	0	0	0	0	0	1	3	1	0	4	0.6 %	C64-C66; C68
Eye	6	0	2	0	0	1	0	0	1	0	0	0	0	0	0	1	0	1	0.3 %	C69
Brain, nervous system	22	0	3	1	0	3	1	0	12	18	12	12	7	9	8	4	5	2	1.2 %	C70-C72
Thyroid	114	0	0	0	2	3	8	12	12	18	12	12	7	9	8	4	5	2	6.4 %	C73
Other endocrine	6	0	2	0	0	1	0	0	0	0	0	0	0	2	1	0	0	0	0.3 %	C74-C75
Hodgkin's disease	5	0	0	0	0	2	1	0	1	0	1	0	0	0	0	0	0	0	0.3 %	C81
Non-Hodgkin lymphoma	72	0	1	1	1	2	3	3	2	2	4	6	1	5	11	6	10	14	4.0 %	C82-C85; C96
Multiple myeloma	18	0	0	0	0	0	0	0	0	0	0	2	1	1	4	4	5	1	1.3 %	C88; C90
Lymphoid leukaemia	23	0	7	3	2	1	1	0	0	0	2	2	2	2	4	2	2	2	1.8 %	C92
Myeloid leukaemia	32	0	1	2	2	0	2	2	1	4	2	2	2	2	4	2	2	2	1.8 %	C93
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0 %	C94
Other leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1 %	C95
Leukaemia unspecified	19	0	2	1	2	0	1	0	0	0	3	1	1	1	1	0	2	4	1.1 %	C96
Other and unspecified	63	0	1	0	0	1	0	0	2	5	8	6	3	6	6	13	3	9	3.5 %	O&U
All sites	1 782	2	22	10	12	23	30	45	89	140	181	203	162	158	184	180	158	183	100 %	ALL

APPENDIX

F

THAILAND
(ESTIMATED)*Hutcha Sriplung, M.D.***GEOGRAPHY
AND POPULATION**

Thailand is located in South-east Asia between latitudes $5^{\circ} 37'$ N and $20^{\circ} 27'$ N, and between longitudes $97^{\circ} 22'$ E and $105^{\circ} 37'$ E. Stretching about 1 600 kilometers from north to south, it is bounded in the north by Myanmar and the Lao People's Democratic Republic, in the east by Lao People's Democratic Republic and Cambodia, and in the south by Malaysia. The southern part is a long peninsular strip between the Indian Ocean to the east. The total area is 513 155 squared kilometers. The climate of the country as a whole is dominated by monsoons. There are three seasons: summer, rainy, and winter. Thailand is divided into 76 provinces, within four geographical regions: the Northern, Northeastern, Central, and Southern. The popu-

lation distribution by age group and sex is shown in Figure 1.

STATISTICAL METHODS

The data from the two Northern cancer registries of Chiang Mai and Lampang were first pooled by adding together the cases and the person-years at risk from the two registries. Then the age (five-year age groups) and sex specific rates for Chiang Mai plus Lampang (Northern), Khon Kaen (Northeastern), Bangkok (Central), and Songkhla (Southern) were applied to the populations of the representative regions in 1996.

The sum of these provided the estimated total by sex, site, and age group for the country as a whole and the corresponding incidence rates were calculated using the 1996 population of Thailand.

Figure 1 Population pyramid, Thailand, 1996

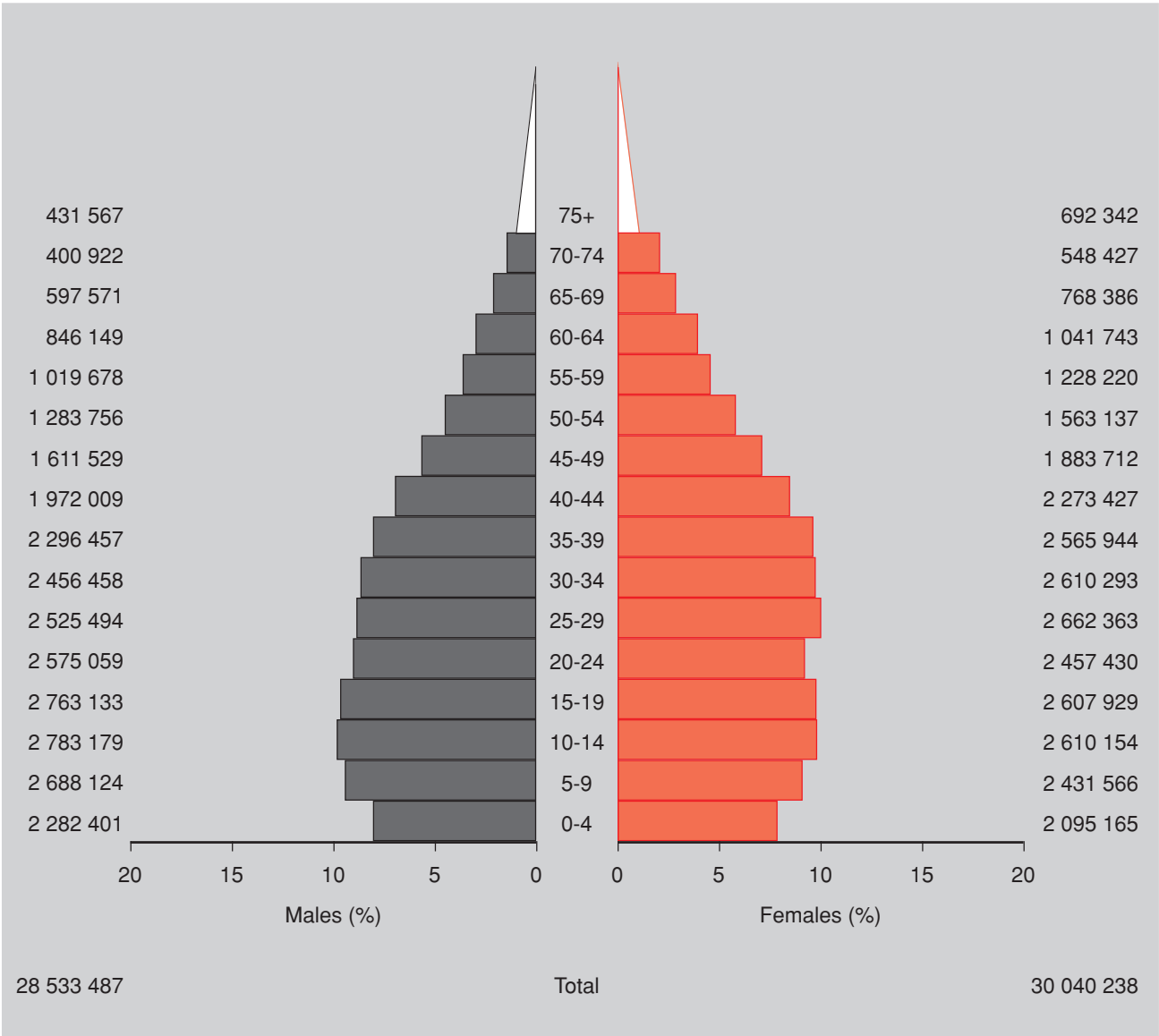


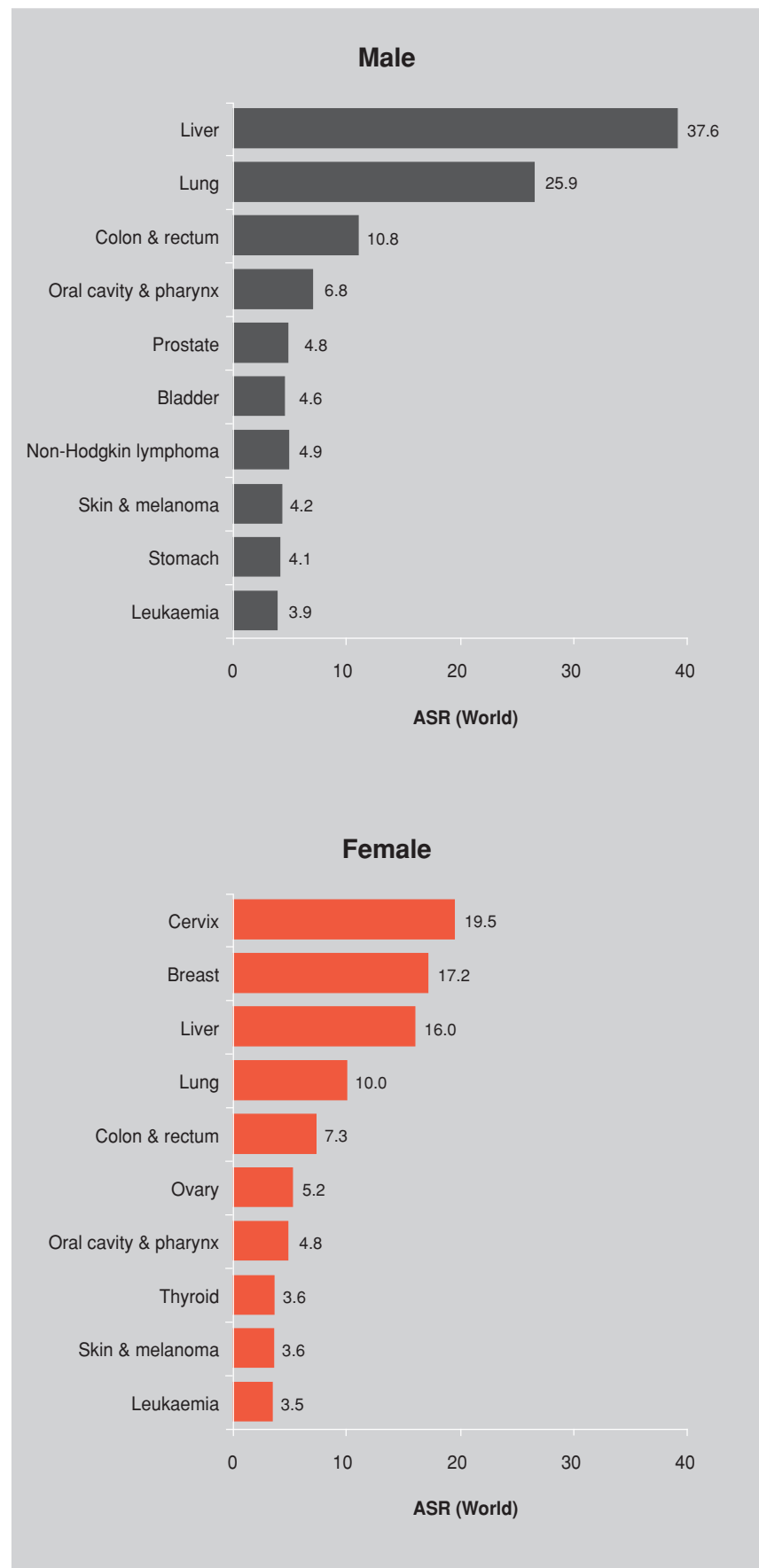
Figure 2 Leading cancers in Thailand (estimated), 1996

Table 1 Thailand (estimate) 1996, annual incidence per 100 000 in male by age-group (years)

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	36	0	-	-	0.1	-	-	-	-	0.2	0.4	-	0.4	0.4	-	0.5	1.3	1.0	0.1	0.1	C00
Tongue	412	0	-	-	-	-	0.2	0.1	0.1	0.8	0.8	2.4	3.4	5.8	8.7	11.1	6.4	14.2	1.4	1.8	C01-C02
Salivary gland	80	0	-	-	-	0.1	0.1	0.3	0.3	0.3	0.1	0.1	0.4	0.6	0.3	2.1	5.2	2.3	0.3	0.3	C07-C08
Mouth	454	0	-	-	-	0.1	0.3	0.1	0.3	0.3	0.7	2.1	3.6	7.6	6.9	11.4	11.3	19.3	1.6	2.0	C03-C06
Oropharynx	271	0	-	-	-	0.1	0.1	0.1	0.6	1.4	1.4	1.0	1.3	2.6	3.7	6.2	12.8	10.1	1.0	1.2	C09-C10
Nasopharynx	872	0	-	-	0.2	0.4	0.1	1.1	1.7	3.5	4.6	5.6	8.3	12.0	10.5	16.7	14.4	10.4	3.1	3.4	C11
Hypopharynx	275	0	-	-	-	-	-	-	-	0.1	0.5	1.0	2.2	3.6	5.8	6.5	10.2	12.1	1.0	1.2	C12-C13
Pharynx unspecified	48	0	-	-	0.2	-	-	-	-	0.2	0.2	0.1	0.3	0.6	0.3	2.0	0.7	1.6	0.2	0.2	C14
Oesophagus	720	0	-	-	-	-	-	0.2	0.5	1.0	1.0	3.3	3.8	12.4	15.8	18.0	19.5	31.7	2.5	3.2	C15
Stomach	945	0	-	-	-	-	0.1	0.4	1.0	1.0	2.5	3.7	5.4	11.1	17.3	28.0	29.6	36.4	3.3	4.1	C16
Small intestine	84	0	-	-	-	-	-	-	-	0.2	0.3	0.5	0.9	1.4	1.9	0.9	2.3	1.8	0.3	0.3	C17
Colon	1555	0	-	-	0.1	0.2	0.7	0.9	1.8	2.5	5.7	5.7	11.2	15.4	26.4	34.5	45.8	66.8	5.4	6.6	C18
Rectum	978	0	-	-	0.1	0.1	0.3	1.0	1.2	1.2	2.3	2.8	6.5	14.2	18.7	28.6	30.4	32.7	3.4	4.2	C19-C21
Liver	9031	0	0.3	-	0.1	0.2	1.1	3.3	9.0	14.6	30.1	62.9	89.4	142.6	180.9	219.8	160.6	150.8	31.7	37.6	C22
Gallbladder etc.	367	0	-	-	-	-	0.1	0.1	-	0.4	1.3	1.8	1.5	3.6	6.5	8.1	15.1	18.3	1.3	1.6	C23-C24
Pancreas	334	0	-	-	-	-	0.2	0.2	0.2	0.2	1.2	1.6	3.9	3.8	6.1	9.6	4.8	11.7	1.2	1.4	C25
Nose, sinuses etc.	141	0	-	0.1	0.2	-	0.1	0.2	0.1	0.3	0.3	0.7	0.9	2.0	1.0	5.1	2.3	4.8	0.5	0.6	C30-C31
Larynx	684	0	-	-	-	-	-	-	0.4	0.6	0.9	1.5	3.9	8.7	15.9	20.2	29.1	24.6	2.4	3.1	C32
Bronchus, lung	5916	0	-	-	0.1	0.4	1.2	2.5	4.8	5.1	11.5	17.9	44.2	86.1	137.3	177.9	171.8	161.8	20.7	25.9	C33-C34
Other thoracic organs	83	0	0.1	-	0.5	0.3	0.3	0.2	0.3	0.5	0.1	0.3	0.3	0.2	0.6	0.2	2.0	0.7	0.3	0.3	C37-C38
Bone	234	0	0.1	0.3	1.2	0.8	0.7	0.4	0.8	0.4	0.7	0.6	1.1	2.0	1.8	3.6	3.2	0.6	0.8	0.9	C40-C41
Connective tissue	241	0	1.2	0.4	0.3	0.7	0.3	0.2	0.6	0.4	0.6	0.4	2.1	2.2	2.3	3.6	1.6	5.6	0.8	1.0	C47, C49
Mesothelioma	11	0	-	-	-	-	-	0.1	-	0.1	0.1	-	0.1	0.2	0.1	-	-	0.3	0.0	0.0	C45
Kaposi's sarcoma	6	0	-	-	-	-	-	0.1	-	-	0.1	-	-	0.1	-	-	-	-	0.0	0.0	C46
Melanoma of skin	107	0	-	-	0.1	-	-	0.2	-	0.8	0.1	0.9	0.8	0.6	2.0	2.2	3.2	1.8	0.4	0.4	C43
Other skin	892	0	-	-	0.2	0.2	0.1	0.6	0.6	0.7	2.0	4.8	4.5	11.4	11.8	24.7	27.5	44.7	3.1	3.9	C44
Breast	54	0	-	-	-	-	-	0.1	0.1	0.3	0.4	0.1	0.3	0.1	1.6	0.4	0.6	2.5	0.2	0.2	C50
Prostate	1019	0	-	-	-	-	-	-	-	-	0.2	0.4	2.6	4.5	23.4	23.9	49.1	90.7	3.6	4.8	C61
Testis	146	0	0.1	0.1	0.1	0.2	0.4	0.6	1.7	0.7	0.5	2.1	0.9	0.5	1.1	0.7	1.9	0.3	0.5	0.5	C62
Penis	390	0	-	-	-	-	-	0.3	0.3	0.9	1.6	2.1	1.8	5.3	8.0	7.2	11.6	12.6	1.4	1.6	C60
Other male genital	18	0	-	-	-	-	-	-	0.2	-	0.2	-	-	0.2	0.3	-	0.6	0.6	0.1	0.1	C63
Bladder	1024	0	0.2	-	-	0.1	-	0.1	0.5	1.2	1.6	3.8	3.3	11.2	19.0	29.9	36.4	56.2	3.6	4.6	C67
Kidney etc.	359	0	0.6	0.1	-	-	-	0.1	0.5	0.3	1.0	1.4	3.4	3.4	9.7	10.2	5.5	8.2	1.3	1.6	C64-C66; C68
Eye	55	0	0.7	-	-	-	-	0.1	0.1	0.4	0.1	0.2	0.1	0.3	0.5	1.0	0.8	0.9	0.2	0.2	C69
Brain, nervous system	607	0	2.3	0.8	1.0	0.9	0.6	2.2	2.2	3.2	3.9	2.3	2.7	3.2	5.1	6.0	1.3	3.7	2.1	2.2	C70-C72
Thyroid	289	0	-	0.1	-	-	0.5	0.8	0.2	0.9	1.5	2.9	2.0	3.4	2.6	4.1	5.2	5.5	1.0	1.1	C73
Other endocrine	36	0	0.2	-	0.4	0.2	-	-	-	0.2	0.2	-	0.3	-	0.3	0.5	-	-	0.1	0.1	C74-C75
Hodgkin's disease	106	0	0.1	0.2	0.1	0.0	0.2	0.5	0.5	0.3	0.5	0.9	0.4	0.9	1.5	0.5	1.3	0.9	0.4	0.4	C81
Non-Hodgkin lymphoma	1120	0	0.7	0.7	0.9	1.0	1.8	2.7	2.8	4.3	4.1	4.6	7.8	9.4	11.3	20.3	20.6	24.6	3.9	4.3	C82-C85; C96
Multiple myeloma	136	0	-	-	-	-	-	-	0.2	0.2	0.4	1.0	0.7	2.2	1.8	4.9	3.7	2.9	0.5	0.6	C88; C90
Lymphoid leukaemia	350	0	4.8	1.9	1.0	0.7	0.5	0.8	0.7	0.3	0.8	0.1	0.4	1.0	1.6	2.9	3.0	2.1	1.2	1.5	C91
Myeloid leukaemia	396	0	0.7	0.7	0.5	1.0	0.6	1.5	1.6	0.7	1.0	1.7	2.4	2.9	5.3	4.1	3.0	4.3	1.4	1.5	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	11	0	0.1	-	-	-	-	-	-	-	0.1	-	-	0.4	0.1	0.2	-	-	0.0	0.0	C94
Leukaemia unspecified	255	0	0.3	0.4	0.1	0.5	1.2	1.1	0.9	0.6	0.5	1.6	1.0	1.7	1.8	2.4	2.9	3.4	0.9	0.9	C95
Other and unspecified	4394	0	1.0	0.3	0.4	1.3	3.4	10.4	9.5	11.0	13.4	18.7	36.6	60.2	69.8	84.4	78.7	97.5	15.4	17.6	O&U
All sites	35 539	0	13.2	5.9	7.5	9.6	15.3	31.7	45.2	60.8	101.4	163.7	266.9	461.7	647.6	845.2	837.2	983.2	124.6	149.2	ALL

Table 2 Thailand (estimate) 1996, annual incidence per 100 000 in female by age-group (years)

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR (W)	ICD (10th)
Lip	376	0	-	-	-	0.1	-	-	-	0.1	0.3	0.3	1.3	2.9	6.8	10.3	13.4	11.4	1.3	1.3	C00
Tongue	233	0	-	-	-	-	-	-	0.4	0.2	1.1	0.7	0.7	2.7	2.2	5.1	6.1	5.5	0.8	0.8	C01-C02
Salivary gland	116	0	-	-	-	0.1	0.1	-	0.7	0.3	0.6	0.4	0.6	1.1	0.9	1.4	1.7	1.7	0.4	0.4	C07-C08
Mouth	531	0	-	-	-	0.1	-	-	-	0.3	0.6	0.4	1.6	2.2	10.2	12.5	11.8	25.6	1.8	1.8	C03-C06
Oropharynx	67	0	-	-	-	-	-	-	0.1	0.2	0.3	0.4	0.2	0.6	0.5	0.6	1.3	2.6	0.2	0.2	C09-C10
Nasopharynx	405	0	-	-	-	-	-	-	-	0.7	0.6	1.7	2.1	3.5	4.7	4.8	2.9	2.1	1.3	1.3	C11
Hypopharynx	46	0	-	-	-	-	0.4	0.7	0.6	0.1	-	-	0.1	0.2	0.5	1.8	1.4	1.3	0.2	0.2	C12-C13
Pharynx unspecified	18	0	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.5	0.3	0.4	0.1	0.1	C14
Oesophagus	248	0	-	-	-	-	-	0.2	-	0.1	0.1	0.8	0.3	2.0	3.4	6.5	10.1	7.2	0.8	0.9	C15
Stomach	793	0	-	-	-	-	0.1	0.7	1.5	1.8	2.9	3.1	4.3	5.3	10.5	14.4	15.1	18.5	2.6	2.6	C16
Small intestine	65	0	-	-	-	-	-	0.1	0.1	0.1	0.2	0.1	0.2	0.3	1.1	1.2	2.2	1.6	0.2	0.2	C17
Colon	1369	0	-	0.1	-	-	0.2	1.1	1.1	2.0	4.7	5.5	7.8	12.2	20.7	22.3	30.4	31.7	4.6	4.5	C18
Rectum	846	0	-	-	-	-	0.4	0.1	1.0	1.0	2.9	4.7	3.5	6.6	14.3	15.5	16.8	19.1	2.8	2.8	C19-C21
Liver	4696	0	0.6	0.1	-	0.5	0.6	0.6	1.2	3.6	9.3	19.2	41.9	58.6	80.8	98.6	87.2	70.5	15.6	16.0	C22
Gallbladder etc.	728	0	0.1	0.0	-	0.1	0.3	0.4	0.7	1.6	2.8	4.6	7.1	11.3	13.7	14.5	19.1	2.4	2.4	2.4	C23-C24
Pancreas	271	0	-	-	-	-	-	-	0.2	0.1	1.4	0.9	1.5	2.2	5.2	5.8	5.1	5.5	0.9	0.9	C25
Nose, sinuses etc.	107	0	-	-	-	0.1	0.1	0.1	0.3	0.6	0.5	1.5	0.4	1.2	1.1	1.4	1.9	0.4	0.4	0.3	C30-C31
Larynx	79	0	-	-	-	-	-	-	0.1	0.1	0.1	-	0.4	0.8	0.9	2.7	2.5	2.0	0.3	0.3	C32
Bronchus, lung	2964	0	-	0.1	0.1	0.1	0.7	0.8	2.3	3.1	5.6	11.0	20.9	33.7	50.3	62.9	61.9	51.6	9.9	10.0	C33-C34
Other thoracic organs	62	0	0.1	-	-	0.3	-	0.2	0.1	0.1	0.4	0.1	0.4	0.5	1.3	0.5	-	0.4	0.2	0.2	C37-C38
Bone	208	0	0.2	0.3	1.0	0.8	0.3	0.3	0.4	0.3	0.5	0.2	0.8	2.1	1.6	1.5	2.3	3.4	0.7	0.7	C40-C41
Connective tissue	258	0	1.1	0.1	0.4	0.4	0.1	0.8	0.9	0.8	1.6	0.8	0.7	1.7	3.3	1.5	1.4	0.7	0.9	0.9	C47-C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C46
Melanoma of skin	97	0	-	-	-	-	0.1	0.2	0.2	0.1	0.1	1.0	0.6	1.0	1.4	1.0	1.3	1.3	0.3	0.3	C43
Other skin	967	0	0.1	-	-	0.2	0.1	0.1	0.7	1.0	1.9	2.7	3.2	7.0	14.4	13.2	27.2	40.9	3.2	3.2	C44
Breast	5592	0	-	-	-	0.1	0.5	3.1	10.5	23.1	39.9	54.2	48.8	49.8	48.4	44.9	41.2	36.5	18.6	17.2	C50
Uterus unspecified	73	0	-	-	-	-	-	-	0.1	0.3	0.5	0.8	0.7	0.4	0.3	1.4	0.3	0.8	0.2	0.2	C55
Cervix uteri	6268	0	-	-	0.1	0.4	1.0	3.6	11.4	24.4	40.5	51.0	56.6	63.0	64.8	56.1	53.8	39.1	20.9	19.5	C53
Placenta	130	0	-	-	0.1	0.4	0.7	1.3	0.5	0.8	0.5	0.7	0.2	-	-	-	-	0.3	0.4	0.4	C58
Corpus uteri	886	0	-	-	-	-	0.1	0.2	0.7	1.5	3.8	7.2	11.7	11.6	11.4	10.5	10.7	2.4	2.9	2.9	C54
Ovary etc.	1655	0	0.1	0.2	0.1	1.3	2.0	2.5	4.6	5.5	7.6	12.6	14.6	17.6	15.7	13.2	13.8	6.0	5.5	5.2	C56
Other female genital	259	0	0.1	-	-	-	-	0.2	0.2	0.6	0.5	1.4	1.2	2.2	3.3	5.6	4.2	6.4	0.9	0.9	C51; C52; C56
Bladder	324	0	-	-	-	-	-	0.1	0.4	0.2	0.3	0.4	1.6	1.6	5.0	7.6	8.7	12.8	1.1	1.1	C67
Kidney etc.	221	0	0.8	-	-	-	-	0.1	0.1	0.2	0.4	0.8	1.7	1.6	3.2	4.8	2.7	5.4	0.7	0.8	C64-C66; C68
Eye	50	0	1.0	-	-	0.1	0.6	0.2	0.3	-	0.1	0.1	-	-	0.2	0.5	0.3	0.5	0.2	0.2	C69
Brain, nervous system	535	0	1.6	1.1	0.7	0.9	0.6	1.4	1.0	2.1	2.3	2.9	2.8	3.4	3.9	4.8	3.7	2.0	1.8	1.8	C70-C72
Thyroid	1202	0	-	0.2	0.3	1.0	2.3	3.8	4.6	6.3	6.7	7.3	7.8	6.8	8.7	6.6	9.9	4.6	4.0	3.6	C73
Other endocrine	76	0	0.3	0.4	0.1	0.1	0.1	0.2	0.1	0.4	0.2	0.5	0.3	0.6	0.4	-	0.2	-	0.3	0.3	C74-C75
Hodgkin's disease	82	0	-	-	-	0.2	0.2	0.3	0.3	0.2	0.5	0.8	0.1	0.2	0.3	1.2	0.4	0.4	0.3	0.3	C81
Non-Hodgkin lymphoma	964	0	0.7	0.4	0.5	0.8	1.1	1.9	2.0	2.9	2.1	3.7	4.7	7.3	9.6	16.6	13.8	17.1	3.2	3.1	C82-C85; C96
Multiple myeloma	174	0	-	-	-	-	0.1	0.2	0.2	0.4	0.5	0.3	0.9	1.7	3.3	2.5	4.9	2.3	0.6	0.6	C88; C90
Lymphoid leukaemia	310	0	4.2	2.3	0.9	0.5	0.5	0.3	0.0	0.3	0.8	0.7	0.8	0.9	1.5	1.2	1.7	2.0	1.0	1.3	C91
Myeloid leukaemia	410	0	0.8	0.3	0.7	0.2	0.3	1.3	0.5	1.4	1.9	2.1	2.8	2.1	3.6	2.8	2.8	5.7	1.4	1.3	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	C93
Other leukaemia	3	0	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	0.0	0.0	C94
Leukaemia unspecified	265	0	0.6	0.2	0.4	0.6	0.8	0.1	0.3	0.7	0.4	2.2	1.3	2.7	1.7	2.3	2.3	2.6	0.9	0.9	C95
Other and unspecified	3437	0	1.1	0.4	0.3	0.3	1.2	3.1	5.4	7.0	9.7	13.5	21.7	34.7	53.5	59.0	57.2	56.8	11.4	11.4	O&U
All sites	38467	0	13.4	6.3	5.9	9.5	14.7	30.1	55.5	96.6	158.5	222.0	281.6	363.0	486.3	540.9	551.0	530.0	128.1	125.0	ALL

Table 3 Thailand (estimate) 1996, number of cases by age group (years) - Male

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	36	0	-	-	2	-	-	-	-	5	7	-	6	4	-	3	5	4	0.0 %	C00
Tongue	412	0	-	-	-	1	6	2	3	18	16	38	43	59	73	66	26	61	0.0 %	C01-C02
Salivary gland	80	0	-	-	-	3	3	3	8	3	2	1	6	6	3	13	21	10	0.2 %	C07-C08
Mouth	454	0	-	-	-	4	7	3	7	8	14	34	46	77	58	68	45	83	1.3 %	C03-C06
Oropharynx	271	0	-	-	-	-	3	2	2	14	27	17	16	27	31	37	51	44	0.8 %	C09-C10
Nasopharynx	872	0	-	-	4	12	4	28	43	81	90	91	106	122	89	100	58	45	2.5 %	C11
Hypopharynx	275	0	-	-	-	-	-	1	-	3	10	16	28	37	49	39	41	52	0.8 %	C12-C13
Pharynx unspecified	48	0	-	-	4	-	1	-	-	-	4	1	3	6	3	12	3	7	0.1 %	C14
Oesophagus	720	0	-	-	-	-	-	-	-	11	20	54	49	126	134	107	78	137	2.0 %	C15
Stomach	945	0	-	-	-	-	3	11	25	23	50	60	70	113	147	167	119	157	2.7 %	C16
Small intestine	84	0	-	-	-	-	-	-	-	1	5	8	11	14	16	5	9	8	0.2 %	C17
Colon	1 555	0	-	-	2	5	17	23	44	57	113	93	143	157	223	206	184	288	4.4 %	C18
Rectum	978	0	-	-	2	1	4	7	25	28	45	45	84	145	158	171	122	141	2.8 %	C19-C21
Liver	9 031	0	7	-	4	5	28	84	220	336	594	1 013	1 148	1 454	1 531	1 314	644	651	25.4 %	C22
Gallbladder etc.	367	0	-	-	-	-	2	1	-	9	26	30	19	37	55	49	60	79	1.0 %	C23-C24
Pancreas	334	0	-	-	-	-	6	1	5	4	25	26	50	38	51	57	19	51	0.9 %	C25
Nose, sinuses etc.	141	0	-	2	4	-	-	2	3	6	6	11	12	20	8	30	9	21	0.4 %	C30-C31
Larynx	684	0	-	-	-	-	-	-	1	14	18	23	50	89	135	121	117	106	1.9 %	C32
Bronchus, lung	5 916	0	-	-	2	12	30	63	119	116	227	389	568	878	1 162	1 063	689	698	16.6 %	C33-C34
Other thoracic organs	83	0	1	-	13	8	8	4	7	12	1	5	3	2	5	1	8	3	0.2 %	C37-C38
Bone	234	0	1	8	33	23	17	10	21	10	13	10	15	20	15	21	13	3	0.7 %	C40-C41
Connective tissue	241	0	26	10	9	20	7	5	14	10	11	7	27	23	19	22	6	24	0.7 %	C47, C49
Mesothelioma	11	0	-	-	-	-	1	2	-	1	1	-	1	2	1	-	-	1	0.0 %	C45
Kaposi's sarcoma	6	0	-	-	-	1	-	3	-	-	1	-	-	1	-	-	-	-	0.0 %	C46
Melanoma of skin	107	0	-	-	3	-	3	4	-	18	3	14	10	6	17	13	13	8	0.3 %	C43
Other skin	892	0	-	-	4	7	3	3	16	15	40	78	57	117	100	148	110	193	2.5 %	C44
Breast	54	0	-	-	-	-	-	2	-	7	8	2	3	1	14	2	3	11	0.2 %	C50
Prostate	1 019	0	-	-	-	-	-	-	-	1	3	6	33	46	198	143	197	391	2.9 %	C61
Testis	146	0	1	2	2	6	11	15	41	15	9	3	12	5	10	4	8	1	0.4 %	C62
Penis	390	0	-	-	-	-	1	7	6	22	32	33	24	54	67	43	46	55	1.1 %	C60
Other male genital	18	0	-	-	-	-	-	-	-	5	4	0	0	2	3	0	2	3	0.1 %	C63
Bladder	1 024	0	4	-	-	2	1	2	13	27	31	61	42	114	161	178	146	243	2.9 %	C67
Kidney etc.	359	0	13	2	-	-	1	4	11	7	20	22	44	35	82	61	22	35	1.0 %	C64-C66; C68
Eye	55	0	15	-	-	-	-	3	2	9	1	3	1	3	4	6	3	4	0.2 %	C69
Brain, nervous system	607	0	53	23	27	25	16	55	53	73	77	38	34	32	43	36	5	16	1.7 %	C70-C72
Thyroid	289	0	-	2	-	1	14	20	6	21	29	46	26	35	22	24	21	24	0.8 %	C73
Other endocrine	36	0	3	-	10	5	-	-	1	5	3	-	3	-	3	3	-	-	0.1 %	C74-C75
Hodgkin's disease	106	0	2	4	2	1	5	12	13	6	9	14	5	9	13	3	5	4	0.3 %	C81
Non-Hodgkin lymphoma	1 120	0	16	18	24	27	46	68	68	98	81	74	100	96	96	122	83	106	3.2 %	C82-C85; C96
Multiple myeloma	136	0	-	-	-	1	1	-	-	4	4	15	9	22	15	29	15	13	0.4 %	C88; C90
Lymphoid leukaemia	350	0	110	50	27	19	14	21	18	6	17	2	5	10	13	18	12	9	1.0 %	C91
Myeloid leukaemia	396	0	16	19	14	29	15	37	40	17	20	28	31	29	45	24	12	18	1.1 %	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0 %	C93
Other leukaemia	11	0	3	-	-	-	1	-	-	-	1	-	-	4	1	1	1	-	0.0 %	C94
Leukaemia unspecified	255	0	7	10	4	15	31	29	21	14	11	26	13	18	15	15	11	14	0.7 %	C95
Other and unspecified	4 394	0	22	9	12	35	87	263	234	253	265	301	469	613	591	504	316	421	12.4 %	O&U
All sites	35 539	0	301	159	207	266	395	802	1 110	1 397	2 000	2 638	3 426	4 707	5 480	5 051	3 357	4 243	100.0 %	ALL

Table 4 Thailand (estimate) 1996, Number of cases by age group (years) - Female

Site	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	376	0	-	-	-	3	-	-	-	1	8	6	20	36	70	79	74	79	0.9 %	C00
Tongue	233	0	-	-	-	-	1	1	10	5	25	13	10	34	23	40	33	38	0.6 %	C01-C02
Salivary gland	116	0	-	-	-	2	2	1	18	8	13	8	10	13	9	10	9	12	0.3 %	C07-C08
Mouth	531	0	-	-	-	2	1	1	1	8	14	8	25	27	106	96	65	177	1.3 %	C03-C06
Oropharynx	67	0	-	-	-	-	-	1	1	6	8	7	2	7	5	4	7	18	0.2 %	C09-C10
Nasopharynx	405	0	-	-	-	1	10	20	16	45	49	43	64	42	49	37	16	14	1.0 %	C11
Hypopharynx	46	0	-	-	-	-	-	-	2	-	-	2	3	2	5	14	8	9	0.1 %	C12-C13
Pharynx unspecified	18	0	-	-	-	-	-	-	-	-	4	2	1	2	1	4	1	3	0.0 %	C14
Oesophagus	248	0	-	-	-	-	-	4	1	4	2	16	5	25	36	50	55	50	0.6 %	C15
Stomach	793	0	-	-	-	-	1	18	40	46	67	58	67	65	110	111	83	128	2.0 %	C16
Small intestine	65	0	-	-	-	-	-	-	3	4	4	2	2	4	12	10	12	11	0.2 %	C17
Colon	1 369	0	-	2	-	-	6	30	29	51	106	103	121	149	215	171	167	219	3.4 %	C18
Rectum	846	0	-	-	-	-	-	9	3	27	65	88	55	81	149	119	92	132	2.1 %	C19-C21
Liver	4 696	0	12	4	1	12	14	15	31	93	212	361	655	720	842	758	478	488	11.7 %	C22
Gallbladder etc.	728	0	2	-	1	1	2	9	11	18	36	53	72	87	118	106	80	132	1.8 %	C23-C24
Pancreas	271	0	-	-	-	-	-	-	4	3	31	18	23	27	55	44	28	38	0.7 %	C25
Nose, sinuses etc.	107	0	-	-	-	2	2	2	3	7	13	10	24	5	12	8	13	13	0.3 %	C30-C31
Larynx	79	0	-	-	-	-	-	-	2	2	2	-	6	9	9	21	14	14	0.2 %	C32
Bronchus, lung	2 964	0	-	2	2	3	17	22	60	80	127	207	326	414	524	483	339	357	7.4 %	C33-C34
Other thoracic organs	62	0	2	-	-	8	-	4	1	3	9	3	7	6	13	4	-	3	0.2 %	C37-C38
Bone	208	0	5	6	26	20	8	7	10	8	12	4	12	25	16	11	13	24	0.5 %	C40-C41
Connective tissue	258	0	23	2	12	10	3	22	24	20	37	15	11	21	35	11	7	5	0.6 %	C47, C49
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0 %	C45
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0 %	C46
Melanoma of skin	97	0	-	-	-	-	2	4	5	2	3	20	9	13	15	8	7	9	0.2 %	C43
Other skin	967	0	2	-	-	4	2	2	19	25	43	50	50	86	150	101	149	283	2.4 %	C44
Breast	5 592	0	-	-	-	2	11	83	273	592	908	1 021	763	612	504	345	226	253	13.9 %	C50
Uterus unspecified	73	0	-	-	-	-	-	1	2	7	11	14	10	5	4	11	1	6	0.2 %	C55
Cervix uteri	6 268	0	-	-	2	11	26	96	297	627	921	960	885	773	675	431	295	271	15.6 %	C53
Placenta	130	0	-	-	4	11	16	35	14	20	12	13	4	-	-	-	-	2	0.3 %	C58
Corpus uteri	886	0	-	-	-	-	2	5	17	38	87	136	183	142	119	81	59	17	2.2 %	C54
Ovary etc.	1 655	0	3	6	3	33	48	65	119	141	173	238	228	217	163	101	76	41	4.1 %	C56
Other female genital	259	0	1	-	-	-	1	6	6	16	12	25	19	27	34	43	23	45	0.6 %	C51-C52; C57
Bladder	324	0	-	-	-	-	1	2	11	5	7	7	24	20	52	58	48	89	0.8 %	C67
Kidney etc.	221	0	17	-	-	1	1	2	2	6	9	15	26	20	34	37	15	37	0.5 %	C64-C66; C68
Eye	50	0	21	-	-	2	-	5	8	-	2	1	-	-	2	3	2	4	0.1 %	C69
Brain, nervous system	535	0	33	28	18	23	14	36	27	55	51	54	43	41	41	37	20	14	1.3 %	C70-C72
Thyroid	1 202	0	-	6	9	27	57	101	119	162	153	137	121	83	90	51	54	32	3.0 %	C73
Other endocrine	76	0	6	10	4	2	1	6	3	11	4	9	5	8	4	-	1	-	0.2 %	C74-C75
Hodgkin's disease	82	0	-	-	1	6	4	9	9	6	11	15	2	2	3	9	2	3	0.2 %	C81
Non-Hodgkin lymphoma	964	0	15	10	13	20	27	50	53	74	47	69	73	90	100	128	76	118	2.4 %	C82-C85; C96
Multiple myeloma	174	0	-	-	-	-	3	4	6	10	12	6	15	21	34	20	27	16	0.4 %	C88, C90
Lymphoid leukaemia	310	0	87	55	24	13	12	7	1	8	19	13	13	11	15	9	9	14	0.8 %	C91
Myeloid leukaemia	410	0	17	8	19	6	8	35	14	36	43	40	44	26	37	21	16	39	1.0 %	C92
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0 %	C93
Other leukaemia	3	0	-	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	0.0 %	C94
Leukaemia unspecified	265	0	12	6	10	16	20	3	8	19	10	42	20	33	18	18	13	18	0.7 %	C95
Other and unspecified	3 437	0	23	9	8	9	29	82	140	181	221	254	338	426	557	453	314	393	8.5 %	O&U
All sites	38 467	0	281	154	154	249	360	801	1 449	2 478	3 604	4 164	4 401	4 458	5 065	4 156	3 022	3 669	100.0 %	ALL

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