CANCER INCIDENCE AND MORTALITY IN CHIANG MAI

2006

CHIANGMAI CANCER REGISTRY

MAHARAJ NAKORN CHIANG MAI HOSPITAL

FACULTY OF MEDICINE, CHIANG MAI UNIVERSITY

CHIANG MAI, THAILAND

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Note:
Data in this report may be used in publications, provided that the source is mentioned. For more information and notes on the statistical material in this report contact the Chiang Mai Cancer Registry, Faculty of Medicine, Chiang Mai University, Chiang Mai 50200, Thailand.

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We wish to express our gratitude to all the medical staff members of the Faculty of Medicine and all the physicians in Chiang Mai Province for their collaboration and care of cancer patients. The contents of this report are based on records received from all of the hospitals and pathological laboratories, both government and private, in Chiang Mai province. Without the support of these institutions and their staffs, this report would not exist. We also wish to thank Dr.Pattarawin Attasara, National Cancer Institute of Thailand, for providing death certificate data.

Introduction

Chiang Mai Cancer Registry is located at the Maharaj Nakorn Chiang Mai Hospital and fully supported by the Faculty of Medicine, Chiang Mai University. The registry covers the population of Chiang Mai province and has reported annually on cancer occurrence since the first volume in 1978, when it was a hospital-based registry. Population-based registration was started in 1986 to report the incidence and mortality of cancer in Chiang Mai since 1983.

This report is the 26th in a series and contains two parts. The first part is population-based registration, which has data on cancer frequency, incidence of new cancer, and mortality in Chiang Mai province in the year 2006. The second part is hospital-based registration, which has data at Maharaj Nakorn Chiang Mai Hospital for the same period.

Materials and methods

Data Sources

Information on newly diagnosed cancer cases is based on data collected by the Chiang Mai Cancer Registry. The data were collected by the Registry's staff from all hospitals in Chiang Mai province: one university hospital (Maharaj Nakorn Chiang Mai Hospital), 9 government hospitals, 1 municipal hospital, 15 private hospitals, and 22 community hospitals, with a total number of 6,147 beds. Sources in hospitals include the medical records sections, pathology laboratory records, and sections of hematology, radiation oncology, and hospital tumor registrations. Data were also collected from medical clinics and pathology clinics in Chiang Mai province. Identities of all patients were checked and matched to exclude multiple registrations. Mortality data were obtained from hospital records and death certificates from the Department of Local Administration, Ministry of Interior. Population data were obtained from the Statistical Data Bank and Information Dissemination Division, National Statistical Office.

Coding, Data Entry, and Processing of Data

The completed data forms were checked manually and entered into the database file in personal computers at the Chiang Mai Cancer Registry, using CanReg3 software for data entry and edit. Details of each patient were crosschecked with the information collected from different hospitals to ensure completeness of records. Full information on every cancer patient registered at each and every hospital was thus obtained, whether or not the patient was subsequently treated at a particular hospital. Additional information was obtained every time a cancer patient was re-admitted or re-examined. Since patients can be reported from more than one hospital, care was taken to see that multiple entries were not made for such cases, and the medical information from different hospitals for each patient was combined.

Mortality data from death certificates which gave cancer as the cause of death were matched against the registered cases in our files. Every cancer death not traceable to an existing entry in our files was labeled as "death certificate only (DCO)"; the date of death was taken as the date of diagnosis and was also registered in the data files. In addition, copies of all death certificates using the term "cancer" as a cause of death were individually scrutinized in detail to confirm

the statement on the certificate. Patients for whom cancer had been ruled out or had not yet been diagnosed were not entered in the register.

ICD-O-3 (2000)(1) was used to code registered cancer cases in this volume. The morphology code numbers consist of six digits. The first four identify the histological type of neoplasm, the fifth indicates its behavior, and the sixth indicates grading and differentiation of the neoplasm.

Multiple primary registration followed IARC/IACR criteria. A second or third primary site in a patient was registered only when all primary sites were confirmed by histology. A new registration number was given for each new site as indicated by the three-digit ICD code; thus there was no new registration for a second primary cancer occurring at the same site (first three digits) but a different sub-site.

Follow up used a combination of both active and passive methods. Follow up information collected routinely was the date last seen, status of the patient (living or dead) and cause of death. This follow up information was collected by registry staff from both outpatient and inpatient records of Maharaj Nakorn Chiang Mai Hospital and all special clinics in hospitals in Chiang Mai. Those who were lost to follow up were traced by mail, home visits by public health service officers, or by casual sources.

Type of Diagnosis and Stage of Disease

Type of diagnosis has been divided into two broad categories, non-microscopic and microscopic, each consisting of four sub categories. These are given below in order of increasing validity.

Non-microscopic

- Clinical only
- Clinical investigation (including X-ray, ultrasound, CT)
- Surgery/autopsy without histology
- Specific immunological and/or biochemical tests

Microscopic

- Cytology or hematology
- Histology of metastasis
- Histology of primary
- Autopsy with concurrent or previous histology

Unknown Method of Diagnosis

- Unknown
- Death certificate only

The staging guide in Cancer registration; Principles and Methods (2) was used for the following items: in situ, localized, direct extension/regional nodes, distant metastasis, not applicable, and unknown (or not staged). The stage “in situ” was decided only by histological diagnosis. Lymphoma, leukemia, and brain tumor cases were staged as “not applicable”.

Calculation of Rates and Risks

Before analysis, both the incidence data and mortality data were checked by the IARCcrgTools program (Ferlay J, 2005) (3). Rates were calculated by the computer program CanReg3 (Cooke A, Parkin DM, Ferlay J, 1998) (4). All rates were expressed per 100,000 population and age-adjusted by the direct method to

the world standard population (5). These calculations were used only for population-based registration.

Crude Rates

The crude rate was defined as the number of new cases divided by the population at risk in the specific time period and expressed as an annual rate per 100,000 population.

Age-specific Rates

An age-specific incidence rate (AR) was calculated as the frequency in a given age and sex subgroup divided by the population for that same subgroup and expressed per 100,000 population.

$$AR = Ni/Pi \times 100{,}000$$

where Ni = number of new cancers occuring in the i^{th} age group

Pi = population of the i^{th} age group in the province of Chiang Mai

Age-standardized Rates

Age-standardized rates (ASR) were standardized to the world population (ASR WORLD) by a direct method (Doll & Smith, 1982) (5). The incidence (or mortality) rate observed in a given age group (ARi) was multiplied by the number of persons in that age group in the standard population (Pi.std). This value was then divided by the total standard population and the values obtained were the sum of all age-groups.

ASR(WORLD) = sum (ARi × Pi.std)/ total standard population

ARi = age specific rate in the i^{th} age-group

Pi.std = the number in the i^{th} age-group in the standard population.

or ASR(WORLD) = sum (Ni × Pi.std × 100,000 / Pi) / total Pi.std

Ni = number of new cancers occuring in the i^{th} age group

Pi = population of the i^{th} age group in Chiang Mai.

The details of calculations are in Boyle and Parkin, Statistical Methods for Registries, in Jensen and Parkin, Cancer Registration, Principles and Methods. IARC Scientific Publications No. 95, Lyon 1991 (2). These calculations were used only in population-based registration.

Cumulative Rate and Cumulative Risk

The cumulative rate is the summation of the age-specific rates over each year of age from birth to a defined upper age limit (65 or 75 years). As age-specific incidence rates are usually computed for five-year age intervals, the cumulative rate is five times the sum of the age-specific rates calculated over the five-year age groups, assuming the age-specific rates are the same for all ages within the five-year age group. This rate was then expressed as a percentage.

The cumulative risk is an estimate of an individual's risk of developing cancer of a particular type, up to the age of 64 or 74 years;

$$\text{Cumulative risk} = 1\text{-}e^{-(\text{cumulative rate})/100}$$

where $\text{Cumulative rate} = \Sigma^{n}_{i=1}(Fi \times Ti/Pi)$

n = number of age groups which cumulative risk includes

Fi = number of new cancers occurring in the i^{th} age group

Ti = number of years in i^{th} age group

Pi = population of i^{th} age group in the total population

Table 1: Estimated new cancer cases and deaths by sex, Chiang Mai, Thailand, 2006

	Estimated New Cases			Estimated Deaths		
	Both sexes	Males	Females	Both sexes	Males	Females
All sites	2784	1313	1471	1905	1030	875
Oral cavity and pharynx	140	97	43	76	52	24
Lip	5	1	4	2	1	1
Tongue	18	14	4	8	7	1
Salivary gland	13	8	5	1	1	0
Mouth	26	16	10	20	12	8
Oropharynx	17	12	5	7	4	3
Nasopharynx	43	32	11	26	16	10
Hypopharynx	14	11	3	10	10	0
Pharynx, unspecified	4	3	1	2	1	1
Digestive system	730	446	284	625	391	234
Esophagus	13	9	4	10	8	2
Stomach	89	56	33	93	55	38
Small intestine	4	3	1	5	3	2
Colon	125	73	52	74	43	31
Rectum	92	46	46	59	35	24
Liver	320	221	99	316	217	99
Gallbladder	51	25	26	35	18	17
Pancreas	36	13	23	33	12	21
Respiratory system	567	325	242	538	312	226
Nose, sinuses	7	3	4	7	2	5
Larynx	29	22	7	19	18	1
Lung	524	297	227	508	289	219
Other thoracic organs	7	3	4	4	3	1
Bone	8	5	3	5	3	2
Soft tissue	21	12	9	7	4	3
Connective tissue	20	12	8	7	4	3
Mesothelioma	0	0	0	0	0	0
Kaposi's sarcoma	1	0	1	0	0	0
Skin	114	54	60	26	10	16
Melanoma of skin	8	5	3	7	4	3
Non-melanoma of skin	106	49	57	19	6	13
Breast	272	8	264	81	0	81
Genital system	399	66	333	168	42	126
Uterus	0		0	0		0
Cervix	240		240	92		92
Placenta	1		1	0		0
Corpus	36		36	10		10
Ovary	45		45	22		22
Other female genital	11		11	2		2
Prostate	44	44		32	32	
Testis	7	7		1	1	
Penis	14	14		8	8	
Other male genital	1	1		1	1	
Urinary system	96	69	27	65	50	15
Bladder	64	45	19	46	34	12
Kidney	32	24	8	19	16	3
Eye	3	2	1	2	1	1
Brain, nervous system	26	10	16	19	10	9
Endocrine system	41	12	29	13	6	7
Thyroid	38	11	27	12	5	7
Other endocrine	3	1	2	1	1	0
Lymphoma	133	77	56	78	42	36
Hodgkin's disease	9	6	3	4	2	2
Non-Hodgkin's lymphoma	124	71	53	74	40	34
Multiple myeloma	12	6	6	6	5	1
Leukaemia	76	43	33	52	30	22
Lymphoid leukaemia	20	12	8	10	5	5
Myeloid leukaemia	51	27	24	37	22	15
Monocytic leukaemia	0	0	0	1	0	1
Other leukaemia	0	0	0	0	0	0
Leukaemia, unspecified	5	4	1	4	3	1
Other & unspecified	146	81	65	144	72	72

Population-based Registration

Overview

In the year 2006, there were an estimated 2,784 new invasive cancer cases and 284 in situ cases in Chiang Mai province. There were 1,313 males, and 1,471 females with a male to female ratio of 1:1.1 . In the same period, 1,030 males and 875 females died from cancer (Table 1). The number of new cancer cases increased from 1,275 cases in males and 1,404 cases in females compared to the year 2005. The number of cancer deaths in males decreased from 1130 cases and in females increased from 862 cases in the year 2005.

The data were obtained from the following: 58.7 percent from Maharaj Nakorn Chiang Mai Hospital, 16.7 percent from Nakornping Hospital (the provincial hospital), 0.2 percent from other government hospitals, 7.4 percent from community hospitals, 10.1 percent from private hospitals, and 6.9 percent from death certificates.

The standardized incidence rates were 145.5 for males and 147.6 for females. The cumulative rate percentages to age 75 were 15.7% for males (Table 12) and 15.0% for females (Table 13). These represented risks of 10 in 63 for men and 10 in 67 for women. In the year 2006, the incidence in both males and females tended to continue to decrease when compared to the year 2003 (Fig. 1).

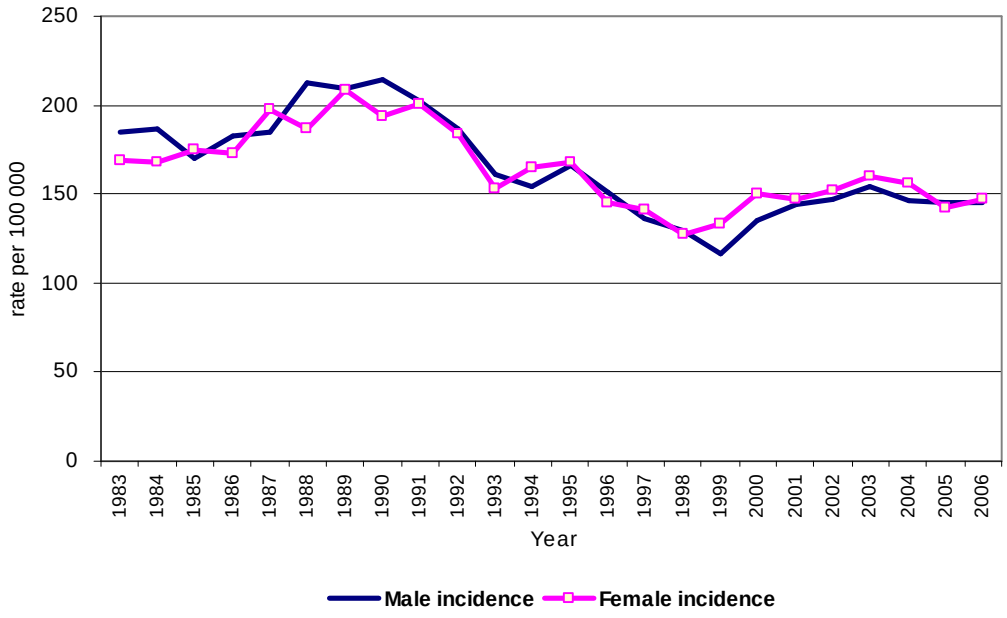

Figure 1: Age-standardized incidence rates (world) of cancer in Chiang Mai, 1983-2006

INCIDENCE

Age and Sex

The age at diagnosis in males ranged from 2 to 98 years, with a mean age of 60.5 years and a median age of 62 years (Fig. 2). In females, the mean age at diagnosis was 56.5 years and the median age was 56 years. Childhood cancers were relatively uncommon in Chiang Mai. Only 1.3% of all cancers occurred before age 15, but 48.3% occurred after age 60.

The male to female ratio was approximately 1:1.1, but 40.6% of the cancers in females occurred in sex-specific sites (ie, breast and reproductive organs) while only 5.6% of the cancers in males occurred at sex-specific sites (ie, prostate, testis, and penis cancers). When sex-specific sites were excluded, the male to female ratio changed to 1.4:1 because of higher incidences of lung cancer and liver cancer in males.

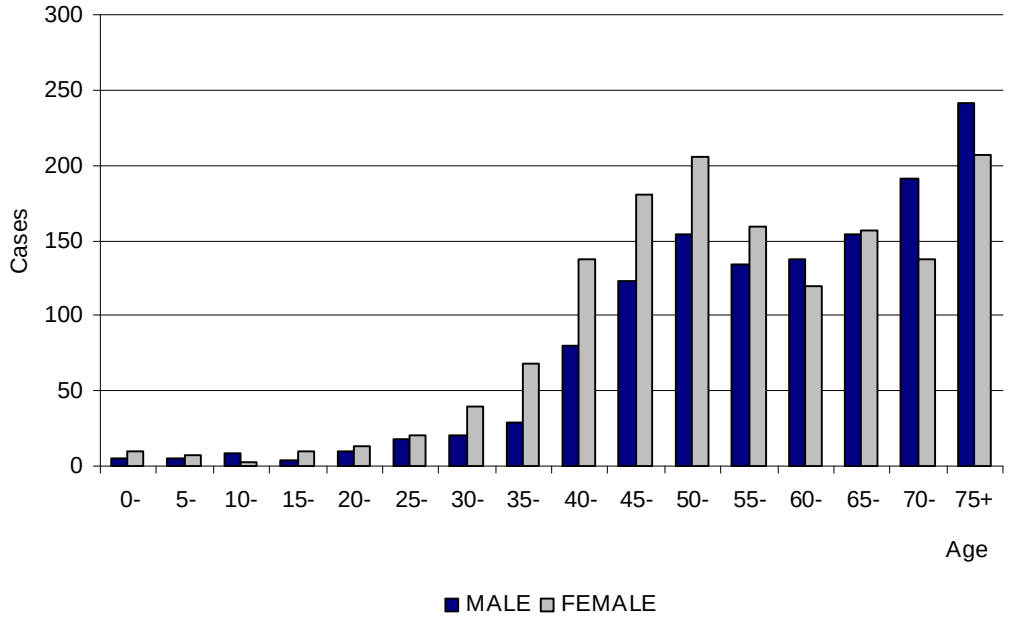

Figure 2: Age group distribution of new cancer cases in Chiang Mai, 2006

In the age group 30-59 years, more women had cancer than men because of the large number of breast and cervix cancers. For age 60 and over, more men had cancer than women because of the high incidence of lung and liver cancers (Fig. 2). The age-specific incidence rates increased gradually after the age 25 years in both sexes, and that of males exceeded that of females after the age of 65 (Fig. 3).

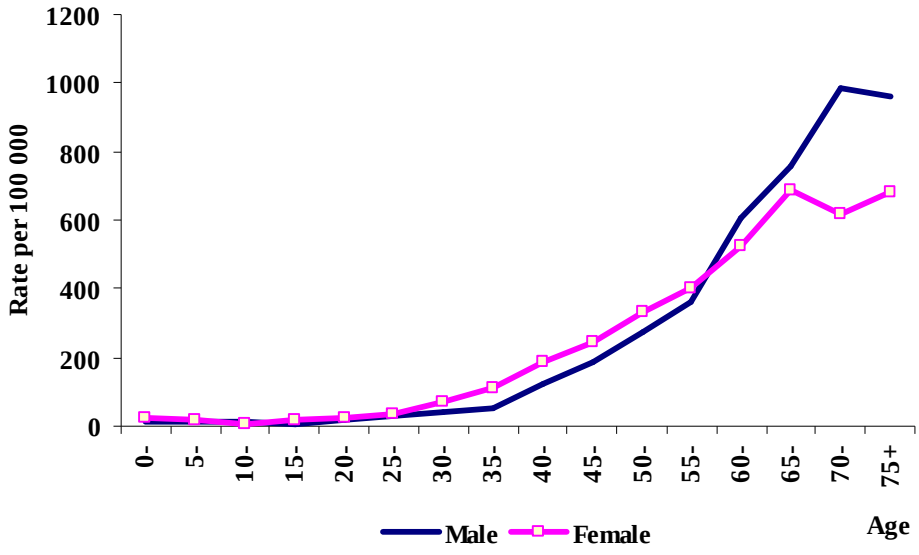

Figure 3: Age-specific incidence rates, Chiang Mai, 2006

Incidence of New Cancer Cases by Districts

High standardized incidence rates for males were found in Wiang Haeng, Saraphi, San Pa Tong, San Sai, and Doi Tao districts. In Wiang Haeng, the high incidence rate was high even though there was a small number of new cases due to a small population. In Saraphi, San Pa Tong, San Sai, and Doi Tao, the high incidence rates were because of high incidences of lung and liver cancer in males. For females high standardized incidence rates were found in Wiang Haeng, Doi Saket, Hang Dong, San Sai and San Kamphaeng districts. In Wiang Haeng, the incidence rate was high even though there was a small number of new cases due to a small population, as in males. The high incidence rates in Doi Saket, Hang Dong, San Sai, and San Kamphaeng were due to the high incidence of lung, breast and cervix cancers. Low incidences of cancer were found in Chai Prakan, Mae Chaem and Omkoi districts (Table 4).

MORTALITY

Age and Sex

In 2006, there were an estimated 1,905 cancer death cases (1,030 males, 875 females, Table 1), accounting for 15.4% for all deaths in Chiang Mai. Cancer has been the most common cause of death since 2002. The age-standardized mortality rates for all cancers were 113.4 per 100,000 males (Table 16) and 86.7 per 100,000 females (Table 17). Cancer death rates for men and women have continued to increase since 1999 (Fig. 4). The age-specific mortality rate increased after the age group 40-44 for both sexes and after age 66, the rate for men was greater than that of women (Fig. 5). The cumulative rate percentages to age 75 were 12.6% for males (Table 16) and 9.8% for females (Table 17). These represented risks of dying from cancer that were 10 in 80 for males and 10 in 102 for females.

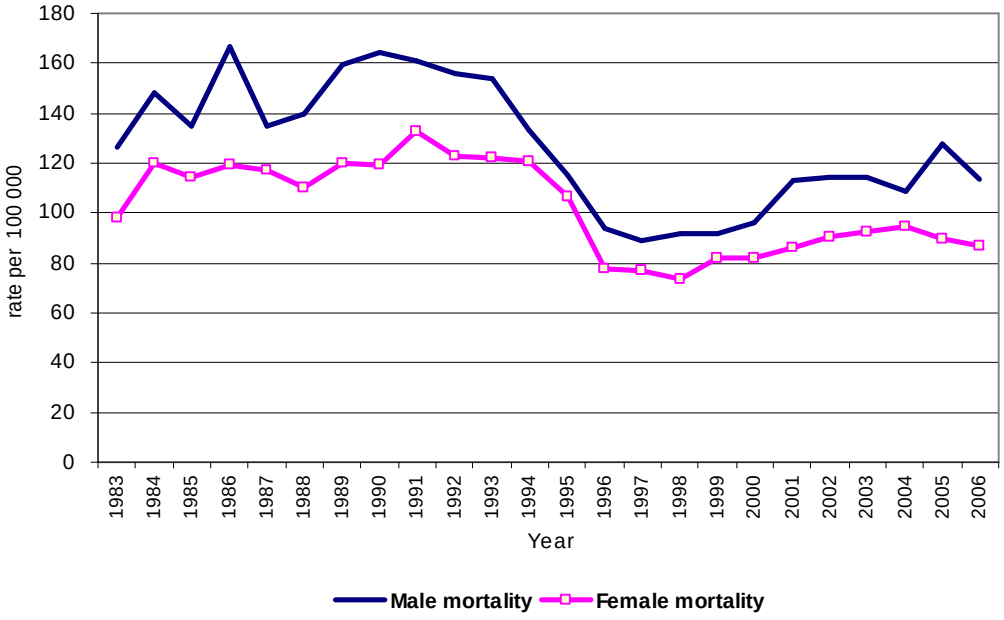

Figure 4: Age-standardized mortality rates (world) of cancer in Chiang Mai, 1983-2006

For all cancer death cases, 1,387 patients (72.2%) survived less than one year, while only 77 patients (4.0%) survived more than 5 years. This indicates the severity of cancer patients in Chiang Mai.

Mortality of cancer cases by districts

The highest mortality rate for males was in Wiang Haeng district, followed by San Pa Tong, Saraphi, Hang Dong, and Doi Saket districts. These high mortality rates were because of mortality from lung and liver cancer. For females, the highest mortality rate was in Wiang Haeng district, followed by Hang Dong, K.A. Doi Lo, Doi Saket, and San Kamphaeng districts (Table 5). The high mortality rates were because of mortality from lung, cervix, liver and breast cancer.

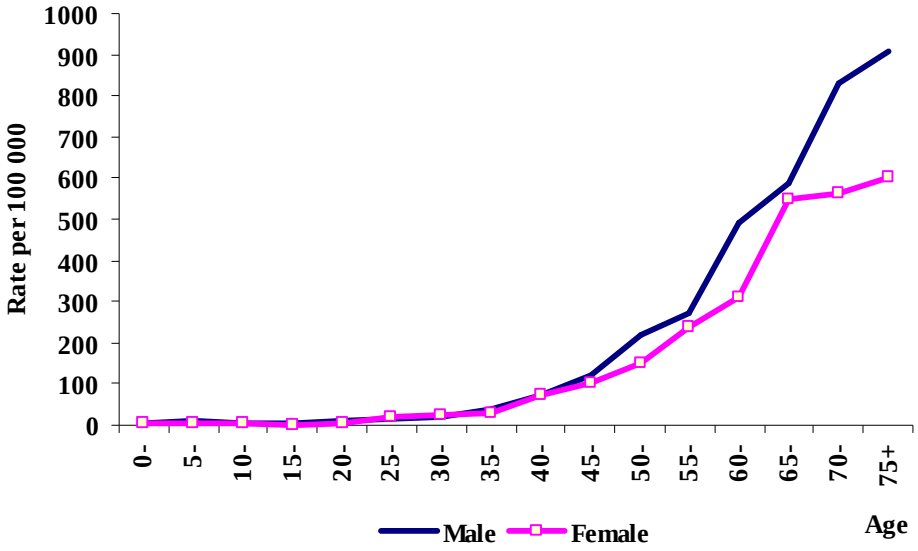

Figure 5: Age-specific mortality rate, Chiang Mai, 2006

DIAGNOSIS AND STAGE OF CANCER

Basis of Diagnosis

2,081 cases (74.7%) were histologically verified, with 62.0% from primary sites and 8.1% from metastasis sites (Table 2). Seventeen percent were clinically diagnosed and 6.9% from death certificates only. By site, the percentages of histologically verified cases were low for cancer of the pancreas, liver, brain and nervous system, and lung (Table 8 and Table 9).

Stage of Cancer

Forty-eight percent were diagnosed at localized and locally advanced stages, and only 18.6% had distant metastasis (Table 3). Since 2001, distant metastasis cases at first diagnosis have decreased, and locally advanced cases have increased every year. Localized cancer cases have not increased. All brain tumors, lymphoma, and leukemia were staged as “not applicable”. The “death certificate only” cases were staged as “unknown”. The most common site of distant metastasis was lung (19.1%), followed by distant lymph nodes (18.9%), liver (15.2%), bone (13.1%) and brain (10.5%).

Table 2: Basis of diagnosis

Type of diagnosis	No.	%
Histological verification	**2,081**	**74.7**
Histology of primary	1,727	62.0
Histology of metastasis	225	8.1
Cytology/hematology	129	4.6
Autopsy	0	0.0
No histological verification	**511**	**18.4**
Clinical only	32	1.1
Clinical and investigations	445	16.0
Operation/surgery	32	1.1
Immuno/biochemistry	2	0.1
Death certificate only	**192**	**6.9**
Unknown	0	0.0
	2,784	**100.0**

Table 3: Stages of disease

Stage	No.	%
Localized	437	15.7
Locally advanced	899	32.3
Regional node metastasis	432	15.5
Distant metastasis	517	18.6
Not applicable	246	8.8
Unknown/not staged	253	9.1
	2,784	**100.0**

Leading Sites of Cancer Incidence

Of the invasive cancer in both sexes combined, lung cancer was the most common (524 cases), followed by liver, breast, cervix and colon cancer. Together these five types of cancer accounted for 53.2% of all new cancers. For males, the most common cancer was lung cancer, accounting for 22.6% of all newly diagnosed cases, followed by liver, colon, NHL and stomach cancer (Fig. 6). For females, the most common cancer was breast cancer, accounting for 17.9% of all newly diagnosed cases, followed by cervix, lung, liver, and non-melanoma skin cancer.

As for the most frequent cancers for the under 15-year age group, leukemia, brain and nervous system were common in childhood cancers (Table 6). In the age group 15-29 years, cancers in males were bone, non-melanoma skin, NHL and leukemia, and cancers in females were leukemia, ovary, breast and NHL. In the age group 30-44 years, liver was more common than lung cancer in males, and cervix was more common than breast cancer in females. Lung cancer was the most common cancer in males after the age of 60 years, and liver cancer was the second most common cancer. Breast cancer was more common than cervix only in the age group 45-59 years. Lung cancer in females was common after the age 45 and was the most common cancer after age 60.

Leading Sites of Cancer Deaths

Lung cancer (26.7%) was the most common cause of cancer death, followed by liver, stomach, cervix and breast cancer (Fig. 7). These five types of cancer accounted for 57.2% of all cancer deaths. For males, the lung was the most common site of cancer deaths, accounting for 28.1%, followed by the liver, stomach, colon, and NHL. For females, the lung was also the most common site of cancer deaths, accounting for 25.0%, followed by liver, cervix, breast and stomach.

Leukemia was the most common cause of death in childhood cancer. For males, liver cancer was the most common cause of death in the age group 30-59; after the age of 60, lung cancer was the most common (Table 7). For females, breast cancer was the most common cause in the age group 30-44; lung cancer was the most common cause of cancer death in the age group 45 and over.

Table 4: Incidence and common sites of new cancer cases in districts of Chiang Mai, 2006

	Districts	Rates	All sites	Lung	Liver	Colon	NHL	Stomach	Skin*	Rectum	Bladder	Prostate
Males	Muang	164.2	211	39	29	19	8	6	8	10	11	12
	Chom Thong	137.8	59	12	8	4	1	3	5	4	0	3
	Mae Chaem	105.0	32	8	1	0	2	4	1	1	1	0
	Chiang Dao	103.7	36	6	7	2	3	3	2	1	2	0
	Doi Saket	138.5	54	14	11	4	2	3	4	0	1	0
	Mae Taeng	135.6	64	10	15	3	3	2	0	2	2	1
	Mae Rim	151.7	67	15	13	5	4	2	0	0	0	1
	Samoeng	132.3	18	2	4	1	1	0	1	0	0	2
	Fang	125.7	65	17	9	0	3	5	3	5	3	1
	Mae Ai	117.5	41	13	8	3	2	1	0	2	1	1
	Phrao	140.9	49	11	11	4	1	3	1	3	2	2
	San Pa Tong	199.7	111	35	17	2	8	1	4	3	5	3
	San Kamphaeng	123.9	63	15	6	3	6	1	4	0	1	6
	San Sai	168.1	97	18	23	9	6	4	3	3	2	4
	Hang Dong	159.9	71	22	13	3	6	1	4	4	2	1
	Hot	131.6	30	8	5	0	1	4	0	1	2	2
	Doi Tao	164.7	27	5	4	1	0	2	4	0	0	0
	Omkoi	64.1	15	2	1	0	1	1	0	0	3	0
	Saraphi	211.7	97	24	15	4	3	6	1	3	5	4
	Wiang Haeng	213.7	13	0	1	1	2	2	0	0	0	1
	Chai Prakan	98.3	20	4	6	1	1	0	1	2	0	0
	Mae Wang	124.5	22	2	8	1	2	0	0	1	1	0
	K.A.Mae On	143.1	21	5	2	0	1	1	3	0	0	0
	K.A. Doi Law	157.2	30	10	4	3	4	1	0	1	1	0
Females	Districts	Rates	All sites	Breast	Cervix	Lung	Liver	Skin*	NHL	Colon	Rectum	Ovary
	Muang	167.4	266	63	37	24	18	8	6	18	4	10
	Chom Thong	141.0	60	10	5	17	1	3	2	3	5	2
	Mae Chaem	73.3	23	2	7	2	1	1	0	0	0	0
	Chiang Dao	147.3	54	10	10	4	2	4	3	1	3	2
	Doi Saket	192.6	92	8	21	16	11	5	5	0	0	3
	Mae Taeng	131.9	63	15	11	7	9	2	2	1	3	0
	Mae Rim	136.4	69	11	12	13	2	3	2	5	1	3
	Samoeng	108.5	15	1	4	2	1	0	0	2	1	0
	Fang	162.4	87	19	14	12	2	2	8	1	2	1
	Mae Ai	140.0	46	5	9	2	5	0	1	4	2	3
	Phrao	139.3	48	6	10	7	5	4	1	1	1	0
	San Pa Tong	151.9	96	17	13	24	5	4	2	1	3	2
	San Kamphaeng	169.0	90	17	14	14	7	2	1	7	6	1
	San Sai	172.7	123	31	22	21	8	3	4	2	8	5
	Hang Dong	182.9	86	16	10	19	5	2	2	1	2	4
	Hot	112.8	27	1	4	5	6	1	1	0	1	1
	Doi Tao	91.2	17	1	2	3	1	5	1	1	0	0
	Omkoi	62.0	16	1	2	1	1	0	2	1	0	0
	Saraphi	137.4	78	15	11	10	2	6	4	0	2	5
	Wiang Haeng	268.7	15	1	2	1	1	0	2	0	0	0
	Chai Prakan	139.5	34	6	8	7	0	2	1	0	0	1
	Mae Wang	125.8	22	4	4	4	1	0	1	1	0	2
	K.A.Mae On	107.5	17	1	3	1	4	0	2	1	2	0
	K.A. Doi Law	132.9	27	3	5	11	1	0	0	1	0	0
Both sexes	Districts	Rates	All sites	Lung	Liver	Breast	Cervix	Colon	NHL	Skin*	Rectum	Stomach
	Muang		477	63	47	64	37	37	14	16	14	9
	Chom Thong		119	29	9	11	5	7	3	8	9	4
	Mae Chaem		55	10	2	2	7	0	2	2	1	6
	Chiang Dao		90	10	9	10	10	3	6	6	4	5
	Doi Saket		146	30	22	8	21	4	7	9	0	4
	Mae Taeng		127	17	24	15	11	4	5	2	5	4
	Mae Rim		136	28	15	11	12	10	6	3	1	2
	Samoeng		33	4	5	1	4	3	1	1	1	0
	Fang		152	29	11	19	14	1	11	5	7	8
	Mae Ai		87	15	13	5	9	7	3	0	4	3
	Phrao		97	18	16	7	10	5	2	5	4	4
	San Pa Tong		207	59	22	18	13	3	10	8	6	6
	San Kamphaeng		153	29	13	18	14	10	7	6	6	3
	San Sai		220	39	31	31	22	11	10	6	11	5
	Hang Dong		157	41	18	17	10	4	8	6	6	1
	Hot		57	13	11	1	4	0	2	1	2	6
	Doi Tao		44	8	5	1	2	2	1	9	0	3
	Omkoi		31	3	2	1	2	1	3	0	0	2
	Saraphi		175	34	17	16	11	4	7	7	5	9
	Wiang Haeng		28	1	2	1	2	1	4	0	0	2
	Chai Prakan		54	11	6	7	8	1	2	3	2	1
	Mae Wang		44	6	9	4	4	2	3	0	1	0
	K.A.Mae On		38	6	6	1	3	1	3	3	2	1
	K.A. Doi Law		57	21	5	3	5	4	4	0	1	1

Skin* - non-melanoma skin cancer

K.A. = king amphur

Table 5: Mortality rate and common cancer sites in districts of Chiang Mai, 2006

	Districts	Rates	All sites	Lung	Liver	Stomach	Colon	NHL	Rectum	Bladder	Prostate	Larynx
Males	Muang	100.6	130	27	25	5	8	2	6	10	1	3
	Chom Thong	95.5	39	10	7	3	1	2	1	3	1	2
	Mae Chaem	110.9	33	11	3	4	1	0	4	1	0	0
	Chiang Dao	77.3	26	9	7	1	1	1	2	0	1	0
	Doi Saket	146.0	63	17	14	4	2	4	1	2	5	1
	Mae Taeng	115.3	52	12	17	4	2	2	0	0	1	1
	Mae Rim	118.1	55	12	10	4	6	1	4	0	2	1
	Samoeng	56.0	8	0	3	1	0	2	0	1	0	0
	Fang	106.5	57	23	11	4	0	1	0	2	0	3
	Mae Ai	79.1	30	10	6	1	0	1	2	0	0	2
	Phrao	101.6	37	6	14	1	3	0	1	1	0	0
	San Pa Tong	164.0	86	34	14	2	1	5	1	4	1	2
	San Kamphaeng	118.4	58	14	9	1	2	2	3	1	7	0
	San Sai	126.9	74	18	20	3	8	3	1	2	3	0
	Hang Dong	148.2	65	25	15	2	1	4	0	1	2	0
	Hot	96.6	22	6	6	2	0	0	1	0	0	0
	Doi Tao	88.6	15	5	3	1	2	0	0	1	0	0
	Omkoi	43.0	9	3	1	0	0	1	0	1	0	0
	Saraphi	158.4	76	21	13	5	2	2	4	2	4	2
	Wiang Haeng	167.4	10	0	1	3	0	2	0	0	0	0
	Chai Prakan	94.4	20	6	7	0	0	1	3	0	1	0
	Mae Wang	112.4	20	4	6	2	0	1	1	1	1	0
	K.A.Mae On	123.5	20	6	2	1	0	0	0	1	1	1
	K.A. Doi Law	143.2	25	10	3	1	3	3	0	0	1	0
	Districts	Rates	All sites	Lung	Liver	Cervix	Breast	Stomach	NHL	Colon	Rectum	Ovary
Females	Muang	83.0	137	25	18	21	12	5	6	6	3	7
	Chom Thong	74.3	32	9	1	2	5	1	0	3	1	0
	Mae Chaem	45.4	13	0	1	3	2	1	1	0	0	0
	Chiang Dao	62.5	22	5	1	2	3	1	1	0	0	0
	Doi Saket	117.5	55	13	7	10	2	1	4	0	1	1
	Mae Taeng	104.0	51	7	9	8	9	2	2	2	1	2
	Mae Rim	86.0	46	12	4	6	6	1	0	3	1	1
	Samoeng	82.0	10	5	1	0	0	1	0	1	1	0
	Fang	99.9	50	12	4	2	4	4	7	0	1	1
	Mae Ai	82.6	30	2	4	2	3	2	1	2	1	1
	Phrao	93.7	33	8	3	2	0	3	0	1	2	0
	San Pa Tong	85.7	59	23	5	3	4	6	2	2	3	2
	San Kamphaeng	110.9	58	9	7	7	7	3	0	4	4	0
	San Sai	99.2	69	20	12	8	8	1	1	2	2	1
	Hang Dong	121.2	55	21	5	2	6	0	2	3	0	1
	Hot	59.6	16	6	4	0	0	1	0	0	0	0
	Doi Tao	54.9	10	3	1	1	2	1	0	1	0	0
	Omkoi	20.5	6	1	0	0	0	1	2	0	0	0
	Saraphi	81.7	50	13	6	5	4	2	1	0	1	4
	Wiang Haeng	122.5	6	0	0	1	0	0	0	0	0	0
	Chai Prakan	96.8	23	9	2	5	0	1	0	0	0	0
	Mae Wang	55.7	12	4	0	0	1	0	1	0	0	1
	K.A.Mae On	68.1	10	2	2	0	0	0	2	1	1	0
	K.A. Doi Law	117.7	22	10	2	2	3	0	1	0	1	0
	Districts		All sites	Lung	Liver	Stomach	Cervix	Breast	Colon	NHL	Rectum	Bladder
Both sexes	Muang		267	52	43	10	21	12	14	8	9	10
	Chom Thong		71	19	8	4	2	5	4	2	2	3
	Mae Chaem		46	11	4	5	3	2	1	1	4	1
	Chiang Dao		48	14	8	2	2	3	1	2	2	0
	Doi Saket		118	30	21	5	10	2	2	8	2	2
	Mae Taeng		103	19	26	6	8	9	4	4	1	0
	Mae Rim		101	24	14	5	6	6	9	1	5	2
	Samoeng		18	5	4	2	0	0	1	2	1	1
	Fang		107	35	15	8	2	4	0	8	1	3
	Mae Ai		60	12	10	3	2	3	2	2	3	1
	Phrao		70	14	17	4	2	0	4	0	3	2
	San Pa Tong		145	57	19	8	3	4	3	7	4	6
	San Kamphaeng		116	23	16	4	7	7	6	2	7	2
	San Sai		143	38	32	4	8	8	10	4	3	2
	Hang Dong		120	46	20	2	2	6	4	6	0	3
	Hot		38	12	10	3	0	0	0	0	1	0
	Doi Tao		25	8	4	2	1	2	3	0	0	1
	Omkoi		15	4	1	1	0	0	0	3	0	1
	Saraphi		126	34	19	7	5	4	2	3	5	2
	Wiang Haeng		16	0	1	3	1	0	0	2	0	0
	Chai Prakan		43	15	9	1	5	0	0	1	3	2
	Mae Wang		32	8	6	2	0	1	0	2	1	1
	K.A.Mae On		30	8	4	1	0	0	1	2	1	1
	K.A. Doi Law		47	20	5	1	2	3	3	4	1	0

K.A. = king amphur

Estimated New Cases

Males				Females		
Lung	297	22.6 %		Breast	264	17.9 %
Liver	221	16.8 %		Cervix	240	16.3 %
Colon	73	5.6 %		Lung	227	15.4 %
Non-Hodgkin's lymphoma	71	5.4 %		Liver	99	6.7 %
Stomach	56	4.3 %		Skin, non-melanoma	57	3.9 %
Skin, non-melanoma	49	3.7 %		Non-Hodgkin's lymphoma	53	3.6 %
Rectum	46	3.5 %		Colon	52	3.5 %
Bladder	45	3.4 %		Rectum	46	3.1 %
Prostate	44	3.4 %		Ovary	45	3.1 %
Nasopharynx	32	2.4 %		Corpus	36	2.4 %
All sites	**1313**	**100.0 %**		**All sites**	**1471**	**100.0 %**

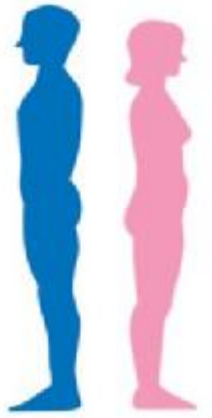

Figure 6: Ten leading cancer sites for estimated new cases, by sex, Chiang Mai, 2006

Estimated Deaths

Males				Females		
Lung	289	28.1 %		Lung	219	25.0 %
Liver	217	21.1 %		Liver	99	11.3 %
Stomach	55	5.3 %		Cervix	92	10.5 %
Colon	43	4.2 %		Breast	81	9.3 %
Non-Hodgkin's lymphoma	40	3.9 %		Stomach	38	4.3 %
Rectum	35	3.4 %		Non-Hodgkin's lymphoma	34	3.9 %
Bladder	34	3.3 %		Colon	31	3.5 %
Prostate	32	3.1 %		Rectum	24	2.7 %
Myeloid leukaemia	22	2.1 %		Ovary	22	2.5 %
Larynx	18	1.7 %		Pancreas	21	2.4 %
All sites	**1030**	**100.0 %**		**All sites**	**875**	**100.0 %**

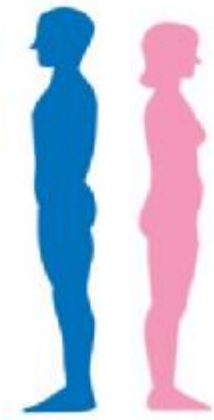

Figure 7: Ten leading cancer sites for estimated dead cases, by sex, Chiang Mai, 2006

Table 6 : Top 5 cancers in Chiang Mai by 15-year age groups, 2006

Males

Incidence Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Leukemias (all types)	11	Bone	3	Liver	37	Liver	94	Lung	141	Lung	55
Brain, nervous system	2	Skin, non-melanoma	3	Lung	14	Lung	86	Liver	63	Liver	24
Nasopharynx	1	NHL	3	Colon	7	NHL	31	Colon	27	Colon	17
Hodgkin's disease	1	Myeloid leukaemia	3	Rectum	7	Nasopharynx	21	Prostate	25	Prostate	18
NHL	1	Stomach	2	NHL	6	Colon	21	Rectum	19	Bladder	15
All sites	17	All sites	31	All sites	129	All sites	411	All sites	482	All sites	242

Females

Incidence Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Leukemias (all types)	8	Myeloid leukaemia	6	Cervix	69	Breast	140	Lung	110	Lung	36
Eye	1	Ovary	4	Breast	63	Cervix	116	Breast	42	Skin, non-melanoma	23
Brain, nervous system	1	Breast	4	Thyroid	15	Lung	66	Cervix	39	Liver	19
Connective tissue	1	NHL	4	Ovary	13	Liver	34	Liver	34	Breast	15
Non-Hodgkin lymphoma	1	Thyroid	3	Lung	13	Ovary	23	NHL	25	Cervix	14
All sites	17	All sites	42	All sites	245	All sites	545	All sites	415	All sites	207

Males

Incidence Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Leukemias (all types)	2.5	Bone	0.4	Liver	3.7	Liver	9.0	Lung	19.9	Lung	4.4
Brain, nervous system	0.4	Skin, non-melanoma	0.4	Lung	1.4	Lung	8.2	Liver	9.1	Liver	1.9
Nasopharynx	0.2	NHL	0.4	Colon	0.7	NHL	2.9	Colon	3.5	Colon	1.4
Hodgkin's disease	0.2	Myeloid leukaemia	0.4	Rectum	0.7	Nasopharynx	2.1	Prostate	3.2	Prostate	1.4
Non-Hodgkin lymphoma	0.2	Stomach	0.3	NHL	0.6	Colon	2.0	Rectum	2.8	Bladder	1.2
All sites	3.6	All sites	4.2	All sites	13.0	All sites	39.2	All sites	66.6	All sites	19.3

Females

Incidence Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Leukemias (all types)	2.0	Myeloid leukaemia	0.9	Cervix	6.3	Breast	12.0	Lung	13.5	Lung	2.4
Eye	0.3	Ovary	0.6	Breast	5.8	Cervix	9.9	Breast	5.7	Skin, non-melanoma	1.5
Brain, nervous system	0.2	Breast	0.5	Thyroid	1.4	Lung	6.0	Cervix	5.4	Liver	1.3
Connective tissue	0.2	NHL	0.5	Ovary	1.2	Liver	3.0	Liver	4.4	Breast	1.0
Non-Hodgkin lymphoma	0.2	Thyroid	0.4	Lung	1.1	Ovary	2.0	NHL	3.1	Cervix	0.9
All sites	4.4	All sites	5.8	All sites	22.4	All sites	47.3	All sites	54.1	All sites	13.6

Table 7 : Top 5 cancer deaths in Chiang Mai by 15-year age groups, 2006

Males

Mortality Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Lymphoid leukaemia	2	Myeloid leukaemia	4	Liver	31	Liver	88	Lung	143	Lung	56
Myeloid leukaemia	2	Liver	3	Lung	12	Lung	77	Liver	72	Liver	22
		Bone	2	NHL	6	Stomach	18	Stomach	17	Prostate	18
		Rectum	1	Myeloid leukaemia	5	NHL	14	Rectum	16	Stomach	15
		Mouth	1	Stomach	4	Colon	11	Colon	15	Bladder	15
All sites	4	All sites	17	All sites	79	All sites	305	All sites	391	All sites	228

Females

Mortality Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Bone	1	Breast	2	Breast	19	Lung	60	Lung	109	Lung	41
NHL	1	NHL	2	Cervix	10	Cervix	39	Liver	37	Liver	21
Myeloid leukaemia	1	Lymphoid leukaemia	2	Lung	8	Liver	33	Cervix	25	Cervix	17
		Myeloid leukaemia	2	Liver	7	Breast	31	Stomach	18	Breast	11
		Brain, nervous system	1	NHL	4	Stomach	10	Breast	18	Stomach	8
All sites	3	All sites	16	All sites	85	All sites	262	All sites	322	All sites	183

Males

Mortality Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Lymphoid leukaemia	0.3	Myeloid leukaemia	0.5	Liver	3.0	Liver	8.4	Lung	19.9	Lung	4.5
Myeloid leukaemia	0.3	Liver	0.4	Lung	1.2	Lung	7.4	Liver	10.3	Liver	1.8
		Bone	0.3	NHL	0.7	Stomach	1.7	Stomach	2.5	Prostate	1.4
		Rectum	0.2	Myeloid leukaemia	0.5	NHL	1.3	Rectum	2.2	Stomach	1.2
		Mouth	0.1	Stomach	0.4	Colon	1.0	Colon	1.8	Bladder	1.2
All sites	0.6	All sites	2.3	All sites	8.0	All sites	29.1	All sites	53.8	All sites	18.1

Females

Mortality Age group	0-14		15-29		30-44		45-59		60-74		75+	
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Bone	0.2	Breast	0.3	Breast	1.7	Lung	5.4	Lung	13.1	Lung	2.7
NHL	0.2	NHL	0.3	Cervix	0.9	Cervix	3.3	Liver	4.8	Liver	1.4
Myeloid leukaemia	0.2	Lymphoid leukaemia	0.3	Lung	0.7	Liver	2.9	Cervix	3.4	Cervix	1.1
		Myeloid leukaemia	0.3	Liver	0.6	Breast	2.7	Stomach	2.3	Breast	0.7
		Brain, nervous system	0.2	NHL	0.4	Stomach	0.9	Breast	2.3	Stomach	0.5
All sites	0.5	All sites	2.2	All sites	7.6	All sites	23.1	All sites	40.2	All sites	12.0

COMMON CANCERS IN CHIANG MAI, 2006

Lung cancer (ICD-10 C33-C34)

There were 524 new cases of lung cancer diagnosed in 2006 (297 males, 227 females). This was 22.6% of all cancers in males and 15.4% of those in females. The age-standardized incidence rates were 34.1 for males and 23.3 for females. Lung cancer has ranked first for new male cancers in Chiang Mai since the first population-base registration in 1983. For females, lung cancer ranked third in 2005 after breast and cervix cancers. The incidence rates increased with age in both sexes. Rates in males increased sharply after the age of 45 and exceeded those of females (Fig 10). The cumulative rate percentages to age 75 were 4.3% for males and 3.2% for females. These represented risks of 10 in 232 for men and 10 in 317 for women of developing lung cancer by age 75.

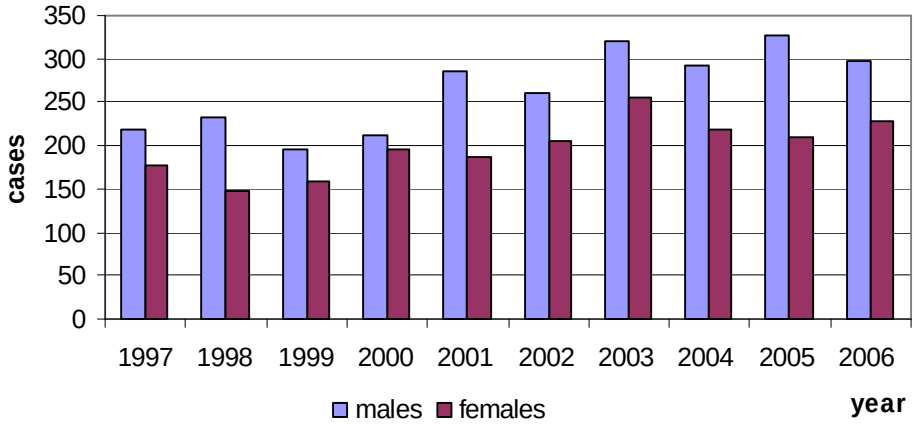

Figure 8: Number of new cases of lung cancer by sex, 1997-2006

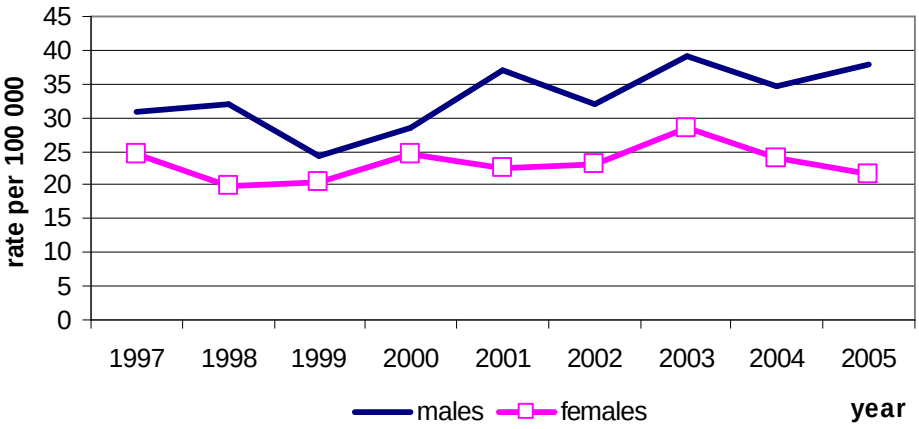

Figure 9: Incidence rates of new cases of lung cancer by sex, 1997-2006

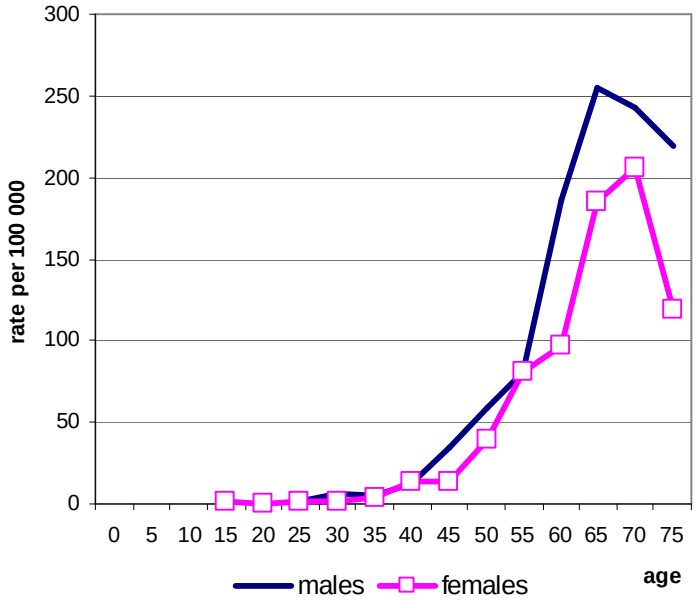

Figure 10: Age-specific incidence rate of lung cancer, Chiang Mai, 2006

Of the 508 deaths from lung cancer, 289 were males (28.1% of all male cancer deaths) and 219 were females (25.0% of all female cancer deaths). In 2006, the mortality rates were 33.0 for males and 22.0 for females; these rates tended to increase for both sexes (Fig. 11). The mortality rates increased with age for both sexes, rates in males increasing sharply after the age of 55 years and exceeding those in females (Fig 12).

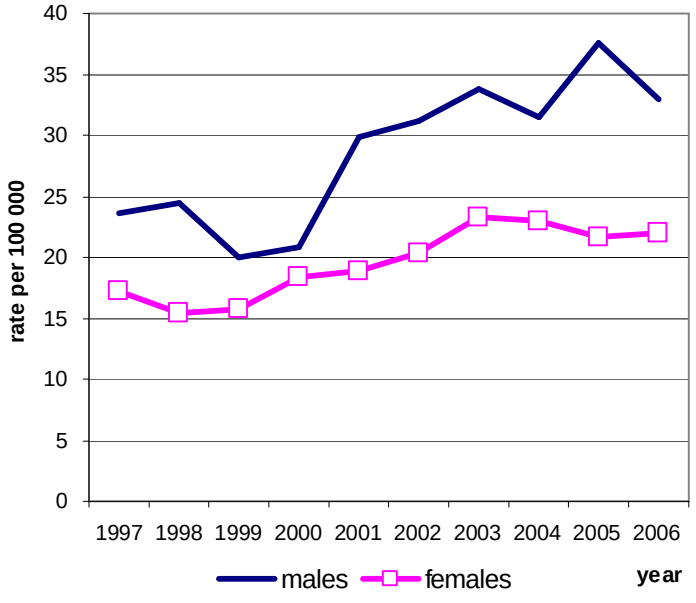

Figure 11: Mortality rate of lung cancer by sex, Chiang Mai, 1997-2006

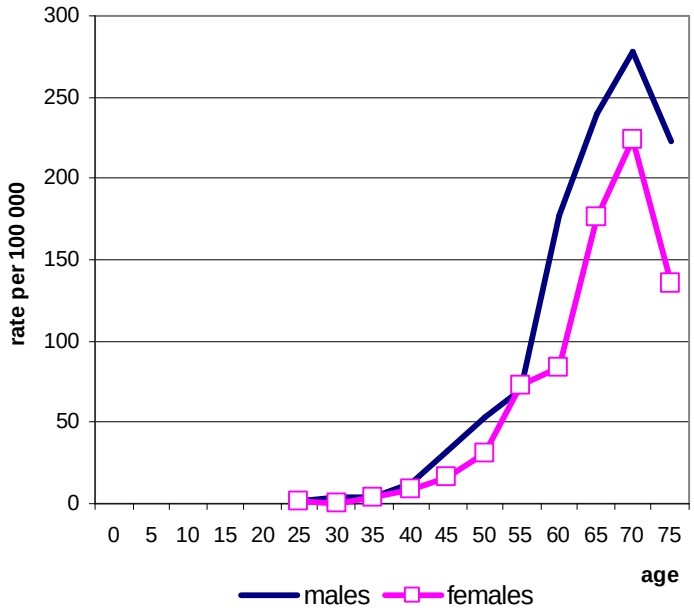

Figure 12: Age-specific mortality rate of lung cancer, Chiang Mai, 2006

For lung cancer deaths, 441 cases (86.8%) died within one year after diagnosis and 40 cases (7.9%) died in the second year.

Diagnosis and stages of cancer

Sixty-three percent of cases were diagnosed in advanced stage (39.1% had distant metastasis, 24.6% had regional nodes metastasis). The most common metastasis site was lung-to-lung, followed by brain. One hundred and eighteen cases (42.2%) were diagnosed by clinical diagnosis, and 55 cases were diagnosed by death certificate only. The common cell types were adenocarcinoma (30.3%) and squamous cell carcinoma (15.1%).

Cell type	males	females	total	%
Adenocarcinoma	88	71	159	30.3
Squamous cell	56	23	79	15.1
Small cell	22	10	32	6.1
Large cell	5	3	8	1.5
Other	8	17	25	4.8
Clinical diagnosis	118	103	221	42.2
All	297	227	524	100.0

Stage	cases	%
Localized	9	1.7
Locally advanced	116	22.1
Regional node metastasis	129	24.6
Distant metastasis	205	39.1
Unknown/not staged	65	12.4
All	524	100.0

Liver cancer (ICD-10 C22)

There were 320 new cases of liver cancer diagnosed in 2006 (221 males, 99 females). This was 16.8% of all cancers in males and 6.7% of those in females. The age-standardized incidence rates were 24.2 for males and 9.8 for females. Liver cancer has ranked second for new male cancers in Chiang Mai since the first population-base registration in 1983. For females, liver cancer ranked fourth in 2005 after breast, cervix and lung cancers. The incidence rates increased with age for both sexes; rates for males were higher than females in all age groups (Fig 15). The cumulative rate percentages to age 75 were 2.7% for males and 1.1% for females. These represented risks of 10 in 368 for men and 10 in 883 for women of developing liver cancer by age 75.

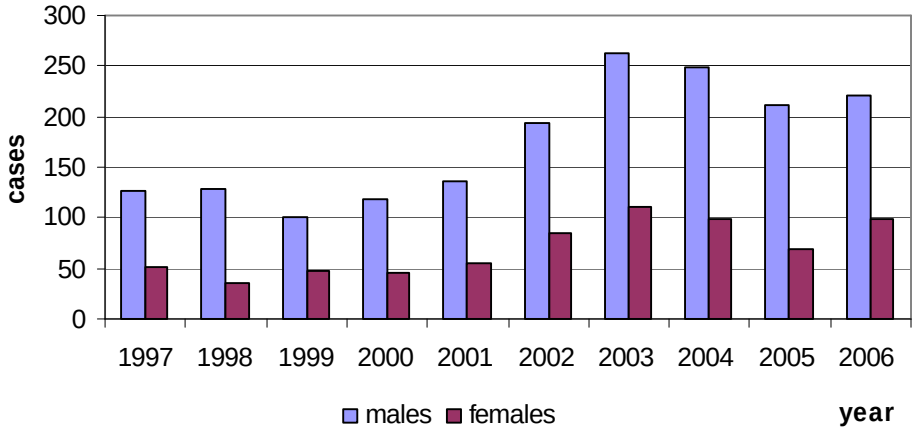

Figure 13: Number of new cases of liver cancer by sex, 1997-2006

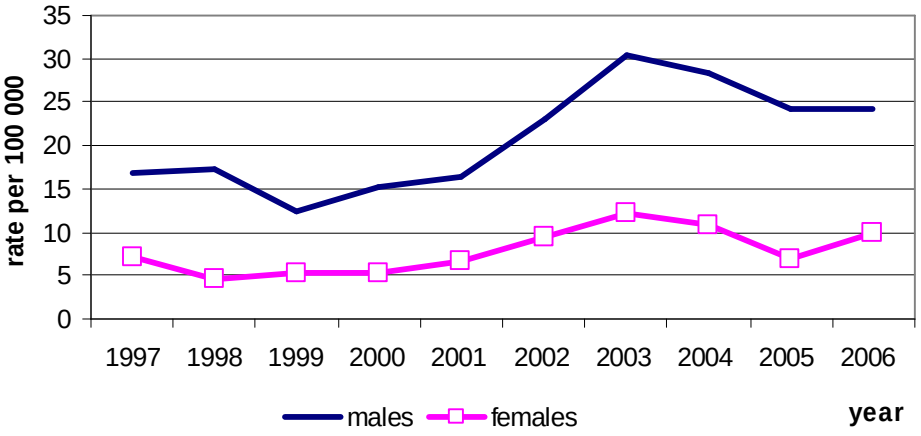

Figure 14: Incidence rates of new cases of liver cancer by sex, 1997-2006

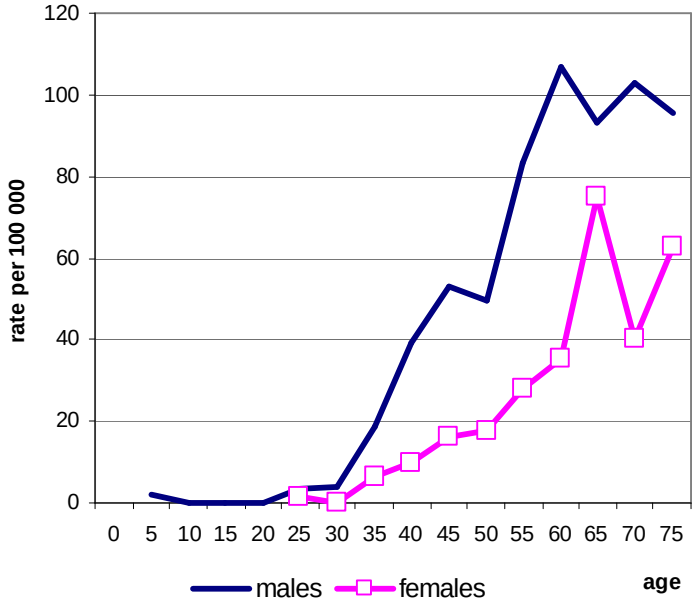

Figure 15: Age-specific incidence rate of liver cancer, Chiang Mai, 2006

Of the 316 deaths from liver cancer, 217 were males (21.1% of all male cancer deaths) and 99 were females (11.3% of all female cancer deaths). The mortality rates were 24.1 for males and 9.9 for females and have
tended to slightly decrease from the year 2003 in both sexes (Fig. 16). The mortality rates increased with age in both sexes, rates in males increasing sharply after the age of 45 years and exceeding those in females (Fig 17).

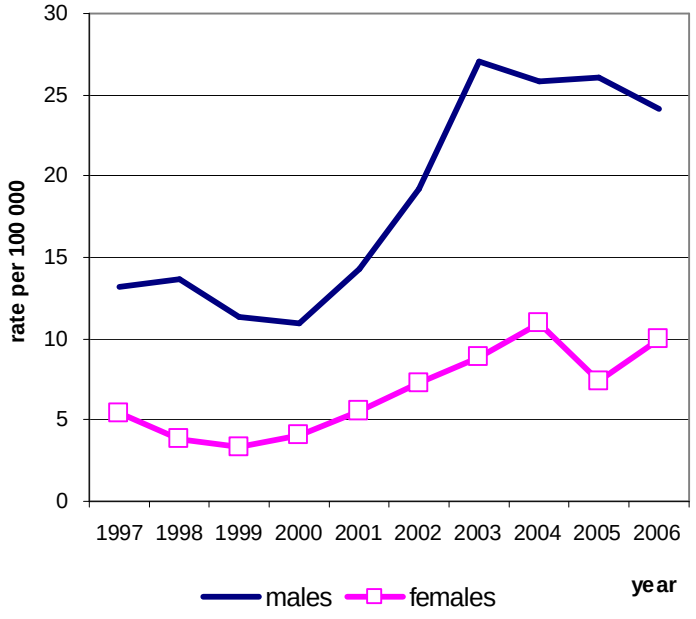

Figure 16: Mortality rate of liver cancer by sex, Chiang Mai, 1997-2006

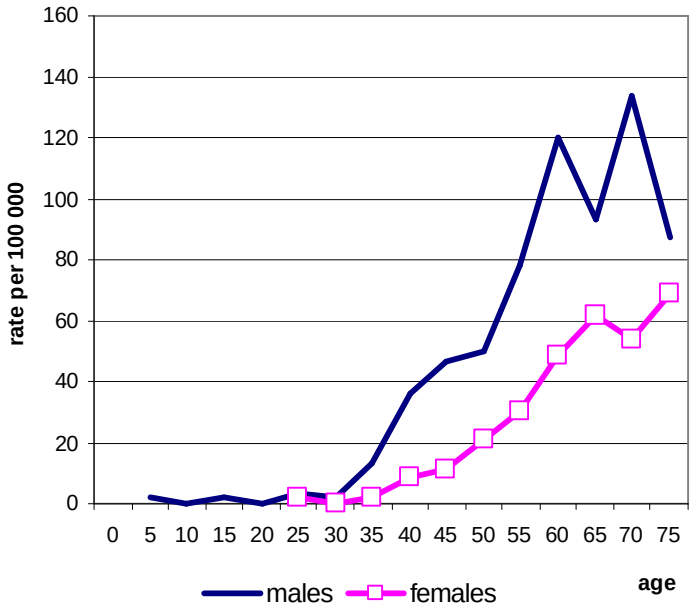

Figure 17: Age-specific mortality rate of liver cancer, Chiang Mai, 2006

For liver cancer deaths, 287 cases (90.1%) died within one year after diagnosis, and 14 cases (4.4%) died in the second year. These reflect the severity of this type of cancer.

Diagnosis and stages of cancer

Forty-one percent of cases were diagnosed at an advanced stage (20.0% had distant metastasis, 21.6% had regional nodes metastasis). The most common metastasis site was lung, followed by distant lymph nodes. Only 18.8% were diagnosed by histology or cytology, while 61.3% were diagnosed by imaging studies. The common cell types for histological diagnosis groups were cholangiocarcinoma (66.7%) and hepatocellular carcinoma (28.3%). Eighty-four percent of hepatocellular carcinomas and 71.3% of cholangiocarcinomas were diagnosed by clinical diagnosis.

Cell type	males	females	total	%
Hepatocellular	13	4	17	5.3
Cholangiocarcinoma	27	13	40	12.5
Other	1	2	3	0.9
Clinical diagnosis	180	80	260	81.3
All	221	99	320	100.0

Stage	cases	%
Localized	22	6.9
Locally advanced	103	32.2
Regional node metastasis	69	21.6
Distant metastasis	64	20.0
Unknown/not staged	62	19.4
All	320	100.0

Stomach cancer (ICD-10 C16)

There were 89 new cases of stomach cancer diagnosed in 2006 (56 males, 33 females). This was 4.3% of all cancers in males and 2.2% of those in females. The age-standardized incidence rates were 5.9 for males and 3.4 for females. In 2006, stomach cancer ranked fifth for new male cancers and eleventh for females. The incidence rates increased with age in both sexes after the age of 40 years, rates in males increasing sharply after the age of 65 years and exceeding those in females (Fig 20). The cumulative rate percentages to age 75 were 0.6% for males and 0.3% for females. These represented risks of 1 in 151 for men and 1 in 277 for women of developing stomach cancer by age 75.

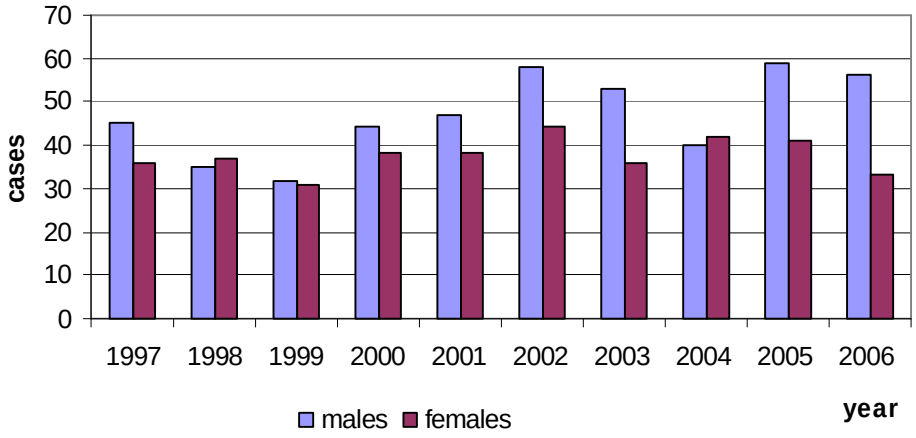

Figure 18: Number of new cases of stomach cancer by sex, 1997-2006

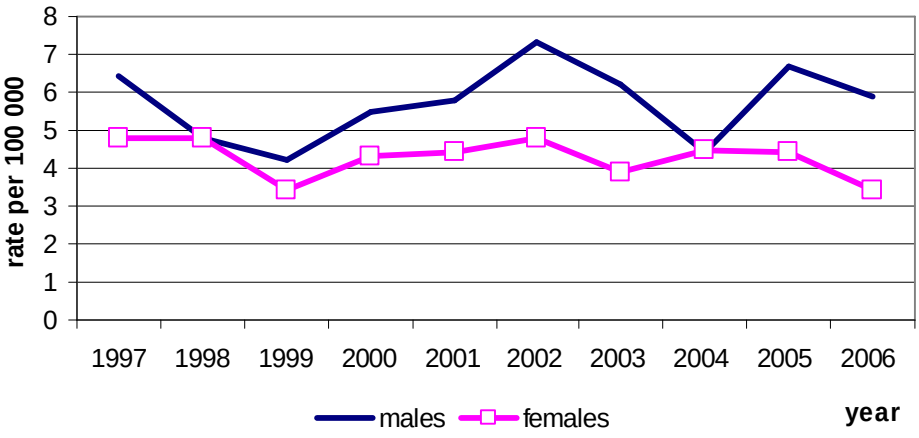

Figure 19: Incidence rates of new cases of stomach cancer by sex, 1997-2006

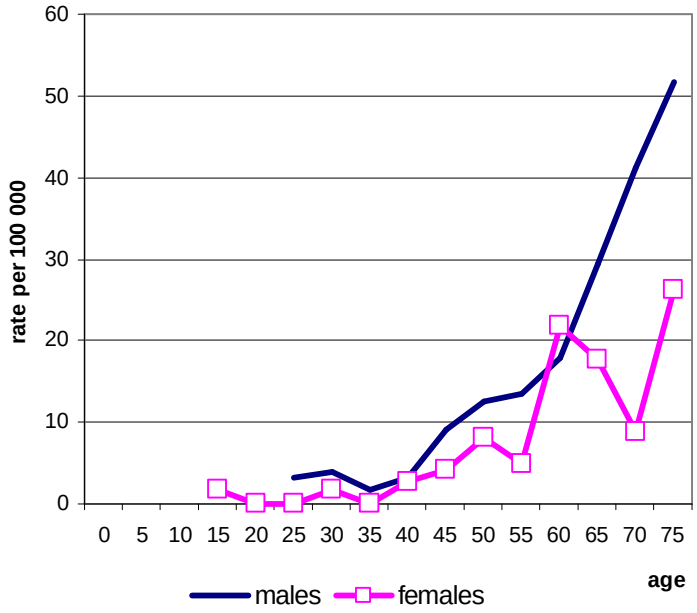

Figure 20: Age-specific incidence rate of stomach cancer, Chiang Mai, 2006

Of the 93 deaths from stomach cancer, 55 were males (5.3% of all male cancer deaths) and 38 were females (4.3% of all female cancer deaths). The mortality rates were 5.9 for males and 3.9 for females, and increased in both sexes (Fig. 21). The mortality rates increased with age in both sexes, rates in males exceeding those in females after the age of 70 years (Fig 22).

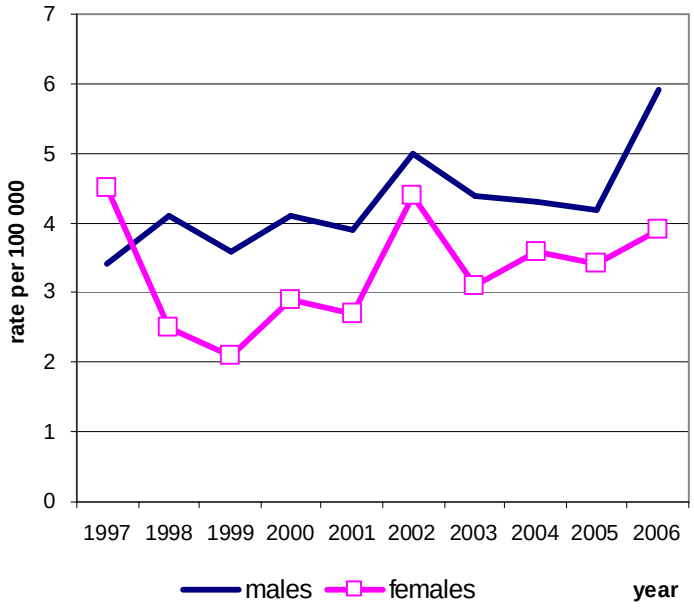

Figure 21: Mortality rate of stomach cancer by sex, Chiang Mai, 1997-2006

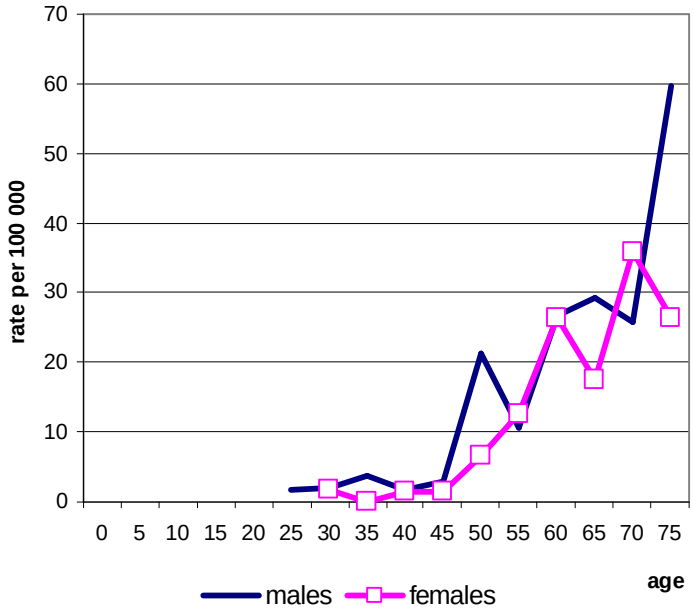

Figure 22: Age-specific mortality rate of stomach cancer, Chiang Mai, 2006

Diagnosis and stage of cancer

Sixty-four percent of cases were diagnosed at a locally advanced stage (33.7% had locally advanced, 30.3% had regional nodes metastasis). The most common metastasis site was peritoneum, followed by liver. Ninety-one percent were diagnosed by histology. The common cell types for histological diagnosis groups were adenocarcinoma (55.1%) and signet ring cell carcinoma (31.5%).

Cell type	males	females	total	%
Adenocarcinoma	31	18	49	55.1
Signet ring cell	16	12	28	31.5
Other	2	2	4	4.5
Clinical diagnosis	7	1	8	9.0
All	56	33	89	100.0

Stage	cases	%
Localized	4	4.5
Locally advanced	30	33.7
Regional node metastasis	27	30.3
Distant metastasis	21	23.6
Unknown/not staged	7	7.9
All	89	100.0

Colon cancer (ICD-10 C18)

There were 125 new cases of colon cancer diagnosed in 2006 (73 males, 52 females). This was 5.6% of all cancers in males and 3.5% of those in females. Colon cancer was the most common cancer of the gastrointestinal tract in both sexes. The age-standardized incidence rates were 7.3 for males and 5.3 for females. In 2006, colon cancer ranked third for new male cancers and seventh for females. The incidence rates increased with age in both sexes after the age of 40 years, rates in males exceeding those in females after the age of 65 years (Fig 25). The cumulative rate percentages to age 75 were 0.9% for males and 0.6% for females. These represented risks of 1 in 106 for men and 1 in 164 for women of developing colon cancer by age 75.

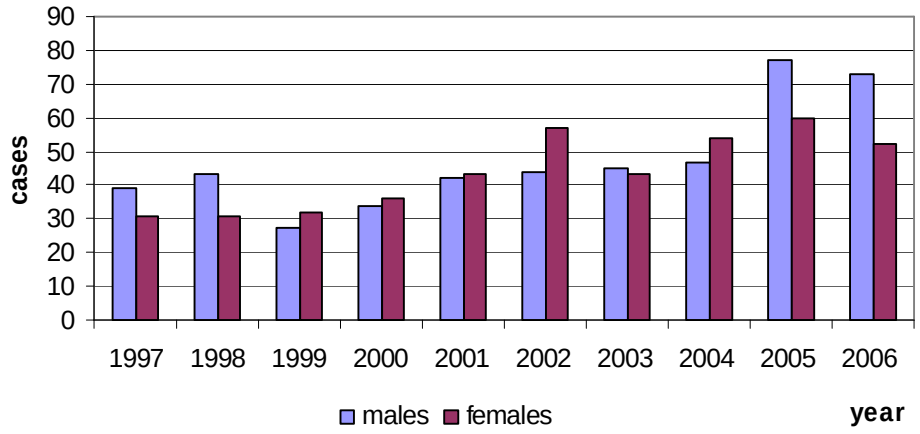

Figure 23: Number of new cases of colon cancer by sex, 1997-2006

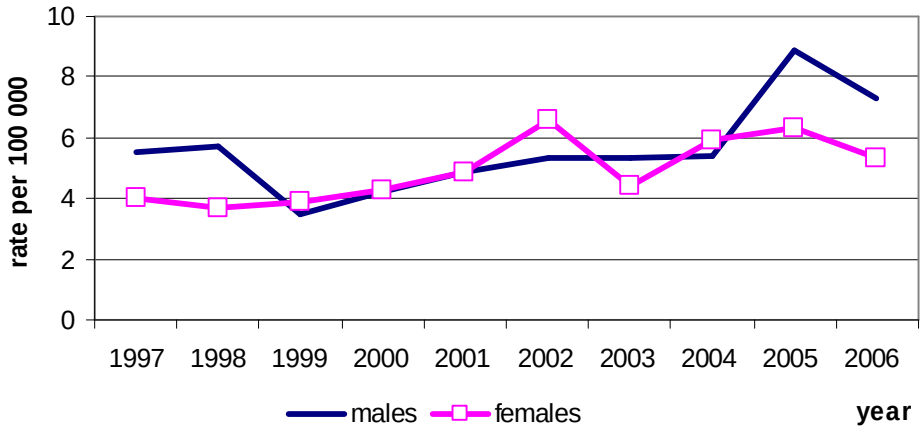

Figure 24: Incidence rates of new cases of colon cancer by sex, 1997-2006

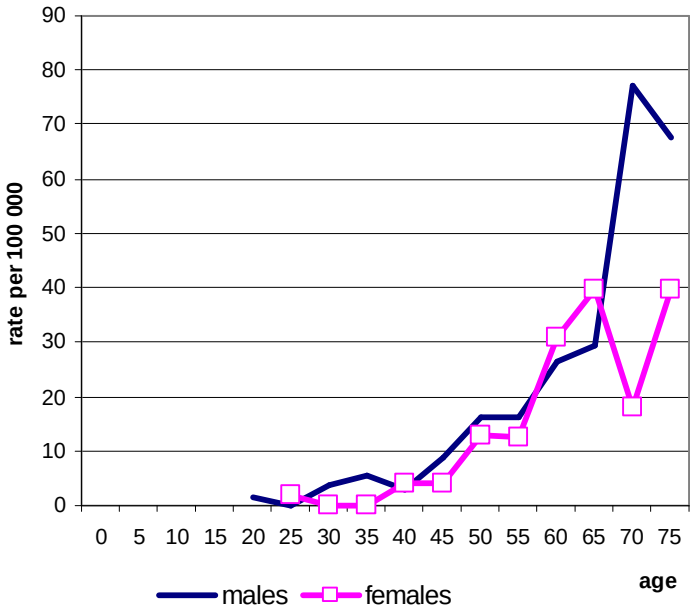

Figure 25: Age-specific incidence rate of colon cancer, Chiang Mai, 2006

Of the 74 deaths from colon cancer, 43 were males (4.2% of all male cancer deaths) and 31 were females (3.5% of all female cancer deaths). The age-standardized mortality rates were 4.3 for males and 3.1 for females and tended to increase in both sexes (Fig. 26). The mortality rates increased with age in both sexes, and increasing sharply after age 55 (Fig 27).

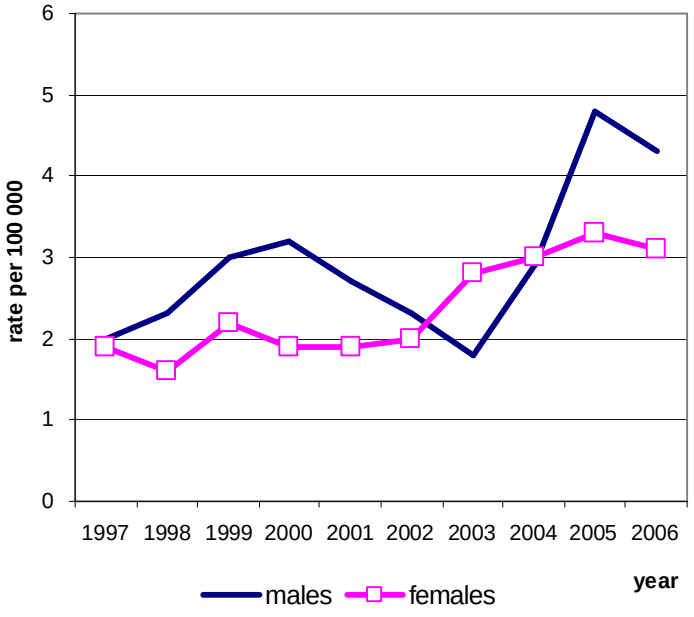

Figure 26: Mortality rate of colon cancer by sex, Chiang Mai, 1997-2006

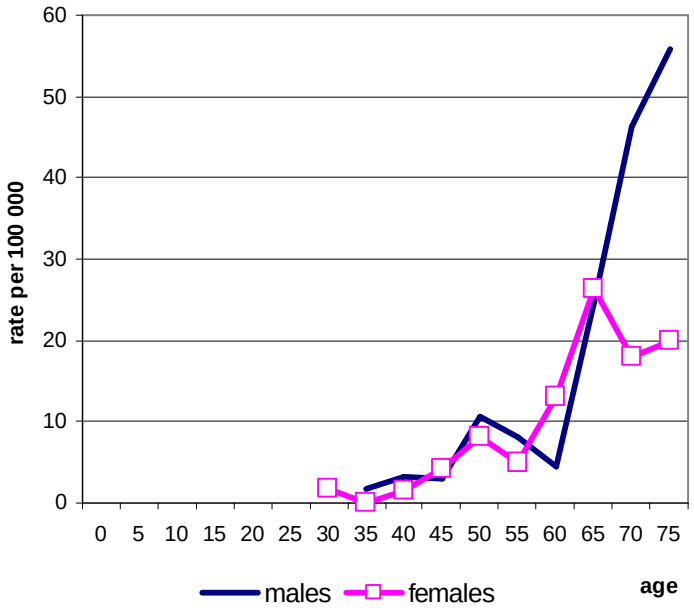

Figure 27: Age-specific mortality rate of colon cancer, Chiang Mai, 2006

Diagnosis and stage of cancer

Fifty-eight percent of cases were diagnosed at a locally advanced stage (43.2% had locally advanced, 15.2% had regional node metastasis). The most common metastasis site was liver, followed by peritoneum. Eighty-seven percent were diagnosed by histology. The common cell types in histological diagnosis groups were adenocarcinoma (76.8%) and mucinous carcinoma (4.0%).

Cell type	males	females	total	%
Adenocarcinoma	53	43	96	76.8
Mucinous carcinoma	3	2	5	4.0
Signet ring cell	3	1	4	3.2
Others	3	1	4	3.2
Clinical diagnosis	11	5	16	12.8
	73	52	125	100.0

Stage	cases	%
Localized	10	8.0
Locally advanced	54	43.2
Regional node metastasis	19	15.2
Distant metastasis	36	28.8
Unknown/not staged	6	4.8
All	125	100.0

Bladder cancer (ICD-10 C67)

There were 64 new cases of bladder cancer diagnosed in 2006 (45 males, 19 females). This was 3.4% of all cancers in males and 1.3% of those in females. The age-standardized incidence rates were 4.6 for males and 1.7 for females. In 2006, bladder cancer ranked eighth for new male cancers and sixteenth for females. The incidence was stable in males and tended to decrease in females from 1997 to 2006 (Fig 29). The incidence rates increased with age in both sexes; rates in males exceeding those in females in all age groups (Fig 30). The cumulative rate percentages to age 75 were 0.6% for males and 0.2% for females. These represented risks of 1 in 172 for men and 1 in 526 for women of developing bladder cancer by age 75.

Figure 28: Number of new cases of bladder cancer by sex, 1997-2006

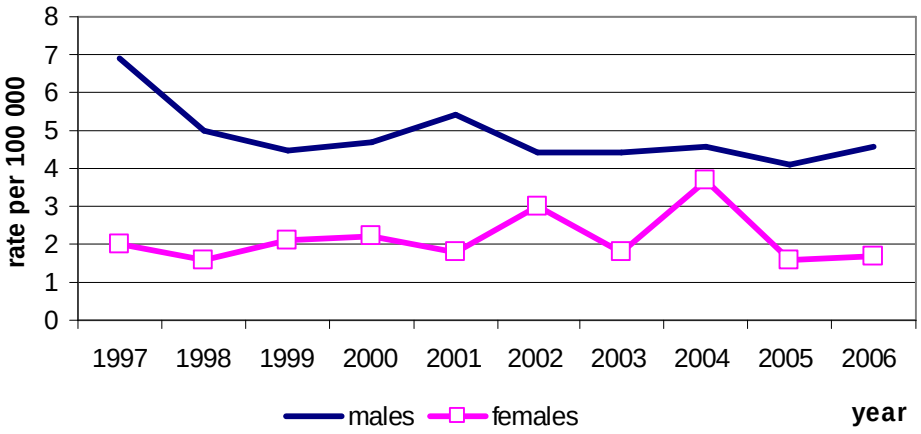

Figure 29: Incidence rates of new cases of bladder cancer by sex, 1997-2006

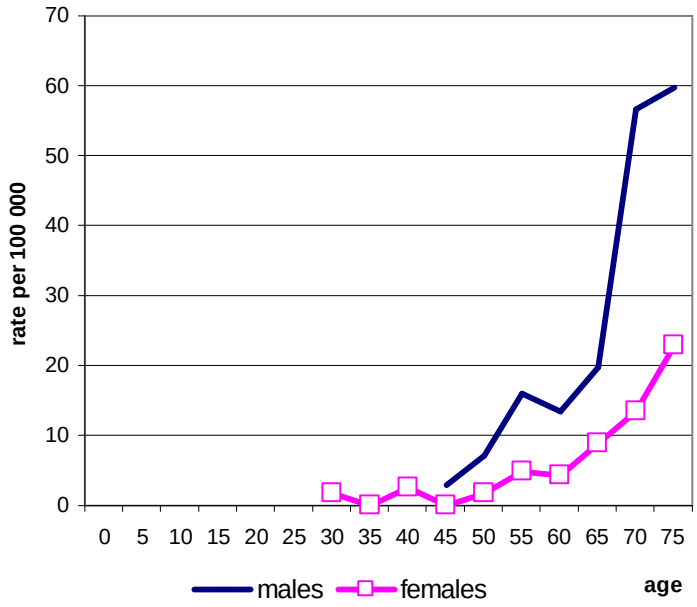

Figure 30: Age-specific incidence rate of bladder cancer, Chiang Mai, 2006

Of the 46 deaths from bladder cancer, 34 were males (3.3% of all male cancer deaths) and 12 were females (1.4% of all female cancer deaths). The age-standardized mortality rates were 3.4 for males and 1.1 for females (Fig. 31). The mortality rates increased with age in both sexes, increasing sharply after age 65 (Fig 32).

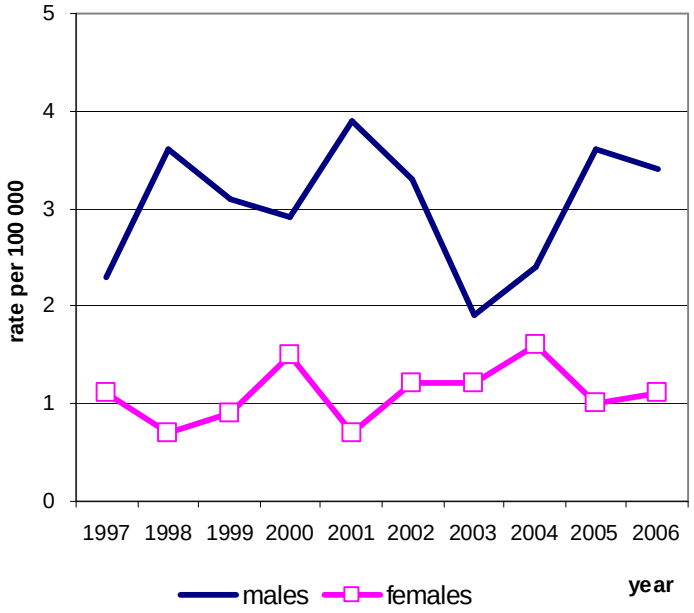

Figure 31: Mortality rate of bladder cancer by sex, Chiang Mai, 1997-2006

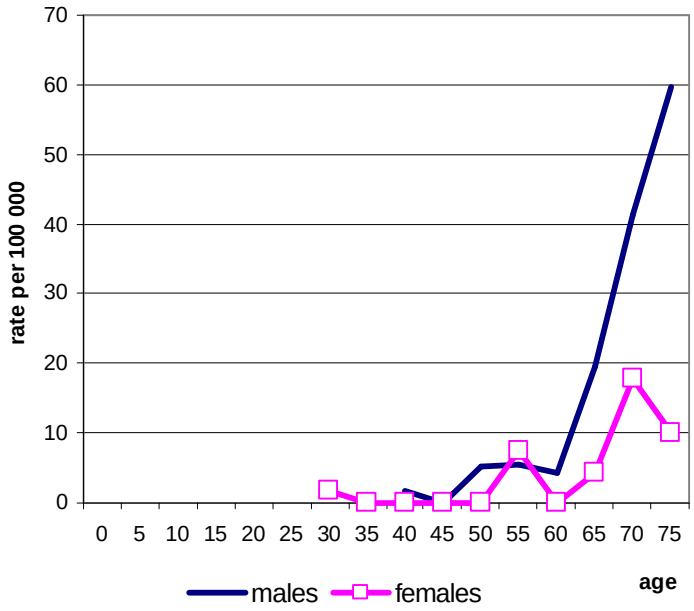

Figure 32: Age-specific mortality rate of bladder cancer, Chiang Mai, 2006

Diagnosis and stages of cancer

Twenty-eight cases (43.8%) were diagnosed at a locally advanced stage and 8 cases had distant metastases. The metastasis sites were peritoneum and liver. Ninety- two percent were diagnosed by histology; the most common cell type was transitional cell carcinoma (79.7%).

Cell type	males	females	total	%
Transitional cell ca.	35	16	51	79.7
Adenocarcinoma	6	0	6	9.4
Other	0	2	2	3.1
Clinical diagnosis	4	1	5	7.8
All	45	19	64	100.0

Stage	cases	%
Localized	18	28.1
Locally advanced	28	43.8
Regional node metastasis	8	12.5
Distant metastasis	8	12.5
Unknown/not staged	2	3.1
All	64	100.0

Non-Hodgkin's Lymphoma (ICD-10 C82-C85; C96)

There were 124 new cases of non-Hodgkin's lymphoma (NHL) diagnosed in 2006 (71 males, 53 females). This was 5.4% of all cancers in males and 3.6% of those in females. The age-standardized incidence rates were 7.3 for males and 5.8 for females. In 2006, NHL ranked fourth for male and sixth for female cancers. The incidence rates in both sexes tended to increase from 1997 to 2006 (Fig 34). The incidence increased with age in both sexes, increasing sharply after the age of 55 years (Fig 35). The cumulative rate percentages to age 75 were 0.8% for males and 0.7% for females. These represented risks of 1 in 120 for men and 1 in 133 for women of developing NHL by age 75.

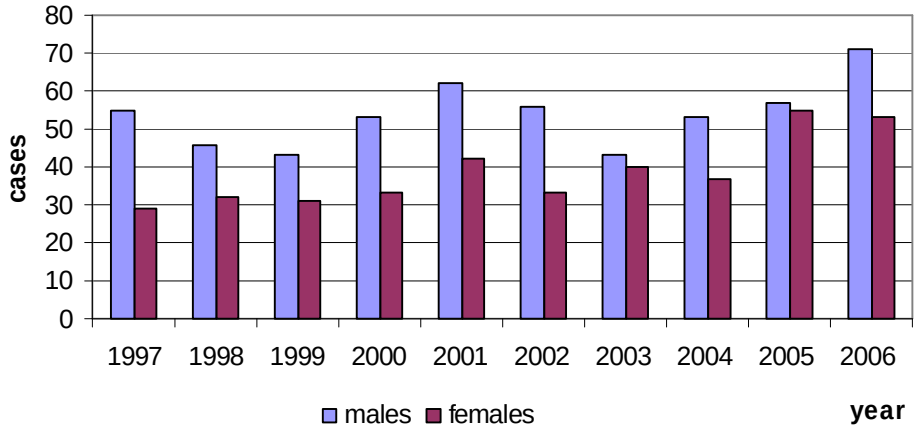

Figure 33: Number of new cases of NHL by sex, 1997-2006

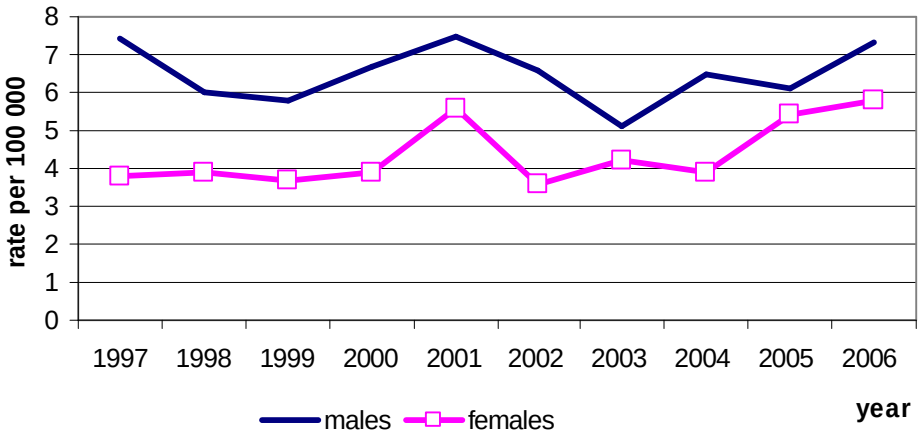

Figure 34: Incidence rates of new cases of NHL by sex, 1997-2006

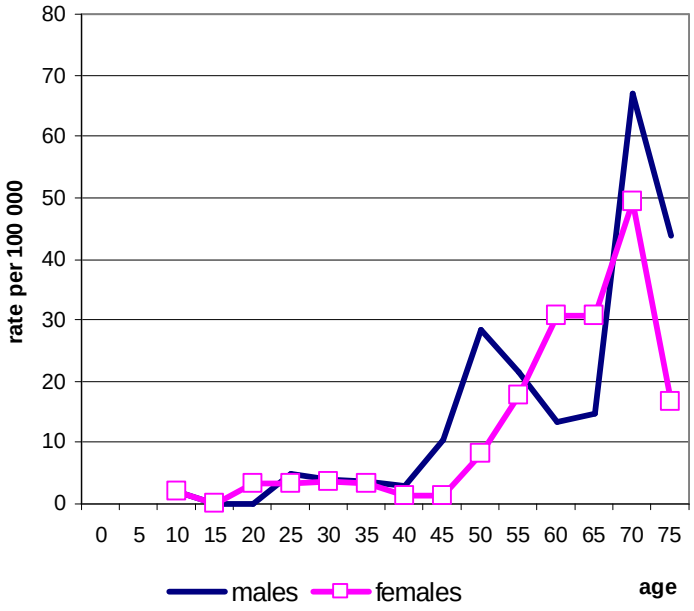

Figure 35: Age-specific incidence rate of NHL, Chiang Mai, 2006

Of the 74 deaths from NHL, 40 were males (3.9% of all male cancer deaths) and 34 were females (3.9% of all female cancer deaths). The age-standardized mortality rates were 4.0 for males and 3.4 for females and tended to decrease in males but increase in females (Fig. 36). The mortality rates increased with age in both sexes, increasing sharply after age 65 (Fig 37).

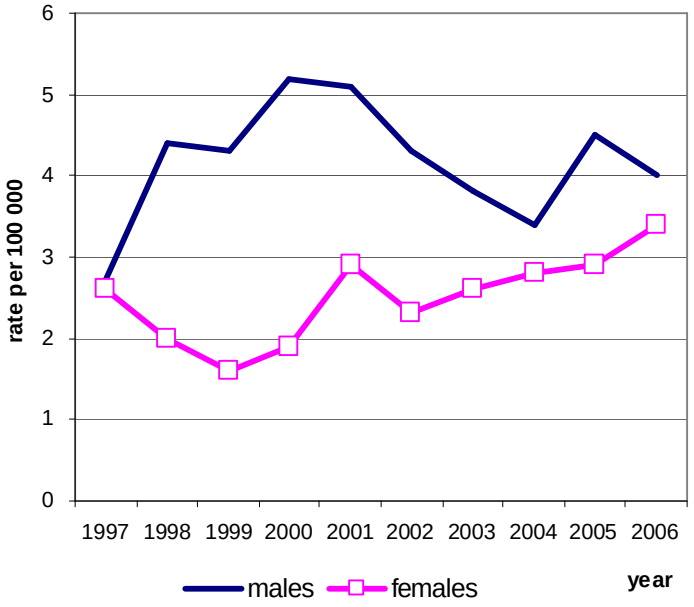

Figure 36: Mortality rate of NHL by sex, Chiang Mai, 1997-2006

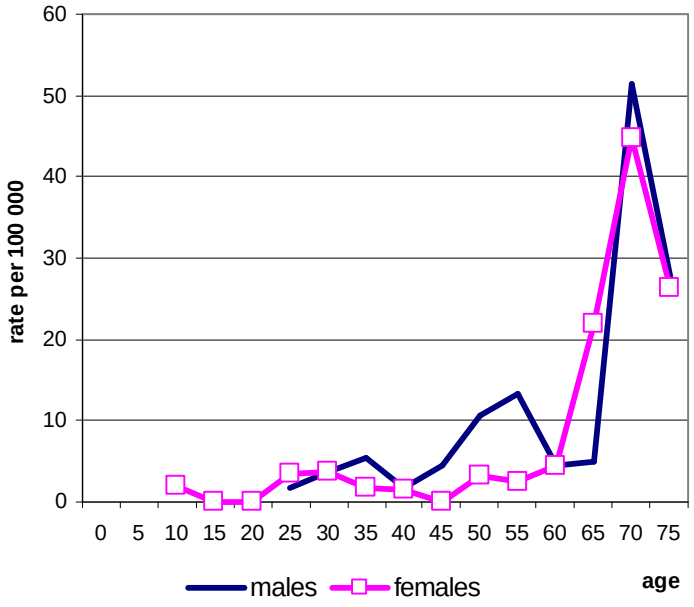

Figure 37: Age-specific mortality rate of NHL, Chiang Mai, 2006

Diagnosis and stage of cancer

The stage of NHL in the Chiang Mai Cancer Registry was noted as "not applicable" because of insufficient information about staging. All cases were histologically verified. The most common cell types were malignant lymphoma, large B-cell, diffuse, NOS (M9680/3), malignant lymphoma, NOS (M9590/3), malignant lymphoma, non-Hodgkin's, NOS (M9591/3), and Mantle cell lymphoma (M9673/3) accounting for 84.7% of all cases.

Cell type	males	females	total	%
Large B-cell, diffuse	45	33	78	62.9
Malig.lymphoma,nos	7	6	13	10.5
Non-Hodgkin,nos	6	3	9	7.3
Mantle ell	3	2	5	4.0
Other	10	9	19	15.3
All	71	53	124	100.0

Cervix cancer (ICD-10 C53)

There were 240 new cases of cervix cancer diagnosed in 2006. This was 16.3% of all cancers in females. The age-standardized incidence rates were 22.7 and tended to continue to decrease (Fig 39). Cervix cancer was one of the three most common cancers in females, ranking second in 2006 after breast cancer. The incidence rates increased sharply after age 30 and were more common than breast and lung cancers in the age group 30-44 years. The mean age at diagnosis was 51.2 years; the median age at diagnosis was 49 years. The cumulative rate percentages to age 75 was 2.3%, representing a risk of 1 in 43 for women of developing cervix cancer by age 75.

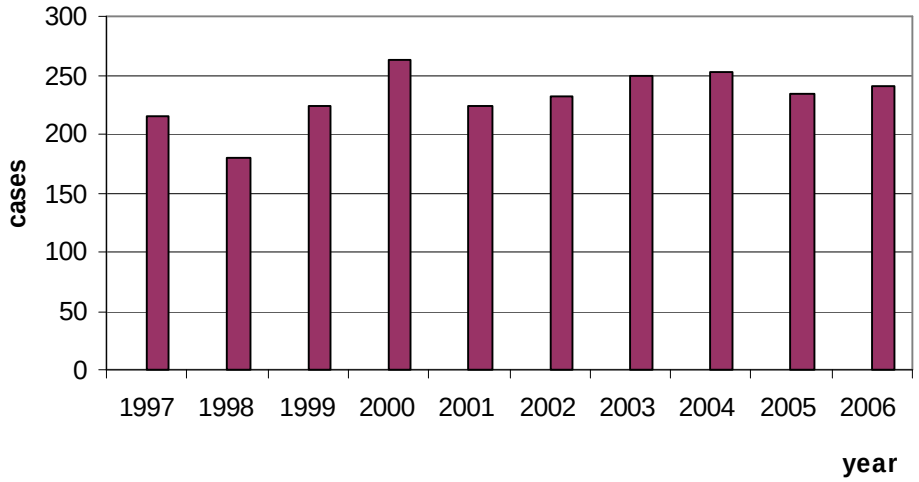

Figure 38: Number of new cases of cervix cancer by sex, 1997-2006

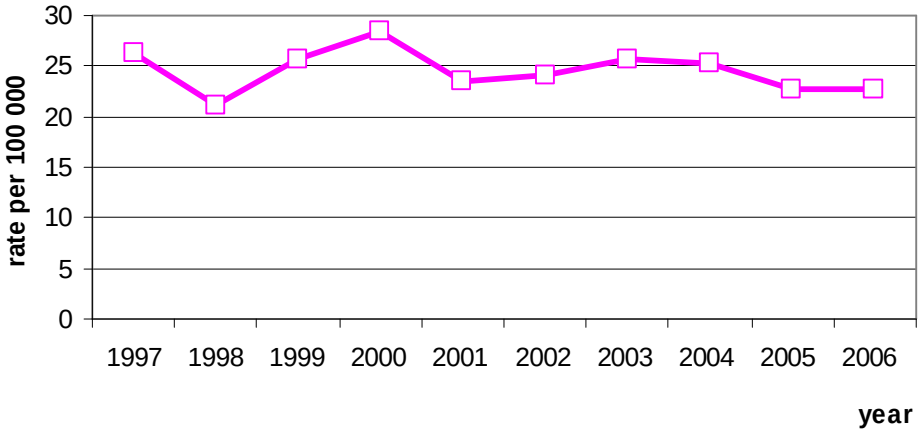

Figure 39: Incidence rates of new cases of cervix cancer by sex, 1997-2006

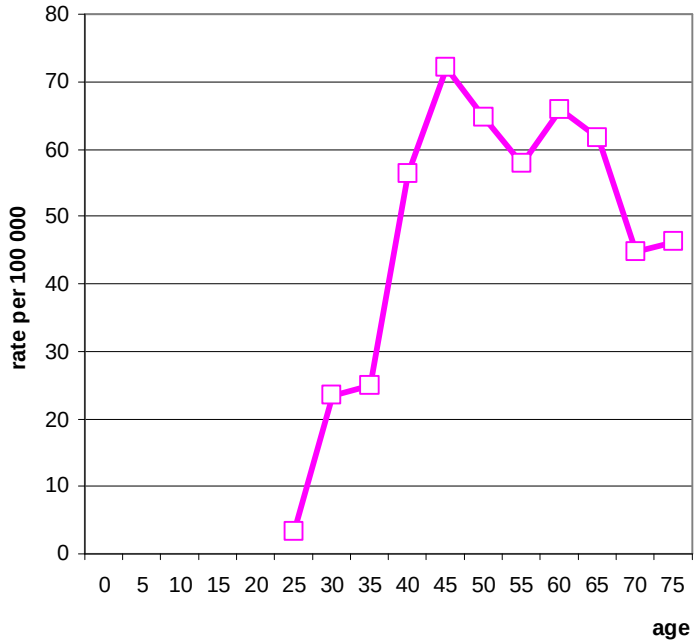

Figure 40: Age-specific incidence rate of cervix cancer, Chiang Mai, 2006

There were 92 deaths from cervix cancer, accounting for 10.5% of all female cancer deaths. The age-standardized mortality rate was 8.8 and tended to continue to decrease after 1998 (Fig. 41). The mortality rate increased with age, increasing sharply after age 45 (Fig 42).

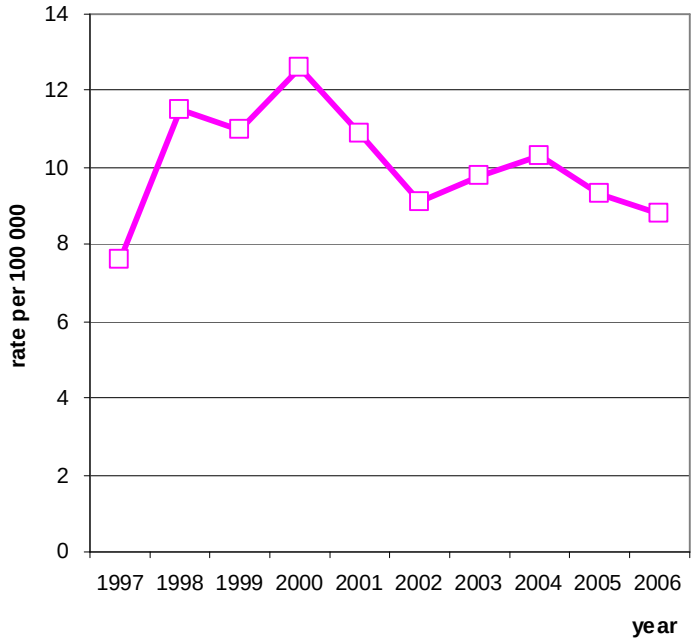

Figure 41: Mortality rate of cervix cancer by sex, Chiang Mai, 1997-2006

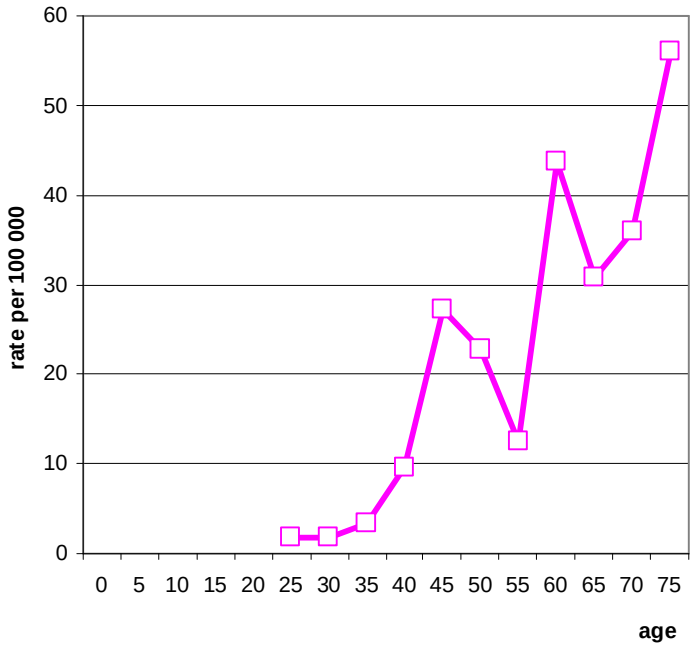

Figure 42: Age-specific mortality rate of cervix cancer, Chiang Mai, 2006

For cervix cancer deaths, 9 cases (9.8%) survived more than five years, 23 cases (25.0%) survived more than three years, and 33 cases (35.9%) survived less than one year.

Diagnosis and stages of cancer

There were 254 cases of carcinoma in situ of the cervix that were not included in this analysis. For invasive cancer, 115 cases (47.9%) were diagnosed in localized stage and 7 cases had distant metastases. The most common metastasis site was distant lymph nodes. Ninety-eight percent had histological diagnosis; the common cell types were squamous cell carcinoma (80.8%) and adenocarcinoma (13.8%).

Cell type	males	females	total	%
Squmous cell		194	194	80.8
Adenocarcinoma		33	33	13.8
Other		8	8	3.3
Clinical diagnosis		5	5	2.1
All		240	240	100.0

Stage	cases	%
Localized	115	47.9
Locally advanced	105	43.8
Regional node metastasis	8	3.3
Distant metastasis	7	2.9
Unknown/not staged	5	2.1
All	240	100.0

Female breast cancer (ICD-10 C50)

There were 264 new cases of female breast cancer diagnosed in 2006. This was 17.9% of all cancers in females and the most common cancer in 2006. The age-standardized incidence rate was 25.0 and tended to increase every year (Fig 44). The incidence rate increased sharply from the age of 35 years to a maximum in the age group 50-54 years. Breast cancer was more common than cervix and lung cancer in the age group 45-59 years. The mean age at diagnosis was 51.6 years; the median age at diagnosis was 50 years. The cumulative rate percentage to age 75 was 2.6%, representing a risk of 1 in 39 for women of developing breast cancer by age 75.

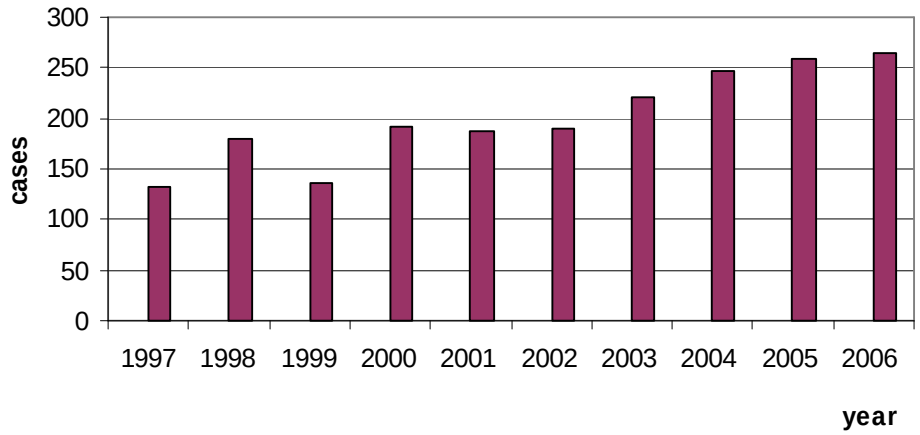

Figure 43: Number of new cases of female breast cancer by sex, 1997-2006

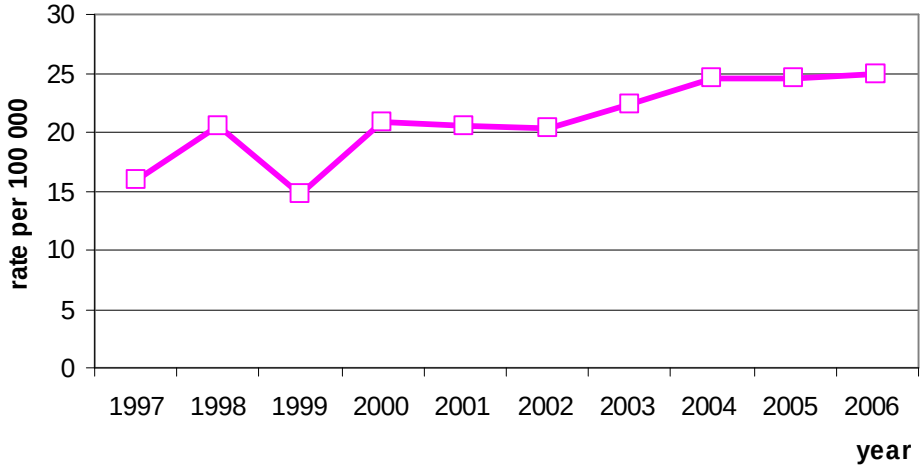

Figure 44: Incidence rates of new cases of female breast cancer by sex, 1997-2006

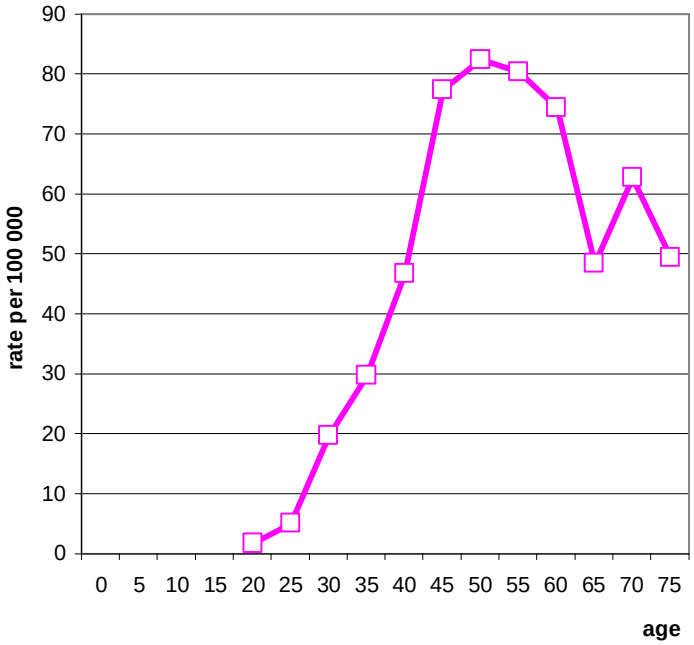

Figure 45: Age-specific incidence rate of female breast cancer, Chiang Mai, 2006

There were 81 deaths from breast cancer, accounting for 9.3% of all female cancer deaths. The age-standardized mortality rate was 7.7 and tended to increase in the last ten years (Fig. 46). The mortality rate increased with age, increasing sharply after age 60 (Fig 47).

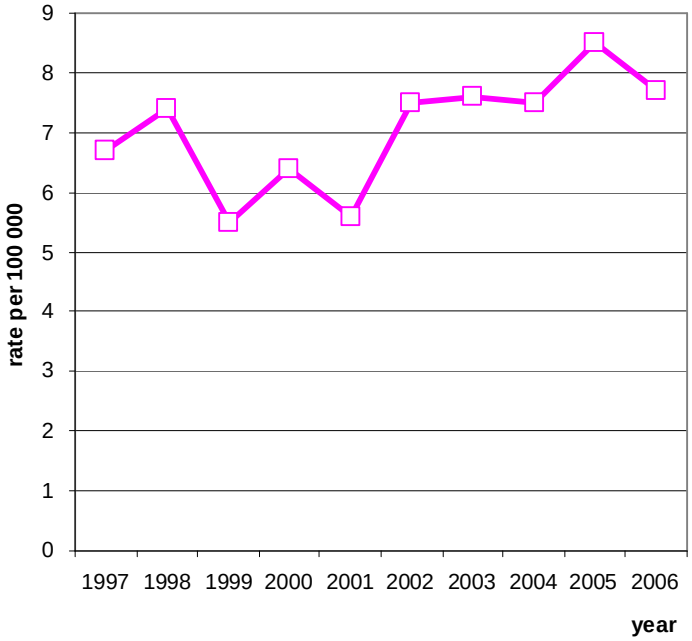

Figure 46: Mortality rate of female breast cancer by sex, Chiang Mai, 1997-2006

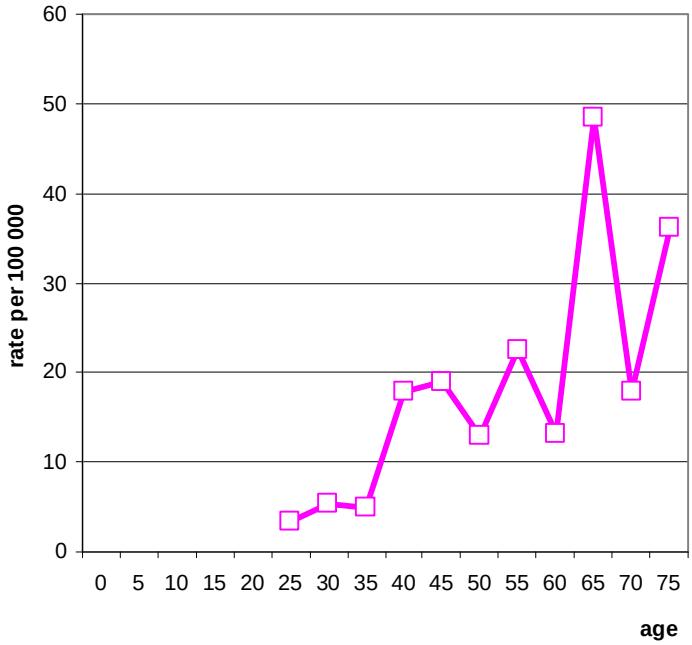

Figure 47: Age-specific mortality rate of female breast cancer, Chiang Mai, 2006

For breast cancer deaths, 8 cases (9.9%) survived more than five years, 20 cases (24.7%) survived more than three years and 25 cases (30.8%) survived less than one year.

Diagnosis and stages of cancer

Sixty-five percent were diagnosed in locally advanced stage and 12 cases had distant metastases. The common metastasis sites were distant lymph nodes (4 cases) and lung (4 cases). Ninety-seven percent had histological diagnosis; the major cell type was invasive ductal carcinoma (87.1%).

Cell type	males	females	total	%
Invasive ductal ca.	8	230	238	87.1
Lobular ca.	0	6	6	2.3
Mucinous ca.	0	5	5	1.9
Medullary ca.	0	5	5	1.9
Other	0	11	11	4.2
Clinical diagnosis	0	7	7	2.7
All	8	264	272	100.0

Stage	cases	%
Localized	52	19.1
Locally advanced	177	65.1
Regional node metastasis	27	10.3
Distant metastasis	12	4.4
Unknown/not staged	3	1.1
All	272	100.0

Nasopharynx cancer (ICD-10 C11)

There were 43 new cases of nasopharyngeal cancer diagnosed in 2006 (32 males, 11 females). This was 2.4% of all cancers in males and 0.7% of those in females. The age-standardized incidence rates were 3.4 for males and 1.2 for females. In 2006, nasopharyngeal cancer ranked tenth for new male cancers and eighteenth for females. Nasopharyngeal cancer was the most common pharyngeal cancer. It was more common in males than females in all age groups. The incidence tended to be stable in both sexes from 1997 to 2006 (Fig 49). The incidence rates increased with age in both sexes. In males, the rate was high after age 45 and after age 60 in females (Fig 50). The cumulative rate percentages to age 75 were 0.4% for males and 0.1% for females. These represented risks of 1 in 270 for men and 1 in 714 for women of developing nasopharyngeal cancer by age 75.

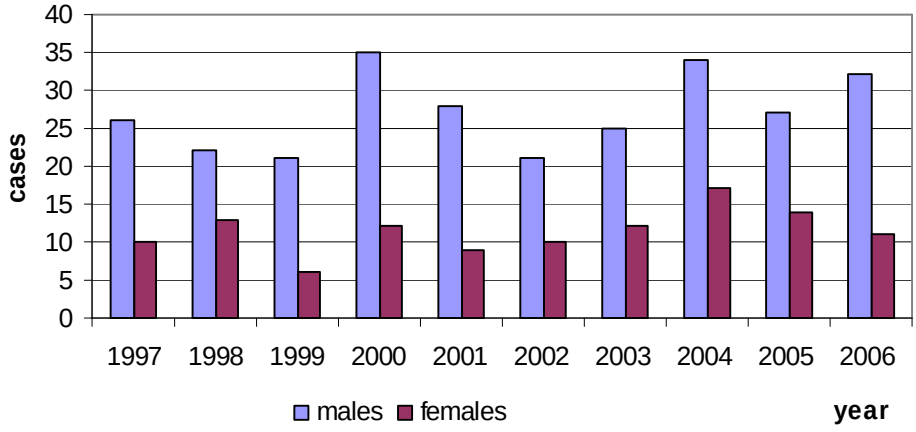

Figure 48: Number of new cases of nasopharyngeal cancer by sex, 1997-2006

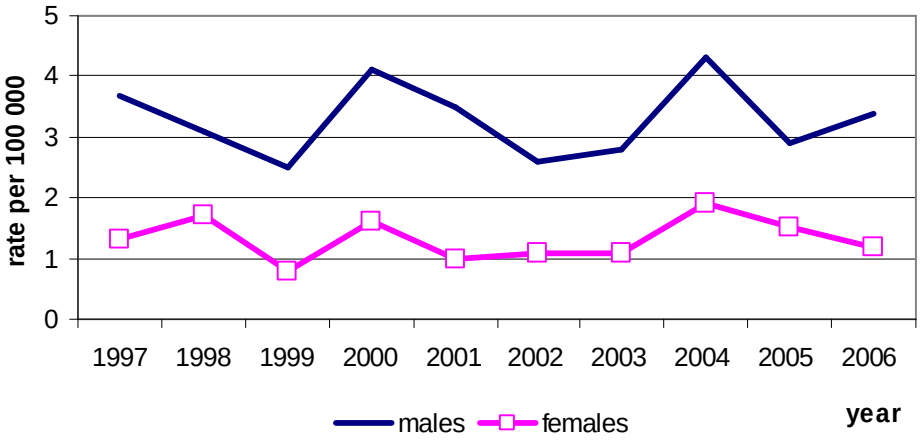

Figure 49: Incidence rates of new cases of nasopharyngeal cancer by sex, 1997-2006

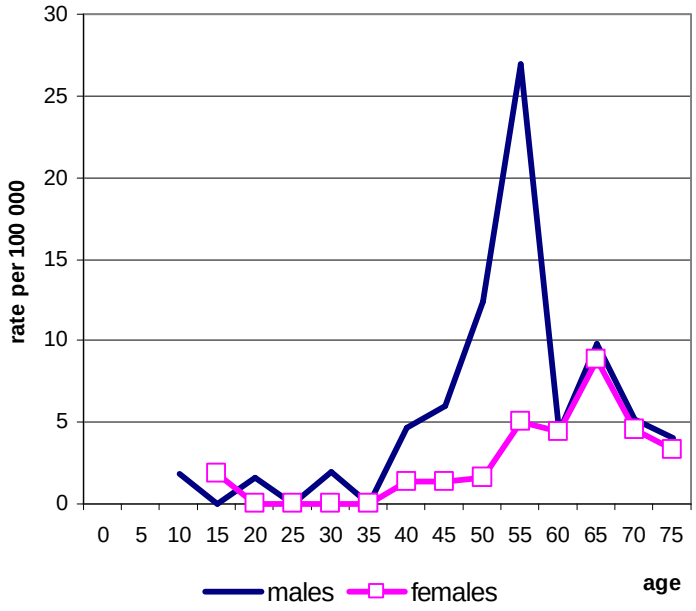

Figure 50: Age-specific incidence rate of nasopharyngeal cancer, Chiang Mai, 2006

Of the 26 deaths from nasopharyngeal cancer, 16 were males (1.6% of all male cancer deaths) and 10 were females (1.1% of all female cancer deaths). The age-standardized mortality rates were 1.9 for males and 1.0 for females (Fig. 51). The mortality rates increased with age in both sexes, increasing sharply after age 45 in males and 55 in females (Fig 52).

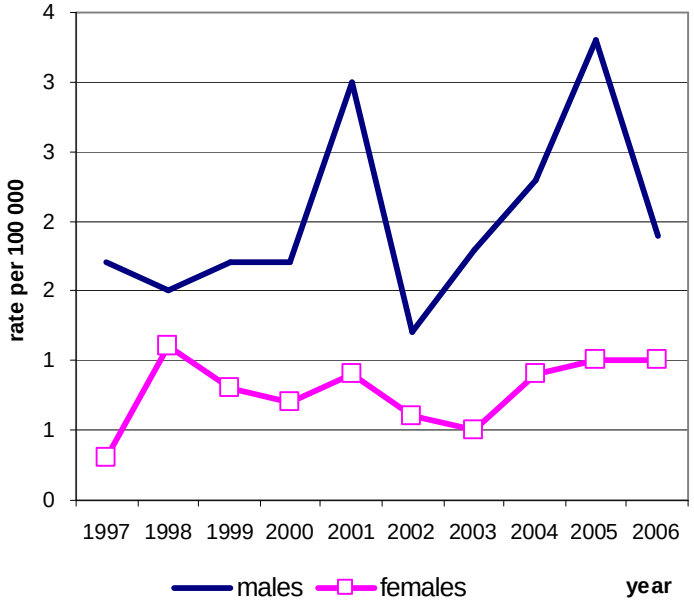

Figure 51: Mortality rate of nasopharyngeal cancer by sex, Chiang Mai, 1997-2006

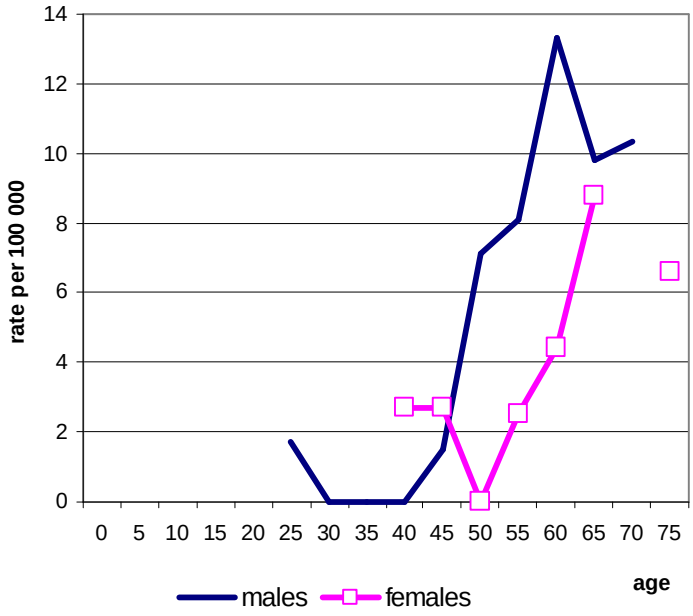

Figure 52: Age-specific mortality rate of nasopharyngeal cancer, Chiang Mai, 2006

Diagnosis and stages of cancer

Twenty-six cases (60.5%) were diagnosed in regional node metastasis and 2 cases had distant metastases. Ninety-three percent had histological diagnosis; the common cell types were undifferentiated carcinoma (51.2%) and squamous cell carcinoma (37.2%).

Cell type	males	females	total	%
Undiff. Carcinoma	16	6	22	51.2
Squamous cell ca.	12	4	16	37.2
Other	1	1	2	4.7
Clinical diagnosis	3	0	3	7.0
All	32	11	43	100.0

Stage	cases	%
Localized	4	9.3
Locally advanced	9	20.9
Regional node metastasis	26	60.5
Distant metastasis	2	4.7
Unknown/not staged	2	6.6
All	43	100.0

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COMPLETENESS AND QUALITY OF DATA

Completeness is the proportion of all cancer cases in the registry population that have been included in the registry database. Completeness should be as close to 100% as possible. It is the aim of the Chiang Mai Cancer Registry to register all cancer cases in Chiang Mai province. Completeness of registration can only be measured indirectly. It is monitored routinely as part of quality control procedures of the registry. The following indices of completeness used at the Chiang Mai cancer registry are shown in Table 8 and Table 9.

(1) Histologically verified cases
(2) Mortality/Incidence (M/I) ratio
(3) Death certificate only cases

Histologically verified cases

Histologically verified (HV) cases are those with pathological verification of diagnosis. This is generally taken to indicate the validity of the data. Histology verified 63.9% cases for males, and 75.7% cases for females. Lower HV percentages were found in cases of cancer of the hepato-biliary tract and nervous system.

Mortality/Incidence (M/I) ratio

The M/I ratio is an index of survival of patients with cancer. When the quality of the mortality data is good, the M/I ratio is related to case fatality (1-survival). However, when mortality statistics are of poorer quality (incomplete certification, inaccurate cause of death statements) the relationship will be less clear. The distribution of the M/I ratios for the various sites are shown in Table 8 and Table 9.

Death certificate only cases

A death certificate only (DCO) case is one without cancer information available other than that stated in the death certificate. It indicates indirectly how many cancer cases are missed in registration because of no information during the lifetime of the patient. In 2006, one hundred and ninety two cases (6.9%) were diagnosed by death certificate only. The age of DCO cases ranged from 7 to 89 years; the median age at death was 64 years. The common cancer sites were unknown, lung, and liver cancer.

Table 8: Indices of quality control of cancer data in Chiang Mai, 2006, males

CANCER / SITE	Cases	%DCO	%HV	M/I ratio	ICD (10th)
Lip	1	-	100.0	100.0	C00
Tongue	14	-	92.9	50.0	C01-C02
Salivary gland	8	-	100.0	12.5	C07-C08
Mouth	16	12.5	81.3	75.0	C03-C06
Oropharynx	12	-	100.0	33.3	C09-C10
Nasopharynx	32	3.1	87.5	50.0	C11
Hypopharynx	11	-	81.8	90.9	C12-C13
Pharynx unspec.	3	33.3	66.7	33.3	C14
Oesophagus	9	-	88.9	88.9	C15
Stomach	56	5.4	87.5	98.2	C16
Small intestine	3	-	100.0	100.0	C17
Colon	73	6.8	84.9	58.9	C18
Rectum	46	-	97.8	76.1	C19-C21
Liver	221	14.5	19.0	98.2	C22
Gallbladder	25	8.0	48.0	72.0	C23-C24
Pancreas	13	7.7	38.5	92.3	C25
Nose, sinuses	3	-	100.0	66.7	C30-C31
Larynx	22	4.5	90.9	81.8	C32
Lung	297	10.8	55.6	97.3	C33-C34
Other thoracic organs	3	-	66.7	100.0	C37-C38
Bone	5	20.0	80.0	60.0	C40-C41
Connective tissue	12	-	91.7	33.3	C47;C49
Mesothelioma	0	-	-	-	C45
Kaposi's sarcoma	0	-	-	-	C46
Melanoma of skin	5	-	100.0	80.0	C43
Other skin	49	-	100.0	12.2	C44
Breast	8	-	100.0	0.0	C50
Prostate	44	2.3	88.6	72.7	C61
Testis	7	-	85.7	14.3	C62
Penis	14	-	100.0	57.1	C60
Other male genital	1	-	100.0	100.0	C63
Bladder	45	-	91.1	75.6	C67
Kidney	24	-	75.0	66.7	C64-C66;C68
Eye	2	-	100.0	50.0	C69
Brain, nervous system	10	20.0	50.0	100.0	C70-C72
Thyroid	11	-	90.9	45.5	C73
Other endocrine	1	-	100.0	100.0	C74-C75
Hodgkin's disease	6	-	83.3	33.3	C81
Non-Hodgkin's lymphoma	71	-	98.6	56.3	C82-C85;C96
Multiple myeloma	6	-	33.3	83.3	C88;C90
Lymphoid leukaemia	12	-	33.3	41.7	C91
Myeloid leukaemia	27	-	29.6	81.5	C92
Monocytic leukaemia	0	-	-	-	C93
Other leukaemia	0	-	-	-	C94
Leukaemia unspec.	4	-	-	75.0	C95
Other & unspecified	81	35.8	42.0	88.9	
All sites	1313	8.6	63.9	78.4	

%DCO Percentage of cases with diagnosis based on death certificate only
%HV Percentage of cases with histological verification of diagnosis
M/I ratio The ratio of deaths to cases registered (percent)

Table 9: Indices of quality control of cancer data in Chiang Mai, 2006, females

CANCER / SITE	Cases	%DCO	%HV	M/I ratio	ICD (10th)
Lip	4	-	100.0	25.0	C00
Tongue	4	-	100.0	25.0	C01-C02
Salivary gland	5	-	80.0	-	C07-C08
Mouth	10	-	100.0	80.0	C03-C06
Oropharynx	5	-	100.0	60.0	C09-C10
Nasopharynx	11	-	100.0	90.9	C11
Hypopharynx	3	-	100.0	-	C12-C13
Pharynx unspec.	1	100.0	-	100.0	C14
Oesophagus	4	-	100.0	50.0	C15
Stomach	33	-	97.0	115.2	C16
Small intestine	1	-	-	200.0	C17
Colon	52	-	90.4	59.6	C18
Rectum	46	-	89.1	52.2	C19-C21
Liver	99	14.1	19.2	100.0	C22
Gallbladder	26	-	76.9	65.4	C23-C24
Pancreas	23	17.4	34.8	91.3	C25
Nose, sinuses	4	25.0	75.0	125.0	C30-C31
Larynx	7	-	71.4	14.3	C32
Lung	227	9.3	49.3	96.5	C33-C34
Other thoracic organs	4	-	100.0	25.0	C37-C38
Bone	3	-	66.7	66.7	C40-C41
Connective tissue	8	-	100.0	37.5	C47;C49
Mesothelioma	0	-	-	-	C45
Kaposi's sarcoma	1	-	100.0	-	C46
Melanoma of skin	3	-	100.0	100.0	C43
Other skin	57	-	100.0	22.8	C44
Breast	264	0.8	91.3	30.7	C50
Uterus	0	-	-	-	C55
Cervix	240	-	97.9	38.3	C53
Placenta	1	-	-	-	C58
Corpus	36	-	100.0	27.8	C54
Ovary	45	2.2	84.4	48.9	C56
Other female genital	11	-	90.9	18.2	C51-C52;C57
Bladder	19	-	89.5	63.2	C67
Kidney	8	-	87.5	37.5	C64-C66;C68
Eye	1	-	-	100.0	C69
Brain, nervous system	16	12.5	56.3	56.3	C70-C72
Thyroid	27	3.7	92.6	25.9	C73
Other endocrine	2	-	50.0	-	C74-C75
Hodgkin's disease	3	-	100.0	66.7	C81
Non-Hodgkin lymphoma	53	-	94.3	64.2	C82-C85;C96
Multiple myeloma	6	-	33.3	16.7	C88;C90
Lymphoid leukaemia	8	-	12.5	62.5	C91
Myeloid leukaemia	24	-	25.0	62.5	C92
Monocytic leukaemia	0	-	-	-	C93
Other leukaemia	0	-	-	-	C94
Leukaemia unspec.	1	-	-	100.0	C95
Other & unspecified	65	49.2	38.5	110.8	
All sites	1471	5.4	75.7	59.5	

Table 10: NUMBER OF NEW CANCER CASES IN CHIANGMAI 2006, MALES

SITE	All Ages	Age Unk.	Number of cases by Age Group (years) 0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	*ICD (10th)*
Lip	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	*C00*
Tongue	14	0	0	0	0	0	0	0	0	1	1	2	2	1	3	0	3	1	1.1	*C01-C02*
Salivary gland	8	0	0	0	0	0	0	1	0	0	0	0	1	0	2	1	1	2	0.6	*C07-C08*
Mouth	16	0	0	0	0	0	1	0	0	0	0	0	5	2	2	2	2	2	1.2	*C03-C06*
Oropharynx	12	0	0	0	0	0	0	0	0	0	1	5	0	2	1	0	1	2	0.9	*C09-C10*
Nasopharynx	32	0	0	0	1	0	1	0	1	0	3	4	7	10	1	2	1	1	2.4	*C11*
Hypopharynx	11	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	5	0.8	*C12-C13*
Pharynx unspec.	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0.2	*C14*
Oesophagus	9	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4	2	1	0.7	*C15*
Stomach	56	0	0	0	0	0	0	2	2	1	2	6	7	5	4	6	8	13	4.3	*C16*
Small intestine	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0.2	*C17*
Colon	73	0	0	0	0	0	1	0	2	3	2	6	9	6	6	6	15	17	5.6	*C18*
Rectum	46	0	0	0	0	0	0	0	0	1	6	2	3	5	5	10	4	10	3.5	*C19-C21*
Liver	221	0	0	1	0	0	0	2	2	10	25	35	28	31	24	19	20	24	16.8	*C22*
Gallbladder etc.	25	0	0	0	0	0	0	0	0	1	0	1	2	2	3	5	5	6	1.9	*C23-C24*
Pancreas	13	0	0	0	0	0	0	0	0	0	1	0	1	4	1	2	1	3	1.0	*C25*
Nose, sinuses etc.	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0.2	*C30-C31*
Larynx	22	0	0	0	0	0	0	0	0	0	1	1	3	1	2	2	3	9	1.7	*C32*
Bronchus, lung	297	0	0	0	0	0	0	1	3	3	8	23	33	30	42	52	47	55	22.6	*C33-C34*
Other Thoracic organs	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0.2	*C37-C38*
Bone	5	0	0	0	0	0	1	2	0	0	1	0	0	0	0	1	0	0	0.4	*C40-C41*
Connective tissue	12	0	0	0	0	1	0	0	0	0	1	1	1	3	3	1	1	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	5	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	1	0.4	*C43*
Other skin	49	0	0	0	0	0	2	1	1	0	3	4	3	1	3	5	12	14	3.7	*C44*
Breast	8	0	0	0	0	0	0	0	1	1	3	2	1	0	0	0	0	0	0.6	*C50*
Prostate	44	0	0	0	0	0	0	0	0	0	0	0	0	1	5	5	15	18	3.4	*C61*
Testis	7	0	0	0	0	0	1	1	2	0	0	1	1	0	1	0	0	0	0.5	*C62*
Penis	14	0	0	0	0	0	0	2	1	1	2	1	0	0	2	1	2	2	1.1	*C60*
Other male genital	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C63*
Bladder	45	0	0	0	0	0	0	0	0	0	0	2	4	6	3	4	11	15	3.4	*C67*
Kidney etc.	24	0	0	0	0	0	0	0	0	0	2	2	2	1	4	3	5	5	1.8	*C64-C66;C68*
Eye	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.2	*C69*
Brain, nervous system	10	0	1	0	1	0	0	1	0	0	1	1	2	0	0	1	2	0	0.8	*C70-C72*
Thyroid	11	0	0	0	0	0	1	0	0	0	4	2	1	0	1	1	1	0	0.8	*C73*
Other endocrine	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	*C74-C75*
Hodgkin's disease	6	0	0	0	1	0	0	1	1	0	0	1	0	0	0	1	1	0	0.5	*C81*
Non-Hodgkin lymphoma	71	0	0	0	1	0	0	3	2	2	2	7	16	8	3	3	13	11	5.4	*C82-C85;C96*
Multiple myeloma	6	0	0	0	0	0	1	0	0	0	0	1	0	2	1	1	0	0	0.5	*C88;C90*
Lymphoid leukaemia	12	0	3	2	2	1	0	0	0	1	0	0	0	0	0	1	0	2	0.9	*C91*
Myeloid leukaemia	27	0	0	2	1	1	1	1	1	2	2	2	3	0	1	3	4	3	2.1	*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 unspec.	4	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0.3	*C95*
Other & unspecified	81	0	0	0	0	0	0	0	1	2	7	8	12	7	11	8	10	15	6.2	
All sites	**1313**	**0**	**5**	**5**	**8**	**3**	**10**	**18**	**20**	**29**	**80**	**123**	**154**	**134**	**137**	**154**	**191**	**242**	**100.0**	

Table 11: NUMBER OF NEW CANCER CASES IN CHIANGMAI 2006, FEMALES

SITE	All Ages	Number of cases by Age Group (years) 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	0	0	0	1	3	0	0.3	*C00*
Tongue	4	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0.3	*C01-C02*
Salivary gland	5	0	0	0	0	0	0	0	0	1	2	1	0	0	0	1	0	0	0.3	*C07-C08*
Mouth	10	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	5	0.7	*C03-C06*
Oropharynx	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0.3	*C09-C10*
Nasopharynx	11	0	0	0	0	1	0	0	0	0	1	1	1	2	1	2	1	1	0.7	*C11*
Hypopharynx	3	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0.2	*C12-C13*
Pharynx unspec.	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	*C14*
Oesophagus	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0.3	*C15*
Stomach	33	0	0	0	0	1	0	0	1	0	2	3	5	2	5	4	2	8	2.2	*C16*
Small intestine	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	*C17*
Colon	52	0	0	0	0	0	0	1	0	0	3	3	8	5	7	9	4	12	3.5	*C18*
Rectum	46	0	0	0	0	0	1	1	1	0	4	4	4	5	6	7	4	9	3.1	*C19-C21*
Liver	99	0	0	0	0	0	0	1	0	4	7	12	11	11	8	17	9	19	6.7	*C22*
Gallbladder etc.	26	0	0	0	0	0	0	0	0	1	2	1	4	0	1	4	2	11	1.8	*C23-C24*
Pancreas	23	0	0	0	0	0	0	0	1	1	4	0	1	2	2	3	2	7	1.6	*C25*
Nose, sinuses etc.	4	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	0	0	0.3	*C30-C31*
Larynx	7	0	0	0	0	0	0	0	0	0	0	0	2	1	0	2	0	2	0.5	*C32*
Bronchus, lung	227	0	0	0	0	1	0	1	1	2	10	10	24	32	22	42	46	36	15.4	*C33-C34*
Other Thoracic organs	4	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	0	0.3	*C37-C38*
Bone	3	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0.2	*C40-C41*
Connective tissue	8	0	0	1	0	0	1	0	0	2	0	0	1	0	3	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	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0.1	*C46*
Melanoma of skin	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0.2	*C43*
Other skin	57	0	0	0	0	0	1	0	0	2	3	3	3	6	3	6	7	23	3.9	*C44*
Breast	264	0	0	0	0	0	1	3	11	18	34	57	51	32	17	11	14	15	17.9	*C50*
Uterus unspec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C55*
Cervix uteri	240	0	0	0	0	0	0	2	13	15	41	53	40	23	15	14	10	14	16.3	*C53*
Placenta	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	*C58*
Corpus uteri	36	0	0	0	0	0	0	0	0	1	2	3	12	4	5	1	4	4	2.4	*C54*
Ovary etc.	45	0	0	0	0	1	1	2	3	3	7	6	11	6	0	1	1	3	3.1	*C56*
Other female genital	11	0	0	0	0	0	0	1	0	0	0	3	1	1	1	0	0	4	0.7	*C51-C52;C57*
Bladder	19	0	0	0	0	0	0	0	1	0	2	0	1	2	1	2	3	7	1.3	*C67*
Kidney etc.	8	0	0	0	0	0	0	0	0	0	0	1	2	1	0	2	1	1	0.5	*C64-C66;C68*
Eye	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	*C69*
Brain, nervous system	16	0	0	1	0	0	0	0	0	3	1	4	1	3	0	2	0	1	1.1	*C70-C72*
Thyroid	27	0	0	0	0	1	1	1	3	5	7	2	2	2	1	0	1	1	1.8	*C73*
Other endocrine	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	*C74-C75*
Hodgkin's disease	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0.2	*C81*
Non-Hodgkin lymphoma	53	0	0	0	1	0	2	2	2	2	1	1	5	7	7	7	11	5	3.6	*C82-C85;C96*
Multiple myeloma	6	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0.4	*C88;C90*
Lymphoid leukaemia	8	0	1	4	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0.5	*C91*
Myeloid leukaemia	24	0	2	0	0	3	1	2	1	2	2	0	3	0	4	1	1	2	1.6	*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 unspec.	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	*C95*
Other & unspecified	65	0	4	1	0	0	0	0	2	3	2	6	7	5	4	13	9	9	4.4	
All sites	**1471**	**0**	**9**	**7**	**2**	**9**	**13**	**20**	**40**	**68**	**137**	**181**	**205**	**159**	**119**	**157**	**138**	**207**	**100.0**	

Table 12: CANCER INCIDENCE, CHIANGMAI 2006

Incidence per 100,000 by Age Group (years) - MALES

SITE	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude rate	%	CR 64	CR 74	ASR (W)	ICD (10th)
Lip	1	0	-	-	-	-	-	-	-	-	-	1.5	-	-	-	- -	-		0.1	0.08	0.01	0.01	**0.1**	*C00*
Tongue	14	0	-	-	-	-	-	-	-	1.8	1.6	3	3.5	2.7	13.3	-	15.4	4	1.9	1.07	0.13	0.21	**1.6**	*C01-C02*
Salivary gland	8	0	-	-	-	-	-	1.7	-	-	-	-	1.8	-	8.9	4.9	5.1	8	1.1	0.61	0.06	0.10	**1.0**	*C07-C08*
Mouth	16	0	-	-	-	-	1.6	-	-	-	-	-	8.9	5.4	8.9	9.8	10.3	8	2.2	1.22	0.12	0.22	**1.8**	*C03-C06*
Oropharynx	12	0	-	-	-	-	-	-	-	-	1.6	7.5	-	5.4	4.4	-	5.1	8	1.6	0.91	0.09	0.12	**1.2**	*C09-C10*
Nasopharynx	32	0	-	-	1.8	-	1.6	-	1.9	-	4.7	6	12.4	26.9	4.4	9.8	5.1	4	4.3	2.44	0.29	0.37	**3.4**	*C11*
Hypopharynx	11	0	-	-	-	-	-	-	-	-	-	-	1.8	5.4	-	14.7	-	19.9	1.5	0.84	0.04	0.11	**1.1**	*C12-C13*
Pharynx unspec.	3	0	-	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	8	0.4	0.23	0.01	0.01	**0.2**	*C14*
Oesophagus	9	0	-	-	-	-	-	-	-	-	-	1.5	-	2.7	-	19.6	10.3	4	1.2	0.69	0.02	0.17	**1.1**	*C15*
Stomach	56	0	-	-	-	-	-	3.3	3.8	1.8	3.1	9	12.4	13.4	17.8	29.4	41.2	51.7	7.5	4.27	0.32	0.66	**5.9**	*C16*
Small intestine	3	0	-	-	-	-	-	-	-	-	-	-	1.8	-	4.4	-	5.1	-	0.4	0.23	0.03	0.06	**0.4**	*C17*
Colon	73	0	-	-	-	-	1.6	-	3.8	5.5	3.1	9	16	16.1	26.6	29.4	77.2	67.6	9.8	5.56	0.40	0.94	**7.7**	*C18*
Rectum	46	0	-	-	-	-	-	-	-	1.8	9.4	3	5.3	13.4	22.2	49	20.6	39.8	6.2	3.50	0.28	0.62	**5.2**	*C19-C21*
Liver	221	0	-	2.2	-	-	-	3.3	3.8	18.5	39	52.7	49.7	83.3	106.6	93.2	102.9	95.5	29.8	16.83	1.78	2.72	**24.2**	*C22*
Gallbladder etc.	25	0	-	-	-	-	-	-	-	1.8	-	1.5	3.5	5.4	13.3	24.5	25.7	23.9	3.4	1.90	0.13	0.38	**2.9**	*C23-C24*
Pancreas	13	0	-	-	-	-	-	-	-	-	1.6	-	1.8	10.7	4.4	9.8	5.1	11.9	1.8	0.99	0.09	0.17	**1.4**	*C25*
Nose, sinuses etc.	3	0	-	-	-	-	-	-	-	-	-	-	-	2.7	8.9	-	-	-	0.4	0.23	0.06	0.06	**0.5**	*C30-C31*
Larynx	22	0	-	-	-	-	-	-	-	-	1.6	1.5	5.3	2.7	8.9	9.8	15.4	35.8	3	1.68	0.10	0.23	**2.2**	*C32*
Bronchus, lung	297	0	-	-	-	-	-	1.7	5.7	5.5	12.5	34.6	58.6	80.6	186.5	255	241.9	218.8	40	22.62	1.91	4.31	**34.1**	*C33-C34*
Other Thoracic organs	3	0	-	-	-	-	-	-	-	-	-	-	1.8	2.7	-	-	-	4	0.4	0.23	0.02	0.02	**0.3**	*C37-C38*
Bone	5	0	-	-	-	-	1.6	3.3	-	-	1.6	-	-	-	-	4.9	-	-	0.7	0.38	0.02	0.04	**0.6**	*C40-C41*
Connective tissue	12	0	-	-	-	1.7	-	-	-	-	1.6	1.5	1.8	8.1	13.3	4.9	5.1	-	1.6	0.91	0.14	0.19	**1.5**	*C47;C49*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C45*
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C46*
Melanoma of skin	5	0	-	-	-	-	-	-	-	-	3.1	-	3.5	-	-	-	-	4	0.7	0.38	0.03	0.03	**0.4**	*C43*
Other skin	49	0	-	-	-	-	3.2	1.7	1.9	-	4.7	6	5.3	2.7	13.3	24.5	61.8	55.7	6.6	3.73	0.18	0.62	**5.1**	*C44*
Breast	8	0	-	-	-	-	-	-	1.9	1.8	4.7	3	1.8	-	-	-	-	-	1.1	0.61	0.07	0.07	**0.8**	*C50*
Prostate	44	0	-	-	-	-	-	-	-	-	-	-	-	2.7	22.2	24.5	77.2	71.6	5.9	3.35	0.12	0.63	**4.7**	*C61*
Testis	7	0	-	-	-	-	1.6	1.7	3.8	-	-	1.5	1.8	-	4.4	-	-	-	0.9	0.53	0.07	0.07	**0.8**	*C62*
Penis	14	0	-	-	-	-	-	3.3	1.9	1.8	3.1	1.5	-	-	8.9	4.9	10.3	8	1.9	1.07	0.10	0.16	**1.6**	*C60*
Other male genital	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0.1	0.08	0.00	0.00	**0.1**	*C63*
Bladder	45	0	-	-	-	-	-	-	-	-	-	3	7.1	16.1	13.3	19.6	56.6	59.7	6.1	3.43	0.20	0.58	**4.6**	*C67*
Kidney etc.	24	0	-	-	-	-	-	-	-	-	3.1	3	3.5	2.7	17.8	14.7	25.7	19.9	3.2	1.83	0.15	0.35	**2.7**	*C64-C66;C68*
Eye	2	0	-	-	-	-	-	-	-	-	-	-	1.8	-	-	-	-	4	0.3	0.15	0.01	0.01	**0.2**	*C69*
Brain, nervous system	10	0	2.3	-	1.8	-	-	1.7	-	-	1.6	1.5	3.5	-	-	4.9	10.3	-	1.3	0.76	0.06	0.13	**1.3**	*C70-C72*
Thyroid	11	0	-	-	-	-	1.6	-	-	-	6.2	3	1.8	-	4.4	4.9	5.1	-	1.5	0.84	0.08	0.13	**1.2**	*C73*
Other endocrine	1	0	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.08	0.01	0.01	**0.2**	*C74-C75*
Hodgkin's disease	6	0	-	-	1.8	-	-	1.7	1.9	-	-	1.5	-	-	-	4.9	5.1	-	0.8	0.46	0.03	0.08	**0.7**	*C81*
Non-Hodgkin lymphoma	71	0	-	-	1.8	-	-	5	3.8	3.7	3.1	10.5	28.4	21.5	13.3	14.7	66.9	43.8	9.6	5.41	0.45	0.83	**7.3**	*C82-C85;C96*
Multiple myeloma	6	0	-	-	-	-	1.6	-	-	-	-	1.5	-	5.4	4.4	4.9	-	-	0.8	0.46	0.06	0.09	**0.8**	*C88;C90*
Lymphoid leukaemia	12	0	7	4.4	3.6	1.7	-	-	-	1.8	-	-	-	-	-	4.9	-	8	1.6	0.91	0.09	0.12	**2.2**	*C91*
Myeloid leukaemia	27	0	-	4.4	1.8	1.7	1.6	1.7	1.9	3.7	3.1	3	5.3	-	4.4	14.7	20.6	11.9	3.6	2.06	0.15	0.33	**3.3**	*C92*
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C93*
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C94*
Leukaemia unspec.	4	0	2.3	-	-	-	-	-	-	-	-	1.5	-	2.7	-	4.9	-	-	0.5	0.30	0.03	0.06	**0.6**	*C95*
Other & unspecified	81	0	-	-	-	-	- -		1.9	3.7	10.9	12.1	21.3	18.8	48.8	39.2	51.5	59.7	10.9	6.17	0.59	1.04	**8.9**	
All sites	**1313**	**0**	**11.6**	**11.0**	**14.4**	**5.1**	**16.0**	**30.1**	**38.0**	**53.2**	**125.0**	**184.9**	**273.3**	**360.2**	**608.0**	**754.9**	**982.6**	**963.2**	**176.8**	**100.0**	**7.62**	**15.75**	**145.5**	

Table 13: CANCER INCIDENCE, CHIANGMAI 200(

Incidence per 100,000 by Age Group (years) - FEMALES

SITE	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude rate	%	CR 64	CR 74	ASR (W)	*ICD (10th)*
Lip	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	13.4	-	0.5	0.27	0.00	0.09	**0.4**	*C00*
Tongue	4	0	-	-	-	-	-	-	-	-	-	1.4	1.6	2.5	-	-	-	3.3	0.5	0.27	0.03	0.03	**0.3**	*C01-C02*
Salivary gland	5	0	-	-	-	-	-	-	-	1.7	2.7	1.4	-	-	-	4.4	-	-	0.6	0.34	0.03	0.05	**0.5**	*C07-C08*
Mouth	10	0	-	-	-	-	-	-	-	-	-	1.4	-	2.5	4.4	4.4	4.5	16.5	1.3	0.68	0.04	0.09	**0.9**	*C03-C06*
Oropharynx	5	0	-	-	-	-	-	-	-	-	-	-	-	2.5	-	4.4	-	9.9	0.6	0.34	0.01	0.03	**0.4**	*C09-C10*
Nasopharynx	11	0	-	-	-	1.8	-	-	-	-	1.4	1.4	1.6	5	4.4	8.8	4.5	3.3	1.4	0.75	0.08	0.14	**1.2**	*C11*
Hypopharynx	3	0	-	-	-	-	-	-	-	-	-	1.4	-	2.5	-	-	-	3.3	0.4	0.20	0.02	0.02	**0.2**	*C12-C13*
Pharynx unspec.	1	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	0.1	0.07	0.01	0.01	**0.1**	*C14*
Oesophagus	4	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	4.5	6.6	0.5	0.27	0.01	0.03	**0.3**	*C15*
Stomach	33	0	-	-	-	1.8	-	-	1.8	-	2.7	4.1	8.1	5	21.9	17.6	8.9	26.3	4.2	2.24	0.23	0.36	**3.4**	*C16*
Small intestine	1	0	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	-	-	0.1	0.07	0.01	0.01	**0.1**	*C17*
Colon	52	0	-	-	-	-	-	1.7	-	-	4.1	4.1	12.9	12.6	30.7	39.5	17.9	39.5	6.7	3.54	0.33	0.61	**5.3**	*C18*
Rectum	46	0	-	-	-	-	1.6	1.7	1.8	-	5.5	5.4	6.5	12.6	26.3	30.8	17.9	29.6	5.9	3.13	0.30	0.54	**4.8**	*C19-C21*
Liver	99	0	-	-	-	-	-	1.7	-	6.6	9.6	16.3	17.8	27.7	35.1	74.7	40.2	62.5	12.7	6.73	0.57	1.13	**9.8**	*C22*
Gallbladder etc.	26	0	-	-	-	-	-	-	-	1.7	2.7	1.4	6.5	-	4.4	17.6	8.9	36.2	3.3	1.77	0.08	0.22	**2.3**	*C23-C24*
Pancreas	23	0	-	-	-	-	-	-	1.8	1.7	5.5	-	1.6	5	8.8	13.2	8.9	23	3.0	1.56	0.12	0.23	**2.2**	*C25*
Nose, sinuses etc.	4	0	-	-	-	-	1.6	-	-	-	-	2.7	-	-	-	4.4	-	-	0.5	0.27	0.01	0.04	**0.4**	*C30-C31*
Larynx	7	0	-	-	-	-	-	-	-	-	-	-	3.2	2.5	-	8.8	-	6.6	0.9	0.48	0.03	0.07	**0.7**	*C32*
Bronchus, lung	227	0	-	-	-	1.8	-	1.7	1.8	3.3	13.7	13.6	38.8	80.5	96.4	184.5	205.7	118.5	29.2	15.43	1.25	3.15	**23.3**	*C33-C34*
Other Thoracic organs	4	0	-	-	-	-	-	1.7	-	1.7	-	1.4	-	-	-	-	4.5	-	0.5	0.27	0.02	0.04	**0.4**	*C37-C38*
Bone	3	0	-	-	-	-	3.2	-	-	-	-	-	-	-	4.4	-	-	-	0.4	0.20	0.02	0.04	**0.4**	*C40-C41*
Connective tissue	8	0	-	2.3	-	-	1.6	-	-	3.3	-	-	1.6	-	13.1	-	-	-	1.0	0.54	0.10	0.11	**1.2**	*C47;C49*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C45*
Kaposi's sarcoma	1	0	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-	0.1	0.07	0.00	0.01	**0.1**	*C46*
Melanoma of skin	3	0	-	-	-	1.8	-	-	-	-	-	-	-	-	-	8.8	-	-	0.4	0.20	0.01	0.05	**0.4**	*C43*
Other skin	57	0	-	-	-	-	1.6	-	-	3.3	4.1	4.1	4.9	15.1	13.1	26.4	31.3	75.7	7.3	3.87	0.22	0.52	**5.1**	*C44*
Breast	264	0	-	-	-	-	1.6	5.1	19.8	29.8	46.6	77.4	82.5	80.5	74.5	48.3	62.6	49.4	34.0	17.95	2.06	2.58	**25.0**	*C50*
Uterus unspec.	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C55*
Cervix uteri	240	0	-	-	-	-	-	3.4	23.4	24.8	56.2	72	64.7	57.8	65.7	61.5	44.7	46.1	30.9	16.32	1.82	2.33	**22.7**	*C53*
Placenta	1	0	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	0.1	0.07	0.01	0.01	**0.1**	*C58*
Corpus uteri	36	0	-	-	-	-	-	-	-	1.7	2.7	4.1	19.4	10.1	21.9	4.4	17.9	13.2	4.6	2.45	0.30	0.41	**3.5**	*C54*
Ovary etc.	45	0	-	-	-	1.8	1.6	3.4	5.4	5	9.6	8.1	17.8	15.1	-	4.4	4.5	9.9	5.8	3.06	0.33	0.37	**4.2**	*C56*
Other female genital	11	0	-	-	-	-	-	1.7	-	-	-	4.1	1.6	2.5	4.4	-	-	13.2	1.4	0.75	0.07	0.06	**1.0**	*C51-C52;C57*
Bladder	19	0	-	-	-	-	-	-	1.8	-	2.7	-	1.6	5	4.4	8.8	13.4	23	2.4	1.29	0.08	0.19	**1.7**	*C67*
Kidney etc.	8	0	-	-	-	-	-	-	-	-	-	1.4	3.2	2.5	-	8.8	4.5	3.3	1.0	0.54	0.04	0.10	**0.8**	*C64-C66;C68*
Eye	1	0	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.07	0.01	0.01	**0.3**	*C69*
Brain, nervous system	16	0	-	2.3	-	-	-	-	-	5	1.4	5.4	1.6	7.5	-	8.8	-	3.3	2.1	1.09	0.12	0.16	**1.6**	*C70-C72*
Thyroid	27	0	-	-	-	1.8	1.6	1.7	5.4	8.3	9.6	2.7	3.2	5	4.4	-	4.5	3.3	3.5	1.84	0.21	0.23	**2.7**	*C73*
Other endocrine	2	0	2.5	-	-	-	-	-	-	-	-	-	-	-	4.4	-	-	-	0.3	0.14	0.03	0.03	**0.5**	*C74-C75*
Hodgkin's disease	3	0	-	-	-	-	-	1.7	-	1.7	-	-	-	-	-	-	-	3.3	0.4	0.20	0.02	0.01	**0.3**	*C81*
Non-Hodgkin lymphoma	53	0	-	-	1.9	-	3.2	3.4	3.6	3.3	1.4	1.4	8.1	17.6	30.7	30.8	49.2	16.5	6.8	3.60	0.36	0.75	**5.8**	*C82-C85;C96*
Multiple myeloma	6	0	-	-	-	-	-	-	-	-	-	-	1.6	5	13.1	-	-	-	0.8	0.41	0.10	0.10	**0.8**	*C88;C90*
Lymphoid leukaemia	8	0	2.5	9.2	1.9	-	-	1.7	-	1.7	-	-	-	-	-	-	-	-	1.0	0.54	0.08	0.08	**1.6**	*C91*
Myeloid leukaemia	24	0	5	-	-	5.3	1.6	3.4	1.8	3.3	2.7	-	4.9	-	17.5	4.4	4.5	6.6	3.1	1.63	0.22	0.25	**3.2**	*C92*
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C93*
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C94*
Leukaemia unspec.	1	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	0.1	0.07	0.01	0.01	**0.1**	*C95*
Other & unspecified	65	0	10	2.3	-	-	-	-	3.6	5	2.7	8.1	11.3	12.6	17.5	57.1	40.2	29.6	8.4	4.42	0.36	0.85	**7.5**	
All sites	**1471**	**0**	**22.5**	**16.1**	**3.8**	**16.1**	**20.8**	**34.0**	**72.0**	**112.9**	**187.6**	**246.2**	**331.4**	**399.7**	**521.5**	**690.0**	**617.1**	**681.5**	**189.2**	**100.0**	**9.35**	**15.03**	**147.6**	

Table 14: NUMBER OF CANCER DEATHS IN CHIANGMAI 2006, MALES

SITE	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
									Number of cases by Age Group (years											
Lip	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C00*
Tongue	7	0	0	0	0	0	0	0	0	0	0	1	2	0	2	0	1	1	0.7	*C01-C02*
Salivary gland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C07-C08*
Mouth	12	0	0	0	0	0	1	0	0	0	0	0	3	3	1	1	0	3	1.2	*C03-C06*
Oropharynx	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0.4	*C09-C10*
Nasopharynx	16	0	0	0	0	0	0	1	0	0	0	1	4	3	3	2	2	0	1.6	*C11*
Hypopharynx	10	0	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	5	1.0	*C12-C13*
Pharynx unspec.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C14*
Oesophagus	8	0	0	0	0	0	0	0	0	0	0	1	1	0	0	3	1	2	0.8	*C15*
Stomach	55	0	0	0	0	0	0	1	1	2	1	2	12	4	6	6	5	15	5.3	*C16*
Small intestine	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0.3	*C17*
Colon	43	0	0	0	0	0	0	0	0	1	2	2	6	3	1	5	9	14	4.2	*C18*
Rectum	35	0	0	0	0	1	0	0	0	1	0	3	2	4	5	4	7	8	3.4	*C19-C21*
Liver	217	0	0	1	0	1	0	2	1	7	23	31	28	29	27	19	26	22	21.1	*C22*
Gallbladder etc.	18	0	0	0	0	0	0	0	0	1	1	0	2	1	2	3	2	6	1.7	*C23-C24*
Pancreas	12	0	0	0	0	0	0	0	0	0	0	0	1	3	1	3	0	4	1.2	*C25*
Nose, sinuses etc.	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2	*C30-C31*
Larynx	18	0	0	0	0	0	0	0	0	0	1	2	2	1	0	1	3	8	1.7	*C32*
Bronchus, lung	289	0	0	0	0	0	0	1	2	2	8	21	30	26	40	49	54	56	28.1	*C33-C34*
Other Thoracic organs	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0.3	*C37-C38*
Bone	3	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0.3	*C40-C41*
Connective tissue	4	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1	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	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	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0.4	*C43*
Other skin	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	0.6	*C44*
Breast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C50*
Prostate	32	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	10	18	3.1	*C61*
Testis	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	*C62*
Penis	8	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	4	0.8	*C60*
Other male genital	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C63*
Bladder	34	0	0	0	0	0	0	0	0	0	1	0	3	2	1	4	8	15	3.3	*C67*
Kidney etc.	16	0	0	0	0	0	0	0	0	0	1	2	2	2	1	0	3	5	1.6	*C64-C66;C68*
Eye	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	*C69*
Brain, nervous system	10	0	1	1	0	0	0	0	0	0	0	1	2	0	0	3	2	0	1.0	*C70-C72*
Thyroid	5	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	2	0.5	*C73*
Other endocrine	1	0	0	0	0	0	1	0	0	0	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	1	0	1	0	0.2	*C81*
Non-Hodgkin's lymphoma	40	0	0	0	0	0	0	1	2	3	1	3	6	5	1	1	10	7	3.9	*C82-C85;C96*
Multiple myeloma	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0.5	*C88;C90*
Lymphoid leukaemia	5	0	0	0	2	0	0	0	0	1	0	0	1	0	0	0	0	1	0.5	*C91*
Myeloid leukaemia	22	0	0	2	2	0	3	1	2	1	2	0	3	0	0	1	4	1	2.1	*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 unspec.	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0.3	*C95*
Other & unspecified	72	0	0	0	0	0	0	0	1	2	5	7	7	8	13	5	10	14	7.0	
All sites	**1030**	**0**	**2**	**4**	**4**	**3**	**6**	**8**	**11**	**21**	**47**	**81**	**123**	**101**	**110**	**120**	**161**	**228**	**100.0**	

Table 15: NUMBER OF CANCER DEATHS IN CHIANGMAI 2006, FEMALES

SITE	All Ages	Age Unk.	Number of cases by Age Group (years) 0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	%	ICD (10th)
Lip	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	C00
Tongue	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	C01-C02
Salivary gland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	C07-C08
Mouth	8	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	4	0.9	C03-C06
Oropharynx	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0.3	C09-C10
Nasopharynx	10	0	0	0	0	0	0	0	0	0	2	2	0	1	1	2	0	2	1.1	C11
Hypopharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	C12-C13
Pharynx unspec.	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	C14
Oesophagus	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0.2	C15
Stomach	38	0	0	0	0	0	0	0	1	0	1	1	4	5	6	4	8	8	4.3	C16
Small intestine	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.2	C17
Colon	31	0	0	0	0	0	0	0	1	0	1	3	5	2	3	6	4	6	3.5	C18
Rectum	24	0	0	0	0	0	1	0	0	0	2	2	4	4	1	1	3	6	2.7	C19-C21
Liver	99	0	0	0	0	0	0	1	0	1	6	8	13	12	11	14	12	21	11.3	C22
Gallbladder etc.	17	0	0	0	0	0	0	0	0	0	1	0	2	1	1	4	2	6	1.9	C23-C24
Pancreas	21	0	0	0	0	0	0	0	0	0	4	0	1	4	1	3	1	7	2.4	C25
Nose, sinuses etc.	5	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	1	0.6	C30-C31
Larynx	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	C32
Bronchus, lung	219	0	0	0	0	0	0	1	0	2	6	12	19	29	19	40	50	41	25.0	C33-C34
Other Thoracic organs	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	C37-C38
Bone	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0.2	C40-C41
Connective tissue	3	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0.3	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	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0.3	C43
Other skin	13	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	2	8	1.5	C44
Breast	81	0	0	0	0	0	0	2	3	3	13	14	8	9	3	11	4	11	9.3	C50
Uterus unspec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	C55
Cervix uteri	92	0	0	0	0	0	0	1	1	2	7	20	14	5	10	7	8	17	10.5	C53
Placenta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	C58
Corpus uteri	10	0	0	0	0	0	0	0	0	1	0	2	0	3	1	2	0	1	1.1	C54
Ovary etc.	22	0	0	0	0	0	0	0	0	2	1	1	4	4	2	0	2	6	2.5	C56
Other female genital	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.2	C51-C52;C57
Bladder	12	0	0	0	0	0	0	0	1	0	0	0	0	3	0	1	4	3	1.4	C67
Kidney etc.	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0.3	C64-C66;C68
Eye	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	C69
Brain, nervous system	9	0	1	0	0	1	0	0	0	0	0	1	0	1	0	2	1	2	1.0	C70-C72
Thyroid	7	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	4	0.8	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	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2	C81
Non-Hodgkin lymphom.	34	0	0	0	1	0	0	2	2	1	1	0	2	1	1	5	10	8	3.9	C82-C85;C96
Multiple myeloma	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	C88;C90
Lymphoid leukaemia	5	0	0	1	0	0	0	2	0	1	0	0	0	0	0	1	0	0	0.6	C91
Myeloid leukaemia	15	0	1	0	1	0	1	1	0	0	1	0	1	1	2	1	2	3	1.7	C92
Monocytic leukaemia	1	0	0	0	0	0	1	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 unspec.	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	C95
Other & unspecified	72	0	0	1	0	0	0	1	1	4	5	5	9	6	5	15	9	11	8.2	
All sites	**875**	**0**	**2**	**2**	**3**	**1**	**3**	**12**	**12**	**19**	**54**	**74**	**94**	**94**	**71**	**125**	**126**	**183**	**100.0**	

Table 16: CANCER DEATHS, CHIANGMAI 2006

Incidence per 100,000 by Age Group (years) - MALES

SITE	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude rate	%	CR 64	CR 74	ASR (W)	*ICD (10th)*
Lip	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	- -		4	0.1	0.10	0.00	0.00	0.1	*C00*
Tongue	7	0	-	-	-	-	-	-	-	-	-	1.5	3.5	-	8.9	-	5.1	4	0.9	0.68	0.07	0.09	0.8	*C01-C02*
Salivary gland	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0.1	0.10	0.00	0.00	0.1	*C07-C08*
Mouth	12	0	-	-	-	-	1.6	-	-	-	-	-	5.3	8.1	4.4	4.9	-	11.9	1.6	1.17	0.09	0.12	1.3	*C03-C06*
Oropharynx	4	0	-	-	-	-	-	-	-	-	-	1.5	1.8	-	-	-	-	8	0.5	0.39	0.02	0.02	0.3	*C09-C10*
Nasopharynx	16	0	-	-	-	-	-	1.7	-	-	-	1.5	7.1	8.1	13.3	9.8	10.3	-	2.2	1.55	0.16	0.25	1.9	*C11*
Hypopharynx	10	0	-	-	-	-	-	-	-	-	-	-	3.5	5.4	4.4	-	-	19.9	1.3	0.97	0.07	0.07	1.0	*C12-C13*
Pharynx unspec.	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0.1	0.10	0.00	0.00	0.1	*C14*
Oesophagus	8	0	-	-	-	-	-	-	-	-	-	1.5	1.8	-	-	14.7	5.1	8	1.1	0.78	0.02	0.12	0.9	*C15*
Stomach	55	0	-	-	-	-	-	1.7	1.9	3.7	1.6	3	21.3	10.7	26.6	29.4	25.7	59.7	7.4	5.34	0.35	0.62	5.9	*C16*
Small intestine	3	0	-	-	-	-	-	-	-	-	-	-	1.8	-	4.4	-	-	4	0.4	0.29	0.03	0.03	0.3	*C17*
Colon	43	0	-	-	-	-	-	-	-	1.8	3.1	3	10.6	8.1	4.4	24.5	46.3	55.7	5.8	4.17	0.15	0.51	4.3	*C18*
Rectum	35	0	-	-	-	1.7	-	-	-	1.8	-	4.5	3.5	10.7	22.2	19.6	36	31.8	4.7	3.40	0.22	0.50	4.0	*C19-C21*
Liver	217	0	-	2.2	-	1.7	-	3.3	1.9	12.9	35.9	46.7	49.7	77.9	119.9	93.2	133.8	87.5	29.3	21.07	1.75	2.84	24.1	*C22*
Gallbladder etc.	18	0	-	-	-	-	-	-	-	1.8	1.6	-	3.5	2.7	8.9	14.7	10.3	23.9	2.4	1.75	0.09	0.22	2.0	*C23-C24*
Pancreas	12	0	-	-	-	-	-	-	-	-	-	-	1.8	8.1	4.4	14.7	-	15.9	1.6	1.17	0.07	0.14	1.3	*C25*
Nose, sinuses etc.	2	0	-	-	-	-	-	-	-	-	-	-	-	2.7	-	-	-	4	0.3	0.19	0.01	0.01	0.2	*C30-C31*
Larynx	18	0	-	-	-	-	-	-	-	-	1.6	3	3.5	2.7	-	4.9	15.4	31.8	2.4	1.75	0.05	0.16	1.7	*C32*
Bronchus, lung	289	0	-	-	-	-	-	1.7	3.8	3.7	12.5	31.6	53.2	69.8	177.6	240.2	277.9	222.8	39	28.06	1.75	4.26	33.0	*C33-C34*
Other Thoracic organs	3	0	-	-	-	-	-	-	-	-	-	-	-	2.7	-	-	-	8	0.4	0.29	0.01	0.01	0.3	*C37-C38*
Bone	3	0	-	-	-	1.7	1.6	-	-	-	-	-	-	-	-	4.9	-	-	0.4	0.29	0.01	0.04	0.4	*C40-C41*
Connective tissue	4	0	-	-	-	-	-	1.7	1.9	-	-	-	-	-	-	4.9	-	4	0.5	0.39	0.02	0.03	0.5	*C47;C49*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	0.0	*C45*
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	0.0	*C46*
Melanoma of skin	4	0	-	-	-	-	-	-	-	-	1.6	1.5	-	-	-	-	-	8	0.5	0.39	0.02	0.02	0.3	*C43*
Other skin	6	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	5.1	15.9	0.8	0.58	0.02	0.05	0.6	*C44*
Breast	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	0.0	*C50*
Prostate	32	0	-	-	-	-	-	-	-	-	-	-	-	2.7	8.9	4.9	51.5	71.6	4.3	3.11	0.06	0.34	3.1	*C61*
Testis	1	0	-	-	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	0.1	0.10	0.01	0.01	0.1	*C62*
Penis	8	0	-	-	-	-	-	-	-	-	-	1.5	1.8	-	-	4.9	5.1	15.9	1.1	0.78	0.02	0.07	0.7	*C60*
Other male genital	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0.1	0.10	0.00	0.00	0.1	*C63*
Bladder	34	0	-	-	-	-	-	-	-	-	1.6	-	5.3	5.4	4.4	19.6	41.2	59.7	4.6	3.30	0.08	0.39	3.4	*C67*
Kidney etc.	16	0	-	-	-	-	-	-	-	-	1.6	3	3.5	5.4	4.4	-	15.4	19.9	2.2	1.55	0.09	0.17	1.6	*C64-C66;C68*
Eye	1	0	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.10	0.01	0.01	0.3	*C69*
Brain, nervous system	10	0	2.3	2.2	-	-	-	-	-	-	-	1.5	3.5	-	-	14.7	10.3	-	1.3	0.97	0.05	0.17	1.4	*C70-C72*
Thyroid	5	0	-	-	-	-	-	-	-	-	-	1.5	1.8	-	-	-	5.1	8	0.7	0.49	0.02	0.04	0.4	*C73*
Other endocrine	1	0	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-	0.1	0.10	0.00	0.01	0.1	*C74-C75*
Hodgkin's disease	2	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	5.1	-	0.3	0.19	0.02	0.05	0.3	*C81*
Non-Hodgkin lymphoma	40	0	-	-	-	-	-	1.7	3.8	5.5	1.6	4.5	10.6	13.4	4.4	4.9	51.5	27.8	5.4	3.88	0.23	0.50	4.0	*C82-C85;C96*
Multiple myeloma	5	0	-	-	-	-	-	-	-	-	-	-	-	2.7	-	19.6	-	-	0.7	0.49	0.01	0.11	0.7	*C88;C90*
Lymphoid leukaemia	5	0	-	-	3.6	-	-	-	-	1.8	-	-	1.8	-	-	-	-	4	0.7	0.49	0.04	0.04	0.6	*C91*
Myeloid leukaemia	22	0	-	4.4	3.6	-	4.9	1.7	3.8	1.8	3.1	-	5.3	-	-	4.9	20.6	4	3	2.14	0.12	0.26	2.7	*C92*
Monocytic leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	0.0	*C93*
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	0.0	*C94*
Leukaemia unspec.	3	0	-	-	-	-	-	-	-	-	-	-	-	2.7	-	9.8	-	-	0.4	0.29	0.01	0.06	0.4	*C95*
Other & unspecified	72	0	-	-	-	-	- -		1.9	3.7	7.8	10.5	12.4	21.5	57.7	24.5	51.5	55.7	9.7	6.99	0.58	0.95	8.1	
All sites	**1030**	**0**	**4.6**	**8.8**	**7.2**	**5.1**	**9.7**	**13.5**	**20.9**	**38.5**	**73.6**	**121.8**	**217.9**	**271.5**	**488.0**	**588.2**	**828.3**	**907.4**	**138.9**	**100.0**	**6.16**	**12.56**	**113.4**	

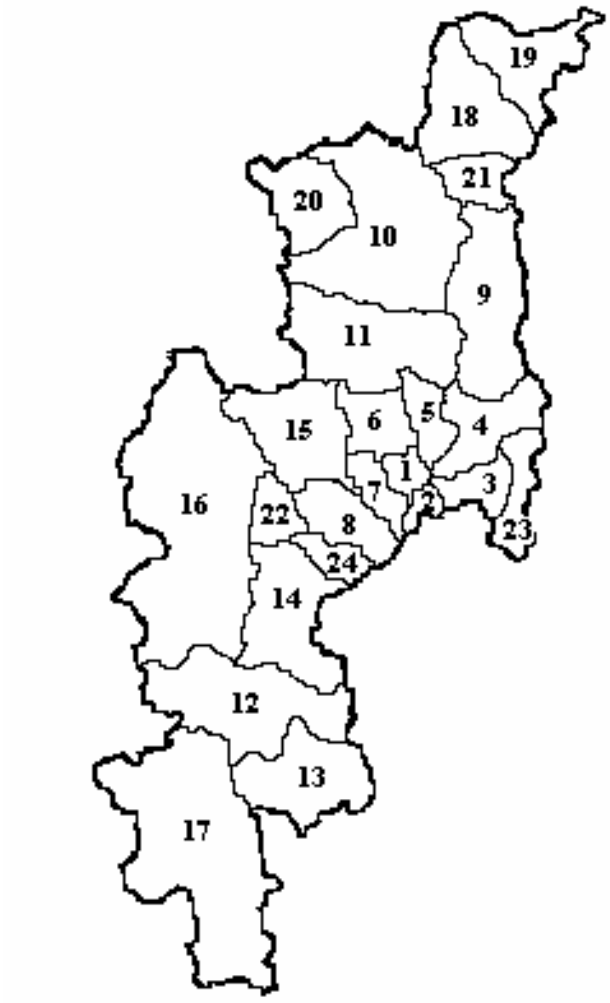
Table 17: CANCER DEATHS, CHIANGMAI 2006

Incidence per 100,000 by Age Group (years) - FEMALES

SITE	All Ages	Age Unk.	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude rate	%	CR 64	CR 74	ASR (W)	ICD (10th)
Lip	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	0.1	0.11	0.00	0.00	**0.1**	*C00*
Tongue	1	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C01-C02*
Salivary gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C07-C08*
Mouth	8	0	-	-	-	-	-	-	-	-	-	1.4	-	-	-	8.8	4.5	13.2	1.0	0.91	0.01	0.07	**0.7**	*C03-C06*
Oropharynx	3	0	-	-	-	-	-	-	-	-	-	-	-	2.5	-	-	-	6.6	0.4	0.34	0.01	0.01	**0.2**	*C09-C10*
Nasopharynx	10	0	-	-	-	-	-	-	-	-	2.7	2.7	-	2.5	4.4	8.8	-	6.6	1.3	1.14	0.06	0.11	**1.0**	*C11*
Hypopharynx	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C12-C13*
Pharynx unspec.	1	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C14*
Oesophagus	2	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	4.5	-	0.3	0.23	0.01	0.03	**0.2**	*C15*
Stomach	38	0	-	-	-	-	-	-	1.8	-	1.4	1.4	6.5	12.6	26.3	17.6	35.8	26.3	4.9	4.34	0.25	0.52	**3.9**	*C16*
Small intestine	2	0	-	-	-	-	-	-	-	-	-	-	1.6	2.5	-	-	-	-	0.3	0.23	0.02	0.02	**0.2**	*C17*
Colon	31	0	-	-	-	-	-	-	1.8	-	1.4	4.1	8.1	5	13.1	26.4	17.9	19.8	4.0	3.54	0.17	0.39	**3.1**	*C18*
Rectum	24	0	-	-	-	-	1.6	-	-	-	2.7	2.7	6.5	10.1	4.4	4.4	13.4	19.8	3.1	2.74	0.13	0.23	**2.2**	*C19-C21*
Liver	99	0	-	-	-	-	-	1.7	-	1.7	8.2	10.9	21	30.2	48.2	61.5	53.7	69.1	12.7	11.31	0.61	1.17	**9.9**	*C22*
Gallbladder etc	17	0	-	-	-	-	-	-	-	-	1.4	-	3.2	2.5	4.4	17.6	8.9	19.8	2.2	1.94	0.06	0.19	**1.6**	*C23-C24*
Pancreas	21	0	-	-	-	-	-	-	-	-	5.5	-	1.6	10.1	4.4	13.2	4.5	23	2.7	2.40	0.11	0.20	**1.9**	*C25*
Nose, sinuses etc.	5	0	-	-	-	-	-	-	-	1.7	1.4	1.4	-	-	4.4	-	-	3.3	0.6	0.57	0.04	0.04	**0.5**	*C30-C31*
Larynx	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	0.1	0.11	0.00	0.00	**0.1**	*C32*
Bronchus, lung	219	0	-	-	-	-	-	1.7	-	3.3	8.2	16.3	30.7	72.9	83.3	175.8	223.6	135	28.2	25.03	1.08	3.02	**22.0**	*C33-C34*
Other Thoracic organs	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	-	0.1	0.11	0.00	0.02	**0.1**	*C37-C38*
Bone	2	0	-	-	1.9	-	-	-	1.8	-	-	-	-	-	-	-	-	-	0.3	0.23	0.02	0.02	**0.3**	*C40-C41*
Connective tissue	3	0	-	-	-	-	-	-	-	-	1.4	-	-	-	4.4	-	4.5	-	0.4	0.34	0.03	0.05	**0.3**	*C47;C49*
Mesothelioma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C45*
Kaposi's sarcoma	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C46*
Melanoma of skin	3	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	4.4	-	3.3	0.4	0.34	0.01	0.03	**0.3**	*C43*
Other skin	13	0	-	-	-	-	-	-	-	-	1.4	-	-	2.5	-	4.4	8.9	26.3	1.7	1.49	0.02	0.09	**1.0**	*C44*
Breast	81	0	-	-	-	-	-	3.4	5.4	5	17.8	19	12.9	22.6	13.1	48.3	17.9	36.2	10.4	9.26	0.49	0.81	**7.7**	*C50*
Uterus unspec.	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C55*
Cervix uteri	92	0	-	-	-	-	-	1.7	1.8	3.3	9.6	27.2	22.7	12.6	43.8	30.8	35.8	56	11.8	10.51	0.61	0.93	**8.8**	*C53*
Placenta	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C58*
Corpus uteri	10	0	-	-	-	-	-	-	-	1.7	-	2.7	-	7.5	4.4	8.8	-	3.3	1.3	1.14	0.08	0.13	**1.1**	*C54*
Ovary etc.	22	0	-	-	-	-	-	-	-	3.3	1.4	1.4	6.5	10.1	8.8	-	8.9	19.8	2.8	2.51	0.16	0.20	**2.0**	*C56*
Other female genita	2	0	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	3.3	0.3	0.23	0.01	0.01	**0.1**	*C51-C52;C57*
Bladder	12	0	-	-	-	-	-	-	1.8	-	-	-	-	7.5	-	4.4	17.9	9.9	1.5	1.37	0.05	0.16	**1.1**	*C67*
Kidney etc.	3	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	4.4	4.5	-	0.4	0.34	0.01	0.05	**0.3**	*C64-C66;C68*
Eye	1	0	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C69*
Brain, nervous system	9	0	2.5	-	-	1.8	-	-	-	-	-	1.4	-	2.5	-	8.8	4.5	6.6	1.2	1.03	0.04	0.11	**1.1**	*C70-C72*
Thyroid	7	0	-	-	-	-	-	1.7	-	-	-	-	1.6	-	4.4	-	-	13.2	0.9	0.80	0.04	0.03	**0.7**	*C73*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C74-C75*
Hodgkin's disease	2	0	-	-	-	-	-	-	-	1.7	-	-	-	-	-	-	-	3.3	0.3	0.23	0.01	0.01	**0.2**	*C81*
Non-Hodgkin lymphoma	34	0	-	-	1.9	-	-	3.4	3.6	1.7	1.4	-	3.2	2.5	4.4	22	44.7	26.3	4.4	3.89	0.11	0.43	**3.4**	*C82-C85;C96*
Multiple myeloma	1	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	-	-	0.1	0.11	0.02	0.02	**0.2**	*C88;C90*
Lymphoid leukaemia	5	0	-	2.3	-	-	-	3.4	-	1.7	-	-	-	-	-	4.4	-	-	0.6	0.57	0.04	0.04	**0.7**	*C91*
Myeloid leukaemia	15	0	2.5	-	1.9	-	1.6	1.7	-	-	1.4	-	1.6	2.5	8.8	4.4	8.9	9.9	1.9	1.71	0.10	0.17	**1.9**	*C92*
Monocytic leukaemia	1	0	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-	0.1	0.11	0.00	0.01	**0.1**	*C93*
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C94*
Leukaemia unspec	1	0	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C95*
Other & unspecified	72	0	-	2.3	-	-	-	1.7	1.8	6.6	6.9	6.8	14.6	15.1	21.9	65.9	40.2	36.2	9.3	8.23	0.39	0.91	**7.4**	
All sites	**875**	**0**	**5.0**	**4.6**	**5.7**	**1.8**	**4.8**	**20.4**	**21.6**	**31.7**	**74.2**	**100.8**	**151.9**	**236.3**	**311.3**	**549.5**	**563.5**	**602.7**	**112.6**	**100.0**	**4.71**	**9.80**	**86.7**	

CHIANG MAI POPULATION AND ADMINISTRATIVE DIVISIONS

In 2006, Chiang Mai province was composed of 22 districts (amphurs) and 2 minor districts (king-amphurs) (Fig. 53). Local administration consisted of one municipality and 29 subdistrict municipalities. Total population in Chiang Mai in 2006 was 1,658,298 persons, consisting of 815,529 males and 842,769 females. The population density averaged 82.4 people per km^2. The highest population density was in Muang District (1,460.8 people per km^2), followed by Saraphi, Sanpatong, Sansai, and Sankamphaeng districts. The lowest population density was in Mae Chaem District (20.0 people per km^2). Eighty percent of the population was born in the province; the remainder was made up of Thai, Chinese, Laos, and hilltribe people. Buddhism was the professed religion of 91.8% of the people in the province. For the remainder, most were either Christians or Muslims.



1 Muang
2 Saraphi
3 San Kamphaeng
4 Doi Saket
5 San Sai
6 Mae Rim
7 Hang Dong
8 San Pa Tong
9 Phrao
10 Chiang Dao
11 Mae Taeng
12 Hot
13 Doi Tao
14 Chom Thong
15 Samoeng
16 Mae Chaem
17 Omkoi
18 Fang
19 Mae Ai
20 Wiang Haeng
21 Chai Prakan
22 Mae Wang
23 K.A.Mae On
24 K.A. Doi Law
(K.A.= king amphur)

Figure 53: Districts of Chiang Mai

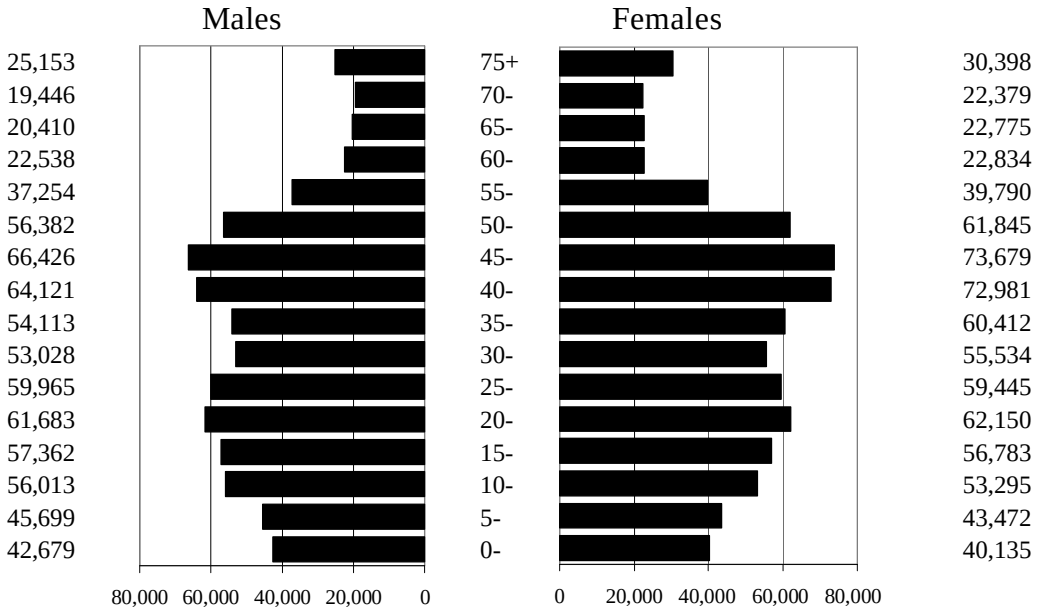


Figure 54: Population pyramid, Chiang Mai, 2006

Age and Sex

The age-sex distribution in 2006 is illustrated by population pyramids (Figure 54). In 2006, 18.5% of the total population was under age 15 and 12.2% over age 60.

HOSPITAL-BASED REGISTRATION

Maharaj Nakorn Chiang Mai Hospital

Maharaj Nakorn Chiang Mai Hospital is the teaching hospital of the Faculty of Medicine, Chiang Mai University. The hospital was built in 1939 in order to expand the services of the Chiang Mai Municipality Hospital to the public. Known locally as Suan Dok Hospital, it was officially named Nakorn Chiang Mai Hospital in 1941 and became the teaching hospital for the Faculty of Medicine in 1959. There have been phases of expansion and development since then. The name was changed to Maharaj Nakorn Chiang Mai Hospital in 1983 by royal permission. The hospital has 1,800 beds and serves about 800,000 outpatients and 48,000 inpatients each year. Many joint programs have been set up with other hospitals and health centers both inside and outside the Chiang Mai area to provide medical and educational support for physicians and medical students. In cooperation with the Ministry of Public Health, physicians from the Faculty of Medicine provide medical services at rural health centers and give special lectures for doctors and other health personnel at provincial hospitals.

Overview

In 2006, there were 4,301 cases of new invasive cancer at Maharaj Nakorn Chiang Mai Hospital. Thirty-eight percent were Chiang Mai residents, 41.2% came from nearby provinces (Lampoon, Lampang, Phayao and Chiang Rai), 19.1% came from the other provinces in the northern region, and only 1.4% resided outside the northern region (Table 18).

Age and sex

There were 1,905 male and 2,396 female cancer cases in the year 2006, with a male to female ratio of 1:1.3, but 1,110 (46.3%) of the cancers in females occurred in sex-specific sites (i.e. breast and reproductive organs), while only 111 cases (5.8%) of cancers of males occurred in sex-specific sites (i.e. prostate, testis, and penis). When sex-specific sites were excluded, the male to female ratio increased to 1.4:1.

Ages ranged from less than one year to 96 years. The mean age at diagnosis was 55.0; the median age was 55 years. For males, the mean age was 57.4 and the median age 59 years. For females, the mean age was 53.1 and the median age 52.5 years. In the age group 30 to 59, female cancer cases were much more common than male, but male cancer cases were more common than female after age 60 (Fig. 55). There were 95 cases of cancer in children (age less than 15), accounting for only 2.2% of all cases, but there were 1,707 cases in the old-age group (age 60 and over), accounting for 39.7% of all cases.

There were 258 in situ cases that were not included in this analysis. Cervix cancer in situ was the most common, accounting for 71.7% of cases.

Table 18: Locations of invasive cancer cases

Location	cases	%
NORTHERN REGION	4229	98.3
Chiang Mai	1635	38.0
Chiang Rai	662	15.4
Lampoon	454	10.6
Phayao	405	9.4
Lampang	251	5.8
Phrae	199	4.6
Nan	180	4.2
Mae Hong Son	144	3.3
Tak	120	2.8
Sukhothai	60	1.4
Uttaradit	59	1.4
Kamphaingphet	26	0.6
Phitsanuloak	22	0.5
Phichit	5	0.1
Nakhon Sawan	4	0.1
Phetchabun	2	0.0
Uthai Thani	1	0.0
CENTRAL REGION	43	1.0
NORTHEASTERN REGION	14	0.3
SOUTHERN REGION	4	0.1
FOREIGNERS	11	0.3
TOTAL	4301	100.0

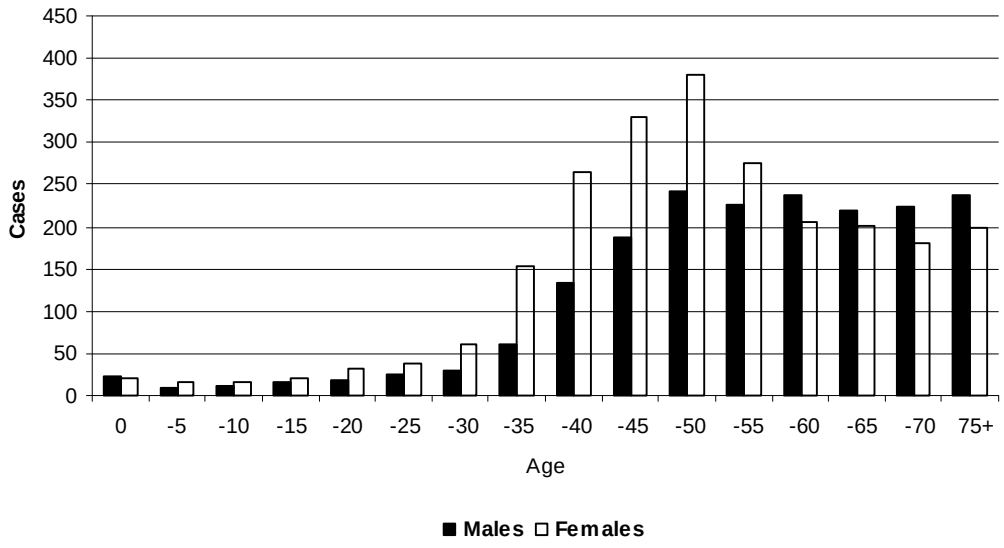


Figure 55: Age distribution of new cancer cases at Maharaj Nakorn Chiang Mai Hospital, 2006

Basis of diagnosis

There were 3,514 histologically verified cases (81.7%). Sixty-six percent had primary sites and 9.3% had metastasis sites (Table 19). By site, for both males and females the incidence of cases clinically diagnosed was high for the liver (Table 22).

Table 19: Type of diagnosis

Type of diagnosis	No.	%
Histological verification	3514	81.7
Histology of primary	2858	66.4
Histology of metastasis	398	9.3
Cytology/hematology	258	6.0
No histological verification	787	18.3
Clinical only	27	0.6
Clinical and Investigations	674	15.7
Operation/surgery	78	1.8
Immuno/Biochemistry	8	0.2
	4301	100.0

Table 20: Stages of diseases

Stage	No.	%
Localized	775	18.0
Locally advanced	1478	34.4
Regional node metastasis	565	13.1
Distant metastasis	881	20.5
Not applicable	448	10.4
Unknown/Not staged	154	3.6
		100.0

Stage of disease

Thirty-three percent of cases were diagnosed at an advanced stage (20.5% distant metastasis and 13.1% regional node metastasis), and 52.4% were diagnosed at a localized stage and locally advanced (Table 20). Ten percent were staged as not applicable; most of this group were lymphoma, leukemia, and brain tumor cases.

In 881 cases of distant metastasis, 17.3% had multiple sites of metastasis. The most common site of distant metastasis was lung (24.6%), followed by distant lymph nodes (20.7%), bone (17.0%), liver (15.8%), and brain (11.2%).

Leading sites of cancer cases

For invasive cancer in both sexes combined, lung cancer was the most common (15.8%), followed by cervix, liver, breast, and non-Hodgkin's lymphoma (Table 21). Together these five types of cancer accounted for 53.7% of all new cancers. For males, the most common cancer was lung cancer, accounting for 21.6% of all new cases, followed by liver cancer, non-Hodgkin's lymphoma, nasopharyngeal cancer, and rectal cancer. For females, the most common cancers were cervix cancer, accounting for 22.7% of all new cases, followed by breast, lung, liver and ovarian cancer.

Table 21: Ten leading cancers at Maharaj Nakorn Chiang Mai Hospital, 2006

Males	cases	%	Females	cases	%	Both sexes	cases	%
Lung	411	21.6	Cervix	544	22.7	Lung	678	15.8
Liver	373	19.6	Breast	338	14.1	Cervix	544	12.6
NHL	114	6.0	Lung	267	11.1	Liver	525	12.2
Nasopharynx	74	3.9	Liver	152	6.3	Breast	354	8.2
Rectum	65	3.4	Ovary	115	4.8	NHL	208	4.8
Bladder	64	3.4	NHL	94	3.9	Rectum	132	3.1
Colon	63	3.3	Thyroid	85	3.5	Colon	127	3.0
Prostate	56	2.9	Corpus	79	3.3	Ovary	115	2.7
M. leukaemia	51	2.7	Rectum	67	2.8	Thyroid	114	2.7
Stomach	44	2.3	Colon	64	2.7	M. leukemia	105	2.4

Childhood cancer

There were 95 cases of childhood cancer (age less than 1 to 14), accounting for 2.2% of all cancer cases. The most common childhood cancer was leukemia, accounting for 36.8% of childhood cancer, followed by brain and nervous system (12.6%), NHL (8.4%), bone (7.4%), and eye (6.3%).

Table 22: Percentage of data verification by sites, 2006

	Males			Females			
	cases	%MV	%HV	cases	%MV	%HV	ICD-10th
Lip	4	100.0	100.0	6	100.0	100.0	C00
Tongue	31	96.8	93.5	11	100.0	100.0	C01-C02
Salivary gland	10	100.0	90.0	13	100.0	76.9	C07-C08
Mouth	28	100.0	100.0	29	93.1	93.1	C03-C06
Oropharynx	20	100.0	95.0	5	80.0	80.0	C09-C10
Nasopharynx	74	97.3	95.9	25	96.0	92.0	C11
Hypopharynx	20	90.0	85.0	5	100.0	100.0	C12-C13
Pharynx unspec.	1	100.0	100.0				C14
Oesophagus	20	90.0	90.0	6	100.0	100.0	C15
Stomach	44	93.2	93.2	35	94.3	91.4	C16
Small intestine	3	100.0	100.0	1	0.0	0.0	C17
Colon	63	90.5	90.5	64	87.5	87.5	C18
Rectum	65	93.8	93.8	67	92.5	92.5	C19-C21
Liver	373	28.2	27.3	152	32.2	30.9	C22
Gallbladder	24	50.0	50.0	20	65.0	65.0	C23-C24
Pancreas	19	47.4	47.4	24	33.3	29.2	C25
Nose, sinuses	12	91.7	91.7	12	100.0	100.0	C30-C31
Larynx	44	97.7	97.7	12	91.7	91.7	C32
Lung	411	73.5	63.5	267	71.2	61.0	C33-C34
Other thoracic organs	6	66.7	66.7	5	100.0	100.0	C37-C38
Bone	12	75.0	75.0	15	93.3	93.3	C40-C41
Connective tissue	22	95.5	90.9	15	100.0	100.0	C47;C49
Mesothelioma							C45
Kaposi's sarcoma							C46
Melanoma of skin	7	100.0	100.0	6	100.0	100.0	C43
Other skin	40	100.0	100.0	62	100.0	100.0	C44
Breast	16	100.0	100.0	338	95.3	90.5	C50
Uterus							C55
Cervix				544	97.8	97.8	C53
Placenta				3	66.7	66.7	C58
Corpus				79	98.7	98.7	C54
Ovary				115	95.7	93.9	C56
Other female genital				31	90.3	90.3	C51-C52;C57
Prostate	56	80.4	80.4				C61
Testis	13	100.0	100.0				C62
Penis	26	100.0	100.0				C60
Other male genital							C63
Bladder	64	92.2	92.2	27	92.6	92.6	C67
Kidney	25	68.0	68.0	15	86.7	86.7	C64-C66;C68
Eye	6	83.3	83.3	7	71.4	71.4	C69
Brain, nervous system	31	67.7	67.7	31	61.3	61.3	C70-C72
Thyroid	29	96.6	89.7	85	100.0	88.2	C73
Other endocrine	3	100.0	100.0	4	50.0	50.0	C74-C75
Hodgkin's disease	7	100.0	85.7	3	100.0	100.0	C81
Non-Hodgkin's lymphoma	114	100.0	99.1	94	100.0	93.6	C82-C85;C96
Multiple myeloma	11	100.0	27.3	14	100.0	35.7	C88;C90
Lymphoid leukaemia	20	100.0	25.0	21	100.0	23.8	C91
Myeloid leukaemia	51	100.0	29.4	54	100.0	33.3	C92
Monocytic leukaemia				3	100.0	33.3	C93
Other leukaemia							C94
Leukaemia unspec.	2	100.0	0.0	1	100.0	0.0	C95
Other & unspecified	78	65.4	60.3	70	80.0	71.4	
All sites	1905	74.3	68.0	2396	87.6	81.8	

%MV Percentage of cases with morphological verification (cytology and morphology)
%HV Percentage of cases with histological verification
ICD-10th ICD-10 code

Table 23: NUMBER OF NEW CANCER CASES IN MAHARAJ NAKORN CHIANGMAI HOSPTAL 2006, MALES

			Number of cases 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+**	**%**	***ICD (10th)***
Lip	4	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0.2	*C00*
Tongue	31	0	0	0	0	0	0	0	0	1	1	5	3	3	7	1	5	5	1.6	*C01-C02*
Salivary gland	10	0	0	0	0	1	0	1	0	0	1	0	1	0	2	0	2	2	0.5	*C07-C08*
Mouth	28	0	0	0	0	0	1	0	0	0	0	1	3	7	4	2	2	8	1.5	*C03-C06*
Oropharynx	20	0	0	0	0	0	0	0	0	0	1	7	2	3	2	1	1	3	1.0	*C09-C10*
Nasopharynx	74	0	0	0	1	3	2	1	2	3	5	9	15	14	9	3	4	3	3.9	*C11*
Hypopharynx	20	0	0	0	0	0	0	0	0	0	0	3	3	2	1	5	0	6	1.0	*C12-C13*
Pharynx unspec.	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	*C14*
Oesophagus	20	0	0	0	0	0	0	0	0	0	0	3	3	1	6	3	2	2	1.0	*C15*
Stomach	44	0	0	0	0	0	0	1	1	2	3	3	4	4	3	5	5	13	2.3	*C16*
Small intestine	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0.2	*C17*
Colon	63	0	0	0	0	0	1	0	2	2	8	5	5	8	5	9	6	12	3.3	*C18*
Rectum	65	0	0	0	0	0	1	0	0	3	9	4	8	9	10	12	5	4	3.4	*C19-C21*
Liver	373	0	1	0	0	0	1	3	3	17	31	57	57	59	50	36	35	23	19.6	*C22*
Gallbladder etc.	24	0	0	0	0	0	0	0	0	1	1	3	1	4	4	3	2	5	1.3	*C23-C24*
Pancreas	19	0	0	0	0	0	0	0	0	1	1	3	6	4	1	1	1	1	1.0	*C25*
Nose, sinuses etc.	12	0	0	0	0	0	0	0	0	1	2	0	2	2	3	1	1	0	0.6	*C30-C31*
Larynx	44	0	0	0	0	0	0	0	0	0	1	2	7	5	7	5	5	12	2.3	*C32*
Bronchus, lung	411	0	0	0	0	0	0	1	3	6	20	27	54	49	68	75	60	48	21.6	*C33-C34*
Other Thoracic organs	6	0	0	0	0	1	0	0	0	1	0	1	1	1	0	0	0	1	0.3	*C37-C38*
Bone	12	0	0	1	0	3	1	4	1	1	1	0	0	0	0	0	0	0	0.6	*C40-C41*
Connective tissue	22	0	1	0	0	1	0	0	0	1	4	2	1	4	3	1	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	1	0	0	0	2	0	1	2	0	0	1	0	0.4	*C43*
Other skin	40	0	0	0	0	0	0	0	1	0	1	2	2	1	4	7	8	14	2.1	*C44*
Breast	16	0	0	0	0	0	0	0	1	1	3	4	4	3	0	0	0	0	0.8	*C50*
Prostate	56	0	0	0	0	0	0	0	0	0	0	0	1	2	7	11	17	18	2.9	*C61*
Testis	13	0	0	0	0	1	2	1	4	0	1	3	0	0	1	0	0	0	0.7	*C62*
Penis	26	0	1	0	0	0	0	2	2	4	4	3	1	1	4	2	0	2	1.4	*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	64	0	0	0	0	0	0	0	0	1	0	3	4	9	6	6	15	20	3.4	*C67*
Kidney etc.	25	0	3	0	0	0	0	0	0	1	1	1	3	1	5	3	4	3	1.3	*C64-C66;C68*
Eye	6	0	4	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0.3	*C69*
Brain, nervous system	31	0	3	2	2	0	0	2	1	2	1	1	6	3	2	3	1	2	1.6	*C70-C72*
Thyroid	29	0	0	0	0	0	2	0	0	0	7	4	4	1	5	2	1	3	1.5	*C73*
Other endocrine	3	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0.2	*C74-C75*
Hodgkin's disease	7	0	0	0	1	1	0	2	1	0	0	0	0	0	0	1	1	0	0.4	*C81*
Non-Hodgkin's lymphoma	114	0	2	1	3	0	3	4	5	5	8	11	21	9	10	5	18	9	6.0	*C82-C85;C96*
Multiple myeloma	11	0	0	0	0	0	1	0	0	1	0	1	0	3	2	2	1	0	0.6	*C88;C90*
Lymphoid leukaemia	20	0	6	4	2	1	0	0	0	1	1	0	0	0	0	3	0	2	1.0	*C91*
Myeloid leukaemia	51	0	1	2	1	2	2	2	2	5	6	4	8	1	1	6	5	3	2.7	*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 unspec.	2	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	*C95*
Other & unspecified	78	0	0	0	0	0	0	1	0	0	7	13	10	11	6	6	13	11	4.1	
All sites	**1905**	**0**	**23**	**10**	**11**	**16**	**18**	**25**	**30**	**61**	**134**	**188**	**243**	**226**	**238**	**220**	**224**	**238**	**100.0**	

Table 24: NUMBER OF NEW CANCER CASES IN MAHARAJ NAKORN CHIANGMAI HOSPTAL 2006, FEMALES

Number of cases 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+	%	*ICD (10th)*
Lip	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	0.3	*C00*
Tongue	11	0	0	0	0	0	0	0	0	1	2	2	3	2	0	0	0	1	0.5	*C01-C02*
Salivary gland	13	0	0	0	1	0	0	0	0	1	4	1	1	1	1	1	1	1	0.5	*C07-C08*
Mouth	29	0	0	0	0	0	1	0	0	1	0	5	2	3	3	3	1	10	1.2	*C03-C06*
Oropharynx	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0.2	*C09-C10*
Nasopharynx	25	0	0	0	0	1	0	0	0	1	2	4	7	3	1	3	1	2	1.0	*C11*
Hypopharynx	5	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	2	0.2	*C12-C13*
Pharynx unspec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C14*
Oesophagus	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	0.3	*C15*
Stomach	35	0	0	0	0	1	0	0	1	3	2	5	5	3	3	3	1	8	1.5	*C16*
Small intestine	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0	*C17*
Colon	64	0	0	0	0	0	0	1	3	2	7	5	12	7	6	10	4	7	2.7	*C18*
Rectum	67	0	0	0	0	0	0	2	2	2	7	11	6	12	6	4	8	7	2.8	*C19-C21*
Liver	152	0	1	0	0	0	2	1	1	4	15	22	26	17	15	16	13	19	6.3	*C22*
Gallbladder etc.	20	0	0	0	0	0	0	0	1	2	1	1	1	5	1	3	1	4	0.8	*C23-C24*
Pancreas	24	0	0	0	0	0	0	0	0	1	1	1	3	2	3	4	2	7	1.0	*C25*
Nose, sinuses etc.	12	0	0	0	0	0	2	1	0	0	3	1	2	1	0	1	1	0	0.5	*C30-C31*
Larynx	12	0	0	0	0	0	0	1	1	1	0	0	2	1	2	2	0	2	0.5	*C32*
Bronchus, lung	267	0	0	0	0	1	0	1	1	5	20	19	35	43	27	49	36	30	11.1	*C33-C34*
Other Thoracic organs	5	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	1	0	0.2	*C37-C38*
Bone	15	0	1	2	3	2	3	1	0	1	0	0	0	0	1	0	0	1	0.6	*C40-C41*
Connective tissue	15	0	1	1	1	1	2	0	0	2	0	0	2	2	3	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C46*
Melanoma of skin	6	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	0	0.3	*C43*
Other skin	62	0	0	0	0	0	1	1	0	2	4	6	4	10	3	5	11	15	2.6	*C44*
Breast	338	0	0	0	0	0	0	6	11	26	50	73	66	36	26	19	12	13	14.1	*C50*
Uterus unspec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C55*
Cervix uteri	544	0	0	0	0	0	1	4	21	50	89	113	101	57	38	25	22	23	22.7	*C53*
Placenta	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0.1	*C58*
Corpus uteri	79	0	0	0	0	0	0	0	1	2	8	6	23	12	13	4	5	5	3.3	*C54*
Ovary etc.	115	0	1	0	0	2	5	2	3	12	18	13	32	10	6	4	2	5	4.8	*C56*
Other female genital	31	0	0	0	0	0	1	1	1	0	0	3	4	2	5	6	4	4	1.3	*C51-C52;C57*
Bladder	27	0	0	0	0	0	0	1	1	0	2	0	2	2	2	3	8	6	1.1	*C67*
Kidney etc.	15	0	2	0	0	0	0	0	0	0	0	1	4	3	2	1	1	1	0.6	*C64-C66;C68*
Eye	7	0	1	1	0	0	0	0	0	1	1	1	0	1	0	1	0	0	0.3	*C69*
Brain, nervous system	31	0	0	1	4	0	2	2	0	9	2	5	2	3	1	0	0	0	1.3	*C70-C72*
Thyroid	85	0	0	1	1	3	6	5	7	11	8	8	9	6	4	5	8	3	3.5	*C73*
Other endocrine	4	0	2	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0.2	*C74-C75*
Hodgkin's disease	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0.1	*C81*
Non-Hodgkin's lymphoma	94	0	0	1	1	2	3	2	2	6	6	10	10	12	12	7	13	7	3.9	*C82-C85;C96*
Multiple myeloma	14	0	0	0	0	0	1	0	0	1	0	1	2	3	4	1	1	0	0.6	*C88;C90*
Lymphoid leukaemia	21	0	4	6	4	1	1	1	0	1	0	0	1	0	0	1	1	0	0.9	*C91*
Myeloid leukaemia	54	0	2	2	0	5	1	2	2	4	6	4	7	4	5	3	3	4	2.3	*C92*
Monocytic leukaemia	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	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 unspec.	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0	*C95*
Other & unspecified	70	0	5	0	0	0	0	0	1	0	4	5	6	11	10	12	11	5	2.9	
All sites	**2396**	**0**	**20**	**15**	**16**	**21**	**32**	**39**	**60**	**154**	**264**	**330**	**381**	**277**	**206**	**202**	**180**	**199**	**100.0**	

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