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CHIANGMAI CANCER REGISTRY

MAHARAJ NAKORN CHIANG MAI HOSPITAL

FACULTY OF MEDICINE, CHIANG MAI UNIVERSITY

CHIANG MAI, THAILAND

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Note to the reader

Data from this report may be used in publications, provided that the source is mentioned. For 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 of the Faculty of Medicine, and all the medical staff 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 in Chiang Mai province and all pathological laboratories, both government and private. Without the support of these institutions and their staffs, this report would not exist. We also wish to thank the Unit of Data Processing, 5th Region of the Ministry of Interior for their death certificate data.

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Introduction

Cancer is a major public health problem in Thailand. In Chiang Mai province, cancer became the most common cause of death in the year 2002 after AIDS and diseases of the respiratory system. Chiang Mai Cancer Registry reports the incidence of new cancer and mortality of cancer cases in Chiang Mai province and the new cases at Maharaj Nakorn Chiang Mai Hospital, Faculty of Medicine, Chiang Mai University.

This report is the 24th of a series and contains two parts. The first part is population-based registration which provides data of cancer frequency, incidence of new cancer, and mortality in Chiang Mai province in the years 2004. The second part is hospital-based registration, which provides the data at Maharaj Nakorn Chiang Mai Hospital in the same period.

MATERIALS AND METHODS

Data Sources

Information on newly diagnosed cancer cases was based on data collected by the Chiang Mai Cancer Registry. The data were actively 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, 14 private hospitals, and 22 community hospitals, with a total number of 6,123 beds. Sources in hospitals include the medical records sections, pathology laboratory records, and sections of hematology, radiation oncology, and hospital tumor registrations. The data were also collected from medical clinics and pathology clinics in Chiang Mai province. Identification of all patients were compared 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 a personal computer at the Chiang Mai Cancer Registry, using CanReg3 software for data entry and edit. The details for 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. The same patient may 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 for each patient was combined together.

Mortality data from death certificates which mention 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 a "dead certificate only (DCO)" and 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 mentioning 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 however 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 patients (living or dead) and cause of death. This follow-up information was collected by registry staff from both out-patient and in-patient 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, and by casual sources.

Type of Diagnosis and Stage of diseases

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

Non-microscopic

1. Clinical only
2. Clinical investigation (including X-ray, ultrasound, CT scan)
3. Surgery/autopsy without histology
4. Specific immunological and/or biochemical tests

Microscopic confirmation

5. Cytology or hematology
6. Histology of metastasis
7. Histology of primary
8. Autopsy with concurrent or previous histology

Unknown method of diagnosis

9. Unknown

and10. Death certificate only

Staging guide in Cancer registration; Principles and Methods (2) were used for the following items: In situ, localized, direct extension/regional nodes, distant metastasis, not applicable, and unknown (or not stage). 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 in the part of 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-group.

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 calculation are described 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 stratum. 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 Cumulative rate $= \Sigma^{n}_{i=1}(Fi \times Ti/Pi)$

n = number of age group which CUM RISK includes

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

Ti = number of years in ith 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, 2004

	Estimated New Cases			Estimated Deaths		
	Both sexes	males	females	Both sexes	males	females
All sites	2735	1255	1480	1840	951	889
Oral cavity & pharynx	129	86	43	86	57	29
Lip	13	4	9	2	1	1
Tongue	15	11	4	16	11	5
Salivary gland	7	3	4	1	0	1
Mouth	17	12	5	17	9	8
Oropharynx	8	6	2	9	7	2
Nasopharynx	51	34	17	26	19	7
Hypopharynx	17	15	2	15	10	5
Pharynx unspec.	1	1	0	0	0	0
Digestive system	700	430	270	556	346	210
Oesophagus	19	18	1	14	13	1
Stomach	82	40	42	73	39	34
Small intestine	9	4	5	3	1	2
Colon	101	47	54	56	25	31
Rectum	86	44	42	38	21	17
Liver	348	249	99	325	225	100
Gallbladder etc.	28	11	17	27	9	18
Pancreas	27	17	10	20	13	7
Respiratory system	566	328	238	507	287	220
Nose, sinuses etc.	12	6	6	8	3	5
Larynx	21	17	4	12	10	2
Bronchus, lung	511	292	219	477	267	210
Other Thoracic organs	7	5	2	1	1	0
Bone	15	8	7	9	6	3
Soft tissue	15	7	8	10	4	6
Connective tissue	15	7	8	10	4	6
Mesothelioma	0	0	0	0	0	0
Kaposi's sarcoma	0	0	0	0	0	0
Skin	59	27	32	21	12	9
Melanoma of skin	9	5	4	5	3	2
Other skin	50	22	28	16	9	7
Breast	247	1	246	75	1	74
Genital system	427	74	353	161	33	128
Uterus unspec.	1		1	1		1
Cervix uteri	253		253	96		96
Placenta	3		3	1		1
Corpus uteri	40		40	13		13
Ovary etc.	44		44	13		13
Other female genital	12		12	4		4
Prostate	54	54		21	21	
Testis	6	6		3	3	
Penis	14	14		9	9	
Other male genital	0	0		0	0	
Urinary system	145	84	61	87	50	37
Bladder	76	41	35	41	24	17
Kidney etc.	34	27	7	23	16	7
Eye	7	3	4	2	1	1
Brain, nervous system	28	13	15	21	9	12
Endocrine system	49	15	34	17	7	10
Thyroid	47	14	33	16	6	10
Other endocrine	2	1	1	1	1	0
Lymhoma	99	61	38	61	33	28
Hodgkin's disease	9	8	1	3	1	2
Non-Hodgkin's lymphoma	90	53	37	58	32	26
Multiple myeloma	11	5	6	7	5	2
Leukaemia	54	26	28	40	21	19
Lymphoid leukaemia	10	4	6	6	3	3
Myeloid leukaemia	36	17	19	23	13	10
Monocytic leukaemia	2	1	1	3	0	3
Other leukaemia	0	0	0	0	0	0
Leukaemia unspec.	6	4	2	8	5	3
Other & unspecified	234	111	123	212	95	117

Population-based Registration

Overview

In the year 2004, there were an estimated 2,735 new invasive cancer cases and 290 in situ cases in Chiang Mai province. There were 1,255 males, and 1,480 females with a male : female ratio of 1 : 1.2 . In the same period, 951 males and 889 females died from cancer (Table 1). The risk of being diagnosed with cancer was 10 in 63 for both males and females up the age of 74 years. The risk of dying of cancer was 10 in 84 deaths in males and 10 in 91 deaths in females up to the age of 74 years.

The data were obtained from the followings: 56.7% from Maharaj Nakorn Chiang Mai Hospital, 12.9% from Nakornping Hospital (the provincial hospital), 0.1% from other government hospitals, 9.8% from community hospitals, 9.2% from private hospitals, and 11.2% were diagnosed from death certificates only.

The incidence in males slightly decreased from 154.1 per 10^5 population in the year 2003 to 146.7 per 10^5 population in the year 2004. In females, the incidence also decreased from 160.2 per 10^5 population in the year 2003 to 155.7 per 10^5 population in the year 2004 (Fig. 1).

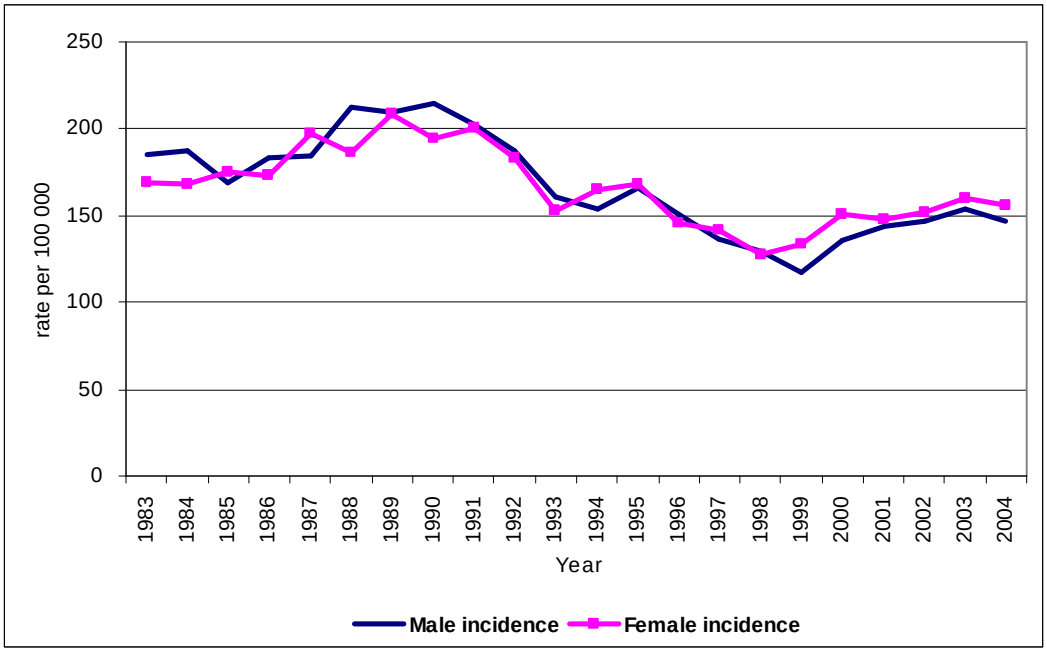

Figure 1: Age-standardized incidence rates (world) of cancer in Chiang Mai, 2004

INCIDENCE

Age and sex

The age at diagnosis in males ranged from less than 1 year to 98 years, with a mean age of 60.5 years, and a median age of 64 years (Fig. 2). In females, the mean age at diagnosis was 56.4 years and a median age of 56 years. Childhood cancers were relatively uncommon in Chiang Mai. Only 1.3% of all cancers occurred before age 15, but 49.8% occurred after age 60.

The male to female ratio was approximately 1 : 1.2, but 40.5% of the cancers among females occurred in sex-specific sites (i.e. breast and the reproductive organs) while only 6.0% of the sex-specific cancers (i.e. prostate, testis, and penis cancers) occurred in males. When sex-specific sites were excluded, the male to female ratio changed to 1.3 : 1.

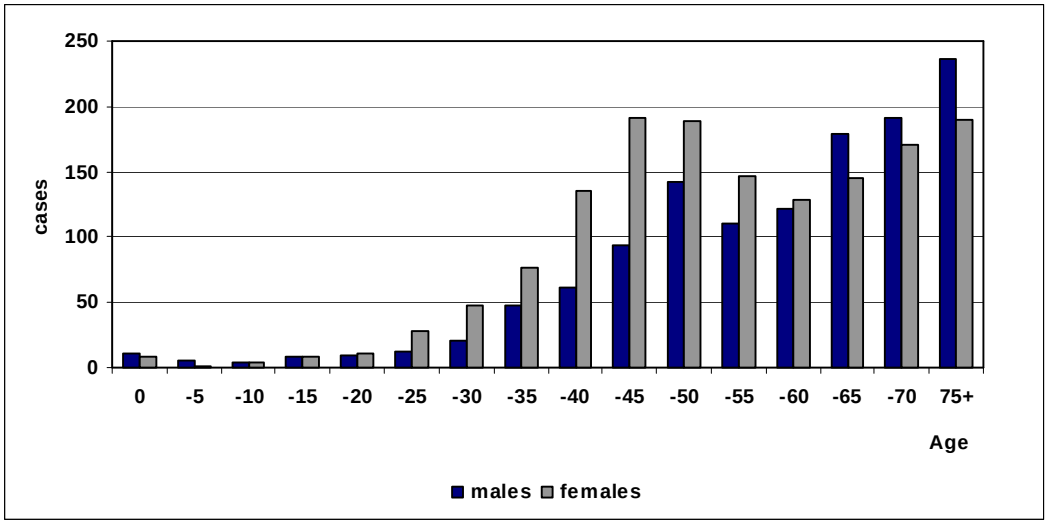

Figure 2: Age group distribution of new cancer cases in Chiang Mai, 2004

The age-standardized incidence rate (ASR) for all cancers was 146.7 per 10^5 for males (Table 10), while for females it was 155.7 per 10^5 (Table 11). In the age group less than 60 years the incidence of female cancer was more common than male, but after the age group over 60 years the incidence of male cancer was more common than female (Fig. 3). The cumulative risk percents for ages 0-64 and 0-74 for males were 7.8% and 15.8%. The estimated lifetime risks of developing cancer were 1 in 12.8 and 1 in 6.3 respectively. The cumulative risk percents for ages 0-64 and 0-74 for females were 10.1% and 16.0% respectively. The estimated lifetime risks of developing cancer were 1 in 9.9 and 1 in 6.3 for females respectively.

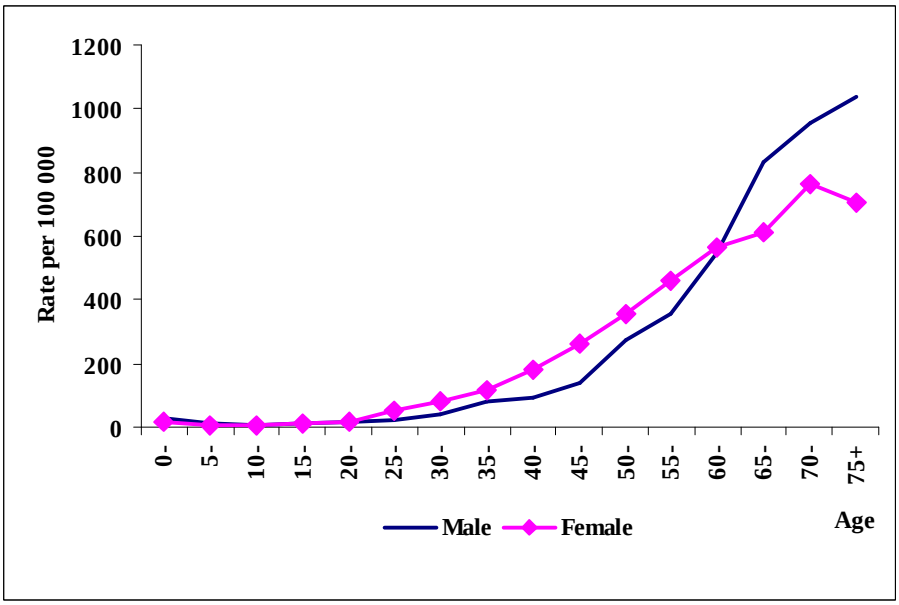

Figure 3: Age-specific incidence rate, Chiang Mai, 2004

Incidence of new cancer cases by districts

The high incidences for males were found in Mae Wang, Hang Dong, San Sai, Mae Taeng, and Mueang districts. For females the high incidences were found in Chai Prakan, Doi lo, Mueang, Fang and San Pa Tong districts (Table 4). Low incidences of cancer were found in Doi Tao, Mae Chaem, Samoeng, and Omkoi districts.

MORTALITY

Age and sex

In 2004, there were an estimated 1,840 cancer death cases (951 males, 889 females, Table 1), accounting for 13.1% for all deaths in Chiang Mai. The age-standardized mortality rates for all cancers were 108.8 per 10^5 population for males (Table 16) and 94.8 per 10^5 population for females (Table 17). The mortality rate in males decreased from 114.2 per 10^5 population in the year 2003 to 108.8 per 10^5 population in the year 2004. In females, the mortality rate increased from 92.6 per 10^5 population in the year 2003 to 94.8 per 10^5 population in the year 2004 (Fig. 4). The mortality rate increased after the age class 50-54 in both males and females, and after the age class 65-70, it was lower for females than males (Fig. 5). The cumulative risk percents for ages 0 to74 (CR74) were 11.8% for males and 10.9% for females. These rates correspond to estimated lifetime risks of dying from cancer of 1 in 8.4 for males and 1 in 9.2 for females.

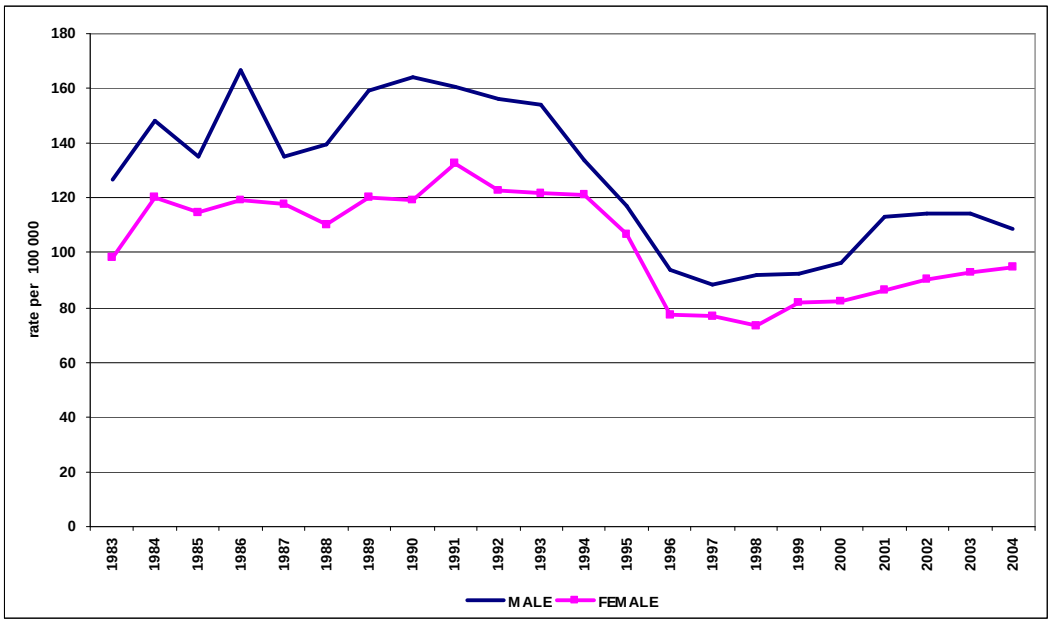

Figure 4: Age-standardized mortality rates (world) of cancer in Chiang Mai, 2004

Mortality of cancer cases by districts

The highest mortality rate for males was found in San Sai, followed by Mae Taeng, Mae Wang, Mae On and Mueang districts. For females, the highest mortality rate was found in Saraphi, followed by San Sai, Hang Dong, Doi Saket and Wiang Haeng districts (Table 5).

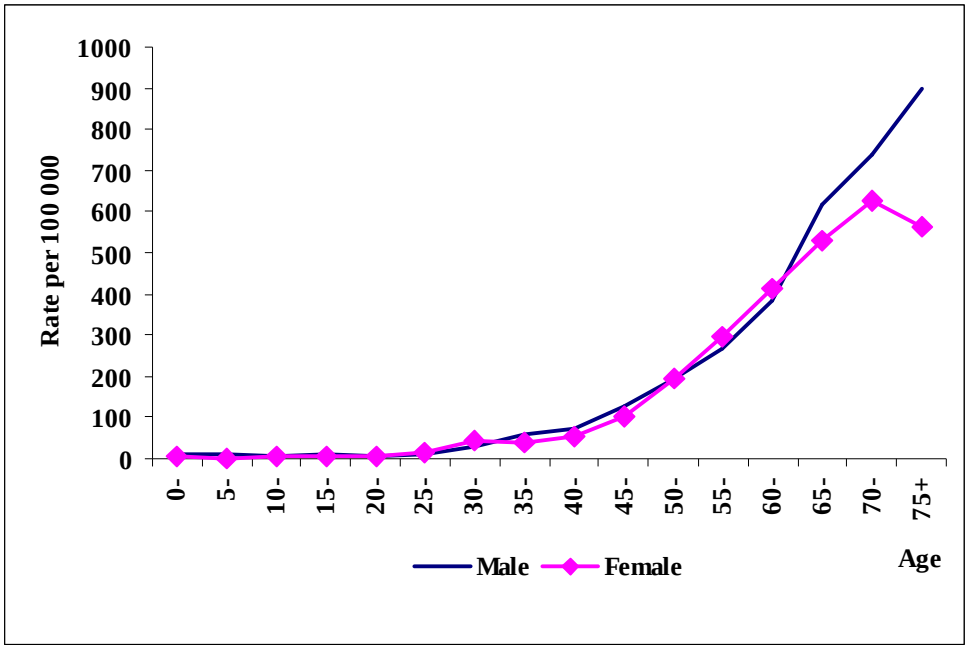

Figure 5: Age-specific mortality rate, Chiang Mai, 2004

DIAGNOSIS AND STAGE OF CANCER

Basis of Diagnosis

1,931 cases (70.6%) were histologically verified, with 58.6% from primary sites and 8.7% from metastasis sites (Table 2). Eighteen percent were clinically diagnosed and 11.3% from death certificates only. By site, histologically verified cases were low for cancer of the liver, pancreas, brain and nervous system, placenta, and lung (Table 8 and Table 9).

Stage of Cancer

Fifty three percent were diagnosed in localized and locally advanced stages, and only 18.8% had distant metastasis (Table 3). 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 distant lymph nodes (22.4%), followed by lung (15.8%), brain (11.9%) and liver (11.5%).

Table 2: Basis of Diagnosis

Type of diagnosis	No.	%
Histological verification	**1931**	**70.6**
Histology of primary	1603	58.6
Histology of metastasis	238	8.7
Cytology/hematology	90	3.3
Autopsy	0	0.0
No histological verification	**493**	**18.0**
Clinical only	40	1.5
Clinical and investigations	421	15.4
Operation/surgery	26	1.0
Immuno/biochemistry	6	0.2
Death certificate only	**309**	**11.3**
Unknown	*2*	*0.1*
	2735	**100.0**

Table 3: Stage of Disease

Stage	No.	%
Localized	475	17.4
Locally advanced	979	35.8
Regional node metastasis	184	6.7
Distant metastasis	513	18.8
Not applicable	190	6.9
Unknown/not stage	394	14.4
	2735	**100.0**

Leading Sites of Cancer Incidence

Of the invasive cancer in both sexes combined, lung cancer was the most common (511 cases), followed by liver, cervix, breast, and colon cancer. These five types of cancer accounted for 53.4% of all new cancers. For males, the most common cancer was lung cancer, accounting for 23.3% of all newly diagnosed cases, followed by liver, prostate, NHL, and colon cancer (Fig. 6). For females, the most common cancers were cervix cancer, accounting for 17.1% of all newly diagnosed cases, followed by breast, lung, liver, and colon cancer.

For the most frequent cancers for the 15-year age group, brain tumor, leukemia, liver and kidney were common in childhood cancer (Table 6). For males, liver and lung cancer were the common cancers in the age group 30 to 74. Liver cancer was more common than lung cancer at younger ages and lung cancer was the most common cancer for the age-group 60 and over. For females, cervix cancer was the most common in the age-group 30-44 and was second after breast cancer in the age-group 45-59. For sex-specific cancer, prostate cancer was the most common in males and the incidence increased after the age of 60. For females, cervix cancer was the most common cancer in the young-age group, followed by breast cancer. Lung cancer was the most common cancer after age 60.

Leading Sites of Cancer Deaths

One thousand and one hundred and four cases (60.0%) with cancer died in the year of diagnosis and 463 (25.2%) died in the following year after diagnosis. Of the invasive cancers in both sexes combined, lung cancer (25.9%) was the most common cause of cancer death, followed by liver, cervix, breast, and stomach cancer (Fig. 7). These five types of cancer accounted for 56.8% of all cancer deaths. For males, the lung was the most common site of cancer deaths, accounting for 28.1% of all cancer deaths, followed by the liver, stomach, NHL, and colon. For females, the lung was also the most common site of cancer deaths, accounting for 23.6% of all cancer deaths, followed by the liver, cervix, breast, and stomach.

Leukemia was the common cause of death in childhood cancer. For males, liver cancer was the most common cause of death in the age-group 15-59 and after the age of 60, lung cancer was the most common (Table 7). For females, cervix cancer and breast cancer were the most common cause in the age-group 30-44 and lung cancer was the most common cause of cancer death in the age-group 45 and over.

Table 4: Incidence and sites of new cancer cases among districts, Chiang Mai, 2004

Males	Incidence	All sites	Lung	Liver	NHL	Prostate	Colon	Rectum	Bladder	Stomach
Muang	177.3	212	40	41	6	13	12	6	9	3
Saraphi	107.4	51	14	12	1	4	2	0	2	0
San Kamphaeng	161.8	73	17	16	3	0	4	4	4	4
Doi Saket	157.9	67	14	13	5	4	1	3	4	1
San Sai	180.4	103	21	20	2	2	6	3	5	3
Mae Rim	126.3	55	11	10	1	0	2	6	3	2
Hang Dong	184.8	76	20	14	3	6	2	2	3	2
San Pa Tong	173.7	93	25	15	6	3	2	2	2	0
Phrao	114.7	36	6	6	2	2	2	1	0	0
Chiang Dao	122.3	40	11	8	1	3	0	0	0	2
Mae Taeng	179.6	79	25	22	3	4	2	2	1	2
Hot	113.8	23	6	4	0	0	0	0	0	5
Doi Tao	90.1	15	4	4	0	1	0	1	0	0
Chom Thong	138.5	52	10	6	4	1	3	2	0	1
Samoeng	68.4	10	2	4	0	0	0	0	0	1
Mae Chaem	109.6	31	4	8	2	0	2	3	1	3
Omkoi	63.3	14	6	2	0	0	0	0	0	3
Fang	147.8	69	15	8	3	1	5	2	4	3
Mae Ai	101.0	31	6	5	4	1	0	2	1	2
Wiang Haeng	161.0	10	3	2	1	1	0	0	0	0
Chai Prakan	132.2	27	9	6	2	1	0	1	1	0
Mae Wang	210.7	37	7	11	2	2	1	3	0	3
K.A.Mae On	124.9	19	4	6	1	1	0	1	1	0
K.A. Doi Law	169.9	32	12	6	1	4	1	0	0	0

Females	Incidence	All sites	Cervix	Breast	Lung	Liver	Colon	Ovary	Stomach	Rectum
Muang	184.4	278	39	55	40	8	17	14	9	8
Saraphi	152.1	84	16	10	20	2	2	2	3	1
San Kamphaeng	169.9	82	12	15	15	9	3	3	3	2
Doi Saket	160.6	71	9	6	9	5	1	4	2	3
San Sai	180.7	118	20	22	15	13	5	2	1	0
Mae Rim	158.3	72	14	12	12	4	3	1	1	5
Hang Dong	169.5	77	10	9	14	3	1	3	0	2
San Pa Tong	181.5	114	26	16	13	10	5	4	2	2
Phrao	113.2	42	7	8	6	5	2	0	1	4
Chiang Dao	141.9	49	11	8	8	3	0	2	1	0
Mae Taeng	132.6	62	16	13	7	6	1	2	1	1
Hot	133.2	30	3	6	3	2	0	0	1	0
Doi Tao	81.6	13	3	4	0	1	1	0	1	0
Chom Thong	122.1	52	4	17	8	3	1	1	2	0
Samoeng	139.2	17	3	1	2	0	2	0	3	2
Mae Chaem	76.3	23	1	6	1	2	1	0	2	0
Omkoi	44.2	10	0	2	0	0	0	0	1	0
Fang	183.2	96	20	16	10	7	4	3	1	2
Mae Ai	168.6	55	15	4	10	3	1	1	2	2
Wiang Haeng	150.0	8	1	1	0	1	0	0	1	0
Chai Prakan	192.7	42	6	7	7	4	2	0	2	3
Mae Wang	161.0	30	6	1	5	3	1	0	1	2
K.A.Mae On	122.4	16	3	0	6	1	0	1	0	1
K.A. Doi Law	188.0	37	7	7	8	4	1	1	1	2

Both sexes	All sites	Lung	Liver	Cervix	Breast	Colon	NHL	Rectum	Stomach
Muang	490	80	49	39	55	29	12	14	12
Saraphi	135	34	14	16	10	4	2	1	3
San Kamphaeng	155	32	25	12	15	7	5	6	7
Doi Saket	138	23	18	9	6	2	6	6	3
San Sai	221	36	33	20	22	11	8	3	4
Mae Rim	127	23	14	14	12	5	1	11	3
Hang Dong	153	34	17	10	9	3	3	4	2
San Pa Tong	207	38	25	26	16	7	10	4	2
Phrao	78	12	11	7	8	4	5	5	1
Chiang Dao	89	19	11	11	8	0	2	0	3
Mae Taeng	141	32	28	16	13	3	3	3	3
Hot	53	9	6	3	6	0	2	0	6
Doi Tao	28	4	5	3	4	1	0	1	1
Chom Thong	104	18	9	4	17	4	2	2	3
Samoeng	27	4	4	3	1	2	1	2	4
Mae Chaem	54	5	10	1	6	3	1	3	5
Omkoi	24	6	2	0	2	0	0	0	4
Fang	165	25	15	20	16	9	2	4	4
Mae Ai	86	16	8	15	4	1	2	4	4
Wiang Haeng	18	3	3	1	1	0	0	0	1
Chai Prakan	69	16	10	6	7	2	0	4	2
Mae Wang	67	12	14	6	1	2	3	5	4
K.A.Mae On	35	10	7	3	0	0	1	2	0
K.A. Doi Law	69	20	10	7	7	2	0	2	1

Table 5: Mortality rate and cancer sites among districts, Chiang Mai, 2004

Males	Rates	Lung	Liver	Stomach	NHL	Colon	Bladder	Rectum	Prostate	Nasopharynx
Muang	131.8	39	43	5	3	2	5	2	1	1
Saraphi	77.3	15	12	1	1	0	1	0	0	0
San Kamphaeng	123.5	15	14	3	1	3	1	4	2	1
Doi Saket	114.5	15	9	1	1	0	2	1	1	1
San Sai	154.9	21	24	4	4	4	3	2	0	3
Mae Rim	74.7	8	8	1	1	0	3	1	1	0
Hang Dong	117.6	14	15	2	2	1	1	1	2	0
San Pa Tong	126.1	23	13	0	2	1	1	4	1	3
Phrao	104.3	10	3	0	1	1	3	1	4	3
Chiang Dao	95.0	6	8	3	0	1	0	0	2	0
Mae Taeng	141.1	18	20	3	2	4	0	0	4	2
Hot	83.7	5	4	3	1	0	0	1	0	0
Doi Tao	82.7	4	3	0	0	0	0	0	2	0
Chom Thong	85.8	14	2	2	3	2	0	0	0	0
Samoeng	58.1	2	3	0	0	0	1	0	0	0
Mae Chaem	59.0	5	5	3	1	0	0	0	0	1
Omkoi	21.3	2	2	0	0	0	0	0	0	0
Fang	98.3	15	4	3	1	4	1	1	0	0
Mae Ai	80.0	2	6	2	3	0	1	0	0	2
Wiang Haeng	88.0	2	2	0	0	0	0	0	0	1
Chai Prakan	117.9	8	9	0	0	0	0	1	0	1
Mae Wang	138.5	8	6	1	2	1	0	1	0	0
K.A.Mae On	137.7	7	5	1	1	0	0	1	1	0
K.A. Doi Law	121.0	9	5	1	2	1	1	0	0	0

Females	Rates	Lung	Liver	Cervix	Breast	Stomach	NHL	Colon	Gallblad	Rectum
Muang	89.1	31	7	18	10	6	3	6	1	4
Saraphi	143.1	23	5	13	10	2	0	3	2	0
San Kamphaeng	82.0	11	5	3	3	2	1	0	1	1
Doi Saket	122.9	11	6	3	4	2	4	3	0	1
San Sai	123.5	18	14	9	3	1	2	3	2	1
Mae Rim	101.8	12	3	0	11	1	1	0	1	0
Hang Dong	123.5	18	4	2	3	0	2	1	2	1
San Pa Tong	81.3	14	8	5	3	1	4	3	2	1
Phrao	67.9	6	4	0	1	2	1	0	1	1
Chiang Dao	94.9	6	6	5	0	1	3	0	0	0
Mae Taeng	99.6	13	4	9	3	3	1	1	1	2
Hot	95.2	4	3	1	0	2	1	0	0	1
Doi Tao	66.7	0	1	1	0	2	0	3	1	1
Chom Thong	83.5	5	3	6	7	1	1	0	0	1
Samoeng	59.3	2	0	1	0	0	0	1	0	0
Mae Chaem	65.5	0	2	0	2	1	2	2	0	0
Omkoi	20.5	1	0	1	1	0	0	0	1	0
Fang	103.4	8	10	7	7	1	0	2	1	1
Mae Ai	94.9	9	1	3	2	2	0	1	0	0
Wiang Haeng	118.1	1	1	1	1	1	0	0	0	0
Chai Prakan	91.4	3	4	4	1	3	0	1	1	0
Mae Wang	97.6	4	4	1	1	0	0	1	0	0
K.A.Mae On	98.3	6	1	2	0	0	0	0	1	1
K.A. Doi Law	67.6	4	4	1	1	0	0	0	0	0

Both sexes	Lung	Liver	Cervix	Breast	Stomach	NHL	Colon	Bladder	Rectum
Muang	70	50	18	10	11	6	8	6	6
Saraphi	38	17	13	10	3	1	3	3	0
San Kamphaeng	26	19	3	3	5	2	3	2	5
Doi Saket	26	15	3	4	3	5	3	2	2
San Sai	39	38	9	3	5	6	7	5	3
Mae Rim	20	11	0	11	2	2	0	4	1
Hang Dong	32	19	2	3	2	4	2	3	2
San Pa Tong	37	21	5	3	1	6	4	2	5
Phrao	16	7	0	1	2	2	1	3	2
Chiang Dao	12	14	5	0	4	3	1	2	0
Mae Taeng	31	24	9	3	6	3	5	0	2
Hot	9	7	1	0	5	2	0	0	2
Doi Tao	4	4	1	0	2	0	3	0	1
Chom Thong	19	5	6	7	3	4	2	0	1
Samoeng	4	3	1	0	0	0	1	2	0
Mae Chaem	5	7	0	2	4	3	2	0	0
Omkoi	3	2	1	1	0	0	0	0	0
Fang	23	14	7	7	4	1	6	2	2
Mae Ai	11	7	3	2	4	3	1	2	0
Wiang Haeng	3	3	1	1	1	0	0	0	0
Chai Prakan	11	13	4	1	3	0	1	0	1
Mae Wang	12	10	1	1	1	2	2	2	1
K.A.Mae On	13	6	2	0	1	1	0	0	2
K.A. Doi Law	13	9	1	1	1	2	1	1	0

Estimated New Cases

Males				Females		
Lung	292	23.3 %		Cervix uteri	253	17.1 %
Liver	249	19.8 %		Breast	246	16.6 %
Prostate	54	4.3 %		Lung	219	14.8 %
Non-Hodgkin lymphoma	53	4.2 %		Liver	99	6.7 %
Colon	47	3.7 %		Colon	54	3.6 %
Rectum	44	3.5 %		Ovary	44	3.0 %
Bladder	41	3.3 %		Stomach	42	2.8 %
Stomach	40	3.2 %		Rectum	42	2.8 %
Nasopharynx	34	2.7 %		Corpus uteri	40	2.7 %
Kidney	27	2.2 %		Non-Hodgkin lymphoma	37	2.5 %
All sites	**1255**	**100.0 %**		**All sites**	**1480**	**100.0 %**

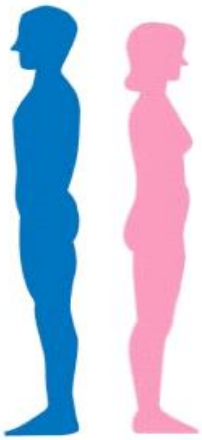

Figure 6: Ten leading cancer sites for the estimated new cases, by sex, Chiang Mai, 2004

Estimated Deaths

Males				Females		
Lung	267	28.1 %		Lung	210	23.6 %
Liver	225	23.7 %		Liver	100	11.2 %
Stomach	39	4.1 %		Cervix	96	10.8 %
Non-Hodgkin lymphoma	32	3.4 %		Breast	74	8.3 %
Colon	25	2.6 %		Stomach	34	3.8 %
Bladder	24	2.5 %		Colon	31	3.5 %
Rectum	21	2.2 %		Non-Hodgkin lymphoma	26	2.9 %
Prostate	21	2.2 %		Gallbladder	18	2.0 %
Nasopharynx	19	2.0 %		Rectum	17	1.9 %
Kidney	16	1.7 %		Bladder	17	1.9 %
All sites	**951**	**100.0 %**		**All sites**	**889**	**100.0 %**

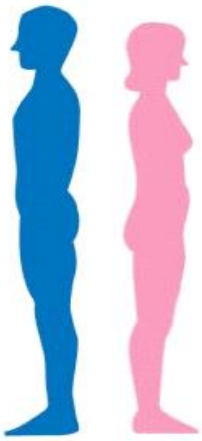

Figure 7: Ten leading cancer sites for the estimated dead cases, by sex, Chiang Mai, 2004

TABLE 6: Most common cancers by 15-year age groups in Chiang Mai, 2004

males

Incidence Age group	0-14	Age group	15-29	Age group	30-44	Age group	45-59	Age group	60-74	Age group	75+
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Liver	3	Liver	4	Liver	47	Liver	92	Lung	156	Lung	51
Brain, nervous system	3	Brain, nervous system	4	Lung	13	Lung	68	Liver	78	Liver	25
Lung	2	Bone	3	Colon	10	Stomach	17	Prostate	24	Prostate	24
Kidney etc.	2	NHL	3	NHL	10	Colon	16	NHL	24	Bladder	16
NHL	2	Nasopharynx	2	Myeloid leukaemia	6	Nasopharynx	14	Rectum	17	Rectum	11
All sites	21	All sites	31	All sites	131	All sites	345	All sites	491	All sites	236

females

Incidence Age group	0-14	Age group	15-29	Age group	30-44	Age group	45-59	Age group	60-74	Age group	75+
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Myeloid leukaemia	4	Ovary	6	Cervix	84	Breast	120	Lung	106	Lung	44
Lymphoid leukaemia	3	Thyroid	6	Breast	59	Cervix	110	Cervix	45	Breast	20
Brain, nervous system	2	Brain, nervous system	5	Liver	11	Lung	56	Breast	44	Liver	17
Nasopharynx	1	NHL	5	Lung	11	Liver	28	Liver	42	Other skin	15
Kidney	1	Colon	3	Thyroid	11	Colon	20	Colon	19	Cervix	11
All sites	14	All sites	47	All sites	259	All sites	526	All sites	444	All sites	190

males

Incidence Age group	0-14	Age group	15-29	Age group	30-44	Age group	45-59	Age group	60-74	Age group	75+
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Brain, nervous system	0.7	Liver	0.6	Liver	4.6	Liver	9.7	Lung	20.7	Lung	4.5
Liver	0.6	Brain, nervous system	0.6	Bronchus, lung	1.2	Lung	7.5	Liver	10.6	Liver	2.2
NHL	0.6	Bone	0.5	Colon	1.0	Colon	1.8	NHL	3.2	Prostate	2.1
Lymphoid leukaemia	0.6	NHL	0.4	NHL	1.0	Stomach	1.7	Prostate	3.0	Bladder	1.4
Lung	0.5	Nasopharynx	0.3	Myeloid leukaemia	0.6	Nasopharynx	1.6	Bladder	2.4	Rectum	1.0
All sites	5.2	All sites	4.4	All sites	12.9	All sites	37.3	All sites	66.3	All sites	20.8

females

Incidence Age group	0-14	Age group	15-29	Age group	30-44	Age group	45-59	Age group	60-74	Age group	75+
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Myeloid leukaemia	1.1	Thyroid	0.9	Cervix	7.4	Breast	11.5	Lung	13.4	Lung	3.3
Lymphoid leukaemia	0.8	Ovary etc.	0.8	Breast	5.1	Cervix	10.3	Cervix	6.2	Breast	1.5
Brain, nervous system	0.5	Brain, nervous system	0.7	Lung	1.0	Lung	5.9	Breast	5.9	Liver	1.3
Kidney	0.3	NHL	0.7	Thyroid	1.0	Liver	3.0	Liver	5.5	Other skin	1.1
Eye	0.3	Colon	0.4	Liver	0.9	Colon	2.1	Colon	2.5	Cervix	0.8
All sites	3.5	All sites	6.7	All sites	23.0	All sites	52.2	All sites	56.2	All sites	14.1

TABLE 7: Most common cancer deaths by 15-year age groups in Chiang Mai, 2004

males

Mortality	Age group 0-14	Age group 15-29	Age group 30-44	Age group 45-59	Age group 60-74	Age group 75+
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Liver	3	Liver	3	Liver	38	Liver	88	Lung	134	Lung	54
Brain, nervous system	2	Lung	2	Lung	9	Lung	68	Liver	75	Prostate	19
Myeloid leukaemia	2	Nasopharynx	1	NHL	7	Stomach	15	Stomach	16	Liver	18
Bone	1	Bone	1	Colon	4	Colon	9	NHL	12	Bladder	10
Other endocrine	1	Connective tissue	1	Myeloid leukaemia	4	Nasopharynx	6	Pancreas	10	Rectum	7
All sites	12	All sites	13	All sites	98	All sites	261	All sites	363	All sites	204

females

Mortality	Age group 0-14	Age group 15-29	Age group 30-44	Age group 45-59	Age group 60-74	Age group 75+
CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Connective tissue	1	Brain, nervous system	4	Breast	13	Lung	53	Lung	106	Lung	42
Brain, nervous system	1	NHL	2	Cervix	13	Cervix	38	Liver	47	Liver	16
NHL	1	Nasopharynx	1	Liver	9	Breast	36	Cervix	35	Cervix	10
Myeloid leukaemia	1	Stomach	1	Lung	8	Liver	27	Breast	17	Breast	8
		Liver	1	Colon	6	Stomach	14	Stomach	13	Gallbladder	7
All sites	4	All sites	14	All sites	90	All sites	270	All sites	359	All sites	152

males

Mortality	Age group 0-14	Age group 15-29	Age group 30-44	Age group 45-59	Age group 60-74	Age group 75+
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Myeloid leukaemia	0.3	Liver	0.4	Liver	3.8	Liver	9.2	Lung	18.0	Lung	4.7
Bone	0.2	Bronchus, lung	0.3	Bronchus, lung	0.8	Lung	7.7	Liver	10.2	Prostate	1.7
Lymphoid leukaemia	0.2	Bone	0.2	NHL	0.7	Stomach	1.5	Stomach	2.0	Liver	1.6
		Brain, nervous system	0.2	Colon	0.4	Colon	0.9	Pancreas	1.4	Bladder	0.9
		NHL	0.2	Myeloid leukaemia	0.4	Nasopharynx	0.7	NHL	1.4	Rectum	0.6
All sites	0.6	All sites	1.9	All sites	9.6	All sites	28.0	All sites	48.7	All sites	17.9

females

Mortality	Age group 0-14	Age group 15-29	Age group 30-44	Age group 45-59	Age group 60-74	Age group 75+
CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
NHL	0.2	Brain, nervous system	0.6	Breast	1.2	Lung	5.6	Lung	13.4	Lung	3.1
Myeloid leukaemia	0.2	NHL	0.3	Cervix uteri	1.2	Cervix uteri	3.7	Liver	6.0	Liver	1.2
		Nasopharynx	0.1	Liver	0.8	Breast	3.5	Cervix	4.7	Cervix	0.7
		Stomach	0.1	Bronchus, lung	0.7	Liver	2.8	Breast	2.1	Breast	0.6
		Liver	0.1	Colon	0.5	Stomach	1.4	Stomach	1.6	Gallbladder	0.5
All sites	0.3	All sites	2.0	All sites	8.2	All sites	27.7	All sites	44.8	All sites	11.3

THE COMMON CANCERS IN CHIANG MAI, 2004

Lung cancer (ICD-10 *C33-C34*)

There were 511 newly diagnosed cases of lung cancer (292 males, 219 females), accounting for 18.7% of all cancer cases and there were 477 cases (25.9%) in all cancer deaths (Table 1). The incidence rates of lung cancer seem to continuously increase from the year 2000.

Lung cancer has ranked first for new cancers in Chiang Mai since the first population-base registration in 1983 until 2004 in this report. The incidence increased sharply with age in both males and females after the age of 40 (Fig.8). The mortality rate in males was higher than females after the age of 65 (Fig. 9). 38.5% were diagnosed in localized and local extension stages, and 38.7% had distant metastasis. The most common site of metastasis was distant lymph nodes (25.8%), followed by brain (20.7%) and lung to lung metastasis (17.2%). Among 291 cases with histological verification, the common cell types were adenocarcinoma (25.8%) and squamous cell carcinoma (16.4%). Lung cancer death was the most common cause of cancer death. Seventy percent died in the year of diagnosis.

Incidence

	males	females
New cases	292	219
Sex ratio	1.3	1
Median age at diagnosis	66	65
Age standardized incidence rate	34.7	23.9
Cumulative risk (0-74)	4.58	3.02
Estimated life time risk	1 in 22	1 in 33

Mortality

	males	females
Death cases	267	210
Sex ratio	1.3	1
Median age at death	68	66
Age standardized mortality rate	31.5	23.0
Cumulative risk (0-74)	4.05	2.96

Cell type

	males	females	both	%
Adenocarcinoma	79	53	132	25.8
Squamous cell	52	32	84	16.4
Small cell	18	12	30	5.9
Large cell	7	7	14	2.7
Others	24	7	31	6.1
Clinical diagnosis	112	108	22	43.1
All	292	219	511	

Stage

	cases	%
Localized	18	3.5
Locally advanced	179	35.0
Regional node metastasis	34	6.7
Distant metastasis	198	38.7
Unknown/not stage	82	16.1
All	511	

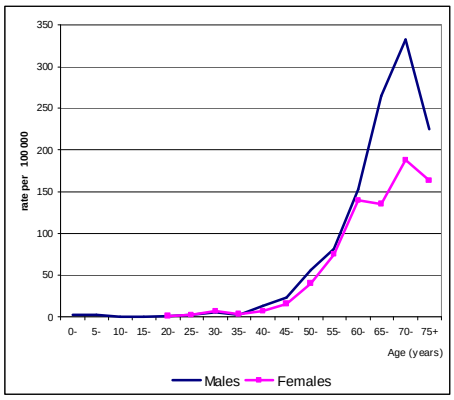

Fig. 8: Age specific incidence rates (*C33-C34*)

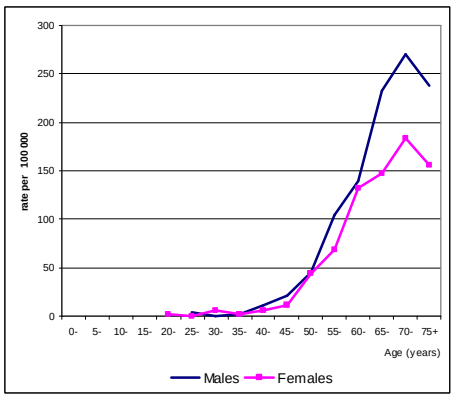

Fig. 9: Age specific mortality rates (*C33-C34*)

Liver cancer (ICD-10 *C22*)

There were 348 new cases of liver cancer, and there were 325 cases in all cancer deaths. Liver cancer ranked second in males and fourth in females for incidence (Figure 6). Mortality ranked second in males and females (Figure 7). The incidence rate in males decreased from 30.4 in the year 2003 to 28.3 in the year 2004. In females, the incidence rate also decreased from 12.1 in the year 2003 to 10.8 in the year 2004. The mortality rates also decreased from 27.1 in the year 2003 to 25.8 in the year 2004 in males but increased from 8.8 in the year 2003 to 11.0 in the year 2004 in females.

Liver cancer was uncommon in ages below 35 and more common in males than females in all age groups. The incidence increased sharply from age 45 in males and age 50 in females (Fig.10). Only 20.7% of cases were histologically verified. For the known cell types, hepatocellular carcinoma (10.3%) was slightly more common than cholangiocarcinoma (9.5%). One hundred and eighty seven cases (53.7%) were local advanced stage, and 39 cases had distant metastasis at the time of diagnosis. Cholangiocarcinoma was found to have distant metastasis more than hepatocellular carcinoma. The common metastatic sites were distant lymph nodes and lung. Two hundred and fifty five patients (71.4%) died in the year of diagnosis.

Incidence

	males	females
New cases	249	99
Sex ratio	2.5	1
Median age at diagnosis	54	63
Age standardized incidence rate	28.3	10.8
Cumulative risk (0-74)	3.24	1.32
Estimated life time risk	1 in 31	1 in 76

Mortality

	males	females
Death cases	225	100
Sex ratio	2.3	1
Median age at death	55	64.5
Age standardized mortality rate	25.8	11.0
Cumulative risk (0-74)	3.05	1.39

Cell type

	males	females	both	%
Hepatocellular	31	5	36	10.3
Cholangiocarcinoma	18	15	33	9.5
Sarcoma	1	0	1	0.3
Others	2	0	2	0.6
Clinical diagnosis	197	79	276	79.3
All	249	99	348	

Stage

	cases	%
Localized	25	7.2
Locally advanced	187	53.7
Regional node metastasis	10	2.9
Distant metastasis	39	11.2
Unknown/not stage	87	25.0
All	348	

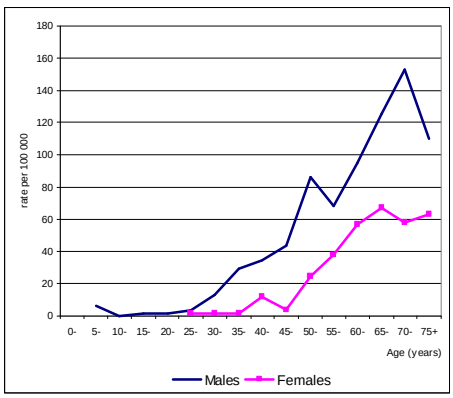

Fig. 10: Age specific incidence rates (*C22*)

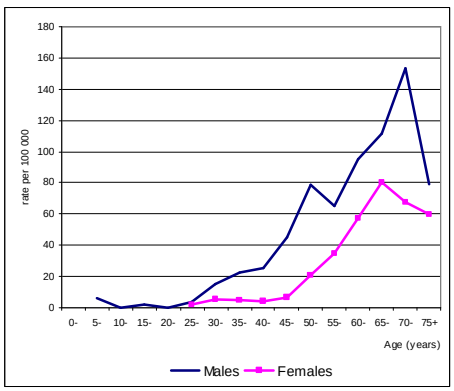

Fig. 11: Age specific mortality rates (*C22*)

Stomach cancer (ICD-10 *C16*)

There were 82 new cases of stomach cancer in 2004 (40 males, 42 females) accounting for 3.2% of all cancer in males and 2.8% in females. Of the 73 deaths from stomach cancer, 39 were in males (4.1% of all male cancer deaths) and 34 in females (3.8% of female cancer deaths). Stomach cancer ranked eighth in males and seventh in females for incidence (Figure 6). Mortality ranked third in males and fifth in females (Figure 7). For males, the incidence rate decreased from 6.2 in the year 2003 to 4.4 in the year 2004. For females the incidence rate increased slightly from 3.9 in the year 2003 to 4.5 in the year 2004.

Only 20.7% of stomach cancers were found under the age of 50. The incidence increased after the age of 45 to the highest peak at the age 70-74 years in both males and females. Forty six percent were diagnosed in local extension stage, while 28.0% had distant metastasis. The common site of metastasis was omentum/ peritoneum (21.7%), liver (21.7%) and distant lymph nodes (13.0%). Among 66 cases with histological verification, the most common cell type was adenocarcinoma (76.8%). The prognosis was poor due to advanced stage: 53.4% died in the year of diagnosis.

Incidence

	males	females
New cases	40	42
Sex ratio	1	1
Median age at diagnosis	63.5	58.0
Age standardized incidence rate	4.4	4.5
Cumulative risk (0-74)	0.57	0.59
Estimated life time risk	1 in 175	1 in 169

Mortality

	males	females
Death cases	39	34
Sex ratio	1.1	1
Median age at death	67	56.5
Age standardized mortality rate	4.3	3.6
Cumulative risk (0-74)	0.57	0.45

Cell type

	males	females	both	%
Adenocarcinoma	32	31	63	76.8
Sarcoma	2	1	3	3.7
Clinical diagnosis	6	10	16	19.5
All	40	42	82	

Stage

	cases	%
Localized	8	9.8
Local extension	38	46.3
Regional nodes met.	7	8.5
Distant metastasis	23	28.0
Unknown/not stage	6	7.3
All	82	

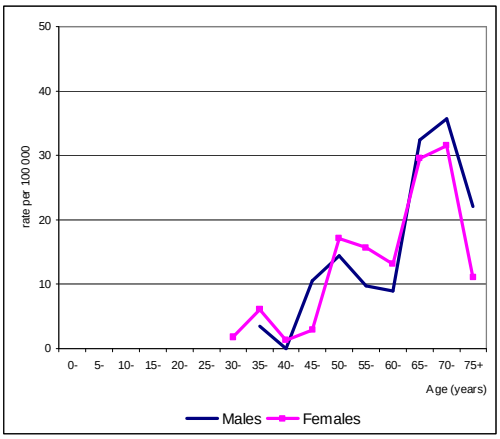

Fig. 12: Age specific incidence rates (*C16*)

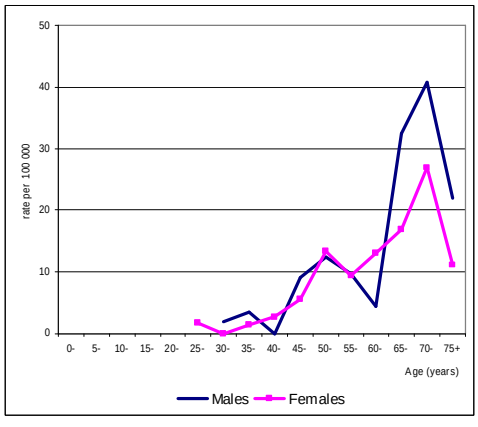

Fig. 13: Age specific mortality rates (*C16*)

Colon cancer (ICD-10 C18)

There were 101 new cases of colon cancer in 2004 (47 males, 54 females) accounting for 3.7% of all cancer in males and 3.6% in females. Of the 56 deaths from colon cancer, 25 were in males (2.6% of all male cancer deaths) and 31 in females (3.5% of female cancer deaths). Colon cancer ranked fifth in both males and females for incidence (Figure 6). Mortality ranked fifth in males and sixth in females (Figure 7). For males, the incidence rate slightly increased from 5.3 in the year 2003 to 5.4 in the year 2004. For females the incidence rate increased from 4.4 in the year 2003 to 5.9 in the year 2004.

Colon cancer was uncommon after the age of 35 and the incidence increased sharply after the age of 50. Colon cancer was more common in males than females in the age group 35-44 but after the age of 60 it was more common in females than males (Fig.14). Forty six percent were diagnosed in local extension stage and 17.8% had distant metastasis. The most common site of metastasis was omentum/peritoneum (33.3%), followed by liver (22.2%), and distant lymph nodes (11.1%). Adenocarcinoma was the most common cell type accounting for 83.2%.

Incidence

	males	females
New cases	47	54
Sex ratio	1	1.1
Median age at diagnosis	57.0	62.5
Age standardized incidence rate	5.4	5.9
Cumulative risk (0-74)	0.56	0.66
Estimated life time risk	1 in 178	1 in 151

Mortality

	males	females
Death cases	25	31
Sex ratio	1	1.2
Median age at death	56	59
Age standardized mortality rate	2.9	3.0
Cumulative risk (0-74)	0.28	0.36

Cell type

Cell type	males	females	both	%
Adenocarcinoma	37	47	84	83.2
Carcinoid	1	0	1	1.0
Others	1	0	1	1.0
Clinical diagnosis	8	7	15	14.9
All	47	54	101	

Stage

Stage	cases	%
Localized	19	18.8
Local extension	47	46.5
Regional nodes met.	8	7.9
Distant metastasis	18	17.8
Unknown/not stage	9	8.9
All	101	

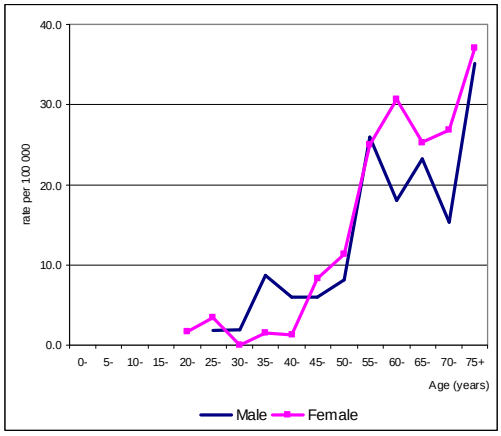

Fig. 14: Age specific incidence rates (*C18*)

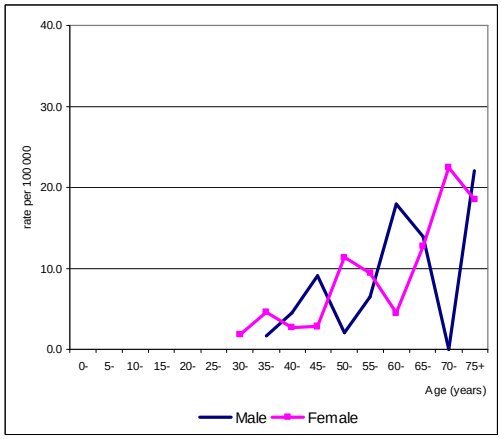

Fig. 15: Age specific mortality rates (*C18*)

Bladder cancer (ICD-10 *C67*)

There were 76 new cases of bladder cancer in 2004 (41 males, 35 females) accounting for 3.3% of all cancer in males and 2.4% in females. Of the 41 deaths from bladder cancer, 24 were in males (2.5% of all male cancer deaths) and 17 in females (1.9% of female cancer deaths). Bladder cancer ranked seventh in males and eleventh in females for incidence (Figure 6). Mortality ranked sixth in males and tenth in females (Figure 7). For males, the incidence rate slightly increased from 4.4 in the year 2003 to 4.6 in the year 2004. For females the incidence rate increased from 1.8 in the year 2003 to 3.7 in the year 2004.

Bladder cancer was the most common cancer of the urinary system, and more common in males than females. It was uncommon below 50 years in males and below 55 in females (Fig.16). Ninety-seven percent of cases were histologically verified, and the most common cell type was transitional cell carcinoma, accounting for 88.2% of all cases. Most of them were diagnosed at an early stage; 27 cases (35.5%) were localized, 37 cases (48.7%) were local extension, and only 4 cases had distant metastasis.

Incidence

	males	females
New cases	41	35
Sex ratio	1.2	1
Median age at diagnosis	73.0	69.0
Age standardized incidence rate	4.6	3.7
Cumulative risk (0-74)	0.48	0.48
Estimated life time risk	1 in 208	1 in 208

Mortality

	males	females
Death cases	24	17
Sex ratio	1.4	1
Median age at death	73.5	71.0
Age standardized mortality rate	2.4	1.6
Cumulative risk (0-74)	0.26	1.6

Cell type

Cell type	males	females	both	%
Transitional cell	36	31	67	88.2
Squamous cell	3	2	5	6.6
Adenocarcinoma	1	1	2	2.6
Clinical diagnosis	1	1	2	2.6
All	41	35	76	

Stage

Stage	cases	%
Localized	27	35.5
Local extension	37	48.7
Regional nodes met.	1	1.3
Distant metastasis	4	5.3
Unknown/not stage	7	9.2
All	76	

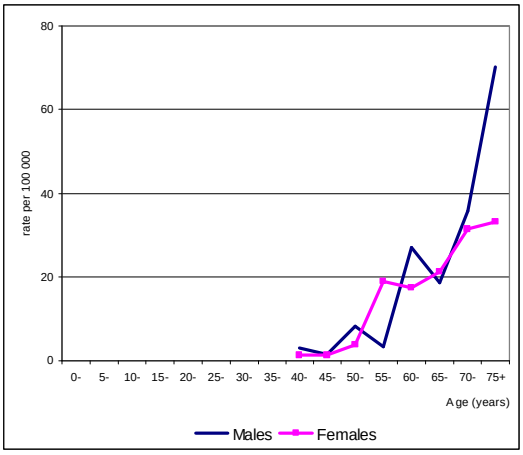

Fig. 16: Age specific incidence rates (*C67*)

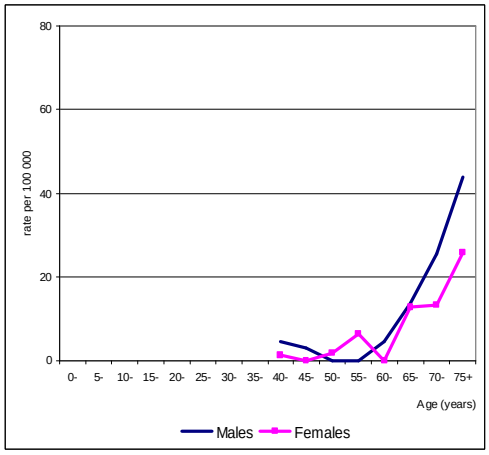

Fig. 17: Age specific mortality rates (*C67*)

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

There were 90 new cases of NHL (3.3% of new cancer cases); this ranked the 4th for males and the 10th for females (Table 1). The age-standardized incidence rate was 6.5 for males and 3.9 for females. The incidence rate increased from 5.1 in the year 2003 to 6.5 in the year 2004 for males. For female, the incidence rate decreased from 4.2 in the year 2003 to 3.9 in the year 2004. There were 58 cases of NHL deaths in the same period (3.2% of all cancer deaths).

NHL was common cancer in young people and increased with age for both males and females (Fig.18). The stage of NHL in the Chiang Mai Cancer Registry was noted as "*not applicable*" due to insufficient information for staging. All cases were histologically verified, and the most common cell type was malignant lymphoma, large B-cell, diffuse, NOS (*M9680/3*), malignant lymphoma, NOS (*M9590/3*), malignant lymphoma, small B lymphocytic (M9670/3) and malignant lymphoma, non-Hodgkin's, NOS (*M9591/3*) accounting for 84.4% of all cases. In mortality cases, 51.7% died in the year of diagnosis, and 37.9% died one year or later after diagnosis.

Incidence

	males	females
New cases	53	37
Sex ratio	1.4	1
Median age at diagnosis	64.0	49.0
Age standardized incidence rate	6.5	3.9
Cumulative risk (0-74)	0.75	0.36
Estimated life time risk	1 in 133	1 in 277

Mortality

	males	females
Death cases	32	26
Sex ratio	1.2	1
Median age at death	68.0	53.0
Age standardized mortality rate	3.4	2.8
Cumulative risk (0-74)	0.41	0.26

Cell type

Cell type	males	females	both	%
Large B-cell, diff.	33	18	51	56.7
Malig. Lymphoma	7	4	11	12.2
Small B lymphocy.	5	3	8	8.9
non-Hodgkin, NOS	2	4	6	6.7
Others	6	8	14	15.6
All	53	37	90	

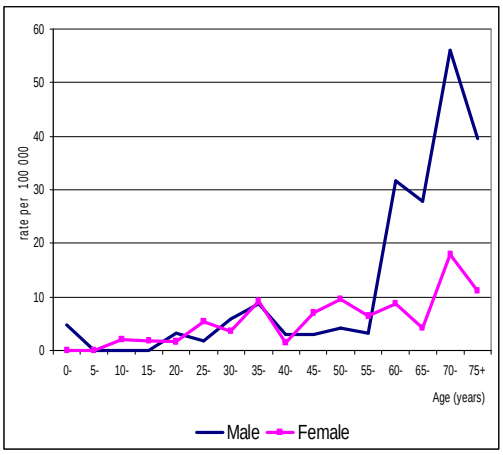

Fig. 18: Age-specific incidence rates (*C82-5;C96*)

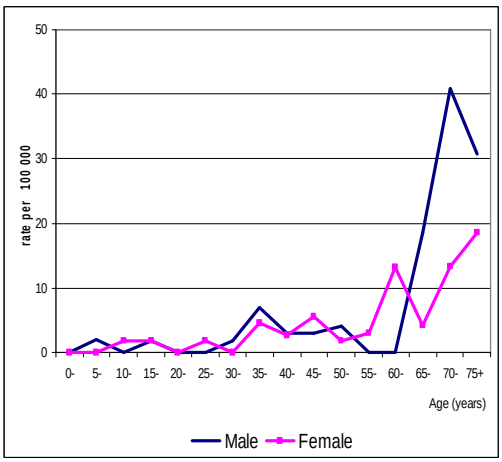

Fig. 19: Age-specific mortality rates (*C82-5;C96*)

Cervix cancer (ICD-10 *C53*)

There were 253 new cases of invasive carcinoma of cervix cancer, accounting for 17.1% of all new cases for females (Table 1). The age-standardized incidence rate was 25.2, which decreased from 28.2 in the year 2003. In the same period, there were 262 cases of carcinoma in situ of cervix cancer, which were not included in this analysis. In the same period, there were 96 cases of cervix cancer deaths, accounting for 5.2% of all cancer deaths or 10.8% of females.

Cervix cancer was the most common cancer of females in Chiang Mai in the year 2004. The age of diagnosis ranged from 25 to 85 years with the average age at 50.2 years and the median age at 48 years. A high incidence rate was found in the age group 65-69 (Fig.20). Ninety-seven percent of cases were histologically verified, and the most common cell type was squamous cell carcinoma, accounting for 79.4% of all cases. One hundred and twenty cases (47.4%) were in early-localized stage, and only 10 cases (4.0%) had distant metastasis at the time of diagnosis.

Incidence

	females
New cases	253
Sex ratio	
Median age at diagnosis	48
Age standardized incidence rate	25.2
Cumulative risk (0-74)	2.56
Estimated life time risk	1 in 39

Mortality

	females
Death cases	96
Sex ratio	
Median age at death	58.5
Age standardized mortality rate	10.3
Cumulative risk (0-74)	1.23

Cell type

Cell type	cases	%
Squamous cell	201	79.4
Adenocarcinoma	42	16.6
Other carcinoma	3	1.2
Clinical diagnosis	7	2.8
All	253	

Stage

Stage	cases	%
Localized	120	47.4
Local extension	116	45.8
Regional nodes met.	2	0.8
Distant metastasis	10	4.0
Unknown/not stage	5	2.0
All	253	

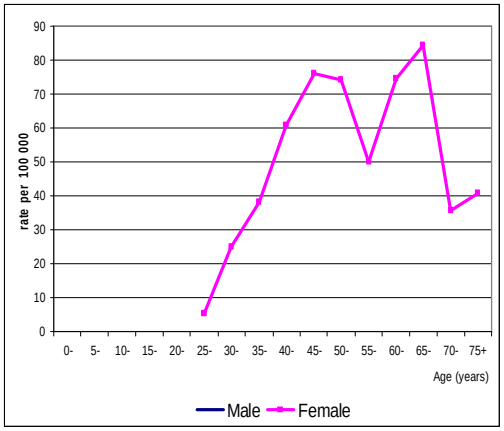

Fig. 20: Age specific incidence rates (*C53*)

Fig. 21: Age specific mortality rates (*C53*)

Female breast cancer (ICD-10 C50)

There were 246 newly diagnosed cases of female breast cancer, accounting for 16.6% of all new cases of females (Table 1). The age-standardized incidence rate was 24.5 and ranked second for new cancers in females. The incidence rate increased from 22.4 in 2003 to 24.5 in 2004. In the same period, there were 74 cases of breast cancer deaths or 8.3% of all cancer deaths in females.

Female breast cancer was one of the common cancers in females of middle age (age group 30 to 59) (Table 6). The incidence rate increased abruptly after age 35 to a maximum in the age group 55-59 years (Fig.22). Ninety-seven percent of cases were diagnosed by histology, and the most common cell type was invasive ductal carcinoma, accounting for 84.6%. Twenty percent were diagnosed in early-localized stage, 19.9% had regional lymph node metastasis, and 6.1% had distant metastasis. The most common metastasis site was bone (33.3%), lung (33.3%), lymph nodes (20.0%) and liver (13.3%). For the mortality cases, twelve percent died in the year of diagnosis and 56.8% died within 3 years of diagnosis.

Incidence

	females
New cases	246
Sex ratio	
Median age at diagnosis	50.0
Age standardized incidence rate	24.5
Cumulative risk (0-74)	2.51
Estimated life time risk	1 in 40

Mortality

	females
Death cases	74
Sex ratio	
Median age at death	53
Age standardized mortality rate	7.5
Cumulative risk (0-74)	0.83

Cell type

Cell type	females	%
Invasive ductal carcinoma	208	84.6
Mucinous adenocarcinoma	6	2.4
Lobular carcinoma	3	1.2
Medullary carcinoma	3	1.2
Ductal and lobular	2	0.8
Phyllodes	3	1.3
Others	13	5.3
Clinical diagnosis	8	3.3
All	246	

Stage

Stage	cases	%
Localized	49	19.9
Local extension	127	51.6
Regional nodes met.	49	19.9
Distant metastasis	15	6.1
Unknown/not stage	6	2.4
All	246	

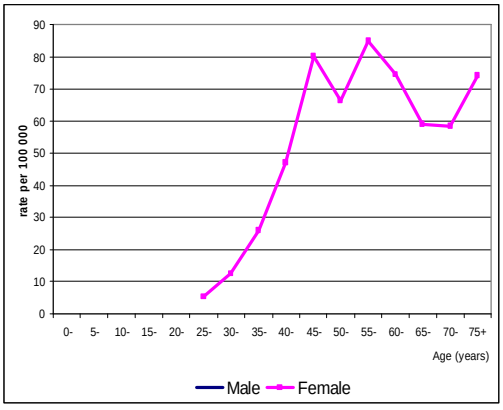

Fig. 22: Age specific incidence rates (*C50*)

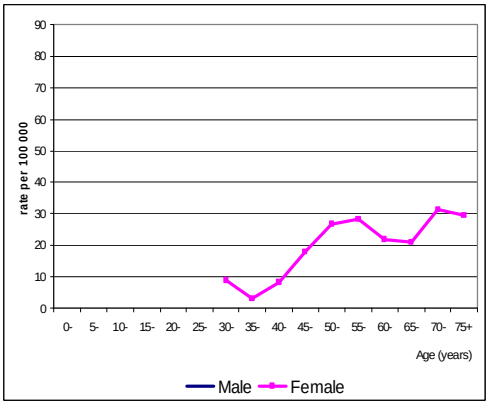

Fig. 23: Age specific mortality rates (*C50*)

Nasopharynx Cancer (ICD-10 *C11*)

There were 51 new cases of nasopharyngeal cancer (1.9% of new cancer cases), ranking the 9th for males and the 15th for females (Table 1). The age standardized incidence rate was 4.3 for males and 1.9 for females. For males, the incidence increased from 2.8 in the year 2003 and also increased from 1.1 in the year 2003 for females. There were 26 cases of nasopharyngeal cancer deaths in the same period (1.4% of all cancer deaths).

Nasopharynx cancer was the most common pharyngeal cancer. It was more common in males than females in age groups 45-69 years. The incidence increased after age 40 to a maximum in the age group 65-69 years for males, and gradually to the age group 70-74 years for females (Fig.24). Ninety-four percent of cases were histologically verified. The most common cell type was undifferentiated carcinoma (58.8%), followed by squamous cell carcinoma (35.3%). Fifty three percent had regional node metastasis, and 19.6 percent had distant metastasis. The metastatic sites were distant lymph nodes in 4 cases, bone in 3 cases, and lung in 1 case.

Incidence

	males	females
New cases	34	17
Sex ratio	2	1
Median age at diagnosis	57	53
Age standardized incidence rate	4.3	1.9
Cumulative risk (0-74)	0.48	0.19
Estimated life time risk	1 in 208	1 in 526

Mortality

	males	females
Death cases	19	7
Sex ratio	2.7	1
Median age at death	63.0	63.0
Age standardized mortality rate	2.3	0.9
Cumulative risk (0-74)	0.31	0.10

Cell type

	males	females	both	%
Squamous cell CA.	16	2	18	35.3
Undiff. carcinoma	18	12	30	58.8
Clinical diagnosis	0	3	3	5.9
All	34	17	51	

Stage

	cases	%
Localized	0	0.0
Local extension	12	23.5
Regional nodes met.	27	52.9
Distant metastasis	10	19.6
Unknown/not stage	2	4.0
All	51	

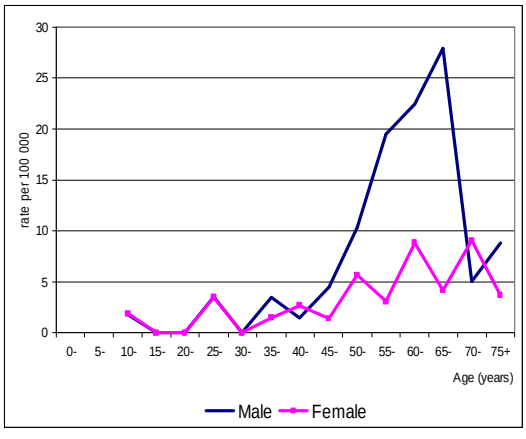

Fig. 24: Age specific incidence rates (*C11*)

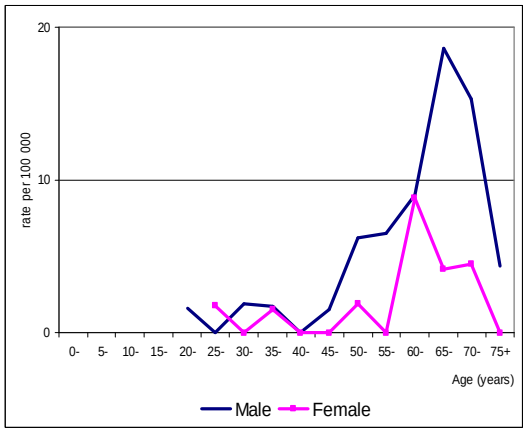

Fig. 25: Age specific mortality rates (*C11*)

Rectum Cancer (ICD-10 *C19-21*)

There were 86 new cases of rectum cancer (3.1% of new cancer cases), ranking 6th for males and 8th for females (Fig. 6). The age-standardized incidence rate was 4.9 for males and 4.4 for females. For males, the incidence increased from 4.8 in the year 2003 and for females the incidence also increased from 3.3 in the year 2003. There were 38 cases of rectum cancer deaths in the same period (2.1% of all cancer deaths).

The incidence of rectum cancer increased after the age of 40 in both males and females (Fig.26). Sixty-five percent were diagnosed in localized and local extension stage, 5.8% with regional lymph node metastasis, and 22.1% with distant metastasis. The most common site of metastasis was liver (36.8%), followed by omentum/peritoneum (21.1%), and lung (10.5%). Adenocarcinoma was the most common cell type accounting for 84.9%. Twenty-six percent of mortality cases died in the year of diagnosis and 71.1% died within three years after diagnosis.

Incidence

	males	females
New cases	44	42
Sex ratio	1	1
Median age at diagnosis	65.5	57.5
Age standardized incidence rate	4.9	4.4
Cumulative risk (0-74)	0.57	0.55
Estimated life time risk	1 in 175	1 in 182

Mortality

	males	females
Death cases	21	17
Sex ratio	1.2	1
Median age at death	67.0	68.0
Age standardized mortality rate	2.3	1.7
Cumulative risk (0-74)	0.25	0.22

Cell type

Cell type	males	females	both	%
Adenocarcinoma	37	36	73	84.9
Others	2	2	4	4.7
Clinical diagnosis	5	4	9	10.5
All	44	42	86	

Stage

Stage	cases	%
Localized	13	15.1
Local extension	43	50.0
Regional nodes met.	5	5.8
Distant metastasis	19	22.1
Unknown/not stage	6	7.0
All	86	

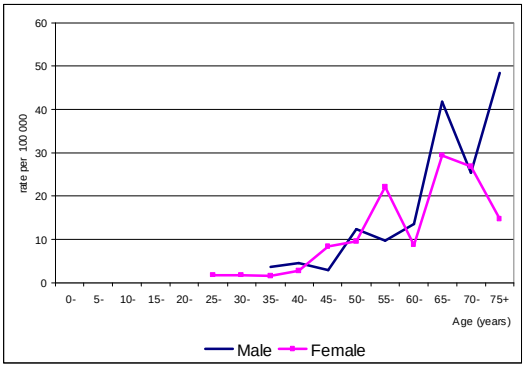

Fig. 26: Age specific incidence rates (*C19-21*)

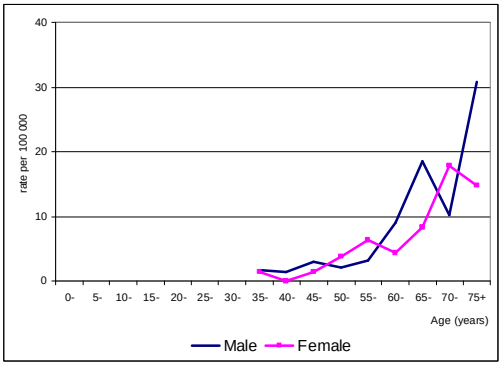

Fig. 27: Age specific mortality rates (*C19-21*)

COMPLETENESS AND QUALITY OF DATA

Completeness is the proportion of all incident cancer cases in the registry population, that have been included in the registry database. Completeness should as close to 100% as possible. It was 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 was monitored routinely as part of quality control procedures of the registry. The following indices of completeness were used at the Chiang Mai cancer registry and are showed 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 were those with pathological verification of diagnosis. This was generally taken to indicate the validity of the data. Histology verified 64.0% cases for males, and 76.2% cases for females. The low HV% (less than 50%) were found in liver, pancreas and nervous system cancers.

Mortality/Incidence (M/I) ratio

The M/I ratio is an index of survival of the 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 relation will be less close. The distributions of M/I ratio among 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 indirectly indicates how many cancer cases were missed in registration because of no information during their lifetime. In 2004, three hundred and nine cases (11.3%) were diagnosed by death certificate only. The age of DCO cases ranged from 1 to 95 years and the median age at death was 64.2 years. The common cancer sites were unknown site, liver and lung cancer.

Table 8: Indices of quality control of cancer data in Chiang Mai, 2004, males

CANCER / SITE	Cases	%DCO	%HV	%MV	M/I ratio	ICD (10th)
Lip	4	-	100.0	100.0	25.0	C00
Tongue	11	-	100.0	100.0	100.0	C01-C02
Salivary gland	3	-	100.0	100.0	0.0	C07-C08
Mouth	12	-	83.3	83.3	75.0	C03-C06
Oropharynx	6	-	83.3	83.3	116.7	C09-C10
Nasopharynx	34	-	100.0	100.0	55.9	C11
Hypopharynx	15	-	100.0	100.0	66.7	C12-C13
Pharynx unspec.	1	-	100.0	100.0	0.0	C14
Oesophagus	18	-	88.9	88.9	72.2	C15
Stomach	40	7.5	85.0	85.0	97.5	C16
Small intestine	4	-	75.0	75.0	25.0	C17
Colon	47	8.5	83.0	83.0	53.2	C18
Rectum	44	-	86.4	86.4	47.7	C19-C21
Liver	249	20.5	20.9	20.5	90.4	C22
Gallbladder etc.	11	36.4	54.5	54.5	81.8	C23-C24
Pancreas	17	23.5	29.4	29.4	76.5	C25
Nose, sinuses etc.	6	-	100.0	100.0	50.0	C30-C31
Larynx	17	-	94.1	94.1	58.8	C32
Bronchus, lung	292	12.7	62.0	54.1	91.4	C33-C34
Other Thoracic organs	5	-	80.0	40.0	20.0	C37-C38
Bone	8	37.5	50.0	50.0	75.0	C40-C41
Connective tissue	7	-	85.7	85.7	57.1	C47;C49
Mesothelioma	0	-	-	-	-	C45
Kaposi's sarcoma	0	-	-	-	-	C46
Melanoma of skin	5	-	100.0	100.0	60.0	C43
Other skin	22	4.5	90.9	90.9	40.9	C44
Breast	1	-	100.0	100.0	100.0	C50
Prostate	54	3.7	92.6	92.6	38.9	C61
Testis	6	-	100.0	100.0	50.0	C62
Penis	14	-	100.0	100.0	64.3	C60
Other male genital	0	-	-	-	-	C63
Bladder	41	2.4	97.6	97.6	58.5	C67
Kidney etc.	27	3.7	77.8	77.8	59.3	C64-C66;C68
Eye	3	-	66.7	66.7	33.3	C69
Brain, nervous system	13	-	76.9	76.9	69.2	C70-C72
Thyroid	14	7.1	92.9	78.6	42.9	C73
Other endocrine	1	100.0	0.0	0.0	100.0	C74-C75
Hodgkin's disease	8	-	100.0	100.0	12.5	C81
Non-Hodgkin's lymphoma	53	-	100.0	96.2	60.4	C82-C85;C96
Multiple myeloma	5	-	100.0	80.0	100.0	C88;C90
Lymphoid leukaemia	4	-	100.0	75.0	75.0	C91
Myeloid leukaemia	17	-	100.0	70.6	76.5	C92
Monocytic leukaemia	1	-	100.0	0.0	0.0	C93
Other leukaemia	0	-	-	-	-	C94
Leukaemia unspec.	4	75.0	25.0	25.0	125.0	C95
Other & unspecified	111	46.8	35.1	35.1	85.6	
All sites	1255	13.4	64.0	61.0	75.8	

%DCO *Percentage of cases with diagnosis based on death certificate only*
%HV *Percentage of cases with histological verification of diagnosis (cytology and morphology)*
%MV *Percentage of cases with morphology 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, 2004, females

CANCER / SITE	Cases	%DCO	%HV	%MV	M/I ratio	ICD (10th)
Lip	9	-	100.0	100.0	11.1	C00
Tongue	4	-	100.0	100.0	125.0	C01-C02
Salivary gland	4	-	100.0	100.0	25.0	C07-C08
Mouth	5	-	100.0	100.0	160.0	C03-C06
Oropharynx	2	-	100.0	100.0	100.0	C09-C10
Nasopharynx	17	-	82.4	82.4	41.2	C11
Hypopharynx	2	-	100.0	100.0	250.0	C12-C13
Pharynx unspec.	0	-	-	-	-	C14
Oesophagus	1	-	100.0	100.0	100.0	C15
Stomach	42	7.1	78.6	78.6	81.0	C16
Small intestine	5	-	100.0	100.0	40.0	C17
Colon	54	5.6	87.0	87.0	57.4	C18
Rectum	42	-	90.5	90.5	40.5	C19-C21
Liver	99	20.2	21.2	21.2	101.0	C22
Gallbladder etc.	17	23.5	47.1	47.1	105.9	C23-C24
Pancreas	10	-	20.0	20.0	70.0	C25
Nose, sinuses etc.	6	-	66.7	66.7	83.3	C30-C31
Larynx	4	-	25.0	25.0	50.0	C32
Bronchus, lung	219	15.1	51.1	46.1	95.9	C33-C34
Other Thoracic organs	2	-	0.0	0.0	0.0	C37-C38
Bone	7	14.3	57.1	57.1	42.9	C40-C41
Connective tissue	8	-	100.0	75.0	75.0	C47;C49
Mesothelioma	0	-	-	-	-	C45
Kaposi's sarcoma	0	-	-	-	-	C46
Melanoma of skin	4	-	100.0	100.0	50.0	C43
Other skin	28	7.1	92.9	92.9	25.0	C44
Breast	246	0.8	96.7	91.1	30.1	C50
Uterus unspec.	0	-	-	-	-	C55
Cervix uteri	253	0.8	97.2	96.8	37.9	C53
Placenta	3	-	33.3	33.3	33.3	C58
Corpus uteri	40	2.5	92.5	92.5	32.5	C54
Ovary etc.	44	-	95.5	90.9	29.5	C56
Other female genital	12	-	91.7	91.7	33.3	C51-C52;C57
Bladder	35	-	97.1	97.1	48.6	C67
Kidney etc.	7	14.3	57.1	57.1	100.0	C64-C66;C68
Eye	4	-	100.0	100.0	25.0	C69
Brain, nervous system	15	26.7	40.0	40.0	80.0	C70-C72
Thyroid	33	-	100.0	93.9	30.3	C73
Other endocrine	1	-	100.0	100.0	0.0	C74-C75
Hodgkin's disease	1	-	100.0	100.0	200.0	C81
Non-Hodgkin's lymphoma	37	-	100.0	100.0	70.3	C82-C85;C96
Multiple myeloma	6	-	100.0	66.7	33.3	C88;C90
Lymphoid leukaemia	6	-	100.0	50.0	50.0	C91
Myeloid leukaemia	19	-	100.0	52.6	52.6	C92
Monocytic leukaemia	1	-	100.0	0.0	300.0	C93
Other leukaemia	0	-	-	-	-	C94
Leukaemia unspec.	2	-	100.0	0.0	150.0	C95
Other & unspecified	124	52.4	36.3	33.9	95.2	
All sites	1480	9.5	76.2	72.7	60.1	

Table 10: NUMBER OF NEW CANCER CASES IN CHIANG MAI 2004, 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	0	1	0	0	0	0	0	1	0	2	0.3	*C00*
Tongue	11	0	0	0	0	1	0	0	0	0	1	1	4	3	1	0	0	0	0.9	*C01-C02*
Salivary gland	3	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0.2	*C07-C08*
Mouth	12	0	0	0	0	0	0	0	0	0	0	1	1	3	2	0	0	5	1.0	*C03-C06*
Oropharynx	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	1	0.5	*C09-C10*
Nasopharynx	34	0	0	0	1	0	0	2	0	2	1	3	5	6	5	6	1	2	2.7	*C11*
Hypopharynx	15	0	0	0	0	0	0	0	0	0	0	4	0	2	3	2	2	2	1.2	*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*
Esophagus	18	0	0	0	0	0	0	0	0	0	0	0	4	2	2	2	4	4	1.4	*C15*
Stomach	40	0	0	0	0	0	0	0	0	2	0	7	7	3	2	7	7	5	3.2	*C16*
Small intestine	4	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0.3	*C17*
Colon	47	0	0	0	0	0	0	1	1	5	4	4	4	8	4	5	3	8	3.7	*C18*
Rectum	44	0	0	0	0	0	0	0	0	2	3	2	6	3	3	9	5	11	3.5	*C19-C21*
Liver	249	0	0	3	0	1	1	2	7	17	23	29	42	21	21	27	30	25	19.8	*C22*
Gallbladder etc.	11	0	0	0	0	0	0	0	0	0	0	1	1	2	0	2	4	1	0.9	*C23-C24*
Pancreas	17	0	0	0	0	0	0	0	0	0	0	0	2	0	3	6	3	3	1.4	*C25*
Nose, sinuses etc	6	0	0	0	0	0	0	0	1	1	0	0	1	0	0	1	1	1	0.5	*C30-C31*
Larynx	17	0	0	0	0	0	0	0	0	0	1	2	3	1	1	3	2	4	1.4	*C32*
Bronchus, lung	292	0	1	1	0	0	1	1	3	1	9	16	27	25	34	57	65	51	23.3	*C33-C34*
Other Thoracic organs	5	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	0.4	*C37-C38*
Bone	8	0	0	0	0	2	1	0	0	0	0	1	2	0	0	1	1	0	0.6	*C40-C41*
Connective tissue	7	0	0	1	0	0	0	0	0	0	1	1	1	1	0	0	1	1	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	5	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	2	0.4	*C43*
Other skin	22	0	0	0	0	0	0	1	1	0	1	1	2	0	3	3	0	10	1.8	*C44*
Breast	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	*C50*
Prostate	54	0	0	0	0	0	0	0	0	0	0	0	1	5	5	5	14	24	4.3	*C61*
Testis	6	0	0	0	0	1	1	0	0	1	0	0	0	1	0	1	0	1	0.5	*C62*
Penis	14	0	0	0	0	0	0	0	1	0	0	1	0	2	0	3	4	3	1.1	*C60*
Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C63*
Bladder	41	0	0	0	0	0	0	0	0	0	2	1	4	1	6	4	7	16	3.3	*C67*
Kidney etc.	27	0	1	1	0	0	0	0	0	2	2	3	2	3	1	3	5	4	2.2	*C64-C66;C68*
Eye	3	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0.2	*C69*
Brain, nervous system	13	0	2	0	1	2	0	2	0	0	0	0	0	1	2	1	1	1	1.0	*C70-C72*
Thyroid	14	0	0	0	0	0	2	0	0	0	3	0	2	0	0	1	1	5	1.1	*C73*
Other endocrine	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	*C74-C75*
Hodgkin's disease	8	0	0	0	1	0	0	1	0	0	0	0	2	0	0	2	0	2	0.6	*C81*
Non-Hodgkin's lymphoma	53	0	2	0	0	0	2	1	3	5	2	2	2	1	7	6	11	9	4.2	*C82-C85;C96*
Multiple myeloma	5	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	1	0.4	*C88;C90*
Lymphoid leukaemia	4	0	2	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0.3	*C91*
Myeloid leukaemia	17	0	0	0	1	0	1	1	1	1	4	1	1	1	2	2	0	1	1.4	*C92*
Monocytic leukaemia	1	0	0	0	0	0	0	0	0	1	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.	4	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0.3	*C95*
Other & unspecified	111	0	1	0	0	1	1	1	2	6	5	8	10	10	10	18	13	25	8.8	
All sites	**1255**	**0**	**11**	**6**	**4**	**8**	**10**	**13**	**21**	**48**	**62**	**93**	**142**	**110**	**121**	**179**	**191**	**236**	**100.0**	

Table 11: NUMBER OF NEW CANCER CASES IN CHIANG MAI 2004, 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	9	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	1	2	0.6	*C00*
Tongue	4	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1	0.3	*C01-C02*
Salivary gland	4	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0.3	*C07-C08*
Mouth	5	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0.3	*C03-C06*
Oropharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0.1	*C09-C10*
Nasopharynx	17	0	0	0	1	0	0	2	0	1	2	1	3	1	2	1	2	1	1.1	*C11*
Hypopharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0.1	*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*
Esophagus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C15*
Stomach	42	0	0	0	0	0	0	0	1	4	1	2	9	5	3	7	7	3	2.8	*C16*
Small intestine	5	0	0	0	0	0	0	0	0	0	1	2	0	0	1	0	1	0	0.3	*C17*
Colon	54	0	0	0	0	0	1	2	0	1	1	6	6	8	7	6	6	10	3.6	*C18*
Rectum	42	0	0	0	0	0	0	1	1	1	2	6	5	7	2	7	6	4	2.8	*C19-C21*
Liver	99	0	0	0	0	0	0	1	1	1	9	3	13	12	13	16	13	17	6.7	*C22*
Gallbladder etc.	17	0	0	0	0	0	0	0	0	0	0	1	5	2	0	1	3	5	1.1	*C23-C24*
Pancreas	10	0	0	0	0	0	0	0	0	1	1	1	1	1	2	1	0	2	0.7	*C25*
Nose, sinuses etc	6	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	1	1	0.4	*C30-C31*
Larynx	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0.3	*C32*
Bronchus, lung	219	0	0	0	0	0	1	1	4	2	5	11	21	24	32	32	42	44	14.8	*C33-C34*
Other Thoracic organs	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1	*C37-C38*
Bone	7	0	0	0	0	2	0	0	0	0	0	3	1	0	1	0	0	0	0.5	*C40-C41*
Connective tissue	8	0	0	0	0	0	1	0	1	0	0	3	1	0	2	0	0	0	0.5	*C47;C49*
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C45*
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C46*
Melanoma of skin	4	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0.3	*C43*
Other skin	28	0	0	0	0	0	0	0	0	1	2	2	0	1	0	2	5	15	1.9	*C44*
Breast	246	0	0	0	0	0	0	3	7	17	35	58	35	27	17	14	13	20	16.6	*C50*
Uterus unspec.	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	*C55*
Cervix uteri	253	0	0	0	0	0	0	3	14	25	45	55	39	16	17	20	8	11	17.1	*C53*
Placenta	3	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0.2	*C58*
Corpus uteri	40	0	0	0	0	0	0	0	0	1	5	2	6	5	4	6	7	4	2.7	*C54*
Ovary etc.	44	0	0	0	0	2	4	0	3	5	2	11	7	2	4	1	2	1	3.0	*C56*
Other female genital	12	0	0	0	0	0	1	0	1	0	2	1	0	1	1	1	1	3	0.8	*C51-C52;C57*
Bladder	35	0	0	0	0	0	0	0	0	0	1	1	2	6	4	5	7	9	2.4	*C67*
Kidney etc.	7	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	5	0	0.5	*C64-C66;C68*
Eye	4	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0.3	*C69*
Brain, nervous system	15	0	1	1	0	1	2	2	0	2	1	0	0	1	1	0	1	2	1.0	*C70-C72*
Thyroid	33	0	0	0	1	1	0	5	2	3	6	5	5	0	1	1	3	0	2.2	*C73*
Other endocrine	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.1	*C74-C75*
Hodgkin's disease	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.1	*C81*
Non-Hodgkin's lymphoma	37	0	0	0	1	1	1	3	2	6	1	5	5	2	2	1	4	3	2.5	*C82-C85;C96*
Multiple myeloma	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2	0.4	*C88;C90*
Lymphoid leukaemia	6	0	2	1	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0.4	*C91*
Myeloid leukaemia	19	0	3	0	1	0	0	1	2	1	3	1	1	0	0	0	4	2	1.3	*C92*
Monocytic leukaemia	1	0	0	0	0	0	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.	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0.1	*C95*
Other & unspecified	123	0	0	0	0	0	0	3	5	3	5	7	14	21	8	16	20	21	8.3	
All sites	**1480**	**0**	**8**	**2**	**4**	**8**	**11**	**28**	**47**	**77**	**135**	**191**	**188**	**147**	**129**	**145**	**170**	**190**	**100.0**	

Table 12: CANCER INCIDENCE, CHIANG MAI 2004

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	4	0	-	-	-	-	-	-	-	1.7	-	-	-	-	-	4.6	-	8.8	0.5	0.32	0.01	0.03	0.4	*C00*
Tongue	11	0	-	-	-	1.8	-	-	-	-	1.5	1.5	8.2	9.7	4.5	-	-	-	1.5	0.88	0.14	0.14	**1.3**	*C01-C02*
Salivary gland	3	0	-	-	-	-	-	-	-	-	-	1.5	-	-	4.5	-	-	4.4	0.4	0.24	0.03	0.03	**0.4**	*C07-C08*
Mouth	12	0	-	-	-	-	-	-	-	-	-	1.5	2.1	9.7	9	-	-	22	1.6	0.96	0.11	0.11	**1.4**	*C03-C06*
Oropharynx	6	0	-	-	-	-	-	-	-	-	-	1.5	-	-	-	4.6	15.3	4.4	0.8	0.48	0.01	0.11	**0.6**	*C09-C10*
Nasopharynx	34	0	-	-	1.8	-	-	3.6	-	3.5	1.5	4.5	10.3	19.5	22.5	27.9	5.1	8.8	4.7	2.71	0.34	0.48	**4.3**	*C11*
Hypopharynx	15	0	-	-	-	-	-	-	-	-	-	6	-	6.5	13.5	9.3	10.2	8.8	2.1	1.20	0.13	0.23	**1.8**	*C12-C13*
Pharynx unspec.	1	0	-	-	-	-	-	-	-	-	-	-	2.1	-	-	-	-	-	0.1	0.08	0.01	0.01	**0.1**	*C14*
Oesophagus	18	0	-	-	-	-	-	-	-	-	-	-	8.2	6.5	9	9.3	2-.4	17.6	2.5	1.43	0.12	0.27	**2.1**	*C15*
Stomach	40	0	-	-	-	-	-	-	-	3.5	-	10.5	14.4	9.7	9	32.5	35.7	22	5.5	3.19	0.24	0.57	**4.4**	*C16*
Small intestine	4	0	2.4	-	-	-	-	-	-	-	-	-	2.1	-	-	-	-	8.8	0.5	0.32	0.02	0.02	**0.6**	*C17*
Colon	47	0	-	-	-	-	-	1.8	1.9	8.7	6	6	8.2	26	18	23.2	15.3	35.2	6.4	3.75	0.38	0.56	**5.4**	*C18*
Rectum	44	0	-	-	-	-	-	-	-	3.5	4.5	3	12.4	9.7	13.5	41.8	25.5	48.4	6.0	3.51	0.23	0.57	**4.9**	*C19-C21*
Liver	249	0	-	6.1	-	1.8	1.6	3.6	13.3	29.4	34.3	43.6	86.5	68.2	94.7	125.4	153.1	109.9	34.1	19.84	1.89	3.24	**28.3**	*C22*
Gallbladder etc.	11	0	-	-	-	-	-	-	-	-	-	1.5	2.1	6.5	-	9.3	20.4	4.4	1.5	0.88	0.05	0.20	**1.2**	*C23-C24*
Pancreas	17	0	-	-	-	-	-	-	-	-	-	-	4.1	-	13.5	27.9	15.3	13.2	2.3	1.35	0.09	0.30	**2.2**	*C25*
Nose, sinuses etc	6	0	-	-	-	-	-	-	1.9	1.7	-	-	2.1	-	-	4.6	5.1	4.4	0.8	0.48	0.03	0.08	**0.6**	*C30-C31*
Larynx	17	0	-	-	-	-	-	-	-	-	1.5	3	6.2	3.2	4.5	13.9	10.2	17.6	2.3	1.35	0.09	0.21	**1.9**	*C32*
Bronchus, lung	292	0	2.4	2	-	-	1.6	1.8	5.7	1.7	13.4	24	55.6	81.2	153.3	264.8	331.7	224.3	40.0	23.27	1.69	4.58	**34.7**	*C33-C34*
Other Thoracic organs	5	0	-	-	-	-	-	-	1.9	-	-	-	2.1	3.2	-	-	5.1	4.4	0.7	0.40	0.04	0.06	**0.5**	*C37-C38*
Bone	8	0	-	-	-	3.6	1.6	-	-	-	-	1.5	4.1	-	-	4.6	5.1	-	1.1	0.64	0.05	0.10	**1.0**	*C40-C41*
Connective tissue	7	0	-	2	-	-	-	-	-	-	1.5	1.5	2.1	3.2	-	-	5.1	4.4	1.0	0.56	0.05	0.08	**0.8**	*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	5	0	-	-	-	-	-	-	-	-	-	-	2.1	3.2	-	-	5.1	8.8	0.7	0.40	0.03	0.05	**0.5**	*C43*
Other skin	22	0	-	-	-	-	-	1.8	1.9	-	1.5	1.5	4.1	-	13.5	13.9	-	44	3.0	1.75	0.12	0.18	**2.5**	*C44*
Breast	1	0	-	-	-	-	-	-	-	-	-	-	-	-	4.5	-	-	-	0.1	0.08	0.02	0.02	**0.2**	*C50*
Prostate	54	0	-	-	-	-	-	-	-	-	-	-	2.1	16.2	22.5	23.2	71.4	105.5	7.4	4.30	0.20	0.67	**5.9**	*C61*
Testis	6	0	-	-	-	1.8	1.6	-	-	1.7	-	-	-	3.2	-	4.6	-	4.4	0.8	0.48	0.03	0.06	**0.8**	*C62*
Penis	14	0	-	-	-	-	-	-	1.9	-	-	1.5	-	6.5	-	13.9	20.4	13.2	1.9	1.12	0.05	0.22	**1.6**	*C60*
Other male genital	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C63*
Bladder	41	0	-	-	-	-	-	-	-	-	3	1.5	8.2	3.2	27	18.6	35.7	70.4	5.6	3.27	0.21	0.48	**4.6**	*C67*
Kidney etc.	27	0	2.4	2	-	-	-	-	-	3.5	3	4.5	4.1	9.7	4.5	13.9	25.5	17.6	3.7	2.15	0.17	0.36	**3.2**	*C64-C66;C68*
Eye	3	0	-	-	-	-	-	-	-	-	-	1.5	2.1	3.2	-	-	-	-	0.4	0.24	0.03	0.03	**0.3**	*C69*
Brain, nervous system	13	0	4.8	-	1.8	3.6	-	3.6	-	-	-	-	-	3.2	9	4.6	5.1	4.4	1.8	1.04	0.13	0.16	**2.2**	*C70-C72*
Thyroid	14	0	-	-	-	-	3.2	-	-	-	4.5	-	4.1	-	-	4.6	5.1	22	1.9	1.12	0.04	0.11	**1.4**	*C73*
Other endocrine	1	0	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.08	0.01	0.01	**0.3**	*C74-C75*
Hodgkin's disease	8	0	-	-	1.8	-	-	1.8	-	-	-	-	4.1	-	-	9.3	-	8.8	1.1	0.64	0.04	0.08	**1.0**	*C81*
Non-Hodgkin's lymphom	53	0	4.8	-	-	-	3.2	1.8	5.7	8.7	3	3	4.1	3.2	31.6	27.9	56.1	39.6	7.3	4.22	0.33	0.75	**6.5**	*C82-C85;C96*
Multiple myeloma	5	0	-	-	-	-	-	-	-	-	-	-	2.1	-	9	-	5.1	4.4	0.7	0.40	0.06	0.08	**0.7**	*C88;C90*
Lymphoid leukaemia	4	0	4.8	-	-	-	-	-	-	-	-	1.5	-	3.2	-	-	-	-	0.5	0.32	0.05	0.05	**0.8**	*C91*
Myeloid leukaemia	17	0	-	-	1.8	-	1.6	1.8	1.9	1.7	6	1.5	2.1	3.2	9	9.3	-	4.4	2.3	1.35	0.14	0.19	**2.1**	*C92*
Monocytic leukaemia	1	0	-	-	-	-	-	-	-	1.7	-	-	-	-	-	-	-	-	0.1	0.08	0.01	0.01	**0.1**	*C93*
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C94*
Leukaemia unspec.	4	0	-	-	-	-	-	-	-	1.7	-	-	-	3.2	-	-	-	8.8	0.5	0.32	0.02	0.02	**0.4**	*C95*
Other & unspecified	111	0	2.4	-	-	1.8	1.6	1.8	3.8	10.4	7.4	12	2-.6	32.5	45.1	83.6	66.3	109.9	15.2	8.84	0.69	1.43	**12.9**	
All sites	**1255**	**0**	**26.4**	**12.1**	**7.2**	**14.4**	**16.0**	**23.4**	**39.9**	**83.1**	**92.6**	**139.6**	**272.1**	**356.5**	**545.2**	**831.1**	**954.0**	**1038.0**	**171.7**	**100.0**	**7.84**	**15.77**	**146.7**	

Table 13: CANCER INCIDENCE, CHIANG MAI 2004

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	9	0	-	-	-	-	-	-	-	-	-	-	3.8	3.1	-	12.7	4.5	7.4	1.2	0.61	0.03	0.12	**0.9**	*C00*
Tongue	4	0	-	-	-	-	-	-	-	-	-	2.8	-	-	4.4	-	-	3.7	0.5	0.27	0.04	0.04	**0.4**	*C01-C02*
Salivary gland	4	0	-	-	-	-	-	-	-	1.5	1.3	-	1.9	-	-	-	-	3.7	0.5	0.27	0.02	0.02	**0.3**	*C07-C08*
Mouth	5	0	-	-	-	-	-	-	-	-	-	-	1.9	3.1	-	4.2	4.5	3.7	0.7	0.34	0.02	0.07	**0.5**	*C03-C06*
Oropharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	3.1	-	4.2	-	-	0.3	0.14	0.02	0.04	**0.3**	*C09-C10*
Nasopharynx	17	0	-	-	1.9	-	-	3.5	-	1.5	2.7	1.4	5.7	3.1	8.8	4.2	9	3.7	2.2	1.15	0.14	0.19	**1.9**	*C11*
Hypopharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	4.5	-	0.3	0.14	0.02	0.04	**0.3**	*C12-C13*
Pharynx unspec.	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C14*
Esophagus	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	0.1	0.07	0.00	0.00	**0.1**	*C15*
Stomach	42	0	-	-	-	-	-	-	1.8	6.1	1.3	2.8	17.1	15.7	13.1	29.5	31.4	11.1	5.5	2.84	0.29	0.59	**4.5**	*C16*
Small intestine	5	0	-	-	-	-	-	-	-	-	1.3	2.8	-	-	4.4	-	4.5	-	0.7	0.34	0.04	0.06	**0.5**	*C17*
Colon	54	0	-	-	-	-	1.6	3.5	-	1.5	1.3	8.3	11.4	25.1	30.7	25.3	26.9	37	7.1	3.65	0.41	0.66	**5.9**	*C18*
Rectum	42	0	-	-	-	-	-	1.8	1.8	1.5	2.7	8.3	9.5	22	8.8	29.5	26.9	14.8	5.5	2.84	0.28	0.55	**4.4**	*C19-C21*
Liver	99	0	-	-	-	-	-	1.8	1.8	1.5	12.1	4.2	24.8	37.7	57	67.5	58.3	63	13.0	6.69	0.70	1.32	**10.8**	*C22*
Gallbladder etc.	17	0	-	-	-	-	-	-	-	-	-	1.4	9.5	6.3	-	4.2	13.4	18.5	2.2	1.15	0.09	0.17	**1.6**	*C23-C24*
Pancreas	10	0	-	-	-	-	-	-	-	1.5	1.3	1.4	1.9	3.1	8.8	4.2	-	7.4	1.3	0.68	0.09	0.11	**1.1**	*C25*
Nose, sinuses etc	6	0	-	-	-	-	-	-	1.8	-	-	1.4	1.9	-	4.4	-	4.5	3.7	0.8	0.41	0.05	0.07	**0.6**	*C30-C31*
Larynx	4	0	-	-	-	-	-	-	-	-	-	-	-	3.1	4.4	-	9	-	0.5	0.27	0.04	0.08	**0.5**	*C32*
Bronchus, lung	219	0	-	-	-	-	1.6	1.8	7.1	3	6.7	15.2	40	75.4	140.2	135	188.2	163	28.7	14.80	1.44	3.02	**23.9**	*C33-C34*
Other Thoracic organs	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-	3.7	0.3	0.14	0.00	0.02	**0.2**	*C37-C38*
Bone	7	0	-	-	-	3.6	-	-	-	-	-	4.2	1.9	-	4.4	-	-	-	0.9	0.47	0.07	0.07	**0.8**	*C40-C41*
Connective tissue	8	0	-	-	-	-	1.6	-	1.8	-	-	4.2	1.9	-	8.8	-	-	-	1.0	0.54	0.08	0.09	**0.9**	*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	4	0	-	-	-	-	-	-	-	-	-	-	3.8	3.1	-	-	-	3.7	0.5	0.27	0.03	0.03	**0.4**	*C43*
Other skin	28	0	-	-	-	-	-	-	-	1.5	2.7	2.8	-	3.1	-	8.4	22.4	55.6	3.7	1.89	0.05	0.20	**2.4**	*C44*
Breast	246	0	-	-	-	-	-	5.3	12.5	25.9	47.2	80.3	66.6	84.8	74.5	59	58.3	74.1	32.3	16.62	1.97	2.51	**24.5**	*C50*
Uterus unspec.	1	0	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	0.1	0.07	0.01	0.01	**0.1**	*C55*
Cervix uteri	253	0	-	-	-	-	-	5.3	25	38.1	60.7	76.1	74.3	50.2	74.5	84.3	35.9	40.7	33.2	17.09	2.00	2.56	**25.2**	*C53*
Placenta	3	0	-	-	-	1.8	-	1.8	-	-	1.3	-	-	-	-	-	-	-	0.4	0.20	0.02	0.02	**0.4**	*C58*
Corpus uteri	40	0	-	-	-	-	-	-	-	1.5	6.7	2.8	11.4	15.7	17.5	25.3	31.4	14.8	5.2	2.70	0.28	0.56	**4.2**	*C54*
Ovary etc.	44	0	-	-	-	3.6	6.4	-	5.4	7.6	2.7	15.2	13.3	6.3	17.5	4.2	9	3.7	5.8	2.97	0.36	0.45	**4.7**	*C56*
Other female genital	12	0	-	-	-	-	1.6	-	1.8	-	2.7	1.4	-	3.1	4.4	4.2	4.5	11.1	1.6	0.81	0.07	0.12	**1.2**	*C51-C52;C57*
Bladder	35	0	-	-	-	-	-	-	-	-	1.3	1.4	3.8	18.8	17.5	21.1	31.4	33.3	4.6	2.36	0.21	0.48	**3.7**	*C67*
Kidney etc.	7	0	2.5	-	-	-	-	-	-	-	1.3	-	-	-	-	-	22.4	-	0.9	0.47	0.02	0.13	**0.8**	*C64-C66;C68*
Eye	4	0	2.5	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	7.4	0.5	0.27	0.02	0.02	**0.6**	*C69*
Brain, nervous system	15	0	2.5	2.1	-	1.8	3.2	3.5	-	3	1.3	-	-	3.1	4.4	-	4.5	7.4	2.0	1.01	0.11	0.13	**2.0**	*C70-C72*
Thyroid	33	0	-	-	1.9	1.8	-	8.9	3.6	4.6	8.1	6.9	9.5	-	4.4	4.2	13.4	-	4.3	2.23	0.25	0.29	**3.5**	*C73*
Other endocrine	1	0	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	0.1	0.07	0.01	0.01	**0.1**	*C74-C75*
Hodgkin's disease	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	-	0.1	0.07	0.00	0.02	**0.1**	*C81*
Non-Hodgkin's lymphoma	37	0	-	-	1.9	1.8	1.6	5.3	3.6	9.1	1.3	6.9	9.5	6.3	8.8	4.2	17.9	11.1	4.9	2.50	0.27	0.36	**3.9**	*C82-C85;C96*
Multiple myeloma	6	0	-	-	-	-	-	-	-	-	-	-	1.9	-	-	4.2	9	7.4	0.8	0.41	0.01	0.08	**0.5**	*C88;C90*
Lymphoid leukaemia	6	0	5.1	2.1	-	-	-	-	1.8	-	-	1.4	1.9	-	-	-	-	-	0.8	0.41	0.06	0.06	**1.1**	*C91*
Myeloid leukaemia	19	0	7.6	-	1.9	-	-	1.8	3.6	1.5	4	1.4	1.9	-	-	-	17.9	7.4	2.5	1.28	0.12	0.20	**2.5**	*C92*
Monocytic leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	-	0.1	0.07	0.00	0.02	**0.1**	*C93*
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C94*
Leukaemia unspec.	2	0	-	-	-	-	-	-	-	-	1.3	-	-	-	4.4	-	-	-	0.3	0.14	0.03	0.03	**0.3**	*C95*
Other & unspecified	123	0	-	-	-	-	-	5.3	8.9	4.6	6.7	9.7	26.7	65.9	35.1	67.5	89.6	77.8	16.1	8.31	0.81	1.56	**13.0**	
All sites	**1480**	**0**	**20.2**	**4.2**	**7.6**	**14.4**	**17.6**	**49.6**	**84.1**	**117.0**	**181.3**	**264.7**	**357.8**	**461.2**	**565.6**	**611.3**	**762.2**	**703.6**	**194.0**	**100.0**	**10.09**	**15.92**	**155.7**	

Table 14: NUMBER OF CANCER DEATHS IN CHIANG MAI 2004, 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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	*C00*
Tongue	11	0	0	0	0	0	0	0	1	0	0	1	1	2	2	1	0	3	1.2	*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	9	0	0	0	0	0	0	0	0	0	0	1	2	0	2	1	0	3	0.9	*C03-C06*
Oropharynx	7	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	1	0.7	*C09-C10*
Nasopharynx	19	0	0	0	0	0	1	0	1	1	0	1	3	2	2	4	3	1	2.0	*C11*
Hypopharynx	10	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	1	4	1.1	*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*
Esophagus	13	0	0	0	0	0	0	0	0	0	0	0	2	1	2	2	1	5	1.4	*C15*
Stomach	39	0	0	0	0	0	0	0	1	2	0	6	6	3	1	7	8	5	4.1	*C16*
Small intestine	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C17*
Colon	25	0	0	0	0	0	0	0	0	1	3	6	1	2	4	3	0	5	2.6	*C18*
Rectum	21	0	0	0	0	0	0	0	0	1	1	2	1	1	2	4	2	7	2.2	*C19-C21*
Liver	225	0	0	3	0	1	0	2	8	13	17	30	38	20	21	24	30	18	23.7	*C22*
Gallbladder etc.	9	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	4	1	0.9	*C23-C24*
Pancreas	13	0	0	0	0	0	0	0	0	0	0	0	1	0	2	6	2	2	1.4	*C25*
Nose, sinuses etc	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0.3	*C30-C31*
Larynx	10	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1	1	4	1.1	*C32*
Bronchus, lung	267	0	0	0	0	0	0	2	0	1	8	14	22	32	31	50	53	54	28.1	*C33-C34*
Other Thoracic organs	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	*C37-C38*
Bone	6	0	0	0	1	1	0	0	0	0	0	0	1	0	1	1	1	0	0.6	*C40-C41*
Connective tissue	4	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	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	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0.3	*C43*
Other skin	9	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	5	0.9	*C44*
Breast	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.1	*C50*
Prostate	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	19	2.2	*C61*
Testis	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0.3	*C62*
Penis	9	0	0	0	0	0	0	0	0	0	1	3	0	1	1	0	2	1	0.9	*C60*
Other male genital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C63*
Bladder	24	0	0	0	0	0	0	0	0	0	3	2	0	0	1	3	5	10	2.5	*C67*
Kidney etc.	16	0	0	0	0	0	0	0	0	0	3	2	2	1	0	0	3	5	1.7	*C64-C66;C68*
Eye	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C69*
Brain, nervous system	9	0	2	0	0	1	0	0	0	1	0	0	1	1	1	0	1	1	0.9	*C70-C72*
Thyroid	6	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	0.6	*C73*
Other endocrine	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	*C74-C75*
Hodgkin's disease	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C81*
Non-Hodgkin's lymphoma	32	0	0	1	0	1	0	0	1	4	2	2	2	0	0	4	8	7	3.4	*C82-C85;C96*
Multiple myeloma	5	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	2	0.5	*C88;C90*
Lymphoid leukaemia	3	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0.3	*C91*
Myeloid leukaemia	13	0	0	0	2	1	0	0	0	1	3	1	1	2	0	2	0	0	1.4	*C92*
Monocytic leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C93*
Other leukaemia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C94*
Leukaemia unspec.	5	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	2	0.5	*C95*
Other & unspecified	95	0	1	0	0	0	1	0	2	7	5	6	5	8	8	13	11	28	10.0	
All sites	**951**	**0**	**4**	**4**	**4**	**5**	**3**	**5**	**15**	**34**	**49**	**83**	**95**	**83**	**85**	**133**	**145**	**204**	**100.0**	

Table 15: NUMBER OF CANCER DEATHS IN CHIANG MAI 2004, 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	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.1	*C00*
Tongue	5	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	2	0.6	*C01-C02*
Salivary gland	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.1	*C07-C08*
Mouth	8	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	1	2	0.9	*C03-C06*
Oropharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.2	*C09-C10*
Nasopharynx	7	0	0	0	0	0	0	1	0	1	0	0	1	0	2	1	1	0	0.8	*C11*
Hypopharynx	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0.6	*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*
Esophagus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	*C15*
Stomach	34	0	0	0	0	0	0	1	0	1	2	4	7	3	3	4	6	3	3.8	*C16*
Small intestine	2	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0.2	*C17*
Colon	31	0	0	0	0	0	0	0	1	3	2	2	6	3	1	3	5	5	3.5	*C18*
Rectum	17	0	0	0	0	0	0	0	0	1	0	1	2	2	1	2	4	4	1.9	*C19-C21*
Liver	100	0	0	0	0	0	0	1	3	3	3	5	11	11	13	19	15	16	11.2	*C22*
Gallbladder etc.	18	0	0	0	0	0	0	0	0	0	0	1	4	2	1	1	2	7	2.0	*C23-C24*
Pancreas	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	3	0.8	*C25*
Nose, sinuses etc	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0.6	*C30-C31*
Larynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0.2	*C32*
Bronchus, lung	210	0	0	0	0	0	1	0	3	1	4	8	23	22	30	35	41	42	23.6	*C33-C34*
Other Thoracic organs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C37-C38*
Bone	3	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0.3	*C40-C41*
Connective tissue	6	0	1	0	0	0	1	0	0	0	1	0	0	0	2	0	0	1	0.7	*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	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	*C43*
Other skin	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0.8	*C44*
Breast	74	0	0	0	0	0	0	0	5	2	6	13	14	9	5	5	7	8	8.3	*C50*
Uterus unspec.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.1	*C55*
Cervix uteri	96	0	0	0	0	0	0	0	3	3	7	16	12	10	11	17	7	10	10.8	*C53*
Placenta	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.1	*C58*
Corpus uteri	13	0	0	0	0	0	0	0	0	1	1	0	2	1	2	1	4	1	1.5	*C54*
Ovary etc.	13	0	0	0	0	0	0	0	0	1	0	3	2	1	1	3	1	1	1.5	*C56*
Other female genital	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0.4	*C51-C52;C57*
Bladder	17	0	0	0	0	0	0	0	0	0	1	0	1	2	0	3	3	7	1.9	*C67*
Kidney etc.	7	0	0	0	0	0	0	0	0	0	1	1	0	3	0	0	2	0	0.8	*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	12	0	0	1	0	1	1	2	0	1	0	1	0	1	1	0	1	2	1.3	*C70-C72*
Thyroid	10	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	5	1	1.1	*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	0	0	1	0	0	0	0	1	0	0.2	*C81*
Non-Hodgkin's lymphoma	26	0	0	0	1	1	0	1	0	3	2	4	1	1	3	1	3	5	2.9	*C82-C85;C96*
Multiple myeloma	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0.2	*C88;C90*
Lymphoid leukaemia	3	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0.3	*C91*
Myeloid leukaemia	10	0	0	0	1	0	0	0	1	2	1	0	0	0	1	1	3	0	1.1	*C92*
Monocytic leukaemia	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0.3	*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	1	0	1	0	0	0	0	1	0	0	0.3	*C95*
Other & unspecified	117	0	0	0	0	0	0	3	4	2	7	9	10	20	7	17	17	21	13.2	
All sites	**889**	**0**	**1**	**1**	**2**	**2**	**3**	**9**	**24**	**26**	**40**	**74**	**101**	**95**	**94**	**125**	**140**	**152**	**100.0**	

Table 16: CANCER DEATHS, CHIANG MAI 2004

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	-	-	-	-	-	-	-	-	-	-	-	-	-	4.6	-	-	0.1	0.11	0.00	0.02	0.1	*C00*
Tongue	11	0	-	-	-	-	-	-	1.9	-	-	1.5	2.1	6.5	9	4.6	-	13.2	1.5	1.16	0.10	0.13	**1.3**	*C01-C02*
Salivary gland	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C07-C08*
Mouth	9	0	-	-	-	-	-	-	-	-	-	1.5	4.1	-	9	4.6	-	13.2	1.2	0.95	0.07	0.10	**1.1**	*C03-C06*
Oropharynx	7	0	-	-	-	-	-	-	-	-	-	3	-	-	-	4.6	15.3	4.4	1.0	0.74	0.01	0.11	**0.7**	*C09-C10*
Nasopharynx	19	0	-	-	-	-	1.6	-	1.9	1.7	-	1.5	6.2	6.5	9	18.6	15.3	4.4	2.6	2.00	0.13	0.31	**2.3**	*C11*
Hypopharynx	10	0	-	-	-	-	-	-	-	-	-	1.5	2.1	6.5	4.5	-	5.1	17.6	1.4	1.05	0.07	0.10	**1.1**	*C12-C13*
Pharynx unspec.	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C14*
Oesophagus	13	0	-	-	-	-	-	-	-	-	-	-	4.1	3.2	9	9.3	5.1	22	1.8	1.37	0.08	0.15	**1.5**	*C15*
Stomach	39	0	-	-	-	-	-	-	1.9	3.5	-	9	12.4	9.7	4.5	32.5	40.8	22	5.3	4.10	0.20	0.57	**4.3**	*C16*
Small intestine	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	0.1	0.11	0.00	0.00	**0.1**	*C17*
Colon	25	0	-	-	-	-	-	-	-	1.7	4.5	9	2.1	6.5	18	13.9	-	22	3.4	2.63	0.21	0.28	**2.9**	*C18*
Rectum	21	0	-	-	-	-	-	-	-	1.7	1.5	3	2.1	3.2	9	18.6	10.2	30.8	2.9	2.21	0.10	0.25	**2.3**	*C19-C21*
Liver	225	0	-	6.1	-	1.8	-	3.6	15.2	22.5	25.3	45.1	78.3	64.9	94.7	111.5	153.1	79.2	30.8	23.66	1.77	3.05	**25.8**	*C22*
Gallbladder etc.	9	0	-	-	-	-	-	-	-	-	-	1.5	-	-	4.5	9.3	20.4	4.4	1.2	0.95	0.03	0.18	**1.0**	*C23-C24*
Pancreas	13	0	-	-	-	-	-	-	-	-	-	-	2.1	-	9	27.9	10.2	8.8	1.8	1.37	0.06	0.25	**1.7**	*C25*
Nose, sinuses etc	3	0	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	5.1	4.4	0.4	0.32	0.01	0.03	**0.3**	*C30-C31*
Larynx	10	0	-	-	-	-	-	-	-	-	1.5	-	-	3.2	9	4.6	5.1	17.6	1.4	1.05	0.07	0.12	**1.2**	*C32*
Bronchus, lung	267	0	-	-	-	-	-	3.6	-	1.7	11.9	21	45.3	103.9	139.7	232.3	270.4	237.5	36.5	28.08	1.62	4.05	**31.5**	*C33-C34*
Other Thoracic organs	1	0	-	-	-	-	-	-	-	-	-	-	2.1	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C37-C38*
Bone	6	0	-	-	1.8	1.8	-	-	-	-	-	-	2.1	-	4.5	4.6	5.1	-	0.8	0.63	0.05	0.10	**0.8**	*C40-C41*
Connective tissue	4	0	-	-	-	-	-	1.8	-	-	-	-	-	3.2	-	-	5.1	4.4	0.5	0.42	0.02	0.04	**0.5**	*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	-	-	-	-	-	-	-	-	-	-	-	-	-	4.6	-	8.8	0.4	0.32	0.00	0.02	**0.3**	*C43*
Other skin	9	0	-	-	-	-	-	-	-	-	-	-	2.1	3.2	-	-	10.2	22	1.2	0.95	0.03	0.08	**0.9**	*C44*
Breast	1	0	-	-	-	-	-	-	-	-	-	1.5	-	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C50*
Prostate	21	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2	83.6	2.9	2.21	0.00	0.05	**1.9**	*C61*
Testis	3	0	-	-	-	-	-	-	1.9	-	-	-	-	-	-	4.6	-	4.4	0.4	0.32	0.01	0.03	**0.3**	*C62*
Penis	9	0	-	-	-	-	-	-	-	-	1.5	4.5	-	3.2	4.5	-	10.2	4.4	1.2	0.95	0.07	0.12	**1.0**	*C60*
Other male genital	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.00	0.00	0.00	**0.0**	*C63*
Bladder	24	0	-	-	-	-	-	-	-	-	4.5	3	-	-	4.5	13.9	25.5	44	3.3	2.52	0.06	0.26	**2.4**	*C67*
Kidney etc.	16	0	-	-	-	-	-	-	-	-	4.5	3	4.1	3.2	-	-	15.3	22	2.2	1.68	0.07	0.15	**1.5**	*C64-C66;C68*
Eye	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	0.1	0.11	0.00	0.00	**0.1**	*C69*
Brain, nervous system	9	0	4.8	-	-	1.8	-	-	-	1.7	-	-	2.1	3.2	4.5	-	5.1	4.4	1.2	0.95	0.09	0.12	**1.4**	*C70-C72*
Thyroid	6	0	-	-	-	-	-	-	-	-	-	1.5	2.1	-	-	4.6	-	13.2	0.8	0.63	0.02	0.04	**0.6**	*C73*
Other endocrine	1	0	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.3**	*C74-C75*
Hodgkin's disease	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	0.1	0.11	0.00	0.00	**0.1**	*C81*
Non-Hodgkin's lymphom	32	0	-	2	-	1.8	-	-	1.9	6.9	3	3	4.1	-	-	18.6	40.8	30.8	4.4	3.36	0.11	0.41	**3.4**	*C82-C85;C96*
Multiple myeloma	5	0	-	-	-	-	-	-	-	-	1.5	-	4.1	-	-	-	-	8.8	0.7	0.53	0.03	0.03	**0.5**	*C88;C90*
Lymphoid leukaemia	3	0	-	-	1.8	-	-	-	-	1.7	-	-	-	3.2	-	-	-	-	0.4	0.32	0.03	0.03	**0.4**	*C91*
Myeloid leukaemia	13	0	-	-	3.6	1.8	-	-	-	1.7	4.5	1.5	2.1	6.5	-	9.3	-	-	1.8	1.37	0.11	0.15	**1.6**	*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.	5	0	-	-	-	-	1.6	-	-	1.7	-	-	-	3.2	-	-	-	8.8	0.7	0.53	0.02	0.03	**0.5**	*C95*
Other & unspecified	95	0	2.4	-	-	-	1.6	-	3.8	12.1	7.4	9	10.3	26	36.1	60.4	56.1	123.1	13.0	9.99	0.53	1.12	**10.8**	
All sites	**951**	**0**	**9.6**	**8.1**	**7.2**	**9.0**	**4.8**	**9.0**	**28.5**	**58.6**	**73.1**	**124.6**	**196.1**	**269.0**	**383.0**	**617.5**	**739.7**	**897.4**	**130.1**	**100.0**	**5.71**	**11.88**	**108.8**	

Table 17: CANCER DEATHS, CHIANG MAI 2004

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	-	-	-	-	-	-	-	-	-	-	-	3.1	-	-	-	-	0.1	0.11	0.02	0.02	**0.1**	*C00*
Tongue	5	0	-	-	-	-	-	-	-	-	-	1.4	-	3.1	4.4	-	-	7.4	0.7	0.56	0.04	0.04	**0.5**	*C01-C02*
Salivary gland	1	0	-	-	-	-	-	-	-	-	-	-	1.9	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C07-C08*
Mouth	8	0	-	-	-	-	-	-	-	-	-	1.4	3.8	3.1	4.4	-	4.5	7.4	1	0.90	0.06	0.09	**0.8**	*C03-C06*
Oropharynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4	-	-	0.3	0.22	0.00	0.04	**0.3**	*C09-C10*
Nasopharynx	7	0	-	-	-	-	-	1.8	-	1.5	-	-	1.9	-	8.8	4.2	4.5	-	0.9	0.79	0.07	0.10	**0.9**	*C11*
Hypopharynx	5	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	8.4	4.5	3.7	0.7	0.56	0.02	0.09	**0.6**	*C12-C13*
Pharynx unspec.	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C14*
Esophagus	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7	0.1	0.11	0.00	0.00	**0.1**	*C15*
Stomach	34	0	-	-	-	-	-	1.8	-	1.5	2.7	5.5	13.3	9.4	13.1	16.9	26.9	11.1	4.5	3.82	0.24	0.45	**3.6**	*C16*
Small intestine	2	0	-	-	-	-	-	-	-	-	-	1.4	-	-	4.4	-	-	-	0.3	0.22	0.03	0.03	**0.3**	*C17*
Colon	31	0	-	-	-	-	-	-	1.8	4.6	2.7	2.8	11.4	9.4	4.4	12.7	22.4	18.5	4.1	3.49	0.19	0.36	**3.0**	*C18*
Rectum	17	0	-	-	-	-	-	-	-	1.5	-	1.4	3.8	6.3	4.4	8.4	17.9	14.8	2.2	1.91	0.09	0.22	**1.7**	*C19-C21*
Liver	100	0	-	-	-	-	-	1.8	5.4	4.6	4	6.9	20.9	34.5	57	80.1	67.2	59.3	13.1	11.25	0.67	1.39	**11.0**	*C22*
Gallbladder etc.	18	0	-	-	-	-	-	-	-	-	-	1.4	7.6	6.3	4.4	4.2	9	25.9	2.4	2.02	0.10	0.16	**1.7**	*C23-C24*
Pancreas	7	0	-	-	-	-	-	-	-	-	-	-	-	3.1	4.4	4.2	4.5	11.1	0.9	0.79	0.04	0.08	**0.7**	*C25*
Nose, sinuses etc	5	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	4.2	13.4	-	0.7	0.56	0.02	0.11	**0.6**	*C30-C31*
Larynx	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	4.5	-	0.3	0.22	0.00	0.04	**0.2**	*C32*
Bronchus, lung	210	0	-	-	-	-	1.6	-	5.4	1.5	5.4	11.1	43.8	69.1	131.5	147.6	183.7	155.6	27.5	23.62	1.33	2.96	**23.0**	*C33-C34*
Other Thoracic organs	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C37-C38*
Bone	3	0	-	-	-	-	-	-	-	-	-	1.4	1.9	-	4.4	-	-	-	0.4	0.34	0.04	0.04	**0.4**	*C40-C41*
Connective tissue	6	0	2.5	-	-	-	1.6	-	-	-	1.3	-	-	-	8.8	-	-	3.7	0.8	0.67	0.06	0.07	**0.9**	*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	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	0.3	0.22	0.00	0.00	**0.1**	*C43*
Other skin	7	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-	22.2	0.9	0.79	0.00	0.02	**0.6**	*C44*
Breast	74	0	-	-	-	-	-	-	8.9	3	8.1	18	26.7	28.3	21.9	21.1	31.4	29.6	9.7	8.32	0.57	0.83	**7.5**	*C50*
Uterus unspec.	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2	-	-	0.1	0.11	0.00	0.02	**0.1**	*C55*
Cervix uteri	96	0	-	-	-	-	-	-	5.4	4.6	9.4	22.1	22.8	31.4	48.2	71.7	31.4	37	12.6	10.80	0.72	1.23	**10.3**	*C53*
Placenta	1	0	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C58*
Corpus uteri	13	0	-	-	-	-	-	-	-	1.5	1.3	-	3.8	3.1	8.8	4.2	17.9	3.7	1.7	1.46	0.09	0.20	**1.4**	*C54*
Ovary etc.	13	0	-	-	-	-	-	-	-	1.5	-	4.2	3.8	3.1	4.4	12.7	4.5	3.7	1.7	1.46	0.08	0.17	**1.4**	*C56*
Other female genital	4	0	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	9	3.7	0.5	0.45	0.01	0.05	**0.4**	*C51-C52;C57*
Bladder	17	0	-	-	-	-	-	-	-	-	1.3	-	1.9	6.3	-	12.7	13.4	25.9	2.2	1.91	0.05	0.18	**1.6**	*C67*
Kidney etc.	7	0	-	-	-	-	-	-	-	-	1.3	1.4	-	9.4	-	-	9	-	0.9	0.79	0.06	0.11	**0.7**	*C64-C66;C68*
Eye	1	0	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	0.1	0.11	0.01	0.01	**0.1**	*C69*
Brain, nervous system	12	0	-	2.1	-	1.8	1.6	3.5	-	1.5	-	1.4	-	3.1	4.4	-	4.5	7.4	1.6	1.35	0.09	0.10	**1.5**	*C70-C72*
Thyroid	10	0	-	-	-	-	-	-	-	-	-	1.4	-	-	4.4	8.4	22.4	3.7	1.3	1.12	0.03	0.18	**1.0**	*C73*
Other endocrine	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C74-C75*
Hodgkin's disease	2	0	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	4.5	-	0.3	0.22	0.01	0.03	**0.2**	*C81*
Non-Hodgkin's lymphom	26	0	-	-	1.9	1.8	-	1.8	-	4.6	2.7	5.5	1.9	3.1	13.1	4.2	13.4	18.5	3.4	2.92	0.18	0.26	**2.8**	*C82-C85;C96*
Multiple myeloma	2	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	4.5	-	0.3	0.22	0.02	0.04	**0.3**	*C88;C90*
Lymphoid leukaemia	3	0	-	-	-	-	-	-	1.8	1.5	-	-	1.9	-	-	-	-	-	0.4	0.34	0.03	0.03	**0.3**	*C91*
Myeloid leukaemia	10	0	-	-	1.9	-	-	-	1.8	3	1.3	-	-	-	4.4	4.2	13.4	-	1.3	1.12	0.06	0.15	**1.1**	*C92*
Monocytic leukaemia	3	0	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	9	-	0.4	0.34	0.02	0.07	**0.4**	*C93*
Other leukaemia	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.00	0.00	0.00	**0.0**	*C94*
Leukaemia unspec.	3	0	-	-	-	-	-	-	1.8	-	1.3	-	-	-	-	4.2	-	-	0.4	0.34	0.02	0.04	**0.3**	*C95*
Other & unspecified	117	0	-	-	-	-	-	5.3	7.1	3	9.4	12.5	19	62.8	30.7	71.7	76.2	77.8	15.3	13.16	0.75	1.45	**12.3**	
All sites	**889**	**0**	**2.5**	**2.1**	**3.8**	**3.6**	**4.8**	**16.0**	**43.0**	**39.4**	**53.5**	**102.6**	**192.1**	**298.0**	**412.3**	**527.0**	**627.5**	**562.8**	**116.6**	**100.0**	**5.68**	**10.92**	**94.8**	

CHIANG MAI POPULATION AND ADMINISTRATIVE DIVISIONS

In 2004, Chiang Mai province was composed of 22 districts (Amphoes) and 2 minor districts (King-Amphoes) (Fig. 28). Local administration consisted of one municipal and 28 sub district municipal. Total population in Chiang Mai in 2004 was about 1,630,769 persons, consisting of 803,319 males and 827,450 females. The population density averaged 81.1 people per km^2. The highest population density was in Muang District (1,458.8 per km^2), followed by Saraphi, Sanpatong, Sansai, and Sankamphaeng district. The lowest population density was in Mae Chaem District (19.7 per km^2). Eighty percent of the population was born in the province, and the remainder was made up of Thai nationals, Chinese, Laos, and hilltribe people. Buddhism was the professed religion of 91.7% of the people in the province. For the remainder, most were either Christians or Muslims.

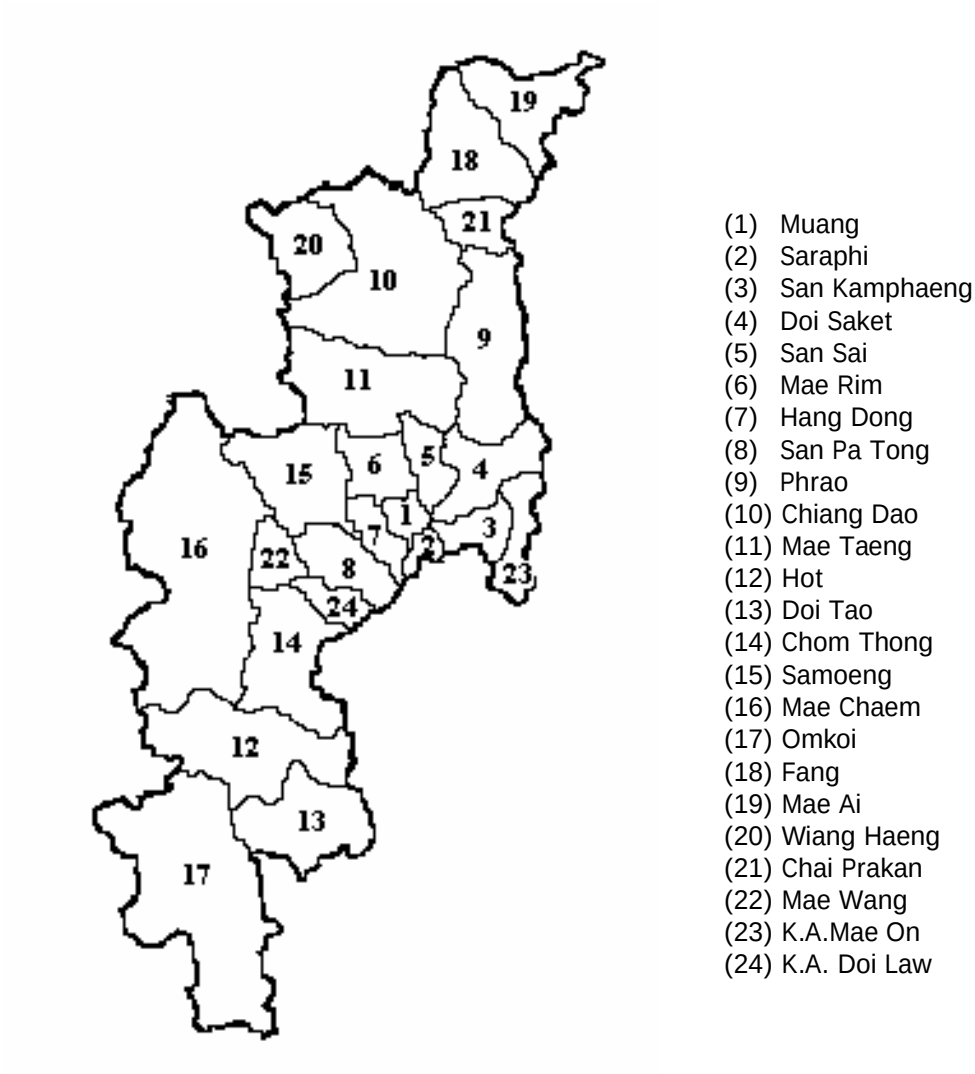

Figure 28: Districts of Chiang Mai

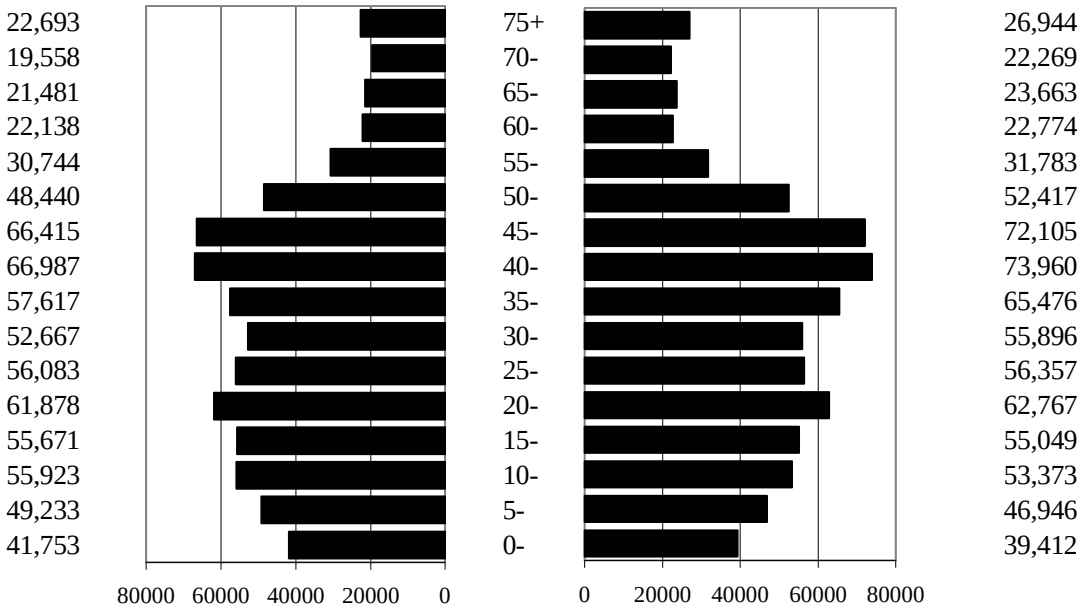

Figure 29: Population pyramid, Chiang Mai, 2004

Age and Sex

The age-sex distribution in 2004 is illustrated by population pyramids (Figure 29). In 2004, 19.2% of the total population was age of under 15 and 12.2% over 60.

HOSPITAL-BASED REGISTRATION

Maharaj Nakorn Chiang Mai Hospital

Maharaj Nakorn Chiang Mai Hospital is the university hospital of the Faculty of Medicine, Chiang Mai University. The hospital was built in 1939 in order to expand the service 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 with all three buildings has 1,800 beds and serves about 415,000 out-patients and 49,200 in-patients 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 or give special lectures for doctors and other health personnel at provincial hospitals.

Overview

In 2004, there were 4,231 cases of new invasive cancer at Maharaj Nakorn Chiang Mai Hospital. Thirty-six percent were Chiang Mai residents, 42.1% came from nearby provinces (Lampoon, Lampang, Phayao and Chiang Rai), 19.7% came from the other provinces in the northern region, and only 1.2% resided outside the northern region (Table 18).

Age and sex

There were 1,813 male and 2,418 female cancer cases in the year 2004, with a male to female ratio of 1 : 1.3, but 1,196 (49.5%) of the cancers in females occurred in sex-specific sites (i.e. breast and reproductive organs) while only 85 cases (4.7%) of sex-specific cancers (i.e. prostate, testis, and penis cancers) occurred in males. When sex-specific sites were excluded, the male to female ratio increased to 1.4 : 1.

Ages ranged from less than one year to 98 years. The mean age at diagnosis was 54.7, and the median age was 55.0. For males, the mean age was 57.1 with the median age 58. For females, the mean age was 52.9 with the median age 52. In the age group 20 to 64, female cancer cases were much more common than male, and male cancer cases were more common than female after age of 65 (Fig. 30). There were 100 cases of cancer in children (age less than 15), accounting for only 2.4% of all cases, but there were 1,684 cases in the old-age group (age 60 and over), accounting for 39.8% of all cases.

There were 206 in situ cases, which were not included in this analysis. Cervix cancer in situ was the most common, accounting for 79.1% of cases. The age of in situ cases ranged from 9 to 78 years and the median age was 46 years.

Table 18: Locations of the invasive cancer cases

Location	cases	%
NORTHERN REGION	4,167	98.5
Chiang Mai	1,552	36.7
Chiang Rai	650	15.4
Lampoon	523	12.4
Phayao	385	9.1
Lampang	224	5.3
Nan	196	4.6
Phrae	184	4.3
Tak	144	3.4
Mae Hong Son	120	2.8
Uttaradit	64	1.5
Sukhothai	56	1.3
Phitsanuloak	26	0.6
Kamphaingphet	18	0.4
Phichit	12	0.3
Phetchabun	8	0.2
Nakhon Sawan	4	0.1
Uthai Thani	1	0.0
CENTRAL REGION	28	0.6
NORTH-EASTERN REGION	15	0.4
SOUTHERN REGION	7	0.2
FOREIGNERS	14	0.3
TOTAL	4,231	100.0

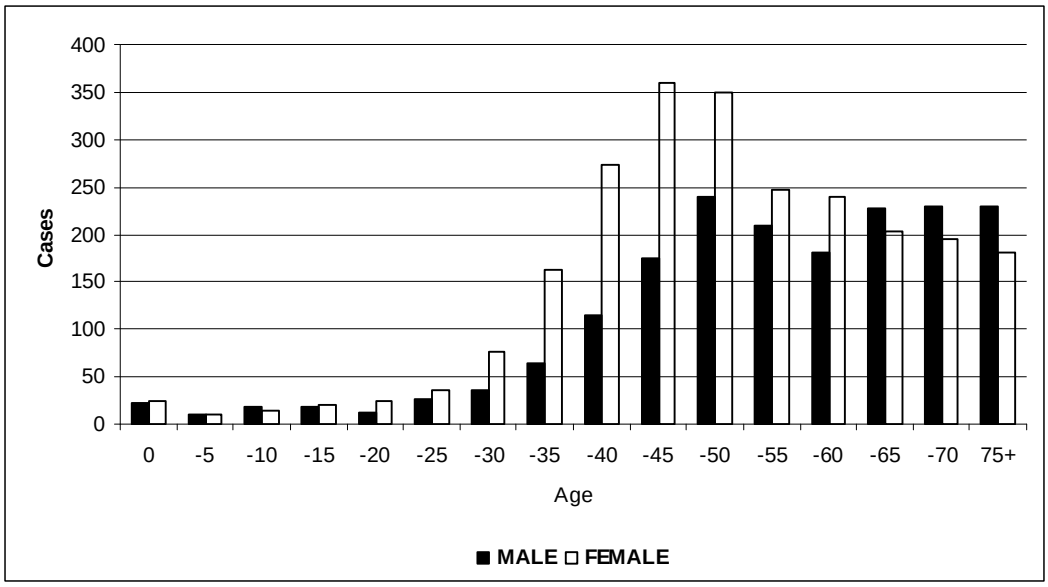

Figure 30: Age distribution of new cancer cases in Maharaj Nakorn Chiang Mai Hospital, 2004

Basis of diagnosis

There were 3,536 histologically verified cases (83.6%), 68.1% were form primary sites, 10.3% from metastasis sites and 5.2% from cytology/hematology (Table 20). By site, for both males and females, the histological verification was low in liver and pancreas (Table 23).

Table 19: Type of diagnosis

Type of diagnosis	No.	%
Histological verification	3,536	83.6
Histology of primary	2,880	68.1
Histology of metastasis	436	10.3
Cytology/hematology	220	5.2
No histological verification	695	16.4
Clinical only	24	0.6
Clinical and Investigations	584	13.8
Operation/surgery	78	1.8
Immuno/Biochemistry	9	0.2
	4,231	100.0

Table 20: Stage of diseases

Stage	No.	%
Localized	856	20.2
Locally advanced	1,488	35.2
Regional node metastasis	380	9.0
Distant metastasis	903	21.3
Not applicable	426	10.1
Unknown/Not stage	178	4.2
	4,231	100.0

Stage of disease

Thirty percent were diagnosed at an advanced stage (21.3% distant metastasis and 9.0% regional node metastasis), and 55.4% were diagnosed at a localized stage and locally advanced (Table 20). Ten percent were staged as *not applicable;* most of these groups were lymphoma, leukemia, and brain tumor cases.

In 903 cases of distant metastasis, 12.2% had multiple sites of metastasis. The most common site of distant metastasis was distant lymph nodes (21.9%), followed by lung (16.8%), liver (11.4%), bone (11.2%), and brain (10.6%).

Leading sites of cancer cases

Of the invasive cancer in both sexes combined, lung cancer was the most common (14.4%), followed by cervix, liver, breast, and non-Hodgkin's lymphoma (Table 21). Together these five types of cancer accounted for 51.7% of all new cancers. For males, the most common cancer was lung cancer, accounting for 20.4% of all new cases, followed by liver cancer, non-Hodgkin's lymphoma, rectal cancer and nasopharyngeal cancer. For females, the most common cancers were cervix cancer, accounting for 23.5% of all new cases, followed by breast, lung, ovary, and liver cancer.

Table 21: Ten leading cancers in Maharaj Nakorn Chiang Mai Hospital, 2004

Rank	Males	cases	%	Females	cases	%	Both sexes	cases	%
1	Lung	370	20.4	Cervix	569	23.5	Lung	609	14.4
2	Liver	322	17.8	Breast	358	14.8	Cervix	569	13.4
3	NHL	107	5.9	Lung	239	9.9	Liver	448	10.6
4	Rectum	71	3.9	Ovary	129	5.3	Breast	365	8.6
5	Nasopharynx	70	3.9	Liver	126	5.2	NHL	197	4.7
6	Bladder	63	3.5	Corpus	96	4.0	Rectum	150	3.5
7	Colon	55	3.0	NHL	90	3.7	Ovary	129	3.0
8	Stomach	52	2.9	Thyroid	83	3.4	Colon	108	2.6
9	M.leukaemia	51	2.8	Rectum	79	3.3	Nasopharynx	104	2.5
10	Prostate	48	2.6	Colon	53	2.2	Stomach	104	2.5

Childhood cancer

There were 100 cases of childhood cancers (ages less than 15), accounting for 2.4% of all cancer cases. The most common childhood cancer was leukemia, accounting for 35.0% of childhood cancers, followed by bone (10.0%), brain and nervous system (9.0%), kidney (7.0%), NHL (6.0%), liver (5.0%) and eye (5.0%).

Type of initial treatment

The type of initial treatment was recorded in 3,600 cases (85.1%). There were 796 cases (18.8%) that received only symptomatic treatment due to advanced stage or refused treatment. The majority of cases received a single modality of treatment, and the common type of treatment was surgery, followed by chemotherapy, and radiation therapy (Table 22).

Table 22: Type of initial treatment

Type of treatment	cases	%
Combined modalities	628	22.4
Surgery + radiotherapy	137	4.9
Surgery + chemotherapy	332	11.8
Radiotherapy + chemotherapy	107	3.8
Surgery + radiotherapy + chemo.	47	1.7
Others	5	0.2
Single modality	2,176	77.6
Surgery	1,208	43.1
Radiotherapy	414	14.8
Chemotherapy	553	19.7
Others	1	0.0
Total	2,804	100.0

Table 23: Percentage of data verification by sites, 2004

	Males			Females			
	cases	%HV	%MV	cases	%HV	%MV	ICD-10th
Lip	2	100.0	100.0	6	100.0	100.0	C00
Tongue	24	100.0	100.0	19	100.0	100.0	C01-C02
Salivary gland	6	100.0	100.0	12	100.0	100.0	C07-C08
Mouth	30	90.0	90.0	23	95.7	95.7	C03-C06
Oropharynx	11	90.9	81.8	3	100.0	100.0	C09-C10
Nasopharynx	70	98.6	98.6	34	97.1	97.1	C11
Hypopharynx	26	100.0	100.0	5	100.0	100.0	C12-C13
Pharynx unspecified	1	100.0	100.0	2	100.0	100.0	C14
Oesophagus	29	75.9	75.9	9	88.9	88.9	C15
Stomach	52	90.4	90.4	52	86.5	84.6	C16
Small intestine	5	80.0	80.0	4	100.0	100.0	C17
Colon	55	80.0	80.0	53	84.9	84.9	C18
Rectum	71	93.0	93.0	79	91.1	91.1	C19-C21
Liver	322	32.0	29.5	126	38.9	37.3	C22
Gallbladder	25	84.0	84.0	24	70.8	70.8	C23-C24
Pancreas	23	30.4	30.4	21	28.6	28.6	C25
Nose, sinuses etc.	14	100.0	100.0	18	88.9	88.9	C30-C31
Larynx	43	95.3	93.0	12	91.7	91.7	C32
Bronchus, lung	370	76.2	65.7	239	69.0	56.9	C33-C34
Other Thoracic organs	10	70.0	40.0	3	66.7	33.3	C37-C38
Bone	13	92.3	92.3	15	93.3	93.3	C40-C41
Connective tissue	27	88.9	85.2	13	100.0	84.6	C47;C49
Mesothelioma	-	-	-				C45
Kaposi's sarcoma	-	-	-	1	100.0	100.0	C46
Melanoma of skin	6	83.3	83.3	5	100.0	80.0	C43
Other skin	39	100.0	100.0	31	100.0	100.0	C44
Breast	7	85.7	85.7	358	96.4	90.8	C50
Uterus unspec.	-	-	-	4	100.0	100.0	C55
Cervix uteri	-	-	-	569	97.5	97.2	C53
Placenta	-	-	-	5	40.0	40.0	C58
Corpus uteri	-	-	-	96	99.0	99.0	C54
Ovary etc.	-	-	-	129	93.0	91.5	C56
Other female genital	-	-	-	35	97.1	97.1	C51-C52;C57
Prostate	48	89.6	87.5	-	-	-	C61
Testis	13	92.3	92.3	-	-	-	C62
Penis	23	100.0	100.0	-	-	-	C60
Other male genital	1	100.0	100.0	-	-	-	C63
Bladder	63	96.8	96.8	28	96.4	96.4	C67
Kidney etc.	31	90.3	90.3	13	53.8	53.8	C64-C66;C68
Eye	8	75.0	75.0	5	60.0	60.0	C69
Brain, nervous system	19	68.4	68.4	22	68.2	68.2	C70-C72
Thyroid	15	100.0	80.0	83	97.6	88.0	C73
Other endocrine	4	75.0	75.0	3	100.0	100.0	C74-C75
Hodgkin's disease	8	100.0	100.0	3	100.0	100.0	C81
Non-Hodgkin lymphoma	107	100.0	97.2	90	100.0	94.4	C82-C85;C96
Multiple myeloma	11	100.0	45.5	10	100.0	80.0	C88;C90
Lymphoid leukaemia	24	100.0	41.7	19	100.0	36.8	C91
Myeloid leukaemia	51	100.0	58.8	41	100.0	63.4	C92
Monocytic leukaemia	4	100.0	25.0	3	100.0	0.0	C93
Other leukaemia	-	-	-	1	100.0	100.0	C94
Leukaemia unspec.	-	-	-	1	100.0	0.0	C95
Other & unspecified	102	74.5	70.6	91	83.5	76.9	
All sites	1813	76.9	71.0	2418	88.5	83.9	

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

Table 24: NUMBER OF NEW CANCER CASES IN MAHARAJ NAKORN CHIANG MAI HOSPTAL 2004, 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	2		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.1	*C00*
Tongue	24		0	0	0	1	0	0	0	0	2	4	5	4	2	1	1	4	1.3	*C01-C02*
Salivary gland	6		0	0	0	0	1	0	0	0	0	1	0	0	2	1	0	1	0.3	*C07-C08*
Mouth	30		0	0	0	1	0	0	0	0	3	2	1	6	4	3	3	7	1.7	*C03-C06*
Oropharynx	11	0	0	0	0	0	0	0	0	0	0	3	1	1	0	1	4	1	0.6	*C09-C10*
Nasopharynx	70	0	0	0	1	1	0	2	2	5	5	10	10	12	7	10	4	1	3.9	*C11*
Hypopharynx	26	0	0	0	0	0	0	0	1	0	0	5	3	3	4	2	2	6	1.4	*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*
Esophagus	29	0	0	0	0	0	0	0	0	1	0	1	5	4	4	4	5	5	1.6	*C15*
Stomach	52	0	0	0	0	0	0	0	1	4	5	7	10	4	3	8	6	4	2.9	*C16*
Small intestine	5	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0.3	*C17*
Colon	55	0	0	0	0	0	0	1	1	4	4	7	3	8	5	7	9	6	3.0	*C18*
Rectum	71	0	0	0	0	0	0	1	1	1	9	5	10	8	7	9	7	13	3.9	*C19-C21*
Liver	322	0	2	2	0	2	0	2	9	16	34	49	65	38	30	27	31	15	17.8	*C22*
Gallbladder etc.	25	0	0	0	0	0	0	0	1	1	1	4	2	4	2	1	4	5	1.4	*C23-C24*
Pancreas	23	0	0	0	0	0	0	0	0	1	2	3	1	2	2	4	4	4	1.3	*C25*
Nose, sinuses etc	14	0	0	0	0	0	0	0	1	1	1	0	3	1	2	0	3	2	0.8	*C30-C31*
Larynx	43	0	0	0	0	0	0	0	0	0	2	3	4	6	7	9	7	5	2.4	*C32*
Bronchus, lung	370	0	1	2	0	0	2	0	4	2	15	30	41	41	43	64	69	56	20.4	*C33-C34*
Other Thoracic organs	10	0	0	0	1	0	1	0	0	1	0	1	2	1	1	1	0	1	0.6	*C37-C38*
Bone	13	0	1	0	4	3	1	0	0	0	1	1	0	1	0	0	1	0	0.7	*C40-C41*
Connective tissue	27	0	0	1	1	0	2	2	0	2	3	1	3	7	1	1	2	1	1.5	*C47;C49*
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C45*
Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C46*
Melanoma of skin	6	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	2	0.3	*C43*
Other skin	39	0	0	0	0	0	0	1	1	1	1	2	1	3	6	5	6	12	2.2	*C44*
Breast	7	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	3	0	0.4	*C50*
Prostate	48	0	0	0	0	0	0	0	0	0	0	1	1	4	4	6	12	20	2.6	*C61*
Testis	13	0	1	0	1	1	1	0	1	2	2	1	0	1	0	2	0	0	0.7	*C62*
Penis	23	0	0	0	0	0	0	0	2	1	3	0	2	4	2	4	2	3	1.3	*C60*
Other male genital	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0.1	*C63*
Bladder	63	0	0	0	0	0	0	0	0	1	2	1	8	9	4	13	9	16	3.5	*C67*
Kidney etc.	31	0	1	1	0	0	0	0	0	2	1	7	4	2	2	3	6	2	1.7	*C64-C66;C68*
Eye	8	0	2	0	0	1	0	0	0	1	0	0	1	1	0	2	0	0	0.4	*C69*
Brain, nervous system	19	0	1	1	1	2	0	3	0	2	0	3	3	1	1	0	1	0	1.0	*C70-C72*
Thyroid	15	0	0	0	0	1	0	0	1	0	2	0	2	3	1	1	1	3	0.8	*C73*
Other endocrine	4	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0.2	*C74-C75*
Hodgkin's disease	8	0	0	0	1	0	0	2	0	0	0	0	1	0	0	2	0	2	0.4	*C81*
Non-Hodgkin's lymphoma	107	0	2	2	0	1	2	5	6	7	4	12	11	7	14	9	12	13	5.9	*C82-C85;C96*
Multiple myeloma	11	0	0	0	0	0	0	0	0	0	0	0	5	1	2	0	1	2	0.6	*C88;C90*
Lymphoid leukaemia	24	0	7	0	5	3	0	0	0	3	0	1	2	1	1	0	1	0	1.3	*C91*
Myeloid leukaemia	51	0	0	0	3	1	2	5	4	2	9	1	4	5	4	7	1	3	2.8	*C92*
Monocytic leukaemia	4	0	1	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0.2	*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.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	*C95*
Other & unspecified	102	0	1	1	0	1	1	2	0	1	3	7	16	15	11	20	11	12	5.6	
All sites	**1813**	**0**	**22**	**10**	**19**	**19**	**13**	**26**	**36**	**64**	**115**	**175**	**239**	**209**	**180**	**227**	**229**	**230**	**100.0**	

Table 25: NUMBER OF NEW CANCER CASES IN MAHARAJ NAKORN CHIANG MAI HOSPTAL 2004, 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	1	0	0	2	2	1	0.2	*C00*
Tongue	19	0	0	0	0	0	0	0	1	1	0	4	3	1	1	2	3	3	0.8	*C01-C02*
Salivary gland	12	0	0	0	0	0	0	0	0	2	2	3	2	1	0	1	0	1	0.5	*C07-C08*
Mouth	23	0	0	0	0	1	0	0	0	0	1	0	2	4	2	4	2	7	1.0	*C03-C06*
Oropharynx	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0.1	*C09-C10*
Nasopharynx	34	0	0	0	1	0	1	1	2	1	4	3	7	3	3	3	3	2	1.4	*C11*
Hypopharynx	5	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	2	0.2	*C12-C13*
Pharynx unspec.	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.1	*C14*
Esophagus	9	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	1	4	0.4	*C15*
Stomach	52	0	0	0	0	1	0	0	2	7	4	3	12	7	2	8	4	2	2.2	*C16*
Small intestine	4	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0.2	*C17*
Colon	53	0	0	0	0	0	0	0	2	0	6	5	4	5	7	5	10	9	2.2	*C18*
Rectum	79	0	0	0	0	0	1	0	3	5	11	8	11	8	6	10	8	8	3.3	*C19-C21*
Liver	126	0	1	0	0	0	0	0	1	5	11	9	21	18	19	17	14	10	5.2	*C22*
Gallbladder etc.	24	0	0	0	0	0	0	0	0	0	1	0	3	6	4	5	3	2	1.0	*C23-C24*
Pancreas	21	0	0	0	0	0	0	0	0	2	2	1	3	0	5	3	2	3	0.9	*C25*
Nose, sinuses etc	18	0	1	0	0	0	0	0	1	3	1	3	3	1	1	1	2	1	0.7	*C30-C31*
Larynx	12	0	0	0	0	0	0	0	0	0	1	0	0	2	1	2	2	4	0.5	*C32*
Bronchus, lung	239	0	0	0	0	1	1	1	2	4	7	29	26	34	36	33	37	28	9.9	*C33-C34*
Other Thoracic organs	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0.1	*C37-C38*
Bone	15	0	1	0	4	5	1	0	0	0	2	1	0	0	0	1	0	0	0.6	*C40-C41*
Connective tissue	13	0	0	0	0	0	2	1	0	0	0	3	2	1	2	2	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	0.0	*C46*
Melanoma of skin	5	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	1	0	0.2	*C43*
Other skin	31	0	0	0	0	0	0	0	0	2	0	4	0	2	4	4	6	9	1.3	*C44*
Breast	358	0	0	0	0	0	0	8	7	25	50	86	56	42	32	22	12	18	14.8	*C50*
Uterus unspec.	4	0	0	0	0	0	0	0	0	2	0	1	1	0	0	0	0	0	0.2	*C55*
Cervix uteri	569	0	0	0	0	0	1	5	25	58	106	111	93	56	42	34	21	17	23.5	*C53*
Placenta	5	0	0	0	0	1	0	3	0	0	1	0	0	0	0	0	0	0	0.2	*C58*
Corpus uteri	96	0	0	0	0	0	0	0	1	4	9	14	20	15	10	10	8	5	4.0	*C54*
Ovary etc.	129	0	0	0	0	3	8	3	7	7	15	29	19	11	15	4	4	4	5.3	*C56*
Other female genital	35	0	1	0	0	0	1	0	1	3	2	7	3	4	2	4	2	5	1.4	*C51-C52;C57*
Bladder	28	0	0	0	0	0	0	1	0	0	1	0	0	4	6	4	6	6	1.2	*C67*
Kidney etc.	13	0	4	0	1	0	0	0	0	1	1	0	1	1	0	0	3	1	0.5	*C64-C66;C68*
Eye	5	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.2	*C69*
Brain, nervous system	22	0	3	2	1	2	2	1	0	1	1	1	3	2	2	0	1	0	0.9	*C70-C72*
Thyroid	83	0	0	0	1	3	3	7	5	9	13	10	15	2	6	2	6	1	3.4	*C73*
Other endocrine	3	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0.1	*C74-C75*
Hodgkin's disease	3	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0.1	*C81*
Non-Hodgkin's lymphoma	90	0	0	0	2	2	1	3	5	9	4	11	13	5	11	7	11	6	3.7	*C82-C85;C96*
Multiple myeloma	10	0	0	0	0	0	0	0	0	0	1	0	4	0	1	1	2	1	0.4	*C88;C90*
Lymphoid leukaemia	19	0	6	6	0	0	1	0	1	1	1	1	1	0	1	0	0	0	0.8	*C91*
Myeloid leukaemia	41	0	4	0	3	0	1	2	3	3	7	4	2	3	1	1	4	3	1.7	*C92*
Monocytic leukaemia	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0.1	*C93*
Other leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0	*C94*
Leukaemia unspec.	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.0	*C95*
Other & unspecified	91	0	1	0	0	1	0	0	6	5	4	5	14	9	10	9	12	15	3.8	
All sites	**2418**	**0**	**25**	**10**	**14**	**21**	**25**	**37**	**76**	**162**	**273**	**360**	**349**	**248**	**239**	**203**	**195**	**181**	**100.0**	

References

1. Fritz A, Percy C, Jack A, Shanmugaratnam K, Sobin L, Parkin DM, and Whelan S. International Classification of Diseases for Oncology. 3rd Ed. World Health Organization, 2000.
2. Jensen OM, Parkin DM, MacLennan R, Muir CS and Skeet RG. Cancer Registration; Principles and Methods. IARC Scientific Publication No. 95. IARC, Lyon, France, 1991.
3. Ferlay J. IARCcrg Tools Program. Version 2.03. Descriptive Epidemiology Group. IARC, Lyon, France, 2005.
4. Parkin DM, Ferley J, Cooke A. CanReg3 Software. Version 3.09. Descriptive Epidemiology Group. IARC, Lyon, France.
5. Doll R, Payne P and Waterhouse J. Cancer Incidence in Five Continents: A Technical Report, Berlin, Springer-Verlag (for UICC), 1966.