

**CANCER INCIDENCE AND MORTALITY**  
**IN CHIANG MAI**  
**2009**



**CHIANG MAI CANCER REGISTRY**

**MAHARAJ NAKORN CHIANG MAI HOSPITAL**  
**FACULTY OF MEDICINE, CHIANG MAI UNIVERSITY**  
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**CHIANG MAI, THAILAND**

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**Note: to the reader**

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

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## **Introduction**

Chiang Mai Cancer Registry is a population-based cancer registry established in 1963, operating within Maharaj Nakorn Chiang Mai Hospital, Faculty of Medicine, Chiang Mai University. The registry covers the population of Chiang Mai province and has reported annually on cancer occurrence since the first volume in 1978, when it was a hospital-based registry. Population-based registration was started in 1986 to report the incidence and mortality of cancer in Chiang Mai since 1983.

This report is the 29<sup>th</sup> in a series and contains two parts. The first part is population-based registration, which has data on cancer frequency, incidence of new cancer, and mortality in Chiang Mai province in the year 2009. The second part is hospital-based registration, which has data at Maharaj Nakorn Chiang Mai Hospital for the same period.

## **MATERIALS AND METHODS**

### **Data Sources**

Information on newly diagnosed cancer cases is based on data collected by the Chiang Mai Cancer Registry. The data were collected by the Registry's staff from all hospitals in Chiang Mai province: one university hospital (Maharaj Nakorn Chiang Mai Hospital), 8 government hospitals, 1 municipal hospital, 14 private hospitals, and 22 community hospitals, with a total of 6,045 beds. Sources in hospitals include the medical records sections, pathology laboratory records, and sections of hematology, radiation oncology, and hospital tumor registrations. Data were also collected from medical clinics and pathology clinics in Chiang Mai province. The identities of all patients were checked and matched to exclude multiple registrations. Mortality data were obtained from hospital records and death certificates from the Department of Local Administration, Ministry of Interior. Population data were obtained from the Statistical Data Bank and Information Dissemination Division, National Statistical Office.

### **Coding, Data Entry, and Processing of Data**

The completed data forms were checked manually and entered into the database file in personal computers at the Chiang Mai Cancer Registry, using CanReg4 software for data entry and editing. Details of each patient were crosschecked with the information collected from different hospitals to ensure completeness of records. Full information on every cancer patient registered at each and every hospital was thus obtained, whether or not the patient was subsequently treated at a particular hospital. Additional information was obtained every time a cancer patient was re-admitted or re-examined. Since the patient can be reported from more than one hospital, care was taken to see that multiple entries were not made for such cases. Instead, the medical information from different hospitals for each patient was combined.

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 "death 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 who had not yet been diagnosed were not entered in the register.

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

Multiple primary registration followed IARC/IACR criteria (2). A second or third primary site in a patient was registered only when all primary sites were confirmed by histology. A new registration number was given for each new site as indicated by the three-digit ICD code; thus there was no new registration for a second primary cancer occurring at the same site (first three digits) but a different sub-site.

Follow-up used a combination of both active and passive methods. Follow-up information collected routinely was the date last seen, status of the patient (living or dead) and cause of death. This follow-up information was collected by registry staff from both 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 Disease**

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

#### **Non-microscopic**

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

#### **Microscopic Confirmation**

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

#### **Unknown Method of Diagnosis**

- Unknown
- Death certificate only

The staging guide in *Cancer Registration; Principles and Methods* (3) was used for the following items: in situ, localized, direct extension/regional nodes, distant metastasis, not applicable, and unknown (or not staged). The stage “in situ” was decided only by histological diagnosis. Lymphoma, leukemia, and brain tumor cases were staged as “not applicable”.

### **Calculation of Rates and Risks**

Before analysis, both the incidence data and the mortality data were checked by the IARCcrgTools program (Ferlay J, 2005) (4). Rates were calculated by the computer program CanReg4 (Cooke A, Parkin DM, Ferlay J, 2006) (5). All rates were expressed per 100,000 population and age adjusted by the direct method to



the world standard population (6). These calculations were used only for population-based registration.

### ***Crude Rates***

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

### ***Age-specific Rates***

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

$$AR = N_i/P_i \times 100,000$$

where  $N_i$  = number of new cancers occurring in the  $i^{\text{th}}$  age group

$P_i$  = population of the  $i^{\text{th}}$  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 et. al., 1966) (6). The incidence (or mortality) rate observed in a given age group ( $AR_i$ ) was multiplied by the number of persons in that age group in the standard population ( $P_i.\text{std}$ ); this value was then divided by the total standard population and the values obtained were the sum of all age groups.

$$ASR(\text{WORLD}) = \text{sum}(AR_i \times P_i.\text{std}) / \text{total standard population}$$

$AR_i$  = age specific rate in the  $i^{\text{th}}$  age group

$P_i.\text{std}$  = the number in the  $i^{\text{th}}$  age group in the standard population.

$$\text{or } ASR(\text{WORLD}) = \text{sum}(N_i \times P_i.\text{std} \times 100,000 / P_i) / \text{total } P_i.\text{std}$$

$N_i$  = number of new cancers occurring in the  $i^{\text{th}}$  age group

$P_i$  = population of the  $i^{\text{th}}$  age group in Chiang Mai.

The details of calculation are in Boyle and Parkin, *Statistical Methods for Registries*, in Jensen and Parkin, *Cancer Registration, Principles and Methods*. IARC Scientific Publications No. 95, Lyon 1991 (3). 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;

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

where Cumulative rate =  $\sum_{i=1}^n (F_i \times T_i / P_i)$

$n$  = number of age group which cumulative risk includes

$F_i$  = number of new cancers occurring in the  $i^{\text{th}}$  age group

$T_i$  = number of years in  $i^{\text{th}}$  age group

$P_i$  = population of  $i^{\text{th}}$  age group in the total population

**Table 1: Estimated new cancer cases and deaths by sex, Chiang Mai, Thailand, 2009**

	Estimated New Cases			Estimated Deaths		
	Both sexes	Males	Females	Both sexes	Males	Females
<b>All sites</b>	<b>3138</b>	<b>1486</b>	<b>1652</b>	<b>2084</b>	<b>1147</b>	<b>937</b>
<b>Lip, oral cavity and pharynx</b>	<b>108</b>	<b>71</b>	<b>37</b>	<b>92</b>	<b>63</b>	<b>29</b>
Lip	2	0	2	4	2	2
Tongue	19	14	5	16	13	3
Mouth	18	13	5	19	9	10
Salivary glands	10	4	6	5	4	1
Tonsil	8	6	2	8	5	3
Other Oropharynx	4	4	0	3	3	0
Nasopharynx	38	25	13	27	19	8
Hypopharynx	7	4	3	9	7	2
Pharynx unspecified	2	1	1	1	1	0
<b>Digestive system</b>	<b>919</b>	<b>584</b>	<b>335</b>	<b>731</b>	<b>475</b>	<b>256</b>
Esophagus	28	21	7	14	10	4
Stomach	80	51	29	79	45	34
Small intestine	10	6	4	10	6	4
Colon	150	74	76	78	40	38
Rectum	118	64	54	74	45	29
Anus	7	2	5	5	1	4
Liver	437	318	119	391	284	107
Gallbladder	42	20	22	40	21	19
Pancreas	47	28	19	40	23	17
<b>Respiratory system</b>	<b>608</b>	<b>362</b>	<b>246</b>	<b>540</b>	<b>317</b>	<b>223</b>
Nose, sinuses etc.	8	3	5	8	5	3
Larynx	21	18	3	18	14	4
Lung	571	335	236	512	297	215
Other Thoracic organs	8	6	2	2	1	1
<b>Bone</b>	<b>14</b>	<b>9</b>	<b>5</b>	<b>9</b>	<b>8</b>	<b>1</b>
<b>Soft tissue</b>	<b>13</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>6</b>	<b>2</b>
Connective tissue	11	3	8	7	5	2
Mesothelioma	1	0	1	0	0	0
Kaposi's sarcoma	1	1	0	1	1	0
<b>Skin</b>	<b>132</b>	<b>62</b>	<b>70</b>	<b>38</b>	<b>22</b>	<b>16</b>
Melanoma of skin	13	5	8	5	2	3
Non-melanoma of skin	119	57	62	33	20	13
<b>Breast</b>	<b>328</b>	<b>3</b>	<b>325</b>	<b>110</b>	<b>2</b>	<b>108</b>
<b>Genital system</b>	<b>461</b>	<b>90</b>	<b>371</b>	<b>180</b>	<b>40</b>	<b>140</b>
Vulva	11		11	5		5
Vagina	5		5	2		2
Cervix	245		245	96		96
Corpus	41		41	10		10
Uterus	1		1	1		1
Ovary	64		64	23		23
Other Female Genital	2		2	1		1
Placenta	2		2	2		2
Penis	9	9		2	2	
Prostate	76	76		36	36	
Testis	4	4		1	1	
Other male genital	1	1		1	1	
<b>Urinary system</b>	<b>112</b>	<b>85</b>	<b>27</b>	<b>85</b>	<b>57</b>	<b>28</b>
Kidney	26	21	5	29	22	7
Renal Pelvis	3	1	2	2	0	2
Ureter	3	3	0	2	1	1
Bladder	79	60	19	52	34	18
Other Urinary organs	1	0	1	0	0	0
<b>Eye</b>	<b>10</b>	<b>7</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>
<b>Brain, nervous system</b>	<b>47</b>	<b>27</b>	<b>20</b>	<b>36</b>	<b>21</b>	<b>15</b>
<b>Endocrine system</b>	<b>43</b>	<b>4</b>	<b>39</b>	<b>19</b>	<b>8</b>	<b>11</b>
Thyroid	41	3	38	19	8	11
Adrenal gland	1	0	1	0	0	0
Other Endocrine	1	1	0	0	0	0
<b>Lymphoma</b>	<b>136</b>	<b>73</b>	<b>63</b>	<b>87</b>	<b>53</b>	<b>34</b>
Hodgkin disease	7	4	3	5	2	3
Non-Hodgkin lymphoma	129	69	60	82	51	31
<b>Multiple myeloma</b>	<b>20</b>	<b>11</b>	<b>9</b>	<b>9</b>	<b>6</b>	<b>3</b>
<b>Leukaemia</b>	<b>73</b>	<b>35</b>	<b>38</b>	<b>47</b>	<b>18</b>	<b>29</b>
Lymphoid Leukaemia	23	12	11	10	8	2
Myeloid Leukaemia	49	23	26	35	10	25
Leukaemia unspec.	1	0	1	2	0	2
<b>Other &amp; unspecified</b>	<b>114</b>	<b>59</b>	<b>55</b>	<b>91</b>	<b>50</b>	<b>41</b>

## Population-based Registration

### OVERVIEW

In 2009, there were an estimated 3,138 new invasive cancer cases in Chiang Mai province. There were 1,486 males, and 1,652 females with a male to female ratio of 1:1.1 and in the same period, 1,147 males and 937 females died from cancer (Table 1). The new cancer cases increased from 1,433 cases in males but decreased from 1,734 cases in females compared to the year 2008. The number of cancer death in males increased from 1,138 cases and in females increased from 916 cases in the year 2008.

The data were obtained from the followings: 62.0% from Maharaj Nakorn Chiang Mai Hospital, 19.5% from Nakhonping Hospital (the provincial hospital), 0.1% from other government hospitals, 7.0% from community hospitals, 10.3% from private hospitals, and 1.2% from death certificates.

The age-standardized incidence rates were 155.0 for males and 151.3 for females. The cumulative rate percentages to age 75 were 16.9% for males and 18.2% for females, these represented cumulative risks for developing cancer of 10 in 59 for men and 10 in 55 for women. In the year 2009, the incidence in both males and females trended to continue increasing from the year 2000 (Fig. 1).

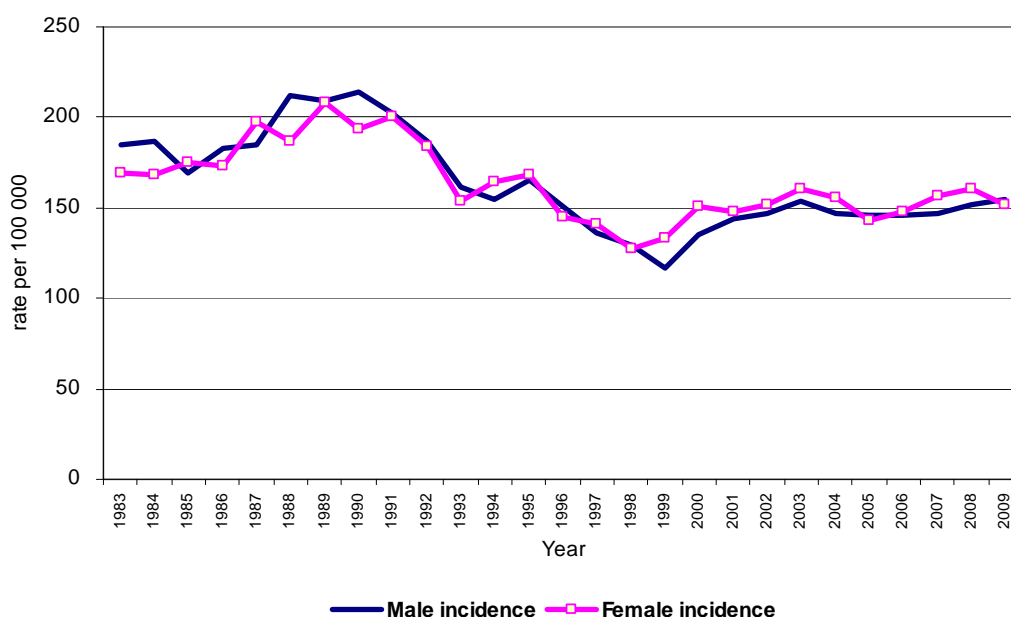


Figure 1: Age-standardized incidence rates (world) of cancer in Chiang Mai, 1983-2009

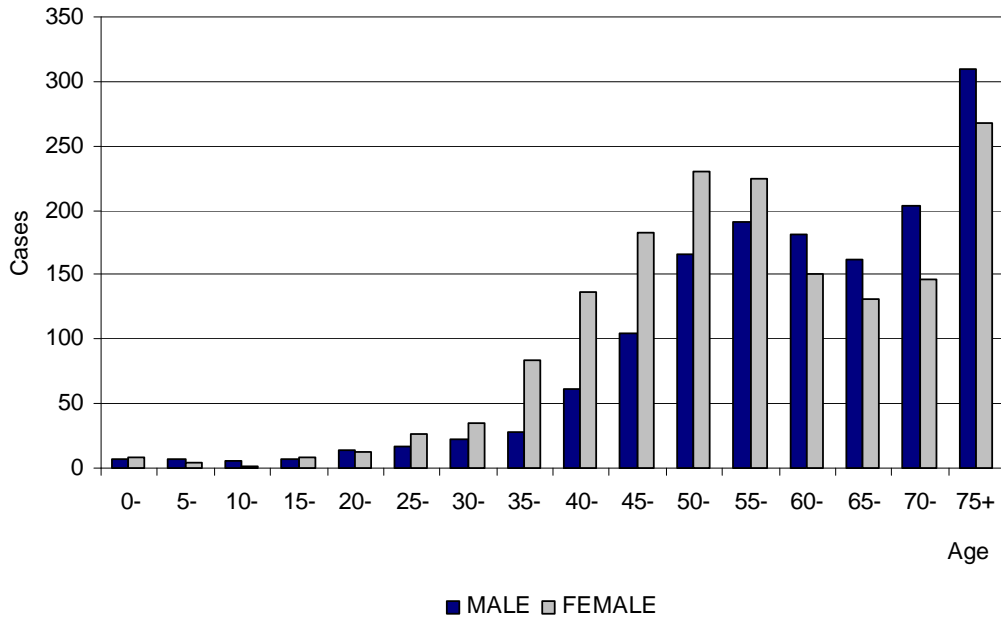
### INCIDENCE

#### *Age and Sex*

The age at diagnosis in males ranged from less than one year to 97 years, with a mean age of 61.4 years and a median age of 62 years (Fig. 2) and in females ranged from less than one year to 98 years, with the mean age at diagnosis of 57.3 years and a median age of 57 years. Childhood cancers were relatively uncommon in Chiang Mai. Only 34 cases (1.1%) of all cancers occurred before age 15, whereas 49.5% occurred after age 60.

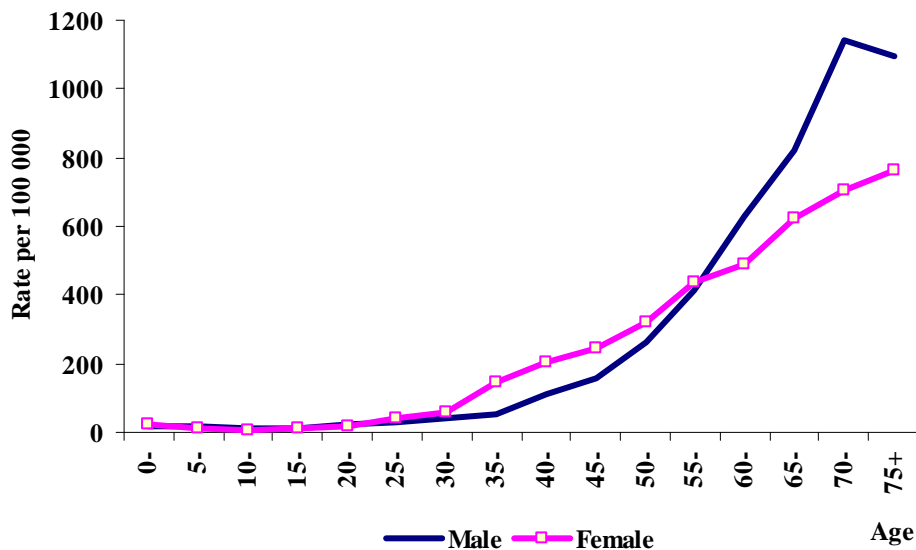


The male to female ratio was approximately 1:1.1, but 42.1% of the cancers in females occurred in sex-specific sites (i.e., breast and reproductive organs) while only 6.3% of the cancers in males occurred in sex-specific sites (i.e., prostate, testis, and penis). When sex-specific sites were excluded, the male to female ratio changed to 1.5:1 because of the higher incidence of lung cancer and liver cancer in males than females.



**Figure 2: Age group distribution of new cancer cases in Chiang Mai, 2009**

In the age group 25-59 years, more women had cancer than men, because of the large number of the breast and cervix cancers. For age 60 and over, more men had cancer than women because of the high incidence of lung and liver cancers (Fig. 2). The age-specific incidence rates increased gradually after the age of 20 years in both sexes, and males outnumbered females after the age of 55 (Fig. 3).



**Figure 3: Age-specific incidence rates, Chiang Mai, 2009**

## DIAGNOSIS AND STAGE OF CANCER

### *Basis of Diagnosis*

2,338 cases (74.5%) were histologically verified, with 60.1% from primary sites and 7.8% from metastasis sites (Table 2). Twenty two percent were clinically diagnosed and 1.2% were determined from death certificates only. By site, the percentages of histologically verified cases were low for cancer of the liver, pancreas, brain and gallbladder.

### *Stage of Cancer*

Fifty percent were diagnosed in localized and locally advanced stages, and 25.1% had distant metastasis (Table 3). Since 2001, distant metastasis cases at first diagnosis have decreased, and locally advanced cases have increased every year, which indicates that cancer is being diagnosed earlier. All brain tumors, lymphoma, and leukemia were staged as “not applicable” The “death certificate only” cases were staged as “unknown” The most common site of distant metastasis was lung (24.8%), followed by liver (17.4%), distant lymph nodes (14.7%), bone (13.0%) and brain (11.6%).

**Table 2: Basis of diagnosis**

Type of diagnosis	No.	%
<b>Histological verification</b>	<b>2338</b>	<b>74.5</b>
Histology of primary	1887	60.1
Histology of metastasis	244	7.8
Cytology/hematology	207	6.6
Autopsy	0	0.0
<b>No histological verification</b>	<b>762</b>	<b>24.3</b>
Clinical only	20	0.6
Clinical and investigations	710	22.6
Operation/surgery	26	0.8
Immuno/biochemistry	6	0.2
<b>Death certificate only</b>	<b>38</b>	<b>1.2</b>
<i>Unknown</i>	<i>0</i>	<i>0.0</i>
	<b>3138</b>	<b>100.0</b>

**Table 3: Stage of disease**

Stage	No.	%
Localized	453	14.4
Locally advanced	1103	35.1
Regional node metastasis	435	13.9
Distant metastasis	787	25.1
Not applicable	274	8.7
Unknown/not staged	86	2.7
	<b>3138</b>	<b>100.0</b>

### *Incidence of New Cancer Cases by Districts*

High standardized incidence rates for males were found in Wiang Haeng, Saraphi, Chai Prakan, Hang Dong and San Kamphaeng districts. The high incidence rate was high in Wiang Haeng district even though the number of new cases was small due to a small population. In Chai Prakan, the incidence rate was high because of high incidences of liver cancer. In Hang Dong, the incidence rate was high because of high incidences of lung cancer. In Saraphi and San Kamphaeng, the incidence rates was high because of high incidences of both lung and liver cancer. For females, high standardized incidence rates were found in Wiang Haeng, Mae Wang, Doi Lo, Mae Rim, and Fang districts. In Wiang Haeng, the incidence rate was high even though the number of new cases was small due to a small population as in males. Incidence rate in Mae Wang was high due to the high incidence of lung cancer. Incidence rate in Mae Rim was high due to the high incidence of breast cancer. Incidence rate in Fang was high due to the high incidence of cervix cancer. Low incidences of cancer in males were found in Omkoi, Mae Chaem and Mae On districts and in females were found in Omkoi, Mae Chaem and Hot districts (Table 4).

## MORTALITY

### *Age and Sex*

In 2009, there were an estimated 2,084 cancer death cases (1,147 males, 937 females, Table 1), accounting for 17.5% of all deaths in Chiang Mai. Cancer has been the most common cause of death since 2002. The age-standardized mortality rates for all cancers were 115.7 per 100,000 males and 83.7 per 100,000 females. Cancer death rates for men and women have continued to decrease since 2005 (Fig. 4). The age-specific mortality rate increased after the age of 40 years for both males and females (Fig. 5). The cumulative rate percentages to age 75 were 12.8% for males and 9.2% for females. These represented risks of dying from cancer that were 10 in 78 for males and 10 in 109 for females.

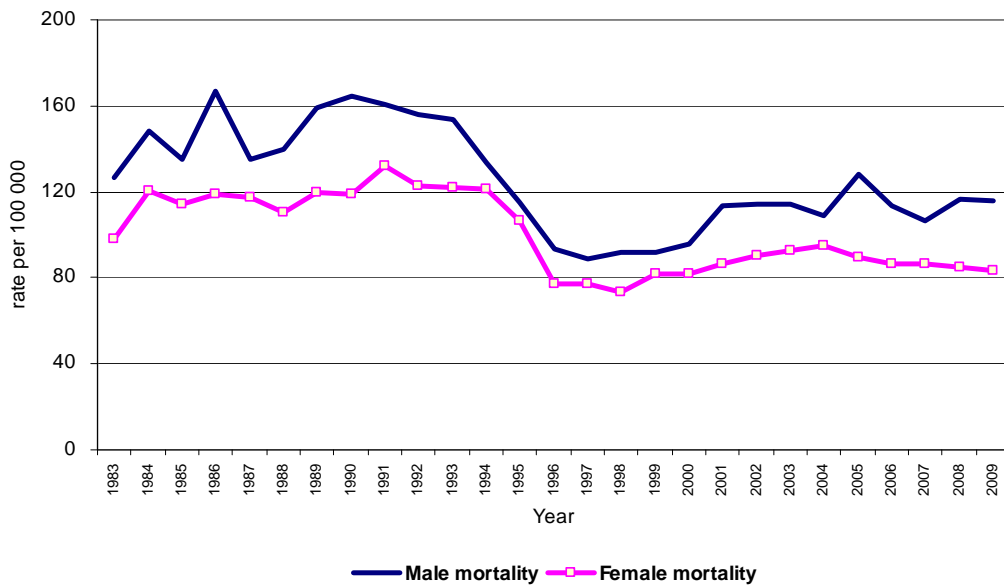


Figure 4: Age-standardized mortality rates (world) of cancer in Chiang Mai, 1983-2009

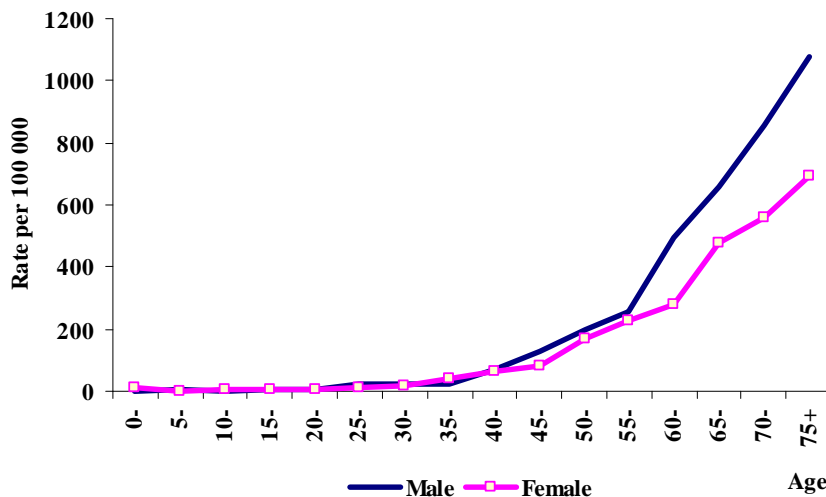


Figure 5: Age-specific mortality rate, Chiang Mai, 2009

For all cancer death cases, 1,428 cases (68.5%) survived less than one year, while only 128 cases (6.1%) survived more than 5 years. This indicates the severity of cancer in Chiang Mai.



### ***Mortality of cancer cases by districts***

The highest mortality rate for males was in San Pa Tong district, followed by Hang Dong, San Kamphaeng, Doi Tao, and Chai PraKarn districts. These were because of high mortality from lung cancer in San Pa Tong, Hang Dong, and San Kamphaeng and high mortality from liver cancer in Doi Tao, and Chai PraKarn. For females, the highest mortality rate was in San Pa Tong district, followed by Wiang Haeng, Doi Law, Mae Wang and Mae Taeng districts (Table 5). The high mortality rate were because of mortality from lung, cervix, liver, and breast cancer. These were because of high mortality from breast cancer in San Pa Tong, from cervix cancer in Wiang Haeng, and high mortality from lung cancer in Doi Law, Mae Wang and Mae Taeng.

### **LEADING SITES OF CANCER INCIDENCE**

Of invasive cancer in both sexes combined, lung cancer was the most common (571 cases), followed by liver, breast, cervix and colon cancer. Together these five types of cancer accounted for 55.2% of all new cancers. For males, the most common cancer was lung cancer, accounting for 22.5% of all newly diagnosed cases, followed by liver, prostate, colon and non-Hodgkin lymphoma(NHL) (Fig. 6). For females, the most common cancer was breast cancer, accounting for 19.7% of all newly diagnosed cases, followed by cervix, lung, liver, and colon cancer.

The most frequent cancers for the under 15-year age group in both sexes were leukemia and cancer of nervous system. In the age group 15-29 years, common cancers in males were mediastinum, NHL, rectum, nervous system, and leukemia, and in females were ovary, thyroid, NHL, breast and cervix cancer. In the age group 30-59 years, liver cancer was more common than lung cancer in males and breast cancer was more common than cervical cancer in females. After the age of 60 years, lung cancer was the most common cancer in both sexes (Table 6).

### **LEADING SITES OF CANCER DEATHS**

Lung cancer (24.6%) was the most common cause of cancer death, followed by liver, breast, cervix and NHL. Lung and liver cancer accounted for 43.3% of all cancer deaths. For males, the lung was the most common site of cancer deaths, accounting for 25.9%, followed by the liver, NHL, stomach and rectum. For females, the lung was also the most common site of cancer deaths, accounting for 22.9%, followed by breast, liver, cervix and colon (Fig. 7).

Liver cancer was the most common cause of death in both sexes in the age group 15-29 and for males, was more common than lung cancer in the age group 30-59, but was the second common cause after lung cancer in the age group 60 and over. For females, lung cancer was the most common cause in the age group 45 and over, breast cancer was the second common cause in the age group 30-59, and cervix cancer was the most common cause in the age group 30-44 (Table 7).

**Table 4: Incidence and common sites of new cancer cases in districts of Chiang Mai, 2009**

	Males													
	Districts	Rates	All sites	Lung	Liver	Prostate	Colon	NHL	Rectum	Bladder	Skin*	Stomach	Pancreas	
	Muang	161.6	227	50	44	12	16	5	14	14	12	7	4	
	Chom Thong	170.0	73	20	14	3	4	3	4	1	1	4	0	
	Mae Chaem	67.8	21	2	2	0	0	2	0	0	1	3	0	
	Chiang Dao	137.1	48	12	9	3	3	3	0	1	0	2	0	
	Doi Saket	118.7	57	10	18	2	2	3	4	4	1	0	1	
	Mae Taeng	153.5	80	14	28	2	3	5	2	1	7	1	0	
	Mae Rim	155.4	76	16	18	8	3	4	2	8	2	1	1	
	Samoeng	126.7	18	5	3	1	1	2	0	0	0	0	2	
	Fang	163.2	89	17	22	9	4	3	5	3	2	3	2	
	Mae Ai	133.4	47	13	8	3	2	4	0	0	4	2	1	
	Phrao	148.1	49	6	10	2	5	3	2	5	0	2	2	
	San Pa Tong	168.5	101	27	15	3	6	9	6	2	2	2	3	
	San Kamphaeng	194.1	91	21	21	2	5	2	1	5	5	4	2	
	San Sai	145.1	102	20	29	4	3	3	4	2	8	3	2	
	Hang Dong	194.7	89	28	14	5	3	4	5	2	1	3	0	
	Hot	94.2	24	7	5	0	2	0	2	0	2	2	0	
	Doi Tao	184.5	34	11	6	3	1	0	2	0	2	1	0	
	Omkoï	58.0	13	3	3	0	0	3	0	0	0	0	0	
	Saraphi	213.7	108	26	20	6	6	2	3	4	4	5	5	
	Wiang Haeng	218.1	15	4	1	1	0	2	1	0	2	2	0	
	Chai Prakan	197.6	45	8	15	4	1	1	2	2	0	2	0	
	Mae Wang	164.5	35	3	8	1	2	1	4	3	0	1	1	
	Mae On	79.8	13	2	3	1	1	2	1	0	0	0	1	
	Doi Law	135.6	28	9	2	1	1	2	0	3	1	0	1	
	Females													
	Districts	Rates	All sites	Breast	Cervix	Lung	Liver	Colon	Ovary	Skin*	NHL	Rectum	Corpus	
	Muang	155.2	276	75	30	32	11	13	10	7	12	11	14	
	Chom Thong	142.6	65	7	11	12	2	3	3	5	3	3	2	
	Mae Chaem	71.2	25	2	2	5	2	0	3	1	1	1	0	
	Chiang Dao	166.9	62	11	11	10	6	1	2	2	2	2	1	
	Doi Saket	132.1	70	14	5	12	8	6	2	4	2	2	2	
	Mae Taeng	143.4	77	9	10	16	7	4	6	2	4	4	1	
	Mae Rim	185.3	104	24	13	14	8	5	5	2	4	5	3	
	Samoeng	119.2	17	2	4	2	0	2	2	3	0	1	0	
	Fang	183.1	104	16	30	11	2	6	1	4	5	2	0	
	Mae Ai	153.3	59	10	13	5	4	2	1	3	3	1	2	
	Phrao	138.1	54	9	10	10	6	3	2	2	2	1	1	
	San Pa Tong	157.5	103	19	16	15	10	4	3	6	4	3	1	
	San Kamphaeng	174.0	101	32	10	14	4	3	5	1	3	2	1	
	San Sai	161.3	131	29	13	19	16	5	1	6	5	3	2	
	Hang Dong	157.9	91	18	16	14	10	4	4	2	1	3	4	
	Hot	77.2	22	4	3	2	1	0	0	2	0	3	1	
	Doi Tao	149.9	27	6	2	4	2	3	0	0	1	0	0	
	Omkoï	60.6	15	1	2	3	2	0	0	1	0	0	0	
	Saraphi	145.5	96	16	15	12	5	5	5	3	5	1	4	
	Wiang Haeng	287.1	21	3	6	1	0	1	3	0	0	1	0	
	Chai Prakan	142.6	36	7	7	5	3	1	0	2	0	1	2	
	Mae Wang	200.6	39	2	4	9	4	5	2	0	1	1	0	
	Mae On	96.3	16	2	4	3	1	0	2	1	0	1	0	
	Doi Law	186.3	38	6	8	6	5	0	2	2	2	2	0	
	Both sexes													
	Districts	Rates	All sites	Lung	Liver	Breast	Cervix	Colon	NHL	Skin*	Rectum	Stomach	Bladder	
	Muang		503	82	55	75	30	29	17	19	25	9	22	
	Chom Thong		138	32	16	7	11	7	6	6	7	5	1	
	Mae Chaem		46	7	4	2	2	0	3	2	1	5	0	
	Chiang Dao		110	22	15	11	11	4	5	2	2	2	2	
	Doi Saket		127	22	26	14	5	8	5	5	6	1	5	
	Mae Taeng		157	30	35	9	10	7	9	9	6	3	2	
	Mae Rim		180	30	26	25	13	8	8	4	7	4	9	
	Samoeng		35	7	3	2	4	3	2	3	1	0	0	
	Fang		193	28	24	16	30	10	8	6	7	3	4	
	Mae Ai		106	18	12	10	13	4	7	7	1	4	0	
	Phrao		103	16	16	9	10	8	5	2	3	3	6	
	San Pa Tong		204	42	25	19	16	10	13	8	9	4	3	
	San Kamphaeng		192	35	25	32	10	8	5	6	3	5	5	
	San Sai		233	39	45	29	13	8	8	14	7	5	2	
	Hang Dong		180	42	24	18	16	7	5	3	8	3	4	
	Hot		46	9	6	4	3	2	0	4	5	2	0	
	Doi Tao		61	15	8	6	2	4	1	2	2	2	0	
	Omkoï		28	6	5	1	2	0	3	1	0	1	0	
	Saraphi		204	38	25	16	15	11	7	7	4	7	5	
	Wiang Haeng		36	5	1	3	6	1	2	2	2	2	1	
	Chai Prakan		81	13	18	9	7	2	1	2	3	3	2	
	Mae Wang		74	12	12	2	4	7	2	0	5	4	3	
	Mae On		29	5	4	2	4	1	2	1	2	1	0	
	Doi Law		66	15	7	6	8	1	4	3	2	1	3	

Skin\* - non-melanoma skin cancer

Table 5: Mortality rate and common cancer sites in districts of Chiang Mai, 2009

	Districts	Rates	All sites	Lung	Liver	NHL	Stomach	Rectum	Colon	Prostate	Bladder	Pancreas
	Males	Muang	109.8	159	41	40	2	6	7	9	6	9
	Chom Thong	132.0	60	17	13	2	1	5	3	0	2	0
	Mae Chaem	73.4	22	5	4	3	3	0	0	0	0	0
	Chiang Dao	110.1	40	9	10	2	2	2	0	2	3	0
	Doi Saket	109.8	53	7	22	3	2	4	0	1	2	0
	Mae Taeng	125.4	67	17	26	2	0	2	2	1	3	0
	Mae Rim	100.6	49	13	14	2	1	1	3	0	1	0
	Samoeng	59.0	10	4	2	0	0	0	1	1	0	1
	Fang	133.8	72	19	17	4	5	3	2	1	1	2
	Mae Ai	87.3	31	14	6	1	1	0	1	0	0	1
	Phrao	90.9	33	4	8	3	1	0	3	3	2	2
	San Pa Tong	168.5	101	27	15	9	2	6	6	3	2	3
	San Kamphaeng	158.7	87	17	19	6	2	2	3	4	3	1
	San Sai	122.6	88	21	27	3	4	2	2	4	3	2
	Hang Dong	159.0	74	20	11	6	4	0	2	2	3	2
	Hot	89.5	22	11	2	0	1	2	0	3	0	0
	Doi Tao	155.4	30	8	9	1	0	1	1	0	0	0
	Omkoï	31.9	7	2	2	1	0	0	0	0	0	0
	Saraphi	131.1	72	22	14	0	5	4	4	4	0	3
	Wiang Haeng	76.1	5	4	0	1	0	0	0	0	0	0
	Chai Prakan	139.6	32	4	12	3	2	1	0	1	1	0
	Mae Wang	135.6	28	5	8	1	0	3	1	1	1	1
	Mae On	47.8	8	0	3	2	0	1	1	1	0	0
	Doi Law	97.0	21	10	2	0	0	2	0	0	0	2
	Districts	Rates	All sites	Lung	Breast	Liver	Cervix	Colon	Stomach	NHL	Rectum	M.Leukaem
Females	Muang	69.1	126	19	16	7	12	10	4	6	6	5
	Chom Thong	82.1	38	12	4	3	2	2	1	2	1	0
	Mae Chaem	65.3	21	7	0	1	1	0	2	0	2	2
	Chiang Dao	105.4	41	12	3	8	4	0	0	3	0	1
	Doi Saket	100.1	54	9	6	11	9	2	2	1	1	1
	Mae Taeng	110.6	61	15	6	6	6	2	1	1	3	2
	Mae Rim	74.4	39	11	5	6	2	2	3	0	1	1
	Samoeng	66.7	10	1	1	0	0	1	1	0	2	1
	Fang	97.1	57	9	6	3	13	4	0	4	1	0
	Mae Ai	81.9	31	9	5	4	1	1	1	3	1	0
	Phrao	84.7	33	10	1	7	2	2	1	0	1	0
	San Pa Tong	157.5	103	15	19	10	16	4	2	4	3	1
	San Kamphaeng	93.2	60	17	9	5	3	3	1	0	2	0
	San Sai	78.8	65	14	10	10	10	2	3	1	2	0
	Hang Dong	101.2	55	10	11	7	6	3	1	0	1	0
	Hot	63.6	18	4	2	4	0	1	1	0	1	1
	Doi Tao	47.5	9	1	0	1	0	0	1	1	0	1
	Omkoï	44.3	10	3	1	1	0	0	1	0	0	2
	Saraphi	85.2	56	13	7	7	5	1	2	4	2	1
	Wiang Haeng	120.5	9	1	1	0	2	0	0	0	1	1
	Chai Prakan	80.9	22	6	2	2	3	0	2	0	0	3
	Mae Wang	113.7	23	7	4	2	1	0	1	0	0	1
	Mae On	66.4	11	4	2	1	1	1	1	0	0	0
	Doi Law	117.3	24	7	1	4	2	0	3	2	0	0
	Districts	All sites	Lung	Liver	Breast	Cervix	NHL	Stomach	Colon	Rectum	Bladder	
Both sexes	Muang	285	60	47	16	12	8	10	19	13	16	
	Chom Thong	98	29	16	4	2	4	2	5	6	2	
	Mae Chaem	43	12	5	0	1	3	5	0	2	0	
	Chiang Dao	81	21	18	3	4	5	2	0	2	4	
	Doi Saket	107	16	33	6	9	4	4	2	5	3	
	Mae Taeng	128	32	32	6	6	3	1	4	5	4	
	Mae Rim	88	24	20	5	2	2	4	5	2	3	
	Samoeng	20	5	2	1	0	0	1	2	2	0	
	Fang	129	28	20	6	13	8	5	6	4	1	
	Mae Ai	62	23	10	5	1	4	2	2	1	0	
	Phrao	66	14	15	1	2	3	2	5	1	2	
	San Pa Tong	204	42	25	19	16	13	4	10	9	3	
	San Kamphaeng	147	34	24	10	3	6	3	6	4	4	
	San Sai	153	35	37	10	10	4	7	4	4	4	
	Hang Dong	129	30	18	11	6	6	5	5	1	4	
	Hot	40	15	6	2	0	0	2	1	3	0	
	Doi Tao	39	9	10	0	0	2	1	1	1	0	
	Omkoï	17	5	3	1	0	1	1	0	0	0	
	Saraphi	128	35	21	7	5	4	7	5	6	1	
	Wiang Haeng	14	5	0	1	2	1	0	0	1	0	
	Chai Prakan	54	10	14	3	3	3	4	0	1	1	
	Mae Wang	51	12	10	4	1	1	1	1	3	1	
	Mae On	19	4	4	2	1	2	1	2	1	0	
	Doi Law	45	17	6	1	2	2	3	0	2	0	

## Estimated New Cases

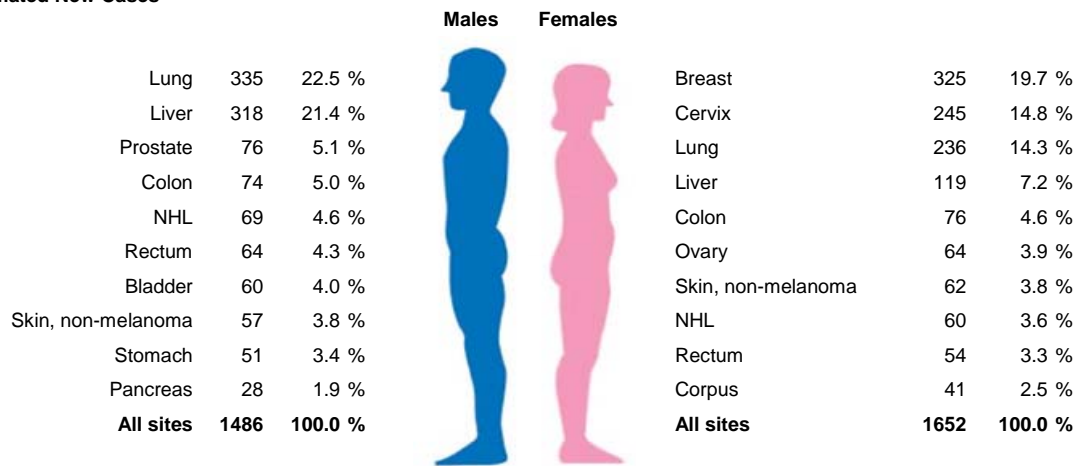


Figure 6: Ten leading cancer sites for the estimated new cases, by sex, 2009

## Estimated Deaths

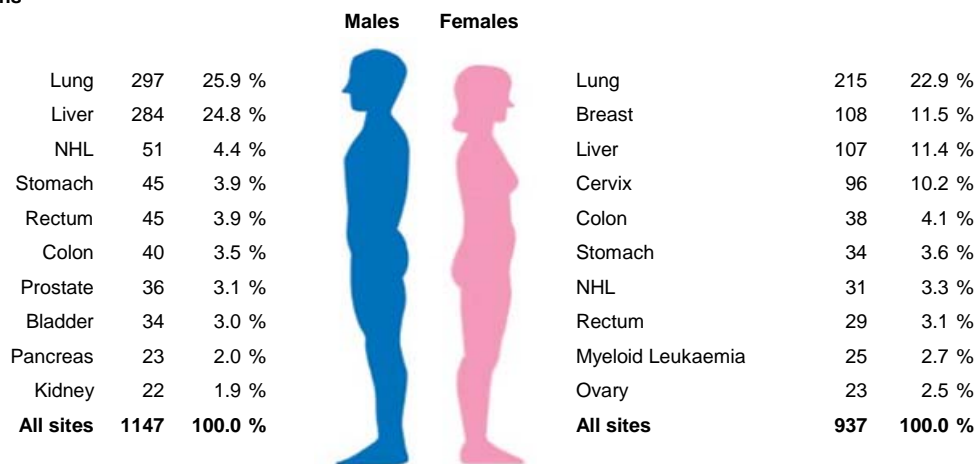


Figure 7: Ten leading cancer sites for the estimated dead cases, by sex, 2009

Table 6 : Top 5 cancers in Chiang Mai by 15-year age groups, 2009

Males		0-14		15-29		30-44		45-59		60-74		75+	
Incidence	Age group	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
Lymphoid Leukaemia	3	Brain, Nervous system	5	Mediastinum	38	Liver	135	Lung	132	Lung	74	Liver	42
Bone	2	Rectum	3	NHL	15	Lung	92	Liver	100	Liver	42	Prostate	28
Eye	2	Brain, Nervous system	3	Brain, Nervous system	6	Colon	27	Prostate	42	Prostate	24	Bladder	24
Hodgkin disease	2	Myeloid Leukaemia	3	NHL	6	NHL	20	Rectum	29	Rectum	23	Skin, non-melanoma	23
All sites	19	All sites	38	Colon	5	Rectum	16	Colon	28	Colon	309	All sites	309
<b>Females</b>													
Incidence	Age group	CANCER / SITE	cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases </td></td></td></td></td>	CANCER / SITE	cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases </td></td></td></td>	CANCER / SITE	cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases </td></td></td>	CANCER / SITE	cases <td>CANCER / SITE</td> <td>cases <td>CANCER / SITE</td> <td>cases </td></td>	CANCER / SITE	cases <td>CANCER / SITE</td> <td>cases </td>	CANCER / SITE	cases
Myeloid Leukaemia	6	Ovary	7	Cervix	71	Breast	177	Lung	98	Lung	76	Lung	32
Lymphoid Leukaemia	5	Thyroid	6	Breast	69	Cervix	113	Breast	57	Skin, non-melanoma	24	Liver	24
Brain, Nervous system	2	NHL	6	Colon	12	Lung	49	Colon	43	Liver	18	Colon	17
Eye	1	Breast	5	Lung	12	Liver	47	Liver	38	Breast	17	All sites	270
Adrenal gland	1	Cervix	5	Ovary	11	Ovary	31	Colon	24	All sites	429	All sites	429
All sites	15	All sites	46	All sites	255	All sites	637	All sites	429	All sites	270	All sites	270
<b>Males</b>													
Incidence	Age group	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Lymphoid Leukaemia	0.7	Mediastinum	0.7	Liver	4.1	Liver	11.4	Lung	20.0	Lung	5.2	Liver	3.0
Brain, Nervous system	0.4	NHL	0.5	Lung	1.6	Lung	7.8	Liver	13.7	Liver	3.0	Prostate	2.0
Bone	0.3	Rectum	0.4	NHL	0.7	Colon	2.3	Prostate	5.4	Prostate	1.7	Bladder	1.7
Eye	0.3	Brain, Nervous system	0.4	Brain, Nervous system	0.6	NHL	1.7	Rectum	3.8	Skin, non-melanoma	1.6	All sites	21.9
Hodgkin disease	0.3	Myeloid Leukaemia	0.4	Colon	0.5	Rectum	1.4	Colon	3.6	All sites	72.7	All sites	72.7
All sites	4.4	All sites	5.2	All sites	12.0	All sites	39.1	All sites	72.7	All sites	21.9	All sites	21.9
<b>Females</b>													
Incidence	Age group	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
Myeloid Leukaemia	1.5	Ovary	0.9	Cervix	6.9	Breast	13.5	Lung	12.2	Lung	4.3	Skin, non-melanoma	1.8
Lymphoid Leukaemia	1.4	Thyroid	0.8	Breast	6.7	Cervix	8.6	Breast	7.0	Liver	1.4	Colon	1.0
Brain, Nervous system	0.5	NHL	0.8	Colon	1.2	Lung	3.7	Cervix	5.3	Breast	1.0	Breast	1.0
Eye	0.3	Breast	0.7	Lung	1.1	Liver	3.5	Colon	4.5	Colon	1.0	All sites	15.3
Adrenal gland	0.3	Cervix	0.7	Ovary	1.0	Ovary	2.3	Colon	2.9	All sites	52.5	All sites	52.5
All sites	4.1	All sites	6.3	All sites	24.7	All sites	48.3	All sites	52.5	All sites	15.3	All sites	15.3



Table 7 : Top 5 cancer deaths in Chiang Mai by 15-year age groups, 2009

Males		0-14		15-29		30-44		45-59		60-74		75+	
Mortality	Age group	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
		Lymphoid Leukaemia	2	Liver	3	Liver	28	Liver	115	Lung	144	Lung	64
		Brain, Nervous system	1	Colon	2	Lung	11	Lung	77	Liver	90	Liver	48
		NHL	1	Bone	2	NHL	8	Rectum	12	Stomach	22	Prostate	20
		Myeloid Leukaemia	1	NHL	2	Rectum	3	Stomach	11	NHL	17	Rectum	16
		All sites	5	Myeloid Leukaemia	1	Pancreas	3	Colon	9	Colon	13	Bladder	16
				All sites	19	All sites	66	All sites	327	All sites	426	All sites	304
<b>Females</b>													
Mortality	Age group	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases	CANCER / SITE	cases
	0-14	Brain, Nervous system	2	Liver	3	Cervix	15	Lung	48	Lung	91	Lung	67
		Small intestine	1	NHL	3	Breast	12	Breast	46	Liver	34	Liver	24
		Lymphoid Leukaemia	1	Stomach	2	Lung	9	Liver	42	Breast	29	Breast	20
		Myeloid Leukaemia	1	Colon	2	Stomach	8	Cervix Uteri	42	Cervix	21	Cervix	18
		Kidney	1	Breast	1	Myeloid Leukaemia	5	Ovary	14	Colon	12	Colon	16
		All sites	7	All sites	12	All sites	74	All sites	298	All sites	301	All sites	16
<b>Males</b>													
Mortality	Age group	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
	0-14	Lymphoid Leukaemia	0.4	Liver	0.4	Liver	3.0	Liver	9.6	Lung	19.0	Lung	4.5
		Brain, Nervous system	0.3	Colon	0.3	Lung	1.2	Lung	6.5	Liver	12.2	Liver	3.4
		NHL	0.2	Bone	0.3	NHL	0.9	Rectum	1.1	Stomach	3.1	Prostate	1.4
		Myeloid Leukaemia	0.2	NHL	0.3	Rectum	0.3	Stomach	0.9	NHL	2.3	Rectum	1.1
		All sites	1.1	Myeloid Leukaemia	0.2	Pancreas	0.3	Colon	0.8	Colon	1.8	Bladder	1.1
				All sites	2.5	All sites	7.0	All sites	27.7	All sites	56.8	All sites	21.5
<b>Females</b>													
Mortality	Age group	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR	CANCER / SITE	ASR
	0-14	Brain, Nervous system	0.4	Liver	0.4	Cervix	1.5	Lung	3.6	Lung	11.3	Lung	3.8
		Small intestine	0.3	NHL	0.4	Breast	1.1	Breast	3.5	Liver	4.0	Liver	1.4
		Lymphoid Leukaemia	0.3	Stomach	0.3	Lung	0.9	Liver	3.2	Breast	3.7	Breast	1.1
		Myeloid Leukaemia	0.3	Colon	0.3	Stomach	0.8	Cervix Uteri	3.1	Cervix	2.3	Cervix	1.0
		Kidney	0.2	Breast	0.1	Myeloid Leukaemia	0.5	Ovary	1.1	Colon	1.5	Colon	0.9
		All sites	1.8	All sites	1.6	All sites	7.1	All sites	22.4	All sites	36.5	All sites	13.9

## COMMON CANCERS IN CHIANG MAI, 2009

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

Lung cancer has ranked first for new male cancers in Chiang Mai since the first population-based registration in 1983. For females, lung cancer ranked third in 2005 after breast and cervical cancers. There were 571 new cases of lung cancer diagnosed in 2009 (335 males, 236 females) (Fig 8). This was 22.5% of all cancers in males and 14.3% of those in females. The age-standardized incidence rates were 35.1 for males and 20.8 for females; this was slightly decreased from the year 2008 in both sexes (Fig 9). The incidence rates increased with age in both sexes and increased sharply after the age of 45 and male rates exceeded female rates after the age of 65 (Fig 10). The cumulative rate percentages to age 75 were 4.5% for males and 3.6% for females. These represented risks of 1 in 22 for men and 1 in 27 for women of developing lung cancer by age 75.

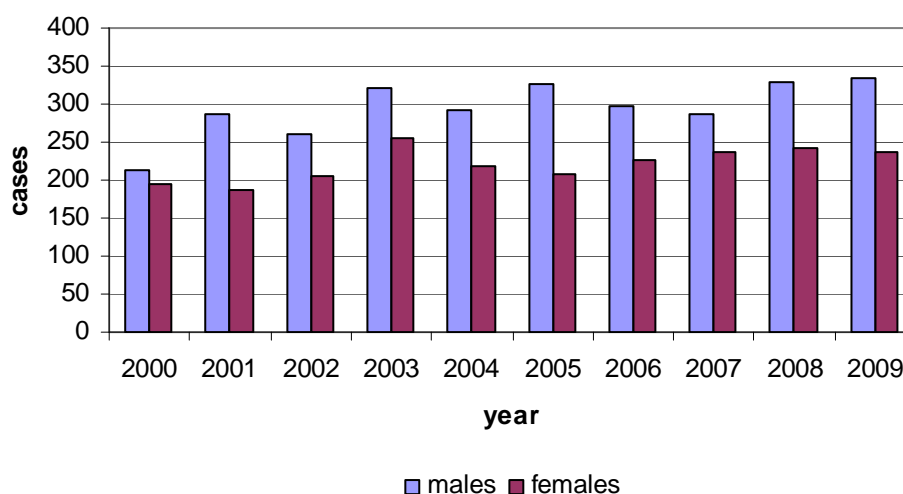


Figure 8: Number of new cases of lung cancer by sex, 2000-2009

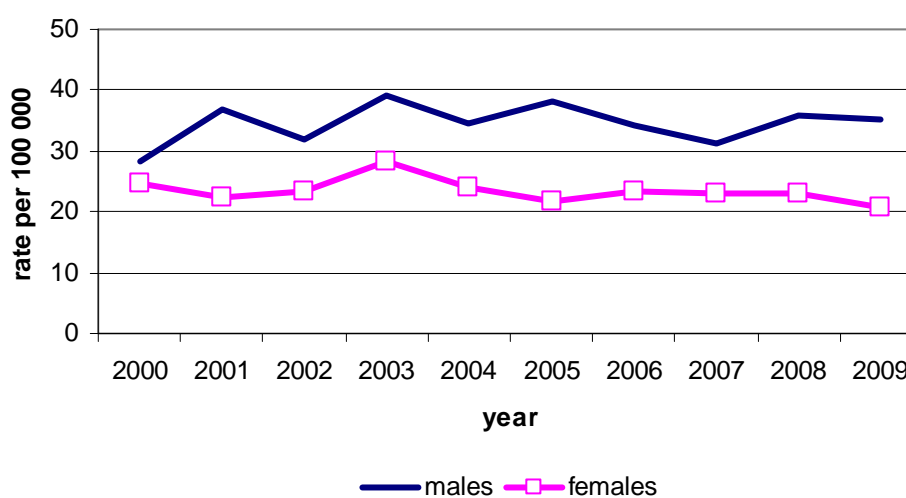
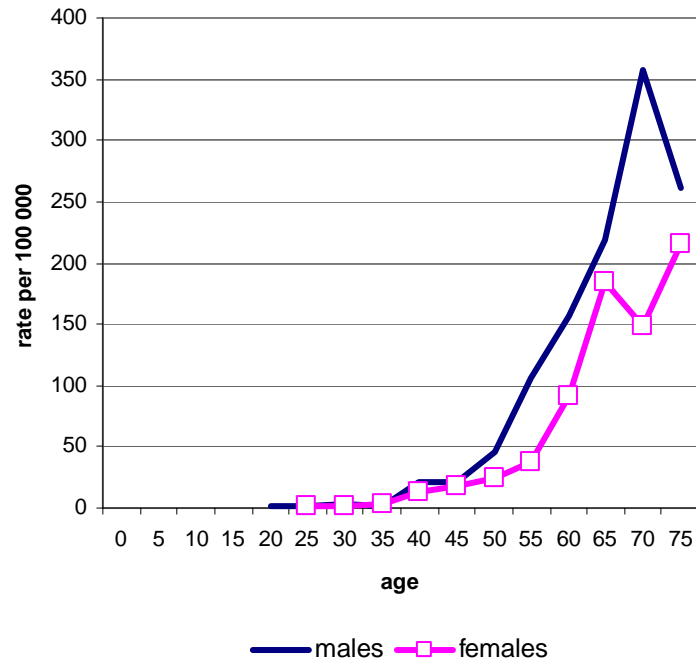
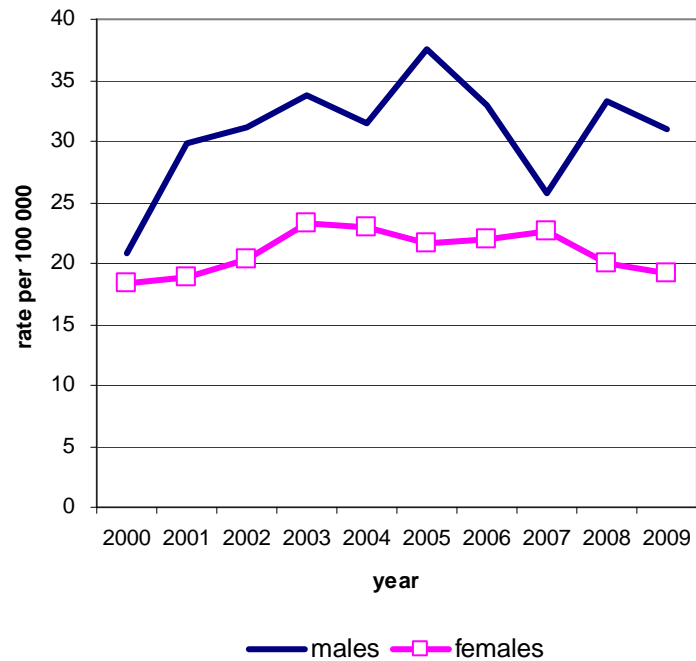


Figure 9: Incidence rates of new cases of lung cancer by sex, 2000-2009

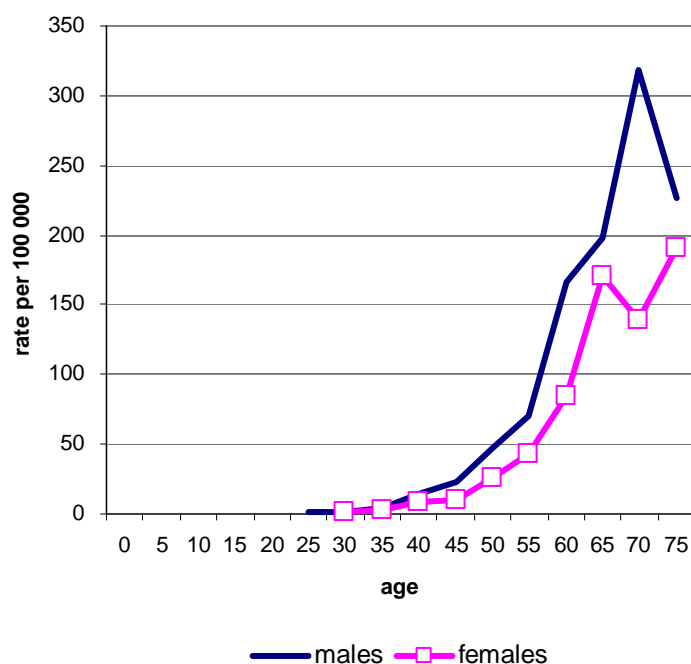


**Figure 10: Age-specific incidence rate of lung cancer, Chiang Mai, 2009**

Of the 512 deaths from lung cancer, 297 were males (25.9% of all male cancer deaths) and 215 were females (22.9% of all female cancer deaths). In 2009, the mortality rates were 31.0 for males and 19.1 for females. Compared with the year 2008, the mortality rates were slightly decreased in both sexes (Fig. 11). The mortality rates increased with age and increased sharply after the age of 50 years in both sexes (Fig. 12).



**Figure 11: Mortality rate of lung cancer by sex, Chiang Mai, 2000-2009**



**Figure 12: Age-specific mortality rate of lung cancer, Chiang Mai, 2009**

For lung cancer deaths, 429 cases (83.8%) died within one year of diagnosis and 58 cases (11.3%) died in the second year.

#### **Diagnosis and stage of cancer**

Seventy percent of cases were diagnosed in advanced stage (53.1% had distant metastasis, 17.3% had regional nodes metastasis). The most common metastasis site was lung-to-lung, followed by brain. Two hundred and twenty-seven cases (39.8%) were diagnosed by clinical diagnosis, and 11 cases were diagnosed by death certificate only. The common cell types were adenocarcinoma (33.6%) and squamous cell carcinoma (12.4%).

<b>Cell type</b>	Males	Females	Total	%	<b>Stage</b>	Cases	%
Adenocarcinoma	111	81	192	33.6	Localized	12	2.1
Squamous cell CA	49	22	71	12.4	Locally advanced	129	22.6
Small cell	24	10	34	6.0	Regional node metastasis	99	17.3
Large cell	20	12	32	5.6	Distant metastasis	303	53.1
Others	9	6	15	2.6	Unknown/not staged	28	4.9
Clinical diagnosis	122	105	227	39.8			
<b>TOTAL</b>	<b>335</b>	<b>236</b>	<b>571</b>	<b>100.0</b>	<b>All</b>	<b>571</b>	<b>100.0</b>

### Liver cancer (ICD-10 C22)

There were 437 new cases of liver cancer diagnosed in 2009 (318 males, 119 females) (Fig 13). This was 21.4% of all cancers in males and 7.2% of those in females. The age-standardized incidence rates were 32.4 for males and 10.7 for females and continued to increase in the last four years (Fig 14). Liver cancer has ranked second for new male cancers in Chiang Mai since the first population-based registration in 1983. For females, liver cancer ranked fourth after breast, cervix and lung cancers. The incidence rates increased with age for both sexes; rates for males were higher than females in all age groups (Fig. 15). The cumulative rate percentages to age 75 were 3.7% for males and 1.6% for females. These represented risks of 10 in 267 for men and 10 in 617 for women of developing liver cancer by age 75.

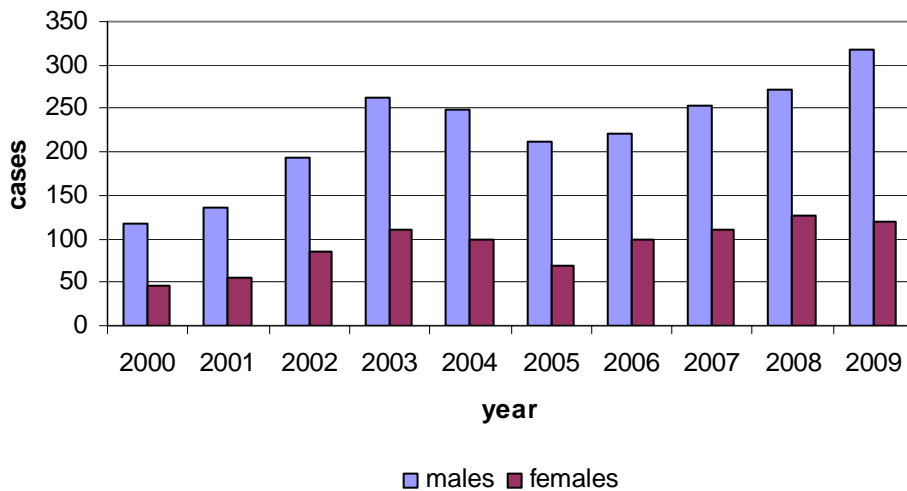


Figure 13: Number of new cases of liver cancer by sex, 2000-2009

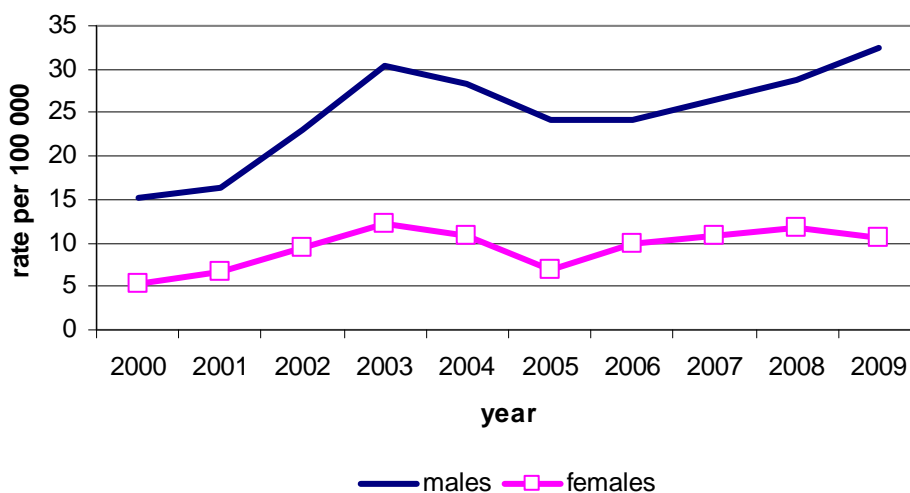
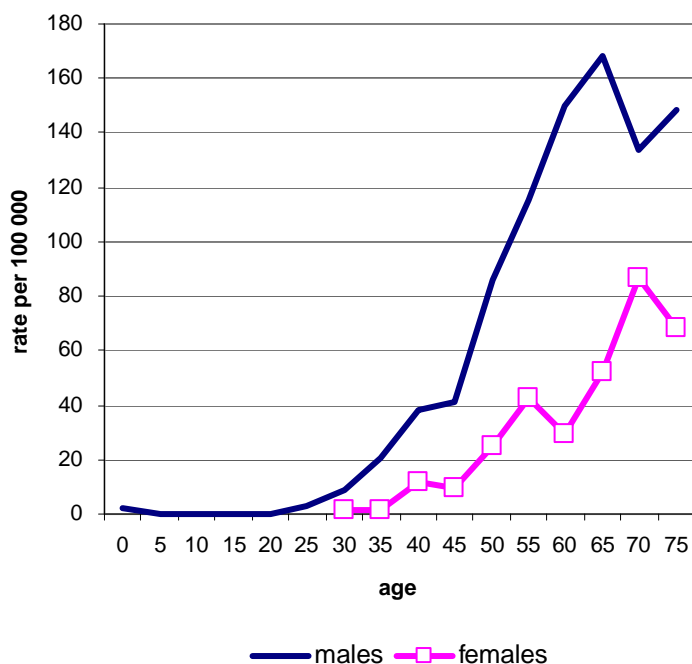
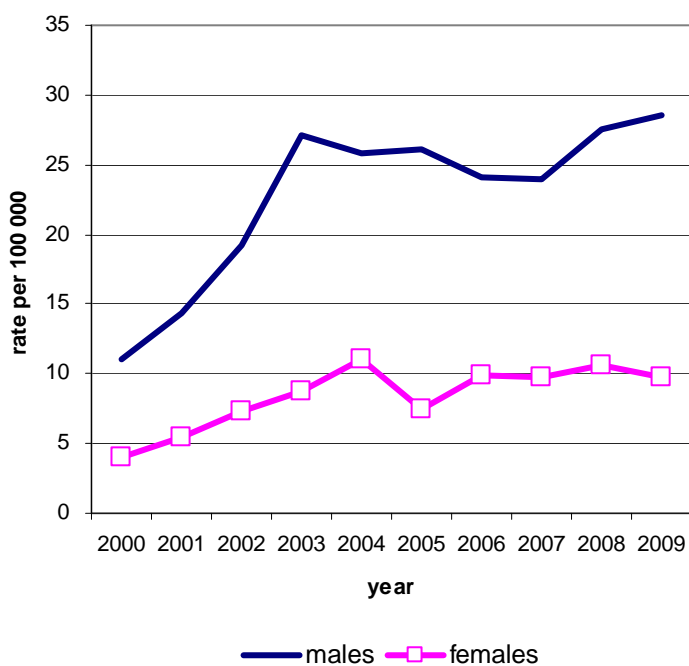


Figure 14: Incidence rates of new cases of liver cancer by sex, 2000-2009



**Figure 15: Age-specific incidence rate of liver cancer, Chiang Mai, 2009**

Of the 391 deaths from liver cancer, 284 were males (24.8% of all male cancer deaths) and 107 were females (11.4% of all female cancer deaths). The mortality rates were 28.6 for males and 9.7 for females and continued to increase during the last four years in both sexes (Fig. 16). The mortality rates increased with age in both sexes, with rates in males increasing sharply after the age of 55 years and exceeding those in females (Fig. 17).



**Figure 16: Mortality rate of liver cancer by sex, Chiang Mai, 2000-2009**

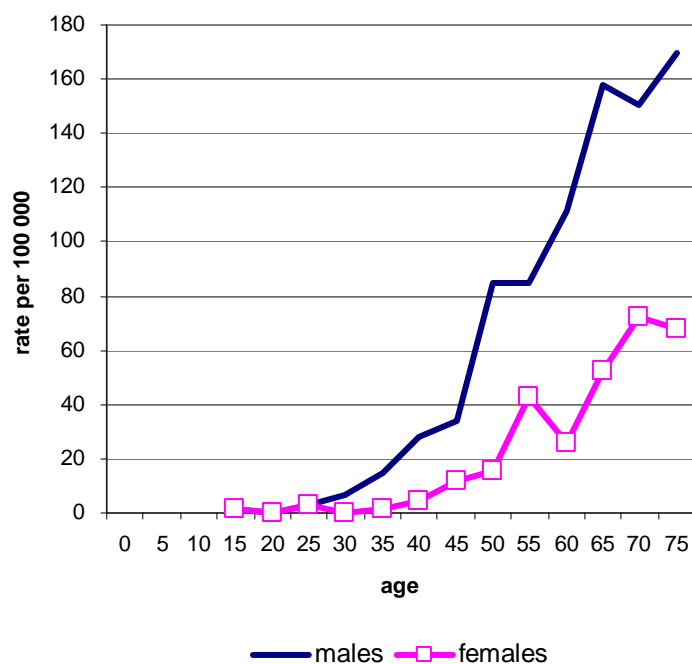


Figure 17: Age-specific mortality rate of liver cancer, Chiang Mai, 2009

For liver cancer deaths, 313 cases (80.0%) died within 6 months after diagnosis, and only 35 cases (8.9%) lived more than one year. These figures reflect the severity of this type of cancer.

#### Diagnosis and stage of cancer

Thirty-nine percent of cases were diagnosed at an advanced stage (26.1% had distant metastasis, 13.0% had regional nodes metastasis). The most common metastasis site was lung, followed by distant lymph nodes. Only 19.2% were diagnosed by histology or cytology, while 76.0% were diagnosed by imaging studies. The common cell types for histological diagnosis groups were cholangiocarcinoma (65.5%) and hepatocellular carcinoma (25.0%). Eighty-four percent of hepatocellular carcinomas and 66.7% of cholangiocarcinomas were diagnosed by clinical diagnosis.

Cell type	Males	Females	Total	%
Hepatocellular	19	2	21	4.8
Cholangiocarcinoma	34	21	55	12.6
Other	4	4	8	1.8
Clinical diagnosis	261	92	353	80.8
All	318	119	437	100.0

Stage	Cases	%
Localized	12	2.7
Locally advanced	222	50.8
Regional node metastasis	57	13.0
Distant metastasis	114	26.1
Unknown/not staged	32	7.3
All	437	100.0



### Stomach cancer (ICD-10 C16)

There were 80 new cases of stomach cancer diagnosed in 2009 (51 males, 29 females) (Fig 18) accounting for 3.4% of all cancers in males and 1.8% of those in females. The age-standardized incidence rates were 5.5 for males and 2.6 for females and tend to decrease in both sexes (Fig. 19). In 2009, stomach cancer ranked ninth for new male cancers and twelfth for females. The incidence rates increased with age in both sexes after the age of 55 years, with rates in males increasing sharply after the age of 55 years and exceeding those in females (Fig. 20). The cumulative rate percentages to age 75 were 0.8% for males and 0.4% for females. These represented risks of 1 in 126 for men and 1 in 270 for women of developing stomach cancer by age 75.

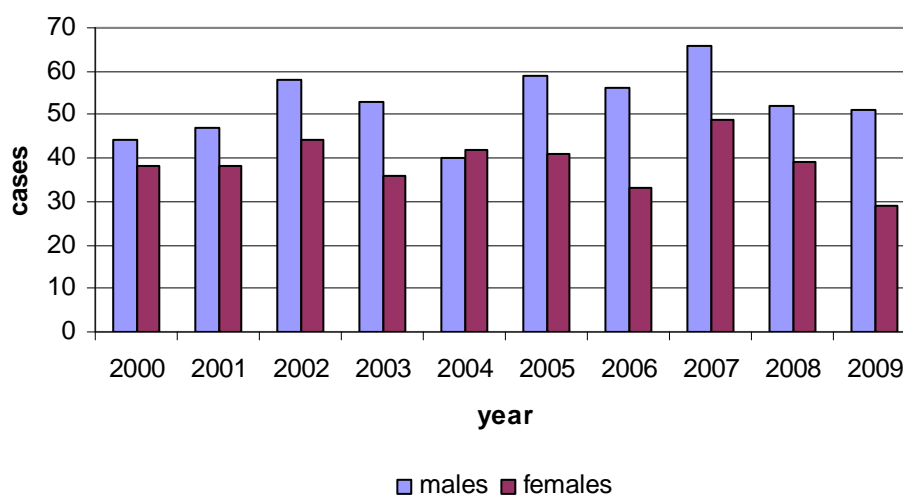


Figure 18: Number of new cases of stomach cancer by sex, 2000-2009

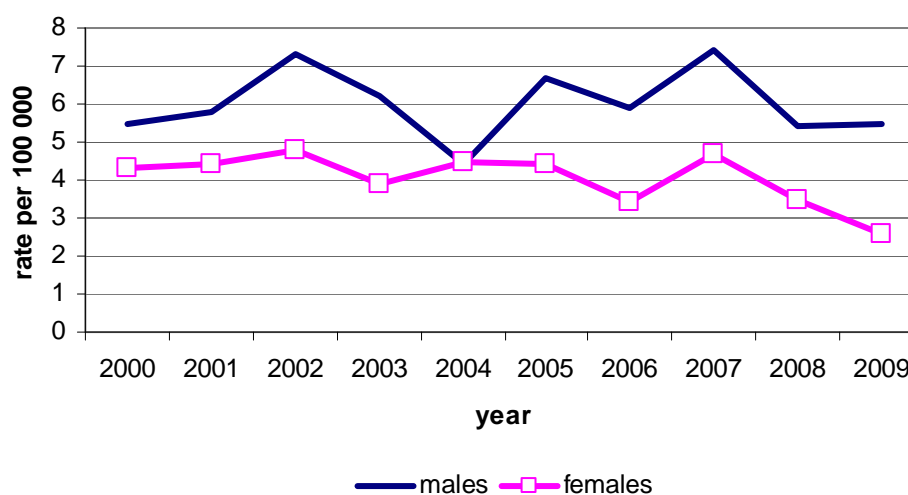
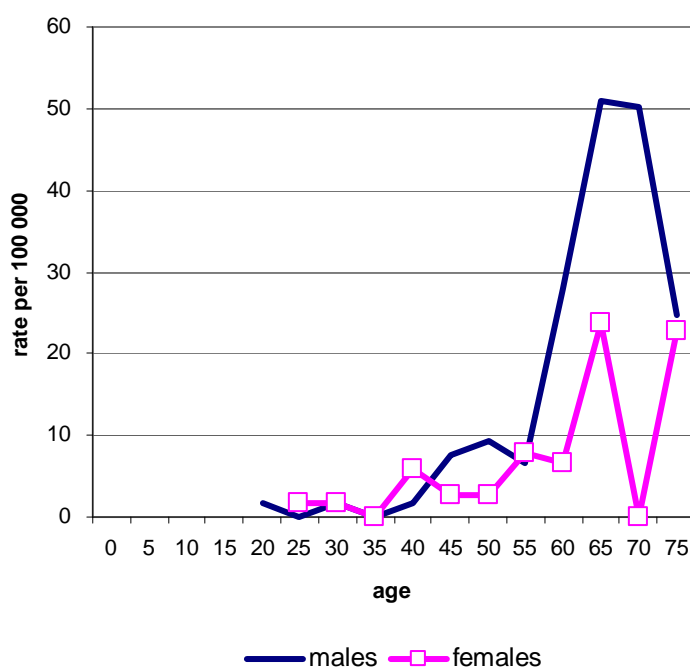
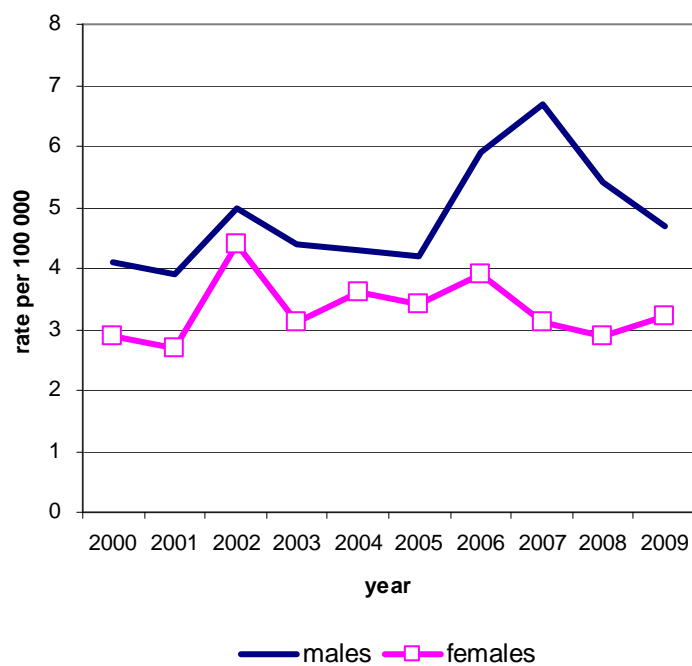


Figure 19: Incidence rates of new cases of stomach cancer by sex, 2000-2009



**Figure 20: Age-specific incidence rate of stomach cancer, Chiang Mai, 2009**

Of the 79 deaths from stomach cancer, 45 were males (3.9% of all male cancer deaths) and 34 were females (3.6% of all female cancer deaths). The mortality rates were 4.7 for males and 3.2 for females which decreased in males but slightly increased in females (Fig. 21). The mortality rates increased with age in both sexes, with rates in males exceeding those in females after the age of 55 years (Fig. 22).



**Figure 21: Mortality rate of stomach cancer by sex, Chiang Mai, 2000-2009**

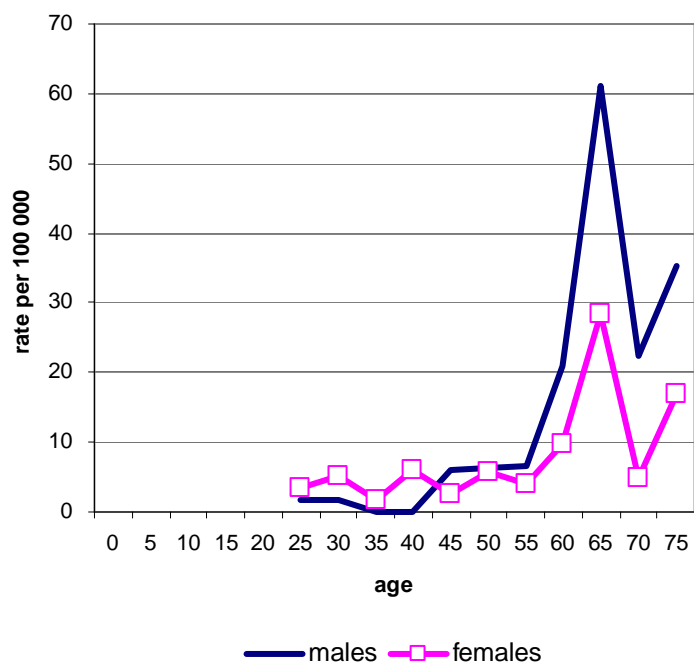


Figure 22: Age-specific mortality rate of stomach cancer, Chiang Mai, 2009

#### Diagnosis and stage of cancer

Fifty-one percent of cases were diagnosed at a locally advanced stage (27.5% had locally advanced and 23.8% had regional nodes metastasis) and 43.3% had already metastasis at first diagnosis. The most common metastasis site was peritoneum, followed by distant lymph nodes. Eighty-five percent were diagnosed by histology and the common cell types were adenocarcinoma (52.5%) and signet ring cell carcinoma (28.8%).

Cell type	Males	Females	Total	%
Adenocarcinoma	29	13	42	52.5
Signet ring cell	11	12	23	28.8
Others	2	1	3	3.8
Clinical diagnosis	9	3	12	15.0
<b>Total</b>	<b>51</b>	<b>29</b>	<b>80</b>	<b>100.0</b>

Stage	Cases	%
Localized	3	3.8
Locally advanced	22	27.5
Regional node metastasis	19	23.8
Distant metastasis	35	43.3
Unknown/not staged	1	1.3
<b>All</b>	<b>80</b>	<b>100.0</b>

### Colon cancer (ICD-10 C18)

There were 150 new cases of colon cancer diagnosed in 2009 (74 males, 76 females) (Fig 23). This was 5.0% of all cancers in males and 4.6% of those in females. Among the gastrointestinal tract cancer, colon cancer was the most common cancer in males and females. The age-standardized incidence rates were 7.7 in males and 6.7 in females and tended to increase in both sexes (Fig. 24). In 2009, colon cancer ranked fifth for new cancers for both sexes. The incidence rates increased with age in both sexes after the age of 40 years (Fig. 25). The cumulative rate percentages to age 75 was 0.9% for males and 1.0% for females. These represented risks of 1 in 105 for males and 1 in 97 for females of developing colon cancer by age 75.

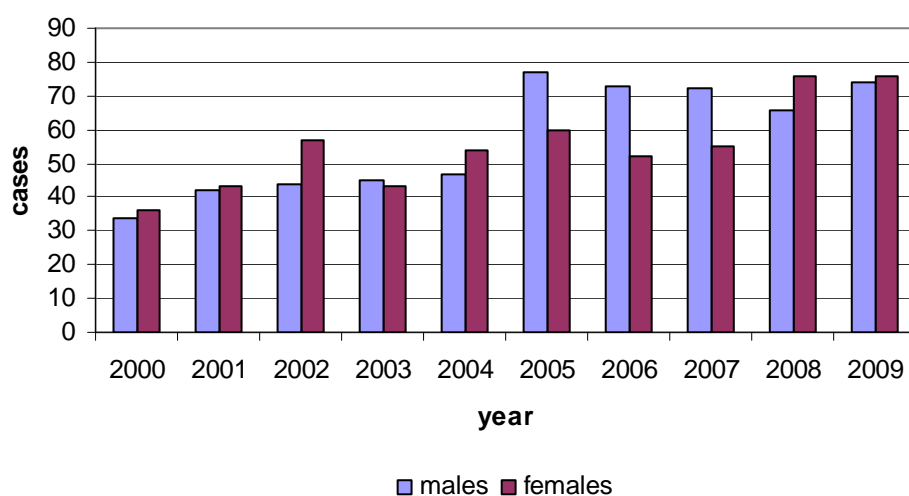


Figure 23: Number of new cases of colon cancer by sex, 2000-2009

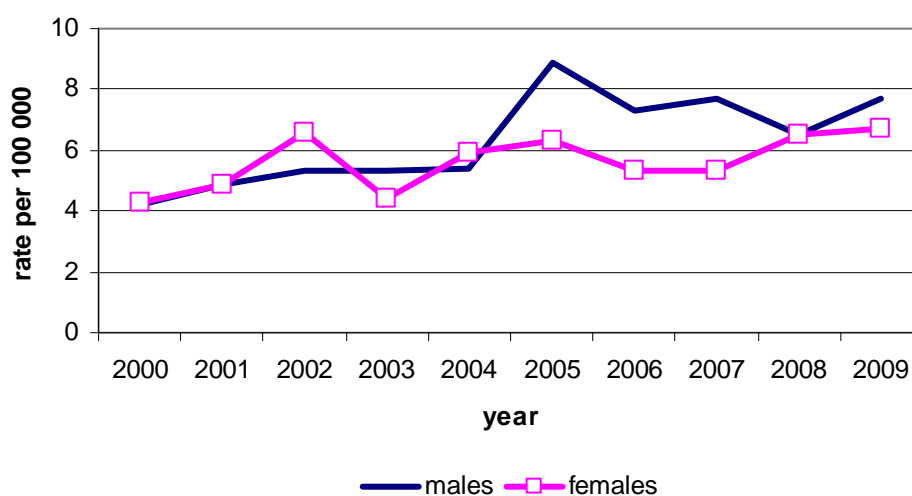
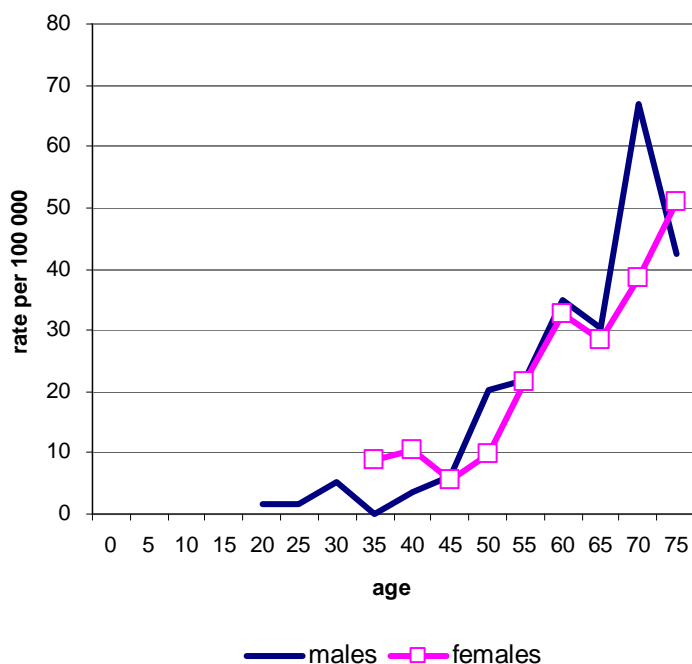
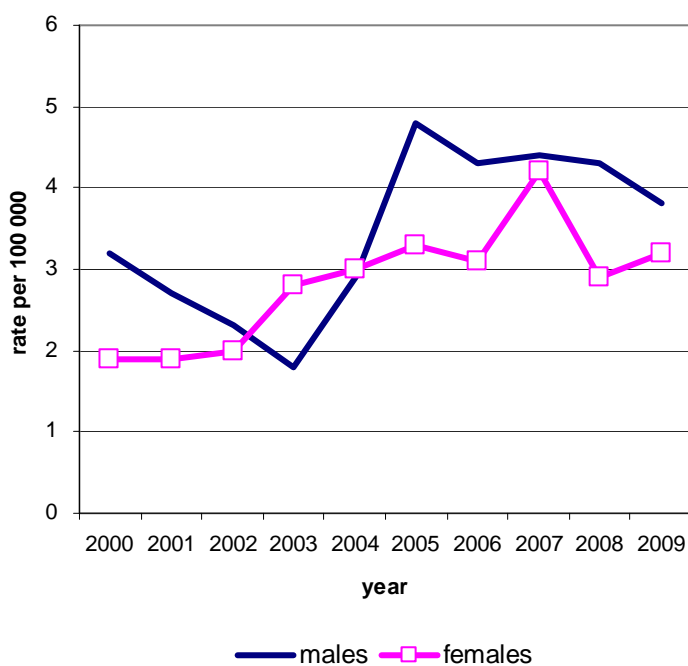


Figure 24: Incidence rates of new cases of colon cancer by sex, 2000-2009

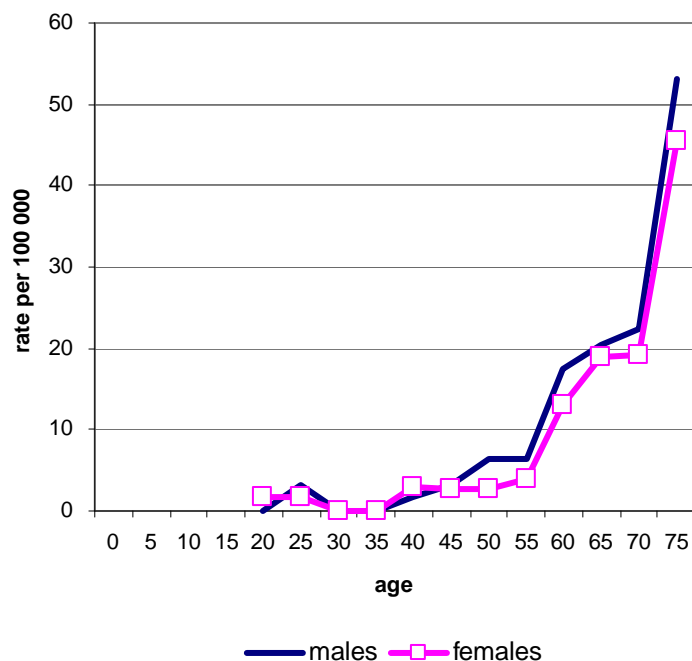


**Figure 25: Age-specific incidence rate of colon cancer, Chiang Mai, 2009**

Of the 78 deaths from colon cancer, 40 were males (3.9% of all male cancer deaths) and 38 were females (4.1% of all female cancer deaths). The age-standardized mortality rates were 3.8 for males and 3.2 for females and tended to increase in females but decrease in males (Fig. 26). The mortality rates increased with age in both sexes, and increased sharply after age 55 (Fig. 27).



**Figure 26: Mortality rate of colon cancer by sex, Chiang Mai, 2000-2009**



**Figure 27: Age-specific mortality rate of colon cancer, Chiang Mai, 2009**

### Diagnosis and stage of cancer

Sixty-five percent of cases were diagnosed at a locally advanced stage (45.3% had locally advanced, 20.0% had regional node metastasis). The most common metastasis site was liver, followed by peritoneum. Eighty-nine percent were diagnosed by histology. The most common cell type in histological diagnosis groups was adenocarcinoma (80.0%).

Cell type	Males	Females	Total	%
Adenocarcinoma	55	65	120	80.0
Mucinous carcinoma	3	2	5	3.3
Signet ring cell	2	1	3	2.0
Others	4	1	5	3.3
Clinical diagnosis	10	7	17	11.3
	74	76	150	100.0

Stage	Cases	%
Localized	7	4.7
Locally advanced	68	45.3
Regional node metastasis	30	20.0
Distant metastasis	41	27.3
Unknown/not staged	4	2.7
All	150	100.0

### Bladder cancer (ICD-10 C67)

Bladder cancer was the most common cancer of the urinary system. There were 79 new cases of bladder cancer diagnosed in 2009 (60 males, 19 females) (Fig 28). This was 4.0% of all cancers in males and 1.2% of those in females. The age-standardized incidence rates were 5.7 for males and 1.6 for females. In 2009, bladder cancer ranked tenth for both sexes, ranked seventh for new male cancers and thirteenth for females. The incidence decreased in both sexes from the year 2008 (Fig. 29). The incidence rates increased with age in both sexes; rates in males exceeded those in females in all age groups (Fig. 30). The cumulative rate percentages to age 75 were 0.6% for males and 0.3% for females. These represented risks of 1 in 156 for men and 1 in 357 for women of developing bladder cancer by age 75.

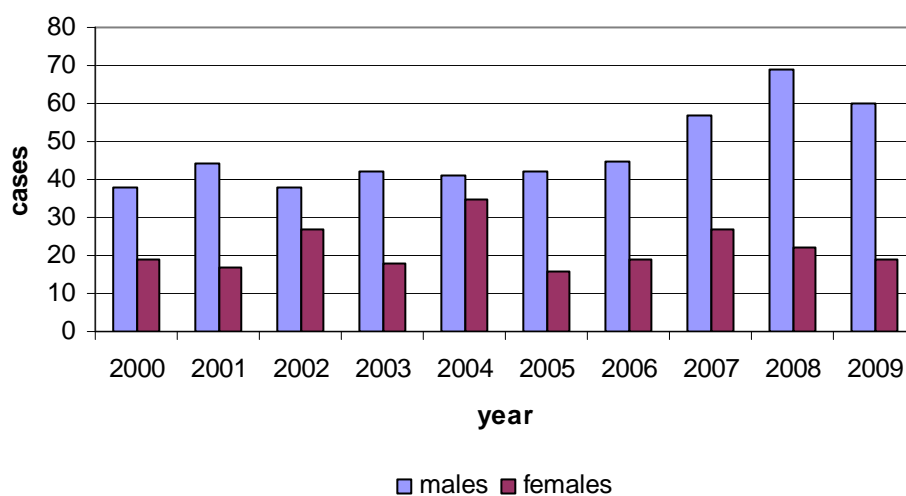


Figure 28: Number of new cases of bladder cancer by sex, 2000-2009

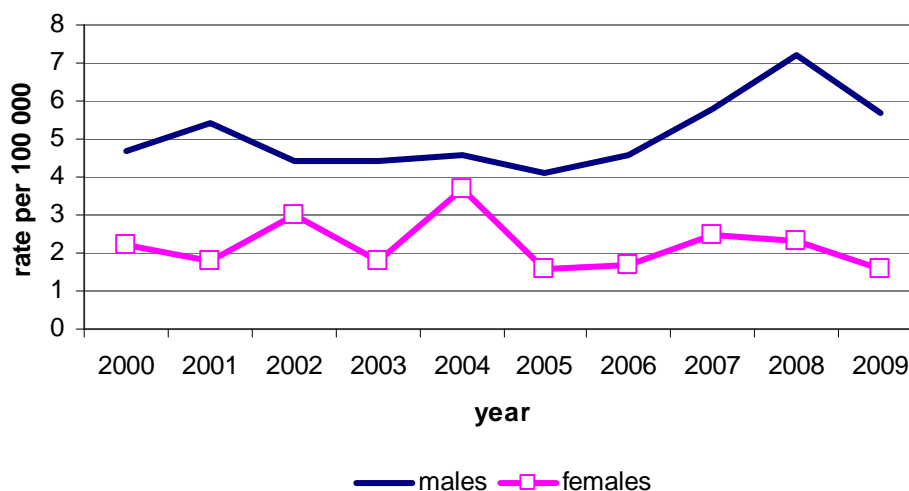
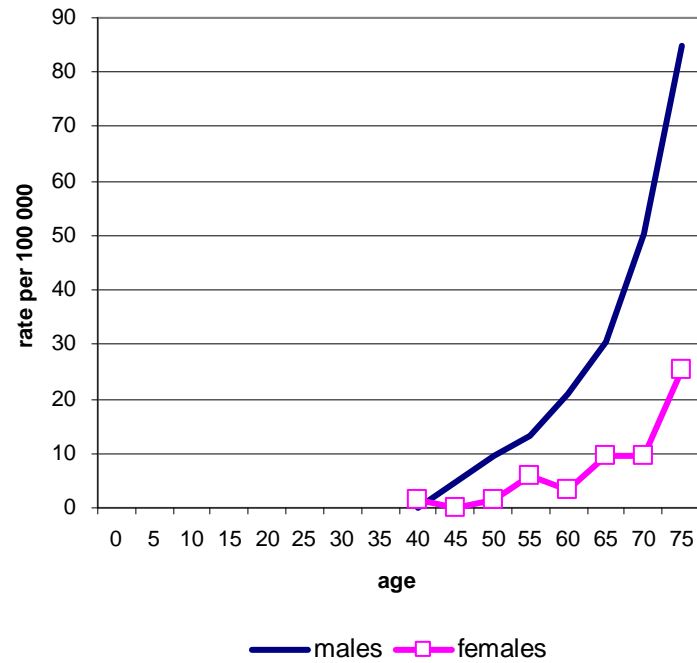
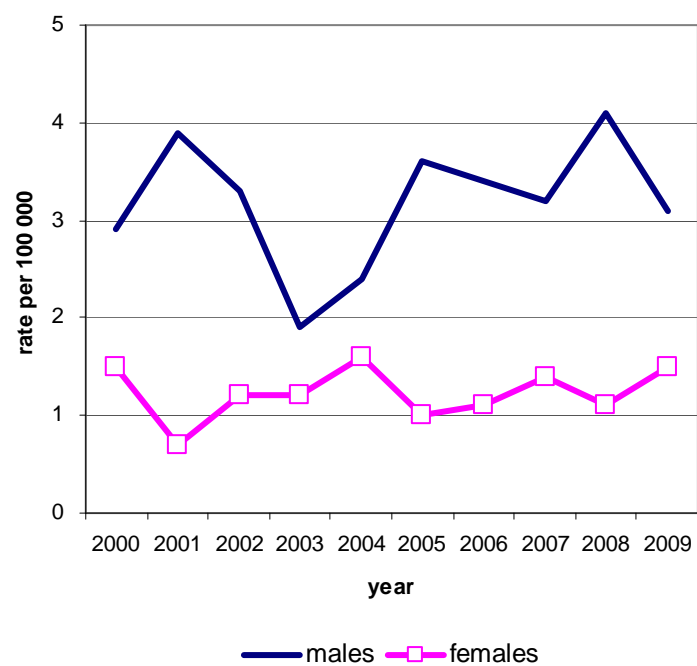


Figure 29: Incidence rates of new cases of bladder cancer by sex, 2000-2009



**Figure 30: Age-specific incidence rate of bladder cancer, Chiang Mai, 2009**

Of the 52 deaths from bladder cancer, 34 were males (3.0% of all male cancer deaths) and 18 were females (1.9% of all female cancer deaths). The age-standardized mortality rates were 3.1 for males and 1.5 for females (Fig. 31). The mortality rates increased with age in both sexes, increasing sharply after age 65 (Fig. 32).



**Figure 31: Mortality rate of bladder cancer by sex, Chiang Mai, 2000-2009**



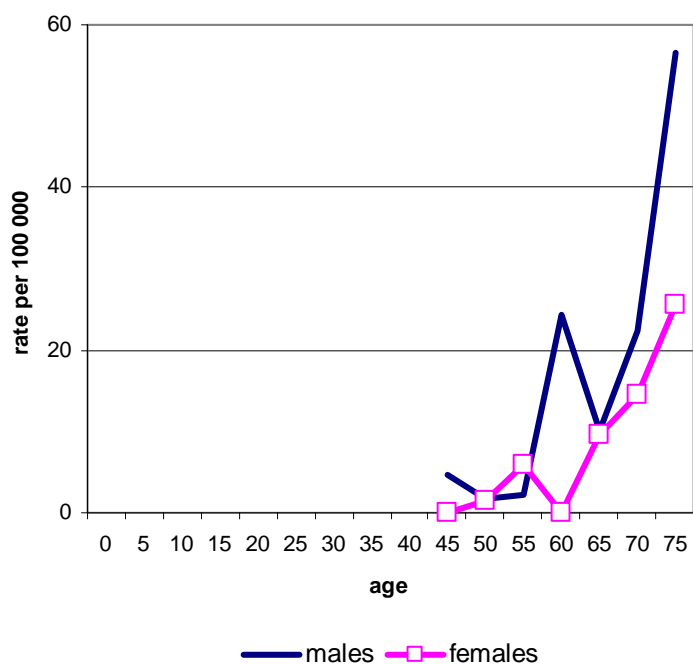


Figure 32: Age-specific mortality rate of bladder cancer, Chiang Mai, 2009

#### Diagnosis and stage of cancer

Fifty cases (63.3%) were diagnosed at a locally advanced stage and only 1 case had distant metastases. Ninety-one percent were diagnosed by histology; the most common cell type was transitional cell carcinoma (81.0%).

Cell type	Males	Females	Total	%
Transitional cell ca.	50	14	64	81.0
Adenocarcinoma	4	2	6	7.6
Other	1	1	2	2.5
Clinical diagnosis	5	2	7	8.9
All	60	19	79	100.0

Stage	Cases	%
Localized	18	22.8
Locally advanced	50	63.3
Regional node metastasis	9	11.4
Distant metastasis	1	1.3
Unknown/not staged	1	1.3
All	79	100.0

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

Non-Hodgkin's lymphoma (NHL) was the most common cancer of lymphoid and hematopoietic system. There were 129 new cases of NHL diagnosed in 2009 (69 males, 60 females) (Fig 33). This was 4.6% of all cancers in males and 3.6% of those in females. The age-standardized incidence rates were 7.5 for males and 5.8 for females. In 2009, NHL ranked fifth for male and eighth for female cancers. The incidence rates in both sexes tended to increase since the year 2003 (Fig. 34). NHL was found after the age of 15 and the incidence increased with age in both sexes, especially in males. The incidence was high after the age of 60 years (Fig. 35). The cumulative rate percentages to age 75 were 0.9% for males and 0.7% for females. These represented risks of 1 in 115 for men and 1 in 139 for women of developing NHL by age 75.

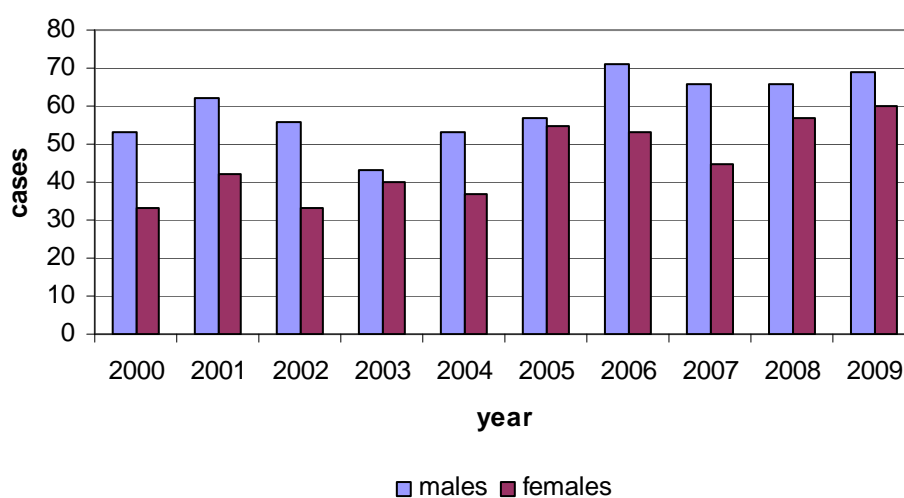


Figure 33: Number of new cases of NHL by sex, 2000-2009

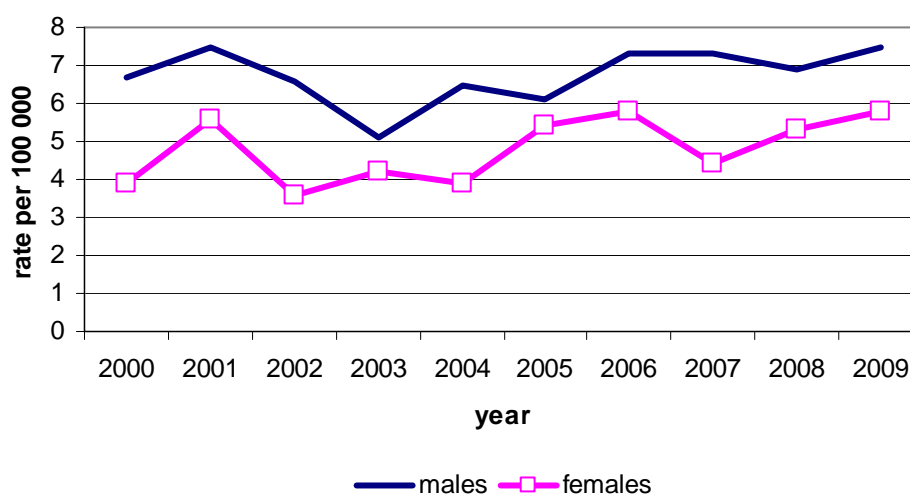
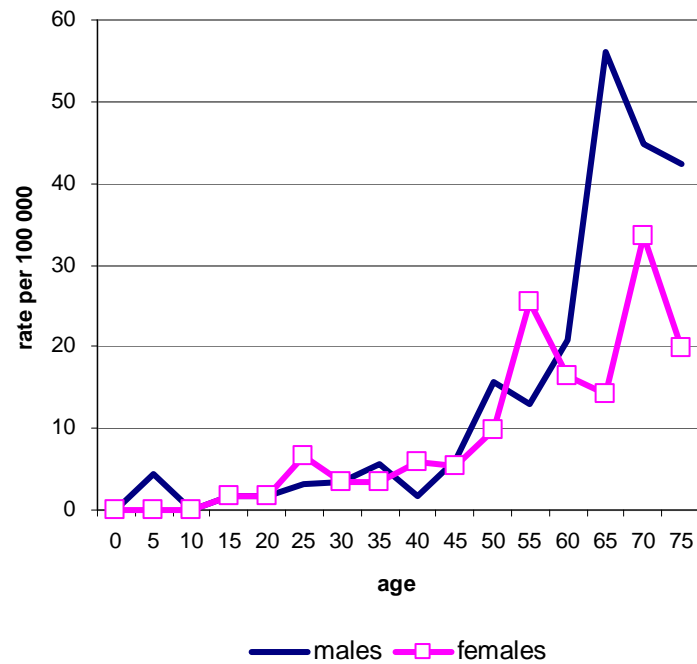
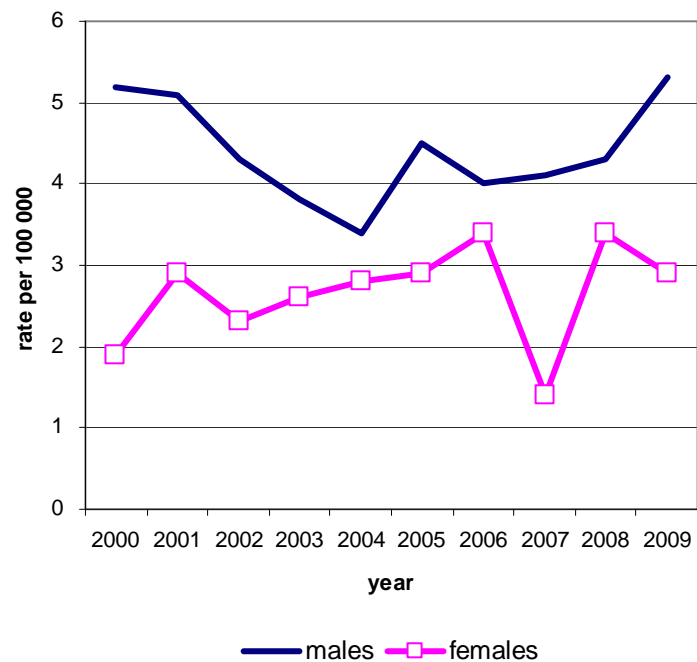


Figure 34: Incidence rates of new cases of NHL by sex, 2000-2009



**Figure 35: Age-specific incidence rate of NHL, Chiang Mai, 2009**

Of the 82 deaths from NHL, 51 were males (4.4% of all male cancer deaths) and 31 were females (3.3% of all female cancer deaths). The age-standardized mortality rates were 5.3 for males and 2.9 for females and tended to increase only in males (Fig. 36). The mortality rates increased with age in both sexes, especially in males increasing sharply after age 60 (Fig. 37).



**Figure 36: Mortality rate of NHL by sex, Chiang Mai, 2000-2009**

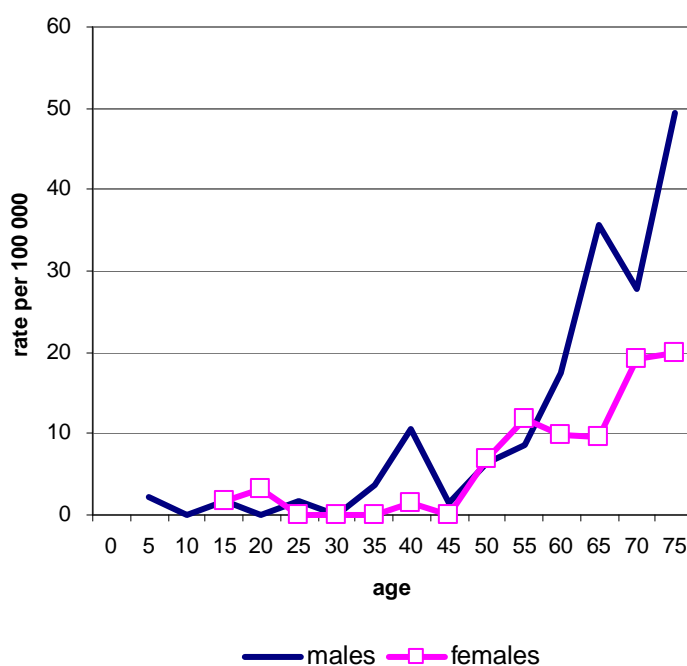


Figure 37: Age-specific mortality rate of NHL, Chiang Mai, 2009

### Diagnosis and stage of cancer

The stage of NHL in the Chiang Mai Cancer Registry was noted as “not applicable” because of insufficient information about staging. All cases were histologically verified. The most common cell types was malignant lymphoma, large B-cell, diffuse, NOS (M9680/3) (55.0%) and followed by malignant lymphoma, NOS (M9590/3); mature T-cell lymphoma (M9702/3) and malignant lymphoma, non-Hodgkin’s, NOS (M9591/3).

Cell type	Males	Females	Total	%
Large B-cell, diffuse	38	33	71	55.0
Malig.lymphoma,nos	8	2	10	7.8
Mature T-cell	4	6	10	7.8
Non-Hodgkin,nos	5	3	8	6.2
Other	14	16	30	23.3
All	69	60	129	100.0

### Cervical cancer (ICD-10 C53)

There were 245 new cases of invasive cervical cancer diagnosed in 2009. This was 14.8% of all cancers in females (Fig 38). The age-standardized incidence rate was 22.4 and decreased from the year 2008 (Fig. 39). Cervical cancer was one of the three most common cancers in females, ranking second in 2009 after breast cancer. The incidence rates increased sharply after age 35 (Fig 40) and were more common than breast cancer in the age group 30-44 years. The age at diagnosis ranged from 24 to 83 years with a mean age of 51.5 years and a median age of 50.0 years. The cumulative rate percentage to age 75 was 2.4%, representing a risk of 10 in 413 for women of developing cervical cancer by age 75.

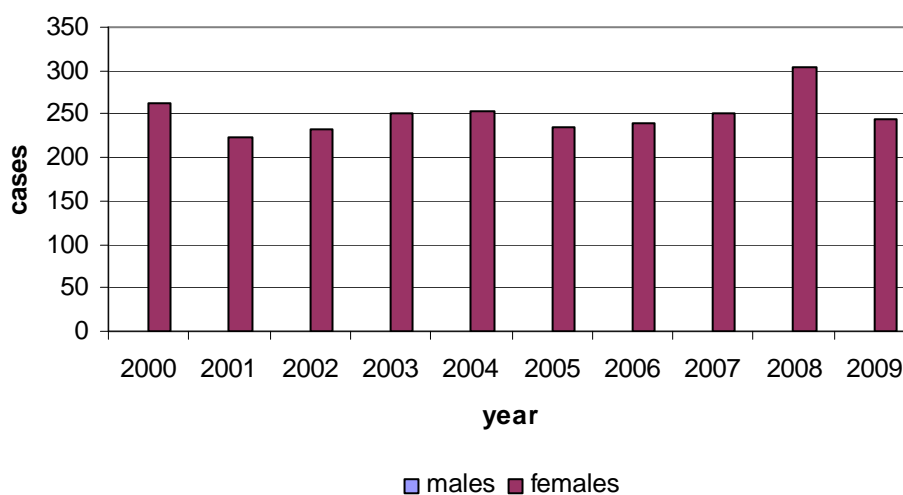


Figure 38: Number of new cases of cervical cancer, 2000-2009

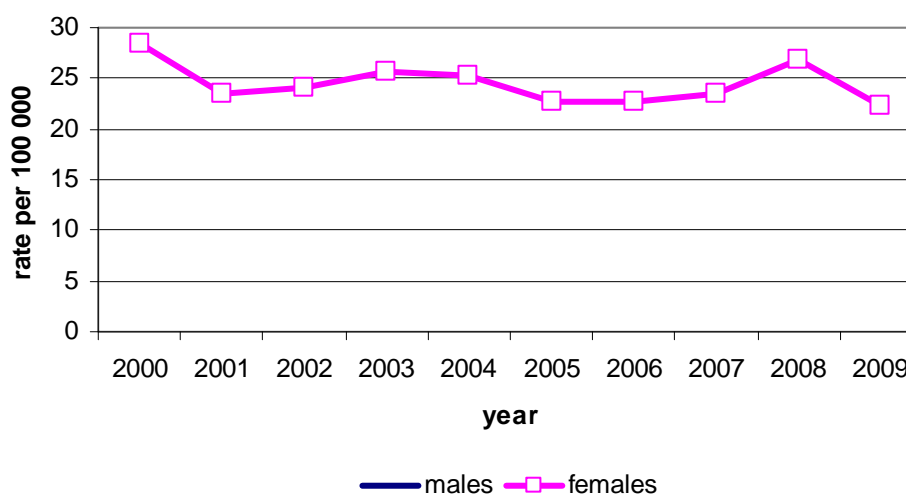
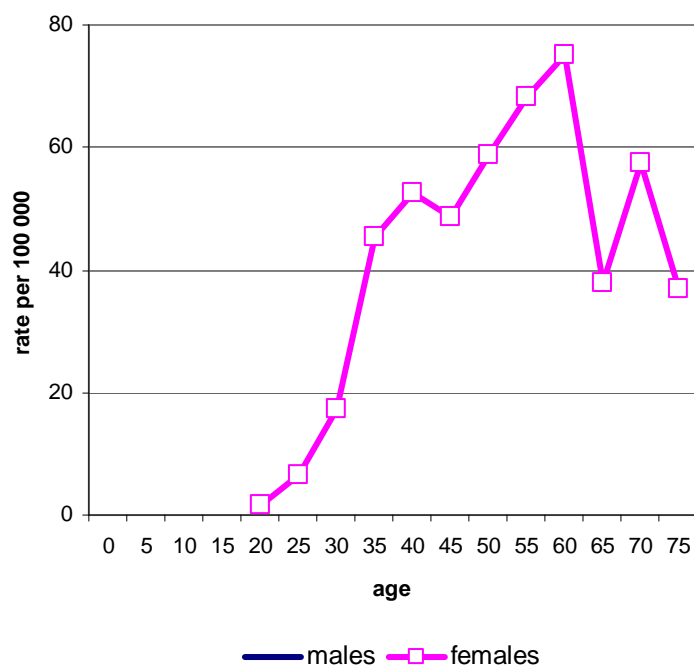
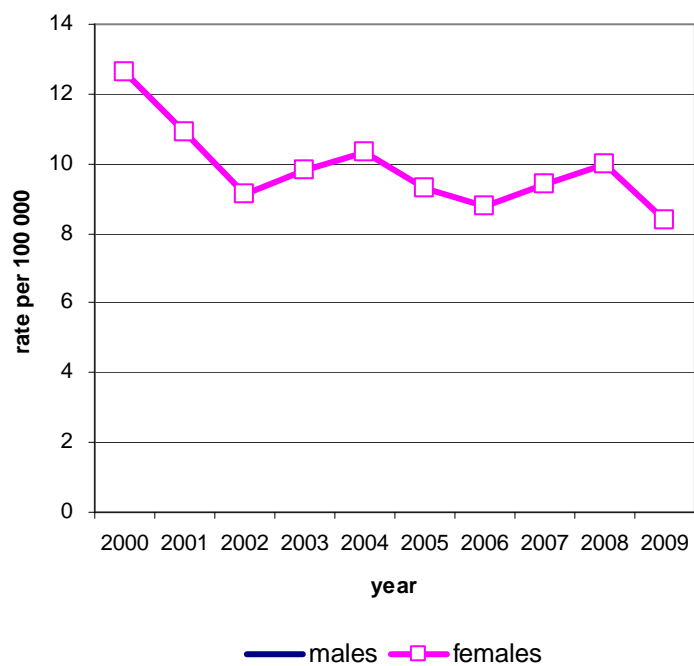


Figure 39: Incidence rates of new cases of cervical cancer, 2000-2009

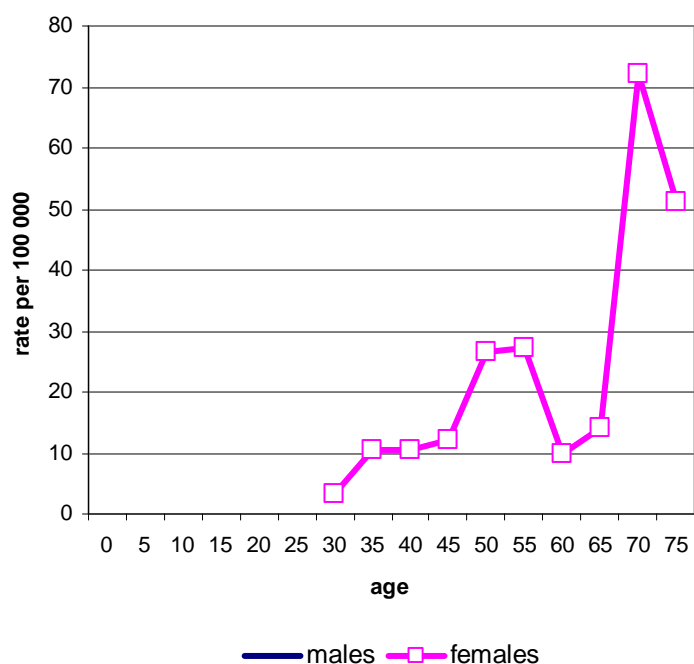


**Figure 40: Age-specific incidence rate of cervical cancer, Chiang Mai, 2009**

There were 96 deaths from cervical cancer, accounting for 10.2% of all female cancer deaths. The age-standardized mortality rate was 8.4 and tended to continue decreasing after 2000 (Fig. 41). The mortality rate increased with age, increasing sharply after age 50 (Fig. 42).



**Figure 41: Mortality rate of cervical cancer, Chiang Mai, 2000-2009**



**Figure 42: Age-specific mortality rate of cervical cancer, Chiang Mai, 2009**

For cervical cancer deaths, 42 cases (43.7%) survived more than two years, and 38 cases (39.6%) survived less than one year.

#### **Diagnosis and stage of cancer**

There were 286 cases of carcinoma in situ of the cervix that were not included in this analysis. For invasive cancer, 123 cases (50.2%) were diagnosed in localized stage and 14 cases had distant metastases. The most common metastasis site was distant lymph nodes. Ninety-seven percent had histological diagnosis; the common cell types were squamous cell carcinoma (82.0%) and adenocarcinoma (12.2%).

<b>Cell type</b>	Females	Total	%
Squamous cell	201	201	82.0
Adenocarcinoma	30	30	12.2
Other	8	8	3.3
Clinical diagnosis	6	6	2.4
<b>All</b>	<b>245</b>	<b>245</b>	<b>100.0</b>

<b>Stage</b>	Cases	%
Localized	123	50.2
Locally advanced	99	40.4
Regional node metastasis	9	3.7
Distant metastasis	14	5.7
Unknown/not staged	0	0.0
<b>All</b>	<b>245</b>	<b>100.0</b>

### Female breast cancer (ICD-10 C50)

Breast cancer was the most common cancer in females and there were 353 new cases of female breast cancer diagnosed in 2009 (Fig 43). This was 19.7% of all cancers in females. The age-standardized incidence rate was 29.1 and slightly decreased from the year 2008 (Fig. 44). The incidence rate increased sharply from the age of 30 years to a maximum in the age group 50-54 years (Fig 45). Breast cancer was more common than cervical and lung cancer in the age group 45-59 years. The mean age at diagnosis was 52.2 years; the median age at diagnosis was 51 years. The cumulative rate percentage to age 75 was 3.2%, representing a risk of 1 in 31 for women of developing breast cancer by age 75.

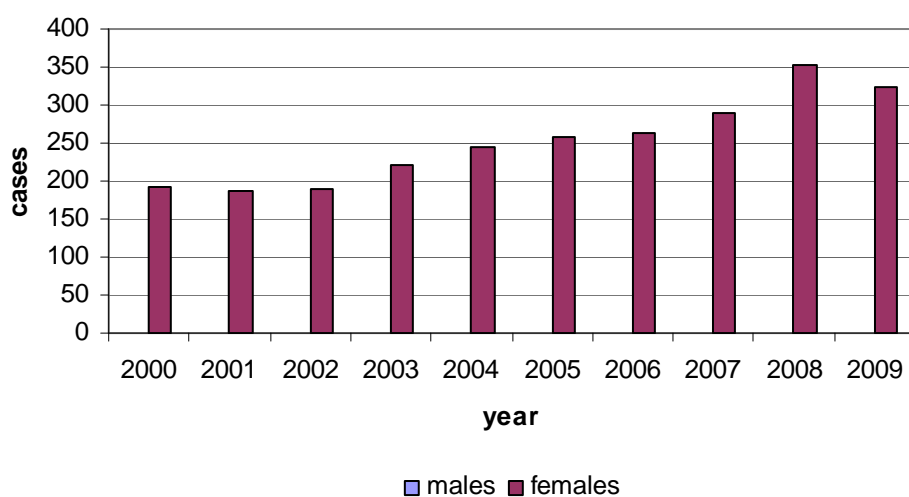


Figure 43: Number of new cases of female breast cancer, 2000-2009

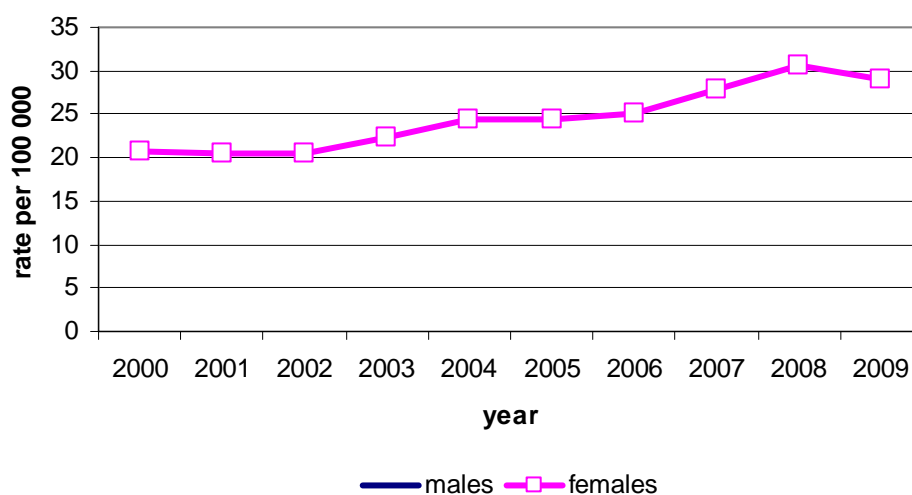
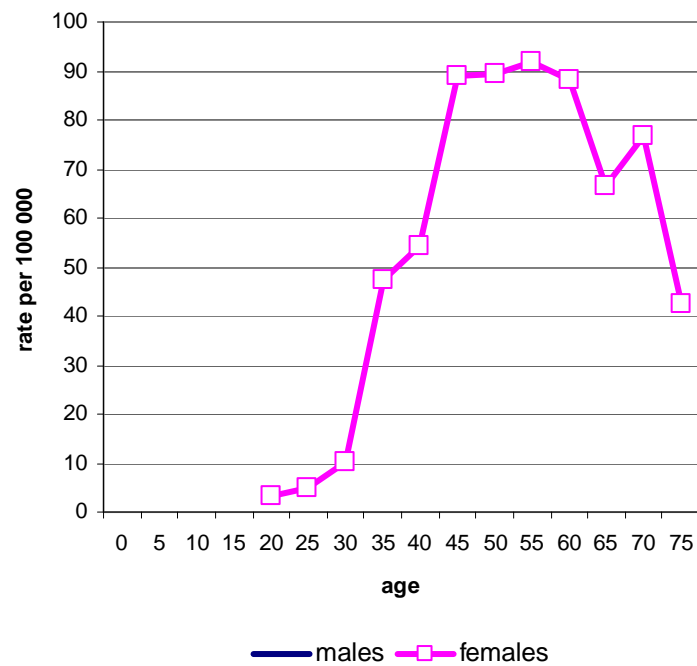


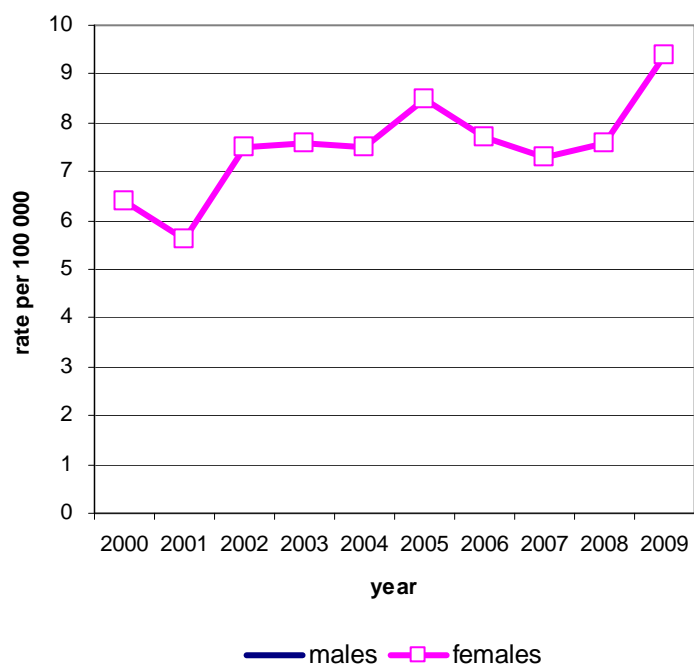
Figure 44: Incidence rates of new cases of female breast cancer, 2000-2009



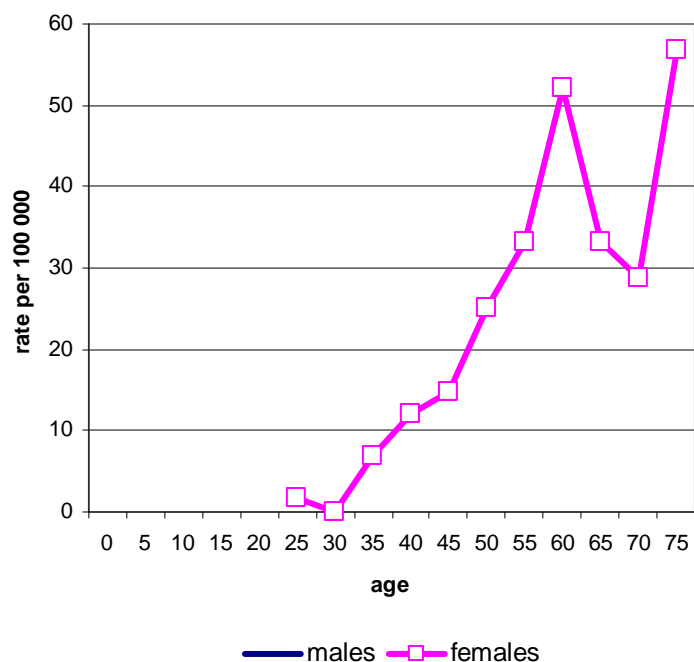


**Figure 45: Age-specific incidence rate of female breast cancer, Chiang Mai, 2009**

There were 108 deaths from breast cancer, accounting for 11.5% of all female cancer deaths and was the second most common cause of cancer death after lung cancer. The age-standardized mortality rate was 9.4 and tended to increase in the last ten years (Fig. 46). The mortality rate increased with age, increasing sharply after age 50 (Fig. 47).



**Figure 46: Mortality rate of female breast cancer, Chiang Mai, 2000-2009**



**Figure 47: Age-specific mortality rate of female breast cancer, Chiang Mai, 2009**

For breast cancer deaths, 26 cases (24.1%) survived more than five years, 48 cases (44.1%) survived more than three years and 21 cases (19.4%) survived less than one year.

### Diagnosis and stage of cancer

Fifty-two percent were diagnosed in locally advanced stage and 20 cases had distant metastases at first diagnosis. The common metastasis sites were lung (7 cases) and bone (6 cases). Ninety-eight percent had histological diagnosis; the most common cell type was invasive ductal carcinoma (89.5%).

Cell type	Females	Total	%	Stage	Cases	%
Invasive ductal ca.	291	291	89.5	Localized	67	20.6
Lobular carcinoma	8	8	2.5	Locally advanced	169	52.0
Mucinous ca.	6	6	1.8	Regional node metastasis	67	20.6
Papillary ca.	1	1	0.3	Distant metastasis	20	6.2
Others	13	13	4.0	Unknown/not staged	2	0.6
Clinical diagnosis	6	6	1.8			
All	325	325	100.0	All	325	100.0

### Nasopharynx cancer (ICD-10 C11)

In 2009, nasopharyngeal cancer was the most common pharyngeal cancer and ranked twelfth for new male cancers and eighteenth for females. There were 38 new cases of nasopharyngeal cancer diagnosed in 2009 (25 males, 13 females) (Fig 48). This was 1.7% of all cancers in males and 0.8% of those in females. The age-standardized incidence rates were 2.6 for males and 1.3 for females. It was more common in males than in females in all age groups. The incidence rates were slightly increased from the year 2008 in both sexes (Fig. 49). The rates in males were higher than in females after age 45 (Fig. 50). The cumulative rate percentages to age 75 were 0.3% for males and 0.1% for females. These represented risks of 1 in 312 for men and 1 in 769 for women of developing nasopharyngeal cancer by age 75.

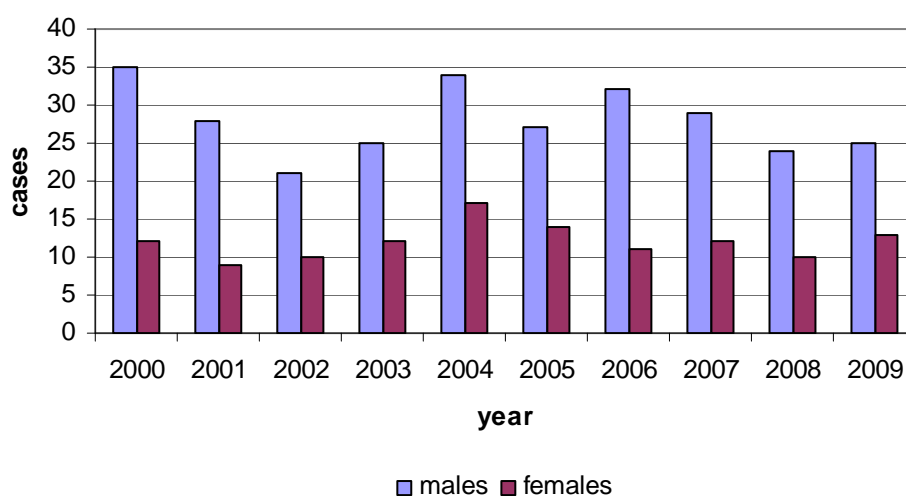


Figure 48: Number of new cases of nasopharyngeal cancer by sex, 2000-2009

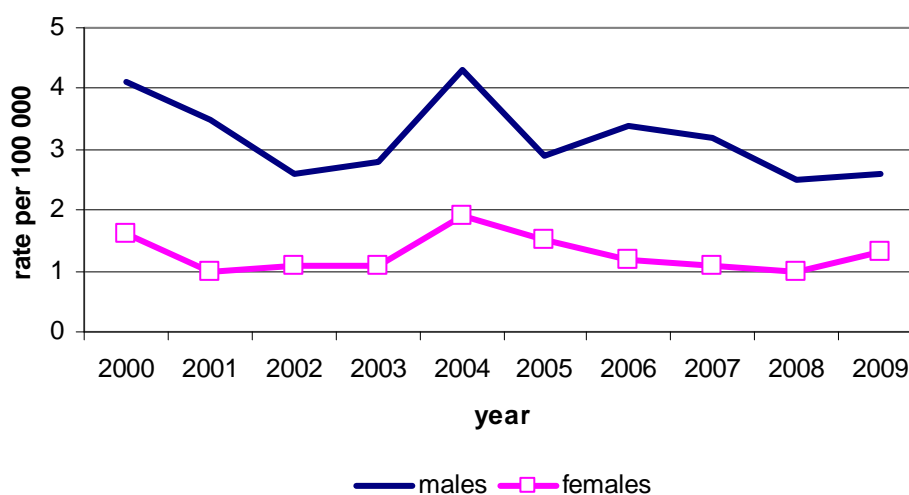
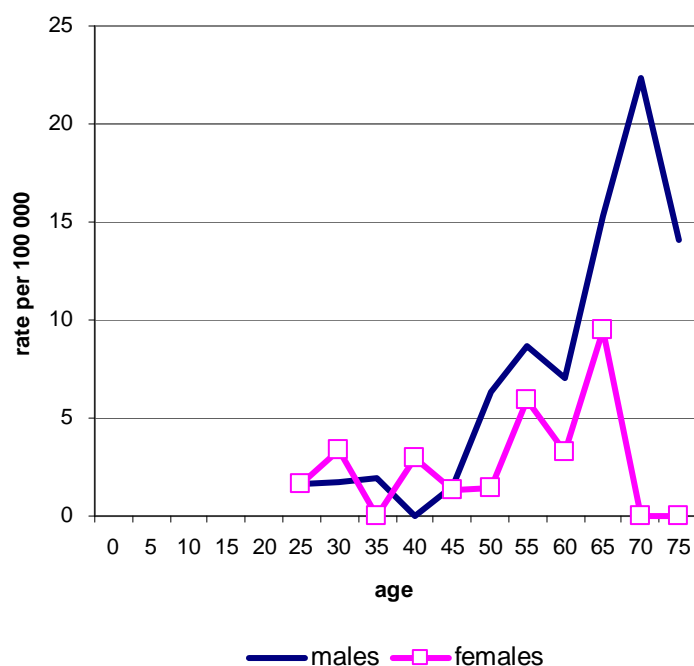
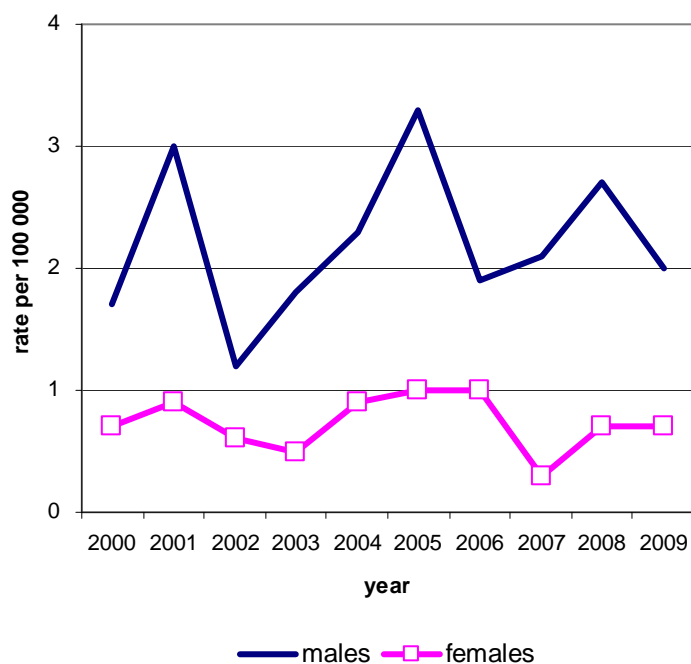


Figure 49: Incidence rates of new cases of nasopharyngeal cancer by sex, 2000-2009



**Figure 50: Age-specific incidence rate of nasopharyngeal cancer, Chiang Mai, 2009**

Of the 27 deaths from nasopharyngeal cancer, 19 were males (1.7% of all male cancer deaths) and 8 were females (0.9% of all female cancer deaths). The age-standardized mortality rates were 2.0 for males and 0.7 for females (Fig. 51). The mortality rates increased with age in both sexes, and males had higher rates than females in all age groups (Fig. 52).



**Figure 51: Mortality rate of nasopharyngeal cancer by sex, Chiang Mai, 2000-2009**

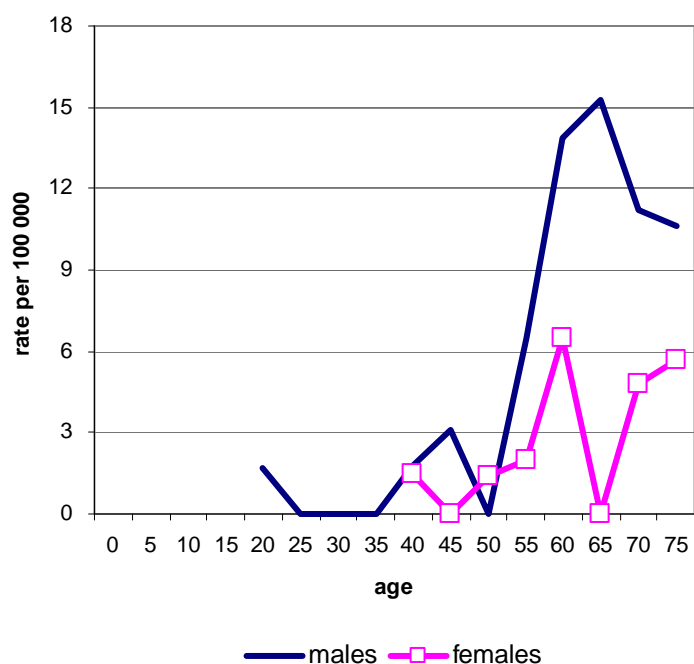


Figure 52: Age-specific mortality rate of nasopharyngeal cancer, Chiang Mai, 2009

#### Diagnosis and stage of cancer

Twenty-four cases (63.2%) were diagnosed in regional node metastasis and 5 cases had distant metastases. All cases had histological diagnosis; the common cell types were undifferentiated carcinoma (55.3%) and squamous cell carcinoma (39.5%).

Cell type	Males	Females	Total	%
Undiff. Carcinoma	14	7	21	55.3
Squamous cell ca.	10	5	15	39.5
Other	1	1	2	5.3
Clinical diagnosis	0	0	0	0
All	25	13	38	100.0

Stage	Cases	%
Localized	1	2.6
Locally advanced	7	18.4
Regional node metastasis	24	63.2
Distant metastasis	5	13.2
Unknown/not staged	1	2.6
All	38	100.0

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## **COMPLETENESS AND QUALITY OF DATA**

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

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

### **Histologically verified cases**

Histologically verified (HV) cases are those with pathological verification of diagnosis. This is generally taken to indicate the validity of the data. Histology verified cases were 65.9% for males (Table 8), and 82.3% for females (Table 9). Lower HV percentages were found in cases of cancer of the hepatobiliary and nervous system.

### **Mortality/Incidence (M/I) ratio**

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

### **Death certificate only cases**

A death certificate only (DCO) case is one without cancer information available other than that stated in the death certificate. It indicates indirectly how many cancer cases are missed in registration because of no information during the lifetime of the patient. In 2009, 38 cases (1.2%) were diagnosed by death certificate only. The age of DCO cases ranged from 31 to 86 years; the median age at death was 67 years. The common cancer sites were lung and liver.

**Table 8: Indices of quality control of cancer data in Chiang Mai, 2009, males**

Cancer/site	Cases	%DCO	%HV	M/I ratio	ICD (10th)
Lip	0	-	-	-	C00
Tongue	14	-	92.9	92.9	C01-C02
Mouth	13	-	84.6	69.2	C03-C06
Salivary glands	4	-	100.0	100.0	C07-C08
Tonsil	6	-	100.0	83.3	C09
Other Oropharynx	4	-	100.0	75.0	C10
Nasopharynx	25	-	100.0	76.0	C11
Hypopharynx	4	-	100.0	175.0	C12-C13
Pharynx unspecified	1	-	100.0	100.0	C14
Oesophagus	21	-	85.7	47.6	C15
Stomach	51	-	82.4	88.2	C16
Small intestine	6	-	83.3	100.0	C17
Colon	74	-	86.5	54.1	C18
Rectum	64	-	89.1	70.3	C19-C20
Anus	2	-	100.0	50.0	C21
Liver	318	2.2	17.9	89.3	C22
Gallbladder	20	5.0	50.0	105.0	C23-C24
Pancreas	28	3.6	42.9	82.1	C25
Nose, sinuses	3	-	100.0	166.7	C30-C31
Larynx	18	-	94.4	77.8	C32
Lung	335	1.8	63.6	88.7	C33-C34
Other Thoracic organs	6	-	100.0	16.7	C37-C38
Bone	9	-	88.9	88.9	C40-C41
Melanoma of Skin	5	-	100.0	40.0	C43
Other Skin	57	-	100.0	35.1	C44
Mesothelioma	0	-	-	-	C45
Kaposi sarcoma	1	-	100.0	100.0	C46
Connective,Soft tissue	3	-	100.0	166.7	C47;C49
Breast	3	-	100.0	66.7	C50
Penis	9	-	100.0	22.2	C60
Prostate	76	-	88.2	47.4	C61
Testis	4	-	100.0	25.0	C62
Other male genital	1	-	100.0	100.0	C63
Kidney	21	-	61.9	104.8	C64
Renal Pelvis	1	-	100.0	0.0	C65
Ureter	3	-	33.3	33.3	C66
Bladder	60	-	91.7	56.7	C67
Other Urinary organs	0	-	-	-	
Eye	7	-	85.7	14.3	C69
Brain, Nervous system	27	-	44.4	77.8	C70-C72
Thyroid	3	-	66.7	266.7	C73
Adrenal gland	0	-	-	-	C74
Other Endocrine	1	-	100.0	0.0	
Hodgkin disease	4	-	100.0	50.0	C81
Non-Hodgkin lymphoma	69	-	100.0	73.9	C82-C85;C96
Immunoproliferative diseases	0	-	-	-	
Multiple Myeloma	11	-	100.0	54.5	C90
Lymphoid Leukaemia	12	-	100.0	66.7	C91
Myeloid Leukaemia	23	-	100.0	43.5	C92-C94
Leukaemia unspec.	0	-	-	-	C95
Other & unspecified	59	8.5	62.7	84.7	Other
<b>All sites Total</b>	<b>1486</b>	<b>1.3</b>	<b>65.9</b>	<b>77.2</b>	

%DCO Percentage of cases with diagnosis based on death certificate only

%HV Percentage of cases with histological verification of diagnosis

M/I ratio The ratio of deaths to cases registered (percent)



**Table 9: Indices of quality control of cancer data in Chiang Mai, 2009, females**

Cancer/site	Cases	%DCO	%HV	M/I ratio	ICD (10 <sup>th</sup> )
Lip	2	-	100.0	100.0	C00
Tongue	5	-	100.0	60.0	C01-C02
Mouth	5	20.0	80.0	200.0	C03-C06
Salivary glands	6	-	100.0	16.7	C07-C08
Tonsil	2	-	100.0	150.0	C09
Other Oropharynx	0	-	-	-	C10
Nasopharynx	13	-	100.0	61.5	C11
Hypopharynx	3	-	100.0	66.7	C12-C13
Pharynx unspec.	1	-	100.0	0.0	C14
Oesophagus	7	-	85.7	57.1	C15
Stomach	29	-	89.7	117.2	C16
Small intestine	4	-	75.0	100.0	C17
Colon	76	-	90.8	50.0	C18
Rectum	54	-	90.7	53.7	C19-C20
Anus	5	-	100.0	80.0	C21
Liver	119	6.7	22.7	89.9	C22
Gallbladder etc.	22	-	50.0	86.4	C23-C24
Pancreas	19	-	36.8	89.5	C25
Nose, sinuses etc.	5	-	100.0	60.0	C30-C31
Larynx	3	-	66.7	133.3	C32
Trachea,Bronchus,Lung	236	2.1	55.5	91.1	C33-C34
Other Thoracic organs	2	-	100.0	50.0	C37-C38
Bone	5	-	80.0	20.0	C40-C41
Melanoma of Skin	8	-	100.0	37.5	C43
Other Skin	62	1.6	95.2	21.0	C44
Mesothelioma	1	-	100.0	0.0	C45
Kaposi sarcoma	0	-	-	-	C46
Connective,Soft tissue	8	-	100.0	25.0	C47;C49
Breast	325	-	98.2	33.2	C50
Vulva	11	-	100.0	45.5	C51
Vagina	5	-	100.0	40.0	C52
Cervix Uteri	245	-	97.6	39.2	C53
Corpus Uteri	41	-	100.0	24.4	C54
Uterus unspec.	1	-	100.0	100.0	C55
Ovary	64	-	95.3	35.9	C56
Other Female Genital	2	-	100.0	50.0	C57
Placenta	2	-	100.0	100.0	C58
Kidney	5	-	80.0	140.0	C64
Renal Pelvis	2	-	100.0	100.0	C65
Ureter	0	-	-	-	C66
Bladder	19	-	89.5	94.7	C67
Other Urinary organs	1	-	100.0	0.0	C68
Eye	3	-	100.0	33.3	C69
Brain, Nervous system	20	5.0	40.0	75.0	C70-C72
Thyroid	38	-	94.7	28.9	C73
Adrenal gland	1	-	0.0	0.0	C74
Other Endocrine	0	-	-	-	C75
Hodgkin disease	3	-	100.0	100.0	C81
Non-Hodgkin lymphoma	60	-	100.0	51.7	C82-C85;C96
Immunoproliferative dis.	0	-	-	-	C88
Multiple Myeloma	9	-	100.0	33.3	C90
Lymphoid Leukaemia	11	-	100.0	18.2	C91
Myeloid Leukaemia	26	-	100.0	96.2	C92-C94
Leukaemia unspec.	1	-	100.0	200.0	C95
Other & unspecified	55	3.6	69.1	74.5	Other
<b>All sites Total</b>	<b>1652</b>	<b>1.1</b>	<b>82.3</b>	<b>56.7</b>	

**Table 10: Number of new cancer cases in Chiang Mai, 2009, Males**

SITE	Number of cases by Age Group (years)										%	ICD (10th)
	All Ages	Age Unk.	0-	15-	25-	35-	45-	55-	65-	75+		
Lip	0	0	0	0	0	0	0	0	0	0	0.0	C00
Tongue	14	0	0	0	0	3	3	3	1	4	0.9	C01-C02
Mouth	13	0	0	0	0	1	2	6	2	2	0.9	C03-C06
Salivary glands	4	0	0	0	0	1	1	0	1	1	0.3	C07-C08
Tonsil	6	0	0	0	0	0	4	1	1	0	0.4	C09
Other Oropharynx	4	0	0	0	0	0	0	1	0	3	0.3	C10
Nasopharynx	25	0	0	0	2	1	5	6	7	4	1.7	C11
Hypopharynx	4	0	0	0	0	0	0	0	0	4	0.3	C12-C13
Pharynx unspec.	1	0	0	0	0	0	1	0	0	0	0.1	C14
Oesophagus	21	0	0	0	0	0	9	6	1	5	1.4	C15
Stomach	51	0	0	1	1	1	11	11	19	7	3.4	C16
Small intestine	6	0	0	0	0	0	3	2	0	1	0.4	C17
Colon	74	0	0	1	4	2	17	20	18	12	5.0	C18
Rectum	64	0	0	0	4	4	13	11	21	11	4.3	C19-C20
Anus	2	0	0	0	0	0	1	1	0	0	0.1	C21
Liver	318	0	1	0	7	33	82	96	57	42	21.4	C22
Gallbladder etc.	20	0	0	0	0	1	4	6	7	2	1.3	C23-C24
Pancreas	28	0	0	0	0	3	6	5	9	5	1.9	C25
Nose, sinuses etc.	3	0	0	0	0	0	1	1	1	0	0.2	C30-C31
Larynx	18	0	0	0	0	0	4	8	2	4	1.2	C32
Lung	335	0	0	1	3	13	43	94	107	74	22.5	C33-C34
Other Thoracic organs	6	0	1	3	2	0	0	0	0	0	0.4	C37-C38
Bone	9	0	2	2	0	0	3	1	1	0	0.6	C40-C41
Melanoma of Skin	5	0	0	0	0	1	1	2	0	1	0.3	C43
Other Skin	57	0	0	1	3	3	3	12	12	23	3.8	C44
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0.0	C45
Kaposi sarcoma	1	0	0	0	1	0	0	0	0	0	0.1	C46
Connective,Soft tissue	3	0	0	0	1	1	0	0	1	0	0.2	C47;C49
Breast	3	0	0	0	0	0	2	0	0	1	0.2	C50
Penis	9	0	0	0	1	3	1	3	1	0	0.6	C60
Prostate	76	0	0	0	0	0	2	12	34	28	5.1	C61
Testis	4	0	0	1	0	1	1	0	0	1	0.3	C62
Other male genital	1	0	0	0	0	0	0	0	0	1	0.1	C63
Kidney	21	0	0	0	1	2	5	4	4	5	1.4	C64
Renal Pelvis	1	0	0	0	0	0	0	0	0	1	0.1	C65
Ureter	3	0	0	0	0	0	0	0	3	0	0.2	C66
Bladder	60	0	0	0	0	0	9	12	15	24	4.0	C67
Other Urinary organs	0	0	0	0	0	0	0	0	0	0	0.0	C68
Eye	7	0	2	1	0	2	0	2	0	0	0.5	C69
Brain, Nervous system	27	0	3	2	3	4	5	2	2	6	1.8	C70-C72
Thyroid	3	0	0	0	0	2	0	0	0	1	0.2	C73
Adrenal gland	0	0	0	0	0	0	0	0	0	0	0.0	C74
Other Endocrine	1	0	0	0	0	0	1	0	0	0	0.1	C75
Hodgkin disease	4	0	2	1	0	0	0	0	0	1	0.3	C81
Non-Hodgkin lymphoma	69	0	2	2	4	4	14	12	19	12	4.6	C82-C85;C96
Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0.0	C88
Multiple Myeloma	11	0	0	0	0	1	2	5	1	2	0.7	C90
Lymphoid Leukaemia	12	0	5	1	1	2	1	0	0	2	0.8	C91
Myeloid Leukaemia	23	0	1	3	0	0	4	9	1	5	1.5	C92-C94
Leukaemia unspec.	0	0	0	0	0	0	0	0	0	0	0.0	C95
Other & unspecified	59	0	0	1	1	1	6	18	18	14	4.0	Other
<b>All sites Total</b>	<b>1486</b>	<b>0</b>	<b>19</b>	<b>21</b>	<b>39</b>	<b>90</b>	<b>270</b>	<b>372</b>	<b>366</b>	<b>309</b>	<b>100.0</b>	<b>All</b>
<b>All sites but C44</b>	<b>1429</b>	<b>0</b>	<b>19</b>	<b>20</b>	<b>36</b>	<b>87</b>	<b>267</b>	<b>360</b>	<b>354</b>	<b>286</b>	<b>96.2</b>	<b>Not C44</b>

**Table 11: Number of new cancer cases in Chiang Mai, 2009, Females**

SITE	Number of cases by Age Group (years)										%	ICD (10th)
	All Ages	Age Unk.	0-	15-	25-	35-	45-	55-	65-	75+		
Lip	2	0	0	0	0	0	0	0	1	1	0.1	C00
Tongue	5	0	0	1	0	2	1	1	0	0	0.3	C01-C02
Mouth	5	0	0	0	0	0	2	1	0	2	0.3	C03-C06
Salivary glands	6	0	0	1	1	3	1	0	0	0	0.4	C07-C08
Tonsil	2	0	0	0	0	0	1	0	0	1	0.1	C09
Other Oropharynx	0	0	0	0	0	0	0	0	0	0	0.0	C10
Nasopharynx	13	0	0	0	3	2	2	4	2	0	0.8	C11
Hypopharynx	3	0	0	0	0	1	0	0	0	2	0.2	C12-C13
Pharynx unspec.	1	0	0	0	0	0	0	0	1	0	0.1	C14
Oesophagus	7	0	0	0	0	0	0	2	4	1	0.4	C15
Stomach	29	0	0	0	2	4	4	6	5	8	1.8	C16
Small intestine	4	0	0	0	0	1	2	0	1	0	0.2	C17
Colon	76	0	0	0	0	12	11	21	14	18	4.6	C18
Rectum	54	0	0	0	1	5	14	14	11	9	3.3	C19-C20
Anus	5	0	0	0	0	0	0	4	1	0	0.3	C21
Liver	119	0	0	0	1	9	25	31	29	24	7.2	C22
Gallbladder etc.	22	0	0	0	0	1	4	5	7	5	1.3	C23-C24
Pancreas	19	0	0	0	1	1	3	3	6	5	1.2	C25
Nose, sinuses etc.	5	0	0	0	0	1	0	1	2	1	0.3	C30-C31
Larynx	3	0	0	0	0	0	0	0	0	3	0.2	C32
Lung	236	0	0	0	2	11	30	47	70	76	14.3	C33-C34
Other Thoracic organs	2	0	0	0	0	0	1	0	1	0	0.1	C37-C38
Bone	5	0	0	0	1	0	1	0	2	1	0.3	C40-C41
Melanoma of Skin	8	0	0	0	1	2	1	0	0	4	0.5	C43
Other Skin	62	0	0	1	2	2	7	9	9	32	3.8	C44
Mesothelioma	1	0	0	0	0	0	0	0	0	1	0.1	C45
Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0.0	C46
Connective,Soft tissue	8	0	0	1	1	0	1	4	0	1	0.5	C47;C49
Breast	325	2	0	2	9	63	130	74	30	15	19.7	C50
Vulva	11	0	0	0	0	0	3	4	3	1	0.7	C51
Vagina	5	0	0	0	0	0	0	2	1	2	0.3	C52
Cervix Uteri	245	0	0	1	14	61	78	58	20	13	14.8	C53
Corpus Uteri	41	0	0	0	0	6	12	19	3	1	2.5	C54
Uterus unspec.	1	0	0	0	0	0	0	1	0	0	0.1	C55
Ovary	64	0	0	2	5	11	26	13	5	2	3.9	C56
Other Female Genital	2	0	0	0	0	0	1	1	0	0	0.1	C57
Placenta	2	0	0	0	1	0	0	1	0	0	0.1	C58
Kidney	5	0	0	0	1	0	1	1	2	0	0.3	C64
Renal Pelvis	2	0	0	0	0	0	0	1	1	0	0.1	C65
Ureter	0	0	0	0	0	0	0	0	0	0	0.0	C66
Bladder	19	0	0	0	0	1	1	4	4	9	1.2	C67
Other Urinary organs	1	0	0	0	0	0	0	1	0	0	0.1	C68
Eye	3	0	1	0	0	0	0	1	0	1	0.2	C69
Brain, Nervous system	20	0	2	1	0	1	7	2	5	2	1.2	C70-C72
Thyroid	38	0	0	4	3	6	11	5	7	2	2.3	C73
Adrenal gland	1	0	1	0	0	0	0	0	0	0	0.1	C74
Other Endocrine	0	0	0	0	0	0	0	0	0	0	0.0	C75
Hodgkin disease	3	0	0	0	1	0	0	1	1	0	0.2	C81
Non-Hodgkin lymphoma	60	0	0	2	6	6	11	18	10	7	3.6	C82-C85;C96
Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0.0	C88
Multiple Myeloma	9	0	0	1	0	0	1	4	1	2	0.5	C90
Lymphoid Leukaemia	11	0	5	2	0	1	1	1	1	0	0.7	C91
Myeloid Leukaemia	26	0	6	0	3	4	6	3	2	2	1.6	C92-C94
Leukaemia unspec.	1	0	0	0	0	0	1	0	0	0	0.1	C95
Other & unspecified	55	0	0	1	2	3	12	7	16	14	3.3	Other
<b>All sites Total</b>	<b>1652</b>	<b>2</b>	<b>15</b>	<b>20</b>	<b>61</b>	<b>220</b>	<b>413</b>	<b>375</b>	<b>278</b>	<b>268</b>	<b>100.0</b>	<b>All</b>
<b>All sites but C44</b>	<b>1590</b>	<b>2</b>	<b>15</b>	<b>19</b>	<b>59</b>	<b>218</b>	<b>406</b>	<b>366</b>	<b>269</b>	<b>236</b>	<b>96.2</b>	<b>Not C44</b>

**Table 12: Cancer Incidence in Chiang Mai, 2009, Males**

SITE	Incidence per 100,000 by Age Group (years)										Crude rate	ASR (W)	CR 64	CR 74	ICD (10th)
	All Ages	0-	15-	25-	35-	45-	55-	65-	75+						
Lip	0	-	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C00
Tongue	14	-	-	-	2.7	2.3	4	2.7	14.1	1.9	1.3	0.10	0.13	C01-C02	
Mouth	13	-	-	-	0.9	1.5	8	5.3	7.1	1.7	1.3	0.11	0.16	C03-C06	
Salivary glands	4	-	-	-	0.9	0.8	-	2.7	3.5	0.5	0.4	0.02	0.04	C07-C08	
Tonsil	6	-	-	-	-	3.1	1.3	2.7	-	0.8	0.6	0.04	0.07	C09	
Other Oropharynx	4	-	-	-	-	-	1.3	-	10.6	0.5	0.3	0.02	0.02	C10	
Nasopharynx	25	-	-	1.7	0.9	3.9	8	18.6	14.1	3.3	2.6	0.14	0.32	C11	
Hypopharynx	4	-	-	-	-	-	-	-	14.1	0.5	0.3	0.00	0.00	C12-C13	
Pharynx unspec.	1	-	-	-	-	0.8	-	-	-	0.1	0.1	0.01	0.01	C14	
Oesophagus	21	-	-	-	-	7	8	2.7	17.7	2.8	1.9	0.15	0.18	C15	
Stomach	51	-	0.8	0.8	0.9	8.5	14.7	50.6	24.8	6.7	5.5	0.27	0.79	C16	
Small intestine	6	-	-	-	-	2.3	2.7	-	3.5	0.8	0.5	0.05	0.05	C17	
Colon	74	-	0.8	3.4	1.8	13.1	26.8	47.9	42.4	9.8	7.7	0.47	0.95	C18	
Rectum	64	-	-	3.4	3.6	10	14.7	55.9	38.9	8.5	6.8	0.34	0.88	C19-C20	
Anus	2	-	-	-	-	0.8	1.3	-	-	0.3	0.2	0.02	0.02	C21	
Liver	318	0.7	-	5.9	29.9	63.3	128.6	151.7	148.5	42.0	32.4	2.30	3.75	C22	
Gallbladder etc.	20	-	-	-	0.9	3.1	8	18.6	7.1	2.6	2.2	0.12	0.31	C23-C24	
Pancreas	28	-	-	-	2.7	4.6	6.7	24	17.7	3.7	2.9	0.15	0.39	C25	
Nose, sinuses etc.	3	-	-	-	-	0.8	1.3	2.7	-	0.4	0.3	0.02	0.05	C30-C31	
Larynx	18	-	-	-	-	3.1	10.7	5.3	14.1	2.4	1.7	0.15	0.20	C32	
Lung	335	-	0.8	2.5	11.8	33.2	125.9	284.8	261.7	44.3	35.1	1.77	4.56	C33-C34	
Other Thoracic organs	6	0.7	2.5	1.7	-	-	-	-	-	0.8	0.9	0.03	0.03	C37-C38	
Bone	9	1.4	1.7	-	-	2.3	1.3	2.7	-	1.2	1.2	0.06	0.10	C40-C41	
Melanoma of Skin	5	-	-	-	0.9	0.8	2.7	-	3.5	0.7	0.5	0.04	0.04	C43	
Other Skin	57	-	0.8	2.5	2.7	2.3	16.1	31.9	81.3	7.5	5.6	0.24	0.55	C44	
Mesothelioma	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C45	
Kaposi sarcoma	1	-	-	0.8	-	-	-	-	-	0.1	0.1	0.01	0.00	C46	
Connective,Soft tissue	3	-	-	0.8	0.9	-	-	2.7	-	0.4	0.4	0.02	0.04	C47:C49	
Breast	3	-	-	-	-	1.5	-	-	3.5	0.4	0.2	0.02	0.02	C50	
Penis	9	-	-	0.8	2.7	0.8	4	2.7	-	1.2	1.0	0.08	0.10	C60	
Prostate	76	-	-	-	-	1.5	16.1	90.5	99	10.0	8.0	0.20	1.11	C61	
Testis	4	-	0.8	-	0.9	0.8	-	-	3.5	0.5	0.4	0.03	0.03	C62	
Other male genital	1	-	-	-	-	-	-	-	3.5	0.1	0.1	0.00	0.00	C63	
Kidney	21	-	-	0.8	1.8	3.9	5.4	10.6	17.7	2.8	2.1	0.11	0.22	C64	
Renal Pelvis	1	-	-	-	-	-	-	-	3.5	0.1	0.1	0.00	0.00	C65	
Ureter	3	-	-	-	-	-	-	8	-	0.4	0.4	0.00	0.08	C66	
Bladder	60	-	-	-	-	7	16.1	39.9	84.9	7.9	5.7	0.24	0.64	C67	
Other Urinary organs	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C68	
Eye	7	1.4	0.8	-	1.8	-	2.7	-	-	0.9	1.0	0.07	0.08	C69	
Brain, Nervous system	27	2.2	1.7	2.5	3.6	3.9	2.7	5.3	21.2	3.6	3.1	0.17	0.22	C70-C72	
Thyroid	3	-	-	-	1.8	-	-	-	3.5	0.4	0.3	0.02	0.02	C73	
Adrenal gland	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C74	
Other Endocrine	1	-	-	-	-	0.8	-	-	-	0.1	0.1	0.01	0.01	C75	
Hodgkin disease	4	1.4	0.8	-	-	-	-	-	3.5	0.5	0.7	0.02	0.03	C81	
Non-Hodgkin lymphoma	69	1.4	1.7	3.4	3.6	10.8	16.1	50.6	42.4	9.1	7.5	0.38	0.87	C82-C85:C96	
Immunoproliferative dis.	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C88	
Multiple Myeloma	11	-	-	-	0.9	1.5	6.7	2.7	7.1	1.5	1.1	0.09	0.11	C90	
Lymphoid Leukaemia	12	3.6	0.8	0.8	1.8	0.8	-	-	7.1	1.6	1.8	0.10	0.10	C91	
Myeloid Leukaemia	23	0.7	2.5	-	-	3.1	12.1	2.7	17.7	3.0	2.4	0.16	0.21	C92-C94	
Leukaemia unspec.	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C95	
Other & unspecified	59	-	0.8	0.8	0.9	4.6	24.1	47.9	49.5	7.8	6.2	0.34	0.82	Other	
<b>All sites Total</b>	<b>1486</b>	<b>13.5</b>	<b>17.3</b>	<b>32.6</b>	<b>81.3</b>	<b>208.6</b>	<b>498.1</b>	<b>974.4</b>	<b>1092.3</b>	<b>196.5</b>	<b>155.0</b>	<b>8.37</b>	<b>16.92</b>	<b>All</b>	
<b>All sites but C44</b>	<b>1429</b>	<b>13.5</b>	<b>16.5</b>	<b>30.1</b>	<b>78.6</b>	<b>206.3</b>	<b>482.0</b>	<b>942.5</b>	<b>1011.0</b>	<b>188.9</b>	<b>149.4</b>	<b>8.14</b>	<b>16.46</b>	<b>Not C44</b>	

**Table 13: Cancer Incidence in Chiang Mai, 2009, Females**

SITE	Incidence per 100,000 by Age Group (years)									Crude rate	ASR (W)	CR 64	CR 74	ICD (10th)
	All Ages	0-	15-	25-	35-	45-	55-	65-	75+					
Lip	2	-	-	-	-	-	-	2.4	2.8	0.3	0.2	0.00	0.04	C00
Tongue	5	-	0.9	-	1.6	0.7	1.2	-	-	0.6	0.5	0.05	0.05	C01-C02
Mouth	5	-	-	-	-	1.4	1.2	-	5.7	0.6	0.4	0.02	0.05	C03-C06
Salivary glands	6	-	0.9	0.8	2.4	0.7	-	-	-	0.8	0.6	0.05	0.04	C07-C08
Tonsil	2	-	-	-	-	0.7	-	-	2.8	0.3	0.1	0.01	0.02	C09
Other Oropharynx	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C10
Nasopharynx	13	-	-	2.5	1.6	1.4	4.9	4.8	-	1.6	1.3	0.14	0.13	C11
Hypopharynx	3	-	-	-	0.8	-	-	-	5.7	0.4	0.2	0.01	0.04	C12-C13
Pharynx unspec.	1	-	-	-	-	-	-	2.4	-	0.1	0.1	0.00	0.02	C14
Oesophagus	7	-	-	-	-	-	2.4	9.5	2.8	0.9	0.7	0.07	0.13	C15
Stomach	29	-	-	1.7	3.2	2.7	7.3	11.9	22.7	3.6	2.6	0.26	0.37	C16
Small intestine	4	-	-	-	0.8	1.4	-	2.4	-	0.5	0.4	0.05	0.05	C17
Colon	76	-	-	-	9.7	7.5	25.6	33.4	51.1	9.6	6.7	0.58	1.03	C18
Rectum	54	-	-	0.8	4	9.6	17.1	26.3	25.5	6.8	4.8	0.43	0.70	C19-C20
Anus	5	-	-	-	-	-	4.9	2.4	-	0.6	0.5	0.08	0.08	C21
Liver	119	-	-	0.8	7.3	17.1	37.8	69.2	68.1	15.0	10.7	0.87	1.62	C22
Gallbladder etc.	22	-	-	-	0.8	2.7	6.1	16.7	14.2	2.8	2.0	0.14	0.33	C23-C24
Pancreas	19	-	-	0.8	0.8	2.1	3.7	14.3	14.2	2.4	1.7	0.11	0.27	C25
Nose, sinuses etc.	5	-	-	-	0.8	-	1.2	4.8	2.8	0.6	0.5	0.02	0.08	C30-C31
Larynx	3	-	-	-	-	-	-	-	8.5	0.4	0.2	0.00	0.04	C32
Lung	236	-	-	1.7	8.9	20.6	57.4	167	216	29.7	20.8	1.85	3.62	C33-C34
Other Thoracic organs	2	-	-	-	-	0.7	-	2.4	-	0.3	0.2	0.01	0.03	C37-C38
Bone	5	-	-	0.8	-	0.7	-	4.8	2.8	0.6	0.5	0.01	0.08	C40-C41
Melanoma of Skin	8	-	-	0.8	1.6	0.7	-	-	11.4	1.0	0.6	0.02	0.09	C43
Other Skin	62	-	0.9	1.7	1.6	4.8	11	21.5	90.8	7.8	4.9	0.29	0.84	C44
Mesothelioma	1	-	-	-	-	-	-	-	2.8	0.1	0.1	0.00	0.01	C45
Kaposi sarcoma	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C46
Connective,Soft tissue	8	-	0.9	0.8	-	0.7	4.9	-	2.8	1.0	0.8	0.08	0.09	C47;C49
Breast	325	-	1.7	7.6	51	89.1	90.3	71.6	42.6	40.9	29.1	2.66	3.21	C50
Vulva	11	-	-	-	-	2.1	4.9	7.2	2.8	1.4	1.0	0.10	0.17	C51
Vagina	5	-	-	-	-	-	2.4	2.4	5.7	0.6	0.4	0.03	0.08	C52
Cervix Uteri	245	-	0.9	11.8	49.3	53.5	70.8	47.7	36.9	30.8	22.4	2.01	2.42	C53
Corpus Uteri	41	-	-	-	4.9	8.2	23.2	7.2	2.8	5.2	3.8	0.39	0.43	C54
Uterus unspec.	1	-	-	-	-	-	1.2	-	-	0.1	0.1	0.01	0.01	C55
Ovary	64	-	1.7	4.2	8.9	17.8	15.9	11.9	5.7	8.0	5.9	0.51	0.65	C56
Other Female Genital	2	-	-	-	-	0.7	1.2	-	-	0.3	0.2	0.02	0.02	C57
Placenta	2	-	-	0.8	-	-	1.2	-	-	0.3	0.2	0.02	0.01	C58
Kidney	5	-	-	0.8	-	0.7	1.2	4.8	-	0.6	0.5	0.08	0.07	C64
Renal Pelvis	2	-	-	-	-	-	1.2	2.4	-	0.3	0.2	0.03	0.03	C65
Ureter	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C66
Bladder	19	-	-	-	0.8	0.7	4.9	9.5	25.5	2.4	1.6	0.11	0.28	C67
Other Urinary organs	1	-	-	-	-	-	1.2	-	-	0.1	0.1	0.02	0.02	C68
Eye	3	0.8	-	-	-	-	1.2	-	2.8	0.4	0.4	0.02	0.03	C69
Brain, Nervous system	20	1.5	0.9	-	0.8	4.8	2.4	11.9	5.7	2.5	2.2	0.14	0.24	C70-C72
Thyroid	38	-	3.4	2.5	4.9	7.5	6.1	16.7	5.7	4.8	3.8	0.32	0.43	C73
Adrenal gland	1	0.8	-	-	-	-	-	-	-	0.1	0.2	0.00	0.00	C74
Other Endocrine	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C75
Hodgkin disease	3	-	-	0.8	-	-	1.2	2.4	-	0.4	0.3	0.05	0.04	C81
Non-Hodgkin lymphoma	60	-	1.7	5	4.9	7.5	22	23.9	19.9	7.5	5.8	0.44	0.72	C82-C85;C96
Immunoproliferative dis.	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C88
Multiple Myeloma	9	-	0.9	-	-	0.7	4.9	2.4	5.7	1.1	0.8	0.09	0.12	C90
Lymphoid Leukaemia	11	3.8	1.7	-	0.8	0.7	1.2	2.4	-	1.4	1.9	0.05	0.08	C91
Myeloid Leukaemia	26	4.6	-	2.5	3.2	4.1	3.7	4.8	5.7	3.3	3.3	0.20	0.24	C92-C94
Leukaemia unspec.	1	-	-	-	-	0.7	-	-	-	0.1	0.1	0.01	0.01	C95
Other & unspecified	55	-	0.9	1.7	2.4	8.2	8.5	38.2	39.7	6.9	5.0	0.37	0.80	Other
<b>All sites Total</b>	<b>1652</b>	<b>11</b>	<b>17</b>	<b>51</b>	<b>178</b>	<b>283</b>	<b>458</b>	<b>663</b>	<b>761</b>	<b>207.7</b>	<b>151.3</b>	<b>12.09</b>	<b>18.24</b>	<b>All</b>
<b>All sites but C44</b>	<b>1590</b>	<b>11</b>	<b>16</b>	<b>50</b>	<b>176</b>	<b>278</b>	<b>447</b>	<b>642</b>	<b>670</b>	<b>199.9</b>	<b>146.5</b>	<b>11.84</b>	<b>17.54</b>	<b>Not C44</b>

**Table 14: Number of Cancer Deaths in Chiang Mai, 2009, Males**

SITE	Number of cases by Age Group (years)											ICD (10th)
	All Ages	Age Unk.	0-	15-	25-	35-	45-	55-	65-	75+	%	
Lip	2	0	0	0	0	0	0	0	1	1	0.2	C00
Tongue	13	0	0	0	1	0	1	4	1	6	1.1	C01-C02
Mouth	9	0	0	0	0	0	1	1	2	5	0.8	C03-C06
Salivary glands	4	0	0	0	0	0	0	2	2	0	0.3	C07-C08
Tonsil	5	0	0	0	0	0	1	2	2	0	0.4	C09
Other Oropharynx	3	0	0	0	0	1	0	1	0	1	0.3	C10
Nasopharynx	19	0	0	1	0	1	2	7	5	3	1.7	C11
Hypopharynx	7	0	0	0	0	0	3	0	0	4	0.6	C12-C13
Pharynx unspec.	1	0	0	0	0	0	1	0	0	0	0.1	C14
Oesophagus	10	0	0	0	0	0	5	2	1	2	0.9	C15
Stomach	45	0	0	0	2	0	8	9	16	10	3.9	C16
Small intestine	6	0	0	0	0	0	1	2	0	3	0.5	C17
Colon	40	0	0	0	2	1	6	8	8	15	3.5	C18
Rectum	45	0	0	0	2	1	8	8	10	16	3.9	C19-C20
Anus	1	0	0	0	0	0	0	0	1	0	0.1	C21
Liver	284	0	0	1	6	24	76	71	58	48	24.8	C22
Gallbladder etc.	21	0	0	0	0	1	6	4	5	5	1.8	C23-C24
Pancreas	23	0	0	0	0	3	6	3	5	6	2.0	C25
Nose, sinuses etc.	5	0	0	0	0	0	1	3	1	0	0.4	C30-C31
Larynx	14	0	0	0	0	0	0	5	1	8	1.2	C32
Lung	297	0	0	0	2	10	45	80	96	64	25.9	C33-C34
Other Thoracic organs	1	0	0	0	1	0	0	0	0	0	0.1	C37-C38
Bone	8	0	0	1	1	0	4	0	2	0	0.7	C40-C41
Melanoma of Skin	2	0	0	0	0	0	1	0	0	1	0.2	C43
Other Skin	20	0	0	0	1	0	1	1	6	11	1.7	C44
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0.0	C45
Kaposi sarcoma	1	0	0	0	1	0	0	0	0	0	0.1	C46
Connective,Soft tissue	5	0	0	0	0	0	2	1	1	1	0.4	C47;C49
Breast	2	0	0	0	0	0	2	0	0	0	0.2	C50
Penis	2	0	0	0	1	0	0	0	0	1	0.2	C60
Prostate	36	0	0	0	0	0	2	2	12	20	3.1	C61
Testis	1	0	0	0	1	0	0	0	0	0	0.1	C62
Other male genital	1	0	0	0	0	0	0	0	0	1	0.1	C63
Kidney	22	0	0	0	0	0	4	5	8	5	1.9	C64
Renal Pelvis	0	0	0	0	0	0	0	0	0	0	0.0	C65
Ureter	1	0	0	0	0	0	0	0	1	0	0.1	C66
Bladder	34	0	0	0	0	0	4	8	6	16	3.0	C67
Other Urinary organs	0	0	0	0	0	0	0	0	0	0	0.0	C68
Eye	1	0	0	0	0	0	1	0	0	0	0.1	C69
Brain, Nervous system	21	0	1	0	2	1	4	2	5	6	1.8	C70-C72
Thyroid	8	0	0	0	0	1	2	1	1	3	0.7	C73
Adrenal gland	0	0	0	0	0	0	0	0	0	0	0.0	C74
Other Endocrine	0	0	0	0	0	0	0	0	0	0	0.0	C75
Hodgkin disease	2	0	0	0	0	0	0	0	0	2	0.2	C81
Non-Hodgkin lymphoma	51	0	1	1	1	8	5	9	12	14	4.4	C82-C85;C96
Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0.0	C88
Multiple Myeloma	6	0	0	1	0	0	0	2	2	1	0.5	C90
Lymphoid Leukaemia	8	0	2	0	0	2	1	0	0	3	0.7	C91
Myeloid Leukaemia	10	0	1	1	0	0	1	2	0	5	0.9	C92-C94
Leukaemia unspec.	0	0	0	0	0	0	0	0	0	0	0.0	C95
Other & unspecified	50	0	0	0	1	0	5	15	12	17	4.4	Other
<b>All sites Total</b>	<b>1147</b>	<b>0</b>	<b>5</b>	<b>6</b>	<b>25</b>	<b>54</b>	<b>210</b>	<b>260</b>	<b>283</b>	<b>304</b>	<b>100.0</b>	<b>All</b>
<b>All sites but C44</b>	<b>1127</b>	<b>0</b>	<b>5</b>	<b>6</b>	<b>24</b>	<b>54</b>	<b>209</b>	<b>259</b>	<b>277</b>	<b>293</b>	<b>98.3</b>	<b>Not C44</b>

**Table 15: Number of Cancer Deaths in Chiang Mai, 2009, Females**

SITE	Number of cases by Age Group (years)										%	ICD (10th)
	All Ages	Age Unk.	0-	15-	25-	35-	45-	55-	65-	75+		
Lip	2	0	0	0	0	0	0	0	1	1	0.2	C00
Tongue	3	0	0	0	0	0	1	2	0	0	0.3	C01-C02
Mouth	10	0	0	0	0	0	2	1	3	4	1.1	C03-C06
Salivary glands	1	0	0	0	0	0	0	0	1	0	0.1	C07-C08
Tonsil	3	0	0	0	0	0	1	0	0	2	0.3	C09
Other Oropharynx	0	0	0	0	0	0	0	0	0	0	0.0	C10
Nasopharynx	8	0	0	0	0	1	1	3	1	2	0.9	C11
Hypopharynx	2	0	0	0	0	1	0	0	0	1	0.2	C12-C13
Pharynx unspec.	0	0	0	0	0	0	0	0	0	0	0.0	C14
Oesophagus	4	0	0	0	0	0	0	1	2	1	0.4	C15
Stomach	34	0	0	0	5	5	6	5	7	6	3.6	C16
Small intestine	4	0	1	0	0	1	1	0	1	0	0.4	C17
Colon	38	0	0	1	1	2	4	6	8	16	4.1	C18
Rectum	29	0	0	0	1	2	8	4	3	11	3.1	C19-C20
Anus	4	0	0	0	0	1	0	0	1	2	0.4	C21
Liver	107	0	0	1	2	4	20	30	26	24	11.4	C22
Gallbladder etc.	19	0	0	0	0	0	4	3	6	6	2.0	C23-C24
Pancreas	17	0	0	0	1	2	1	2	4	7	1.8	C25
Nose, sinuses etc.	3	0	0	0	0	0	1	0	1	1	0.3	C30-C31
Larynx	4	0	0	0	0	0	1	1	1	1	0.4	C32
Lung	215	0	0	0	1	8	26	48	65	67	22.9	C33-C34
Other Thoracic organs	1	0	0	0	0	0	0	0	1	0	0.1	C37-C38
Bone	1	0	0	0	0	0	0	0	1	0	0.1	C40-C41
Melanoma of Skin	3	0	0	0	0	0	1	0	2	0	0.3	C43
Other Skin	13	0	0	0	0	0	1	1	0	11	1.4	C44
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0.0	C45
Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0.0	C46
Connective,Soft tissue	2	0	0	0	0	0	0	2	0	0	0.2	C47;C49
Breast	108	0	0	0	1	12	29	33	13	20	11.5	C50
Vulva	5	0	0	0	0	0	0	0	3	2	0.5	C51
Vagina	2	0	0	0	0	0	1	1	0	0	0.2	C52
Cervix Uteri	96	0	0	0	2	13	28	17	18	18	10.2	C53
Corpus Uteri	10	0	0	0	0	0	3	1	5	1	1.1	C54
Uterus unspec.	1	0	0	0	0	0	0	1	0	0	0.1	C55
Ovary	23	0	0	0	0	1	9	7	6	0	2.5	C56
Other Female Genital	1	0	0	0	0	0	1	0	0	0	0.1	C57
Placenta	2	0	0	0	1	0	0	1	0	0	0.2	C58
Kidney	7	0	1	0	0	0	1	2	1	2	0.7	C64
Renal Pelvis	2	0	0	0	0	0	0	2	0	0	0.2	C65
Ureter	1	0	0	0	0	0	0	1	0	0	0.1	C66
Bladder	18	0	0	0	0	0	1	3	5	9	1.9	C67
Other Urinary organs	0	0	0	0	0	0	0	0	0	0	0.0	C68
Eye	1	0	0	0	0	0	0	0	0	1	0.1	C69
Brain, Nervous system	15	0	2	0	0	1	4	2	4	2	1.6	C70-C72
Thyroid	11	0	0	0	1	2	0	1	3	4	1.2	C73
Adrenal gland	0	0	0	0	0	0	0	0	0	0	0.0	C74
Other Endocrine	0	0	0	0	0	0	0	0	0	0	0.0	C75
Hodgkin disease	3	0	0	0	0	0	0	2	1	0	0.3	C81
Non-Hodgkin lymphoma	31	0	0	3	0	1	5	9	6	7	3.3	C82-C85;C96
Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0.0	C88
Multiple Myeloma	3	0	0	0	0	0	0	2	1	0	0.3	C90
Lymphoid Leukaemia	2	0	1	0	0	0	0	1	0	0	0.2	C91
Myeloid Leukaemia	25	0	1	0	1	4	10	3	3	3	2.7	C92-C94
Leukaemia unspec.	2	0	0	0	0	0	1	0	0	1	0.2	C95
Other & unspecified	41	0	1	0	1	2	9	4	12	12	4.4	Other
<b>All sites Total</b>	<b>937</b>	<b>0</b>	<b>7</b>	<b>5</b>	<b>18</b>	<b>63</b>	<b>181</b>	<b>202</b>	<b>216</b>	<b>245</b>	<b>100.0</b>	<b>All</b>
<b>All sites but C44</b>	<b>924</b>	<b>0</b>	<b>7</b>	<b>5</b>	<b>18</b>	<b>63</b>	<b>180</b>	<b>201</b>	<b>216</b>	<b>234</b>	<b>98.6</b>	<b>Not C44</b>

**Table 16: Cancer Deaths in Chiang Mai, 2009, Males**

SITE	Incidence per 100,000 by Age Group (years)										Crude rate	ASR (W)	CR 64	CR 74	ICD (10th)
	All Ages	0-	15-	25-	35-	45-	55-	65-	75+						
Lip	2	-	-	-	-	-	-	2.7	3.5	0.3	0.2	0.00	0.03	C00	
Tongue	13	-	-	0.8	-	0.8	5.4	2.7	21.2	1.7	1.2	0.07	0.09	C01-C02	
Mouth	9	-	-	-	-	0.8	1.3	5.3	17.7	1.2	0.8	0.02	0.07	C03-C06	
Salivary glands	4	-	-	-	-	-	2.7	5.3	-	0.5	0.5	0.03	0.08	C07-C08	
Tonsil	5	-	-	-	-	0.8	2.7	5.3	-	0.7	0.6	0.03	0.08	C09	
Other Oropharynx	3	-	-	-	0.9	-	1.3	-	3.5	0.4	0.3	0.03	0.03	C10	
Nasopharynx	19	-	0.8	-	0.9	1.5	9.4	13.3	10.6	2.5	2.1	0.13	0.27	C11	
Hypopharynx	7	-	-	-	-	2.3	-	-	14.1	0.9	0.5	0.02	0.02	C12-C13	
Pharynx unspec.	1	-	-	-	-	0.8	-	-	-	0.1	0.1	0.01	0.01	C14	
Oesophagus	10	-	-	-	-	3.9	2.7	2.7	7.1	1.3	0.9	0.07	0.09	C15	
Stomach	45	-	-	1.7	-	6.2	12.1	42.6	35.4	5.9	5.0	0.22	0.62	C16	
Small intestine	6	-	-	-	-	0.8	2.7	-	10.6	0.8	0.6	0.04	0.04	C17	
Colon	40	-	-	1.7	0.9	4.6	10.7	21.3	53	5.3	3.9	0.19	0.39	C18	
Rectum	45	-	-	1.7	0.9	6.2	10.7	26.6	56.6	5.9	4.3	0.20	0.47	C19-C20	
Anus	1	-	-	-	-	-	-	2.7	-	0.1	0.2	0.00	0.03	C21	
Liver	284	-	0.8	5	21.8	58.7	95.1	154	169.7	37.6	28.6	1.83	3.32	C22	
Gallbladder etc.	21	-	-	-	0.9	4.6	5.4	13.3	17.7	2.8	2.1	0.12	0.25	C23-C24	
Pancreas	23	-	-	-	2.7	4.6	4	13.3	21.2	3.0	2.2	0.11	0.25	C25	
Nose, sinuses etc.	5	-	-	-	-	0.8	4	2.7	-	0.7	0.6	0.05	0.08	C30-C31	
Larynx	14	-	-	-	-	-	6.7	2.7	28.3	1.9	1.2	0.06	0.09	C32	
Lung	297	-	-	1.7	9.1	34.8	107	256	226.3	39.3	31.3	1.62	4.13	C33-C34	
Other Thoracic organs	1	-	-	0.8	-	-	-	-	-	0.1	0.1	0.01	0.00	C37-C38	
Bone	8	-	0.8	0.8	-	3.1	-	5.3	-	1.1	0.9	0.04	0.09	C40-C41	
Melanoma of Skin	2	-	-	-	-	0.8	-	-	3.5	0.3	0.1	0.01	0.01	C43	
Other Skin	20	-	-	0.8	-	0.8	1.3	16	38.9	2.6	1.9	0.03	0.20	C44	
Mesothelioma	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C45	
Kaposi sarcoma	1	-	-	0.8	-	-	-	-	-	0.1	0.1	0.01	0.00	C46	
Connective,Soft tissue	5	-	-	-	-	1.5	1.3	2.7	3.5	0.7	0.5	0.03	0.06	C47;C49	
Breast	2	-	-	-	-	1.5	-	-	-	0.3	0.2	0.02	0.02	C50	
Penis	2	-	-	0.8	-	-	-	-	3.5	0.3	0.2	0.01	0.00	C60	
Prostate	36	-	-	-	-	1.5	2.7	31.9	70.7	4.8	3.4	0.05	0.37	C61	
Testis	1	-	-	0.8	-	-	-	-	-	0.1	0.1	0.01	0.01	C62	
Other male genital	1	-	-	-	-	-	-	-	3.5	0.1	0.1	0.00	0.00	C63	
Kidney	22	-	-	-	-	3.1	6.7	21.3	17.7	2.9	2.3	0.09	0.30	C64	
Renal Pelvis	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C65	
Ureter	1	-	-	-	-	-	-	2.7	-	0.1	0.1	0.00	0.03	C66	
Bladder	34	-	-	-	-	3.1	10.7	16	56.6	4.5	3.3	0.16	0.33	C67	
Other Urinary organs	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C68	
Eye	1	-	-	-	-	0.8	-	-	-	0.1	0.1	0.01	0.01	C69	
Brain, Nervous system	21	0.7	-	1.7	0.9	3.1	2.7	13.3	21.2	2.8	2.2	0.10	0.23	C70-C72	
Thyroid	8	-	-	-	0.9	1.5	1.3	2.7	10.6	1.1	0.7	0.04	0.07	C73	
Adrenal gland	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C74	
Other Endocrine	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C75	
Hodgkin disease	2	-	-	-	-	-	-	-	7.1	0.3	0.1	0.00	0.00	C81	
Non-Hodgkin lymphoma	51	0.7	0.8	0.8	7.3	3.9	12.1	31.9	49.5	6.7	5.4	0.27	0.58	C82-C85;C96	
Immunoproliferative dis.	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C88	
Multiple Myeloma	6	-	0.8	-	-	-	2.7	5.3	3.5	0.8	0.6	0.02	0.09	C90	
Lymphoid Leukaemia	8	1.4	-	-	1.8	0.8	-	-	10.6	1.1	0.9	0.05	0.05	C91	
Myeloid Leukaemia	10	0.7	0.8	-	-	0.8	2.7	-	17.7	1.3	1.0	0.05	0.05	C92-C94	
Leukaemia unspec.	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C95	
Other & unspecified	50	-	-	0.8	-	3.9	20.1	31.9	60.1	6.6	5.1	0.28	0.60	Other	
<b>All sites Total</b>	<b>1147</b>	<b>4</b>	<b>5</b>	<b>21</b>	<b>49</b>	<b>162</b>	<b>348</b>	<b>753</b>	<b>1075</b>	<b>151.7</b>	<b>116.8</b>	<b>5.97</b>	<b>12.76</b>	<b>All</b>	
<b>All sites but C44</b>	<b>1127</b>	<b>4</b>	<b>5</b>	<b>20</b>	<b>49</b>	<b>161</b>	<b>347</b>	<b>737</b>	<b>1036</b>	<b>149.0</b>	<b>114.9</b>	<b>5.94</b>	<b>12.59</b>	<b>Not C44</b>	



Table 17: Cancer Deaths in Chiang Mai, 2009, Females

SITE	Incidence per 100,000 by Age Group (years)										Crude rate	ASR (W)	CR 64	CR 74	ICD (10th)
	All Ages	0-	15-	25-	35-	45-	55-	65-	75+						
Lip	2	-	-	-	-	-	-	2.4	2.8	0.3	0.2	0.00	0.02	C00	
Tongue	3	-	-	-	-	0.7	2.4	-	-	0.4	0.3	0.03	0.03	C01-C02	
Mouth	10	-	-	-	-	1.4	1.2	7.2	11.4	1.3	0.8	0.03	0.10	C03-C06	
Salivary glands	1	-	-	-	-	-	-	2.4	-	0.1	0.1	0.00	0.02	C07-C08	
Tonsil	3	-	-	-	-	0.7	-	-	5.7	0.4	0.2	0.01	0.01	C09	
Other Oropharynx	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C10	
Nasopharynx	8	-	-	-	0.8	0.7	3.7	2.4	5.7	1.0	0.7	0.06	0.08	C11	
Hypopharynx	2	-	-	-	0.8	-	-	-	2.8	0.3	0.1	0.01	0.01	C12-C13	
Pharynx unspec.	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C14	
Oesophagus	4	-	-	-	-	-	1.2	4.8	2.8	0.5	0.3	0.01	0.06	C15	
Stomach	34	-	-	4.2	4	4.1	6.1	16.7	17	4.3	3.3	0.19	0.34	C16	
Small intestine	4	0.8	-	-	0.8	0.7	-	2.4	-	0.5	0.6	0.03	0.05	C17	
Colon	38	-	0.9	0.8	1.6	2.7	7.3	19.1	45.4	4.8	3.3	0.13	0.33	C18	
Rectum	29	-	-	0.8	1.6	5.5	4.9	7.2	31.2	3.6	2.2	0.13	0.20	C19-C20	
Anus	4	-	-	-	0.8	-	-	2.4	5.7	0.5	0.4	0.01	0.03	C21	
Liver	107	-	0.9	1.7	3.2	13.7	36.6	62.1	68.1	13.5	9.4	0.54	1.14	C22	
Gallbladder etc.	19	-	-	-	-	2.7	3.7	14.3	17	2.4	1.5	0.06	0.20	C23-C24	
Pancreas	17	-	-	0.8	1.6	0.7	2.4	9.5	19.9	2.1	1.5	0.06	0.15	C25	
Nose, sinuses etc.	3	-	-	-	-	0.7	-	2.4	2.8	0.4	0.3	0.01	0.03	C30-C31	
Larynx	4	-	-	-	-	0.7	1.2	2.4	2.8	0.5	0.3	0.02	0.04	C32	
Lung	215	-	-	0.8	6.5	17.8	58.6	155	190	27.0	19.6	0.88	2.41	C33-C34	
Other Thoracic organs	1	-	-	-	-	-	-	2.4	-	0.1	0.1	0.00	0.02	C37-C38	
Bone	1	-	-	-	-	-	-	2.4	-	0.1	0.1	0.00	0.02	C40-C41	
Melanoma of Skin	3	-	-	-	-	0.7	-	4.8	-	0.4	0.3	0.01	0.05	C43	
Other Skin	13	-	-	-	-	0.7	1.2	-	31.2	1.6	0.8	0.02	0.02	C44	
Mesothelioma	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C45	
Kaposi sarcoma	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C46	
Connective,Soft tissue	2	-	-	-	-	-	2.4	-	-	0.3	0.2	0.03	0.03	C47;C49	
Breast	108	-	-	0.8	9.7	19.9	40.3	31	56.8	13.6	9.5	0.73	1.03	C50	
Vulva	5	-	-	-	-	-	-	7.2	5.7	0.6	0.4	0.00	0.07	C51	
Vagina	2	-	-	-	-	0.7	1.2	-	-	0.3	0.1	0.02	0.02	C52	
Cervix Uteri	96	-	-	1.7	10.5	19.2	20.8	43	51.1	12.1	7.9	0.50	0.93	C53	
Corpus Uteri	10	-	-	-	-	2.1	1.2	11.9	2.8	1.3	1.0	0.04	0.16	C54	
Uterus unspec.	1	-	-	-	-	-	1.2	-	-	0.1	0.1	0.01	0.01	C55	
Ovary	23	-	-	-	0.8	6.2	8.5	14.3	-	2.9	2.1	0.15	0.29	C56	
Other Female Genital	1	-	-	-	-	0.7	-	-	-	0.1	0.1	0.01	0.01	C57	
Placenta	2	-	-	0.8	-	-	1.2	-	-	0.3	0.2	0.02	0.02	C58	
Kidney	7	0.8	-	-	-	0.7	2.4	2.4	5.7	0.9	0.8	0.05	0.07	C64	
Renal Pelvis	2	-	-	-	-	-	2.4	-	-	0.3	0.2	0.03	0.03	C65	
Ureter	1	-	-	-	-	-	1.2	-	-	0.1	0.1	0.01	0.01	C66	
Bladder	18	-	-	-	-	0.7	3.7	11.9	25.5	2.3	1.4	0.04	0.16	C67	
Other Urinary organs	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C68	
Eye	1	-	-	-	-	-	-	-	2.8	0.1	0.1	0.00	0.00	C69	
Brain, Nervous system	15	1.5	-	-	0.8	2.7	2.4	9.5	5.7	1.9	1.6	0.08	0.18	C70-C72	
Thyroid	11	-	-	0.8	1.6	-	1.2	7.2	11.4	1.4	1.0	0.04	0.11	C73	
Adrenal gland	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C74	
Other Endocrine	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C75	
Hodgkin disease	3	-	-	-	-	-	2.4	2.4	-	0.4	0.4	0.03	0.06	C81	
Non-Hodgkin lymphoma	31	-	2.6	-	0.8	3.4	11	14.3	19.9	3.9	2.8	0.16	0.32	C82-C85;C96	
Immunoproliferative dis.	0	-	-	-	-	-	-	-	-	0.0	0.0	0.00	0.00	C88	
Multiple Myeloma	3	-	-	-	-	-	2.4	2.4	-	0.4	0.4	0.03	0.06	C90	
Lymphoid Leukaemia	2	0.8	-	-	-	-	1.2	-	-	0.3	0.4	0.02	0.02	C91	
Myeloid Leukaemia	25	0.8	-	0.8	3.2	6.9	3.7	7.2	8.5	3.1	2.4	0.16	0.23	C92-C94	
Leukaemia unspec.	2	-	-	-	-	0.7	-	-	2.8	0.3	0.1	0.01	0.01	C95	
Other & unspecified	41	0.8	-	0.8	1.6	6.2	4.9	28.6	34.1	5.2	3.8	0.15	0.43	Other	
<b>All sites Total</b>	<b>937</b>	<b>5</b>	<b>4</b>	<b>15</b>	<b>51</b>	<b>124</b>	<b>247</b>	<b>516</b>	<b>695</b>	<b>117.8</b>	<b>83.4</b>	<b>4.42</b>	<b>9.20</b>	<b>All</b>	
<b>All sites but C44</b>	<b>924</b>	<b>5</b>	<b>4</b>	<b>15</b>	<b>51</b>	<b>123</b>	<b>245</b>	<b>516</b>	<b>664</b>	<b>116.1</b>	<b>82.6</b>	<b>4.40</b>	<b>9.18</b>	<b>Not C44</b>	

### CHIANG MAI POPULATION AND ADMINISTRATIVE DIVISIONS

In 2009, Chiang Mai province was composed of 24 districts (amphurs) (Fig. 53). Local administration consisted of one municipality and 49 subdistrict municipalities. Total population in Chiang Mai in 2009 was 1,552,917 consisting of 756,836 males and 796,081 females. The population density averaged 81.2 people per km<sup>2</sup>. The highest population density was in Muang District (1,433.1 people per km<sup>2</sup>), followed by Saraphi, Sanpatong, Hangdong, and Sankamphaeng districts. The lowest population density was in Mae Chaem District (16.9 people per km<sup>2</sup>). Eighty percent of the population was born in the province; the remainder was made up of Thai, Chinese, Laos, and hill tribe people. Buddhism was the professed religion of 91.4% of the people in the province. Of the remainder, most were either Christians or Muslims.

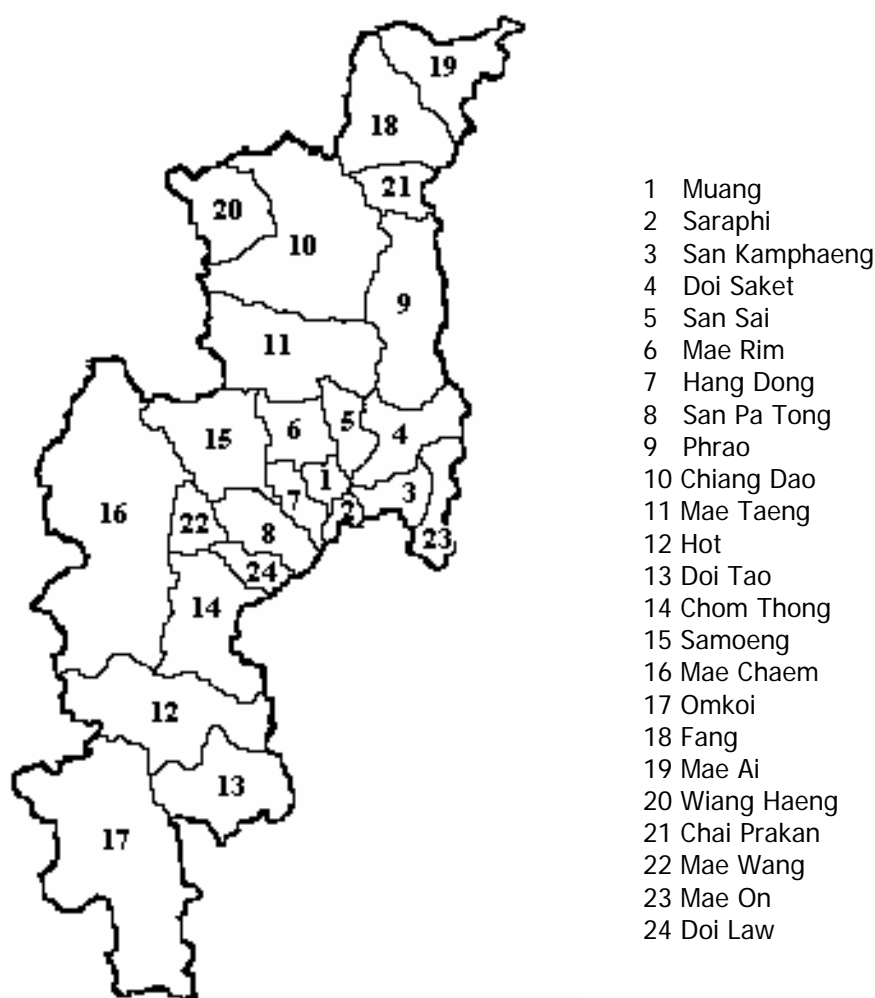
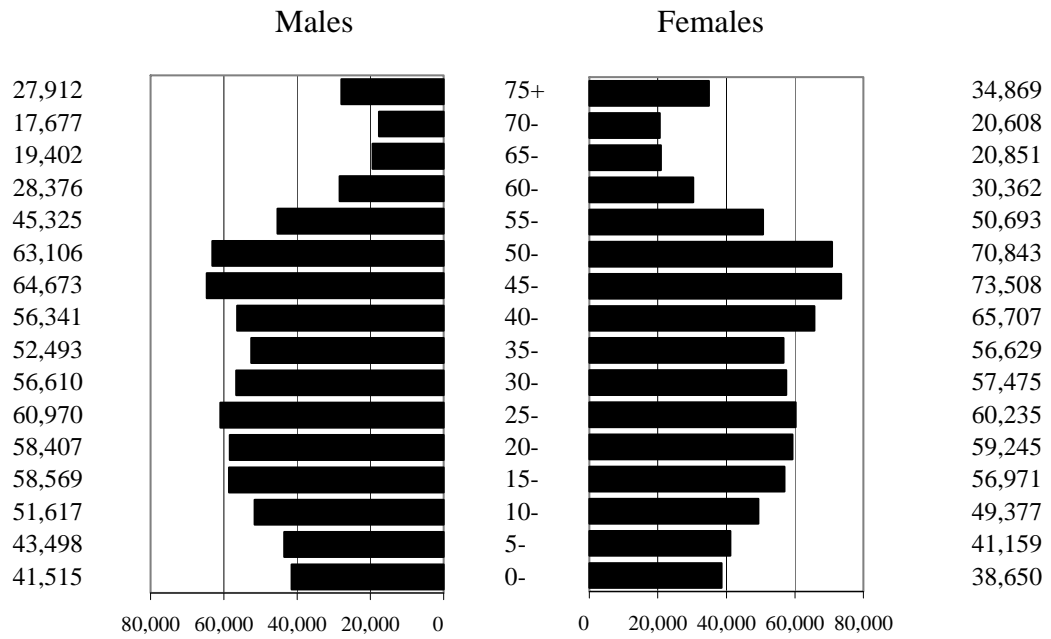


Figure 53: Districts of Chiang Mai



**Figure 54: Population pyramid, Chiang Mai, 2009**

### Age and Sex

The age-sex distribution in 2009 is illustrated by population pyramids (Fig. 54). In 2009, 17.1% of the total population was under age 15 and 12.9% was over age 60.

## HOSPITAL-BASED REGISTRATION

### Maharaj Nakorn Chiang Mai Hospital

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

### Overview

In 2009, there were 5,102 cases of new cancer at Maharaj Nakorn Chiang Mai Hospital. Forty percent were Chiang Mai residents, 38.1% came from nearby provinces (Lampoon, Lampang, Phayao and Chiang Rai), 19.9% came from the other provinces in the northern region, and only 1.5% resided outside the northern region.

### Non-invasive cancers

There were 227 cases of non-invasive cancer registered in the year 2009, accounting for 4.5% of all cases. The most common non-invasive cancer was carcinoma in situ of cervix, followed by benign neoplasm of brain, meninges and other parts of the central nervous system. The age distribution is shown in table 18.

**Table 18: Age distribution of non-invasive cancers, 2008**

SITE	All Ages	0-	15-	25-	35-	45-	55-	65-	75+	ICD (10th)
Cervix	92	0	1	12	29	39	10	1	0	D06
Brain, Nervous system	70	2	2	7	17	24	14	3	1	D32,D33,D42,D43
Myelodysplastic syndrome	43	1	2	2	5	8	5	8	12	D46,D47
Breast	2	0	0	0	1	2	0	0	0	D05
Other	19	0	0	1	1	6	4	5	2	
<b>All sites</b>	<b>227</b>	<b>3</b>	<b>5</b>	<b>22</b>	<b>53</b>	<b>79</b>	<b>33</b>	<b>17</b>	<b>15</b>	

### Invasive cancers

#### Age and sex

There were 2,346 male and 2,529 female invasive cancer cases in the year 2009, with a male to female ratio of 1:1.1, but 1,106 (43.7%) of the cancers in females occurred in sex-specific sites (i.e. breast and reproductive organs), while only 130 cases (5.5%) of cancers of males occurred in sex-specific sites (i.e. prostate, testis, and penis). When sex-specific sites were excluded, the male to female ratio increased to 1.6:1.

For males, the mean age at diagnosis was 58.4 and the median age was 59 years. For females, the mean age was 54.2 and the median age was 54 years. In the age group 30 to 54, female cancer cases were much more common than male cancer cases, but male cancer cases were more common than female cancer cases after age 55 (Fig. 55). There were 90 cases of cancer in children (age less than 15), accounting for only 1.8% of all cases, but there were 2,046 cases in the old-age group (age 60 and over), accounting for 42.0% of all cases.

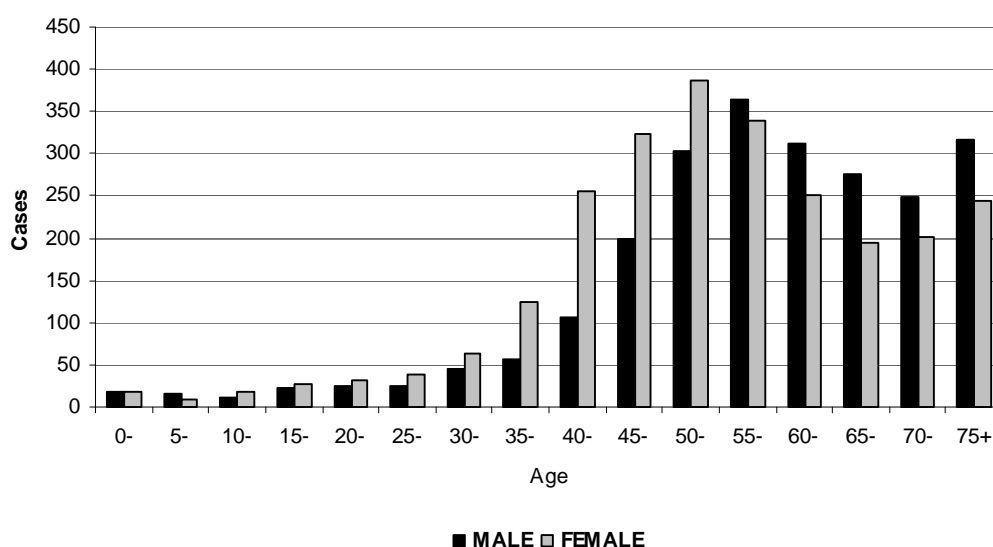


Figure 55: Age distribution of new cancer cases at Maharaj Nakorn Chiang Mai Hospital, 2009

### Basis of diagnosis

There were 3,903 histologically verified cases (80.1%). Sixty-three percent had primary sites and 8.6% had metastasis sites (Table 19). By site, for both males and females the incidence of cases clinically diagnosed cases was high for the liver, pancreas and lung.

Table 19: Type of diagnosis

Type of diagnosis	No.	%
<b>Histological verification</b>	<b>3903</b>	<b>80.1</b>
Histology of primary	3083	63.2
Histology of metastasis	418	8.6
Cytology/hematology	402	8.2
<b>No histological verification</b>	<b>972</b>	<b>19.9</b>
Clinical only	12	0.2
Clinical and Investigations	895	18.4
Operation/surgery	54	1.1
Immuno/Biochemistry	11	0.2
	<b>4875</b>	<b>100.0</b>

Table 20: Stage of disease

Stage	No.	%
Localized	681	14.0
Locally advanced	1536	31.5
Regional node metastasis	770	15.8
Distant metastasis	1268	26.0
Not applicable	572	11.7
Unknown/Not staged	48	1.0
	<b>4875</b>	<b>100.0</b>

### Stages of cancer

Forty-one percent of cases were diagnosed at an advanced stage (26.0% distant metastasis and 15.8% regional node metastasis), and 45.5% were diagnosed at a localized stage and locally advanced (Table 20). Eleven percent were staged as not applicable; most of these groups were lymphoma, leukemia, and brain tumor cases.

In 1,268 cases of distant metastasis at first visit, 14.3% had multiple sites of metastasis. The most common site of distant metastasis was the lung (26.3%), followed by distant lymph nodes (16.3%), bone (15.3%), liver (14.4%), and brain (10.1%).

### Leading sites of invasive cancer cases

For invasive cancer in both sexes combined, liver cancer was the most common (15.9%), followed by lung, cervix, breast, and non-Hodgkin's lymphoma (Table 21). Together these five types of cancer accounted for 53.4% of all new cancers. For males, the most common cancer was liver cancer (24.0%), followed by lung cancer (19.6%), non-Hodgkin's lymphoma, prostate cancer, and nasopharyngeal cancer. For females, the most common cancers were cervical cancer, accounting for 17.6% of all new cases, followed by breast, lung, liver, and ovarian cancers.

**Table 21: Ten leading cancers at Maharaj Nakorn Chiang Mai Hospital, 2009**

Males	cases	%	Females	cases	%	Both sexes	cases	%
Liver	564	24.0	Cervix	446	17.6	Liver	777	15.9
Lung	459	19.6	Breast	366	14.5	Lung	741	15.2
NHL	146	6.2	Lung	282	11.2	Cervix	446	9.1
Prostate	110	4.7	Liver	213	8.4	Breast	366	7.5
Nasopharynx	85	3.6	Ovary	145	5.7	NHL	275	5.6
Rectum	82	3.5	NHL	129	5.1	Rectum	159	3.3
Bladder	75	3.2	Corpus Uteri	109	4.3	Ovary	145	3.0
Colon	65	2.8	Thyroid	91	3.6	Colon	136	2.8
Stomach	53	2.3	Rectum	77	3.0	Nasopharynx	116	2.4
Mye.Leukaemia	52	2.2	Colon	71	2.8	Prostate	110	2.3

### Childhood cancer

There were 90 cases of childhood cancer (age less than 1 to 14), accounting for 1.8% of all cancer cases. The most common childhood cancer was leukemia, accounting for 33.3% of all childhood cancer, followed by brain and nervous system (25.6%), bone (12.0%), eye (8.9%), and NHL (5.6%).

**Table 22: Percentage of data verification by sites, 2009**

	Males				Females			
	cases	Clinical	Cyto	Histo	cases	Clinical	Cyto	Histo
Lip	2	0.0	0.0	100.0	9	0.0	0.0	100.0
Tongue	33	9.1	0.0	90.9	13	0.0	0.0	100.0
Mouth	38	2.6	0.0	97.4	20	5.0	0.0	95.0
Salivary glands	8	0.0	12.5	87.5	9	0.0	0.0	100.0
Tonsil	15	0.0	0.0	100.0	5	0.0	0.0	100.0
Other Oropharynx	11	0.0	0.0	100.0	0	-	-	-
Nasopharynx	85	3.5	2.4	94.1	31	3.2	0.0	96.8
Hypopharynx	13	0.0	0.0	100.0	8	25.0	0.0	75.0
Pharynx unspec.	1	0.0	0.0	100.0	1	0.0	0.0	100.0
Oesophagus	36	13.9	5.6	80.6	12	8.3	0.0	91.7
Stomach	53	13.2	3.8	83.0	37	13.5	0.0	86.5
Small intestine	7	28.6	0.0	71.4	2	0.0	0.0	100.0
Colon	65	15.4	0.0	84.6	71	8.5	1.4	90.1
Rectum	82	11.0	0.0	89.0	77	6.5	0.0	93.5
Anus	4	0.0	0.0	100.0	6	0.0	0.0	100.0
Liver	564	73.8	6.7	19.5	213	66.7	8.9	24.4
Gallbladder	32	50.0	0.0	50.0	26	57.7	0.0	42.3
Pancreas	32	56.3	9.4	34.4	25	48.0	4.0	48.0
Nose, sinuses	9	0.0	0.0	100.0	14	0.0	0.0	100.0
Larynx	51	3.9	0.0	96.1	5	20.0	0.0	80.0
Lung	459	19.8	23.3	56.9	282	20.6	21.3	58.2
Other Thoracic organs	8	12.5	25.0	62.5	4	25.0	0.0	75.0
Bone	23	4.3	0.0	95.7	14	14.3	0.0	85.7
Melanoma of Skin	14	0.0	7.1	92.9	14	0.0	0.0	100.0
Other Skin	47	0.0	0.0	100.0	49	0.0	0.0	100.0
Mesothelioma	0	-	-	-	1	0.0	0.0	100.0
Kaposi sarcoma	2	0.0	0.0	100.0	0	-	-	-
Connective,Soft tissue	16	18.8	0.0	81.3	15	0.0	6.7	93.3
Breast	0	-	-	-	366	3.3	4.1	92.6
Vulva					20	0.0	0.0	100.0
Vagina					7	0.0	0.0	100.0
Cervix Uteri					446	1.1	0.0	98.9
Corpus Uteri					109	0.0	0.0	100.0
Uterus unspec.					1	0.0	0.0	100.0
Ovary					145	3.4	3.4	92.4
Other Female Genital					5	0.0	0.0	100.0
Placenta					7	0.0	0.0	71.4
Penis	16	0.0	0.0	100.0				
Prostate	110	10.0	0.0	90.0				
Testis	4	0.0	25.0	75.0				
Other male genital	0	-	-	-				
Kidney	28	28.6	3.6	67.9	6	50.0	0.0	50.0
Renal Pelvis	1	0.0	100.0	0.0	1	0.0	0.0	100.0
Ureter	6	50.0	0.0	50.0	1	0.0	0.0	100.0
Bladder	75	6.7	1.3	92.0	17	5.9	0.0	94.1
Other Urinary organs	1	0.0	0.0	100.0	3	0.0	0.0	100.0
Eye	10	10.0	0.0	90.0	7	14.3	0.0	85.7
Brain, Nervous system	43	34.9	0.0	65.1	49	34.7	0.0	65.3
Thyroid	17	5.9	23.5	70.6	91	4.4	11.0	84.6
Adrenal gland	1	0.0	0.0	100.0	3	33.3	0.0	66.7
Other Endocrine	2	0.0	0.0	100.0	0	-	-	-
Hodgkin disease	6	0.0	0.0	100.0	6	0.0	0.0	100.0
Non-Hodgkin lymphoma	146	0.0	5.5	94.5	129	0.0	1.6	98.4
Multiple Myeloma	24	0.0	29.2	70.8	19	0.0	21.1	78.9
Lymphoid Leukaemia	20	0.0	70.0	30.0	18	0.0	66.7	33.3
Myeloid Leukaemia	52	0.0	48.1	51.9	51	0.0	60.8	39.2
Leukaemia unspec.	3	0.0	66.7	33.3	2	0.0	100.0	0.0
Other & unspecified	71	31.0	11.3	57.7	57	24.6	15.8	59.6
<b>All sites Total</b>	<b>2346</b>	<b>27.9</b>	<b>9.8</b>	<b>62.3</b>	<b>2529</b>	<b>12.5</b>	<b>6.8</b>	<b>80.6</b>

Clinical Percentage of cases with clinical diagnosis

Cyto Percentage of cases with cytological diagnosis

Histo Percentage of cases with histological diagnosis

**Table 23: Number of new cancer cases in Maharaj Nakorn Chiang Mai Hospital, 2009, Males**

Number of cases by Age Group (years)												
SITE	All Ages	Age Unk.	0-	15-	25-	35-	45-	55-	65-	75+	%	ICD (10th)
Lip	2	0	0	0	0	0	0	1	0	1	0.1	C00
Tongue	33	0	0	0	0	5	9	9	3	7	1.4	C01-C02
Mouth	38	0	0	0	0	4	6	13	7	8	1.6	C03-C06
Salivary glands	8	0	0	1	0	1	2	3	0	1	0.3	C07-C08
Tonsil	15	0	0	0	0	4	7	1	2	1	0.6	C09
Other Oropharynx	11	0	0	0	0	0	3	1	3	4	0.5	C10
Nasopharynx	85	0	0	1	6	11	20	28	12	7	3.6	C11
Hypopharynx	13	0	0	0	0	0	4	4	2	3	0.6	C12-C13
Pharynx unspec.	1	0	0	0	0	0	0	0	0	1	0.0	C14
Oesophagus	36	0	0	0	0	1	12	15	6	2	1.5	C15
Stomach	53	0	0	1	3	1	8	12	21	7	2.3	C16
Small intestine	7	0	0	0	0	1	2	2	1	1	0.3	C17
Colon	65	0	0	1	4	3	13	20	16	8	2.8	C18
Rectum	82	0	0	1	5	3	20	20	23	10	3.5	C19-C20
Anus	4	0	0	0	0	1	1	2	0	0	0.2	C21
Liver	564	1	3	1	15	50	166	201	88	39	24.0	C22
Gallbladder etc.	32	0	0	0	0	3	5	11	11	2	1.4	C23-C24
Pancreas	32	0	0	0	1	2	11	7	9	2	1.4	C25
Nose, sinuses etc.	9	0	0	0	0	2	4	2	1	0	0.4	C30-C31
Larynx	51	0	0	0	0	2	7	17	16	9	2.2	C32
Lung	459	0	0	3	5	20	79	144	129	79	19.6	C33-C34
Other Thoracic organs	8	0	1	3	4	0	0	0	0	0	0.3	C37-C38
Bone	23	0	6	7	1	3	5	1	0	0	1.0	C40-C41
Melanoma of Skin	14	0	0	0	0	1	3	4	1	5	0.6	C43
Other Skin	47	0	0	2	2	6	3	7	13	14	2.0	C44
Mesothelioma	0	0	0	0	0	0	0	0	0	0	0.0	C45
Kaposi sarcoma	2	0	0	0	1	0	0	0	1	0	0.1	C46
Connective,Soft tissue	16	0	0	3	1	0	1	5	4	2	0.7	C47;C49
Breast	0	0	0	0	0	0	0	0	0	0	0.0	C50
Penis	16	0	0	0	1	1	3	4	6	1	0.7	C60
Prostate	110	0	0	0	0	0	6	23	50	31	4.7	C61
Testis	4	0	0	1	0	1	1	0	1	0	0.2	C62
Other male genital	0	0	0	0	0	0	0	0	0	0	0.0	C63
Kidney	28	0	0	0	0	2	11	9	2	4	1.2	C64
Renal Pelvis	1	0	0	0	0	0	0	0	0	1	0.0	C65
Ureter	6	0	0	0	0	0	0	0	4	2	0.3	C66
Bladder	75	0	0	0	1	1	12	18	25	18	3.2	C67
Other Urinary organs	1	0	0	0	0	0	0	1	0	0	0.0	C68
Eye	10	0	5	0	0	1	1	2	0	1	0.4	C69
Brain, Nervous system	43	0	9	3	6	9	7	6	1	2	1.8	C70-C72
Thyroid	17	0	0	1	4	2	6	3	0	1	0.7	C73
Adrenal gland	1	0	1	0	0	0	0	0	0	0	0.0	C74
Other Endocrine	2	0	0	1	0	0	1	0	0	0	0.1	C75
Hodgkin disease	6	0	1	2	0	0	2	1	0	0	0.3	C81
Non-Hodgkin lymphoma	146	0	4	5	8	14	36	32	34	13	6.2	C82-C85;C96
Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0.0	C88
Multiple Myeloma	24	0	1	0	0	2	2	9	8	2	1.0	C90
Lymphoid Leukaemia	20	0	10	2	1	2	1	1	0	3	0.9	C91
Myeloid Leukaemia	52	0	2	6	2	0	12	15	6	9	2.2	C92-C94
Leukaemia unspec.	3	0	0	1	0	1	0	0	1	0	0.1	C95
Other & unspecified	71	0	1	2	0	2	10	21	19	16	3.0	Other
<b>All sites Total</b>	<b>2346</b>	<b>1</b>	<b>44</b>	<b>48</b>	<b>71</b>	<b>162</b>	<b>502</b>	<b>675</b>	<b>526</b>	<b>317</b>	<b>100.0</b>	<b>All</b>
<b>All sites but C44</b>	<b>2299</b>	<b>1</b>	<b>44</b>	<b>46</b>	<b>69</b>	<b>156</b>	<b>499</b>	<b>668</b>	<b>513</b>	<b>303</b>	<b>98.0</b>	<b>Not C44</b>



**Table 24: Number of new cancer cases in Maharaj Nakorn Chiang Mai Hospital, 2009, Females**

SITE	Number of cases by Age Group (years)										%	ICD (10th)
	All Ages	Age Unk.	0-	15-	25-	35-	45-	55-	65-	75+		
Lip	9	0	0	0	0	0	0	1	2	6	0.4	C00
Tongue	13	0	0	1	0	4	2	2	3	1	0.5	C01-C02
Mouth	20	0	0	0	0	0	2	3	5	10	0.8	C03-C06
Salivary glands	9	0	0	1	2	1	3	2	0	0	0.4	C07-C08
Tonsil	5	0	0	0	0	1	0	2	0	2	0.2	C09
Other Oropharynx	0	0	0	0	0	0	0	0	0	0	0.0	C10
Nasopharynx	31	0	1	5	4	4	9	5	3	0	1.2	C11
Hypopharynx	8	0	0	0	0	1	1	1	2	3	0.3	C12-C13
Pharynx unspec.	1	0	0	0	0	0	0	0	1	0	0.0	C14
Oesophagus	12	0	0	0	0	1	2	2	5	2	0.5	C15
Stomach	37	0	0	0	3	5	10	7	5	7	1.5	C16
Small intestine	2	0	0	0	0	0	1	1	0	0	0.1	C17
Colon	71	0	0	0	1	9	15	19	16	11	2.8	C18
Rectum	77	0	0	1	1	9	25	20	11	10	3.0	C19-C20
Anus	6	0	0	0	0	1	1	3	1	0	0.2	C21
Liver	213	0	0	0	3	22	63	56	51	18	8.4	C22
Gallbladder etc.	26	0	0	0	0	0	5	10	7	4	1.0	C23-C24
Pancreas	25	0	0	1	1	2	2	6	6	7	1.0	C25
Nose, sinuses etc.	14	0	0	0	1	1	4	1	3	4	0.6	C30-C31
Larynx	5	0	0	0	0	0	0	0	2	3	0.2	C32
Lung	282	0	0	0	3	20	46	76	87	50	11.2	C33-C34
Other Thoracic organs	4	0	0	0	0	1	3	0	0	0	0.2	C37-C38
Bone	14	0	5	4	1	2	0	0	2	0	0.6	C40-C41
Melanoma of Skin	14	0	0	0	1	2	5	1	2	3	0.6	C43
Other Skin	49	0	0	1	3	9	8	5	7	16	1.9	C44
Mesothelioma	1	0	0	0	0	0	0	0	0	1	0.0	C45
Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0.0	C46
Connective,Soft tissue	15	0	0	3	1	0	3	5	1	2	0.6	C47;C49
Breast	366	0	0	2	6	88	144	88	29	9	14.5	C50
Vulva	20	0	0	0	0	2	8	6	3	1	0.8	C51
Vagina	7	0	0	0	0	0	2	1	2	2	0.3	C52
Cervix Uteri	446	0	0	1	21	104	160	94	45	21	17.6	C53
Corpus Uteri	109	0	0	1	1	9	36	42	15	5	4.3	C54
Uterus unspec.	1	0	0	0	0	0	0	1	0	0	0.0	C55
Ovary	145	0	0	10	11	23	53	32	14	2	5.7	C56
Other Female Genital	5	0	1	0	0	0	0	4	0	0	0.2	C57
Placenta	7	0	0	2	2	0	1	2	0	0	0.3	C58
Kidney	6	0	0	0	0	0	1	2	2	1	0.2	C64
Renal Pelvis	1	0	0	0	0	0	0	1	0	0	0.0	C65
Ureter	1	0	0	0	0	0	0	0	0	1	0.0	C66
Bladder	17	0	0	0	0	1	1	6	3	6	0.7	C67
Other Urinary organs	3	0	0	0	0	0	1	2	0	0	0.1	C68
Eye	7	0	3	0	0	0	0	2	0	2	0.3	C69
Brain, Nervous system	49	0	14	4	2	5	10	6	6	2	1.9	C70-C72
Thyroid	91	0	2	10	13	17	19	14	13	3	3.6	C73
Adrenal gland	3	0	1	0	0	1	0	1	0	0	0.1	C74
Other Endocrine	0	0	0	0	0	0	0	0	0	0	0.0	C75
Hodgkin disease	6	0	0	1	1	0	1	2	0	1	0.2	C81
Non-Hodgkin lymphoma	129	1	1	5	12	17	31	33	19	10	5.1	C82-C85;C96
Immunoproliferative dis.	0	0	0	0	0	0	0	0	0	0	0.0	C88
Multiple Myeloma	19	0	0	1	0	0	3	10	2	3	0.8	C90
Lymphoid Leukaemia	18	0	10	2	0	1	1	2	2	0	0.7	C91
Myeloid Leukaemia	51	0	7	3	6	10	13	3	6	3	2.0	C92-C94
Leukaemia unspec.	2	0	1	0	0	0	1	0	0	0	0.1	C95
Other & unspecified	57	0	0	1	1	7	15	7	13	13	2.3	Other
<b>All sites Total</b>	<b>2529</b>	<b>1</b>	<b>46</b>	<b>60</b>	<b>101</b>	<b>380</b>	<b>711</b>	<b>589</b>	<b>396</b>	<b>245</b>	<b>100.0</b>	<b>All</b>
<b>All sites but C44</b>	<b>2480</b>	<b>1</b>	<b>46</b>	<b>59</b>	<b>98</b>	<b>371</b>	<b>703</b>	<b>584</b>	<b>389</b>	<b>229</b>	<b>98.1</b>	<b>Not C44</b>

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