

Chapter 25

Cancer survival in Chiang Mai, Thailand, 1993–1997

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Abstract

The Chiang Mai tumour registry was established in 1978 as a hospital-based cancer registry, and population-based cancer registration started in 1986, with retrospective data collection on cancer incidence and mortality since 1983. Registration of cases is done by active methods. Data on survival for 36 cancer sites or types registered during 1993–1997 are reported here. Follow-up has been carried out predominantly by active methods, with median follow-up ranging between 1–39 months for different cancers. The proportion of histologically verified diagnosis for various cancers ranged between 28–100%; death certificate only (DCO) cases comprised 0–56%; 33–92% of total registered cases were included for survival analysis. Complete follow-up at five years ranged from 59–100% for different cancers. The 5-year age-standardized relative survival rates was the highest for Hodgkin lymphoma (70%) followed by thyroid (65%), cervix (57%), breast (56%) and corpus uteri (49%). The 5-year relative survival by age group showed either an inverse relationship or was fluctuating. An overwhelmingly high proportion of cases were diagnosed with a regional spread of disease, ranging between 44–82% for different cancers and survival decreased with increasing extent of disease for all cancers studied.

Chiang Mai tumour registry

The Chiang Mai tumour registry was established in 1978 as a hospital-based cancer registry in The Maharaj Nakorn Chiang Mai Hospital and is fully supported by the Faculty of Medicine, Chiang Mai University. Population-based cancer registration started in 1986, with retrospective data collection on cancer incidence and mortality since 1983. The registry has been contributing data to the quinquennial IARC publication *Cancer Incidence in Five Continents* since volume VI [1]. Cancer registration is done by active methods. The principal sources of information on cancer cases are the hospital and pathology records. The registry caters to a mixed urban and rural population of about 1.4 million with a sex ratio of 995 females to 1000 males in 1995. The average annual age-standardized incidence rate is 145 per 100 000 among males and 151 per 100 000 among females with a lifetime cumulative risk of one in 6 of developing cancer for both sexes in the period 1993–1997. The top-ranking cancers among males are lung followed by liver and stomach. Among females, the order is cervix, lung and breast.

The registry contributed data on survival from 37 cancer sites or types for the first volume of the IARC

publication on *Cancer Survival in Developing Countries* [2]. Data on survival from 36 cancer sites or types registered during 1993–1997 are reported in this second volume.

Data quality indices (Table 1)

The proportion of cases with histologically verified cancer diagnosis in our series is 77%, varying between 28–100%. The proportion of cases registered as death certificate only (DCO) is 5.5%, ranging between nil for many cancers and 56% for unspecified cancer. Cases excluded without any follow-up constitute 16%. The exclusion of cases from the survival analysis is the greatest among the gastrointestinal cancer of the gall bladder (67%) and the least among lymphoid leukaemia (8%). Thus, 33–92% of the total cases registered are included in the estimation of the survival probability.

Outcome of follow-up (Table 2)

Follow-up has been carried out predominantly by active methods. These included abstraction of cancer mortality information from the Chiang Mai public health service records. The abstracted data are matched with the incident cancer database. Unmatched incident cases are then subjected to one

or more of the following to obtain the vital status information: repeated scrutiny of records in the respective sources of registration, postal enquiry and house visits.

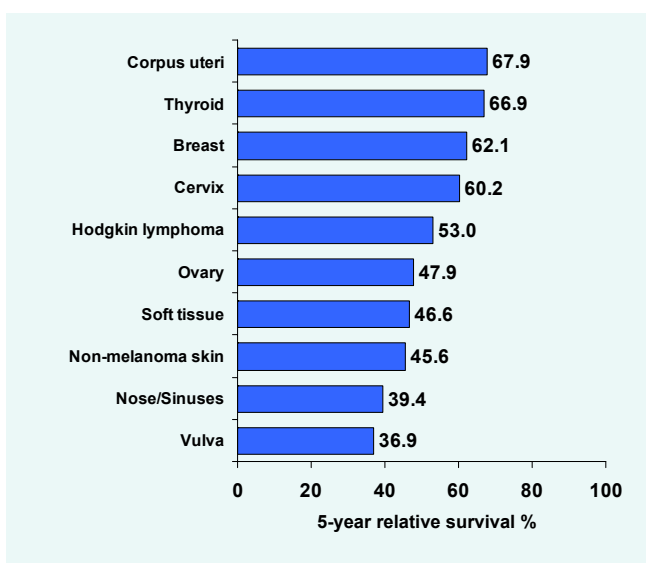
The closing date of follow-up was 31st December 2000. The median follow-up (in months) ranged between 1.4 months for unspecified leukaemia to 39 months for breast and corpus uteri cancers. Complete follow-up information at five years from the incidence date ranged from 100% for unspecified leukaemia to 59% for non-melanoma skin cancer. The proportion of cases lost to follow-up was generally the highest within 3 years from the incidence date.

Survival statistics

All ages and both sexes together (Table 3)

The 5-year relative survival is the highest for corpus uteri cancer (68%) followed by thyroid (67%), breast (62%), cervix (60%) and Hodgkin lymphoma (53%). The lowest survival rate is encountered with liver cancer, with a figure of 3%. Nasopharynx (37%), among other head and neck cancers, and colon (31%), among gastrointestinal cancers, have the highest survival. Survival from cancers of the urinary system is 31% for urinary bladder and 19% for kidney. Hodgkin lymphoma had a better survival (53%) than non-Hodgkin (26%). The survival figures for leukaemias are 20% for lymphoid, 11% for myeloid and 10% for unspecified.

Figure 1a. Top ten cancers (ranked by survival), Chiang Mai, Thailand, 1993–1997



The 5-year age-standardized relative survival (ASRS) probability for all ages together was generally less than or similar to the corresponding unadjusted one

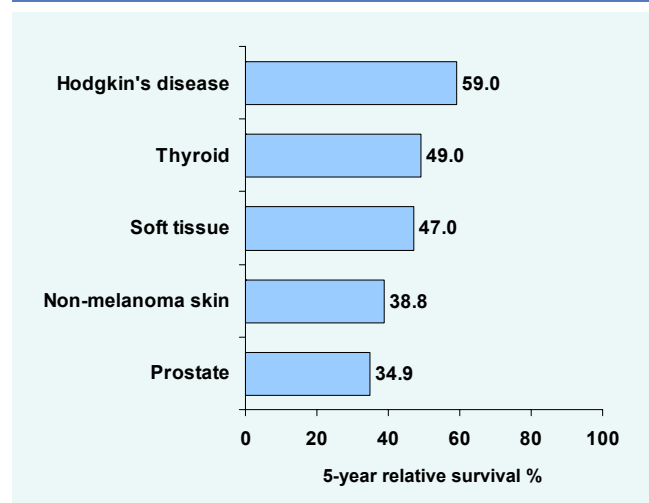
for most cancers. Also, the 5-year ASRS (0–74 years of age) was generally higher than or similar to the corresponding ASRS (all ages) for a majority of cancers.

Sex

Male (Table 4a)

The top five cancers ranked on the 5-year relative survival were Hodgkin disease (59%), thyroid (49%), soft tissue (47%), non-melanoma skin (39%) and prostate (35%). Survival from Hodgkin lymphoma and laryngeal cancer was noticeably higher among males than females.

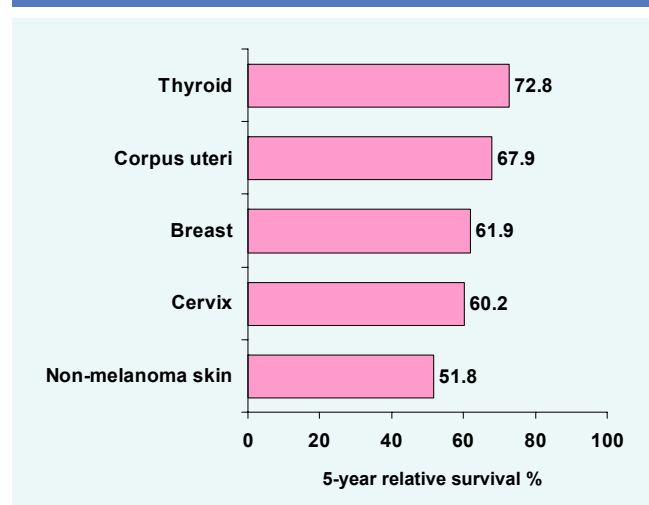
Figure 1b. Top five cancers (ranked by survival), Male, Chiang Mai, Thailand, 1993–1997



Female (Table 4a)

The top-ranking cancers in terms of 5-year relative survival are thyroid (73%), corpus uteri (68%), breast

Figure 1c. Top five cancers (ranked by survival), Female, Chiang Mai, Thailand, 1993–1997



(62%), cervix (60%) and non-melanoma skin (52%). Survival was distinctly higher among females than males for cancers of the oral cavity, nasopharynx, oesophagus, gall bladder, bone, non-melanoma skin, brain and thyroid, and non-Hodgkin lymphoma and unspecified leukaemia.

Age group (Table 4b)

The 5-year relative survival by age group reveals an inverse relationship: a decreasing survival with increasing age at diagnosis for cancers of the cervix and body uterus. In the rest, it is observed to be fluctuating.

Extent of disease (Table 5; Figure 2)

An overwhelmingly high proportion of cases among the few selected cancers with reliable information on extent of disease are diagnosed, with a regional spread of disease ranging from 82% for larynx cancer to 44% for ovarian cancer. There is not much of a difference in the frequency of cases with a localized disease (14%) and a distant metastasis (12%) in breast cancer. Less than 4% of cases presented with localized disease among colorectal cancers. The extent of disease was unknown in 0–4%. The 5-year absolute survival by extent of disease followed the expected pattern: highest for localized cases followed by

regional and distant metastasis cases among known categories of extent of disease.

Survival trend (Table 6)

The 5-year relative survival for cases registered in 1993–1997 compared to those in 1983–1992 [2] shows a marked decrease in cancers of the tongue, bone, skin melanoma, non-melanoma skin, vulva and penis. There has been an increase in survival in the corresponding period for cancers of the connective tissue, thyroid and Hodgkin lymphoma. For the rest, the absolute difference in survival is <10%. The level of complete follow-up in this volume has decreased in 25 out of 33 cancers compared to previous volume.

References

1. Parkin DM, Whelan SL, Ferlay J and Storm H. *Cancer Incidence in Five Continents, Vol I to VIII: IARC Cancerbase No. 7*. IARCPress, Lyon, 2005.
2. Martin N, Srisukho S, Kunpradist O and Suttajit M. Cancer survival in Chiang Mai, Thailand. In: *Cancer Survival in Developing Countries* (eds) R Sankaranarayanan, RJ Black and DM Parkin. IARC Scientific Publications No. 145. IARCPress, Lyon, 1998.

Figure 2. Absolute survival (%) from selected cancers by extent of disease, Chiang Mai, Thailand

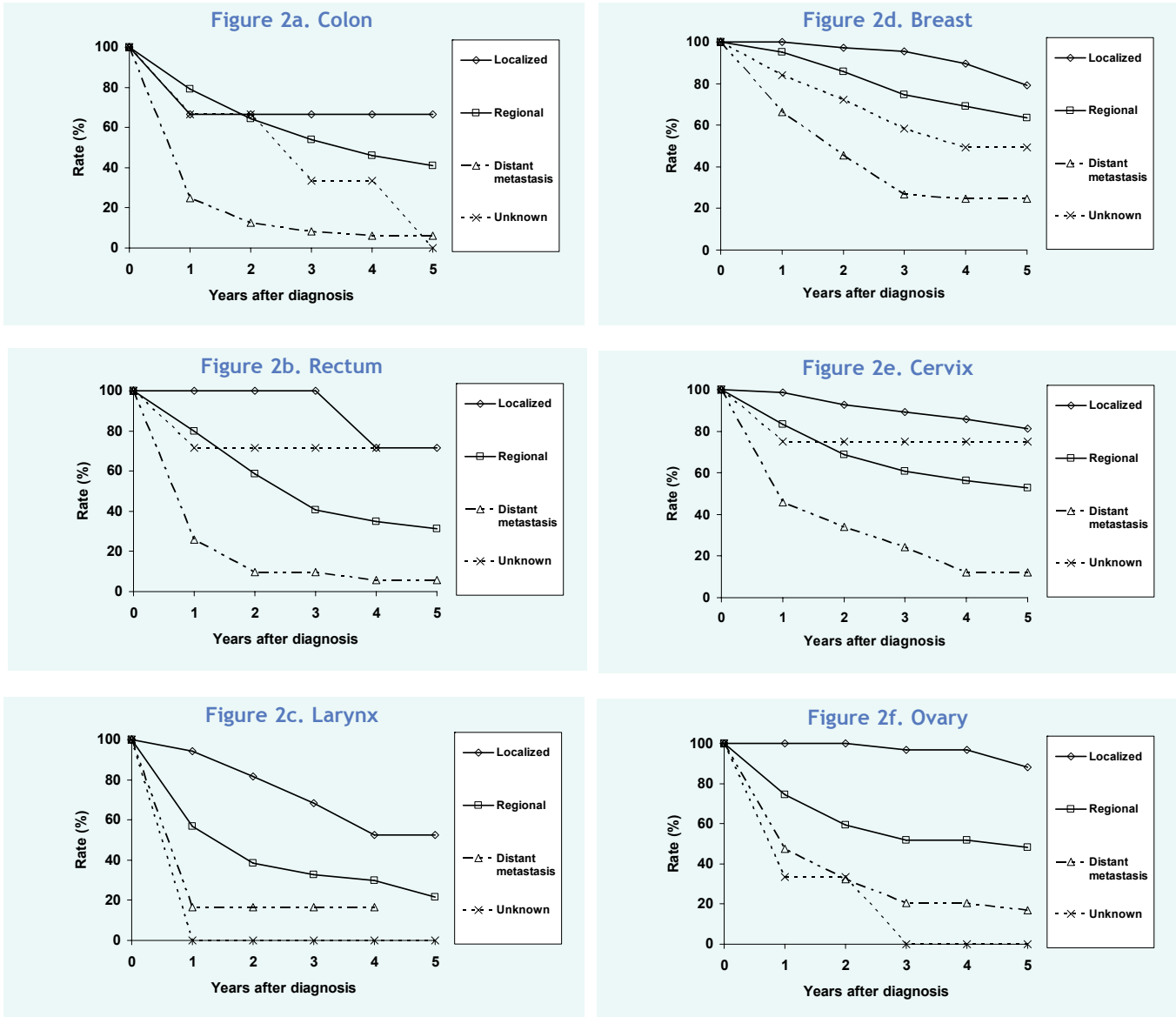


Table 1. Data quality indices - Proportion of histologically verified and death certificate only cases, number and proportion of included and excluded cases by site: Chiang Mai, Thailand, 1993–1997 cases followed-up until 2000

Site	ICD-10	Total registered	%		Excluded cases					Included cases	
			HV	DCO	DCO	Follow-up	Others	Total	%	No.	%
Tongue	C01-02	101	94.1	0.0	0	16	0	16	15.8	85	84.2
Oral cavity	C03-06	124	95.2	1.6	2	19	2	23	18.5	101	81.5
Tonsil	C09	59	98.3	0.0	0	7	1	8	13.6	51	86.4
Nasopharynx	C11	167	81.4	9.0	15	19	0	34	20.4	133	79.6
Hypopharynx	C12-13	78	94.9	0.0	0	9	0	9	11.5	69	88.5
Oesophagus	C15	109	75.2	0.9	1	20	0	21	19.3	88	80.7
Stomach	C16	408	77.7	2.2	9	82	1	92	22.5	316	77.5
Colon	C18	310	81.9	1.6	5	66	2	73	23.5	237	76.5
Rectum	C19-20	219	83.1	0.0	0	29	0	29	13.2	190	86.8
Liver	C22	993	42.5	12.0	119	168	1	288	29.0	705	71.0
Gall bladder	C23-24	182	62.1	1.6	3	44	0	47	25.8	135	74.2
Pancreas	C25	132	46.2	0.8	1	24	1	26	19.7	106	80.3
Gastrointestinal tract	C26	93	28.0	55.9	52	10	0	62	66.7	31	33.3
Nose/Sinuses	C30-31	39	76.9	0.0	0	6	0	6	15.4	33	84.6
Larynx	C32	184	83.2	1.6	3	28	0	31	16.8	153	83.2
Lung	C33-34	2 135	61.4	10.4	223	267	3	493	23.1	1 642	76.9
Bone	C40-41	45	64.4	15.6	7	3	0	10	22.2	35	77.8
Melanoma of skin	C43	31	100.0	0.0	0	4	0	4	12.9	27	87.1
Other skin	C44	268	98.1	1.9	5	92	2	99	36.9	169	63.1
Connective tissue	C47+C49	53	100.0	0.0	0	8	0	8	15.1	45	84.9
Breast	C50	621	93.6	1.4	9	65	3	77	12.4	544	87.6
Vulva	C51	31	100.0	0.0	0	3	0	3	9.7	28	90.3
Cervix	C53	973	96.8	0.4	4	81	3	88	9.0	885	91.0
Corpus uteri	C54	125	86.4	8.8	11	16	0	27	21.6	98	78.4
Ovary	C56	197	88.8	0.5	1	33	1	35	17.8	162	82.2
Penis	C60	92	94.6	0.0	0	20	0	20	21.7	72	78.3
Prostate	C61	148	92.6	0.0	0	39	2	41	27.7	107	72.3
Kidney	C64	58	70.7	5.2	3	16	1	20	34.5	38	65.5
Urinary bladder	C67	273	87.5	0.4	1	48	1	50	18.3	223	81.7
Brain & nervous system	C70-72	103	68.0	13.6	14	13	1	28	27.2	75	72.8
Thyroid	C73	164	93.9	0.0	0	34	0	34	20.7	130	79.3
Hodgkin lymphoma	C81	42	100.0	0.0	0	12	0	12	28.6	30	71.4
Non-Hodgkin lymphoma	C82-85+C96	369	99.7	0.3	1	67	3	71	19.2	298	80.8
Lymphoid leukaemia	C91	76	100.0	0.0	0	6	0	6	7.9	70	92.1
Myeloid leukaemia	C92-94	135	100.0	0.0	0	13	0	13	9.6	122	90.4
Leukaemia unspecified	C95	64	75.0	25.0	16	4	1	21	32.8	43	67.2

HV: histologically verified; DCO: death certificate only

Table 2. Number and proportion of cases with complete/incomplete follow-up (in years) and median follow-up (in months) by site: Chiang Mai, Thailand, 1993–1997 cases followed-up until 2000

Site	ICD-10	Cases included	Complete FU		Incomplete FU: lost to FU						% with complete FU at 5 years	Median FU (in months)
			Alive/dead at end of FU		% lost to FU: years from diagnosis							
			No.	%	No.	%	< 1	1-3	3-5	> 5		
Tongue	C01-02	85	68	80.0	17	20.0	7.0	5.9	4.7	2.4	82.4	6.6
Oral cavity	C03-06	101	71	70.3	30	29.7	11.8	9.9	5.0	3.0	73.3	9.8
Tonsil	C09	51	33	64.7	18	35.3	17.6	11.8	5.9	0.0	64.7	7.4
Nasopharynx	C11	133	104	78.2	29	21.8	6.7	9.8	2.3	3.0	81.2	19.9
Hypopharynx	C12-13	69	54	78.3	15	21.7	8.7	4.3	2.9	5.8	84.1	8.6
Oesophagus	C15	88	77	87.5	11	12.5	8.0	2.3	1.1	1.1	88.6	2.7
Stomach	C16	316	261	82.6	55	17.4	8.5	3.2	4.4	1.3	83.9	5.7
Colon	C18	237	174	73.4	63	26.6	9.4	8.4	4.6	4.2	77.6	14.6
Rectum	C19-20	190	142	74.7	48	25.3	9.0	8.4	6.8	1.1	75.8	16.4
Liver	C22	705	638	90.5	67	9.5	7.1	1.1	0.4	0.9	91.4	2.1
Gall bladder	C23-24	135	107	79.3	28	20.7	11.9	7.4	0.0	1.5	80.8	3.8
Pancreas	C25	106	90	84.9	16	15.1	9.5	3.8	0.9	0.9	85.8	3.6
Gastrointestinal tract	C26	31	29	93.5	2	6.5	3.3	3.2	0.0	0.0	93.5	2.2
Nose/Sinuses	C30-31	33	24	72.7	9	27.3	9.1	12.1	0.0	6.1	78.8	20.5
Larynx	C32	153	112	73.2	41	26.8	8.5	8.5	5.9	3.9	77.1	12.1
Lung	C33-34	1 642	1 451	88.4	191	11.6	8.1	2.4	0.7	0.4	88.8	3.8
Bone	C40-41	35	27	77.1	8	22.9	8.6	2.9	5.7	5.7	82.8	12.1
Melanoma of skin	C43	27	20	74.1	7	25.9	7.4	3.7	11.1	3.7	77.8	16.6
Other skin	C44	169	87	51.5	82	48.5	15.3	17.8	7.7	7.7	59.2	23.2
Connective tissue	C47+C49	45	28	62.2	17	37.8	13.3	11.1	8.9	4.5	66.7	13.3
Breast	C50	544	354	65.1	190	34.9	7.1	12.5	8.5	6.8	71.9	39.0
Vulva	C51	28	22	78.6	6	21.4	7.1	10.7	0.0	3.6	82.2	22.8
Cervix	C53	885	621	70.2	264	29.8	6.7	8.4	10.1	4.8	75.0	38.0
Corpus uteri	C54	98	56	57.1	42	42.9	10.2	10.2	13.3	9.2	66.3	39.0
Ovary	C56	162	112	69.1	50	30.9	9.9	9.9	6.2	4.9	74.0	20.4
Penis	C60	72	44	61.1	28	38.9	16.7	13.9	8.3	0.0	61.1	12.0
Prostate	C61	107	82	76.6	25	23.4	5.6	5.6	7.5	4.7	81.3	27.2
Kidney	C64	38	31	81.6	7	18.4	10.5	5.3	0.0	2.6	84.2	6.6
Urinary bladder	C67	223	161	72.2	62	27.8	10.3	8.5	4.5	4.5	76.7	13.1
Brain & nervous system	C70-72	75	48	64.0	27	36.0	12.0	10.7	12.0	1.3	65.3	10.7
Thyroid	C73	130	82	63.1	48	36.9	7.7	11.5	10.8	6.9	70.0	37.5
Hodgkin lymphoma	C81	30	21	70.0	9	30.0	13.3	6.7	6.7	3.3	73.3	10.3
Non-Hodgkin lymphoma	C82-85+C96	298	232	77.9	66	22.1	10.4	8.1	2.3	1.3	79.2	8.2
Lymphoid leukaemia	C91	70	62	88.6	8	11.4	7.1	2.9	0.0	1.4	90.0	8.7
Myeloid leukaemia	C92-94	122	111	91.0	11	9.0	5.7	2.5	0.0	0.8	91.8	2.1
Leukaemia unspecified	C95	43	42	97.7	1	2.3	0.0	0.0	0.0	2.3	100.0	1.4

FU: follow-up

Table 3. Comparison of 1-, 3- and 5-year absolute and relative survival and 5-year age-standardized relative survival by site: Chiang Mai, Thailand, 1993–1997 cases followed-up until 2000

Site	ICD-10	Cases included	% Absolute survival			% Relative survival			% ASRS at 5-years	
			1-year	3-year	5-year	1-year	3-year	5-year	all ages	0-74 years
Tongue	C01-02	85	35.4	16.6	16.6	36.1	17.4	17.8	21.7	24.3
Oral cavity	C03-06	101	55.8	32.0	21.5	56.6	33.4	23.2	24.8	22.0
Tonsil	C09	51	48.4	26.7	20.0	49.1	27.6	21.0	26.9	30.6
Nasopharynx	C11	133	72.8	40.6	35.6	73.3	41.5	36.7	32.5	41.5
Hypopharynx	C12-13	69	45.5	23.1	20.9	46.3	24.3	22.6	27.0	30.0
Oesophagus	C15	88	21.9	8.9	8.9	22.2	9.4	9.8	11.0	6.4
Stomach	C16	316	38.4	19.5	12.1	38.8	20.2	12.8	12.9	12.1
Colon	C18	237	61.5	39.7	29.3	62.1	40.8	30.8	27.8	32.5
Rectum	C19-20	190	69.7	36.9	27.9	70.5	38.3	29.7	28.7	30.4
Liver	C22	705	17.0	4.5	3.0	17.1	4.7	3.2	3.2	3.3
Gall bladder	C23-24	135	32.3	11.9	6.0	32.7	12.4	6.3	4.8	6.4
Pancreas	C25	106	18.2	10.6	10.6	18.4	11.0	11.6	14.7	10.6
Gastrointestinal tract	C26	31	14.8			14.9				
Nose/Sinuses	C30-31	33	61.9	41.3	35.8	62.5	42.2	36.9	26.4	30.8
Larynx	C32	153	58.4	35.8	24.6	59.3	37.5	26.6	27.4	28.0
Lung	C33-34	1 642	24.1	6.8	4.5	24.3	7.0	4.8	5.8	4.8
Bone	C40-41	35	58.2	38.8	20.7	58.5	39.2	21.0	8.5	8.5
Melanoma of skin	C43	27	69.2	28.0	21.8	70.2	29.4	23.2	22.6	23.3
Other skin	C44	169	79.0	59.8	41.6	80.4	63.1	45.6	46.4	59.2
Connective tissue	C47+C49	45	64.3	45.1	45.1	64.7	45.9	46.6	44.6	44.6
Breast	C50	544	92.0	71.4	60.8	92.4	72.3	62.1	55.8	57.3
Vulva	C51	28	77.8	47.8	36.4	78.8	49.7	39.4	42.9	39.0
Cervix	C53	885	86.0	66.8	58.8	86.4	67.7	60.2	57.0	60.0
Corpus uteri	C54	98	90.3	71.1	66.2	90.7	72.2	67.9	48.8	64.4
Ovary	C56	162	71.4	52.0	47.1	71.7	52.6	47.9	35.2	44.7
Penis	C60	72	63.9	50.5	32.0	64.7	52.8	34.6	33.6	36.7
Prostate	C61	107	78.8	44.9	30.4	80.7	48.5	34.9	34.5	35.0
Kidney	C64	38	38.9	18.6	18.6	39.3	19.1	19.4	16.5	23.1
Urinary bladder	C67	223	60.3	39.5	28.8	61.1	41.1	30.7	26.5	33.2
Brain & nervous system	C70-72	75	56.0	30.2	20.4	56.2	30.5	20.6	15.3	16.4
Thyroid	C73	130	76.0	70.6	65.7	76.4	71.5	66.9	65.1	65.4
Hodgkin lymphoma	C81	30	60.7	56.7	51.5	61.1	57.7	53.0	69.7	73.1
Non-Hodgkin lymphoma	C82-85+C96	298	51.9	32.4	25.4	52.2	33.0	26.3	26.0	28.1
Lymphoid leukaemia	C91	70	52.6	24.2	20.3	52.7	24.3	20.4	15.4	15.4
Myeloid leukaemia	C92-94	122	28.3	16.1	10.5	28.4	16.3	10.7	8.7	10.9
Leukaemia unspecified	C95	43	18.6	9.3	9.3	18.8	9.6	9.7	8.9	11.0

ASRS: age-standardized relative survival

Table 4a. Site-wise number of cases, 5-year absolute and relative survival by sex: Chiang Mai, Thailand, 1993–1997 cases followed-up until 2000

Site	ICD-10	Cases included	Male			Female		
			% 5-year survival			% 5-year survival		
			No.	Abs	Rel	No.	Abs	Rel
Tongue	C01-02	85	61	14.7	16.0	24	21.5	22.5
Oral cavity	C03-06	101	60	16.7	18.1	41	28.9	31.3
Tonsil	C09	51	39	17.9	18.7	12		
Nasopharynx	C11	133	93	31.3	32.5	40	44.0	45.2
Hypopharynx	C12-13	69	56	23.2	25.1	13		
Oesophagus	C15	88	56	5.8	6.2	32	14.6	16.3
Stomach	C16	316	180	13.7	14.7	136	10.0	10.4
Colon	C18	237	126	31.6	33.4	111	26.8	28.1
Rectum	C19-20	190	102	29.2	31.4	88	26.2	27.6
Liver	C22	705	497	2.4	2.5	208	5.3	5.6
Gall bladder	C23-24	135	50	0.0	0.0	85	10.1	10.6
Pancreas	C25	106	49	12.2	13.9	57	9.3	9.6
Gastrointestinal tract	C26	31	18	0.0	0.0	13		
Nose/Sinuses	C30-31	33	21	33.1	34.2	12	40.4	41.3
Larynx	C32	153	116	30.9	33.7	37	3.7	3.9
Lung	C33-34	1 642	945	4.2	4.5	697	5.0	5.3
Bone	C40-41	35	27	15.3	15.6	8	44.6	45.1
Melanoma of skin	C43	27	14			13	35.9	38.2
Other skin	C44	169	87	35.3	38.8	82	47.4	51.8
Connective tissue	C47+C49	45	19	44.8	47.0	26	45.1	46.1
Breast	C50	544	2	100.0	101.7	542	60.6	61.9
Vulva	C51	28				28	36.4	39.4
Cervix	C53	885				885	58.8	60.2
Corpus uteri	C54	98				98	66.2	67.9
Ovary	C56	162				162	47.1	47.9
Penis	C60	72	72	32.0	34.6			
Prostate	C61	107	107	30.4	34.9			
Kidney	C64	38	22	16.7	17.7	16	21.2	21.6
Urinary bladder	C67	223	163	30.9	33.1	60	22.7	24.1
Brain & nervous system	C70-72	75	39	11.9	12.1	36	32.0	32.2
Thyroid	C73	130	31	47.2	49.0	99	71.8	72.8
Hodgkin lymphoma	C81	30	18	57.1	59.0	12	43.6	44.3
Non-Hodgkin lymphoma	C82-85+C96	298	179	20.2	21.0	119	33.3	34.4
Lymphoid leukaemia	C91	70	49	18.8	18.9	21	23.8	23.9
Myeloid leukaemia	C92-94	122	60	11.6	11.8	62	9.3	9.5
Leukaemia unspecified	C95	43	22	0.0	0.0	21	19.0	19.6

Abs: absolute survival; Rel: relative survival

Table 4b. Site-wise number of cases and relative survival by age group: Chiang Mai, Thailand, 1993–1997 cases followed-up until 2000

Site	ICD-10	Cases included	Number of cases by age group					Relative survival by age group				
								% 5-year survival				
			< 45	45-54	55-64	65-74	> 75	< 45	45-54	55-64	65-74	> 75
Tongue	C01-02	85	12	9	14	25	25	19.7		28.0	18.3	0.0
Oral cavity	C03-06	101	8	13	31	24	25	31.4	32.5	20.9	9.9	35.5
Tonsil	C09	51	7	7	9	15	13	40.2		34.7		0.0
Nasopharynx	C11	133	30	32	38	24	9	41.1	63.4	36.7	6.1	0.0
Hypopharynx	C12-13	69	0	3	17	26	23		33.9	39.4	14.9	21.1
Oesophagus	C15	88	2	13	23	34	16	0.0	17.0	5.5	6.0	23.8
Stomach	C16	316	48	49	90	87	42	17.3	9.0	16.0	5.8	15.8
Colon	C18	237	45	38	56	68	30	26.2	33.4	46.5	24.0	19.8
Rectum	C19-20	190	40	22	41	57	30	29.6	37.7	30.4	28.5	23.3
Liver	C22	705	171	138	194	150	52	1.1	6.1	4.4	1.2	
Gall bladder	C23-24	135	12	15	29	61	18		0.0	8.2	7.5	0.0
Pancreas	C25	106	10	13	31	36	16		0.0	11.5		19.1
Gastrointestinal tract	C26	31	7	5	8	5	6	0.0	0.0	0.0		0.0
Nose/Sinuses	C30-31	33	10	3	12	5	3	60.0	0.0	32.5		
Larynx	C32	153	9	10	36	65	33	33.8	37.5	18.2	29.8	28.3
Lung	C33-34	1 642	102	248	632	516	144	10.3	4.3	3.8	4.4	7.6
Bone	C40-41	35	24	4	3	4	0	29.3	0.0	0.0		
Melanoma of skin	C43	27	6	3	4	9	5	33.6	0.0	68.7		
Other skin	C44	169	16	14	36	57	46	83.0	46.2	79.2	42.3	16.1
Connective tissue	C47+C49	45	23	8	6	5	3	46.2		43.7	40.6	38.5
Breast	C50	544	222	164	91	45	22	70.6	63.0	56.6	31.5	50.3
Vulva	C51	28	2	5	6	10	5	0.0	72.3	63.3	0.0	75.2
Cervix	C53	885	360	215	183	97	30	64.0	63.2	60.2	44.8	34.6
Corpus uteri	C54	98	25	24	35	12	2	86.3	78.0	62.8	41.5	0.0
Ovary	C56	162	69	42	30	16	5	61.1	50.7	31.9		0.0
Penis	C60	72	21	10	16	16	9			36.3	61.3	
Prostate	C61	107	0	5	18	43	41		40.8	25.8	39.4	34.2
Kidney	C64	38	8	8	7	9	6	38.6		14.7	21.8	0.0
Urinary bladder	C67	223	21	24	64	82	32	71.2	25.5	30.1	27.1	9.9
Brain & nervous system	C70-72	75	47	9	12	6	1	31.9		0.0		0.0
Thyroid	C73	130	68	17	17	26	2	91.3	63.6	48.0	19.1	0.0
Hodgkin lymphoma	C81	30	12	3	7	8	0	91.3	67.7	30.1	0.0	
Non-Hodgkin lymphoma	C82-85+C96	298	118	50	58	56	16	36.6	28.5	25.8	10.8	13.8
Lymphoid leukaemia	C91	70	55	5	5	5	0	25.2	0.0		0.0	0.0
Myeloid leukaemia	C92-94	122	66	14	20	18	4	14.2	8.1	15.3		0.0
Leukaemia unspecified	C95	43	23	0	6	8	6	8.8				0.0

Table 5. Proportion of cases and 5-year absolute survival by extent of disease and site: Chiang Mai, Thailand, 1993–1997

Site	ICD-10	Cases included	% of cases by extent of disease				% 5-year absolute survival			
			Localized	Regional	Dist. met.	Unknown	Localized	Regional	Dist. met.	Unknown
Colon	C18	237	1.3	65.8	31.6	1.3	66.7	40.8	6.0	0.0
Rectum	C19-20	190	3.7	74.2	20.0	2.1	71.4	31.2	5.9	
Larynx	C32	153	11.8	82.4	3.8	2.0	52.4	21.4	16.7	0.0
Breast	C50	544	14.3	70.0	11.9	3.8	79.3	63.7	24.8	49.4
Cervix	C53	885	26.1	69.7	3.7	0.5	81.2	52.7	12.2	75.0
Ovary	C56	162	24.1	43.8	30.2	1.9	88.2	48.3	16.9	0.0

Dis. met.: distant metastasis

Table 6. Comparison of 5-year absolute and relative survival of cases diagnosed between 1985–1992 and 1993–1997, Chiang Mai, Thailand

Site	ICD-10	% Complete FU at 5 years		% 5-year absolute survival		% 5-year relative survival	
		1985–1992	1993–1997	1985–1992	1993–1997	1985–1992	1993–1997
Tongue	C01-02	86.6	82.4	27.4	16.6	35.9	17.8
Oral cavity	C03-06	93.3	73.3	14.8	21.5	19.4	23.2
Tonsil	C09	86.4	64.7	16.9	20.0	23.3	21.0
Nasopharynx	C11	86.0	81.2	27.2	35.6	29.4	36.7
Hypopharynx	C12-13	87.2	84.1	15.5	20.9	21.4	22.6
Oesophagus	C15	96.8	88.6	2.9	8.9	3.8	9.8
Stomach	C16	95.0	83.9	7.5	12.1	8.6	12.8
Colon	C18	75.3	77.6	33.3	29.3	38.4	30.8
Rectum	C19-20	85.2	75.8	21.9	27.9	25.2	29.7
Liver	C22	97.9	91.4	0.4	3.0	0.5	3.2
Gall bladder	C23-24	94.8	80.8	3.5	6.0	4.1	6.3
Pancreas	C25	93.0	85.8	3.2	10.6	3.7	11.6
Larynx	C32	92.1	77.1	16.2	24.6	20.2	26.6
Lung	C33-34	95.8	88.8	2.7	4.5	3.1	4.8
Bone	C40-41	75.6	82.8	33.7	20.7	36.1	21.0
Melanoma of skin	C43	83.3	77.8	36.5	21.8	43.7	23.2
Other skin	C44	66.9	59.2	73.9	41.6	92.7	45.6
Connective tissue	C47+C49	88.0	66.7	35.3	45.1	37.9	46.6
Breast	C50	67.8	71.9	59.4	60.8	63.7	62.1
Vulva	C51	73.5	82.2	51.2	36.4	59.2	39.4
Cervix	C53	71.4	75.0	65.0	58.8	68.2	60.2
Corpus uteri	C54	51.3	66.3	64.1	66.2	69.5	67.9
Ovary	C56	82.7	74.0	42.6	47.1	44.9	47.9
Penis	C60	77.7	61.1	48.9	32.0	56.8	34.6
Prostate	C61	80.3	81.3	28.7	30.4	42.3	34.9
Kidney	C64	92.9	84.2	14.0	18.6	15.3	19.4
Urinary bladder	C67	82.7	76.7	31.0	28.8	38.3	30.7
Brain & nervous system	C70-72	90.9	65.3	17.9	20.4	18.7	20.6
Thyroid	C73	73.9	70.0	48.3	65.7	52.7	66.9
Hodgkin lymphoma	C81	82.4	73.3	27.2	51.5	29.6	53.0
Non-Hodgkin lymphoma	C82-85+C96	84.4	79.2	22.4	25.4	24.7	26.3
Lymphoid leukaemia	C91	97.7	90.0	13.2	20.3	13.7	20.4
Myeloid leukaemia	C92-94	93.2	91.8	10.1	10.5	10.9	10.7

FU: follow-up

