

Chapter 27

Cancer survival in Lampang, Thailand, 1990–2000

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Abstract

The Lampang cancer registry was established in 1995, with retrospective data collection since 1988. Cancer registration is currently done by passive methods. The registry is contributing data on survival for 40 cancer sites or types registered during 1990–2000. Follow-up has been carried out by passive and active methods with median follow-up ranging from 1–74 months for different cancers. The proportion having a histologically verified diagnosis for various cancers ranged between 30–100%; death certificate only (DCO) cases comprised 0–33%; 67–100% of total registered cases were included for survival analysis. Complete follow-up at five years ranged from 96–100% for different cancers. The 5-year age-standardized relative survival rate was the highest for skin non-melanoma (85%) followed by lip (81%), thyroid (74%), corpus uteri (71%) and penis (71%). The 5-year relative survival by age group showed a fluctuating trend. An overwhelmingly high proportion of cases were diagnosed with a regional spread of disease, ranging from 35–68% for different cancers, and survival was decreasing with increasing extent of disease for most cancers studied.

Chiang Mai tumour registry

The Lampang cancer registry was established in 1995 in the Lampang Cancer Centre, Lampang, under the supervision of the National Cancer Institute for cancer prevention and control in the northern part of Thailand. The population-based cancer registration started with retrospective data collection on cancer incidence and mortality from 1988. The registry contributed data to the quinquennial IARC publication *Cancer Incidence in Five Continents* for the first time in volume VIII [1]. Data collection for the years 1988–1993 was done by active methods. Cancer registration is currently done by the passive method of notification from 21 sources comprising cancer centres, hospitals in the government and private sectors, provincial public health services and pathological laboratories [2]. The registry covers an area of 12 534 km² and caters to a mixed urban and rural population of about 0.8 million with a sex ratio of 1004 females to 1000 males in 2000. The average annual age-standardized incidence rate is 180 per 100 000 among males and 155 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, liver and colon, and among females, the order is lung, cervix and breast.

The registry is contributing data on survival from 40 cancer sites or types for the first time in this volume

of the IARC publication on *Cancer Survival in Africa, Asia, the Caribbean and Central America*.

Data quality indices (Table 1)

The proportion of cases with histologically verified cancer diagnosis in our series is 71%, varying from 30% in liver cancer to 100% in skin melanoma, lymphomas and leukaemias. The proportion of cases registered as death certificates only (DCOs) was 6%, ranging between nil for many cancers and 33%, for bone cancer. Cases excluded without any follow-up are negligible. The exclusion of cases from the survival analysis is the greatest among bone cancer (33%) while none were excluded from many cancers. Thus, 67–100% 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 by passive and active methods. These included notification of cancer mortality information from the Lampang provincial public health service records. The mortality data are matched with the incident cancer database. Unmatched incident cases are then subjected to one or more of the following to obtain vital status information: repeated scrutiny of records in the respective sources of registration, postal enquiry and house visits.

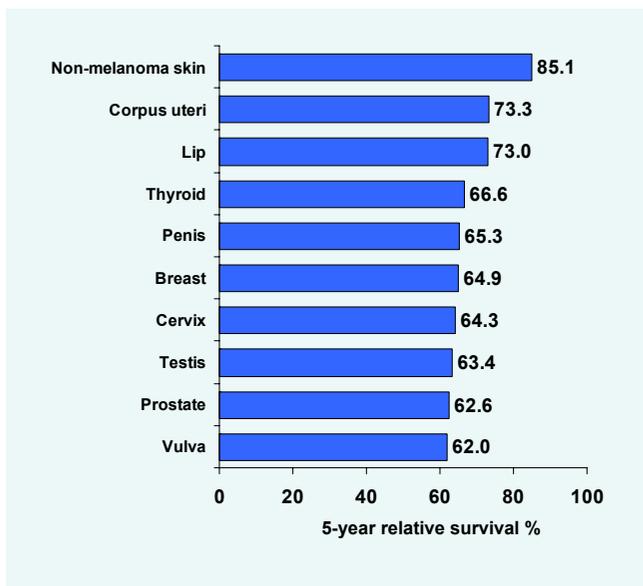
The closing date of follow-up was 31st December 2003. The median follow-up time ranged from less than one month in unspecified leukaemia to 74 months for non-melanoma skin cancer. Complete follow-up information at five years from the incidence date ranged from 96–100%.

Survival statistics

All ages and both sexes together (Table 3)

The top-ranking cancers in terms of 5-year relative survival are non-melanoma skin (85%), corpus uteri (73%), lip (73%), thyroid (67%) and penis (65%). The lowest survival rate is encountered in ill-defined digestive organs (1%) followed by unspecified leukaemia (11%). Major salivary gland (62%) and tonsil (44%), among other head and neck cancers, and colon (39%) and rectum (38%), among gastrointestinal cancers, have higher survival than others. Survival from cancers of the urinary system is 47% for urinary bladder, 34% for kidney and 27% for renal pelvis. Hodgkin and non-Hodgkin lymphoma have similar survival (42%). The survival figures for leukaemias are 41% for lymphoid, 34% for myeloid and 11% for unspecified.

Figure 1a. Top ten cancers (ranked by survival), Lampang, Thailand, 1990–2000



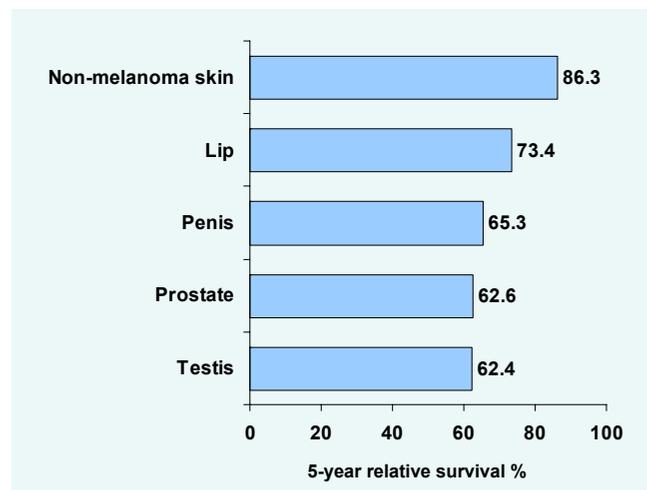
The 5-year age-standardized relative survival (ASRS) probability for all ages together is generally less than or similar to the corresponding unadjusted one for most cancers. Also, the 5-year ASRS (0–74 years of age) is generally higher than or similar to the corresponding ASRS (all ages) for a majority of cancers.

Sex

Male (Table 4a)

The top five cancers ranked on the 5-year relative survival are non-melanoma skin (86%), lip (73%), penis (65%), testis and prostate (63%). Survival from tongue and kidney is markedly higher among males than females.

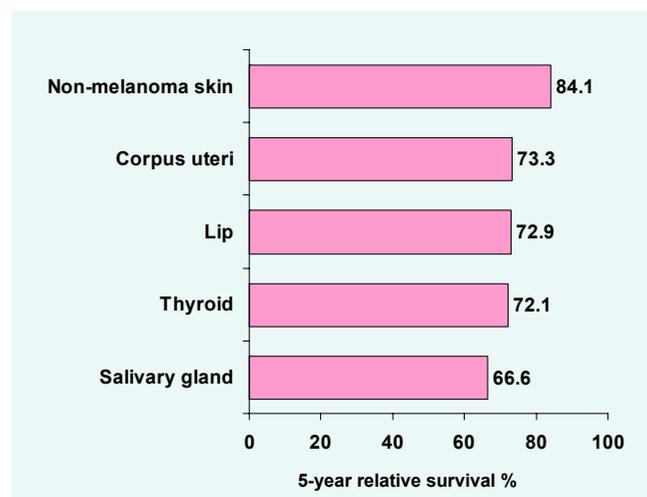
Figure 1b. Top five cancers (ranked by survival), Male, Lampang, Thailand, 1990–2000



Female (Table 4a)

The highest 5-year relative survival is observed in non-melanoma skin (84%), followed by corpus uteri (73%), lip (73%), thyroid (72%) and major salivary gland (67%). Survival probabilities for cancers of the breast, cervix and ovary are 65%, 64% and 50%, respectively. The survival is noticeably higher among females than males in cancers of the salivary gland, tonsil, hypopharynx, bone, connective tissue, renal pelvis and thyroid.

Figure 1c. Top five cancers (ranked by survival), Female, Lampang, Thailand, 1990–2000



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 cancer of the vulva only. 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 68% for tongue cancer to 35% for ovarian cancer.

In colon cancer, 44% are classified under regional and one third under distant metastasis. The extent of

disease was unknown in 4–14%. The 5-year absolute survival by extent of disease generally follows a trend: highest survival for localized disease followed by regional and distant metastasis for cancers of larynx, breast, cervix and ovary.

References

1. Parkin DM, Whelan SL, Ferlay J and Storm H. *Cancer Incidence in Five Continents, Vol I to VIII: IARC Cancerbase No. 7*. IARC Press, Lyon, 2005.
2. Pongnikorn S, Martin N, Pornruangwong W, Daoprasert K. *Cancer Incidence and Mortality in Lampang, Thailand, 1990–2000, Vol. III*. Lampang Cancer Centre, Lampang, 2004.

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

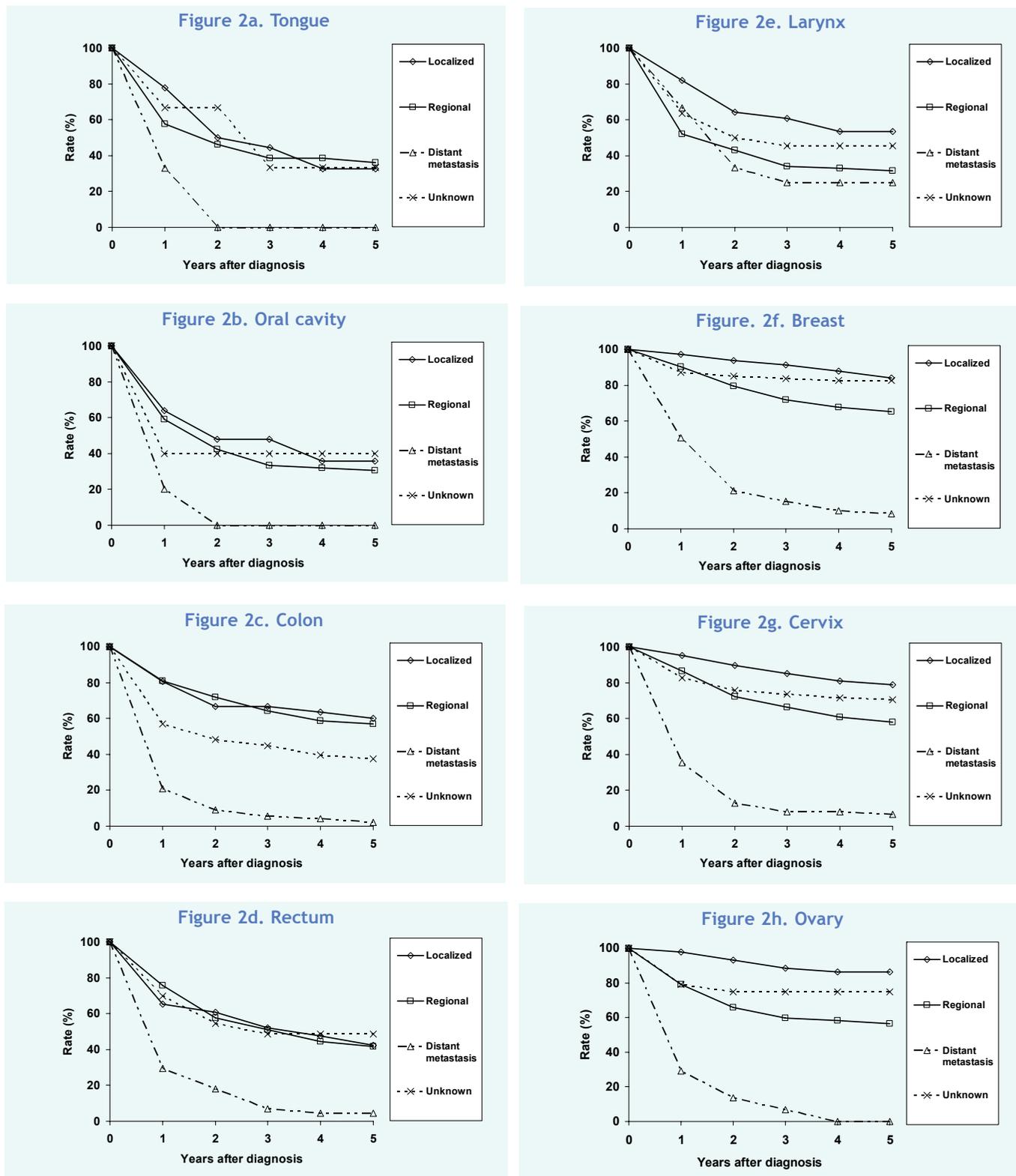


Table 1. Data quality indices - Proportion of histologically verified and death certificate only cases, number and proportion of included and excluded cases by site: Lampang, Thailand, 1990–2000 cases followed-up until 2003

Site	ICD-10	Total registered	%		Excluded cases					Included cases	
			HV	DCO	DCO	Follow-up	Others	Total	%	No.	%
Lip	C00	33	97.0	0.0	0	0	0	0	0.0	33	100.0
Tongue	C01-02	76	93.4	0.0	0	0	0	0	0.0	76	100.0
Oral cavity	C03-06	124	83.9	4.8	6	0	0	6	4.8	118	95.2
Salivary gland	C07-08	33	75.8	3.0	1	0	0	1	3.0	32	97.0
Tonsil	C09	47	91.5	0.0	0	0	0	0	0.0	47	100.0
Nasopharynx	C11	169	85.2	0.0	0	0	0	0	0.0	169	100.0
Hypopharynx	C12-13	43	95.3	0.0	0	0	0	0	0.0	43	100.0
Oesophagus	C15	118	61.0	4.2	5	0	0	5	4.2	113	95.8
Stomach	C16	424	70.0	6.4	27	1	0	28	6.6	396	93.4
Colon	C18	522	59.0	18.4	96	0	1	97	18.6	425	81.4
Rectum	C19-20	250	83.6	0.4	1	0	0	1	0.4	249	99.6
Liver	C22	1 707	29.7	14.7	251	1	0	252	14.8	1 455	85.2
Gall bladder	C23-24	277	58.8	3.6	10	1	0	11	4.0	266	96.0
Pancreas	C25	162	45.7	2.5	4	0	0	4	2.5	158	97.5
Gastrointestinal tract	C26	151	51.7	7.3	11	0	0	11	7.3	140	92.7
Nose/Sinuses	C30-31	42	85.7	0.0	0	0	0	0	0.0	42	100.0
Larynx	C32	168	86.3	2.4	4	2	0	6	3.6	162	96.4
Lung	C33-34	3 278	65.9	7.8	257	6	1	264	8.1	3 014	91.9
Bone	C40-41	39	56.4	33.3	13	0	0	13	33.3	26	66.7
Melanoma of skin	C43	50	100.0	0.0	0	0	0	0	0.0	50	100.0
Other skin	C44	296	95.9	1.4	4	0	0	4	1.4	292	98.6
Connective tissue	C47+C49	71	94.4	0.0	0	1	0	1	1.4	70	98.6
Breast	C50	842	89.9	1.4	12	0	0	12	1.4	830	98.6
Vulva	C51	30	96.7	0.0	0	0	0	0	0.0	30	100.0
Cervix	C53	1 088	92.2	0.8	9	0	0	9	0.8	1 079	99.2
Corpus uteri	C54	112	77.7	9.8	11	0	0	11	9.8	101	90.2
Ovary	C56	193	80.3	0.0	0	0	0	0	0.0	193	100.0
Penis	C60	71	88.7	1.4	1	0	0	1	1.4	70	98.6
Prostate	C61	176	88.1	2.8	5	0	0	5	2.8	171	97.2
Testis	C62	31	74.2	0.0	0	0	0	0	0.0	31	100.0
Kidney	C64	53	47.2	13.2	7	0	0	7	13.2	46	86.8
Renal pelvis	C65	39	97.4	0.0	0	0	0	0	0.0	39	100.0
Urinary bladder	C67	269	84.4	0.7	2	2	0	4	1.5	265	98.5
Brain & nervous system	C70-72	84	65.5	13.1	11	0	0	11	13.1	73	86.9
Thyroid	C73	140	76.4	5.0	7	0	0	7	5.0	133	95.0
Hodgkin lymphoma	C81	55	100.0	0.0	0	0	1	1	1.8	54	98.2
Non-Hodgkin lymphoma	C82-85+C96	368	100.0	0.0	0	0	0	0	0.0	368	100.0
Lymphoid leukaemia	C91	109	100.0	0.0	0	0	0	0	0.0	109	100.0
Myeloid leukaemia	C92-94	137	100.0	0.0	0	0	0	0	0.0	137	100.0
Leukaemia unspecified	C95	90	100.0	0.0	0	0	0	0	0.0	90	100.0

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: Lampang, Thailand, 1990–2000 cases followed-up until 2003

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		
Lip	C00	33	32	97.0	1	3.0	0.0	0.0	0.0	3.0	100.0	72.8
Tongue	C01-02	76	76	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	22.1
Oral cavity	C03-06	118	117	99.2	1	0.8	0.0	0.0	0.8	0.0	99.2	15.7
Salivary gland	C07-08	32	31	96.9	1	3.1	0.0	0.0	3.1	0.0	96.9	56.5
Tonsil	C09	47	47	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	37.4
Nasopharynx	C11	169	169	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	28.4
Hypopharynx	C12-13	43	43	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	15.7
Oesophagus	C15	113	113	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	9.6
Stomach	C16	396	395	99.7	1	0.3	0.0	0.0	0.3	0.0	99.7	7.3
Colon	C18	425	424	99.8	1	0.2	0.0	0.0	0.0	0.2	100.0	19.4
Rectum	C19-20	249	247	99.2	2	0.8	0.0	0.0	0.4	0.4	99.6	24.0
Liver	C22	1 455	1 452	99.8	3	0.2	0.0	0.0	0.2	0.0	99.8	2.2
Gall bladder	C23-24	266	266	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	4.5
Pancreas	C25	158	158	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	3.4
Gastrointestinal tract	C26	140	140	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	1.4
Nose/Sinuses	C30-31	42	42	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	43.5
Larynx	C32	162	160	98.8	2	1.2	0.0	0.0	1.2	0.0	98.8	20.6
Lung	C33-34	3 014	3 009	99.8	5	0.2	0.0	0.0	0.1	0.1	99.9	4.9
Bone	C40-41	26	26	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	17.0
Melanoma of skin	C43	50	50	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	42.2
Other skin	C44	292	289	99.0	3	1.0	0.0	0.0	0.3	0.7	99.7	74.4
Connective tissue	C47+C49	70	69	98.6	1	1.4	0.0	0.0	0.0	1.4	100.0	47.5
Breast	C50	830	821	98.9	9	1.1	0.0	0.0	1.0	0.1	99.0	59.0
Vulva	C51	30	30	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	61.2
Cervix	C53	1 079	1 064	98.6	15	1.4	0.0	0.0	0.6	0.7	99.4	63.6
Corpus uteri	C54	101	101	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	67.3
Ovary	C56	193	192	99.5	1	0.5	0.0	0.0	0.5	0.0	99.5	46.2
Penis	C60	70	69	98.6	1	1.4	0.0	0.0	1.4	0.0	98.6	60.7
Prostate	C61	171	170	99.4	1	0.6	0.0	0.0	0.0	0.6	100.0	49.6
Testis	C62	31	31	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	55.8
Kidney	C64	46	46	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	6.1
Renal pelvis	C65	39	38	97.4	1	2.6	0.0	0.0	0.0	2.6	100.0	5.5
Urinary bladder	C67	265	260	98.1	5	1.9	0.0	0.0	1.5	0.4	98.5	28.1
Brain & nervous system	C70-72	73	70	95.9	3	4.1	0.0	0.0	4.1	0.0	95.9	28.9
Thyroid	C73	133	133	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	59.3
Hodgkin lymphoma	C81	54	52	96.3	2	3.7	0.0	0.0	1.9	1.9	98.1	24.1
Non-Hodgkin lymphoma	C82-85+C96	368	366	99.5	2	0.5	0.0	0.0	0.3	0.3	99.7	25.5
Lymphoid leukaemia	C91	109	107	98.2	2	1.8	0.0	0.0	0.0	1.8	100.0	25.1
Myeloid leukaemia	C92-94	137	136	99.3	1	0.7	0.0	0.0	0.7	0.0	99.3	8.9
Leukaemia unspecified	C95	90	90	100.0	0	0.0	0.0	0.0	0.0	0.0	100.0	0.7

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: Lampang, Thailand, 1990–2000 cases followed-up until 2003

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
Lip	C00	33	93.9	69.7	66.6	95.5	73.6	73.0	80.6	87.4
Tongue	C01-02	76	61.8	38.2	33.8	62.6	39.8	36.4	32.8	33.2
Oral cavity	C03-06	118	56.8	33.9	31.2	57.8	35.8	34.5	37.2	37.2
Salivary gland	C07-08	32	84.4	59.4	59.4	85.2	61.0	62.0	48.8	50.9
Tonsil	C09	47	63.8	51.1	40.1	64.8	53.4	43.5	43.6	43.4
Nasopharynx	C11	169	68.6	45.6	39.3	69.1	46.5	40.6	35.4	39.9
Hypopharynx	C12-13	43	53.5	37.2	22.2	54.3	38.8	23.9	29.1	32.8
Oesophagus	C15	113	44.2	32.7	28.7	44.8	34.2	31.1	30.4	26.8
Stomach	C16	396	42.2	25.0	19.7	42.7	26.0	21.2	21.5	20.4
Colon	C18	425	57.4	42.1	35.9	58.1	43.5	38.0	35.0	39.4
Rectum	C19-20	249	65.9	43.0	36.2	66.7	44.7	38.9	42.3	36.8
Liver	C22	1 455	19.4	13.2	12.2	19.6	13.7	13.0	14.0	11.9
Gall bladder	C23-24	266	29.7	17.7	15.2	30.1	18.4	16.4	19.5	18.5
Pancreas	C25	158	22.8	14.6	13.9	23.1	15.1	15.0	15.1	15.0
Gastrointestinal tract	C26	140	5.7	2.1	0.7	5.8	2.2	0.7	0.5	0.6
Nose/Sinuses	C30-31	42	78.6	57.1	52.1	79.5	59.2	55.0	55.5	50.7
Larynx	C32	162	59.9	39.5	36.8	60.8	41.4	39.9	44.4	49.1
Lung	C33-34	3 014	26.4	14.0	12.0	26.7	14.5	12.9	14.5	12.1
Bone	C40-41	26	57.7	38.5	34.4	57.9	38.8	34.8	14.6	19.9
Melanoma of skin	C43	50	82.0	52.0	43.3	82.9	54.0	46.2	43.6	46.2
Other skin	C44	292	89.7	82.9	77.6	91.2	87.3	85.1	84.7	85.4
Connective tissue	C47+C49	70	80.0	57.1	50.9	80.6	58.6	53.1	49.2	52.6
Breast	C50	830	85.9	69.4	63.1	86.4	70.5	64.9	63.6	63.3
Vulva	C51	30	76.7	66.7	58.8	77.4	68.7	62.0	59.8	63.4
Cervix	C53	1 079	85.9	69.4	62.6	86.3	70.5	64.3	61.9	63.3
Corpus uteri	C54	101	86.1	75.2	70.7	86.7	76.8	73.3	70.9	74.4
Ovary	C56	193	68.4	52.3	48.5	68.7	53.0	49.6	44.1	46.3
Penis	C60	70	81.4	65.7	60.9	82.5	68.4	65.3	70.6	73.1
Prostate	C61	171	80.7	64.9	53.1	82.9	70.9	62.6	66.5	58.3
Testis	C62	31	80.6	67.7	60.4	81.3	69.5	63.4	61.4	61.1
Kidney	C64	46	43.5	37.0	32.5	43.8	38.0	34.1	36.8	29.0
Renal pelvis	C65	39	33.3	25.6	25.6	33.6	26.2	26.6	28.0	28.0
Urinary bladder	C67	265	67.2	48.7	42.8	68.2	51.1	46.6	46.9	49.5
Brain & nervous system	C70-72	73	67.1	47.9	43.5	67.4	48.6	44.6	45.8	43.4
Thyroid	C73	133	75.2	67.7	63.5	75.9	69.5	66.6	73.9	73.1
Hodgkin lymphoma	C81	54	66.7	44.4	40.6	67.3	45.5	42.1	53.9	56.4
Non-Hodgkin lymphoma	C82-85+C96	368	58.2	45.4	40.1	58.8	46.8	42.3	43.6	44.3
Lymphoid leukaemia	C91	109	63.3	44.0	39.8	63.7	44.5	40.5	35.8	44.1
Myeloid leukaemia	C92-94	137	47.4	35.0	32.6	47.8	35.7	33.5	31.7	35.0
Leukaemia unspecified	C95	90	21.1	12.2	11.1	21.2	12.4	11.4	10.5	12.9

ASRS: age-standardized relative survival

Table 4a. Site-wise number of cases, 5-year absolute and relative survival by sex: Lampang, Thailand, 1990–2000 cases followed-up until 2003

Site	ICD-10	Cases included	Male			Female		
			% 5-year survival			% 5-year survival		
			No.	Abs	Rel	No.	Abs	Rel
Lip	C00	33	10	70.0	73.4	23	65.1	72.9
Tongue	C01-02	76	45	37.8	41.0	31	26.8	28.6
Oral cavity	C03-06	118	49	34.5	38.7	69	29.0	31.6
Salivary gland	C07-08	32	15	53.3	56.7	17	64.7	66.6
Tonsil	C09	47	37	37.4	39.4	10	50.0	60.1
Nasopharynx	C11	169	109	38.3	39.5	60	41.5	43.2
Hypopharynx	C12-13	43	32	18.3	20.0	11	33.0	34.6
Oesophagus	C15	113	65	28.6	31.5	48	28.9	30.5
Stomach	C16	396	235	20.9	22.9	161	18.1	18.8
Colon	C18	425	236	37.4	39.8	189	34.0	35.8
Rectum	C19-20	249	148	33.5	36.5	101	40.2	42.4
Liver	C22	1 455	976	11.3	12.1	479	13.9	14.9
Gall bladder	C23-24	266	126	15.1	16.0	140	15.3	16.7
Pancreas	C25	158	74	13.5	14.6	84	14.3	15.3
Gastrointestinal tract	C26	140	80	0.0	0.0	60	1.7	1.7
Nose/Sinuses	C30-31	42	19	52.1	55.6	23	52.0	54.5
Larynx	C32	162	115	38.2	41.7	47	33.1	35.2
Lung	C33-34	3 014	1 936	12.1	13.1	1 078	11.7	12.4
Bone	C40-41	26	7	14.3	14.6	19	41.8	42.2
Melanoma of skin	C43	50	30	46.7	49.6	20	40.0	42.9
Other skin	C44	292	132	78.4	86.3	160	76.9	84.1
Connective tissue	C47+C49	70	40	40.7	42.3	30	63.3	66.4
Breast	C50	830	16	43.8	47.0	814	63.5	65.3
Vulva	C51	30				30	58.8	62.0
Cervix	C53	1 079				1 079	62.6	64.3
Corpus uteri	C54	101				101	70.7	73.3
Ovary	C56	193				193	48.5	49.6
Penis	C60	70	70	60.9	65.3			
Prostate	C61	171	171	53.1	62.6			
Testis	C62	31	31	60.4	63.4			
Kidney	C64	46	26	42.3	44.5	20	19.4	20.3
Renal pelvis	C65	39	30	16.7	17.4	9	55.6	57.3
Urinary bladder	C67	265	192	42.5	46.5	73	43.5	46.9
Brain & nervous system	C70-72	73	40	42.4	43.6	33	44.4	45.4
Thyroid	C73	133	25	40.0	43.3	108	69.2	72.1
Hodgkin lymphoma	C81	54	38	41.9	43.7	16	37.5	38.5
Non-Hodgkin lymphoma	C82-85+C96	368	216	36.6	38.7	152	44.9	47.5
Lymphoid leukaemia	C91	109	68	37.5	38.4	41	43.6	44.1
Myeloid leukaemia	C92-94	137	81	29.4	30.2	56	37.3	38.4
Leukaemia unspecified	C95	90	51	11.8	12.1	39	10.3	10.5

Abs: absolute survival; Rel: relative survival

Table 4b. Site-wise number of cases and relative survival by age group: Lampang, Thailand, 1990–2000 cases followed-up until 2003

Site	ICD-10	Cases included	Number of cases by age group					Relative survival by age group				
			< 45	45-54	55-64	65-74	> 75	% 5-year survival				
								< 45	45-54	55-64	65-74	> 75
Lip	C00	33	3	2	8	12	8	101.2	101.6	65.1	91.0	32.3
Tongue	C01-02	76	12	7	24	18	15	25.3	14.5	43.4	43.7	32.6
Oral cavity	C03-06	118	10	8	32	24	44	20.3	63.5	22.7	40.4	38.8
Salivary gland	C07-08	32	12	3	6	7	4	92.6	33.8	34.5	62.5	29.3
Tonsil	C09	47	7	6	12	13	9	43.5	50.9	32.6	50.3	43.1
Nasopharynx	C11	169	54	41	34	32	8	61.1	32.0	27.2	30.2	45.2
Hypopharynx	C12-13	43	2	3	16	11	11	0.0	67.9	21.4	29.4	10.7
Oesophagus	C15	113	6	13	32	42	20	16.9	15.7	38.3	28.2	39.5
Stomach	C16	396	72	60	96	106	62	17.0	12.5	26.9	21.4	24.3
Colon	C18	425	84	60	101	122	58	40.6	43.2	36.9	38.9	28.9
Rectum	C19-20	249	39	36	53	78	43	38.9	50.2	38.4	27.8	51.1
Liver	C22	1 455	211	279	426	374	165	12.4	11.5	11.9	11.8	23.4
Gall bladder	C23-24	266	18	37	85	92	34	33.7	13.8	14.4	13.7	22.8
Pancreas	C25	158	18	24	45	46	25	16.9	12.7	13.8	16.4	15.8
Gastrointestinal tract	C26	140	22	27	46	33	12	0.0	0.0	2.2	0.0	0.0
Nose/Sinuses	C30-31	42	10	11	8	6	7	40.4	63.6	64.7	35.8	71.3
Larynx	C32	162	8	17	37	63	37	88.8	53.9	36.4	38.7	27.9
Lung	C33-34	3 014	178	487	1 007	970	372	14.7	10.3	10.8	13.4	20.3
Bone	C40-41	26	18	3	3	1	1	44.4	0.0	34.3	0.0	0.0
Melanoma of skin	C43	50	8	7	12	16	7	37.7	58.1	33.6	60.5	33.8
Other skin	C44	292	30	31	77	73	81	80.4	88.5	87.0	85.7	83.1
Connective tissue	C47+C49	70	30	17	8	9	6	53.2	59.8	38.7	61.0	32.5
Breast	C50	830	299	245	150	87	49	70.6	64.5	58.0	58.4	65.7
Vulva	C51	30	8	4	5	8	5	75.5	67.6	62.0	50.8	47.9
Cervix	C53	1 079	413	286	210	123	47	74.5	60.8	59.4	50.4	51.4
Corpus uteri	C54	101	22	25	27	21	6	72.5	73.1	76.2	75.7	57.1
Ovary	C56	193	77	36	52	21	7	59.9	39.4	53.2	25.3	33.9
Penis	C60	70	14	16	20	8	12	58.0	61.7	56.6	109.6	64.0
Prostate	C61	171	2	1	27	58	83	101.4	102.1	33.8	63.0	71.0
Testis	C62	31	20	5	2	2	2	60.9	54.4	52.2	110.2	80.9
Kidney	C64	46	13	7	11	11	4	62.0	29.1	9.4	19.8	60.4
Renal pelvis	C65	39	6	6	18	9	0	33.8	33.8	23.0	23.9	
Urinary bladder	C67	265	20	23	72	88	62	50.2	70.8	37.3	49.6	43.5
Brain & nervous system	C70-72	73	48	7	10	7	1	43.9	43.5	31.3	59.8	119.8
Thyroid	C73	133	40	18	31	32	12	90.7	74.2	59.8	40.4	56.9
Hodgkin lymphoma	C81	54	18	5	14	13	4	67.3	40.7	37.3	24.8	0.0
Non-Hodgkin lymphoma	C82-85+C96	368	103	41	91	83	50	47.8	46.1	35.5	43.9	37.1
Lymphoid leukaemia	C91	109	78	6	7	11	7	42.1	50.6	44.1	47.5	0.0
Myeloid leukaemia	C92-94	137	64	18	23	19	13	37.7	32.9	40.7	23.0	18.0
Leukaemia unspecified	C95	90	54	13	12	8	3	7.3	15.6	17.1	26.7	0.0

Table 5. Proportion of cases and 5-year absolute survival by extent of disease and site: Lampang, Thailand, 1990–2000

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
Tongue	C01-02	76	23.6	68.4	4.0	4.0	32.6	36.2	0.0	33.3
Oral cavity	C03-06	118	21.2	66.1	4.2	8.5	35.6	30.7	0.0	40.0
Colon	C18	425	8.4	44.2	33.7	13.7	60.0	56.8	2.1	37.5
Rectum	C19-20	249	9.2	59.8	17.7	13.3	42.3	41.8	4.5	48.5
Larynx	C32	162	17.3	61.7	7.4	13.6	53.4	31.6	25.0	45.5
Breast	C50	830	22.5	52.9	14.2	10.4	84.1	65.2	8.2	82.5
Cervix	C53	1 079	31.2	53.9	5.8	9.2	78.7	57.9	6.5	70.6
Ovary	C56	193	22.8	34.7	30.1	12.4	86.2	56.6	0.0	75.0

Dis. met.: distant metastasis