

Chapter 20

Cancer survival in Busan, Republic of Korea, 1996–2001

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Abstract

The Busan cancer registry was established in 1996; cancer registration is done by passive and active methods. The registry contributed survival data for 48 cancer sites or types registered during 1996–2001. Follow-up information has been gleaned predominantly by passive methods with median follow-up ranging between 1–57 months for various cancers. The proportion with histologically verified diagnosis for different cancers ranged between 20–100%; death certificates only (DCOs) comprised 0–53%; 47–100% of total registered cases were included for survival analysis. The top-ranking cancers on 5-year age-standardized relative survival rates were penis (94%), thyroid (91%), non-melanoma skin (89%), placenta (86%), breast (76%), Hodgkin lymphoma (75%) and testis (72%). Five-year relative survival by age group showed a decreasing trend with increasing age groups for cancers of the nasopharynx, gall bladder, lung, bone, soft tissue, breast, cervix, corpus uteri, thyroid, multiple myeloma, lymphoid leukaemia and myeloid leukaemia or was fluctuating for other cancers.

Busan cancer registry

The Busan cancer registry was established in 1996 in cooperation with the cancer centres in four university hospitals, supported by the Department of Public Health and Sanitation of Busan City and the medical association of Busan and funded by the Korean national cancer control programme. The registry contributed data to the quinquennial IARC publication *Cancer Incidence in Five Continents* for the first time in Vol VIII [1]. Cancer registration is done by passive and active methods. The principal source of information on 72% of cancer cases is the data file from the hospital-based Korean central cancer registry. The rest of the cases are registered by the active method of visiting more than 50 hospitals and perusing of records in the departments of anatomical pathology, diagnostic radiology and radiation oncology. The registry covers an area of 531.17 km² and caters to a population of about 3.9 million with a male female ratio of 1:1 in 1995. The average annual age-standardized incidence rate is 304 per 100 000 among males and 169 per 100 000 among females, with a lifetime cumulative risk of one in 4 of developing cancer in the period 1996–1997. The most common cancers among males are stomach, liver and lung. The rank order among females is stomach, cervix and breast [1].

The registry is contributing data on survival from 48 cancer sites or types registered during 1996–2001 for the first time in this volume of 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 the series is 69%, varying from 20% in liver cancer to 100% in cancer of the penis. The proportion of cases registered on the basis of death certificates only (DCO) is 8%, ranging between nil for a few cancers (tonsil, corpus uteri, placenta, penis, testis and ureter) and 53% for unspecified leukaemia. Cases excluded without any follow-up are negligible. Thus, 47–100% of the total cases registered are included in the estimation of the survival probability.

Outcome of follow-up (Table 2)

Follow-up information has been obtained predominantly by passive methods. These included obtaining of mortality information from the death certificates in the national statistical office. The mortality data are periodically matched with the incident cancer database. The vital status of the unmatched incident cases is also ascertained by scrutiny of hospital records. However, all incident

cases for whom death information is not available were presumed to be alive on the last date of the year for which the mortality data are fully utilized for matching.

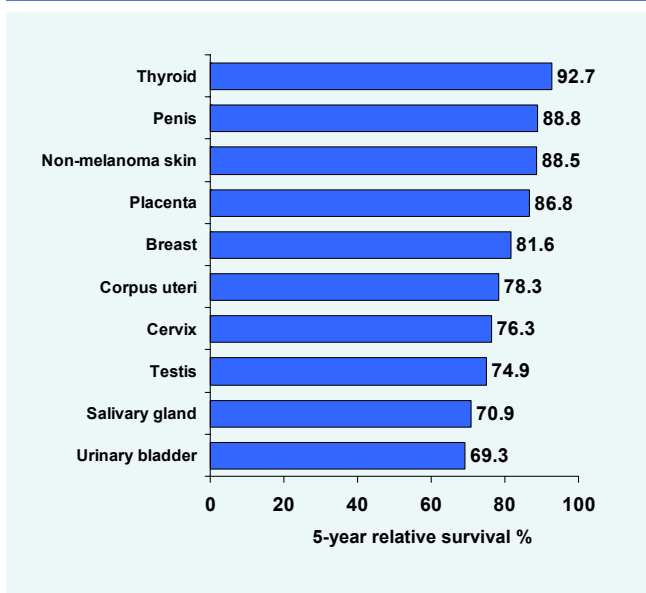
The closing date of follow-up was 31st December 2003. The median follow-up ranged from zero in case of unspecified leukaemia to 57 months for cancer of the placenta.

Survival statistics

All ages and both sexes together (Table 3)

The top-ranking cancers on 5-year relative survival are thyroid (93%), penis (89%), non-melanoma skin (89%) placenta (87%) and breast (82%). The lowest survival rate is encountered with pancreatic cancer (6%) preceded by unspecified leukaemia (8%), cancer of the liver (10%) and lung (12%), and multiple myeloma (12%). Salivary gland (71%) among other head and neck sites, colon and rectum (54-55%) among gastrointestinal sites and bladder (69%) among urinary system sites are the ones with higher survival than others. Hodgkin lymphoma had a better survival (65%) than non-Hodgkin (46%). The survival figures for leukaemias are 42% for lymphoid and 28% for myeloid.

Figure 1a. Top ten cancers (ranked by survival), Busan, Republic of Korea, 1996–2001



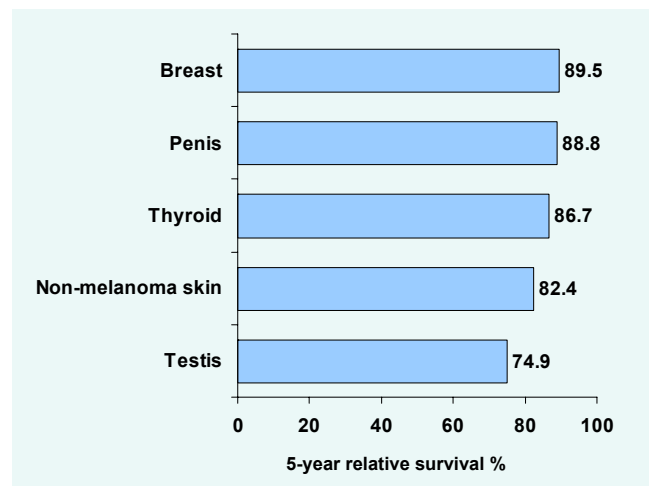
The 5-year age-standardized relative survival (ASRS) probability for all ages together is generally less than or similar to the corresponding unadjusted one for a majority of cancers. Also, the 5-year ASRS (0–74 years of age) is generally higher than or similar to the corresponding ASRS (all ages) for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

Sex

Male (Table 4a)

The top-ranking site on 5-year relative survival is breast (89%). The survival figures for oropharynx including tonsil, larynx, bone, mesothelioma, ureter and unspecified leukaemia are noticeably higher among males than females.

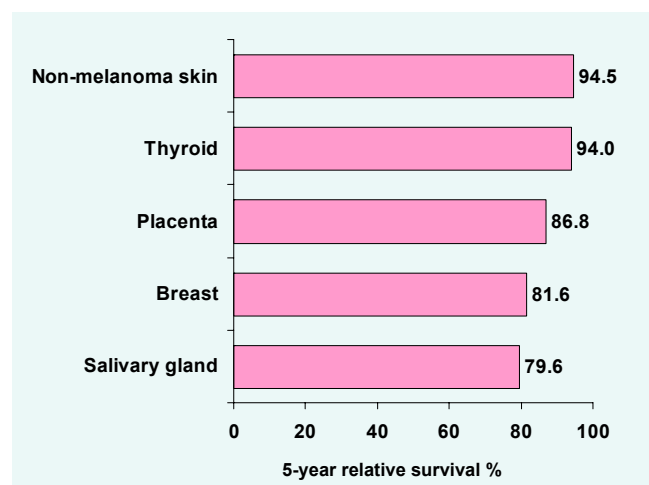
Figure 1b. Top five cancers (ranked by survival), Male, Busan, Republic of Korea, 1996–2001



Female (Table 4a)

The top-ranking cancer in terms of 5-year relative survival is non-melanoma skin (94%). The survival estimates for cancers of the breast, cervix and ovary are 82%, 76% and 58%, respectively. Survival is distinctly higher among females than males for cancers of tongue, oral cavity, salivary gland, oesophagus, small intestine, non-melanoma skin, eye and adrenal/other endocrine glands.

Figure 1c. Top five cancers (ranked by survival), Female, Busan, Republic of Korea, 1996–2001



Age group (Table 4b)

The 5-year relative survival by age group reveals a decreasing survival with increasing age at diagnosis for cancers of the nasopharynx, gall bladder, lung, bone, soft tissue, breast, cervix, corpus uteri and thyroid, and multiple myeloma, lymphoid leukaemia and myeloid leukaemia. For all other cancers, the survival by age group did not display any pattern.

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.

Table 1. Data quality indices - Proportion of histologically verified and death certificate only cases, number and proportion of included and excluded cases by site: Busan, Republic of Korea, 1996–2001 cases followed-up until 2003

Site	ICD-10	Total registered	%		Excluded cases					Included cases	
			HV	DCO	DCO	Follow-up	Others	Total	%	No.	%
Tongue	C01-02	157	87.9	6.4	10	3	0	13	8.3	144	91.7
Oral cavity	C03-06	184	80.4	13.6	25	3	0	28	15.2	156	84.8
Salivary gland	C07-08	91	92.3	5.5	5	0	0	5	5.5	86	94.5
Tonsil	C09	59	91.5	0.0	0	0	0	0	0.0	59	100.0
Oropharynx	C10	36	69.4	5.6	2	0	0	2	5.6	34	94.4
Nasopharynx	C11	137	84.7	2.2	3	0	0	3	2.2	134	97.8
Hypopharynx	C12-13	89	87.6	2.2	2	0	0	2	2.2	87	97.8
Oesophagus	C15	876	76.7	9.5	83	3	0	86	9.8	790	90.2
Stomach	C16	9 339	84.9	6.6	614	42	0	656	7.0	8 683	93.0
Small intestine	C17	149	82.6	4.7	7	1	0	8	5.4	141	94.6
Colon	C18	2 027	80.3	7.7	156	12	0	168	8.3	1 859	91.7
Rectum	C19-20	1 963	88.9	3.3	64	17	0	81	4.1	1 882	95.9
Anus	C21	70	84.3	8.6	6	4	0	10	14.3	60	85.7
Liver	C22	7 291	20.2	10.3	751	33	0	784	10.8	6 507	89.2
Gall bladder	C23-24	1 698	42.8	9.8	167	7	0	174	10.2	1 524	89.8
Pancreas	C25	1 145	31.9	11.4	130	4	0	134	11.7	1 011	88.3
Nose/Sinuses	C30-31	108	89.8	3.7	4	1	0	5	4.6	103	95.4
Larynx	C32	558	75.1	14.5	81	2	0	83	14.9	475	85.1
Lung	C33-34	5 476	64.2	12.0	657	23	0	680	12.4	4 796	87.6
Other thoracic organs	C37-38	165	73.3	10.3	17	0	0	17	10.3	148	89.7
Bone	C40-41	222	70.7	11.7	26	0	0	26	11.7	196	88.3
Melanoma of skin	C43	91	94.5	5.5	5	0	0	5	5.5	86	94.5
Other skin	C44	455	91.9	5.7	26	6	0	32	7.0	423	93.0
Mesothelioma	C45	33	93.9	6.1	2	1	0	3	9.1	30	90.9
Connective tissue	C47+C49	267	83.9	5.2	14	3	0	17	6.4	250	93.6
Breast	C50	2 720	93.5	2.3	62	16	0	78	2.9	2 642	97.1
Vulva	C51	26	88.5	3.8	1	0	0	1	3.8	25	96.2
Cervix	C53	2 330	91.8	2.0	46	20	0	66	2.8	2 264	97.2
Corpus uteri	C54	269	95.9	0.0	0	4	0	4	1.5	265	98.5
Ovary	C56	648	86.3	3.5	23	3	0	26	4.0	622	96.0
Placenta	C58	30	73.3	0.0	0	0	0	0	0.0	30	100.0
Penis	C60	29	100.0	0.0	0	0	0	0	0.0	29	100.0
Prostate	C61	454	81.1	4.8	22	2	0	24	5.3	430	94.7
Testis	C62	56	94.6	0.0	0	1	0	1	1.8	55	98.2
Kidney	C64	730	77.1	3.0	22	2	0	24	3.3	706	96.7
Renal pelvis	C65	75	80.0	1.3	1	0	0	1	1.3	74	98.7
Ureter	C66	77	88.3	0.0	0	0	0	0	0.0	77	100.0
Urinary bladder	C67	1 062	84.6	5.2	55	8	0	63	5.9	999	94.1
Eye	C69	38	73.7	5.3	2	0	0	2	5.3	36	94.7
Brain & nervous system	C70-72	643	54.0	18.2	117	6	0	123	19.1	520	80.9
Thyroid	C73	1 196	90.1	1.3	16	5	0	21	1.8	1 175	98.2
Adrenal gland, other	C74-75	67	58.2	14.9	10	1	0	11	16.4	56	83.6
Hodgkin lymphoma	C81	55	98.2	1.8	1	2	0	3	5.5	52	94.5
Non-Hodgkin lymphoma	C82-85+C96	843	92.5	6.4	54	4	0	58	6.9	785	93.1
Multiple myeloma	C90	196	91.8	6.1	12	2	0	14	7.1	182	92.9
Lymphoid leukaemia	C91	230	97.0	3.0	7	1	0	8	3.5	222	96.5
Myeloid leukaemia	C92-94	496	97.2	2.8	14	2	0	16	3.2	480	96.8
Leukaemia unspecified	C95	93	41.9	52.7	49	0	0	49	52.7	44	47.3

HV: histologically verified; DCO: death certificate only

Table 2. Number and proportion of cases by vital status and median follow-up (in months) by site: Busan, Republic of Korea, 1996–2001 cases followed-up until 2003

Site	ICD-10	Cases included	Dead		Alive		Complete FU		Median FU (in months)
			No.	%	No.	%	No.	%	
Tongue	C01-02	144	74	51.4	70	48.6	144	100.0	28.5
Oral cavity	C03-06	156	91	58.3	65	41.7	156	100.0	31.3
Salivary gland	C07-08	86	26	30.2	60	69.8	86	100.0	39.7
Tonsil	C09	59	29	49.2	30	50.8	59	100.0	26.9
Oropharynx	C10	34	29	85.3	5	14.7	34	100.0	12.5
Nasopharynx	C11	134	65	48.5	69	51.5	134	100.0	35.8
Hypopharynx	C12-13	87	71	81.6	16	18.4	87	100.0	12.6
Oesophagus	C15	790	660	83.5	130	16.5	790	100.0	8.7
Stomach	C16	8 683	5 063	58.3	3 620	41.7	8 683	100.0	25.4
Small intestine	C17	141	107	75.9	34	24.1	141	100.0	11.3
Colon	C18	1 859	903	48.6	956	51.4	1 859	100.0	32.5
Rectum	C19-20	1 882	883	46.9	999	53.1	1 882	100.0	34.7
Anus	C21	60	33	55.0	27	45.0	60	100.0	29.8
Liver	C22	6 507	5 811	89.3	696	10.7	6 507	100.0	5.0
Gall bladder	C23-24	1 524	1 285	84.3	239	15.7	1 524	100.0	7.0
Pancreas	C25	1 011	950	94.0	61	6.0	1 011	100.0	4.6
Nose/Sinuses	C30-31	103	71	68.9	32	31.1	103	100.0	22.3
Larynx	C32	475	234	49.3	241	50.7	475	100.0	37.6
Lung	C33-34	4 796	4 232	88.2	564	11.8	4 796	100.0	6.9
Other thoracic organs	C37-38	148	98	66.2	50	33.8	148	100.0	18.3
Bone	C40-41	196	86	43.9	110	56.1	196	100.0	35.5
Melanoma of skin	C43	86	52	60.5	34	39.5	86	100.0	29.1
Other skin	C44	423	102	24.1	321	75.9	423	100.0	50.6
Mesothelioma	C45	30	26	86.7	4	13.3	30	100.0	7.4
Connective tissue	C47+C49	250	137	54.8	113	45.2	250	100.0	31.8
Breast	C50	2 642	510	19.3	2 132	80.7	2 642	100.0	47.8
Vulva	C51	25	8	32.0	17	68.0	25	100.0	40.9
Cervix	C53	2 264	565	25.0	1 699	75.0	2 264	100.0	50.6
Corpus uteri	C54	265	60	22.6	205	77.4	265	100.0	45.3
Ovary	C56	622	268	43.1	354	56.9	622	100.0	34.9
Placenta	C58	30	4	13.3	26	86.7	30	100.0	57.1
Penis	C60	29	9	31.0	20	69.0	29	100.0	55.9
Prostate	C61	430	243	56.5	187	43.5	430	100.0	32.3
Testis	C62	55	13	23.6	42	76.4	55	100.0	53.4
Kidney	C64	706	296	41.9	410	58.1	706	100.0	35.3
Renal pelvis	C65	74	38	51.4	36	48.6	74	100.0	28.7
Ureter	C66	77	38	49.4	39	50.6	77	100.0	27.2
Urinary bladder	C67	999	385	38.5	614	61.5	999	100.0	37.1
Eye	C69	36	14	38.9	22	61.1	36	100.0	51.1
Brain & nervous system	C70-72	520	317	61.0	203	39.0	520	100.0	13.2
Thyroid	C73	1 175	118	10.0	1 057	90.0	1 175	100.0	50.0
Adrenal gland, other	C74-75	56	26	46.4	30	53.6	56	100.0	28.4
Hodgkin lymphoma	C81	52	19	36.5	33	63.5	52	100.0	39.3
Non-Hodgkin lymphoma	C82-85+C96	785	443	56.4	342	43.6	785	100.0	25.8
Multiple myeloma	C90	182	155	85.2	27	14.8	182	100.0	12.3
Lymphoid leukaemia	C91	222	124	55.9	98	44.1	222	100.0	26.7
Myeloid leukaemia	C92-94	480	344	71.7	136	28.3	480	100.0	12.4
Leukaemia unspecified	C95	44	41	93.2	3	6.8	44	100.0	0.0

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: Busan, Republic of Korea, 1996–2001 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
Tongue	C01-02	144	72.9	50.1	46.9	74.2	52.5	51.0	52.3	52.8
Oral cavity	C03-06	156	69.9	52.2	41.1	71.6	55.7	45.5	45.4	48.4
Salivary gland	C07-08	86	90.7	75.2	66.9	91.9	78.0	70.9	65.0	70.3
Tonsil	C09	59	89.8	51.7	47.5	91.5	54.7	52.6	54.4	57.9
Oropharynx	C10	34	55.9	26.5	19.4	57.1	28.4	22.4	20.1	20.9
Nasopharynx	C11	134	85.1	57.5	49.9	86.0	59.3	52.7	46.6	53.2
Hypopharynx	C12-13	87	52.9	23.2	15.3	54.3	25.0	17.6	19.8	23.5
Oesophagus	C15	790	40.4	19.4	16.3	41.5	20.9	18.4	17.7	20.5
Stomach	C16	8 683	64.1	46.0	40.2	65.4	48.6	44.2	37.3	46.5
Small intestine	C17	141	49.6	30.5	18.7	50.8	32.3	20.7	21.0	24.2
Colon	C18	1 859	74.7	56.9	49.0	76.4	60.6	54.4	46.6	57.0
Rectum	C19-20	1 882	82.5	59.7	49.6	84.1	63.3	54.7	44.5	57.3
Anus	C21	60	80.0	53.1	45.9	82.1	57.0	51.6	40.0	61.7
Liver	C22	6 507	32.4	14.5	8.7	33.0	15.3	9.6	9.6	10.0
Gall bladder	C23-24	1 524	38.8	18.3	14.6	39.9	19.6	16.3	17.5	21.8
Pancreas	C25	1 011	21.9	7.5	5.5	22.4	8.1	6.3	6.5	7.4
Nose/Sinuses	C30-31	103	69.9	36.6	32.5	71.4	39.0	36.5	36.7	39.3
Larynx	C32	475	81.1	60.1	49.7	83.1	64.7	56.3	54.2	58.9
Lung	C33-34	4 796	34.7	14.2	10.5	35.7	15.3	11.9	11.6	13.7
Other thoracic organs	C37-38	148	60.1	37.3	32.5	61.1	38.9	34.5	25.0	34.1
Bone	C40-41	196	78.6	61.9	53.0	79.3	63.2	54.7	30.6	39.7
Melanoma of skin	C43	86	75.6	46.4	40.4	77.1	49.4	45.4	43.5	48.1
Other skin	C44	423	91.0	82.1	77.2	93.4	88.9	88.5	88.6	89.4
Mesothelioma	C45	30	33.3	16.2	16.2	33.8	16.8	17.1	12.4	17.0
Connective tissue	C47+C49	250	75.6	54.2	43.4	76.5	56.0	45.8	34.8	40.8
Breast	C50	2 642	95.8	85.8	79.6	96.3	87.0	81.6	75.5	80.6
Vulva	C51	25	96.0	79.0	62.1	97.6	83.0	67.2	53.4	72.7
Cervix	C53	2 264	91.5	80.0	74.1	92.1	81.4	76.3	69.5	75.8
Corpus uteri	C54	265	90.2	80.6	76.0	90.7	82.0	78.3	68.8	74.3
Ovary	C56	622	80.9	59.7	5.0	81.5	60.8	57.7	49.8	54.5
Placenta	C58	30	93.3	86.3	86.3	93.4	86.6	86.8	85.9	85.9
Penis	C60	29	96.6	82.5	73.5	99.4	91.4	88.8	94.3	73.0
Prostate	C61	430	84.9	56.7	41.9	89.2	66.0	54.5	47.0	59.5
Testis	C62	55	92.7	79.6	74.0	93.0	80.2	74.9	72.2	72.2
Kidney	C64	706	76.5	63.1	56.9	77.7	66.0	61.6	52.2	64.1
Renal pelvis	C65	74	75.7	51.7	44.3	77.5	55.7	50.4	46.0	54.6
Ureter	C66	77	68.8	56.5	48.0	70.8	61.3	55.4	62.7	68.1
Urinary bladder	C67	999	83.4	68.9	60.1	85.9	75.1	69.3	62.2	72.8
Eye	C69	36	80.6	66.7	60.1	81.8	68.7	62.4	44.2	59.3
Brain & nervous system	C70-72	520	63.3	44.5	37.3	63.9	45.5	38.5	36.0	37.5
Thyroid	C73	1 175	94.7	92.5	89.6	95.4	94.3	92.7	91.2	93.0
Adrenal gland, other	C74-75	56	67.9	58.6	51.6	68.2	59.1	52.4	32.3	32.3
Hodgkin lymphoma	C81	52	80.8	70.9	61.7	81.6	72.9	64.6	74.6	76.9
Non-Hodgkin lymphoma	C82-85+C96	785	66.9	50.3	43.2	67.8	52.3	46.2	46.6	49.0
Multiple myeloma	C90	182	53.8	21.4	11.2	54.9	22.5	12.2	12.4	14.5
Lymphoid leukaemia	C91	222	65.8	47.7	41.8	66.0	48.0	42.2	32.7	32.7
Myeloid leukaemia	C92-94	480	52.9	32.3	26.7	53.4	33.0	27.6	22.8	27.5
Leukaemia unspecified	C95	44	25.0	9.1	6.1	25.7	10.1	7.8	6.6	6.1

ASRS: age-standardized relative survival

Table 4a. Site-wise number of cases, 5-year absolute and relative survival by sex: Busan, Republic of Korea, 1996–2001 cases followed-up until 2003

Site	ICD-10	Cases included	Male			Female		
			% 5-year survival			% 5-year survival		
			No.	Abs	Rel	No.	Abs	Rel
Tongue	C01-02	144	97	41.6	45.9	47	57.7	61.5
Oral cavity	C03-06	156	108	34.3	38.7	48	55.4	59.3
Salivary gland	C07-08	86	48	59.2	63.9	38	76.6	79.6
Tonsil	C09	59	50	52.2	58.0	9	22.2	23.8
Oropharynx	C10	34	30	22.0	25.3	4	0.0	0.0
Nasopharynx	C11	134	87	47.9	51.5	47	54.8	55.9
Hypopharynx	C12-13	87	80	14.6	17.1	7	24.5	24.8
Oesophagus	C15	790	706	15.4	17.5	84	22.9	26.0
Stomach	C16	8 683	5 637	40.7	45.3	3 046	39.4	42.1
Small intestine	C17	141	91	13.0	14.9	50	30.9	32.3
Colon	C18	1 859	1 003	50.0	56.5	856	47.7	51.9
Rectum	C19-20	1 882	1 031	48.9	55.4	851	50.4	53.9
Anus	C21	60	27	46.2	54.5	33	45.5	49.0
Liver	C22	6 507	4 828	8.4	9.3	1 679	9.6	10.4
Gall bladder	C23-24	1 524	714	14.6	16.5	810	14.6	16.0
Pancreas	C25	1 011	600	4.3	5.1	411	7.2	8.0
Nose/Sinuses	C30-31	103	67	33.3	38.0	36	31.4	34.1
Larynx	C32	475	422	51.4	58.4	53	35.9	40.6
Lung	C33-34	4 796	3 518	9.9	11.3	1 278	12.0	13.4
Other thoracic organs	C37-38	148	101	30.3	32.1	47	37.0	39.4
Bone	C40-41	196	108	57.2	59.1	88	46.2	47.8
Melanoma of skin	C43	86	47	38.2	42.7	39	42.4	48.1
Other skin	C44	423	211	71.0	82.4	212	83.4	94.5
Mesothelioma	C45	30	15	20.0	21.7	15	11.4	11.7
Connective tissue	C47+C49	250	144	41.0	43.6	106	46.6	48.5
Breast	C50	2 642	19	69.7	89.5	2 623	79.7	81.6
Vulva	C51	25				25	62.1	67.2
Cervix	C53	2 264				2 264	74.1	76.3
Corpus uteri	C54	265				265	76.0	78.3
Ovary	C56	622				622	56.0	57.7
Placenta	C58	30				30	86.3	86.8
Penis	C60	29	29	73.5	88.8			
Prostate	C61	430	430	41.9	54.5			
Testis	C62	55	55	74.0	74.9			
Kidney	C64	706	477	55.1	60.2	229	60.9	64.5
Renal pelvis	C65	74	56	44.9	51.7	18	44.4	48.0
Ureter	C66	77	48	50.7	59.5	29	45.6	50.4
Urinary bladder	C67	999	800	60.8	70.4	199	56.4	64.0
Eye	C69	36	20	55.0	57.7	16	65.5	67.3
Brain & nervous system	C70-72	520	284	35.0	36.0	236	40.0	41.0
Thyroid	C73	1 175	206	81.3	86.7	969	91.3	94.0
Adrenal gland, other	C74-75	56	36	45.0	45.6	20	64.4	65.6
Hodgkin lymphoma	C81	52	32	59.7	63.3	20	65.7	67.7
Non-Hodgkin lymphoma	C82-85+C96	785	440	42.4	45.8	345	44.3	46.7
Multiple myeloma	C90	182	100	10.3	11.4	82	12.3	13.3
Lymphoid leukaemia	C91	222	142	37.4	37.7	80	49.7	50.1
Myeloid leukaemia	C92-94	480	273	25.6	26.8	207	28.1	28.8
Leukaemia unspecified	C95	44	22	13.6	17.7	22	0.0	0.0

Abs: absolute survival; Rel: relative survival

Table 4b. Site-wise number of cases and relative survival by age group: Busan, Republic of Korea, 1996–2001 cases followed-up until 2003

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	144	28	27	57	23	9	55.7	72.8	41.5	44.7	48.1
Oral cavity	C03-06	156	26	23	47	43	17	85.4	42.5	54.4	15.4	28.6
Salivary gland	C07-08	86	31	13	24	14	4	88.9	94.9	53.9	47.6	
Tonsil	C09	59	6	13	20	18	2	85.5	78.7	42.8	30.3	73.1
Oropharynx	C10	34	2	7	13	10	2	0.0	29.7	25.4	25.3	0.0
Nasopharynx	C11	134	45	36	34	16	3	58.8	57.0	53.0	35.9	0.0
Hypopharynx	C12-13	87	5	18	34	21	9	20.2	53.5		14.6	0.0
Oesophagus	C15	790	23	130	310	240	87	22.1	28.5	18.8	14.4	9.9
Stomach	C16	8 683	1 348	1 686	2 701	2 077	871	53.1	55.9	48.1	34.3	14.8
Small intestine	C17	141	18	27	43	38	15	53.4	9.4	27.5	13.7	10.4
Colon	C18	1 859	261	325	550	457	266	60.6	67.4	58.8	48.5	30.9
Rectum	C19-20	1 882	270	414	536	456	206	53.7	59.8	63.4	53.0	23.4
Anus	C21	60	7	9	15	17	12	43.2	101.7	54.0	54.4	0.0
Liver	C22	6 507	797	1 711	2 096	1 400	503	12.6	10.6	9.6	6.0	8.0
Gall bladder	C23-24	1 524	79	223	440	509	273	32.3	29.3	18.9	10.2	5.4
Pancreas	C25	1 011	71	154	328	308	150	17.8	5.2	6.7	4.4	4.9
Nose/Sinuses	C30-31	103	13	19	35	26	10	53.9	20.1	32.9	45.0	31.4
Larynx	C32	475	22	95	172	142	44	61.0	65.9	63.0	45.9	38.2
Lung	C33-34	4 796	260	638	1 537	1 625	736	23.0	18.1	14.4	7.3	6.6
Other thoracic organs	C37-38	148	49	30	33	24	12	50.8	34.4	23.3	30.4	0.0
Bone	C40-41	196	123	21	27	17	8	68.5	43.0	38.1	17.8	0.0
Melanoma of skin	C43	86	21	14	23	17	11	37.1	55.0	42.7	67.7	27.5
Other skin	C44	423	64	65	109	110	75	93.3	95.3	86.7	84.6	86.5
Mesothelioma	C45	30	6	7	8	8	1	16.7	29.6	27.1	0.0	0.0
Connective tissue	C47+C49	250	104	46	54	35	11	56.2	54.8	39.1	23.4	17.7
Breast	C50	2 642	1 079	871	485	173	34	83.9	81.2	81.3	73.9	52.5
Vulva	C51	25	5	5	5	8	2	78.2	101.5	62.3	58.4	0.0
Cervix	C53	2 264	912	595	437	246	74	86.1	79.1	73.8	51.7	16.3
Corpus uteri	C54	265	76	87	72	28	2	91.1	79.5	71.0	61.0	
Ovary	C56	622	239	137	128	85	33	78.8	60.2	42.8	26.2	27.0
Placenta	C58	30	24	6	0	0	0	87.5	84.4			
Penis	C60	29	4	6	8	6	5	25.6	65.3	109.6	84.6	166.7
Prostate	C61	430	6	15	100	176	133	45.4	25.7	60.9	64.2	39.6
Testis	C62	55	49	3	3	0	0	78.5	34.6			
Kidney	C64	706	141	162	221	145	37	77.3	69.9	54.8	57.6	15.7
Renal pelvis	C65	74	8	10	29	21	6		62.5	56.7	39.2	
Ureter	C66	77	2	10	23	25	17	101.8	56.8	76.5	27.2	53.2
Urinary bladder	C67	999	89	152	304	290	164	81.9	89.1	74.4	60.4	46.2
Eye	C69	36	22	1	6	4	3	76.3	106.6	71.2	0.0	0.0
Brain & nervous system	C70-72	520	275	91	77	58	19	51.8	33.4	16.4	16.0	19.8
Thyroid	C73	1 175	554	265	199	122	35	98.1	96.2	92.7	77.8	32.6
Adrenal gland, other	C74-75	56	41	5	6	4	0	63.5	20.3	17.9	29.7	
Hodgkin lymphoma	C81	52	22	11	11	7	1	94.3	47.5	32.3	48.5	0.0
Non-Hodgkin lymphoma	C82-85+C96	785	245	147	200	135	58	56.9	47.3	48.9	27.5	27.3
Multiple myeloma	C90	182	10	35	68	58	11	27.6	18.3	15.5	5.7	0.0
Lymphoid leukaemia	C91	222	183	15	14	10	0	48.1	23.8	19.6	0.0	
Myeloid leukaemia	C92-94	480	270	60	85	50	15	36.0	29.9	16.8	6.8	0.0
Leukaemia unspecified	C95	44	13	4	5	13	9		0.0	0.0	9.5	16.7