

Chapter 6

Cancer survival in Qidong, China, 1992–2000

Chen JG, Zhu J, Zhang YH and Lu JH

Abstract

The Qidong cancer registry was established in 1972, and registration of cases is done by active and passive methods. The registry contributed data on 33 cancer sites or types registered during 1992–2000 for this survival study. Data on 22 cancers registered during 1972–2000 were utilized to elicit the survival trend by period and cohort approaches. Follow-up was done by a mixture of active and passive methods, with median follow-up ranging from 2–25 months. The proportion of cases with histologically verified cancer diagnosis ranged from 9–100%, and 87–100% of total registered cases were included for survival analysis. The top-ranking cancers on 5-year age-standardized relative survival (%) were thyroid (78%), breast (58%), corpus uteri (54%), larynx (51%) and urinary bladder (42%). The corresponding survival rates for common cancers were liver (6%), lung (7%) and stomach (18%). The 5-year relative survival by age group fluctuated and showed no distinct pattern or trend. The comparison of 5-year relative survival trend by cohort and period approaches revealed that period survival closely predicted the survival experience of cancer cases diagnosed in that period for most cancers.

Qidong cancer registry

The Qidong cancer registry was established in 1972 at the Qidong Liver Cancer Institute, Qidong. The registry has been contributing data to the quinquennial IARC publication *Cancer Incidence in Five Continents* since Vol VI [1]. Cancer registration is done by active and passive methods. The principal source of information on incident cancer cases is the data file received from lower-level registries managed by a physician or a health worker. The registry checks these files with cancer report lists to find missing and/or duplicate cases. The registry caters to a mixed rural and urban population about 1.2 million with a sex ratio of 1016 females to 1000 males in 1999. The average annual age-standardized incidence rate is 242 per 100 000 among males and 111 per 100 000 among females with a lifetime cumulative risk of one in 4 of developing cancer in the period 1993–1997. The common cancers among males are liver, lung and stomach. The rank order among females is liver, stomach, lung and breast [1].

The registry contributed data on survival to the first volume of the IARC publication on *Cancer Survival in Developing Countries* [2]. In the present volume, the main tables pertain to the period 1992–2000. The data on survival for the years 1972–1991 are also utilized to elicit the trend in cancer survival.

Data quality indices (Table 1)

The proportion of cases with histologically verified cancer diagnosis in the series is 35%, varying from 9% (liver cancer) to 100% (all leukaemias). The proportion of cases registered based on a death certificate only (DCO) is negligible. Cases excluded from the study without any follow-up information is the highest for thyroid cancers (13%). Thus, 87–100% of the total cases registered are included in the estimation of the survival probability.

Outcome of follow-up (Table 2)

The methods of follow-up have been a mixture of both active and passive ones. These included receiving mortality information from all causes of death and periodically matching with the incident cancer database. The vital status of the unmatched incident cases is then collected by scrutiny of medical reports and house visits.

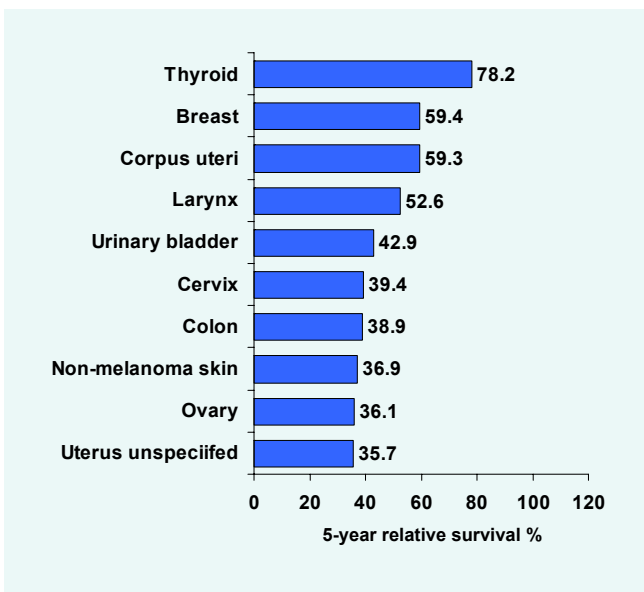
The closing date of follow-up is 31st December 2000. The median follow-up ranged from 2 months for lymphoid and myeloid leukaemias to 25 months for breast cancer. The completeness of follow-up at 5 years from the incidence date is 100%, as there are no losses to follow-up.

Survival statistics

All ages and both sexes together (Table 3)

The top-ranking cancers on 5-year relative survival are thyroid (78%), breast and corpus uteri (59%), larynx (53%) and urinary bladder (43%). The lowest survival is encountered with lymphoid leukaemia and oesophagus (5%), preceded by liver and myeloid leukaemia (6%) and lung (7%). Colon (39%) and rectum (31%) cancers have a higher survival among gastrointestinal cancers. The figure for Non-Hodgkin lymphoma is 14%, and that for multiple myeloma is 11%.

Figure 1a. Top ten cancers (ranked by survival), Qidong, China, 1992–2000



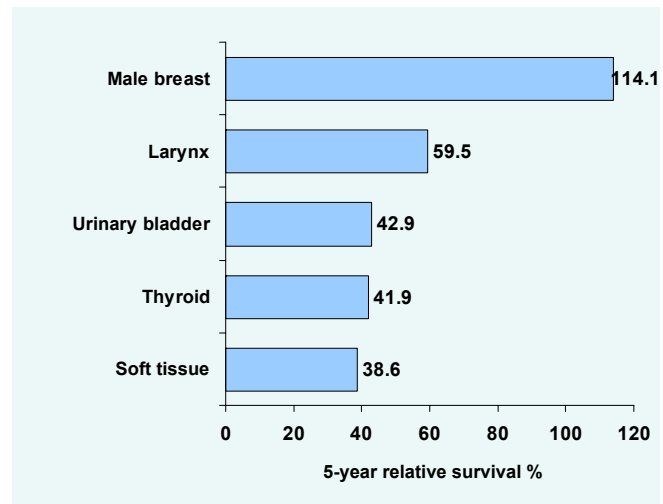
The 5-year age-standardized relative survival (ASRS) probability for all ages together is observed to be lesser than or similar to the corresponding unadjusted one for a majority of cancers. Also, the 5-year ASRS (0–74 years of age) is generally higher than or similar to the corresponding ASRS (all ages)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

Sex

Male (Table 4a)

Cancers of the breast (114%), larynx (60%), urinary bladder (43%), thyroid (42%) and soft tissue (39%) form the order when ranked on 5-year relative survival. Survival from prostate cancer is 32%. Cancers of the larynx, soft tissue and melanoma skin have a notably higher survival among males than females.

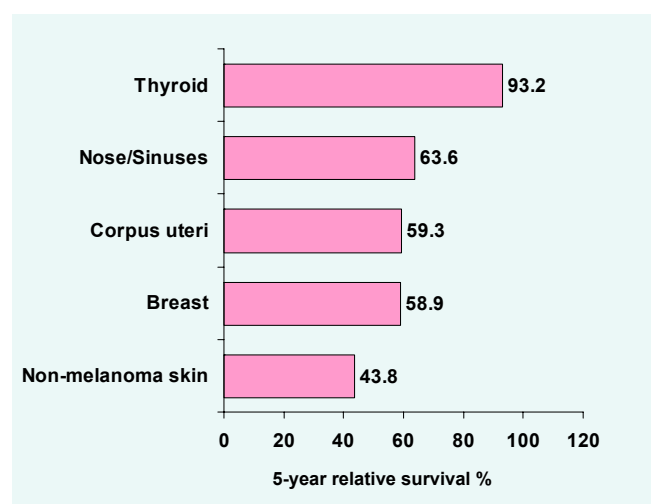
Figure 1b. Top five cancers (ranked by survival), Male, Qidong, China, 1992–2000



Female (Table 4a)

The rank order based on 5-year relative survival is cancer of the thyroid (93%), nose/sinuses (64%), corpus uteri and breast (59%) and non-melanoma skin (44%). Survival from cancers of the cervix and ovary are 39% and 36%, respectively. Survival is markedly higher among females than males in cancers of the nasopharynx, nose/sinuses, non-melanoma skin, kidney and thyroid.

Figure 1c. Top five cancers (ranked by survival), Female, Qidong, China, 1992–2000



Age group (Table 4b)

The 5-year relative survival by age group reveals no distinct pattern or trend and is seen to fluctuate with increasing age groups.

Survival trend (Table 5)

The trend of survival data, estimated by the same method of semi-complete analytic approach, is available for 15 cancer sites or types spanning 19 years in the two time periods 1982–1991 and 1992–2000. An increasing trend in the 5-year relative survival with an absolute difference of 10% and more between 1982–1991 and 1992–2000 is observed only in cancer of the nose/sinuses. A decreasing survival of similar magnitude is forthcoming for cancers of skin melanoma and non-melanoma, soft tissue, prostate and kidney.

Trend of survival by period and cohort approaches (Tables 6 & 7; Figure 2)

The availability of data on registration and follow-up together for both a long (from the calendar year 1972) and a more recent period (year 2000) of calendar time led to the possibility of estimating up-to-date survival and trend by period approach. Survival is also estimated by cohort approach for comparison.

The 5-year relative survival by cohort and period

approaches are estimated for the five calendar periods 1977–1981, 1982–1986, 1987–1991, 1992–1996 and 1997–2000. The period survival estimates in a calendar period are seen to resemble the cohort survival estimates of the succeeding calendar period for most cancers. Thus, period survival closely predicts the survival experience of cancer cases diagnosed in that period. However, this seems to vary for some calendar periods in a few cancers, indicating some limiting factor either in the ascertainment of follow-up information or some changes in the registration process in those periods.

References

1. Parkin DM, Whelan SL, Ferlay J and Storm H. *Cancer Incidence in Five Continents, Vol 1 to VIII: IARC Cancerbase No. 7*. IARC Press, Lyon, 2005.
2. Swaminathan R, Black RJ and Sankaranarayanan R. Database on Cancer Survival from Developing Countries. In: *Cancer Survival in Developing Countries* (eds) R Sankaranarayanan, RJ Black and DM Parkin. IARC Scientific Publications No. 145. IARC Press, Lyon, 1998.

Figure 2. Up-to-date 5-year relative survival estimates over the calendar periods by period and cohort approaches for selected cancers, Qidong, China, 1972–2000 cases followed through 2000

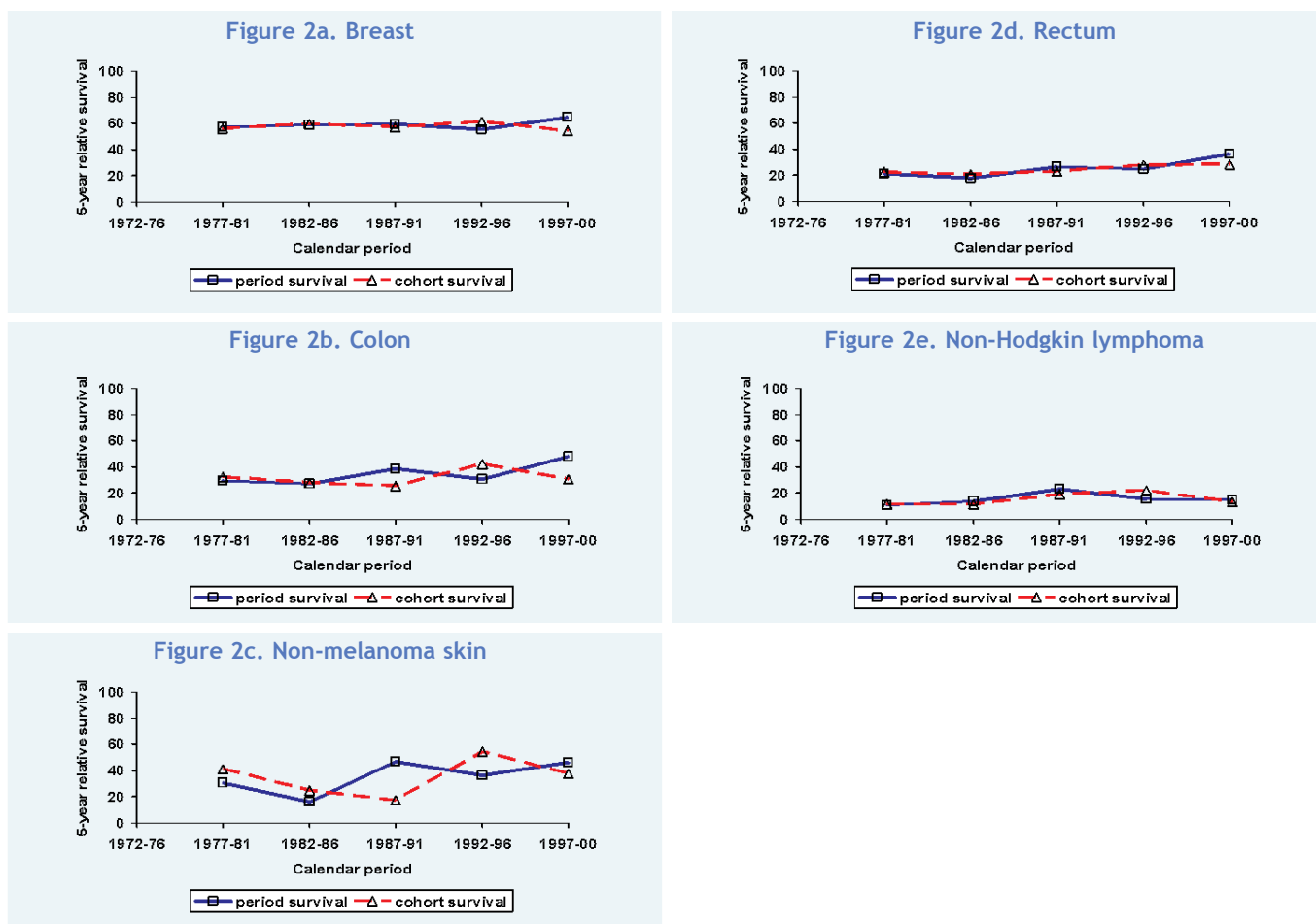


Table 1. Data quality indices - Proportion of histologically verified and death certificate only cases, number and proportion of included and excluded cases by site: Qidong, China, 1992–2000 cases followed-up until 2000

Site	ICD-10	Total registered	%		Excluded cases					Included cases	
			HV	DCO	DCO	Follow-up	Others	Total	%	No.	%
Oral cavity	C03-06	37	89.2	2.7	1	1	0	2	5.4	35	94.6
Nasopharynx	C11	166	77.7	0.6	1	1	0	2	1.2	164	98.8
Oesophagus	C15	948	30.5	0.2	2	4	0	6	0.6	942	99.4
Stomach	C16	3 289	54.8	0.2	5	30	0	35	1.1	3 254	98.9
Small intestine	C17	37	56.8	0.0	0	2	0	2	5.4	35	94.6
Colon	C18	326	73.6	0.3	1	10	0	11	3.4	315	96.6
Rectum	C19-20	1 026	77.4	0.4	4	12	0	16	1.6	1 010	98.4
Liver	C22	7 138	9.0	0.2	15	33	0	48	0.7	7 090	99.3
Gall bladder	C23-24	102	41.2	0.0	0	2	0	2	2.0	100	98.0
Pancreas	C25	672	25.4	0.6	4	7	0	11	1.6	661	98.4
Nose/Sinuses	C30-31	45	77.8	0.0	0	0	0	0	0.0	45	100.0
Larynx	C32	49	85.7	0.0	0	2	0	2	4.1	47	95.9
Lung	C33-34	3 303	10.4	0.3	11	11	0	22	0.7	3 281	99.3
Other thoracic organs	C37-38	38	36.8	0.0	0	0	0	0	0.0	38	100.0
Bone	C40-41	150	45.3	0.7	1	0	0	1	0.7	149	99.3
Melanoma of skin	C43	36	94.4	0.0	0	0	0	0	0.0	36	100.0
Other skin	C44	122	92.6	0.0	0	2	0	2	1.6	120	98.4
Connective tissue	C47+C49	34	91.2	0.0	0	2	0	2	5.9	32	94.1
Breast	C50	669	93.6	0.3	2	16	0	18	2.7	651	97.3
Cervix	C53	146	87.7	0.0	0	2	0	2	1.4	144	98.6
Corpus uteri	C54	72	93.1	0.0	0	3	0	3	4.2	69	95.8
Uterus unspecified	C55	42	73.8	0.0	0	1	0	1	2.4	41	97.6
Ovary	C56	105	78.1	0.0	0	4	0	4	3.8	101	96.2
Prostate	C61	55	67.3	0.0	0	0	0	0	0.0	55	100.0
Kidney	C64	72	55.6	0.0	0	0	0	0	0.0	72	100.0
Urinary bladder	C67	373	66.5	0.5	2	5	0	7	1.9	366	98.1
Brain & nervous system	C70-72	414	21.3	0.0	0	1	0	1	0.2	413	99.8
Thyroid	C73	55	94.5	0.0	0	7	0	7	12.7	48	87.3
Non-Hodgkin lymphoma	C82-85+C96	316	91.1	0.6	2	2	0	4	1.3	312	98.7
Multiple myeloma	C90	137	85.4	0.0	0	0	0	0	0.0	137	100.0
Lymphoid leukaemia	C91	83	100.0	1.2	1	1	0	2	2.4	81	97.6
Myeloid leukaemia	C92-94	217	100.0	0.5	1	0	0	1	0.5	216	99.5
Leukaemia unspecified	C95	107	100.0	0.0	0	0	0	0	0.0	107	100.0

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: Qidong, China, 1992–2000 cases followed-up until 2000

Site	ICD-10	Cases included	Dead		Alive		Complete FU		Median FU (in months)
			No.	%	No.	%	No.	%	
Oral cavity	C03-06	35	22	62.9	13	37.1	35	100.0	6.1
Nasopharynx	C11	164	106	64.6	58	35.4	164	100.0	8.2
Oesophagus	C15	942	871	92.5	71	7.5	942	100.0	3.6
Stomach	C16	3 254	2 625	80.7	629	19.3	3 254	100.0	4.5
Small intestine	C17	35	29	82.9	6	17.1	35	100.0	4.3
Colon	C18	315	184	58.4	131	41.6	315	100.0	7.4
Rectum	C19-20	1 010	696	68.9	314	31.1	1 010	100.0	7.8
Liver	C22	7 090	6 424	90.6	666	9.4	7 090	100.0	2.7
Gall bladder	C23-24	100	87	87.0	13	13.0	100	100.0	2.8
Pancreas	C25	661	595	90.0	66	10.0	661	100.0	2.8
Nose/Sinuses	C30-31	45	30	66.7	15	33.3	45	100.0	14.6
Larynx	C32	47	26	55.3	21	44.7	47	100.0	10.7
Lung	C33-34	3 281	2 940	89.6	341	10.4	3 281	100.0	3.4
Other thoracic organs	C37-38	38	32	84.2	6	15.8	38	100.0	4.9
Bone	C40-41	149	126	84.6	23	15.4	149	100.0	4.3
Melanoma of skin	C43	36	27	75.0	9	25.0	36	100.0	9.4
Other skin	C44	120	89	74.2	31	25.8	120	100.0	7.2
Connective tissue	C47+C49	32	21	65.6	11	34.4	32	100.0	9.8
Breast	C50	651	239	36.7	412	63.3	651	100.0	25.5
Cervix	C53	144	86	59.7	58	40.3	144	100.0	7.9
Corpus uteri	C54	69	27	39.1	42	60.9	69	100.0	21.1
Uterus unspecified	C55	41	25	61.0	16	39.0	41	100.0	8.1
Ovary	C56	101	61	60.4	40	39.6	101	100.0	9.7
Prostate	C61	55	39	70.9	16	29.1	55	100.0	5.3
Kidney	C64	72	50	69.4	22	30.6	72	100.0	3.8
Urinary bladder	C67	366	222	60.7	144	39.3	366	100.0	9.1
Brain & nervous system	C70-72	413	357	86.4	56	13.6	413	100.0	3.0
Thyroid	C73	48	12	25.0	36	75.0	48	100.0	20.3
Non-Hodgkin lymphoma	C82-85+C96	312	259	83.0	53	17.0	312	100.0	4.8
Multiple myeloma	C90	137	118	86.1	19	13.9	137	100.0	3.3
Lymphoid leukaemia	C91	81	70	86.4	11	13.6	81	100.0	2.4
Myeloid leukaemia	C92-94	216	197	91.2	19	8.8	216	100.0	2.4
Leukaemia unspecified	C95	107	99	92.5	8	7.5	107	100.0	3.6

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: Qidong, China, 1992–2000 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
Oral cavity	C03-06	35	44.6	32.2	32.2	46.0	35.5	36.2	40.3	43.8
Nasopharynx	C11	164	47.1	31.6	29.3	48.1	33.1	31.2	29.1	36.4
Oesophagus	C15	942	14.7	4.6	4.0	15.5	5.2	4.9	5.3	6.1
Stomach	C16	3 254	28.0	16.6	15.4	29.2	18.3	18.0	17.9	20.1
Small intestine	C17	35	36.4	14.5	6.2	37.6	16.4	7.7	5.5	6.3
Colon	C18	315	49.5	34.6	32.9	51.5	38.0	38.9	36.7	42.1
Rectum	C19-20	1 010	44.0	29.9	26.9	45.8	33.0	31.4	29.6	34.5
Liver	C22	7 090	13.3	6.5	5.2	13.5	6.8	5.6	5.6	5.4
Gall bladder	C23-24	100	20.8	12.5	12.5	21.5	13.5	14.4	15.2	17.5
Pancreas	C25	661	11.9	6.8	6.5	12.4	7.6	8.0	8.6	6.7
Nose/Sinuses	C30-31	45	57.8	34.5	24.6	59.1	37.4	29.9	44.1	22.3
Larynx	C32	47	55.1	41.3	41.3	57.2	46.8	52.6	50.5	48.7
Lung	C33-34	3 281	15.2	6.5	5.6	15.8	7.2	6.8	6.6	6.4
Other thoracic organs	C37-38	38	23.3	10.0	10.0	24.1	10.5	10.8	14.2	19.3
Bone	C40-41	149	27.5	14.3	13.0	28.2	15.6	14.8	13.7	15.2
Melanoma of skin	C43	36	46.3	30.8	15.4	48.0	33.9	18.1	22.2	26.6
Other skin	C44	120	39.2	27.3	26.0	42.1	33.2	36.9	38.5	37.3
Connective tissue	C47+C49	32	50.8	27.8	27.8	51.8	30.0	30.9	26.8	36.2
Breast	C50	651	77.7	63.0	56.0	78.6	65.0	59.4	57.6	58.3
Cervix	C53	144	45.8	39.0	36.5	47.1	40.8	39.4	43.8	47.9
Corpus uteri	C54	69	76.9	62.6	54.9	78.5	66.0	59.3	53.8	62.2
Uterus unspecified	C55	41	46.2	33.6	33.6	47.7	35.3	35.7	28.6	34.9
Ovary	C56	101	51.3	34.7	32.7	52.1	36.2	36.1	41.0	35.1
Prostate	C61	55	37.7	25.1	25.1	40.2	29.2	32.5	31.1	36.3
Kidney	C64	72	36.7	31.0	24.5	37.4	32.7	26.8	28.9	26.7
Urinary bladder	C67	366	51.5	38.7	32.9	54.3	45.3	42.9	42.1	47.3
Brain & nervous system	C70-72	413	18.0	11.2	8.8	18.3	11.6	9.2	10.7	11.1
Thyroid	C73	48	75.6	72.8	72.8	77.0	75.6	78.2	77.8	76.8
Non-Hodgkin lymphoma	C82-85+C96	312	26.3	16.8	12.3	27.0	18.0	13.9	13.1	13.4
Multiple myeloma	C90	137	14.7	9.1	9.1	15.1	10.1	11.1	11.1	10.9
Lymphoid leukaemia	C91	81	21.0	6.8	4.5	21.3	7.1	4.8	4.1	5.4
Myeloid leukaemia	C92-94	216	19.1	7.2	5.3	19.3	7.5	5.7	6.6	6.0
Leukaemia unspecified	C95	107	13.6	7.6	6.5	13.8	7.8	6.9	5.8	7.1

ASRS: age-standardized relative survival

Table 4a. Site-wise number of cases, 5-year absolute and relative survival by sex: Qidong, China, 1992–2000 cases followed-up until 2000

Site	ICD-10	Cases included	Male			Female		
			% 5-year survival			% 5-year survival		
			No.	Abs	Rel	No.	Abs	Rel
Oral cavity	C03-06	35	21	33.8	35.6	14	29.3	36.6
Nasopharynx	C11	164	114	24.4	26.0	50	40.2	42.6
Oesophagus	C15	942	645	4.0	4.9	297	3.9	4.9
Stomach	C16	3 254	2 038	16.0	19.0	1 216	14.4	16.3
Small intestine	C17	35	23	5.1	6.5	12		
Colon	C18	315	136	31.2	37.1	179	34.1	40.0
Rectum	C19-20	1 010	508	25.2	29.6	502	28.4	33.0
Liver	C22	7 090	5 338	5.1	5.5	1 752	5.3	5.7
Gall bladder	C23-24	100	54	10.5	11.5	46	15.0	18.1
Pancreas	C25	661	361	6.6	8.0	300	6.3	7.9
Nose/Sinuses	C30-31	45	35	16.4	21.1	10	58.5	63.6
Larynx	C32	47	42	46.5	59.5	5	0.0	0.0
Lung	C33-34	3 281	2 459	5.0	6.1	822	7.3	8.8
Other thoracic organs	C37-38	38	27	10.8	11.8	11		
Bone	C40-41	149	101	15.5	16.9	48	8.1	10.0
Melanoma of skin	C43	36	16	21.3	24.7	20	9.9	11.7
Other skin	C44	120	57	22.4	29.5	63	29.2	43.8
Connective tissue	C47+C49	32	15	35.2	38.6	17	20.8	23.5
Breast	C50	651	5	100.0	114.1	646	55.7	58.9
Cervix	C53	144				144	36.5	39.4
Corpus uteri	C54	69				69	54.9	59.3
Uterus unspecified	C55	41				41	33.6	35.7
Ovary	C56	101				101	32.7	36.1
Prostate	C61	55	55	25.1	32.5			
Kidney	C64	72	41	17.6	19.5	31	33.0	35.7
Urinary bladder	C67	366	287	32.5	42.9	79	33.8	42.7
Brain & nervous system	C70-72	413	237	6.4	6.7	176	12.3	12.7
Thyroid	C73	48	14	38.5	41.9	34	87.3	93.2
Non-Hodgkin lymphoma	C82-85+C96	312	179	13.2	14.9	133	11.0	12.5
Multiple myeloma	C90	137	72	10.7	14.1	65	7.6	8.4
Lymphoid leukaemia	C91	81	44	3.5	3.6	37	8.6	9.3
Myeloid leukaemia	C92-94	216	118	7.3	8.0	98	2.7	2.8
Leukaemia unspecified	C95	107	58	5.5	6.0	49	7.9	8.2

Abs: absolute survival; Rel: relative survival

Table 4b. Site-wise number of cases and relative survival by age group: Qidong, China, 1992–2000 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
Oral cavity	C03-06	35	5	5	9	11	5	34.2		42.8		0.0
Nasopharynx	C11	164	34	42	41	32	15	46.4	36.8	22.3	29.9	0.0
Oesophagus	C15	942	26	84	203	330	299	7.9	4.8	8.6	3.7	3.5
Stomach	C16	3 254	285	403	784	998	784	22.5	22.9	19.5	17.5	15.4
Small intestine	C17	35	6	1	10	9	9	0.0	0.0	28.2	0.0	0.0
Colon	C18	315	33	44	70	88	80	44.2	43.1	50.3	34.0	28.7
Rectum	C19-20	1 010	102	132	219	305	252	30.3	43.9	39.5	27.6	25.0
Liver	C22	7 090	2 458	1 812	1 380	946	494	5.5	6.1	5.2	5.0	7.8
Gall bladder	C23-24	100	11	15	22	27	25	32.9	20.4	4.9	16.9	8.9
Pancreas	C25	661	44	75	163	214	165	4.6	8.0	9.0	5.3	14.8
Nose/Sinuses	C30-31	45	5	5	12	20	3		0.0	20.7	29.6	79.5
Larynx	C32	47	2	2	12	20	11	51.4	51.9	32.4	59.7	66.8
Lung	C33-34	3 281	165	368	917	1 240	591	3.0	6.8	5.8	8.0	8.1
Other thoracic organs	C37-38	38	8	2	15	7	6		52.0	7.3	0.0	0.0
Bone	C40-41	149	38	21	34	31	25	22.0	24.8	10.0	8.5	10.1
Melanoma of skin	C43	36	7	4	7	11	7		68.9		14.0	0.0
Other skin	C44	120	16	5	21	28	50	45.4	61.7	20.5	28.4	50.6
Connective tissue	C47+C49	32	11	4	7	6	4	35.3	77.9		27.9	0.0
Breast	C50	651	205	200	119	85	42	60.5	66.4	49.1	56.5	57.7
Cervix	C53	144	36	25	27	31	25	61.2	67.4	24.1	31.1	15.1
Corpus uteri	C54	69	9	22	15	17	6	67.2	66.6	56.6	58.7	0.0
Uterus unspecified	C55	41	11	8	6	9	7	64.2	36.5	28.9	14.9	
Ovary	C56	101	27	30	26	11	7	32.8	43.5	9.3	55.3	90.0
Prostate	C61	55	3	3	11	19	19		0.0	30.2	45.4	31.8
Kidney	C64	72	12	8	21	23	8			26.7	24.1	36.0
Urinary bladder	C67	366	17	30	86	118	115	63.0	41.3	47.7	45.0	33.7
Brain & nervous system	C70-72	413	115	97	88	89	24	14.8	6.3	11.1		
Thyroid	C73	48	19	6	8	9	6	100.5	51.1	90.3	51.0	71.9
Non-Hodgkin lymphoma	C82-85+C96	312	76	32	78	79	47	10.5	15.4	19.3	15.1	10.8
Multiple myeloma	C90	137	19	12	37	52	17	21.4		0.0	10.7	14.3
Lymphoid leukaemia	C91	81	37	9	14	15	6	6.5	0.0	0.0	13.7	0.0
Myeloid leukaemia	C92-94	216	98	29	29	37	23	10.7	0.0	0.0	0.0	20.2
Leukaemia unspecified	C95	107	50	15	22	15	5	5.0	0.0	9.5	15.6	0.0

Table 5. Comparison of 5-year absolute and relative survival of cases diagnosed between 1982–1991 and 1992–2000, Qidong, China

Site	ICD-10	% 5-year absolute survival		% 5-year relative survival	
		1982–1991	1992–2000	1982–1991	1992–2000
Oral cavity	C03-06	28.2	32.2	34.0	36.2
Nasopharynx	C11	26.7	29.3	28.7	31.2
Oesophagus	C15	4.9	4.0	5.9	4.9
Stomach	C16	13.9	15.4	15.6	18.0
Small intestine	C17	14.9	6.2	17.5	7.7
Colon	C18	29.8	32.9	34.5	38.9
Rectum	C19-20	22.5	26.9	25.3	31.4
Liver	C22	3.0	5.2	3.2	5.6
Gall bladder	C23-24	16.2	12.5	19.1	14.4
Pancreas	C25	7.4	6.5	8.9	8.0
Nose/Sinuses	C30-31	13.6	24.6	16.3	29.9
Larynx	C32	48.0	41.3	54.5	52.6
Lung	C33-34	4.1	5.6	4.8	6.8
Other thoracic organs	C37-38	10.2	10.0	10.9	10.8
Bone	C40-41	19.9	13.0	22.7	14.8
Melanoma of skin	C43	51.9	15.4	54.5	18.1
Other skin	C44	51.9	26.0	54.5	36.9
Connective tissue	C47+C49	37.5	27.8	41.9	30.9
Breast	C50	56.5	56.0	59.5	59.4
Cervix	C53	33.5	36.5	37.2	39.4
Corpus uteri	C54	61.1	54.9	66.6	59.3
Uterus unspecified	C55	41.3	33.6	43.1	35.7
Ovary	C56	39.2	32.7	41.0	36.1
Prostate	C61	20.7	25.1	24.1	32.5
Kidney	C64	33.9	24.5	37.6	26.8
Urinary bladder	C67	34.4	32.9	40.1	42.9
Brain & nervous system	C70-72	8.8	8.8	9.0	9.2
Thyroid	C73	70.0	72.8	72.7	78.2
Non-Hodgkin lymphoma	C82-85+C96	18.7	12.3	20.0	13.9
Multiple myeloma	C90	3.5	9.1	4.6	11.1
Lymphoid leukaemia	C91	5.5	4.5	5.7	4.8
Myeloid leukaemia	C92-94	10.2	5.3	11.5	5.7
Leukaemia unspecified	C95	4.7	6.5	4.9	6.9

Table 6. Number of cases by cancer site and calendar period, Qidong, China, 1977–2000

Site	ICD-10	1977-81	1982-86	1987-91	1992-96	1997-2000	1977-2000
Nasopharynx	C11	92	81	91	95	69	428
Oesophagus	C15	479	476	510	550	392	2 407
Stomach	C16	1 708	1 774	2 082	1 935	1 319	8 818
Small intestine	C17	116	64	30	25	10	245
Colon	C18	90	109	146	148	167	660
Rectum	C19-20	275	381	465	581	429	2 131
Liver	C22	2 499	3 066	2 992	3 862	3 228	15 647
Pancreas	C25	264	323	392	356	305	1 640
Lung	C33-34	879	1 137	1 403	1 728	1 553	6 700
Bone	C40-41	61	68	73	88	61	351
Other skin	C44	55	60	74	77	43	309
Breast	C50	219	297	369	337	314	1 536
Cervix	C53	118	115	97	85	59	474
Ovary	C56	31	45	34	49	52	211
Prostate	C61	13	13	16	31	24	97
Kidney	C64	25	25	34	37	35	156
Urinary bladder	C67	84	113	140	205	161	703
Brain & nervous system	C70-72	116	118	167	214	199	814
Non-Hodgkin lymphoma	C82-85+C96	105	133	150	195	117	700
Multiple myeloma	C90	56	72	71	74	63	336
Myeloid leukaemia	C92-94	26	32	105	140	76	379
Leukaemia unspecified	C95	128	161	74	62	45	470

Table 7. Up-to-date 5-year relative survival estimates using cohort and period approaches by site and calendar period: Qidong, China, 1977–2000 cases followed-up until 2000

Site	ICD-10	Period approach					Cohort approach				
		1977–81	1982–86	1987–91	1992–96	1997–2000	1977–81	1982–86	1987–91	1992–96	1997–2000
Nasopharynx	C11	15.9	31.4	27.2	25.1	37.7	28.1	22.7	29.9	28.5	27.6
Oesophagus	C15	2.6	6.2	6.6	4.2	5.6	3.6	4.5	5.4	6.8	4.4
Stomach	C16	11.2	13.3	16.2	14.7	21.3	11.8	12.3	14.5	17.4	16.2
Small intestine	C17	8.0	11.9	23.3	13.2	8.6	12.2	8.9	16.5	20.7	5.9
Colon	C18	29.4	27.4	38.5	30.8	47.8	32.1	28.0	25.6	42.0	30.8
Rectum	C19-20	21.6	18.0	26.7	24.9	36.7	22.3	20.6	23.3	27.7	28.2
Liver	C22	2.3	1.2	3.8	4.8	5.6	2.4	1.8	2.4	4.0	5.0
Pancreas	C25	3.5	4.5	5.1	4.6	8.3	5.6	4.0	5.0	4.9	5.2
Lung	C33-34	3.3	4.5	5.1	4.6	8.3	5.6	4.0	5.0	4.9	5.2
Bone	C40-41	14.0	16.1	26.6	15.2	16.0	37.4	13.0	19.1	26.6	12.5
Other skin	C44	30.4	16.4	47.0	36.6	46.4	41.0	24.8	17.6	54.6	37.7
Breast	C50	57.1	58.9	59.7	55.4	64.8	56.2	59.4	57.3	61.4	54.2
Cervix	C53	39.1	32.1	40.8	30.6	41.9	56.7	28.7	39.0	35.1	39.8
Ovary	C56	25.9	48.1	34.8	33.8	36.3	30.3	27.5	48.6	31.0	24.2
Prostate	C61	4.5	28.1	22.4	31.2	29.2	14.3	11.4	19.6	29.7	35.0
Kidney	C64	13.9	40.2	40.6	31.5	27.3	31.4	13.9	45.0	34.6	26.7
Urinary bladder	C67	41.0	36.9	37.3	40.6	47.9	31.1	38.5	36.7	45.4	38.9
Brain & nervous system	C70-72	6.4	7.5	7.7	8.9	11.4	10.2	7.1	7.9	10.0	5.0
Non-Hodgkin lymphoma	C82-85+C9	10.8	13.9	23.1	15.7	14.9	11.8	11.3	19.1	21.7	13.5
Multiple myeloma	C90	1.2	3.0	8.8	4.0	13.6	7.9	0.0	7.3	2.1	11.7
Myeloid leukaemia	C92-94	0.0	17.8	7.3	7.6	8.4	4.4	3.9	12.9	11.2	5.3
Leukaemia unspecified	C95	1.1	2.6	12.0	7.6	2.9	2.6	1.6	3.4	8.5	12.1

