

## Chapter 18

# Cancer survival in Manila, Philippines, 1994–1995

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### Abstract

The population-based cancer registry in Manila, Philippines, called the Philippine Cancer Society-Manila Cancer Registry, was established in 1983. Cancer registration is pursued by active methods. The registry contributed survival data on a random sample of total incident cancers of breast (500), cervix (500), colon and rectum (300) registered in 1994–1995. Follow-up has been carried out by passive and active methods, with median follow-up ranging between 15–33 months for different cancers. The proportion of histologically verified diagnosis for various cancers ranged between 78–88%; 74–83% of the total submitted cases were included for survival analysis. Complete follow-up at five years was available in 75–82% of cases. Five-year age-standardized relative survival rates was the highest for cancer of the breast (52%) followed by colon (49%), cervix (36%) and rectum (31%). Five-year relative survival by age group did not display any pattern or trend and was fluctuating. A decreasing survival with increasing extent of disease was noted for all cancers.

### Philippine cancer society - Manila cancer registry

The population-based cancer registry in Manila, called the Philippine Cancer Society-Manila Cancer Registry (PCS-MCR), was established in 1983 as an offshoot of the then ongoing cancer registration activity under the central tumour registry of the Philippines since 1968. PCS-MCR has been contributing data to the quinquennial IARC publication *Cancer Incidence in Five Continents* since volume VI [1]. Cancer registration is pursued by active methods [2]. The sources of registration, besides coordination with the Department of Health-Rizal Cancer Registry, include hospitals in the government and private sectors, consultants, pathology laboratories and imaging centres. Data are collected from hospital tumour registries and other records maintained at these places. The registry covers an area of 274.2 km<sup>2</sup> and caters to an entirely urban population of about 5.1 million in 1995 with a sex ratio of 1046 females to 1000 males. The average annual age-standardized incidence rate is 222 per 100 000 among males and 206 per 100 000 among females with a lifetime cumulative risk of one in 4 of developing cancer for both sexes in the period 1993–1997. The top ranking cancers among males are lung, liver and prostate. Among females, the order is breast, cervix and ovary.

The registry has contributed data on survival from cancers of the breast, cervix, colon and rectum for the first time in this volume of the IARC publication on *Cancer Survival in Africa, Asia, the Caribbean and Central America*. A random sample of 1300 cases out

of the total incident cancers in 1994–1995 comprising about 500 cases each of female breast and cervix cancers (stratified by age) and 300 cases of colorectal cancers (stratified by age and sex) form the material for this study.

### Data quality indices (Table 1)

The proportion of cases with histological confirmation of cancer diagnosis in this series ranges from 78% for colon cancer to 88% in rectal and breast cancers. No cases registered-based on a death certificate only (DCO) were included in the study. Cases without any follow-up information represent 21%, varying between 16–25% for different cancers. Thus, 74–83% of cases considered for the study 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 collection of cancer mortality information from the local civil registrar offices. The mortality data are first matched with the incident cancer database. The follow-up information for the unmatched incident cases is then obtained through the attending physicians, repeated scrutiny of records in the respective sources of registration, postal/telephone enquiries and house visits.

The closing date of follow-up was 31<sup>st</sup> December 2002. The median follow-up ranged from 15 months in cervix cancer to 33 months in breast cancer. Complete follow-up at five years from the incidence

date was available in 75–82% of cases. The losses to follow-up have generally occurred in large numbers in the first year of follow-up and decreased through successive intervals of follow-up time.

### Survival statistics

#### All ages and both sexes together (Table 3)

The 5-year relative survival estimates are the highest for cancer of the female breast (52%) followed by colon (46%), rectum (38%) and cervix (36%). The age-standardized relative survival (ASRS) for all ages together when compared to the corresponding unadjusted one is higher in colon cancer, lower in rectal cancer and similar for breast and cervix cancers. The ASRS for 0–74 years of age was higher than ASRS for all ages together for breast and cervix cancers, lower for colon cancer and similar for rectal cancer.

#### Sex

##### Male (Table 4a)

The five-year relative survival estimates among cancers of the colon (38%) and rectum (29%) are markedly less than among females.

##### Female (Table 4a)

The highest 5-year relative survival was observed in cancer of the colon (54%) followed in order by breast

(52%), rectum (44%) and cervix (36%).

#### Age group (Table 4b)

The 5-year relative survival by age group does not display any pattern and is observed to be fluctuating with increasing age groups.

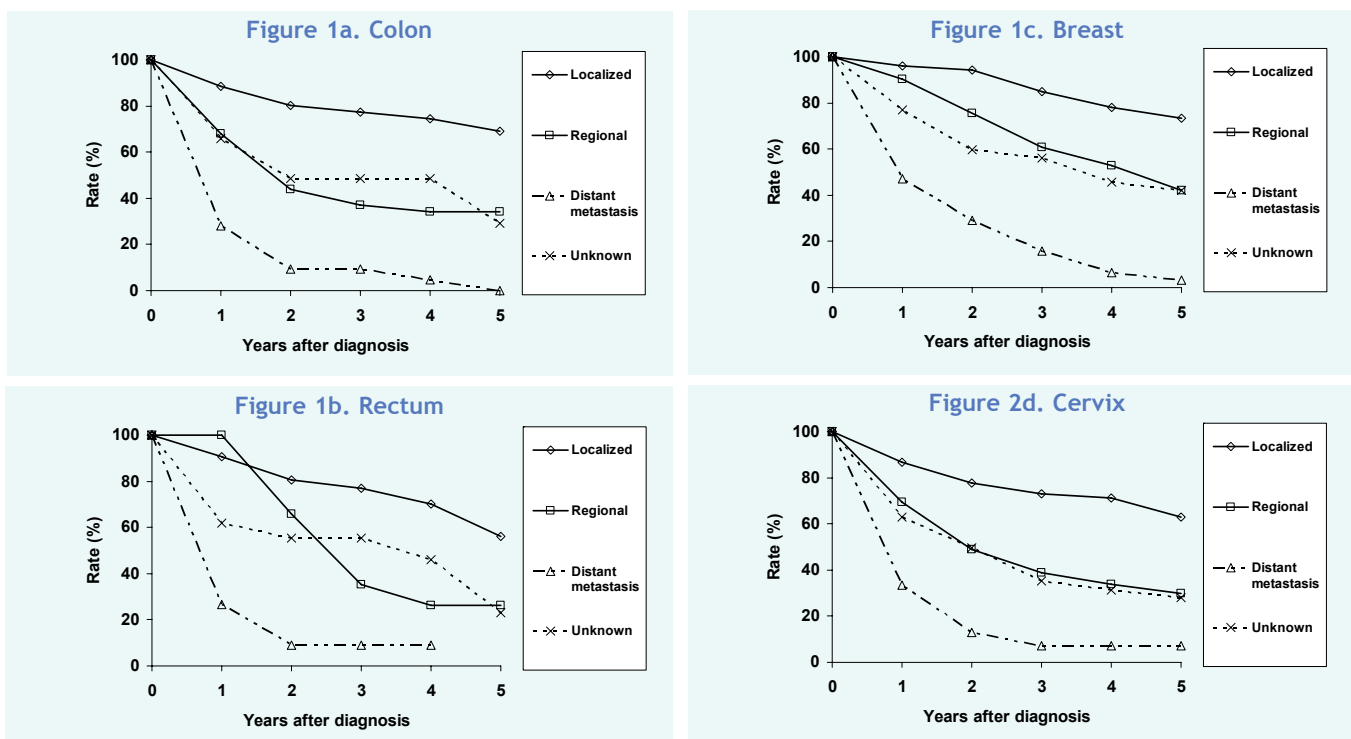
#### Extent of disease (Table 5; Figure 1)

Cases classified as localized by extent of disease form a majority (34%) compared to the regional category (27%) among rectal cancers. Regional spread of disease is the most common among cancers of the breast (46%) and cervix (30%). Distant metastasis accounts for 10–18%, and extent of disease unknown ranges from 9% for breast cancer to 38% for cervix cancer. The 5-year absolute survival by extent of disease follows the expected pattern of having an inverse relationship: a decreasing survival with increasing known extent of disease category.

#### 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. Laudico AV, Esteban D and Parkin DM. *Cancer in the Philippines, IARC Technical Report No. 5*. IARC Press, Lyon, 1989.

Figure 1. Absolute survival (%) from selected cancers by extent of disease, Manila, Philippines



**Table 1. Data quality indices - Proportion of histologically verified and death certificate only cases, number and proportion of included and excluded cases by site: Manila, Philippines, 1994–1995 cases followed-up until 2002**

Site	ICD-10	Total registered	%		Excluded cases					Included cases	
			HV	DCO	DCO	Follow-up	Others	Total	%	No.	%
Colon	C18*	176	78.4	0.0	0	30	1	31	17.6	145	82.4
Rectum	C19-20*	124	87.9	0.0	0	20	1	21	16.9	103	83.1
Breast	C50*	510	87.8	0.0	0	93	2	95	18.6	415	81.4
Cervix	C53*	506	84.0	0.0	0	129	0	129	25.5	377	74.5

HV: histologically verified; DCO: death certificate only; \* random sample of total incident cases

**Table 2. Number and proportion of cases with complete/incomplete follow-up (in years) and median follow-up (in months) by site: Manila, Philippines, 1994–1995 cases followed-up until 2002**

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		
Colon	C18*	145	119	82.1	26	17.9	13.1	2.1	2.7	0.0	82.1	15.7
Rectum	C19-20*	103	76	73.8	27	26.2	16.4	3.9	4.9	1.0	74.8	20.3
Breast	C50*	415	322	77.6	93	22.4	14.2	6.3	1.2	0.7	78.3	33.1
Cervix	C53*	377	288	76.4	89	23.6	13.8	4.5	1.9	3.4	79.8	14.6

FU: follow-up; \* random sample of total incident cases

**Table 3. Comparison of 1-, 3- and 5-year absolute and relative survival and 5-year age-standardized relative survival by site: Manila, Philippines, 1994–1995 cases followed-up until 2002**

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
Colon	C18*	145	66.8	46.0	37.8	69.1	51.3	46.1	48.6	43.5
Rectum	C19-20*	103	76.7	49.3	33.4	78.4	52.5	37.5	31.0	30.6
Breast	C50*	415	85.2	62.5	47.7	86.7	65.9	52.4	51.9	55.0
Cervix	C53*	377	66.7	41.3	34.0	67.5	42.9	36.3	36.3	37.4

ASRS: age-standardized relative survival; \* random sample of total incident cases

**Table 4a. Site-wise number of cases, 5-year absolute and relative survival by sex: Manila, Philippines, 1994–1995 cases followed-up until 2002**

Site	ICD-10	Cases included	Male			Female		
			% 5-year survival			% 5-year survival		
			No.	Abs	Rel	No.	Abs	Rel
Colon	C18*	145	79	32.0	38.4	66	43.6	53.7
Rectum	C19-20*	103	47	24.6	28.5	56	40.5	44.2
Breast	C50*	415				415	47.7	52.4
Cervix	C53*	377				377	34.0	36.3

*Abs: absolute survival; Rel: relative survival; \* random sample of total cases*

**Table 4b. Site-wise number of cases and relative survival by age group: Manila, Philippines, 1994–1995 cases followed-up until 2002**

Site	ICD-10	Cases included	Number of cases by age group					Relative survival by age group				
			% 5-year survival					% 5-year survival				
			< 45	45-54	55-64	65-74	> 75	< 45	45-54	55-64	65-74	> 75
Colon	C18*	145	21	16	37	39	32	36.1	54.2	52.5	28.0	58.2
Rectum	C19-20*	103	24	23	20	25	11	52.6	67.0	34.8	0.0	31.6
Breast	C50*	415	138	75	63	97	42	50.0	64.5	55.5	50.3	37.1
Cervix	C53*	377	146	84	66	59	22	36.5	34.3	49.9	26.2	31.2

*\* random sample of total cases*

**Table 5. Proportion of cases and 5-year absolute survival by extent of disease and site: Manila, Philippines, 1994–1995**

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*	145	33.8	33.1	17.9	15.2	68.9	34.3	0.0	29.2
Rectum	C19-20*	103	34.0	27.2	15.5	23.3	56.0	26.4		23.1
Breast	C50*	415	31.6	46.5	12.8	9.2	73.5	42.0	3.2	42.2
Cervix	C53*	377	21.5	30.5	10.3	37.7	63.1	29.9	7.1	28.2

*Dis. met.: distant metastasis; \* random sample of total incident cases*