

Chapter 19

Breast cancer survival in Rizal, Philippines, 1996–1997

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Abstract

The department of health-Rizal cancer registry (DOH-RCR) was the first population-based cancer registry in the Philippines, established in 1974. Even though cancer is reportable by legislation, cancer registration is pursued by active methods. Data on survival from cancer of the breast registered in 1996–1997 are reported. Follow-up was carried out by passive and active methods. The proportion of cases with a histological confirmation of cancer diagnosis was 90%; death certificates only (DCOs) constituted 6%; 81% of the total registered were included for the survival analysis. Complete follow-up at five years from the incidence date was 30%. Relative survival rates at one, three and five years were 89%, 56% and 37%, respectively. Five-year age-standardized relative survival was 35%. Five-year relative survival by age group did not display any pattern or trend, and was fluctuating. A majority of cases were diagnosed with a regional spread of disease (44%) followed by localized stage (17%). Five-year absolute survival rates by extent of disease were localized (65%), regional (35%), distant metastasis (12%) and unknown (35%). The trend of 5-year survival for breast cancer decreased from 46% in 1987 to 37% in 1996–1997.

Rizal cancer registry

The Department of Health-Rizal Cancer Registry (DOH-RCR) was the first population-based cancer registry in the Philippines to be established in 1974 as one of the activities of the Community Cancer Control Programme of the province of Rizal. It is based at the Rizal Medical Centre, and data collection on incident cases has been in place since 1978. DOH-RCR contributed data to the quinquennial IARC publication *Cancer Incidence in Five Continents* in volumes V, VI and VIII [1]. Even though cancer is reportable by legislation, an active method of cancer registration is being pursued [2]. The sources of registration include hospitals in the government and private sectors, consultants, pathology laboratories and imaging centres. Data are collected from the records maintained at these places. The registry covers an area of 1387 km² and caters to a mixed urban and rural population of about 5.9 million in 2000 with a sex ratio of 970 males to 1000 females. The average annual age-standardized incidence rate is 178 per 100 000 among males and 167 per 100 000 among females with a lifetime cumulative risk of one in 5 of developing cancer for both sexes in the period 1993–1997. The top-ranking cancers among males are lung followed by liver and prostate. Among females, the order is breast, cervix and lung.

The registry contributed data on survival from 11

cancer sites or types in the first volume of the IARC publication on *Cancer Survival in Developing Countries* [3]. Data on survival from cancer of the breast registered in 1996–1997 are presented in the current volume.

Data quality indices (Table 1)

The proportion of cases with histological confirmation of cancer diagnosis in this series is 90%, and death certificates only (DCOs) constituted 6%. Cases without any follow-up information represent 11%. Thus, 1299 (83%) out of 1570 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 passive and active methods. These included collection of cancer mortality information from local civil registry offices in the municipalities and metropolitan Manila and Rizal provinces. 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 31st December 2002.

The median follow-up was 6 months. Complete follow-up at five years from the incidence date was 30%. The losses to follow-up generally occurred in large numbers in the first year of follow-up and decreased through successive intervals of follow-up time. Though the losses to follow-up have been ascertained to be random, the high magnitude of incomplete follow-up at 5 years from diagnosis may introduce a bias in the estimation of survival probability.

Survival statistics

All ages and both sexes together (Table 3)

The relative survival probabilities of breast cancer at 1-, 3- and 5-year from the incidence date are 89%, 56% and 37%, respectively. The age-standardized relative survival for all ages together is 35%, while the corresponding figure for 0–74 years of age is 40%.

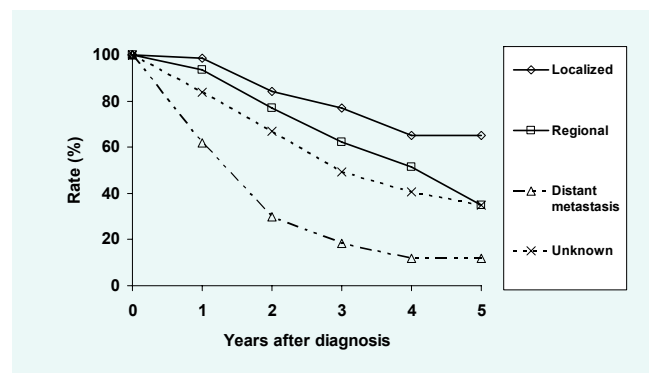
Age group (Table 4b)

The 5-year relative survival of breast cancer by age group did not display any pattern and was observed to be fluctuating with increasing age groups.

Extent of disease (Table 5)

A majority of breast cancer cases were diagnosed with a regional spread of disease (44%) followed by localized stage (17%). Distant metastasis accounted for 10%, while the extent of disease is unknown in 29%. The 5-year absolute survival rates by extent of disease were localized (65%), regional (35%), distant metastasis (12%) and unknown (35%).

Figure 1. Absolute survival (%) from breast cancer by extent of disease, Rizal, Philippines



Survival trend (Table 6)

The data on trend in survival from breast cancer is available for two periods of time: 1987 [3] and 1996–1997. The 5-year relative survival in 1987 is 46% compared to 37% in 1996–1997.

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. Laudico AV, Esteban D and Parkin DM. *Cancer in the Philippines: IARC Technical Report No. 5*. IARCPress, Lyon, 1989.
3. Esteban D, Ngelangel C, Lacaya L, Robles E and Monson M. Cancer survival in Rizal, Philippines. In: *Cancer Survival in Developing Countries* (eds) R Sankaranarayanan, RJ Black and DM Parkin. IARC Scientific Publications No. 145. IARCPress, Lyon, 1998, pp 89–100.

Table 1. Data quality indices - Proportion of histologically verified and death certificate only cases, number and proportion of included and excluded cases by site: Rizal, Philippines, 1996–1997 cases followed-up until 2002

Site	ICD-10	Total registered	%		Excluded cases					Included cases	
			HV	DCO	DCO	Follow-up	Others	Total	%	No.	%
Breast	C50	1 570	90.3	5.9	93	174	4	271	17.3	1 299	82.7

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: Rizal, Philippines, 1996–1997 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		
Breast	C50	1 299	341	26.3	958	73.7	52.9	12.4	5.2	3.2	29.5	5.7

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: Rizal, Philippines, 1996–1997 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
Breast	C50	1 299	87.7	54.5	35.2	88.7	56.3	37.3	34.7	39.7

ASRS: age-standardized relative survival

Table 4a. Site-wise number of cases, 5-year absolute and relative survival by sex: Rizal, Philippines, 1996–1997 cases followed-up until 2002

Site	ICD-10	Cases included	Male			Female		
			% 5-year survival			% 5-year survival		
			No.	Abs	Rel	No.	Abs	Rel
Breast	C50	1 299	12	100.0	108.1	1 287	35.0	37.1

Abs: absolute survival; Rel: relative survival

Table 4b. Site-wise number of cases and relative survival by age group: Rizal, Philippines, 1996–1997 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
Breast	C50	1 299	441	415	259	126	58	40.6	28.8	46.7	43.2	0.0

Table 5. Proportion of cases and 5-year absolute survival by extent of disease and site: Rizal, Philippines, 1996–1997

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
Breast	C50	1 299	17.5	43.7	9.9	28.9	65.3	35.0	11.9	34.8

Dis. met.: distant metastasis

Table 6. Comparison of 5-year absolute and relative survival of cases diagnosed between 1987 and 1996–1997, Rizal, Philippines

Site	ICD-10	% 5-year absolute survival		% 5-year relative survival	
		1987	1996–1997	1987	1996–1997
Breast	C50	41.4	35.2	45.6	37.3