

Silva, Neimar de Paula* e De Camargo, Beatriz*.
*Programa de Hematologia e Oncologia Pediátrica-PHOP/INCA.

BACKGROUND

Cancer is one of the leading causes of mortality in the world. Brazil has been accompanying the change of profile in the causes of morbidity and mortality, together with demographic, social and economic transformations. In Brazil, there is no population-based study of national scope that evaluates the place of death of cancer patients.

PURPOSE

This study aims to describe the place of death of patients who died from cancer and its possible predictors in Brazil in the period of 1,996-2,014 according to the different age groups and tumor description (ICD 10th).

MATERIALS AND METHODS

Population-based ecological study using information from the Brazilian Mortality Information System (SIM). The SIM database was obtained through the data science platform applied to health - FIOCRUZ. The study sample counts with 2,800,703 individuals (Fig. 1). Descriptive analyzes will be performed, followed by association tests with sociodemographic variables, with the outcome of the individuals' death. All statistical analyzes will be performed through R software.

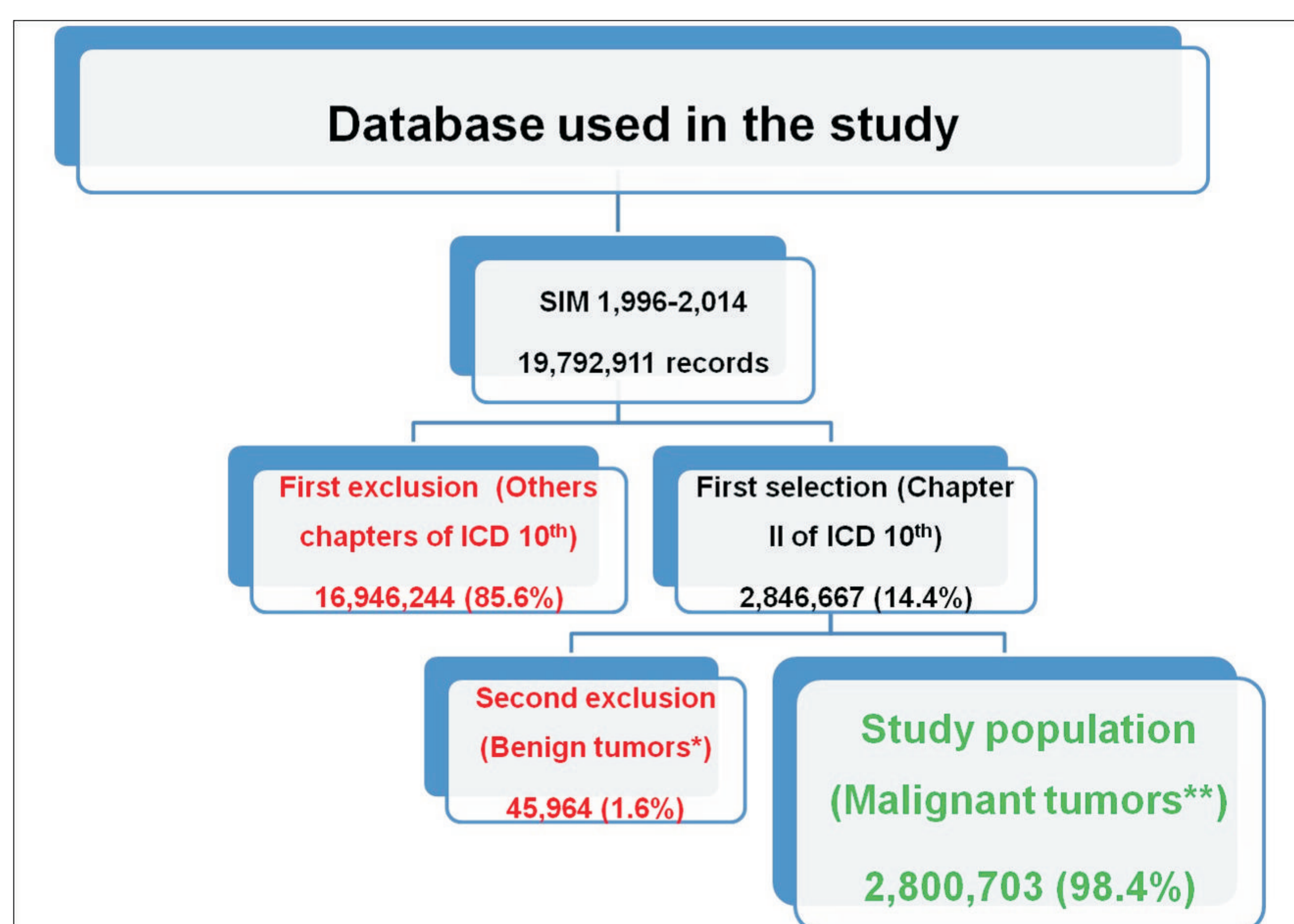


Figure 1: Flowchart of record's selection within the SIM database.

* (D00-D45, D47-D89)

** (C00-C97, D46)

PRELIMINARY RESULTS

The major place of death from cancer in Brazil was in a hospital (78.7%) in this period. The hospital death's rate decreased with the raise of patient's age. The study population is almost equal related to gender; male represents 53.8% and female 46.1%. When we analyze according to age ranges only among 31-60 years female was slightly higher than male (50.8% vs. 49.1%). Southeast region has the higher number of patients who died from cancer. According to age deaths from cancer in South and Southeast regions had an increase in deaths according to the older age group. On the other hand, in North, Northeast and Midwest region a decrease in deaths was observed according to increasing age. (Table 1).

Table 1. Socio-demographic characteristics of patients who died from malignant tumors, Brazil 1,996-2,014.

		Age Range (years)				
		All ages n(%)	≤ 15 n(%)	16-30 n(%)	31-60 n(%)	≥ 61 n(%)
Gender	Female	1,293,981(46.1)	16,963 (44.7)	29,001 (46.3)	448,762 (50.8)	799,255 (44.0)
	Male	1,506,382(53.8)	20,951 (55.2)	33,479 (53.6)	434,018 (49.1)	1,017,934 (55.9)
	Ignored	340(0.1)	8 (0.1)	4 (0.1)	97 (0.1)	231 (0.1)
Geographic region	North	112,659 (4.0)	3,404 (9.0)	4,691 (7.5)	40,640 (4.6)	63,924 (3.5)
	Northeast	525,419 (18.8)	10,557 (27.8)	15,901 (25.4)	166,309 (18.8)	332,652 (18.3)
	Southeast	1,423,329 (50.8)	15,231 (40.2)	27,088 (43.3)	441,339 (50.0)	939,671 (51.7)
	South	573,702 (20.5)	5,688 (15.0)	9,983 (16.0)	177,581 (20.1)	380,450 (20.9)
	Midwest	165,594 (5.9)	3,042 (8.0)	4,821 (7.7)	57,008 (6.5)	100,723 (5.5)
Place of death	Home	509,106 (18.1)	2,183 (5.8)	5,703 (9.1)	124,416 (14.1)	376,804 (20.7)
	Hospital	2,205,566 (78.7)	35,049 (92.4)	55,397 (88.7)	732,386 (82.9)	1,382,734 (76.1)
	Other health establishment	47,624 (1.7)	206 (0.5)	625 (1.0)	14,645 (1.7)	32,148 (1.8)
	Others	22,894 (0.8)	218 (0.6)	353 (0.6)	6,134 (0.7)	16,189 (0.9)
	Public highway	6,726 (0.2)	131 (0.3)	190 (0.3)	2,406 (0.3)	3,999 (0.2)
	Ignored	8,787 (0.3)	135 (0.4)	216 (0.3)	2,89 (0.3)	5,546 (0.3)

The 5 top sites of malignant tumors that culminated with death in Brazil differs between age group (Table 2).

Table 2. Top sites of malignant tumors that culminated with death according to age range, Brazil 1,996-2,014.

ICD 10 th	Age Range (years)			
	≤ 15	16-30	31-60	≥ 61
Leukemia	Leukemia	Leukemia	Breast	Lung
CNS	CNS	CNS	Lung	Prostate
Adrenal tumors	Lymphoma	Lymphoma	Stomach	Stomach
Renal tumors	Osteosarcoma	Osteosarcoma	Uterine cervix	Breast
Lymphoma	Uterine cervix	Uterine cervix	Esophagus	Intestine

PERSPECTIVES

Knowledge of the associations between sociodemographic characteristics and place of death may point to gaps in the care of patients with cancer and suggest improvements in care for this population and their families, as well as to promote the rationalization of resources.

ACKNOWLEDGMENTS:

To INCA