

# Should we reconsider the age to start the screening for breast cancer in Colombia?

**Authors:** Andres Felipe Valencia Cardona.<sup>1</sup> Paola Collazos.<sup>2</sup> Luz Stella García.<sup>2</sup> Jhoan Sebastián Cruz Barbosa.<sup>1</sup> Miryam Patricia Vásquez Camacho.<sup>1</sup> Luis Eduardo Bravo.<sup>1 y 2</sup>  
<sup>1</sup> Universidad del Valle, Department of Pathology. Cali, Colombia. <sup>2</sup> Universidad del Valle, Cancer Population Registry, Cali, Colombia



**Background:** Breast cancer is the most frequent malignancy in Colombian women. By 2020, there were 15,000 new cases and 4,450 deaths; 30% of cases and 20% of deaths occur in people under 50 years of age. Currently, opportunity screening is performed with two-projection biennial mammography; starting at age 50 and continuing until age 69.

**Objective:** To evaluate the behavior of breast cancer in women under 50 years of age in Cali and the relevance of lowering the age of initiation of screening.

**Methods:** The information on incidence, mortality and net survival (Pohar-Perme) was obtained from the population registry of Cancer of Cali, between 1962 and 2017.

## Results

### Trend in incidence and mortality rates

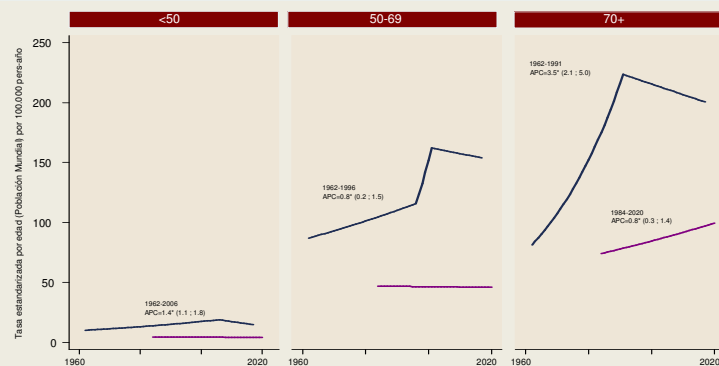


Figure 1. Cali. Colombia. The incidence rates of breast cancer in those under 50 years of age increased by an annual average of 0.9 (95% CI 0.6; 1.2); and in the subgroup under 40 years of age, by 1.1 (95% CI 0.7; 1.5). Mortality rates remained stable, suggesting greater detection in early stages

### Distribution of breast cancer from 1962 to 2017

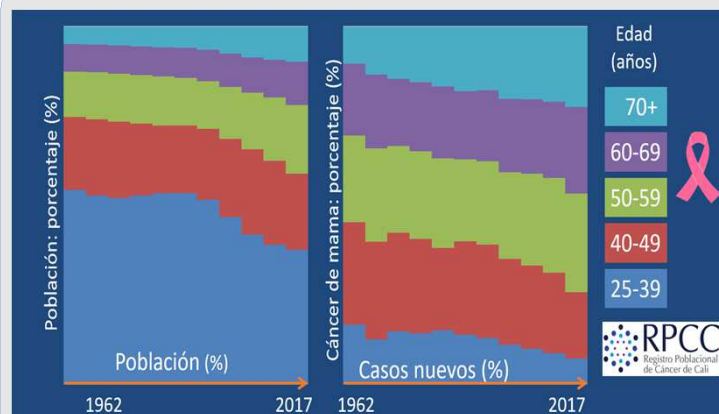


Figure 2. Cali. Colombia. Cali's population is aging and there is currently one adult over 65 for every two children under 15. In the sixties of the last century, 45% of breast cancers occurred in people under 50. Now (2013-2017), one in four women diagnosed with breast cancer is diagnosed in those under 50.

### Age of breast cancer screening in different regions

Regions	Age of breast cancer screening in different regions			Life expectancy years	Age of initiation of screening	GPC update year
	incidence rates x 100,000 per/year**	Relative risk	Age-standardized rate 2020			
Chile *	6,8	102,4	15,1	80,7	40	2021
Costa Rica**	6,1	135,5	22,2	80,4	50	2015
Ecuador**	7,3	103,7	14,2	78,4	40	2017
Colombia**	9	131,7	14,6	77,4	50	2013
México**	8,3	108,8	13,1	75,3	40	2017
Argentina **	9,2	208,8	22,7	75,4	50	2015
Brasil **	10,1	172	17,0	75,9	40	2021
EEUU (Taskforce)**	13,2	254,3	19,3	78,5	40	2016
España**	14	212,4	15,2	83,2	50	2018
Reino Unido*	11	250,5	22,8	81,4	50	2021
Union europea**	11,1	194,1	17,5	82	45	2022
África**	8,2	103,4	12,6	60	50	2017

\*\* Triannual periodicity \*\* Biannual periodicity \*\*\* Age-standardized rate 2020

Table 1. The age of initiation of screening in the different regions is not related to the relative risk of breast cancer by age group or life expectancy.

**Conclusions:** It is not necessary to reevaluate the age of initiation of breast cancer screening. The increase in population aging causes the group of women under 50 to be reduced.