

Changes in the Epidemiological Burden of Breast Neoplasms in Colombia after the Cancer Control Model

ISPOR 2024
May 5-8, 2024 | Atlanta, GA, USA

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OBJECTIVE

To determine changes in the epidemiological burden of breast neoplasms in Colombia after the implementation of the "Model for Cancer Control".

METHODS

Interrupted time series study. 70,899 deaths were analyzed, from 1990 to 2019, with basic cause codes: 174.0-174.9 (ICDO9) and C50.0-C50.9 (ICDO-10), from the Departamento Administrativo Nacional de Estadísticas (DANE). Age-adjusted mortality and incidence rates (derived) were calculated by the direct method and their annual percentage variations. Using SPSS V24®, the ARIMA Model (Auto Regressive Integrated Moving Average) was used to determine the existence of significant changes in rates, taking as the "interruption point": 2006, year from which the "Model for Cancer Control" began to be implemented in Colombia.

RESULTS

The age-standardized incidence and mortality rates x 100,000 went from 29.2 to 39.4 and from 11.1 to 16.1, respectively, with a net percentage change of 34.9% and 45%. The ARIMA model estimates confirmed the increasing trend in the two indicators, but this was only significant ($p < 0.05$) for mortality. When considering the percentage variation 1990-2005 vs 2006-2019, the differences in the proportions were significant for Incidence: 9.9% to 20.1% ($p: 0.045$), but not for mortality: 19.8% -22% ($p: 0.86$).

CONCLUSIONS

A significant increase in the incidence of breast cancer was found, which may be due, among other factors, to the greater detection of this disease due to the regulatory changes promoted by the Cancer Control Model, but this was not accompanied by a decrease in mortality. Thus, comprehensive risk management, prevention, and early detection in early stages must be intensified.