

MORTALITY ANALYSIS OF CERVICAL CANCER IN NORTHERN BRAZIL (2019-2023): TRENDS, INEQUALITIES, AND PREVENTION CHALLENGES

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Introduction: Cervical cancer is the leading cause of cancer-related deaths among women in the Northern Region of Brazil. This neoplasm originates in the cells of the cervix, the lower part of the uterus that connects the organ to the vagina. It is frequently associated with persistent infection by the Human Papillomavirus (HPV), a sexually transmitted virus. It is the third most common cancer among women, particularly in developing countries, excluding non-melanoma skin cancers. Incidence rates vary according to the states in the country. The Northern Region presents the highest crude rate, with 20.48 cases per 100,000 women. **Objectives:** To examine cervical cancer mortality in Brazil's Northern Region from 2019 to 2023, emphasizing temporal trends, geographic disparities, and prevention barriers. **Methods:** This descriptive and retrospective epidemiological study examined cervical cancer mortality in the Northern Region of Brazil between 2019 and 2023. Data were obtained from the Mortality Information System (SIM/TABNET-DATASUS), considering deaths coded as C53 (ICD 10). The data were organized by year and state of residence and analyzed descriptively. **Results:** Between 2019 and 2023, a total of 4,532 cervical cancer deaths were recorded in Brazil's Northern Region, corresponding to a cumulative mortality rate of 9.74 per 100,000 women. Middle-aged women bore the greatest burden: those aged 40–49 years accounted for 24.6% of deaths, and the 50–59 year group for 22.8%, while women aged 20–29 years were least affected (3.1%). Geographically, state-level disparities were pronounced. In 2022—the year with the highest observed rate—Amapá reached 20.78 deaths per 100,000 women, Amazonas 20.66, and Pará 20.01, each substantially exceeding the overall regional rate of 9.74. These figures underscore persistent inequalities in access to early detection and care across the Northern states. By race/skin color, mixed-race (parda) women comprised 78.6% of all cervical cancer deaths, followed by white women (15.4%), Black women (4.2%), and Indigenous women

(1.8%). All 4,532 fatalities occurred among women—a reflection of the disease’s sex-specific nature and of broader social and racial inequities in health outcomes. Together, these data reveal an alarming cumulative burden of cervical cancer across the Northern Region, heavily concentrated among middle-aged and mixed-race women, and marked by stark inter state disparities. These findings highlight the critical need to expand organized screening, strengthen HPV vaccination coverage, and ensure equitable access to oncologic care throughout the region. **Conclusion:** The five-year period saw 4,532 cervical cancer fatalities in Brazil’s Northern Region—a cumulative mortality rate of 9.74 per 100,000 women—disproportionately impacting those aged 40–59 years and mixed-race individuals. Marked inter-state disparities, with rates in Amapá, Amazonas, and Pará exceeding twice the regional average, reveal critical gaps in early detection and treatment access. To reduce this preventable burden, organized cytological screening programs must be expanded, HPV vaccination coverage intensified, and healthcare infrastructure bolstered in underserved states, with strategic outreach to socially and racially marginalized populations.

Keywords: Cervical cancer; mortality; epidemiology.