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The Cancer Control Challenge:
Better Understanding It to Better Face It

GEOGRAPHIC DISTRIBUTION OF PROSTATE CANCER INCIDENCE AND MORTALITY IN BRAZIL FROM 2013 TO 2023

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Introduction: Prostate cancer is the most commonly diagnosed malignant neoplasm and one of the leading causes of death among the male population in Brazil. Given the disease's prevalence, this study proposes an analysis of the geographic distribution of incidence and mortality throughout the national territory, focusing on identifying regional variations and areas of greater vulnerability. **Objectives**: Collect data on deaths and hospitalizations due to prostate cancer, as well as general data on deaths and hospitalizations, by region of Brazil, from 2013 to 2023, analyzing them for regional disparities in the occurrence of the disease, hospitalization rates, and access to treatment. **Methods**: This is a cross-sectional, retrospective, and quantitative study. Data were obtained from the Mortality Information System (SIM) and the Hospital Information System (SIH), accessed via TabNet, from the Department of Informatics of the Unified Health System (DATASUS). The collected data include the number of hospitalizations—used as a proxy variable for estimating incidence—and the number of deaths—used to calculate mortality—due to malignant neoplasm of the prostate, covering the all five geographic regions of Brazil from January 2013 to December 2023. The data were then analyzed by comparing these figures with the overall rates of deaths and hospitalizations recorded in the same period. **Results**: The main findings include: In the North Region, 9,643 deaths from prostate cancer were recorded, accounting for 1.6% of the total 596,388 deaths in the region, along with 9,680 hospital admissions related to the disease, representing 0.2% of the total 4,114,850 admissions. In the Northeast, there were 47,295 deaths (2% of 2,275,342) and 84,251 hospitalizations (0.6% of 13,442,671). The Central-West Region recorded 12,271 deaths (2% of 609,655) and 20,331 hospitalizations (0.4% of 4,255,575). In the Southeast Region, 71,865 deaths were reported (1.8% of 3,792,116) and 177,259 hospitalizations (0.8% of 21,651,238). Finally, the South Region reported 29,048 deaths (2.2% of 1,304,289) and 53,617 hospitalizations (0.5% of 9,927,470) **Conclusion**: It was concluded that the percentages of deaths due to prostate cancer were higher in the South, Central-West, and Northeast regions, while hospitalizations were more frequent in the Southeast and Northeast regions, which may indicate better access to treatment in these latter areas. In the North region, there is a close similarity between the number of deaths and hospitalizations due to malignant neoplasm of the prostate. This pattern is also observed in the South region, which presents the highest

proportion of deaths from the disease but a low percentage of hospitalizations. These data may indicate failures in early diagnosis and inadequate medical infrastructure, hindering favorable outcomes in cases of malignant prostate neoplasms. Therefore, the implementation of public health policies focusing on prevention and treatment is recommended.

Keywords: Prostate cancer; epidemiological analysis; regional variations.