

## **ANALYSIS OF THE INCIDENCE AND COVERAGE OF BREAST CANCER SCREENING PROCEDURES IN THE NORTH AND NORTHEAST REGIONS BETWEEN 2015 AND 2024**

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**Introduction:** Breast cancer is one of the most prevalent malignant neoplasms among women, representing a significant public health problem in both developed and developing countries. Early detection of the disease, particularly through mammography, is one of the most effective strategies for reducing its mortality, allowing the identification of lesions at early stages and enabling less aggressive treatments for patients. However, Brazil exhibits significant regional disparities in access to healthcare services, especially in the North and Northeast regions, which are historically marked by lower socioeconomic development and consequent health disadvantages. **Objectives:** To analyze the incidence of breast cancer and the coverage of screening procedures in the North and Northeast regions. **Methods:** This is a cross-sectional epidemiological study with a quantitative approach, based on data analysis obtained from the Departamento de Informática do Sistema Único de Saúde (DATASUS), focusing on the North and Northeast regions from 2015 to 2024. The study identifies the number of mammograms performed and their association with the incidence of malignant breast neoplasms during the specified period. **Results:** According to data from the Sistema de Informações Ambulatoriais do SUS (SIA/SUS), a total of 92,480 mammograms were performed in the North region and 527,875 in the Northeast region. During this period, 20,216 diagnoses of malignant breast neoplasms were recorded in the North and 131,548 in the Northeast, based on information from the Oncology Panel Brazil/DataSUS. The detection rate of malignant neoplasms was 21.86% in the North and 24.92% in the Northeast. These results demonstrate a notable diagnostic rate derived from screening examinations, reinforcing their importance in the early detection of breast cancer. Most diagnoses occurred among women over 40 years of age, according to the distribution of cases by age group. In the North region, the groups with the highest number of records were those aged 40–49 years, with 5,487 cases, followed by those aged 50–59 years, with

5,443 cases, and 60–69 years, with 3,943 cases, showing progressive reductions in higher age ranges. In the Northeast, the pattern was similar, with the highest concentrations in the age groups of 40–49 years (29,406 cases), 50–59 years (32,916 cases), and 60–69 years (24,972 cases). This concentration of diagnoses aligns with the ages at which mammographic screening is most recommended. **Conclusion:** A lower rate of diagnoses and mammograms was observed in the North region compared to the Northeast, which may be associated with factors such as a smaller female population in the North, as well as reduced accessibility and awareness of screening methods for neoplasia. Nevertheless, in the Northeast, screening through mammography has shown positive results, indicating active search and prevention among women. This highlights the need for continuous public awareness through policies that encourage medical follow-up and discussions on breast cancer in the regions mentioned.

**Keywords:** Breast neoplasms; Epidemiology.