

<https://doi.org/10.29289/259453942025V35S1104>

Epidemiological analysis of the main diagnostic tests for breast cancer (mammography, cytology, and histopathology) in Brazil from 2021 to 2024

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Objective: To analyze the distribution of mammography, cytology, and breast histopathology in Brazil between 2021 and 2024, considering race/ethnicity and age group. **Methods:** This is a cross-sectional descriptive study analyzing mammography, cytology, and breast histopathology in Brazil from 2021 to 2024. Data were extracted from the Department of Informatics of the Unified Health System (DATASUS), considering race/ethnicity and age group. **Results:** Analysis of the Cancer Information System (SISCAN) recorded 161,050 breast histopathology cases, with over half in women aged 40–59 years. Peak incidence occurred among those aged 45–49 (13.8%), with prevalence increasing with age. Most cases involved white women (40.04%), followed by Asian (yellow) (34.5%) and mixed-race (*parda*) (15.4%); Indigenous women accounted for only 0.1%. Procedures increased 69.0%, from 28,094 in 2021 to 47,945 in 2024. In the same period, 41,200 breast cytology exams were performed, mainly in women aged 45–49 (6,792), followed by those 40–44 (6,312) and 50–54 (5,379). The Asian population was the most examined (38.8%), followed by white (28.3%) and mixed-race women (19.1%); Indigenous women accounted for only 0.08%. Over 9.2 million mammograms were performed, mainly in women aged 50–69, with relevant numbers among those 45–49 years old. White women were most frequently screened (44.58%), followed by Asian (31.85%) and mixed-race (15.2%). The high rate of incomplete race/ethnicity records (3.95%) indicates a need to improve data quality. **Conclusion:** The increased number of exams reflects greater screening adherence, but access inequalities persist, especially among Indigenous and Black populations. Inconsistent race/ethnicity records highlight the need to improve data collection to support more effective public health policies.

Keywords: breast neoplasms; epidemiology; diagnosis.