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## ***Association Between Mammogram Access, Racial Disparities, and Breast Cancer Incidence and Mortality Among Women in the United States: A Population-Based Analysis***



**Introduction:** Breast cancer is the most common cancer among women in the United States, with significant disparities based on race and geographic location. This study aims to analyze how access to mammograms affects breast cancer incidence and mortality rates across different states, focusing on racial disparities.

**Methods:** A population-based analysis was conducted using 2020 data from the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH). Data on breast cancer incidence and mortality rates, as well as mammogram access for women aged 50-74, were collected. Geographic patterns were identified using Quantum Geographic Information System (QGIS), and descriptive statistics were employed to explore the relationships between mammogram access, breast cancer incidence, and mortality rates.

**Results:** The study identified that breast cancer incidence and mortality rates were notably higher in the Southeast region of the United States. Higher mammogram access was associated with lower breast cancer mortality rates. Additionally, Black women experienced significantly higher mortality rates compared to White women, highlighting racial disparities.

**Conclusions:** Improved access to mammograms is linked to reduced breast cancer mortality rates, emphasizing the need for targeted interventions to enhance mammogram availability. The findings underscore significant racial disparities and geographic variations in breast cancer outcomes. Addressing these issues could lead to better public health outcomes and reduced disparities.