

Multi-Site Analysis Reveals Age-Associated Disparity in Screening Mammography Adherence During Covid-19 Pandemic

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Background

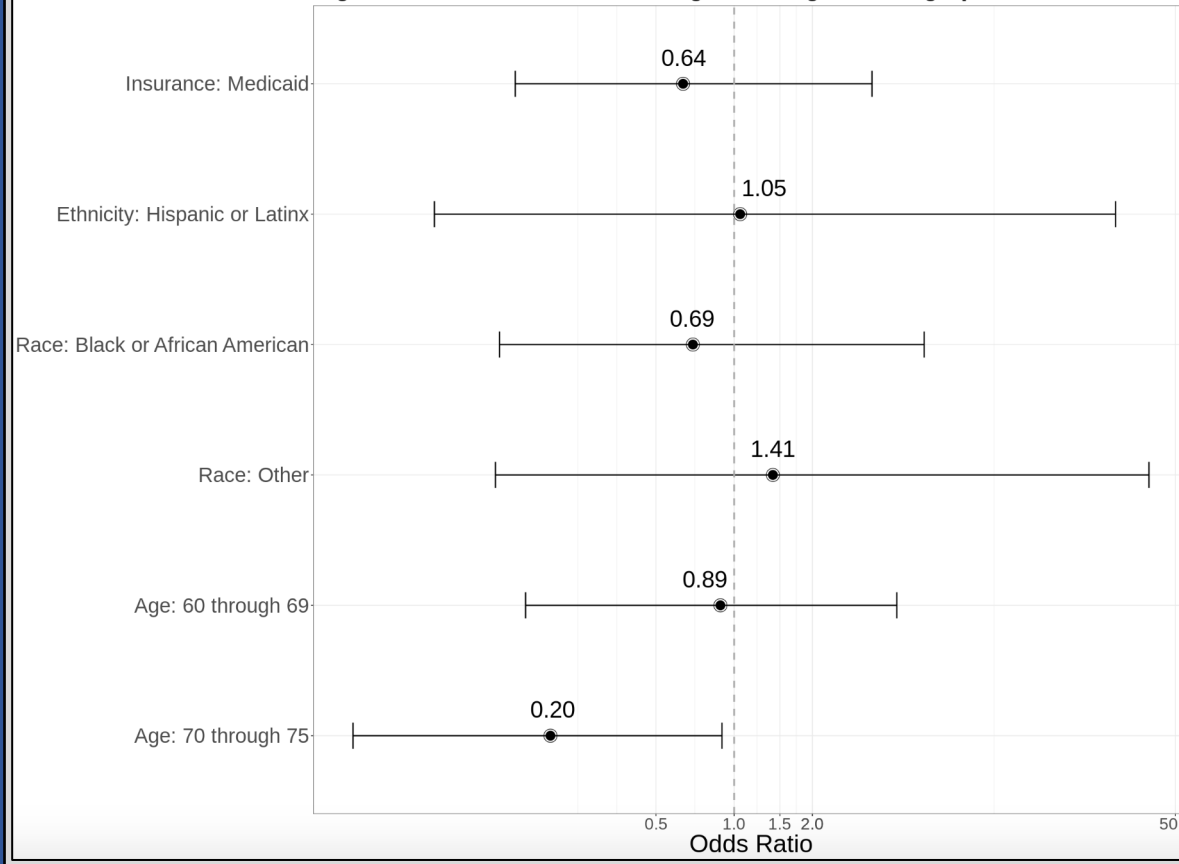
Most recent USPSTF guidelines for breast cancer screening recommend biennial mammography for women aged 50-74¹. Benefits for increased screening include decreased mortality and reduced healthcare costs^{1,2,3}. The purpose of this study was to determine if any demographic disparities exist across five primary care clinics across Connecticut regarding adherence to USPSTF guidelines.

Methods

A retrospective chart review was performed at five primary care offices in southern Connecticut. Women aged 50 to 75 years with appointments scheduled at the included sites between June 15th and June 30th 2022 were included in the study; the only exclusion criterion was a lack of health insurance.

We used multivariate logistic regression to model the odds of having an up-to-date screening mammogram using age, race, ethnicity, and insurance status as covariates. The reference categories were: “50 through 59 years” for age, “White” for race, “Not Hispanic or Latinx” for ethnicity, and “Non-Medicaid” for insurance.

Figure 1: Likelihood of screening mammogram being up to date



References:

1. Siu, Albert L, and U.S. Preventive Services Task Force. "Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendation Statement." *Annals of internal medicine* vol. 164,4 (2016): 279-96. doi:10.7326/M15-2886
2. Blumen, Helen et al. "Comparison of Treatment Costs for Breast Cancer, by Tumor Stage and Type of Service." *American health & drug benefits* vol. 9,1 (2016): 23-32.
3. Subramanian, Sujha et al. "Cost of breast cancer treatment in Medicaid: implications for state programs providing coverage for low-income women." *Medical care* vol. 49,1 (2011): 89-95. doi:10.1097/MLR.0b013e3181f81c32

Results

A total of 80 participants (mean age 63.09, SD 6.84) were included in the study. Among the investigated demographic factors, only age significantly impacted the odds of having an up-to-date screening mammogram (see Figure 1). Specifically, women aged 70 through 75 years were only 20% as likely to have an up-to-date mammogram as women aged 50 through 59 years [odds ratio 0.20; 95% confidence interval (0.03, 0.90)].

Discussion

Given the considerable overlap of our study window with the timeline of the COVID-19 pandemic, we propose that these findings may be largely influenced by the circumstances of the pandemic. Like all participants included in the study, the oldest subset of participants had to weigh the risks of foregoing health maintenance screening versus the risk of encountering COVID-19 exposure in a healthcare setting; however, given the increased prevalence of pertinent comorbidities in this population, it's possible that delaying screening seemed more viable to this subset of participants.

Further research with a larger sample size, as well as interventions aimed at increasing screening adherence in this population, are warranted. Proposed interventions include continued encouragement for COVID-19 vaccination; continued counseling on the importance of health maintenance screening; and sending targeted appointment reminders via medical record, phone, or mail.