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Title

Reducing disparities in breast cancer screening: intersecting community, clinical care, and health systems science

Priority 1 (Research Category)

Screening, prevention, and health promotion

Presenters

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Abstract

CONTEXT: Mammography is an evidence-based strategy that can reduce morbidity and mortality and improve quality of life. Annually, over 30% of eligible women are not screened. Evidence shows that patient navigation using clinical decision support with predictive modeling can improve cancer screening rates. Integrating patient geosocial information provides care navigators a better view about risk of breast cancer screening nonadherence. OBJECTIVE: To assess the personal, health system, and geosocial risk factors of breast cancer screening nonadherence. DESIGN AND SETTING: Retrospective longitudinal design performed at a regional academic health system in southcentral Pennsylvania. DATASET: Data were extracted from the health system's electronic health record database. Home address was geocoded and linked to a census block group code to extract Census statistics at neighborhood-level socioeconomic measures. POPULATION STUDIED: Women aged 50-74 years meeting USPSTF breast cancer screening guidelines. Women had a primary care provider and at least one primary care visit from 1 January 2021 through 31 December 2022. OUTCOME MEASURE: Breast cancer screening event. RESULTS: Of 20,302 patients, 6,392 (31.5%) did not have breast cancer screening. Women with increased cancer risk were 4.3 times more likely to be screened. English speakers had 1.26 times greater screening rates than non-English speakers. Hispanic women were 80% more likely to be screened than non-Hispanic women while Native Americans/Pacific Islanders were 46% less likely to be screened than Whites. Screening of Blacks and Asians were not different from Whites. Likelihood of breast cancer screening was lower among Medicare (18%), Medicaid (38%), and uninsured patients (77%) compared to commercially insured. Patients with history of office no-shows were 20% less likely to be screened, as where women with multiple chronic conditions. The screening likelihood for persons living more socioeconomic-challenged neighborhoods were lower, with no difference found between rural and urban areas. Increased distance to imaging facilities decreased screening rates. CONCLUSION: Breast cancer screening nonadherence is affected by personal, health system, and geosocial contexts. Future studies to improve breast cancer screening rates should develop personalized interventions targeting atrisk populations identified in the analysis. Hispanic women have higher screening rates in this population than nationally.