

The Impact of Social Determinants of Health on Breast Imaging Utilization

Saturday, December 5, 9:00 AM – 5:00 PM CT | SSB01-06 | On Demand Paper (3 minutes)

PURPOSE

While social determinants of health (SDH) are thought to be associated with health outcomes, there is limited literature on the direct impact of SDH on delays in breast cancer diagnosis via breast imaging. The association of SDH with time from screening mammography to diagnostic imaging and from diagnostic imaging to biopsy was evaluated to assess for potentially delayed breast cancer diagnosis.

METHOD AND MATERIALS

This retrospective study was IRB approved and HIPAA compliant. Informed consent was waived. 4959 patients who underwent screening mammography between January 2015 and December 2018 were assessed for timing of required diagnostic imaging due to a Breast Imaging Reporting and Data System (BI-RADS) category 0, of which 1524 patients had complete SDH data (30.7%). 3028 patients with suspicious diagnostic imaging (BI-RADS category 4 or 5) in the study period were assessed for timing of the recommended biopsy, of which 814 patients had complete SDH data (26.9%). SDH were extracted from electronic medical records from October 2017 to December 2018. Associations between imaging/biopsy timing and 8 explanatory SDH variables were assessed with multivariate Cox proportional hazard modeling and demographic data.

RESULTS

Of 1524 patients in multivariate analysis, 56.2% are Black, 18.2% are White, and 25.6% are other races/unknown. 16.5% are Hispanic. Mean age is 59.1. Food ($p<0.001$) and housing ($p<0.001$) insecurity were associated with increased lapses between diagnostic imaging and biopsy. Paradoxically, ≥ 1 SDH ($p<0.001$) and inadequate access to transportation ($p=0.0016$) were associated with decreased lapses between diagnostic imaging and biopsy.

CONCLUSION

Food and housing insecurity were found to be associated with longer lapses between both diagnostic imaging and biopsy and screening mammography and diagnostic imaging. This finding was only statistically significant for lapse between diagnostic imaging and biopsy. Shorter lapses between diagnostic imaging and biopsy were observed with ≥ 1 SDH and transportation. Comparison to historical SDH metrics and additional analyses with more participants are planned.