

Letter to the Editor

Prevalence and correlates of having had a mammogram in the past two years — women aged 40 years and older in the United States

Madam, American Cancer Society recommends annual mammogram for women aged 40 and over.¹ Breast cancer is the most common type of cancer in women, and second leading cause of cancer mortality in the United States.² Mammograms for screening breast cancer are associated with breast cancer mortality in the United States.³ Yet, disparities exist in minority populations for screening mammography.^{3,4}

To describe association of having had a mammogram in the past two years with education, race, number of days one's physical and mental health reported as not good in the past thirty days, and disabilities in women aged 40 and above who have ever had a mammogram; we used data from the United States, Behavioral Risk Factor Surveillance System (BRFSS), conducted in 2006.⁵ The BRFSS is a collaborative project of the Centers for Disease Control and U.S. states and territories; a telephone survey of the civilian, noninstitutionalized population aged 18 and over. We selected all the White, African American, Hispanic, and those who reported their race as 'other', women respondents aged 40 and over, who responded to the questions of having ever had a mammogram. Women who did not have a mammogram in the past two years were identified as not having a mammogram. A telephone survey was conducted using disproportionate stratified sample design was used for all areas except Puerto Rico and U.S. Virgin Islands where a simple random design was used. Data was weighted to produce nationally representative estimates. Design-based analysis with SUDAAN 9.1 was done using Logistic regression; Odds Ratios (OR) were computed for the association of not having had a mammogram in the past two years with various attributes.

The overall prevalence of not having had a mammogram in the past years was 23%, and 95% Confidence Interval (CI) was 23%, 24% (n = 149537). In White women prevalence was 23%, 95% CI 22%, 23%, among African American it was 22%, 95% CI 20%, 23%, among Hispanic women it was 25%, 95% CI 23%, 27%, and among the 'other' racial group prevalence was 27%, 95% CI 24%, 30%. Compared to women who had graduated from either college or technical school, women who did not finish high school were over twice more likely to not have had a mammogram in the past two years (OR 2.12, 95% CI 1.93, 2.34); women who had finished high school or had attended graduate college or technical school were also more likely to not have had mammogram in the past two

years, (OR 1.45, 95% CI 1.36, 1.55) and (OR 1.26, 95% CI 1.18, 1.35), respectively. Compared to White women, the 'other' racial group women more likely to not have had a mammogram in the past two years (OR 1.29, 95% CI 1.10, 1.52), but African American women were more likely to indeed have had a mammogram in the past two years (OR 0.87, 95% CI 0.80, 0.96), however no statistically significant association was found with Hispanic women. While compared to women who replied negatively to the question of being limited in any way in any of activities owing to mental, physical or emotional problems; women who replied affirmatively were more likely to not have had a mammogram in the past two years (OR 1.08, 95% CI 1.02, 1.15). Finally, women who reported having had one or more days in the past thirty days during which their mental health entailing "stress, depression, and problems with emotions" was not good; those women who replied negatively to this question were more likely have had a mammogram in the past two years (OR 0.85, 95% CI 0.80, 0.89). While no statistically significant association was observed between not having had a mammogram in the past two years and having had one or more days in the past thirty days during which physical health was reportedly not good. Results of Hosmer-Lemeshow Wald goodness-of-fit test concluded that the model was a good fit for the data.

The results of this unique nationally representative survey, demonstrate that compared to White women aged 40 and over, more African American women are responding to preventive health educational messages and having had done a mammogram within the past two years. However, these campaigns need to realign priorities with renewed focus on White as well as other minority women to reduce the morbidity and mortality burden associated with breast cancer. The inverse gradient observed with educational attainment and having had a mammogram in the past two years, perhaps a proxy for social class status, is amply documented and remains a challenge for health educators. Inverse relationship of having mammograms with self-reported disability and having had bad mental health days suggest a need for health educational campaigns targeting these vulnerable segments of populations that would especially benefit from specifically tailored health educational campaigns for these groups; in addition to professional continuing education of primary care physicians and other cadres of health providers.

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