

# Should breast cancer screening guidelines be tailored to a patient's race and ethnicity?

**Yes.** Because women of minority races/ethnicities have an earlier age of onset of breast cancer (45 to 50 years) compared with white women (60 to 65 years), current USPSTF breast cancer screening guidelines to begin biennial mammography screening at age 50 may disproportionately miss the opportunity for diagnosis in these groups.

*Stapleton SM, Oseni TO, Bababekov YJ, Hung YC, Chang DC. Race/ethnicity and age distribution of breast cancer diagnosis in the United States [published online ahead of print March 7, 2018]. JAMA Surg. doi:10.1001/jamasurg.2018.0035.*

## EXPERT COMMENTARY

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**B**reast cancer screening is an important aspect of women's preventative health care, with proven mortality benefits.<sup>1,2</sup>

Different recommendations have been made for the age at initiation and the frequency of breast cancer screening in an effort to maximize benefit while minimizing unnecessary health care costs and harms of screening.

The American College of Obstetricians and Gynecologists (ACOG) and the National

Comprehensive Cancer Network (NCCN) recommend initiating mammography screening at age 40, with annual screening (although ACOG offers deferral of screening to age 50 and biennial screening through shared decision making).<sup>3,4</sup> The American Cancer Society (ACS) recommends offering annual mammography at ages 40 to 44 and recommends routinely starting annual mammography from 45 to 54, followed by either annual or biennial screening for women 55 and older.<sup>1</sup> Finally, the US Preventive Services Task Force (USPSTF) recommends biennial mammography screening starting at age 50.<sup>5</sup> No organization alters screening recommendations based on a woman's race/ethnicity.

## Details of the study

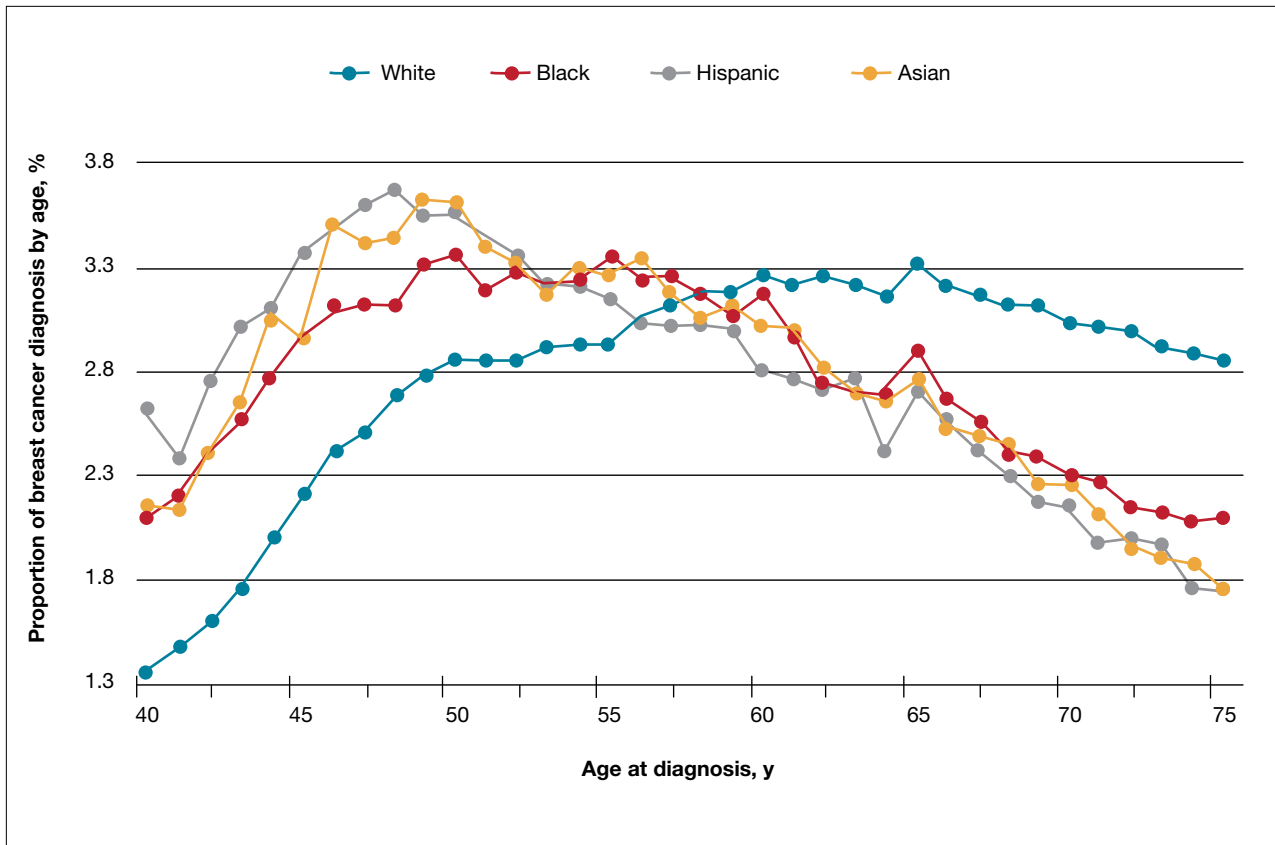
Stapleton and colleagues recently performed a retrospective population-based cohort study using the Surveillance, Epidemiology, and End Results (SEER) Program database to evaluate the age and stage at breast cancer diagnosis across different racial groups in the United States.<sup>6</sup> The study (timeframe, January 1, 1973 to December 31, 2010) included 747,763 women, with a racial/ethnic

## FAST TRACK

*No organization currently alters screening recommendations based on a woman's race/ethnicity*

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FIGURE Distribution of age at diagnosis for women with breast cancer<sup>6</sup>



distribution of 77.0% white, 9.3% black, 7.0% Hispanic, and 6.2% Asian.

The investigators found 2 distinct age distributions of breast cancer based on race. Among nonwhite women, the highest peak of breast cancer diagnoses occurred between 45 and 50 years (FIGURE). By contrast, breast cancer diagnoses peaked at 60 to 65 years in white women.

Similarly, a higher proportion of nonwhite women were diagnosed with their

breast cancer prior to age 50 compared with white women. While one-quarter of white women with breast cancer develop disease prior to age 50, approximately one-third of black, Asian, and Hispanic women with breast cancer will be diagnosed before age 50 (TABLE).

These data suggest that the peak proportion of breast cancer diagnoses in nonwhite women occurs prior to the age of initiation of screening recommended by the USPSTF. Based on these results, Stapleton and colleagues recommend reconsideration of the current USPSTF guidelines to incorporate race/ethnicity-based differences. To diagnose the same proportion of breast cancer cases among nonwhite women as is currently possible among white women at age 50, initiation of breast cancer screening would need to be adjusted to age 47 for black women, age 46 for Hispanic women, and age 47 for Asian women.

TABLE Proportion of breast cancer cases diagnosed by age 50, stratified by race/ethnicity<sup>6</sup>

Race/ethnicity	Breast cancer cases diagnosed by age 50, %
White	24
Black	31
Asian	33
Hispanic	35

### Study strengths and weaknesses

This is a unique study that uses the SEER database to capture a large cross section of the American population. The SEER database is a valuable tool because it gathers data from numerous major US metropolitan areas, creating a diverse representative population that minimizes confounding from geographical trends. Nevertheless, any study utilizing a large database is limited by the accuracy and completeness of the data collected at the level of the individual cancer registry. Furthermore, information regarding medical comorbidities and access and adherence to breast cancer screening is lacking in the SEER database; this provides an opportunity for confounding. ●

### WHAT THIS EVIDENCE MEANS FOR PRACTICE

Approximately one-third of breast cancer cases in nonwhite women, and one-quarter of cases in white women, occur **prior to the age of initiation of screening (50 years) recommended by the USPSTF.**

While some screening organizations do recommend that breast cancer screening be initiated prior to age 50, no organizations alter the recommendations for screening based on a woman's race/ethnicity.

Health care providers should be aware that initiation of breast cancer screening at age 50 in nonwhite women misses a disproportionate number of breast cancer cases compared with white women.

Providers should counsel nonwhite women about these differences in age of diagnosis and include that in their consideration of initiating breast cancer screening prior to the age of 50, more in accordance with recommendations of ACOG, NCCN, and ACS.

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### References

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