

THE IMPACT OF THE REVISED USPSTF SCREENING GUIDELINES ON RACIAL AND ETHNIC DIFFERENCES IN COLORECTAL CANCER SCREENING RATES IN A BOSTON HEALTHCARE SYSTEM

Adjoa Anyane-Yeboah MD MPH, Jennifer Haas MD MSc, Roopa Bhat BS, Suzanne Brodney PhD, Yuchiao Chang PhD, Folasade P. May MD, PhD, MPhil

Category: Consider AGA. Clinical practice categories

Background: Incidence of colorectal cancer (CRC) has been increasing in individuals age < 50 years for the past several decades. This rising incidence prompted the United States Preventive Services Task Force to revise their CRC screening recommendations in May 2021 to include screening individuals age 45 to 49. With this guideline change, there was a sudden increase in the number of screening-eligible individuals. As this younger population is more racially/ethnically diverse than the older population in the US, the sociodemographic characteristics of this “new to CRC screening” population may require different outreach and education. The objective of our study is to evaluate the impact of the updated screening guidelines on screening rates and the characteristics of the unscreened population in a large health system.

Methods: We examined Massachusetts General Brigham (MGB) electronic health record data for individuals eligible for CRC screening between 3/1/2020 and 3/1/2022. We calculated whether age-eligible individuals were up-to-date with CRC, defined by fecal immunochemical test (FIT) or fecal occult blood test (FOBT) within 1 year, FIT-DNA within 3 years, sigmoidoscopy within 5 years, or colonoscopy within 10 years. We examined CRC screening rates at the beginning of the month and compared characteristics of those eligible for screening before and after the updated recommendations.

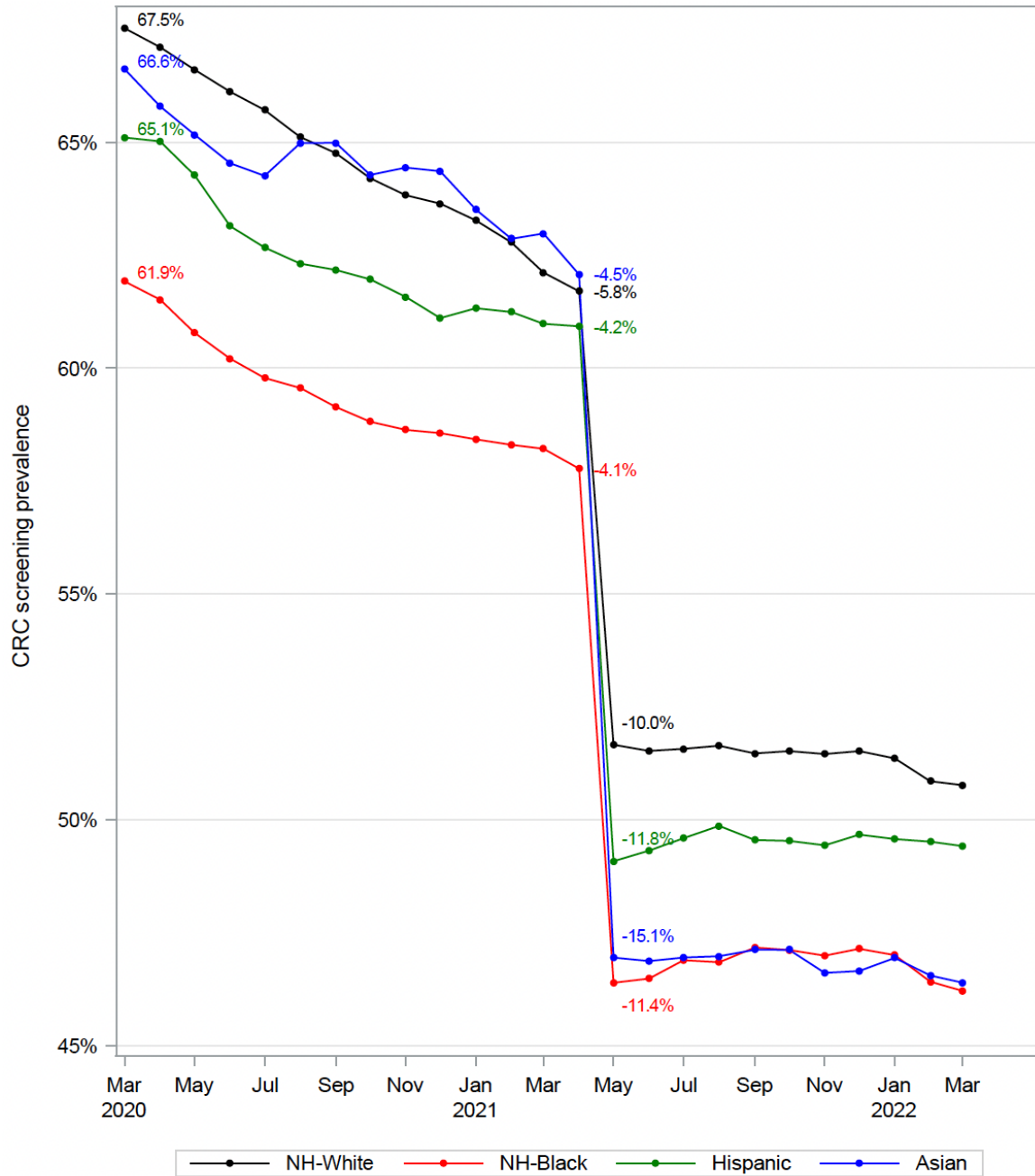
Results: With the implementation of the new recommendations, there was an immediate increase of 4968 screening-eligible individuals (29.3% increase). The increase was greatest for Asian individuals (+39.0%), followed by Black individuals (+33.4%) (**Table**). There were large declines in the percentage of individuals who were up-to-date with CRC screening for all racial/ethnic groups. However, the decline was larger, with a trend towards significance, for Asian individuals (-15.1%) than for White individuals (-10.0%, $p=0.08$). These declines were larger than the decline in up-to-date screening associated with the pandemic, and the rates by race/ethnicity were similar in March 2022, 10 months after the guideline change (**Figure**).

Discussion: After the implementation of the updated CRC screening recommendations in May 2021, screening rates declined sharply for each racial/ethnic group, with the largest decrease in Asian individuals. Our findings also illustrate the increasing diversity of the population eligible for CRC screening with the reduction in the screening age, given the largest percentage increase in eligible individuals occurred in Asian and non-Hispanic Black individuals. As health systems work through the CRC screening backlog created by both these new guidelines and COVID-19, it may be important to utilize targeted and culturally-tailored strategies and education to reach and screen this increasingly diverse newly group of eligible individuals for CRC.

Table. Characteristics of the study population and screening utilization by race/ethnicity

| Patient Characteristic | Pre-Guideline population (April 2021) | Post Guideline population (May 2021) | Absolute difference in number eligible for screening with new guideline* | Percent Difference in those eligible for screening with new guideline |
|--|--|---|---|--|
| Eligible patients | 16,966 | 21,934 | 4,968 | +29.3% |
| Age; mean (sd) | 61.2 (7.0) | 58.2 (8.5) | n/a | n/a |
| High school education or less; n (%) | 5,660 (38.9) | 7,059 (37.5) | n/a | n/a |
| Race; n (%) | | | | |
| Non-Hispanic White | 8958 (52.8) | 11255 (51.3) | +2297 | +25.6% |
| Non-Hispanic Black | 2927 (17.3) | 3904 (17.8) | +977 | +33.4% |
| Hispanic | 1950 (11.5) | 2555 (11.6) | +605 | +31.0% |
| Asian | 754 (4.4) | 1048 (4.8) | +294 | +39.0% |
| Percent up-to-date with screening | | | | |
| Non-Hispanic White | 61.7% | 51.7% | n/a | -10.0% |
| Non-Hispanic Black | 57.8% | 46.4% | n/a | -11.4% |
| Hispanic | 60.9% | 49.1% | n/a | -11.8% |
| Asian | 62.1% | 46.9% | n/a | -15.1% |

Figure. Change in CRC screening prevalence before and after implementation of the 2021 USPSTF CRC screening recommendations; March 2020 to March 2022



***NH= non-Hispanic**