Early detection of breast cancer with screening mammography has been shown to reduce breast cancer-related mortality by 40%. Despite equal incidence of breast cancer across racial groups, the breast cancer mortality rate in women who are Black has decreased by only 23%. Breast cancer-related mortality is more likely in women who are Black (41%) or Hispanic (20%) compared with women who are non-Hispanic White. This disparity is mainly due to advanced breast cancer stage at the time of detection, which in turn has been largely attributed to a lower uptake and frequency of screening mammography and thus delayed diagnosis.

Public health initiatives and advances in cancer research aim to reduce screening mammography disparities among racial and ethnic minority women. Strategies that improve screening mammogram uptake are opportunities to promote equity at a population level. Scalable solutions include breast cancer risk assessment programs to inform patients about their risk and the role of screening mammography in reducing breast cancer mortality.

Schwartz et al evaluated the feasibility of individualized breast cancer risk assessment in primary care practice as an intervention to increase mammography rate among Black and Hispanic women at increased breast cancer risk. A custom software application incorporating various validated risk assessment tools was implemented and risk factor data were entered by nonlicensed clinic staff at the annual well-visit. These risk calculators collected family history and nonfamilial breast cancer risk factors. The prospective cohort study was conducted at federally qualified health centers in underserved, racial and ethnic minority communities. Patients received their risk assessment from their primary care clinicians, and 52.1% were found to be at average risk and 47.9% at high risk for developing breast cancer. One hundred fourteen of the study participants self-identified as African American (60.6%), Hispanic (37.2%), and other racial and ethnic groups (2.1%). The investigators observed a nonsignificant increase in screening mammography uptake from 38.6% during usual care to 48.7% after risk breast cancer risk assessment (odds ratio, 1.37; 95% CI, 0.92-2.03). In a preplanned subgroup analysis of high-risk women, mammography uptake was found to be significantly higher after receiving their individualized breast cancer risk information (51.1% vs 36.6%; odds ratio, 1.88; 95% CI, 1.10-3.23).

There are 2 potential situations in which risk assessment strategies could be implemented. One is at the time of the woman’s encounter with her primary care clinician and the other is at the screening mammogram appointment. For the former, clinicians in primary care encounter barriers with access to efficient and readily available, validated breast cancer risk assessment tools that are incorporated in the electronic health record. Prudent considerations include selection of a comprehensive validated risk assessment tool, integration into clinical workflow and electronic health record, when and how to collect the data, and quality assurance of data entry. Operationalizing a risk assessment program as part of annual well visits must be streamlined and hardwired into the practice for there to be widespread use by clinicians.

A second opportunity to consider implementation of breast cancer risk assessment is when patients present for their screening mammogram. The mammogram appointment provides an important point to complete a breast history questionnaire that is important information for the radiologist for imaging interpretation, diagnosis, and recommendations. Although variable across...
practices, breast imaging questionnaires typically include some but not necessarily all of the following sections: menstrual and obstetric/gynecology history; personal history of breast cancer, breast biopsy, and high-risk lesions (atypical ductal hyperplasia, lobular carcinoma in situ, radial scar or complex sclerosing lesions); medical, surgical, and medication history; and family history of breast or ovarian cancer. When elevated risk factors for breast cancer are identified, radiology reports can include recommendations that the patient may benefit from a formal breast cancer risk assessment and patient discussion for possible supplemental imaging to improve breast cancer detection, genetic counseling, or medications that reduce risk of developing breast cancer. Currently, some breast imaging practices use nonclinical staff (mammography or ultrasonography technologists or medical assistants) to enter risk factor information into a validated risk assessment tool to generate scores that the radiologist includes in the radiology report. Other breast imaging practices are exploring how to funnel breast imaging history questionnaire data directly into an integrated electronic medical record risk assessment program to provide clinicians with clinical decision-support tools.

Decision aids and patient education materials should be culturally appropriate and, in addition to providing information about mammography, inform the woman about eligibility for screening magnetic resonance imaging, genetic counseling and testing, and pharmacologic risk-reducing medications. Research has described increased patient engagement, understanding of health care recommendations/options and patient-clinician communication when the women receive culturally appropriate patient education content and work in collaboration with patient navigators. A comprehensive risk assessment program in clinical practice should incorporate these strategies to further enhance screening mammogram uptake among racial and ethnic groups.7

Future research should explore the performance of these strategies in other subgroups, such as high-risk women of racial or ethnic minorities who are younger than 40 years, and in various clinical settings, for example, in medically underserved communities beyond federally qualified health centers or breast imaging centers. Studies should also evaluate the association of disparities in insurance coverage and social determinants of health with uptake of mammography, supplemental screening, and genetic counseling, and whether a multiprong approach with patient navigation and education may be more effective.

Reducing health disparities in women of racial or ethnic minority groups is a public health priority. As highlighted by Schwartz et al.,6 implementation of individualized breast cancer risk assessment programs in primary care practice may increase mammogram rates among women who are Black or Hispanic who are identified as being at elevated risk for breast cancer. Incorporation of easily available validated risk assessments into a busy primary practice is a scalable population-level strategy that will help promote health equity and change clinical practice. It is paramount that clinical outcomes, specifically breast cancer incidence and mortality, be evaluated, as well as whether adherence to mammography is sustained among women of racial and ethnic minorities.


