Guo et al\(^1\) assessed trends in documented testing for \(\text{BRCA}1/2\) pathogenic variants among US women 65 years of age or older using deidentified data from a large national electronic health record data set: a 10% random sample in Optum's deidentified Integrated Claims-Clinical data set (2008-2018). As of 2018, this data set integrated 85 health systems and represented more than 140,000 clinicians for a cumulative 91 million lives across all 50 US states. A total of 5533 women 65 years of age or older with \(\text{BRCA}\) testing results were identified for the decade being studied and the authors evaluated how the rate of documented positive results for \(\text{BRCA}\) testing changed over time and how race and ethnicity were associated with \(\text{BRCA}\) testing trends among these US women.

\(\text{BRCA}\) testing for familial breast and ovarian cancer has been increasingly used since the discovery of inherited breast cancer caused by \(\text{BRCA}1\) and \(\text{BRCA}2\) gene mutations 3 decades ago.\(^2,3\) The largest prospective cohort study of 6036 female carriers of \(\text{BRCA}1\) and 3820 female carriers of \(\text{BRCA}2\) (5046 unaffected and 4810 with breast or ovarian cancer or both at baseline) recruited from 1997 to 2011 through the International \(\text{BRCA}1/2\) Carrier Cohort Study, the Breast Cancer Family Registry, and the Kathleen Cuningham Foundation Consortium for Research into Familial Breast Cancer,\(^4\) with ascertainment through family clinics (94%) and population-based studies (6%). Most were from large national studies in the United Kingdom, the Netherlands, and France.\(^4\) Follow-up ended December 2013 with a median of 5 years and 3886 women were eligible for the breast cancer analysis and 5066 women were eligible for the ovarian cancer analysis. The cumulative breast cancer risk to women age 80 years was 72% (95% CI, 65%-79%) for carriers of \(\text{BRCA}1\) and 69% (95% CI, 61%-77%) for carriers of \(\text{BRCA}2\). For ovarian cancer, the cumulative risk to women age 80 years was 44% (95% CI, 36%-53%) for carriers of \(\text{BRCA}1\) and 17% (95% CI, 11%-25%) for carriers of \(\text{BRCA}2\). Breast cancer incidences increased rapidly in early adulthood until age 30 to 40 years for carriers of \(\text{BRCA}1\) and until age 40 to 50 years for carriers of \(\text{BRCA}2\), then remained at a constant incidence (20-30 per 1000 person-years) for both until age 80 years. However, there were no specific data on women diagnosed at 65 years of age or older. The world female population is aging, so this article from the United States\(^1\) is timely, because women 65 years of age or older now constitute 1 in 6 of the US female population.\(^5\)

It is of concern that the positive rate of \(\text{BRCA}\) testing decreased significantly during the period being studied.\(^1\) The authors proposed that clinical guidelines issued by the US Preventive Services Task Force (USPSTF)\(^6,7\) and others demonstrated loosened selection criteria for \(\text{BRCA}\) testing and genetic counselling over the years and suggested that this could account in part for the decrease in positive \(\text{BRCA}\) tests. However, the USPSTF did not advocate primary health care population screening for inherited breast and ovarian cancer in 2005, because of lack of evidence of harms and benefits.\(^6\) In 2014, the USPSTF updated its recommendation to primary care clinicians advocating screening women who have family members with breast, ovarian, tubal, or peritoneal cancer with one of several screening tools designed to identify a family history that may be associated with an increased risk for potentially harmful mutations in the breast cancer susceptibility genes (\(\text{BRCA}1\) or \(\text{BRCA}2\)),\(^7\) so this is not a factor. Furthermore, the authors also showed that when the geographical distribution of positive \(\text{BRCA}\) test results was analyzed, testing increased, decreased, and remained unaltered for all 3 ethnic groups in different geographical locations.\(^1\) This finding would not be expected if national guidelines on genetic testing were changing. This timely article should be the basis for more targeted research on older women who might have inherited breast and/or ovarian cancer.
REFERENCES


