2 different breast cancer screening strategies are equally effective

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An organized population-based breast cancer screening program in Norway and an approach to screening that relies on physician- and self-referrals in Vermont are equally sensitive for detecting cancer, researchers report in the July 29 online issue of the *Journal of the National Cancer Institute*. But the recall rate for abnormal mammograms was lower in Norway.

Breast cancer screening in the United States is usually initiated in response to a physician's recommendation (known as "opportunistic screening"), and women are advised to have annual screening mammograms. By contrast, breast cancer screening programs in Norway and in some other European countries regularly send letters to all women in a specific age range inviting them to have a screening mammogram. The Norway program aims for women to be screened every two years. The differences between the two approaches make it relatively difficult to compare their effectiveness, and few studies have aimed to do so previously.

In the current study, Berta Geller, Ed.D., of the University of Vermont in Burlington, Solveig Hofvind, Ph.D., of the Cancer Registry of Norway, and colleagues compared the screening approaches by looking at the percentage of women who were recalled for a re-evaluation, the screening detection rate of breast cancer, and the rate of interval cancers in 45,050 women in Vermont and 194,430 women in Norway from 1997 to 2003. Women included in the study were aged 50 to 69 years at the time of screening.

The age-adjusted screening detection rate of cancers was similar between the two populations (2.77 per 1,000 woman-years in Vermont versus 2.57 in Norway), however, more than three times as many women were recalled in Vermont than in Norway (9.8 percent versus 2.7 percent, respectively). The rate of interval cancers was higher in Vermont than in Norway (1.24 per 1,000 woman-years versus 0.86), and 55.9 percent of the interval cancers were 15 mm or smaller in Vermont compared with 38.2 percent of the interval cancers in Norway. When all cancers detected during regular screening and between screening mammograms were combined, there were no substantial differences in the prognostic features of invasive cancers detected in the two populations.

The researchers conclude that although most of the women in Vermont were screened twice as often as the women in Norway, the overall rate of cancer detection was similar. Given the shorter interval between screens, Geller and colleagues were surprised to find a higher interval cancer rate in the Vermont women and hypothesize that "Vermont women and/or their health care providers may more readily pursue evaluation of symptoms and clinical findings than their Norwegian counterparts."

"Our results demonstrate that despite its longer screening inter¬val, the organized population-based screening program in Norway achieved similar outcomes as the opportunistic screening in Vermont," the authors write.

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