The numbers remain striking in the United States:
- more than 190,000 cases of invasive breast cancer diagnosed each year
- taken together in our practices, more than 2 million survivors of breast cancer.

Furthermore, two decades of screening for breast cancer with mammography have meant a major increase in the detection of early breast tumors.

In 1980, a woman’s lifetime risk of a diagnosis of breast cancer was 1 in 12; today, her risk is 1 in 8. Include cases of ductal carcinoma in situ and the risk of a diagnosis of breast cancer has almost doubled since 1980—an increase that parallels the rise in the rate of screening mammography among US women.

Breast Ca screening hasn’t behaved as expected in a wider screening paradigm

We know that screening mammography has increased the rate of diagnosis of localized tumors. We also know that, although 5-year survival is very high for women who have localized breast cancer—greater than 98%—survival among those who have advanced tumor is only 27%. The high survival rate associated with small, local tumors has been used to promote the importance of screening—and successfully so: Approximately 70% of women in the United States older than 40 years report having a mammogram recently.

But, in an article in The Journal of the American Medical Association (JAMA) recently, Esserman and colleagues proposed that, contrary to conventional wisdom, the increase in the detection of early breast cancers that has been associated with a rise in screening mammography may, in fact, be a mixed blessing. Why?

The introduction of an optimal screening test, they point out, should be followed by:
1) an increase in the rate of detection of early disease, followed by
2) a decrease in the rate of detection of regional disease, while
3) the rate of detection of cancer overall remains constant.

Such a trend model has been observed with screening programs for colon cancer and cervical cancer, in which precancerous conditions (notably, polyps and cervical intraepithelial neoplasia, respectively) are detected and eliminated. Indeed, screening colonoscopy and Pap testing have resulted in a reduction in the detection of invasive colon cancer and invasive cervical cancer.

But screening mammography has not reduced the incidence of invasive breast tumors. As Esserman’s team points out, ductal carcinoma in situ—a diagnosis that was rare before screening mammography grew widespread—now accounts for more than 25% of all new breast cancers diagnosed (more than 60,000 new cases annually). Yet there is no convincing evidence, they note, of substantial reduction in the incidence of invasive breast cancers from detection of these preinvasive lesions.

Yes, mortality from breast cancer has decreased over the past decades but, again, as the authors of the JAMA report point out, most of the reduction is a result of improvements in adjuvant therapy.

So why has widespread screening had a limited impact on mortality from breast cancer?
- Screening increases the detection of indolent tumors that may not lead to life-threatening disease; some regress even without treatment.
- Annual screening isn’t frequent enough to detect aggressive, rapidly growing tumors at a curable stage.
- We have limited ability to distinguish low-risk cancer from high-risk cancer; Esserman’s perspective is that this knowledge gap has led to substantial overtreatment.

If you were the patient, would an annual mammogram be part of your plan for healthy living?

Instant Poll on page 8
of women who are given a diagnosis of breast cancer.

Esserman and colleagues strikingly frame the issue this way: For every 1 death from breast cancer that is prevented by screening (even in the age group, 50 to 70 years, in which screening is least controversial), 838 women must be screened for 6 years—at a cost of thousands of screens, hundreds of biopsies that carry their own costs and risk of morbidity, and many cancers treated aggressively even though they are not destined to progress.

What am I going to say to my patients?

Will I continue to recommend screening mammograms?

Yes, unless—until—guidelines change.

Here is how I see it working in my practice. When a woman asks, “With all the controversy I hear about, do you still recommend that I have a mammogram every year?,” I’ll explain that:

• although annual mammography can save lives through early diagnosis of significant cancer, it sometimes detects small tumors that don’t need to be treated.
• she should have a mammogram annually because that’s what current guidelines call for.

I confess: For a long time, I’ve nagged the few women in my practice over 50 years old who refuse annual mammography to get screened. I’m determined to be more accepting of their decision from now on.

Will I encourage patients to perform breast self-examination if they refuse annual mammography?

No—I stopped recommending the self-exam several years ago. First, there’s an absence of data that encouraging breast self-examination save lives.3,4 Second, in some of my patients, I’ve observed anxiety (that they might miss something) or guilt (because they didn’t examine themselves regularly despite the recommendation) about breast self-examination.

I continue to perform breast examinations, of course—regardless of whether a woman has annual screening mammograms—and I continue to encourage patients who become aware of changes in their breasts to contact me for further evaluation.

My view of the bottom line

It’s time to rethink our approach to screening for breast cancer. I look forward to ACOG, The American Cancer Society, other professional associations, and government agencies preparing revised materials that update clinicians and women about screening for breast cancer. That kind of guidance will help us discuss a difficult topic with our patients and choose the best possible strategy with their participation.

References