

# How effective is screening mammography for preventing breast cancer mortality?

An analysis of observational data from 76,630 women included in a breast cancer registry in Victoria, Australia, from 1982 to 2012 found that **mammography screening did not downstage breast cancer from advanced to early**, thus showing a lack of mortality benefit. All of the **decline in breast cancer mortality since 1994 was associated with adjuvant therapy uptake** with tamoxifen or chemotherapy.

*Burton R, Stevenson C. Assessment of breast cancer mortality trends associated with mammographic screening and adjuvant therapy from 1986 to 2013 in the state of Victoria, Australia. JAMA Netw Open. 2020;3:e208249.*

## EXPERT COMMENTARY

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**A**lthough recommending screening mammograms continues to represent the standard of care, studies from the United States and abroad have questioned their value.<sup>1-3</sup>

In the June issue of *JAMA Network Open*, Australian investigators assessed the relative impacts of mammography screening and adjuvant therapy on breast cancer mortality,

using data from population-based studies from 1982 through 2013.<sup>4</sup> In recent decades, screening has increased substantially among Australian women.

## Details of the study

Burton and Stevenson identified 76,630 women included in the Victorian Cancer Registry with invasive breast cancer in the state of Victoria, where women aged 50 to 69 are offered biennial screening.<sup>4</sup> During the study's time period, the use of adjuvant tamoxifen and chemotherapy increased substantially.

In the 31-year period assessed in this study, breast cancer mortality declined considerably. During the same period, however, the incidence of advanced breast cancer doubled.

These findings from Australia parallel those from the United States, Holland, and Norway, where the incidence of advanced breast cancer was stable or increased after screening mammography was introduced.<sup>1-3</sup>

According to Burton and Stevenson, the increased incidence of advanced cancer clarifies that screening mammography

## FAST TRACK

*Studies from the United States and abroad have questioned the value of continuing to recommend screening mammograms*

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is not responsible for declining breast cancer mortality, but all of the decline in mortality can be attributed to increased uptake of adjuvant therapy.

The authors concluded that since screening mammography does not reduce breast cancer mortality, state-sponsored screens should be discontinued.

### Study strengths and limitations

Relevant data for this study were obtained from large population-based surveys for premenopausal and postmenopausal women with breast cancer.

The authors noted, however, that this analysis of observational data examining time trends across the study period can show only associations among breast cancer mortality, mammography screening participation, and adjuvant therapy uptake, and that causality can only be inferred.

### The study in perspective

Although some will view the findings and recommendations of these Australian authors with skepticism or even hostility, I view their findings as good news—we have improved the treatment of breast cancer so dramatically that the benefits of finding early

### WHAT THIS EVIDENCE MEANS FOR PRACTICE

Given our evolving understanding regarding the value of screening mammograms, it is time to stop pressuring patients who are reluctant or unwilling to undergo screening. Likewise, insurance companies and government agencies should stop using screening mammography as a quality metric.

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tumors with screening mammography have become attenuated.

Although it is challenging given the time constraints of office visits, I try to engage in shared decision making with my patients regarding when to start and how often to have screening mammography. ●

### References

1. Bleyer A, Welch GH. Effect of three decades of screening mammography on breast cancer-incidence. *N Engl J Med.* 2012;367:1998-2005.
2. Autier P, Boniol M, Koechlin A, et al. Effectiveness of and overdiagnosis from mammography screening in the Netherlands: population based study. *BMJ.* 2017;359:j5224.
3. Kalager M, Zelen M, Langmark F, et al. Effect of screening mammography on breast-cancer mortality in Norway. *N Engl J Med.* 2010;363:1203-1210.
4. Burton R, Stevenson C. Assessment of breast cancer mortality trends associated with mammographic screening and adjuvant therapy from 1986 to 2013 in the state of Victoria, Australia. *JAMA Netw Open.* 2020;3:e208249.