

The impact of the BreastScreen NSW transition from film to digital mammography, 2002–2016: a linked population health data analysis

TO THE EDITOR: The article by Farber and colleagues¹ is a well written report. A question that arises is whether the advent of digital mammography screening has increased screening effectiveness, as reflected in reduced numbers of interval cancers. Reductions in interval cancers were not found in this study, raising the question of whether the increases in screen-detected cancers may have applied to indolent lesions.¹ The authors express caution, however, when interpreting these data due to potential confounders.

One possible confounder could be increased cancer rates due to changes in lifestyle,² although this likely would be small. Another possible confounder could be increased detection of interval cancers from clinical activities that obscured reductions from screening. The authors lacked access to data needed to test this possibility. Potential confounders could include increased use in diagnostic settings outside of breast screening venues of diagnostic tools of

increasing sensitivity, as associated, for example, with digital mammography, tomography, magnetic resonance imaging, core biopsies, ultrasonography or other technologies.³ Other possible confounders could include potential increases in medical surveillance activity for high risk women, increased cancer ascertainment by cancer registries through registry-technology gains, advances in cancer detection by pathology laboratories, and any changes in care-seeking behaviour of symptomatic women that led to detection of more cancers.

Screened women are largely asymptomatic and seen in designated BreastScreen venues, whereas interval cancers are mostly diagnosed away from BreastScreen in diagnostic settings. If advances in diagnostic technologies were pronounced in these settings, they may act to increase numbers of interval cancers found, obscuring any evidence of reductions in interval cancer rates from introducing digital screening.

Digital imaging can detect very early cancers, for which the time to progression to symptomatic disease may exceed the post-diagnosis period used to monitor interval cancers. If so, this could reduce opportunities to see a decrease in interval cancers.

The authors address an important question in a well executed study. More complete data are needed to investigate and quantify potential for confounding underlying their statistical findings. Digital mammography was introduced to BreastScreen New South Wales over several years and a more exact identification of screened women's exposure to digital screening would be beneficial.

David M Roder 

Cancer Research Institute, University of South Australia, Adelaide, SA.

david.roder@unisa.edu.au

Competing interests: No relevant disclosures.

Author contributions: David Roder: Writing – original draft, writing – review and editing. ■

doi: 10.5694/mja2.70106

© 2025 AMPCo Pty Ltd.

- 1 Farber R, Houssami N, McGeechan K, et al. The impact of the BreastScreen NSW transition from film to digital mammography, 2002–2016: a linked population health data analysis. *Med J Aust* 2025; 222: 82–90. <https://www.mja.com.au/journal/2025/222/2/impact-breastscreen-nsw-transition-film-digital-mammography-2002-2016-linked>
- 2 Sharman R, Harris Z, Ernst B, Mussallem D, Larsen A, Gowin K. Lifestyle factors and cancer: a narrative review. *Mayo Clin Proc Innov Qual Outcomes* 2024; 8: 166–183.
- 3 Linder JM, Schiska AD. Progress in diagnosis of breast cancer: advances in radiology technology. *Asia Pac J Oncol Nurs* 2015; 2: 186–191. ■