

The impact of COVID-19 on Australian cancer screening and strategies to mitigate ongoing disruption of screening services

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SINCE THE ADVENT OF COVID-19, national cancer screening services have been significantly affected by limited access to non-essential healthcare services and the requirement for enhanced infection control practices. In Australia there are national breast, colorectal and cervical cancer screening programs. Through comparison of the 2020 participation rates in each screening program, this article identifies the importance of self-collected samples and the benefits of enhanced risk stratification in cancer screening programs during periods of disruption.

At-home screening

The National Bowel Cancer Screening Program targets people aged 50–74 years to screen for colorectal cancer (CRC). All eligible Australians are mailed test kits with instructions every two years; once completed, these are sent to the program's pathology laboratory for analysis.

Modelling predicts that suspending bowel cancer screening for three months and six months would result in 979 and 1961 more deaths, respectively, in Australia.¹ This did not occur in 2020, as screening program participation rates were maintained, and no correlation was found between the severity of the pandemic and

number of tests completed.² Lockdowns and fear of attending screening services in person did not appear to disrupt at-home screening.

In comparison, the National Cervical Screening Program targets women aged 25–74 years for a cervical screening test every five years. There was a marked decrease in the number of human papillomavirus tests conducted during the first and second waves of the COVID-19 pandemic.² These authors postulate that the decrease in participation can be attributed to the requirement for most cervical screening to be conducted in person by a clinician. If samples were self-collected and returned by mail to mirror the CRC program, reductions in screening participation might be minimised. The accuracy of self-collected cervical screening is similar to in-person sampling by a clinician.³ Self-collection is already an accepted option for women aged over 30 years who decline clinician-collected samples. Thus, expanding this option for all women during lockdown periods could ensure continuity of cancer prevention.

Risk stratification

The Australian breast screening program (BreastScreen Australia) targets women aged 50–74 years for a screening mammogram every two years. Unlike

colorectal and cervical cancer, there is no alternative screening method to avoid in-person visits for the screening mammogram. As a result of the risk of COVID-19 contagion, breast screening services were suspended from 25 March until early May 2020, with 74,000 fewer screening mammograms performed than in the same period in 2018.² Strict infection control protocols post lockdown resulted in longer appointment times and a decrease in screening mammograms in subsequent months. Modelling suggests that a six-month delay in breast cancer diagnosis would result in 25 excess deaths over the next five years and 239 years lost over a 10-year time horizon in the Australian setting.⁴

One strategy to mitigate reduced availability of mammography screening services is to maximise the diagnostic yield of these tests. This means that priority should be given to those who are identified as high risk for breast cancer in the general population.

Analysis of screening mammogram outcomes in Australia showed a higher risk of cancer detection in first-time screeners, patients over the age of 49 years and those who had not had screening for more than 27 months.⁵ It would be beneficial for programs to focus on developing a risk stratification tool to prioritise patients with these risk factors for earlier screening tests.

Conclusion

At-home screening and risk stratification are strategies that can be employed at times of disruption to maintain adequate levels of cancer prevention and early detection. Australia should develop contingency plans that can be implemented rapidly when there is a likely prolonged reduction in access to screening programs.

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