

Cancer screening programs: quarterly data

Web report | Last updated: 14 Jul 2023 | Topic: [Cancer screening](#)

About

Cancer screening programs aim to reduce illness and death from selected cancers. This report presents the latest information on participation in Australia's national bowel cancer, breast cancer and cervical screening programs. Quarterly national activity data summarising bowel and cervical screening tests and breast screening mammograms are disaggregated by state and territory. Screening participation rates are presented for Australia, states and territories, Primary Health Network areas and smaller local geographies.

Updates are on hold until further notice.

Cat. no: CAN 114

- [National Bowel Cancer Screening](#)
- [BreastScreen Australia](#)
- [National Cervical Screening Program](#)
- [Data](#)

Findings from this report:

- [846,000 bowel cancer screening invites were sent and 363,000 completed kits were returned in the March quarter 2023](#)
- [50% of women aged 50-74 participated in BreastScreen Australia in 2021-2022 \(preliminary\)](#)
- [268,000 Cervical Screening Tests were performed for participants aged 25-74 in the March quarter 2023](#)
- [259,000 screening mammograms were performed for women aged 50-74 in the March quarter 2023](#)

Summary

On this page:

- [Introduction](#)
- [Screening program activity: latest results](#)
- [Screening program participation: latest results](#)
- [What is updated in this release?](#)

Cancer is one of the leading causes of illness and death in Australia. Some cancers can be detected through screening, which allows for early detection, intervention and treatment.

Australia has 3 national cancer screening programs:

- National Bowel Cancer Screening Program (NBCSP)
- BreastScreen Australia
- National Cervical Screening Program (NCSP).

These programs offer a screening test to people in defined target groups to test for signs of cancer or pre-cancerous conditions.

This report presents the latest data on two key measures of the use of cancer screening programs: *activity* and *participation*.

Activity data in this report are updated quarterly and are disaggregated by age, by sex where relevant and by state and territory.

Participation data are updated biannually and are disaggregated by age, by sex where relevant, by state and territory, by Primary Health Network areas and by Statistical Areas Level 3 and Level 2. Preliminary participation data are published ahead of the AIHW annual screening program monitoring reports and are subject to change.

Note that in this report, all data are considered final unless explicitly referred to as preliminary and all the rates reported are crude or age-specific rates (including national rates for a single period), unless otherwise stated. For more details on the use of different types of rates, including the use of age-standardised rates to compare change over time or differences between areas, please refer to the [Methods](#) section of the [Technical notes](#).

All data are sourced from live databases evolving constantly with later supplies being usually more complete.

Summary of the latest results is presented below for each program.

Screening program activity: latest results

Activity data are counts of events rather than people, such as the number of invitations sent or screening tests conducted. A single person may be counted more than once if they complete more than one screening test during a defined period. Activity data show the scale and volume of work undertaken by the cancer screening programs. These data are useful in understanding the utilisation of screening in health services to assist in future planning.

Bowel cancer screening (NBCSP)

In the March quarter 2023:

- 846,000 invitations to participate were sent from the NBCSP.
- 363,000 bowel screening kits were returned.

BreastScreen Australia

- 259,000 screening mammograms were performed for women aged 50-74 in the March quarter 2023.

Cervical screening (NCSP)

- 268,000 Cervical Screening Tests were performed for women aged 25-74 in the March quarter 2023.

Screening program participation: latest results

Participation data are counts of individual participants in a screening program measured over a period in line with the recommended screening interval for each program. Participation rates are proportions of eligible or invited people who completed a screening test. They measure the extent to which defined target groups are being reached and can inform strategies to improve screening rates among these groups. High rates of participation produce the greatest population benefits in terms of reducing illness and death from these cancers (see the AIHW report [Analysis of cancer outcomes and screening behaviour for national cancer screening programs in Australia](#)).

Participation is one of many indicators used to evaluate the performance of Australia’s national cancer screening programs against their aims. The full set of performance indicators are reported in each program’s annual monitoring report, available from the AIHW’s [cancer screening reports page](#).

Bowel cancer screening (NBCSP)

In 2020-2021:

- 40.9% of people aged 50-74 who were invited to screen participated.
- Participation was higher among women (42.8%) than men (38.9%).

BreastScreen Australia

Based on 2021-2022 preliminary data:

- 50% of women aged 50-74 who were eligible for screening mammograms participated.

Cervical screening (NCSP)

Based on 2018-2022 preliminary data:

- 68% of people aged 25-74 who were eligible for Cervical Screening Tests participated.

What is updated in this release?

This report includes the latest available activity and participation data for the 3 cancer screening programs, as outlined below in Table 1.

Table 1: Summary of cancer screening current data updates in this release:

Screening program	Activity	Participation
Bowel cancer	March quarter 2014 to March quarter 2023 (quarter/month, state/territory, sex, 50-74 year-olds)	2020-2021 final data (state/territory, Primary Health Network (PHN), Statistical Area 3 (SA3), Statistical Area 2 (SA2))
BreastScreen	March quarter 2021 to March quarter 2023 (quarter/month, state/territory, female, 40-49, 50-74, 75+, 40+ year-olds)	2021-2022 preliminary data (state/territory, age group) *2020-2021 preliminary data (state/territory, age group) *2019-2020 final data, Primary Health Network (PHN), Statistical Area 3 (SA3)
Cervical	March quarter 2018 to March quarter 2023 (quarter/month, state/territory, female, 25-74 year-olds)	*2018-2022 preliminary data (state/territory, age group) *2018-2021 Primary Health Network (PHN), Statistical Area 3 (SA3)

Notes:

* indicates those data that have been updated in a previous release. For more information regarding historical data updates please refer to the [Notes](#) section.

Refer to the detailed statistical tables for all data and associated meta-documentation in the [Data](#) section. For information on the data sources and methods refer to the [Technical notes](#).

References

AIHW (Australian Institute of Health and Welfare) (n.d.) *Cancer Screening Reports*, AIHW website, accessed 6 December 2022.

AIHW (Australian Institute of Health and Welfare) (2018) *Analysis of cancer outcomes and screening behaviour for national cancer screening programs in Australia*, catalogue number CAN 115, AIHW, Australian Government, accessed 6 December 2022.

National Bowel Cancer Screening Program

What is the National Bowel Cancer Screening Program?

The National Bowel Cancer Screening Program (NBCSP) aims to reduce morbidity and mortality from bowel cancer by screening the eligible target population for early detection or prevention of the disease.

Eligible Australians (those aged 50-74) are sent a free screening kit (immunochemical faecal occult blood test or iFOBT) and are invited to screen every 2 years.

To participate, people complete the screening test and post it to the pathology laboratory for analysis.

The NBCSP began in 2006, offering screening to people aged 55 and 65, and was subsequently expanded to include other ages. In 2014, the Australian Government announced that the program would be expanded to offer free 2-yearly screening for all Australians aged 50-74. The expansion was completed in 2020.

For the latest monitoring report for the NBCSP that includes data from the National Cancer Screening Register, see the AIHW report [National Bowel Cancer Screening Program monitoring report 2023](#).

Explore the latest activity and participation data on the following pages:

Activity

846,000 invitations were sent out and 363,000 completed bowel cancer screening kits were returned in the March quarter 2023

Participation is the percentage of unique people invited, who returned a completed bowel screening test within the relevant 2-year period or by 30 June of the following year.

Participation

40.9% of people (2.5 million) aged 50-74 who were invited, participated in bowel cancer screening by returning a completed test kit in 2020-2021

References

AIHW (Australian Institute of Health and Welfare) (2023) [National Bowel Cancer Screening Program monitoring report 2023](#), catalogue number CAN 154, AIHW, Australian Government, accessed 16 June 2023.

National Bowel Cancer Screening Program

On this page:

- [Bowel screening invitations sent](#)
- [Bowel screening kits returned](#)
- [Seasonal variation in bowel cancer screening activity](#)

For the National Bowel Cancer Screening Program (NBCSP), activity data are available on:

- the number of invitations sent out during a given period and
- the number of completed screening test kits returned for analysis.

Explore the latest data in the visualisation below.

Bowel screening invitations sent

In the March quarter 2023:

- 846,000 invitations to participate in the screening program were sent to eligible people aged 50-74.
- Of these invitations, 52% were sent to women (437,000) and 48% sent to men (409,000).

Bowel screening kits returned

In the March quarter 2023:

- 363,000 completed screening kits were returned for analysis.
- Of these kits, 54% were returned by women (197,000) and 46% returned by men (166,000).
- The number of completed kits returned was higher than in the December quarter 2023 (296,000) and the March quarter a year prior (193,000).

Trends in bowel cancer screening activity

Between the March quarter 2014 and the March quarter 2023:

- The number of invitations fluctuated across time, from a low of 225,000 in the December quarter 2014 to a peak of 1.3 million invitations in the June quarter 2020.
- Invitations were lowest in March and December quarters and usually peaked in June quarters before beginning to fall in September quarters:
 - In 2022, this pattern continued with 496,000 in the March quarter, climbing to 876,000 in the June quarter, falling to 862,000 in the September quarter, and then to 666,000 in the December quarter.
 - The March quarter 2023 experienced a peak in the number of invitations sent and the number of completed kits returned (846,000 invitations and 363,000 kits respectively) compared to the March quarters of the 3 previous years (496,000 invitations and 193,000 kits in 2022, 693,000 invitations and 243,000 kits in 2021 and 752,000 invitations and 166,000 kits in 2020).
- Observable drops in the number of invitations during summer months is potentially due to the NBCSP Hot-Zone policy. Through the Hot Zone Policy, the program avoids sending invitations to locations where average monthly temperatures are greater than 30° degrees Celsius. Blood present in a collected sample may break down and be more difficult to detect when exposed to high temperatures. To avoid this potential risk, invitations are instead scheduled for sending during cooler times of the year (DHAC 2017).
- The increased number of NBCSP invitations sent and kits returned reflects the staged roll-out of the NBCSP. Additional age groups were progressively invited to screen. The program was fully rolled out (with all age groups included) in 2020. See the [National Bowel Cancer Screening Program age groups invited by year](#) section of the [Technical notes](#) for more information.

For more information about the impact of COVID-19 on Australia's cancer screening programs, see the AIHW [Cancer screening page](#) and the AIHW report [Cancer screening and COVID-19 in Australia](#).

Figure 1: National Bowel Cancer Screening Program activity data by sex, March quarter 2014 to March quarter 2023

This data visualisation shows monthly national activity data for the National Bowel Cancer Screening Program from January 2014 to March 2023. The column graph shows the number of screening tests by year and can be filtered by measure (invitations made and kits returned), year, quarter, month, sex (males/females and persons) and state and territory. The second tab shows the activity data in table form, and can be filtered by measure, by year, by quarter and by month.

Select State/Territory
Australia

Select measure
Invites

Select sex
Males/Females

Select year
All

Select quarter
All

Month
All

National Bowel Cancer Screening Program: Number of invites

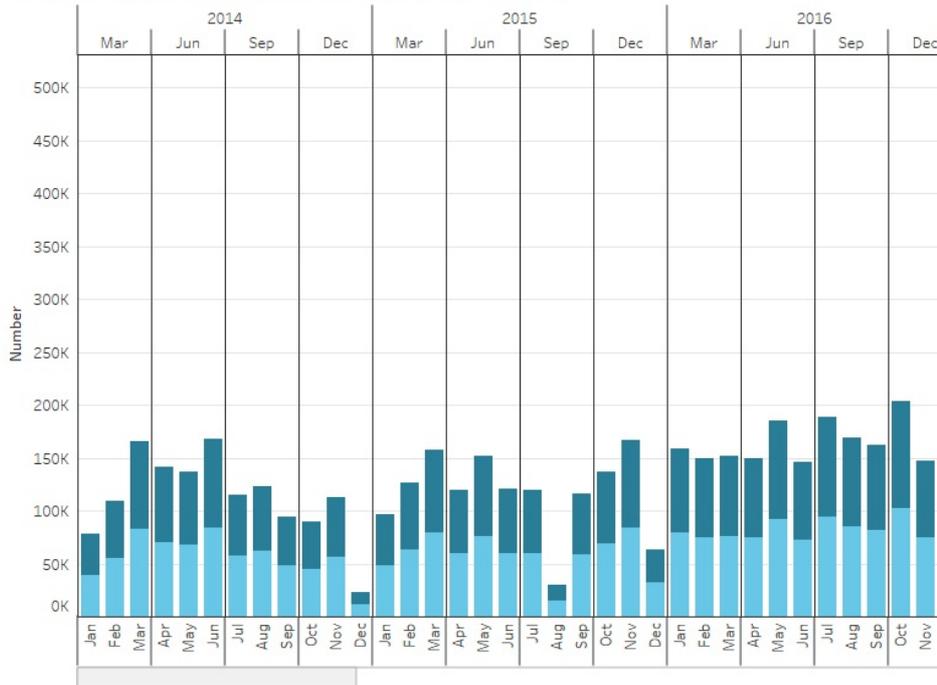


Figure 1.1: Bowel screening activity by state/territory and by sex from the March quarter 2014 to March quarter 2023

[View data notes and tables](#)

■ Males ■ Females

Source: AIHW analysis of the National Cancer Screening Register.
<http://www.aihw.gov.au>

References

AIHW (Australian Institute of Health and Welfare) (2021) *Cancer screening and COVID-19 in Australia*, catalogue number CAN 137, AIHW, Australian Government, accessed 6 December 2022.

AIHW (2022) *Cancer screening*, AIHW, Australian Government, accessed 6 December 2022.

DHAC (Department of Health and Aged Care) (2017) *National Bowel Cancer Screening Program policy framework*, Health, Australian Government, accessed 6 December 2022.



National Bowel Cancer Screening Program

On this page:

- [Participation in bowel cancer screening](#)
- [Trends in bowel cancer screening participation](#)
- [Participation by state/ territory](#)
- [Geographical variation in bowel cancer screening participation](#)

For the National Bowel Cancer Screening Program (NBCSP), participation refers to the proportion of people invited who returned a completed screening test during a specified period.

Participation in the NBCSP is measured over 2 calendar years to align with the 2-year recommended screening interval. Participation rates are calculated using an additional 6 months of data after the end of the 2-year invitation period, to allow time for all invitees to complete and return their screening kit. Participation rates in this section are preliminary and these rates are presented to one decimal place in this release.

These data are sourced from live databases that are updated over time and may differ from other AIHW cancer screening reports where the data are sourced at a different time.

Explore the latest data in the visualisation below.

Participation in bowel cancer screening

In 2020-2021:

- Almost 6.1 million people aged 50-74 were invited to participate in the NBCSP.
- Almost 2.5 million people returned a completed bowel screening test.
- The national participation rate was 40.9%.

Participation by sex and age

In 2020-2021:

- Women had a higher participation rate than men (42.8% compared with 38.9%).
- Those aged 70-74 years had the highest participation rate (52.2%).
- Those aged 50-54 years had the lowest participation rate (31.6%).

Trends in bowel cancer screening participation

Between 2014-2015 and 2020-2021:

- The national participation rate has increased from 38.9% of invited people aged 50-74 in 2014-2015 to 43.8% in 2019-2020.
- The participation rate has dropped from 43.8% in 2019-2020 to 40.9% in 2020-2021. It is still unclear why this drop has occurred.

Since 2018 the program has widened its target ages resulting in a steady increase in the number of invitees over time (See the [National Bowel Cancer Screening Program age groups invited by year](#) section of the [Technical notes](#) for more information).

Participation by state/territory

In 2020-2021:

- Both South Australia and Tasmania had the highest bowel screening participation rates for people aged 50-74 (44.4%).

Figure 1: National Bowel Cancer Screening Program participation data, by sex, by age group, by state and territory and by year

This data visualisation shows final participation data for the National Bowel Cancer Screening Program from 2014-2015 to 2020-2021. The bar graph shows participation by age group and can be filtered by state/territory, sex (males/females and persons) and year. The line graph found on the second tab shows trend data by type of measure (number of invitees, number of participants, and participation rate), state/territory, sex and age group. A third tab shows the participation data in a table form and can be filtered by measure and by state and territory.

National Bowel Cancer Screening Program: Participation in Australia, persons, 2020-2021

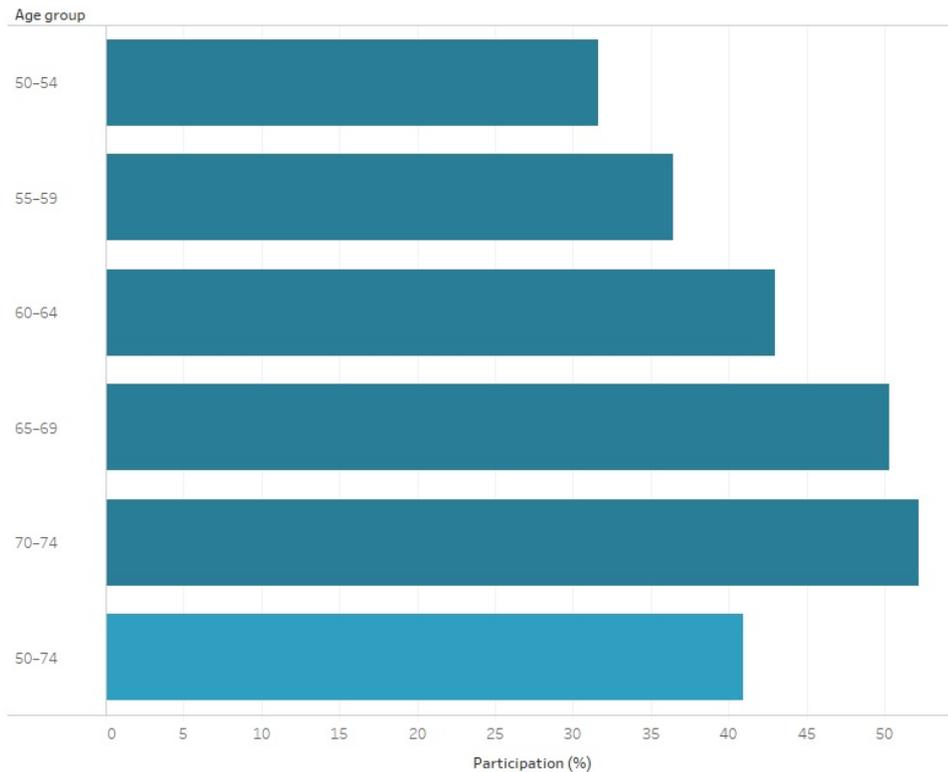


Figure 1.1: Data by state/territory and age group

[View data notes and tables](#)

Source: AIHW analysis of the National Cancer Screening Register.
<http://www.aihw.gov.au>

Geographical variation in bowel cancer screening participation

Exploring participation across different geographical areas can help to identify where resources are needed to improve equity, accessibility and participation in cancer screening programs and can inform strategies to improve screening rates among defined target groups.

Explore the latest geographical data in the visualisations below.

Participation by Primary Health Networks

Primary Health Network areas (PHNs) consist of 31 health regions across Australia whose purpose is the improvement of population health outcomes and regional coordination of health services in Australia (DHAC 2022).

In 2020-2021:

- Gippsland had the highest participation rate among PHN areas (47.3%).
- The Northern Territory had the lowest participation rate (25.3%).

Figure 2: National Bowel Cancer Screening Program participation rates for persons aged 50-74 by PHN

This data visualisation shows final participation data for the National Bowel Cancer Screening Program by Primary Health Network between 2014-2015 and 2020-2021. The map can be filtered by state/territory and year and uses shaded areas of colour to show participation rates. The bar graph on the second tab can be filtered by year and shows the participation rate of each Primary Health Network for the selected period. A third tab shows the participation data by Primary Health Network in table form and can be filtered by measure (number of invitees, number of participants and participation rate) and by state and territory and by year.

Select state/territory
Australia

Select year
2020-2021



Search for an area on the map below or hover over an area for more information

National Bowel Cancer Screening Program: Participation in Australia, 2020-2021

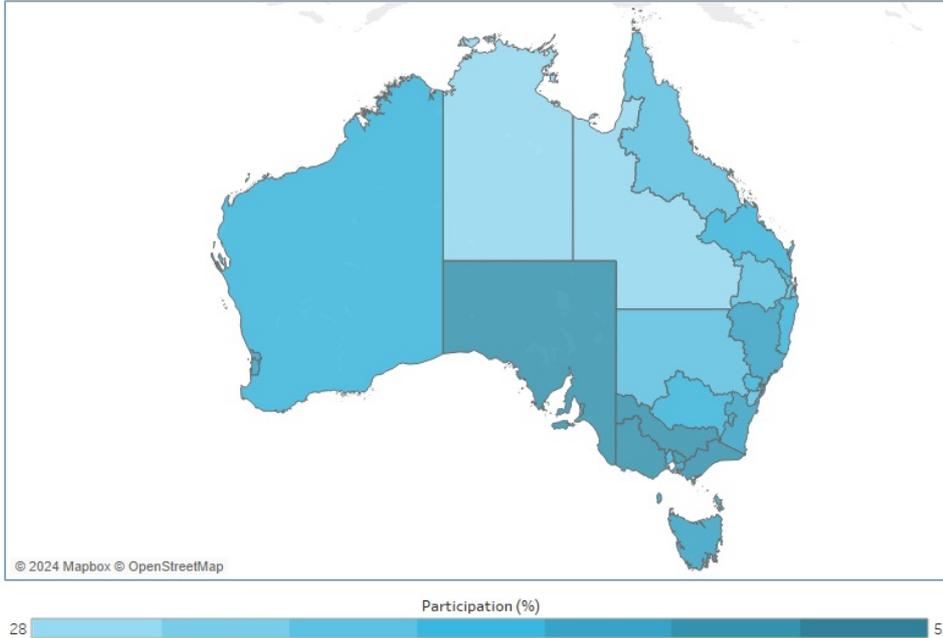


Figure 2.1: Data for persons aged 50-74 by PHN

[View data notes and tables](#)

Source: AIHW analysis of the National Cancer Screening Register.
<http://www.aihw.gov.au>

Participation by Statistical Area Level 3

Statistical Areas Level 3 (SA3s) consist of 333 geographical areas of Australia, defined by the Australian Bureau of Statistics (ABS) as part of the Australian Statistical Geographical Structure (ASGS) (ABS 2021).

In 2020-2021:

- Surf Coast - Belarine Peninsula had the highest participation rate among SA3s (53.6%).
- East Arnhem had the lowest participation rate (12.4%).

Figure 3: National Bowel Cancer Screening Program participation rates for persons aged 50-74 by SA3

This data visualisation shows participation data for the National Bowel Cancer Screening Program by Statistical Area Level 3. The map can be filtered by state/territory and year and uses shaded areas of colour to show participation rates using final data from 2014-2015 to 2020-2021. The bar graph on the second tab can be filtered by state/territory and year and shows the participation rate of each Statistical Area Level 3 for the selected period. A third tab shows the participation data by Statistical Area Level 3 in a table form and can be filtered by measure (number of invitees, number of participants and participation rate), by state and territory and by year.

Select state/territory
Australia

Select year
2020-2021



Search for an area on the map below or hover over an area for more information

Participation in Australia, 2020-2021

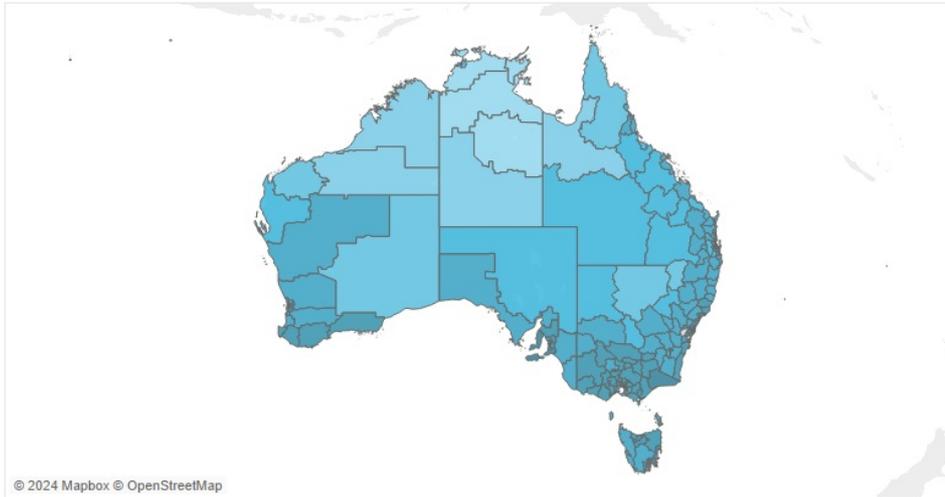


Figure 3.1: National Bowel Cancer Screening Program data for persons aged 50-74 by SA3

[View data notes and tables](#)

Source: AIHW analysis of the National Cancer Screening Register.
<http://www.aihw.gov.au>

References

ABS (Australian Bureau of Statistics) (2021) *Australian Statistical Geography Standard (ASGS): Volume 3 – Main Structure and Greater Capital City Statistical Areas - Statistical Area Level 3, July 2021*, catalogue number 1270.0.55.003, ABS, Australian Government, accessed 6 December 2022.

DHAC (Department of Health and Aged Care) (2022) *Primary Health Networks (PHNs)*, Health website, accessed 6 December 2022.

BreastScreen Australia

What is BreastScreen Australia?

BreastScreen Australia aims to reduce illness and death from breast cancer using screening mammography for early detection of unsuspected breast cancer in women.

Early detection provides an opportunity for early treatment, which can reduce illness and death.

Australian women aged 40 and over are eligible for free mammograms with BreastScreen Australia every 2 years, with women aged 50-74 actively targeted to participate in the program.

This program began in 1991, targeting women aged 50-69. From 1 July 2013, women aged 70-74 were added to the target group. This change was phased in over several years, and fully implemented by 2016-2017.

For the latest monitoring report for BreastScreen Australia that includes BreastScreen data, see the AIHW report [BreastScreen Australia monitoring report 2022](#).

Explore the latest activity and participation data on the following pages:

Activity

Almost 259,000 screening mammograms were performed for women aged 50-74 through BreastScreen Australia in the March quarter 2023

Participation is the percentage of unique people invited, who returned a completed bowel screening test within the relevant 2-year period or by 30 June of the following year.

Participation

50% of women (1.8 million) aged 50-74 had a screening mammogram in 2021-2022 through BreastScreen Australia (preliminary data)

References

AIHW (Australian Institute of Health and Welfare) (2022) [BreastScreen Australia monitoring report 2022](#), catalogue number CAN 140, AIHW, Australian Government, accessed 6 December 2022.

BreastScreen Australia

On this page:

- [Screening mammograms performed](#)
- [Trends in breast screening activity](#)
- [Impact of COVID-19 pandemic on breast cancer screening](#)

For BreastScreen Australia, activity data are available on the number of screening mammograms performed in a specified period.

Explore the latest data in the visualisation below.

Screening mammograms performed

In the March quarter 2023, 259,000 screening mammograms were performed for women aged 50-74.

Trends in breast screening activity

Between the March quarter 2014 and the March quarter 2023:

- BreastScreen Australia program activity among women aged 50-74 steadily increased from 862,000 screening mammograms performed in 2014 (first full year of available data) to 976,000 screening mammograms performed in 2019 but fell over 2020 and 2021 to 839,000 and 924,000 screening mammograms performed, respectively. In 2022, the number of screening mammograms has slightly increased to 945,000.
- September quarters have consistently had the highest number of screening mammograms performed, followed by June, March and December quarters.

The only exceptions to this occurred in the June quarter 2020 and September quarter 2021 which had the lowest number of screening mammograms performed in any quarter of 2020 and 2021. This aligns with the effects of COVID-19 on program delivery as described below.

- In the December quarters 2019 and 2021, less screening mammograms were performed (226,000 and 214,000, respectively).
- December quarter 2022 recorded activity levels similar to the December quarters in 2020 and 2018 with 231,000 screening mammograms performed.
- During the March quarter 2023 the number of screening mammograms was higher than during the March quarters of the preceding 3 years.

Impact of the COVID-19 pandemic on breast cancer screening

- As a result of COVID-19 restrictions, BreastScreen Australia services were temporarily suspended from late March to late April/early May 2020, directly impacting BreastScreen Australia operations.
 - For instance, screening mammograms for women aged 50-74 in the June 2020 quarter (110,000) were the lowest observed between 2014 to present.
 - Following the June quarter 2020, quarterly screening mammograms returned to relative normalcy when compared to the same quarter across other years.
- In 2021, screening mammograms for women aged 50-74 increased to pre-COVID levels in the first half of the year (499,000 in 2021 vs 492,000 in 2019) before again falling in the second half of the year (425,000 in 2021 vs 484,000 in 2019 and 495,000 in 2020).
- It is unclear whether ongoing restrictions and/or concern over COVID-19 or seasonal factors, such as regional weather events etc., or their combination is responsible for the relative drop in monthly screening tests observed in the second half of 2021.
- In 2022, the overall number of mammograms rose slightly from 924,000 in 2021 to over 945,000 in 2022, most of the COVID-19 restrictions were lifted progressively as almost all the Australian population became fully vaccinated.
- In the first quarter 2023, the number of screening mammograms has exceeded the number of screening mammograms performed during the first quarter 2019 before the commencement of the COVID-19 pandemic (259,000 in the March quarter 2023 and 244,000 in the March quarter 2019).

For more information about the impact of COVID-19 on Australia's cancer screening programs, see AIHW [Cancer screening page](#) and the AIHW report [Cancer screening and COVID-19 in Australia](#).

This data visualisation shows monthly national activity data for BreastScreen Australia from March 2014 to March 2023. The column graph shows the number of mammograms returned by year and can be filtered by year, quarter, month, state/territory and age. The second tab shows the activity data in table form, and can be filtered by measure, by year, by quarter, by month, by age and by state and territory.

Select state/territory
Australia

Select age
50-74

Select year
All

Select quarter
All

Select month
All

BreastScreen: Number of Screening visits in Australia

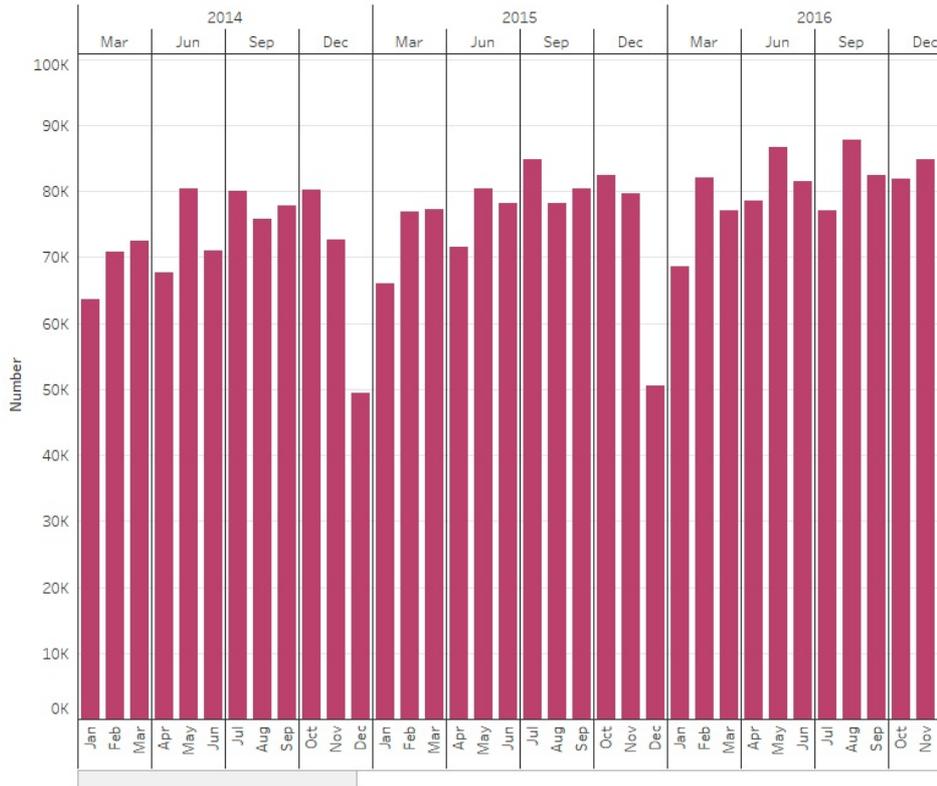


Figure 1: Breast screening visits, March quarter 2014 to March quarter 2023

Source: AIHW analysis of BreastScreen Australia data.
<http://www.aihw.gov.au>

References

AIHW (Australian Institute of Health and Welfare) (2021) *Cancer screening and COVID-19 in Australia*, catalogue number CAN 137, AIHW, Australian Government, accessed 6 December 2022.

AIHW (2022) *Cancer screening - Australian Institute of Health and Welfare (aihw.gov.au)* accessed 6 December 2022.

BreastScreen Australia

On this page:

- [Participation in BreastScreen Australia](#)
- [Trends in breast screening participation](#)
- [Participation by state/territory](#)
- [Geographical variation in breast cancer screening participation](#)

Participation in BreastScreen Australia refers to the proportion of women aged 50-74 who are screened in a 2-year period.

Participation in BreastScreen Australia is measured over 2 calendar years to align with the recommended screening interval.

Explore the latest data in the visualisation below.

Participation in BreastScreen Australia

According to the 2021-2022 preliminary data:

- About 1.8 million of the 3.6 million women aged 50-74 who were eligible for screening mammograms participated in BreastScreen Australia.
- Half of the eligible women aged 50-74 (50%) has participated.

According to the 2021-2022 preliminary data:

- Women aged 65-69 had the highest participation rate of 54%.
- Women aged 50-54 had the lowest participation rate of 45%.

Trends in breast screening participation

- The number of women aged 50-74 who participated in BreastScreen Australia rose from about 1.7 million in 2014-2015 to almost 1.9 million in 2018-2019. This rise was expected and is explained by the full implementation of the changes in the target age group from 50-69 to 50-74 that occurred in 2017.
- In 2019-2020 the number of participating women fell slightly to almost 1.8 million and continued to fall in 2020-2021 to about 1.7 million before rising again to over 1.8 million in 2021-2022.
- The national age-standardised participation rate among women aged 50-74 remained around 54% between 2017-2018 and 2018-2019 and fell by 13% to 47% (or a 7 percentage points drop) in 2020-2021 before rising by 6% (or by 3 percentage points) in 2021-2022.

Participation by state/territory

According to the 2021-2022 preliminary data:

- The participation rate among women aged 50-74 was highest in Tasmania (59%).
- After adjusting for difference in population age structure across the states and territories, the participation rate in Tasmania (58%) was approximately 1.2 times higher than the national participation rate (50%) (age-standardised rates) with a difference of 8 percentage points between the two rates.

Figure 1: BreastScreen Australia participation data by state and territory, by age group and by year

This data visualisation shows participation data for BreastScreen Australia from 2014-2015 to 2021-2022 (preliminary). The bar graph on the first tab shows participation by age group and can be filtered by state/territory and year. The bar graph on the second tab shows participation by state and can be filtered by rate type (crude or age-standardised rate) and by year. The line graph on the third tab shows trend data by type of measure (number of participants, eligible population and participation rate), by state and territory and by age group. A fourth tab shows the participation data in table form and can be filtered by measure, by state and territory and by age group.

BreastScreen: Participation in Australia, 2021-2022

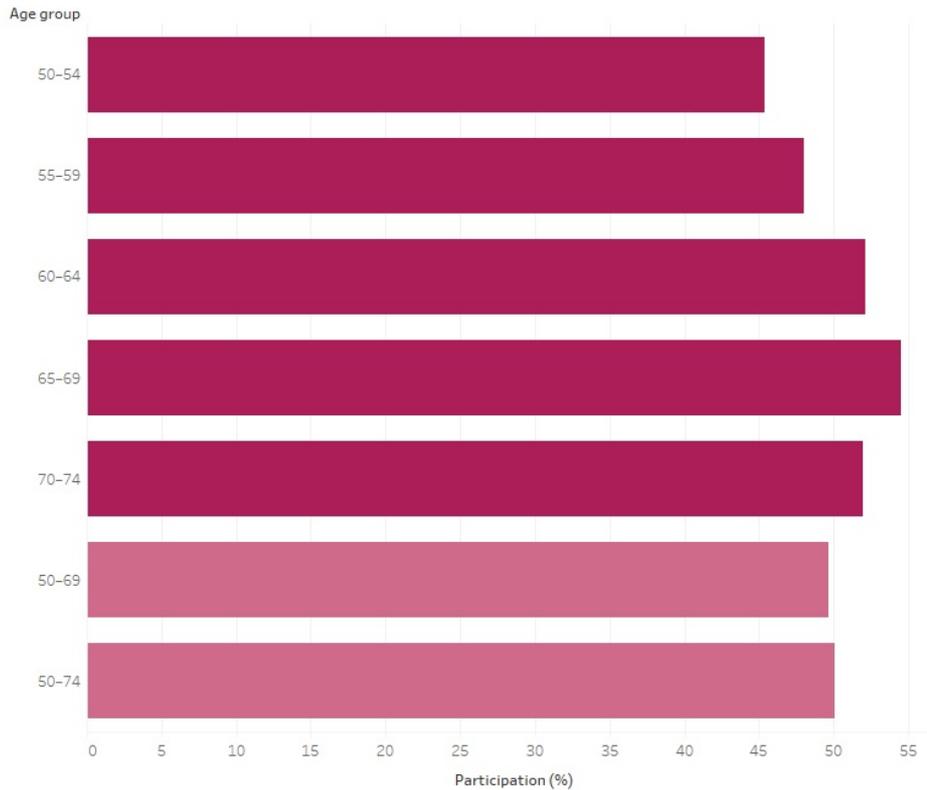


Figure 1.1: Data for women by state/territory and age group

[View data notes and tables](#)

Source: AIHW analysis of BreastScreen Australia data.
<http://www.aihw.gov.au>

Geographical variation in breast cancer screening participation

Exploring participation across different geographical areas can help to identify where resources are needed to improve equity, accessibility, and participation in cancer screening programs and can inform strategies to improve screening rates among defined target groups.

Explore the latest geographical data in the visualisations below.

Participation by Primary Health Networks

Primary Health Network areas (PHNs) consist of 31 health regions across Australia whose purpose is the improvement of population health outcomes and regional coordination of health services in Australia (DHAC 2022).

In 2019-2020:

- Northern Queensland had the highest participation rate among PHN areas (59%).
- Northern Territory had the lowest participation rate (36%).

Figure 2: BreastScreen Australia participation rates for persons aged 50-74 by PHN

This data visualisation shows final participation data for BreastScreen Australia by Primary Health Network. The map can be filtered by state/territory and by year and uses shaded areas of colour to show participation rates. The bar graph on the second tab can be filtered by age group and by year and shows the participation rate of each Primary Health Network for the selected period. A third tab shows the participation data by Primary Health Network in table form and can be filtered by measure (number of participants, eligible population and participation rate), by state/territory and by age group.

Select state/territory
Australia

Select year
2019-2020



Search for an area on the map below or hover over an area for more information

BreastScreen: Participation in Australia, 2019-2020

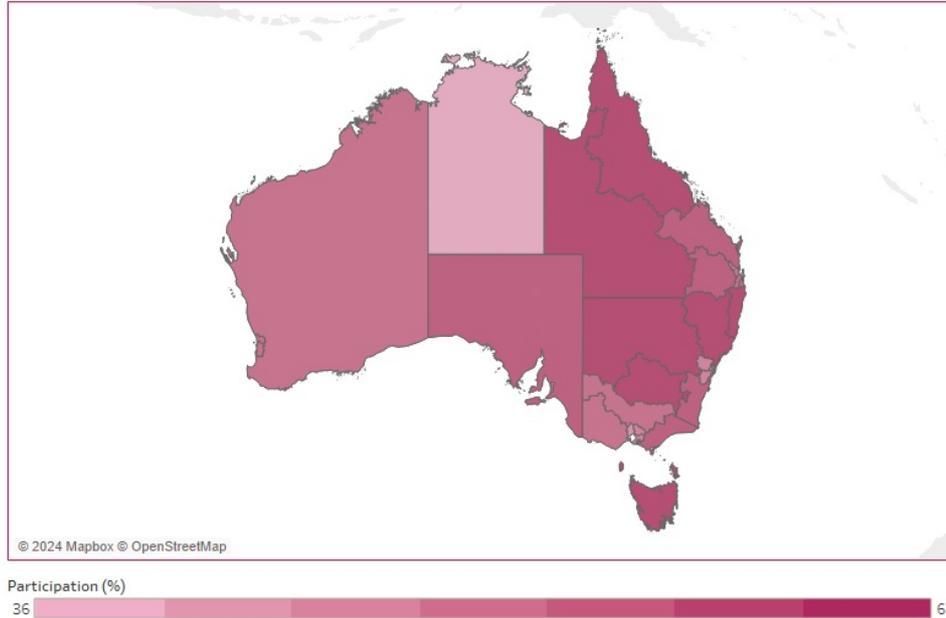


Figure 2.1: Data for women aged 50-74 by PHN

[View data notes and tables](#)

Source: AIHW analysis of BreastScreen Australia data.
<http://www.aihw.gov.au>

Participation by Statistical Area Level 3

Statistical Areas Level 3 (SA3s) consist of 333 geographical areas of Australia from the Australian Statistical Geographical Structure (ASGS), defined by the Australian Bureau of Statistics (ABS) (ABS 2021).

In 2019-2020:

- Charters-Towers-Ayr-Ingram (Queensland) had the highest participation rate among SA3s (67%).
- Katherine (Northern Territory) had the lowest participation rate (20%).

Figure 3: BreastScreen Australia participation rates for persons aged 50-74 by SA3

This data visualisation shows final participation data for BreastScreen Australia by Statistical Area Level 3. The map can be filtered by state/territory and by year and uses shaded areas of colour to show participation rates. The bar graph on the second tab can be filtered by state/territory, by age group and by year, and shows the participation rate of each Statistical Area Level 3 for the selected period. A third tab shows the participation data by Statistical Area Level 3 in table form and can be filtered by measure (number of participants, eligible population and participation rate), by state and territory and by year.

Select state/territory
Australia

Select year
2019-2020



Search for an area on the map below or hover over an area for more information

Participation in Australia, 2019-2020

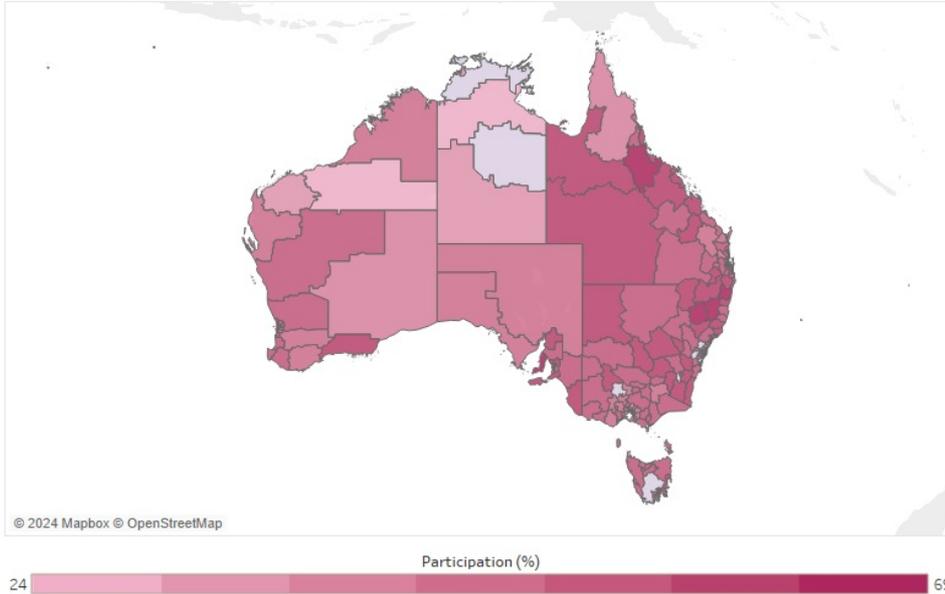


Figure 3.1: BreastScreen data for women aged 50-74 by SA3

[View data notes and tables](#)

Source: AIHW analysis of BreastScreen Australia data.
<http://www.aihw.gov.au>

References

ABS (Australian Bureau of Statistics) (2021) *Australian Statistical Geography Standard (ASGS): Volume 3 - Main Structure and Greater Capital City Statistical Areas - Statistical Area Level 3, July 2021*, catalogue number 1270.0.55.003, ABS, Australian Government, accessed 6 December 2022.

DHAC (Department of Health and Aged Care) (2022) *Primary Health Networks (PHNs)*, Health website, accessed 6 December 2022.



National Cervical Screening Program

What is the National Cervical Screening Program?

The National Cervical Screening Program (NCSP) aims to reduce cervical cancer cases, illness, and deaths in Australia.

The NCSP began in 1991 and originally targeted people aged 20-69 for a 2-yearly Papanicolaou (Pap) smear, or 'Pap test' to detect precancerous abnormalities of the cervix.

From 1 December 2017, the NCSP changed to 5-yearly cervical screening for people aged 25-74, using a primary human papillomavirus (HPV) test with partial HPV genotyping and reflex liquid-based cytology triage (Cervical Screening Test).

Data in this report are for people aged 25-74 screened under the renewed screening program.

For the latest monitoring report for the NCSP that includes data from the National Cancer Screening Register, see the AIHW report *National Cervical Screening Program monitoring report 2022*.

Explore the latest activity and participation data on the following pages:

Activity

Almost 268,000 Cervical Screening Tests were performed for participants aged 25-74 in the March quarter 2023

Participation

68% of eligible people (4.7 million) aged 25-74 participated in cervical screening in 2018-2022

References

AIHW (Australian Institute of Health and Welfare) (2022) *National Cervical Screening Program monitoring report 2022*, catalogue number CAN 141, AIHW, Australian Government, accessed 6 December 2022.



National Cervical Screening Program

On this page:

- [Screening tests performed](#)
- [Trends in cervical screening activity](#)

For the National Cervical Screening Program (NCSP), activity data are available for the number of screening tests performed within a specified time period.

Explore the latest data in the visualisation below.

Screening tests performed

In the March quarter 2023, 268,000 Cervical Screening Tests were performed for people aged 25-74.

Trends in cervical screening activity

Between the March quarter 2018 and the March quarter 2023:

- The March quarter 2023 experienced a peak in the number of HPV tests conducted (268,000) compared to the March quarters of the preceding 3 years (127,000 in March quarter 2022, 139,000 in March quarter 2021 and 238,000 in March quarter 2020). The increase in number of HPV tests in early 2023 in comparison to the 3 previous years is expected as many participants are returning for their first 5-year rescreen within the renewed program.
- Overall, the annual number of screening tests has decreased from over 1.5 million in 2018 and 2019 to 700,000 in 2020, 500,000 in 2021 and 481,000 in 2022. This was due to the program changeover from 2-yearly Pap tests to 5-yearly Cervical Screening Tests in December 2017 and was expected to occur irrespective of the COVID-19 pandemic and subsequent restrictions.
- The number of screening tests in 2018 and 2019 fluctuated quarterly between 350,000 and 430,000. Most people who had screened under the previous program were due for their first primary human papillomavirus (HPV) test in 2018 and 2019, 2 years after their last Papanicolaou smear (Pap test).
- The number of Cervical Screening Tests performed in 2020, 2021 and 2022 was expected to be lower than in 2018 and 2019 and fluctuated quarterly between 102,000 and 238,000 screening tests. Screening tests in 2020, 2021 and 2022 were mainly comprised of those in people overdue for their first HPV test, as well as people who were newly eligible for cervical screening, mostly due to turning 25.
- The impact of COVID-19 on the NCSP can only be assessed by conducting a more detailed analysis of trends. For more information about the impact of COVID-19 on Australia's cancer screening programs, see [Cancer screening page](#) and the AIHW report [Cancer screening and COVID-19 in Australia](#).

The impact of COVID-19 on the NCSP cannot be quantified without further years of data. For more information about the impact of COVID-19 on Australia's cancer screening programs, see the AIHW [Cancer screening page](#) and the AIHW report [Cancer screening and COVID-19 in Australia](#).

Figure 1: National Cervical Screening Program activity data, March quarter 2018 to March quarter 2023

This data visualisation shows monthly national activity data for the National Cervical Screening Program, from January 2018 to March 2023. The column graph shows the number of screening tests by year and can be filtered by year, by quarter and by month. The second tab shows the activity data in table form and can be filtered by year, by quarter, by month and by state and territory.

National Cervical Screening Program: Number of screening tests in Australia

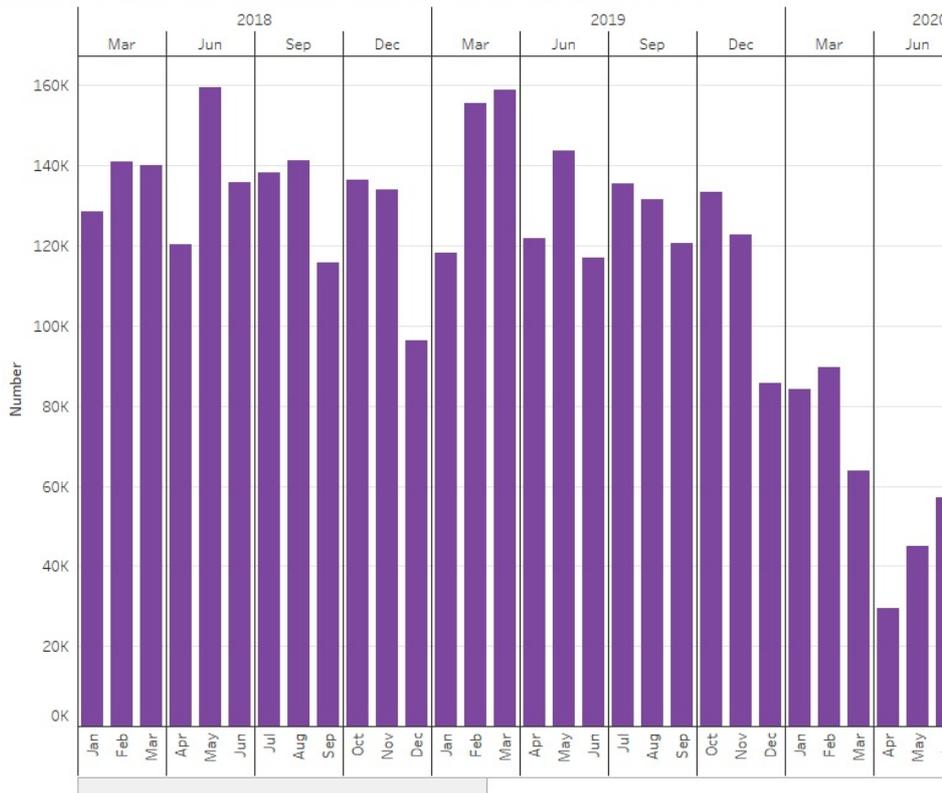


Figure 1: Cervical screening tests, March quarter 2018 to March quarter 2023

[View data notes and tables](#)

Source: AIHW analysis of the National Cancer Screening Register.
<http://www.aihw.gov.au>

References

AIHW (Australian Institute of Health and Welfare) (2021) *Cancer screening and COVID-19 in Australia*, catalogue number CAN 137, AIHW, Australian Government, accessed 6 December 2022.

AIHW (2022) *Cancer screening*, AIHW, Australian Government, accessed 6 December 2022.

National Cervical Screening Program

On this page:

- [Participation in cervical screening](#)
- [Participation by state/territory](#)
- [Geographical variation in cervical screening participation](#)

For the National Cervical Screening Program (NCSP), participation refers to the proportion of people aged 25-74 who screened in a 5-year period.

From 1 December 2017, the NCSP changed to 5-yearly cervical screening for those aged 25-74. Participation is therefore measured over 5 calendar years to align with the recommended screening interval.

Explore the latest data in the visualisation below.

Participation in cervical screening

Preliminary participation data for the 5-year cervical screening round is available for the first time since the program's roll-out in December 2017. These data are from January 2018 to December 2022. Prior to this, only interim data was available for estimates to be calculated.

According to the 2018-2022 preliminary data:

- Almost 4.7 million people aged 25-74 who were eligible for cervical screening participated in the NCSP.
- The national participation rate was 68% of the eligible population.

Participation by age

According to the 2018-2022 preliminary data:

- People aged 25-29 had the highest participation rate (79%).
- People aged 70-74 had the lowest estimated participation rate (35%).

Note that lower participation rates are expected among people aged 70-74 as they have re-entered the target age group under the renewed NCSP after having left the previous program after age 69.

Participation by state/territory

According to the 2018-2022 preliminary data:

- The estimated participation rate among people aged 25-74 was the highest in the Australian Capital Territory (71%).
- After adjusting for difference in population age structure across the states and territories, the age-standardised participation rate in the Australian Capital Territory was 1.04 times higher than the national participation rate (71% and 68% respectively) with a difference of 3 percentage points between the two rates.

Figure 1: National Cervical Screening Program participation data, by age group and by state and territory, 2018-2022

This data visualisation shows participation data for the National Cervical Screening Program for 2018 and 2018-2022. The bar graph shows participation by age group and can be filtered by state/territory and year. A second tab second shows participation rate for Australia and the states and territories for people aged 25-74 filtered by rate type: crude or age-standardised rate. A third tab shows the participation data in a table form and can be filtered by measure and by state and territory.

National Cervical Screening Program: Participation in Australia, 2018–2022

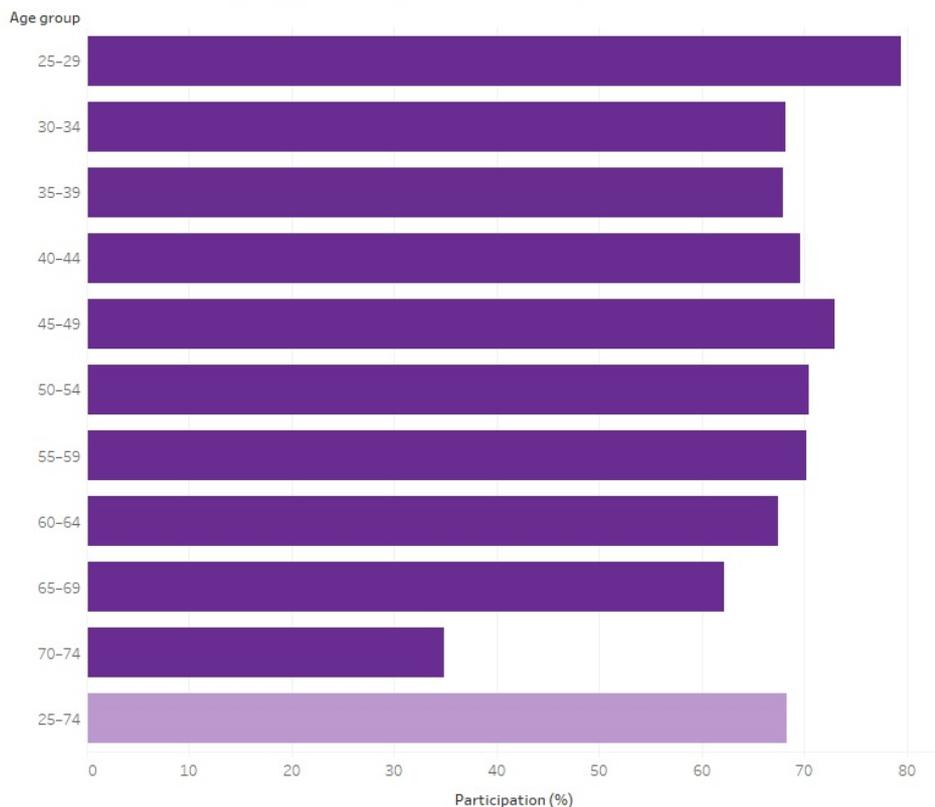


Figure 1.1: Data by state/territory and age group

[View data notes and tables](#)

Source: AIHW analysis of the National Cancer Screening Register.
<http://www.aihw.gov.au>

Geographical variation in cervical screening participation

Exploring participation across different geographical areas can help to identify where resources are needed to improve equity, accessibility, and participation in cancer screening programs and can inform strategies to improve screening rates among defined target groups.

Explore the latest geographical data in the visualisations below.

Participation by Primary Health Networks

Primary Health Network areas (PHNs) consist of 31 health regions across Australia whose purpose is the improvement of population health outcomes and regional coordination of health services in Australia (DHAC 2022).

According to the 2018-2021 interim data:

- Northern Sydney (New South Wales) had the highest estimated participation rate among PHN areas (69%).
- Murrumbidgee (New South Wales) had the lowest estimated participation rate (55%).

Figure 2: National Cervical Screening Program participation rates for persons aged 25-74 by PHN

This data visualisation shows participation data for the National Cervical Screening Program by Primary Health Network. The map can be filtered by state/territory and by year. It uses shaded areas of colour to show participation rates. The bar graph on the second tab can be filtered by age group and by year and shows the participation rate of each Primary Health Network for the selected period. The third tab shows the participation data by Primary Health Network in table form and can be filtered by measure (number of participants, eligible population and participation rate), by state/territory and by age group.

Select state/territory
Australia

Select year
2018-2021



Search for an area on the map below or hover over an area for more information

National Cervical Screening Program: Participation in Australia, 2018-2021

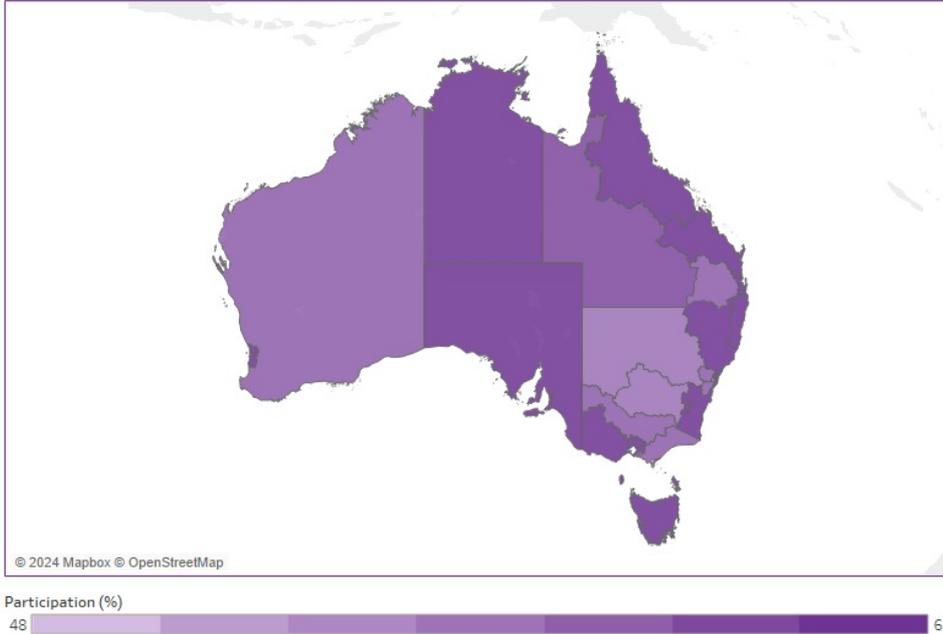


Figure 2.1: Data for persons aged 25-74 by PHN

[View data notes and tables](#)

Source: AIHW analysis of National Cancer Screening Register.
<http://www.aihw.gov.au>

Participation by Statistical Area Level 3

Statistical Areas Level 3 (SA3s) consist of 333 geographical areas of Australia from the Australian Statistical Geographical Structure (ASGS), defined by the Australian Bureau of Statistics (ABS) (ABS 2021).

According to the 2018-2021 interim data:

- Manly (New South Wales) had the highest participation rate among SA3 areas (78%).
- Lord Howe Island (New South Wales) had the lowest participation rate (44%).

Figure 3: National Cervical Screening Program participation rates for persons aged 25-74 by SA3

This data visualisation shows participation data for the National Cervical Screening Program by Statistical Area Level 3. The map can be filtered by state/territory, by year and by age group, and uses shaded areas of colour to show participation rates. The bar graph on the second tab can be filtered by state/territory, by age group and by year and shows the participation rate of each Statistical Area Level 3 for the selected period. The third tab shows the participation data by Statistical Area Level 3 in table form and can be filtered by measure (number of participants, eligible population and participation rate), by state/territory and by age group.

Select state/territory
Australia

Select year
2018–2021



Search for an area on the map below or hover over an area for more information

Participation in Australia, 2018–2021

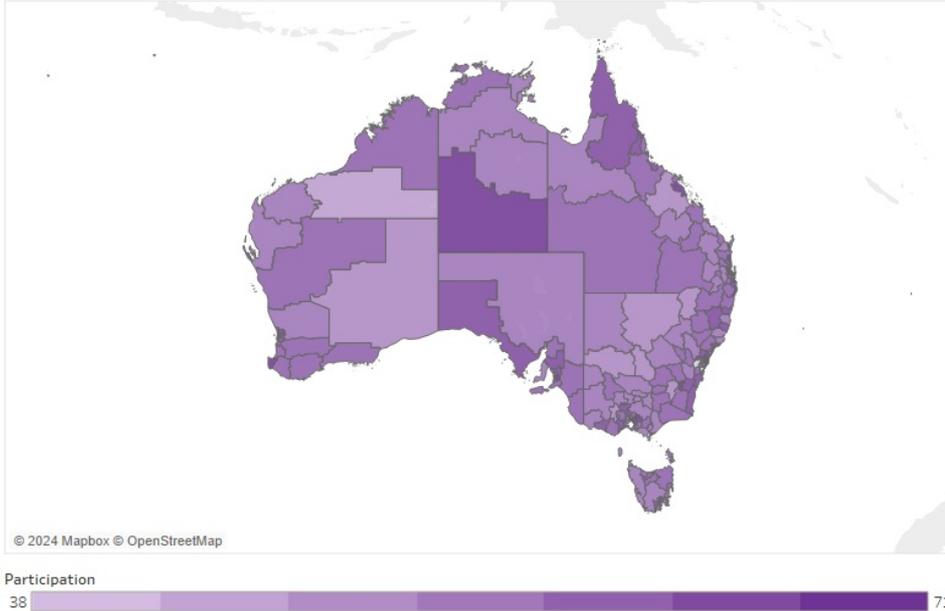


Figure 3.1: National Cervical Screening Program data for persons aged 25–74 by SA3

[View data notes and tables](#)

Source: AIHW analysis of National Cancer Screening Register.
<http://www.aihw.gov.au>

References

ABS (Australian Bureau of Statistics) (2021) *Australian Statistical Geography Standard (ASGS): Volume 3 - Main Structure and Greater Capital City Statistical Areas - Statistical Area Level 3, July 2021*, catalogue number 1270.0.55.003, ABS, Australian Government, accessed 6 December 2022.

DHAC (Department of Health and Aged Care) (2022) *Primary Health Networks (PHNs)*, Health website, accessed 6 December 2022.

Using the data - FAQs

Using the data - frequently asked questions

How do I download data from visualisations?

All data visualisations have been created using Tableau. You can use the filters to see the data of interest to you.

To view the underlying data, click on the 'View data notes and tables' link at the bottom of each visualisation to download an Excel file (.xlsx format) containing the data, or go to the [Data](#) page.

How do I print the pages of the report?

You can print the web report using the 'Generated PDF' button near the top of the page, if this is available.

You also can print pages by pressing Ctrl and P on your keyboard (at the same time), or by heading to File at the top of your browser and selecting print. Note that the Tableau visualisations do not print correctly with this method.

To print a visualisation, select 'Download' on the menu below the visualisation and choose to download as an image or PDF. The visualisation prints what is presented on the screen, with your selected filters.

You can also use the Snipping Tool to capture what is on your screen.

How do I interact with the graphs and maps?

The graphs, maps, and figures have been developed in Tableau. To see the data of interest, hover your mouse over the graph, map or figure to display the Tooltip - your cursor will change to a hand selector. The Tooltip displays the underlying data.

You can also download the underlying data into an Excel file. Click on the link at the bottom of the page that is displaying the graph of interest.

Some visualisations have an interactive legend, hover your mouse over the legend and a small selector icon will appear (it looks like a highlighter). Click on this icon and then click on the specific element of interest.

You can filter the data on some graphs, maps or figures. Filters are displayed as a button, tick box or a drop-down list; select the data of interest to see it displayed.

If you want to clear your selections and return the graph, map or figure to its original appearance, click on the 'revert' button at the bottom.

When you position your cursor over a Tableau map, a search option will appear in the top left, type a location name to zoom to that area on the map. Click on the home button to return to the map's default view.

Please note that Tableau is not compatible with versions of Internet Explorer below version 11.

Where does the information come from?

This report uses data from:

- National Cancer Screening Register for bowel and cervical screening data
- National Bowel Cancer Screening Register, for participation data for reporting periods prior to 2018-2019
- state and territory cervical screening registers, for participation data for reporting periods prior to 2018
- state and territory BreastScreen Australia registers
- ABS Estimated Resident Populations (ERPs) for people aged 25-74 in 2018, 2019, 2020, and 2021 (ABS unpublished, 2022).

Why does the data change over time?

Data in this report are sourced from live databases, which are updated over time, with later data supply likely to have a greater level of completeness. Data in this report may differ from other AIHW cancer screening reports, which are sourced at a different time.

In particular, participation data are updated biannually, first with preliminary state data and then final data which includes geographic area information.

For more detailed information, see the [Methods](#) section of the [Technical notes](#).

I want to do my own data analysis, where can I get more data?

The information in this report is free to download but must be used in accordance with our data use policy. Most information released by AIHW is made available under a Creative Commons BY 3.0 licence.

For more information see [copyright at AIHW](#).

Tableau allows you the freedom to view and manipulate a selection of data. If you require data not currently available here, please:

- email screeninganalysismonitoring@aihw.gov.au for questions regarding cancer screening, or
- email cancer@aihw.gov.au for questions regarding cancer.

I have more questions, where can I get help?

If you need help using our interactive visualisations (maps, graphs, and figures), or help downloading data, you can contact us at screeninganalysismonitoring@aihw.gov.au.

References

ABS (Australian Bureau of Statistics) (unpublished), *Estimated Resident Population by 2017 Primary Health Network boundaries by single year of age and sex as of June 2021* [data set], ABS, Canberra.

ABS (Australian Bureau of Statistics) (2022), *Regional population*, ABS Website, accessed 6 December 2022.

AIHW (Australian Institute of Health and Welfare) (n.d.) [Australian Institute of Health and Welfare Copyright](#) ©, AIHW website, accessed 29 August 2022.

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Technical notes

National Bowel Cancer Screening Program

Activity data

Invitations issued are a count of all screening invitations issued within the relevant period for those within the target age group. Two-yearly screening was only fully rolled out from 2020, and prior to that, specific ages invited within the 50-74 were invited to screen each year. This phasing in of age groups is also reflected in quarterly activity counts. The age groups invited for the periods covered in this report are shown in the section NBCSP age groups invited by year.

Total kits returned are a count of all kits returned during the relevant period. This can include kits issued in a previous period and returned at a later date. It can also include multiple kits per person (invitee) due to expired, spoiled, damaged or incorrectly completed kits.

The number of invites sent and kits returned are presented by state/territory, age group and quarterly and monthly between 2014 and 2023.

Although terminology is similar, activity counts of invites issued or screening kits returned should not be directly compared with the formal NBCSP participation indicator. Activity counts are a count of events, not people.

Participation data

Participation rates represent the percentage of people invited to screen through the NBCSP during the relevant 2-year period who returned a completed screening test within that period or by 30 June of the following year. The number of individuals invited to screen excludes those who deferred or opted out without completing their screening test. As 2-yearly screening was only fully rolled out from 2020, the specific ages invited within the 50-74 age group for the periods covered in this report are shown in the section '*National Bowel Cancer Screening Program age groups invited by year*' section below.

National Bowel Cancer Screening Program ages invited by year

Two-yearly screening was only fully rolled out from 2020. The specific ages invited within the 50-74 age for the periods covered in this report are shown in the following table:

Table 1: National Bowel Cancer Screening Program ages invited by year

Phase	Start date	End date	Ages invited
1	7 August 2006	30 June 2008	55 and 65
2	1 July 2008	30 June 2011 ^(a)	50, 55 and 65
2 ^(b)	1 July 2011	30 June 2013	50, 55 and 65
3	1 July 2013	31 December 2014	50, 55, 60 and 65
4	1 January 2015	31 December 2015	50, 55, 60, 65, 70 and 74
4	1 January 2016	31 December 2016	50, 55, 60, 64, 65, 70, 72 and 74
4	1 January 2017	31 December 2017	50, 54, 55, 58, 60, 64, 68, 70, 72 and 74
4	1 January 2018	31 December 2018	50, 54, 58, 60, 62, 64, 66, 68, 70, 72 and 74
4	1 January 2019	ongoing	50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72 and 74

Notes

The eligible population for all Phase 2 and 3 start dates incorporate all those turning the target ages from 1 January of that year onwards.

(a) Eligible birth dates, and thus invitations, ended on 31 December 2010.

(b) Ongoing NBCSP funding commenced.

BreastScreen Australia

Activity data

Activity data were supplied by BreastScreen Australia state and territory programs. The number of screening mammograms performed are presented by state/territory, age group and quarterly and monthly between 2014 and 2023.

Although terminology is similar, activity counts of screening tests should not be directly compared with the formal BreastScreen Australia participation indicator. Activity counts are a count of events, not people.

Participation data

Participation rates represent the percentage of women in the population aged 50-74 screened by BreastScreen Australia over 2 calendar years. The population denominator was the average of ABS Estimated Resident Population (ERP) (ABS unpublished, 2022) for females aged 50-74 in 2021 and 2022.

BreastScreen Australia changed its target age group from 50-69 years to 50-74 years from July 2013; participation is reported for both the previous and current target age groups to allow comparison of trends with previously reported data.

National Cervical Screening Program data

Activity data

Screening tests are a count of all primary screening HPV tests performed within the relevant period for those within the target age group. Follow-up tests for people who had a positive screening test, or treatment for HPV infection, are not included. Transition from the previous 2-yearly screening program to the renewed 5-yearly screening program occurred from 1 December 2017. Quarterly activity counts are only shown for the renewed NCSP from 2018 onwards as program data for previous years are not comparable.

Although terminology is similar, activity counts of screening tests should not be directly compared with the formal NCSP participation indicator. Activity counts are a count of events, not people.

Participation data

Participation in the NCSP is estimated until 5 years of data are available to calculate 5-year participation. This is defined as the percentage of females in the population aged 25-74 who had at least one cervical screening test (primary screening or 12-month repeat HPV test) in 2018 to 2022. Participation rates were calculated using the ABS Estimated Resident Population (ERP) (ABS unpublished, 2022) for people aged 25-74 in 2018, 2019, 2020, 2021 and 2022, adjusted to exclude the estimated proportion of women who have had a hysterectomy.

In this report the term 'people' is used to describe participants in the NCSP. In this context the term 'people' is defined as any person with a cervix - this may include women, transgender men, intersex people and non-binary people.

Methods

Data in this report are sourced from live databases which are updated over time, with later data supply likely to have a greater level of completeness. Data in this report may differ from other AIHW cancer screening reports, which are sourced at a different time.

Activity data for all screening programs are updated each quarter.

Participation data are updated biannually, first as preliminary participation data pertaining to state and territory, and then as updated final data which also includes Primary Health Network areas and other small geographies. Note that unlike BreastScreen Australia and the NCSP, the NBCSP publishes geography data with both preliminary and final data.

Preliminary participation data for all screening programs are published ahead of their respective AIHW annual monitoring report which might result in minor differences from data published in this web report. In contrast, final participation data published in this web report aligns with the data presented in each program's annual monitoring reports.

Rounding

Some numbers may be presented rounded to the nearest whole number for percentages, or to the nearest 100 or 1,000 in text. The exact figures are available in the Excel data tables, csv data files and Tableau visualisations.

State or territory

For data on the NBCSP and the NCSP (from 2018 onwards), state or territory refers to the state or territory of residence.

For data on BreastScreen Australia and the NCSP (prior to 2018), state or territory refers to the state or territory in which screening occurred, not the state or territory of residence.

Rates

Rates are calculated from one number (numerator) divided by another number (denominator). The numerator is commonly the number of events in a specified time. The denominator is the population 'at risk' of the event. In this report, participation rates (crude, age-specific and age-standardised) are multiplied by 100 and expressed as percentages.

In this report, all rates reported (including national rates reported for a single reporting period) are crude or age-specific rates, unless otherwise stated. Age-standardised rates relate to the target age groups for each respective program. For more information specific to each screening program see '*Age-standardised rates*' below.

Crude rates

A rate derived from the number of events recorded in a population during a specified time-period without adjustments for other factors such as age. Crude rates are calculated by taking the number of cases occurring in a population with selected characteristics such as sex, eligible age range or living in a same area (numerator) and dividing this number by the corresponding total population with the same characteristics in the same reference period (denominator). For example, in this report crude participation rates would include the number of eligible people participating in a screening program in a certain state or territory, divided by the total number of people eligible to participate in the same state or territory and within the same reference period. Crude participation rates in this report, are expressed as percentages.

Age-specific rates

A specific type of crude rate derived from the number of cases occurring in each specified age group (numerator) divided by the corresponding population in the same age group (denominator). For example, in this report age-specific participation rates would include the number of people of a certain age participating in a screening program, divided by the number of people eligible to participate (or the number of people in the population of that age). Age-specific participation rates in this report, are expressed as percentages.

Age-standardised rates

Age-standardisation is a way to remove the influence of age when comparing rates between populations with different age structures. This is usually necessary because the rates of many diseases vary strongly (usually increasing) with age. Screening behaviours also vary with age. To adjust the participation rates, actual age-specific participation rates for each population of interest are applied to one standard population. Adjusted participation rates can then be directly across populations with different age structures. Note that the age-standardised rates are not "real" and should not be reported alone. They are used only for comparative purpose.

Age-standardised participation rates for the target age group for BreastScreen Australia (50-69 and 50-74) and the NCSP (20-69 prior to 2018 and 25-74 from 2018) are available in the accompanying data tables to allow comparisons to be made over time and across population groups.

Age-standardised participation rates are not available for the NBCSP, since only specific age groups were invited until the program was fully rolled out in 2020. For more information about the age groups invited in different years, see the relevant section in the '*National Bowel Cancer Screening Program*' section above.

Percentage difference

Percentage difference is a way of expressing the difference between counts or rates, usually over a designated time period.

In this report, we calculate percentage differences in:

- counts of participants over time,
- participation rate over time and
- participation rate between different geographies (states and territories) compared to a reference (Australian average) within the same time period.

Percentage differences are calculated similar to crude rates above, where the count or rate (numerator) is divided by the corresponding reference count or rate (denominator), expressed as a percentage.

Unlike crude rates, percentage differences represent the proportional difference compared to the reference. This is useful to illustrate the overall percentage change in counts or participation rates over time or the magnitude of difference between two participation rates.

Geography

Participation rates in the NBCSP, BreastScreen Australia and the NCSP are presented for the following geographies:

- Primary Health Network (PHN) areas: 31 areas covering Australia, defined by the Department of Health and Aged Care (DHAC 2022)
- Statistical Areas Level 3 (SA3s): 333 areas covering Australia (ABS 2021a)

Participation rates in the NBCSP are also presented for Statistical Areas Level 2 (SA2s): 2,196 areas covering Australia (ABS 2021b) for periods up to 2017-2018, 2019-2020 and 2020-2021. SA2 data for the NBCSP were not available for 2018-2019 due to data quality issues.

Note that SA2s are not available as visualisations, with SA2 data currently only available for download as part of the '*CSV file: National Cancer Screening programs participation*' zip file located on the [Data](#) page

Both SA3s and SA2 are defined by the ABS within the [Australian Statistical Geography Standard](#) (ASGS) (ABS 2022):

- The 2011 ASGS (ABS 2010) was used for the 2014-2015 to 2017-2018 NBCSP data, and 2014-2015 and 2015-2016 BreastScreen Australia data in this report.
- The 2016 ASGS (ABS 2016) was used for the 2018-2019 and later NBCSP data, 2016-2017 and later BreastScreen Australia data and NCSP data in this report.

For BreastScreen Australia and the NCSP, population denominators for the PHN geographical areas were derived using ABS Estimated Resident Population (ERP) data by postal areas (ABS unpublished, 2022) and the PHN correspondence file (DHAC 2019). These data were classified according to the PHN 2017 structure (DHAC 2022).

Participation data for some SA3s across the three screening programs were not published due to reliability concerns arising from low numbers in these regions and/or due to poor correspondence (as determined by the Australian Bureau of Statistics).

Assigning geography

For NBCSP invitees prior to the 2019-2020 period, geographic areas (PHNs, SA3s and SA2s) were assigned using Statistical Areas Level 1 (SA1s) of usual residence. For invitees without reliable SA1 details geographic areas were assigned using postcode of usual residence. For the 2018-2019 participation by PHN and SA3 geographical areas were reported and assigned using postcode of usual residence. From the 2019-2020 period onward, SA2 geographic area data were directly assigned based on longitude and latitude information of the program invites. SA2 information was then used to assign the PHNs and SA3s. For invitees without reliable address of residence, the postcodes of usual residence were used and assigned to an SA2.

Note that when used to assign geographic areas, some postcodes cross the boundaries of PHNs, SA3s or SA2s with the use of postcode correspondences potentially leading to some minor inaccuracies in results. Where SA1 codes, SA2 codes or postcodes could not be attributed to a PHN, SA3 or SA2, these invitees were included in an 'Unknown' group in the data tables and are excluded from data visualisations.

For BreastScreen Australia, PHNs and SA3s were assigned using postcode of usual residence. Where postcodes could not be attributed to a PHN or SA3, these women were included in an 'Unknown' group where possible in the data tables and were excluded from data visualisations. For Queensland, the 17 SA3s that had poor concordance with postcode, had their participation data derived from SA2 geocoded information available for women residing in Queensland and screening in Queensland only.

For the NCSF, from the January 2023 release, SA2 geographic area data was directly assigned based on longitude and latitude information and was used to assign PHN areas and SA3s. For invitees without reliable SA2 details, PHN areas and SA3s were assigned using postcode of usual residence. Where SA2s and postcodes could not be attributed to a PHN for Tas, ACT or NT, state information was used to allocated women to the single PHN corresponding to these states. Where PHNs remained unallocated or postcodes could not be attributed to an SA3, these women were included in an 'Unknown' group, where possible in the data tables, and were excluded from data visualisations. For analyses where a postcode overlapped PHN areas or SA3 boundaries, the relevant records were attributed based on the percentage of the population within that postcode that fell within the PHN area or SA3.

Participation by geographic areas represents the geographic data available within the relevant data source at the time of first publication and are not retrospectively updated. This is particularly of relevance to NCSR data for the NBCSP, which updates geography data biannually, as some improvements to geographical information may be made over time.

Correspondences

Correspondence files for PHN were sourced from the Department of Health and Aged Care website for all 3 screening programs and were classified according to the PHN concordance available at the time of analysis (DHAC 2019). PHNs were established in June 2015, and some of the geographic information presented includes data before that date. For further details on PHNs see the [Department of Health and Aged Care's website \(2022\)](#).

Correspondence files for SA3s and SA2s for NBCSP data (from the 2014-2015 to the 2017-2018 period) and BreastScreen Australia data (from the 2014-2015 to 2015-2016 period) were initially sourced from the 2011 ASGS (ABS 2010). For NBCSP data (from the 2018-2019 period onwards), BreastScreen Australia data (from the 2016-2017 period onwards) and the NCSF, correspondence files for SA3s were initially sourced from the 2016 ASGS (ABS 2016).

The correspondences produced by the ABS can now be found on data.gov.au by searching for: 'ASGS', the 'year', and 'correspondences' (ABS 2018a, 2018b).

The number of people in different geographic areas (PHNs, SA3s or SA2s) may not sum the to 'Australia' total due to rounding. The Australia total also includes some records that could not be attributed to a geographic area.

SA3s and SA2s with a numerator less than 20, a denominator less than 100, or those with poor SA2, SA3 or postcode correspondences (as determined by the Australian Bureau of Statistics) were suppressed.

For a full list of AIHW products that include data and results by small areas (for example, by PHNs) see [AIHW data by geography](#).

Abbreviations & symbols

Symbols used in this report

Symbol	Description
n.a.	not available, not applicable
n.p.	not published because of small numbers, confidentiality and/or other concerns about the quality of the data)
. .	no data/insufficient data

Abbreviations used in this report

Abbreviation	Description
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ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ASGS	Australian Statistical Geography Standard
DHAC	Australian Government Department of Health and Aged Care
ERP	Estimated Resident Population
iFOBT	Immunochemical faecal occult blood test
HPV	human papilloma virus
NBCSP	National Bowel Cancer Screening Program
NCSPP	National Cervical Screening Program
NCSR	National Cancer Screening Register
PHN	Primary Health Network
SA1	Statistical Areas Level 1
SA2	Statistical Areas Level 2
SA3	Statistical Areas Level 3

References

ABS (Australian Bureau of Statistics) (n.d.), *Australian Statistical Geography Standard (ASGS)*, ABS website, accessed 6 December 2022.

ABS (Australian Bureau of Statistics) (unpublished), *Estimated Resident Population by 2017 Primary Health Network boundaries by single year of age and sex as of June 2021* [data set], ABS, Canberra.

ABS (Australian Bureau of Statistics) (2010), *Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital City Statistical Areas, July 2011*, catalogue number 1270.0.55.001, ABS, Australian Government, accessed 6 December 2022.

ABS (Australian Bureau of Statistics) (2016), *Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital City Statistical Areas, July 2016*, catalogue number 1270.0.55.001, ABS, Australian Government, accessed 6 December 2022.

ABS (Australian Bureau of Statistics) (2018a). *ASGS Geographic Correspondences (2011)* [data set], data.gov.au, accessed 6 December 2022.

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ABS (Australian Bureau of Statistics) (2022), *Regional population*, ABS Website, accessed 6 December 2022.

AIHW (Australian Institute of Health and Welfare) (n.d.) *AIHW Data by Geography*, AIHW website, accessed 6 December 2022.

DHAC (Department of Health and Aged Care) (2019) *Primary Health Networks (PHN) - concordance files - Postal Areas - 2017* [data set], Health website, accessed 6 December 2022.

DHAC (Department of Health and Aged Care) (2022) *Primary Health Networks (PHNs)*, Health website, accessed 6 December 2022.

Notes

Data revisions of the July 2023 release

The 2021-2022 population data by age and State and territory were revised. Hence, participation rates (where relevant) have been updated in *Figure 1: BreastScreen Australia participation data by state and territory, by age group and by year*.

July 2023 release updates

Activity

National Bowel Cancer Screening Program activity data for the March quarter 2023 added with state and territory disaggregates.

BreastScreen Australia activity data for the March quarter 2023 added with state and territory disaggregates.

Updated National Cervical Screening Program activity data from the March quarter 2018 onwards and activity data for the March quarter 2023 added with state and territory disaggregates.

Participation

Updated to include National Bowel Screening Program participation data by state and territory, PHN and SA3 and age group for the 2020-2021 period with the final data.

Updated to include BreastScreen Australia participation by state and territory in 2021-2022 preliminary data.

April 2023 release updates

Activity

National Bowel Cancer Screening Program activity data for the December quarter 2022 added with state and territory disaggregates.

BreastScreen Australia activity data for the December quarter 2022 added with state and territory disaggregates.

National Cervical Screening Program activity data from the March quarter 2018 onwards and activity data for the December quarter 2022 added with state and territory disaggregates.

Participation

Updated National Cervical Screening Program to include 5-year preliminary participation data by state and territory and age group for the 2018-2022 period.

January 2023 release updates

Activity

National Bowel Cancer Screening Program activity data for the September quarter 2022 added with state and territory disaggregates.

BreastScreen Australia activity data for the September quarter 2022 added with state and territory disaggregates.

National Cervical Screening Program activity data from the March quarter 2018 onwards and activity data for the September quarter 2022 added with state and territory disaggregates.

Participation

Updated to include National Bowel Screening Program participation data by state and territory, PHN and SA3 and age group for the 2020-2021 period with the preliminary data.

Updated to include National Cervical Screening Program participation data by state and territory, PHN and SA3 and age group for the 2018-2021 period (final version of data). From this release onward the method of geographical assignment now changed with SA2 areas directly available within data and PHN and SA3 areas assigned via SA2 correspondence rather than postcode.

October 2022 release updates

Amendments

In-text figures relating to the total participation of people aged 50-74 in the National Bowel Cancer Screening Program were rounded down, rather than up which more accurately reflects the figure. All numbers in data tables are exact and have not required amendment.

When describing the impact of COVID-19 on breast cancer screening across 2019, 2020, and 2021, the numbers originally used to illustrate the number of screening mammograms within these years were drawn from women aged 40+. While the trends were correctly described, it is more appropriate to restrict these numbers to the target population of women aged 50-74. Changes have been made to reflect this.

The figure presented regarding the difference in age-standardised participation rates for ACT and Australia overall was presented in percentage points, rather than the percentage difference. That is, while the age-standardised rate of ACT was 10 percentage points higher than that of Australia, this reflected a 13% difference in value. It is more appropriate to indicate this relative difference, rather than percentage point difference when discussing age-standardised rates.

The ABS 2016 reference pertaining to the Australian Statistical Geographic Standards (ASGS) was erroneously named the same as the 2011 edition (though correctly linked to the 2016 edition). It was important to change this for clarity relating to correspondence data.

The downloadable excel tables required re-uploading as the current version was a historical, less polished version that had minor naming and/or grammatical errors in some table names and footnotes. Please note that all data was correct.

The downloadable zip file for the Activity data required re-uploading as the current version was a historical, less polished version. The zip file was incorrectly named and the data was incorrectly sorted, though all data values were correct.

Activity

National Bowel Cancer Screening Program activity data for the June quarter 2022 added with state and territory disaggregates.

BreastScreen Australia activity data for the June quarter 2022 added with state and territory disaggregates.

Updated National Cervical Screening Program activity data from the March quarter 2018 onwards and activity data for the June quarter 2022 added.

Participation

Updated to include National Bowel Screening Program participation data by state and territory, PHN, and SA3 and age group for the 2019-2020 period with final data. From 2019-2020 period onward method of geographical assignment now changed with SA2 areas directly available within data and PHN and SA3 areas assigned via SA2 correspondence rather than postcode.

July 2022 release updates

Activity

National Bowel Cancer Screening Program activity data for the March quarter 2022 added and for the first time, disaggregated by state and territory.

BreastScreen Australia activity data from March quarter 2021 to March 2022 were added with state and territory disaggregates.

National Cervical Screening Program activity data from the March quarter 2018 onwards and activity data for the March quarter 2022 added and for the first time, were disaggregated by state and territory.

Participation

Updated to include National Bowel Screening Program participation data by state and territory, PHN and SA3 and age group for the 2019-2020 period with the preliminary data.

Updated to include BreastScreen Australia preliminary participation data by state and territory and age group for the 2020-2021 period. Participation by SA3 in 2019-2020 was updated for Queensland.

Updated to include National Cervical Screening Program preliminary participation data by state and territory and age group for the 2018-2021 period (interim estimates).

May 2022 release updates

Activity

National Bowel Cancer Screening Program activity data for the December quarter 2021 added.

Updated National Cervical Screening Program activity data from the March quarter 2018 onwards and activity data for the December quarter 2021 added.

BreastScreen Australia activity data from March quarter 2014 to December 2020 were added for the first time.

Participation

Updated BreastScreen Australia participation data by state and territory, PHN and SA3 and age group for the 2019-2020 period.

Updated National Cervical Screening Program participation data by state or territory, PHN and SA3 and age group for 2018-2020.

Data quality statement

For more information about the data sources, see the Data Quality Statements on the following pages:

- [National Bowel Cancer Screening Program screening data 2020-2022](#)
- [BreastScreen Australia data 2021-2022](#)
- [National Cervical Screening Program screening data 2018-2022](#).





Data





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