BreastScreen Australia Monitoring Report 2001–2002

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Cancer Series
Number 29

BreastScreen Australia Monitoring Report 2001–2002

The Australian Institute of Health and Welfare
and the
Australian Government Department of Health and Ageing
for the
BreastScreen Australia Program

February 2005

Australian Institute of Health and Welfare
Canberra

AIHW cat. no. CAN 24

This publication is part of the Australian Institute of Health and Welfare's Cancer Series. A complete list of the Institute's publications is available from the Publications Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601, or via the Institute's website <http://www.aihw.gov.au>.

ISSN 1039-3307

ISBN 1 74024 4486

Suggested citation

Australian Institute of Health and Welfare (AIHW) 2005. BreastScreen Australia monitoring report 2001–2002. AIHW cat. No. CAN 24. Canberra: Australian Institute of Health and Welfare (Cancer Series no. 29).

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Published by Australian Institute of Health and Welfare

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Acknowledgments

The BreastScreen Australia Program is funded by the Australian Government Department of Health and Ageing. This report was produced in collaboration with the BreastScreen Australia National Advisory Committee (since replaced by the Australian Screening Advisory Committee) and its Monitoring and Evaluation Working Group and the Population Screening Section of the Department of Health and Ageing.

This report was prepared by Cathy Hotstone, Chris Stevenson and John Harding. Thanks are extended to the following state and territory program and data managers for providing the data and overall assistance in the production of this report. Thanks are also extended to all state and territory cancer registries, which are the source of data on breast cancer incidence (through the National Cancer Statistics Clearing House) and data on ductal carcinoma in situ.

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Summary

This is the sixth national monitoring report for the BreastScreen Australia Program. The report presents statistics on BreastScreen Australia screening activity and outcomes for 2001–2002. A reporting interval of two years is used because it corresponds with the recommended interval between screens for asymptomatic women in the target age group of 50–69 years.

Participation

- A total of 1,611,262 women participated in BreastScreen Australia screening in 2001–2002. Of these women, 1,102,227 (68%) were in the screening program target age group of 50–69 years.
- The proportion of women in the target population participating in the BreastScreen Australia Program has been steadily increasing, from 52.3% in 1996–1997 to 57.1% in 2001–2002.
- Although there was some variation in participation rates among different socioeconomic groups in the target population, the difference between the most and the least disadvantaged groups was only marginally significant, and all groups had participation rates above 55%.
- The participation rates for Indigenous women and women from a non-English speaking background in the target population, 34.8% and 47.4% respectively, were significantly lower than the national rate of 57.1%.

Detection of cancer

- In order to reduce morbidity and mortality resulting from breast cancer, BreastScreen Australia aims to maximise the early detection of small-diameter (15 mm or less) invasive breast cancers. In 2002, 63% of all invasive breast cancers detected by BreastScreen Australia were small-diameter cancers. This proportion reduced to 54.0% for women who were attending for their first screen and increased to 65.8% for women who had previously been screened.
- For women in the target age group, the age-standardised rate of small-diameter invasive cancer detection was 29.1 per 10,000 women screened in 2002. This was not significantly different from the 2001 rate of 29.0 per 10,000 women screened.
- Data on interval cancers (that is, an invasive cancer detected between two screening rounds) were not available for New South Wales for 24-month follow-up. For other jurisdictions, the age-standardised rates of interval cancer for women in the target age group in the 24 months after their first screen ranged from 7.0 per 10,000 women-years in the Northern Territory to 15.6 per 10,000 women-years in Tasmania.
- 'Program sensitivity' is the proportion of invasive breast cancers that are detected within the BreastScreen Australia Program out of all invasive breast cancers (interval cancers plus screen-detected cancers) diagnosed in Program-screened women in the screening interval. The Program sensitivity rate for women in the target age group in the 24 months after their first screen ranged from 69.1% in Tasmania to 85.1% in Western Australia.
- In 2002, 849 cases of ductal carcinoma in situ (see page 26) were detected in women participating in the BreastScreen Australia Program. The age-standardised detection rate

for this condition was 10.5 per 10,000 women screened for women in the target age group and 10.0 per 10,000 women screened for all women aged 40 and over.

Recall for assessment

- In 2002, the proportion of women recalled for assessment because of an abnormal mammogram result was significantly higher for women being screened for the first time compared with women who had previously been screened. While 8.7% of women attending their first round of screening were recalled for further testing, only 4.2% of women attending for a subsequent round of screening were recalled.

Rescreening

- The proportion of women attending a BreastScreen Australia service in 2000 and returning for rescreening within the recommended 27-month interval increased with the number of previous screens. The age-standardised national rescreen rate for women attending a BreastScreen Australia service in 2000 for the first time was 61.8%. The rescreen rate increased to 72.0% for women attending for their second screen and 80.6% for women attending for a third or subsequent screen.

Breast cancer incidence

- With some fluctuations, there was a notable increase between 1987 and 2001 in the age-standardised breast cancer incidence rates for women in the target age group. Incidence increased in the target age group from 196.9 new cancers per 100,000 women in 1987 to 305.4 per 100,000 women in 2001.
- Of the 11,791 new cases of breast cancer in 2001, 5,802 (49%) occurred in women in the target age group. Only 6% of cases were women aged under 40 years. Age-specific incidence rates in 2001 ranged from 123.1 new cancers per 100,000 women in the 40–44 age group to 352.7 new cases per 100,000 women in the 60–64 age group.
- Between 1996 and 2001, the national age-standardised incidence rate of ductal carcinoma in situ for women aged 50–69 years was 37.5 per 100,000 women. Across states and territories, the rate ranged from 17.4 cases per 100,000 women in the Northern Territory to 50.0 cases per 100,000 women in Western Australia.

Breast cancer mortality

- From 1993 onwards, a steady decline is evident in the age-standardised mortality rates for women in the target age group. The mortality rate for these women was 68.3 deaths per 100,000 women in 1988; in 2002, the corresponding figure was 56.7. A similar pattern of decline in mortality rates can be observed in women aged 70 and over. Mortality rates for women aged under 50 years remained the lowest and most consistent, staying below 8 deaths per 100,000 women for the period 1987 to 2002.

Indicator 1: Participation

Participation rate

The participation rate is the percentage of women in the population screened through the BreastScreen Australia Program in a 24-month period by 5-year age groups (40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, 75–79, 80–84, 85+ years) and for the target age group (50–69 years).

The participation indicator

The participation rate is a population-based indicator that measures the proportion of the eligible population attending the screening program within the recommended screening interval. All women who are Australian citizens and those with permanent residency status are eligible for breast screening. It is important that a high proportion of women in the target age group attend for screening if BreastScreen Australia is to realise the anticipated reductions in overall mortality from breast cancer (DHSH 1994). The participation rate is a direct measure of this attendance. The indicator also provides information to assist in assessing the effectiveness of the program's communication and education strategies, and can be used to assess whether the target age group is well represented in the screening population.

The focus of this report is on women who have had a mammogram in the BreastScreen Australia Program. However, other mammography for screening and diagnosis (that is, investigating breast symptoms) is conducted outside the program. To some extent, therefore, the results presented in this report are an underestimation of screening on a national basis. This chapter reports on the participation rates for the BreastScreen Australia Program for 2001 and 2002.

One of the objectives of the BreastScreen Australia Program is 'To achieve, after five years, a 70 per cent participation in the National Program by women in the target group (50–69)…' (BSANAC & DHAC 2000). The age-standardised national participation rate for women in the target group in 2001–2002 was 57.1%. This rate has been steadily increasing since 1996–1997, when it was 52.3%.

Age-standardised participation rates for women in the target age group (50–69 years), Australia, 1996–1997 to 2001–2002

	Objective[(a)]	1996–1997	1997–1998	1998–1999	1999–2000	2000–2001	2001–2002
Rate (%)	70.0	52.3	54.3	55.6	55.9	56.9	57.1
95% CI	. .	52.1–52.3	54.1–54.4	55.5–55.8	55.8–56.0	56.8–57.0	57.0–57.2

(a) Performance objective of the BreastScreen Australia Program as set out in the National Accreditation Standards (NQMC unpublished).

. . Not applicable.

Note: Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.

Source: AIHW analysis of BreastScreen Australia data.

Another BreastScreen Australia objective relating to participation is 'To achieve patterns of participation in the Program which are representative of the socioeconomic, ethnic and cultural profiles of the target population' (BSANAC & DHAC 2000). This chapter reports national participation rates by region, socioeconomic status, Indigenous status and main language spoken at home. Below are some key points on each of these variables.

Region

Participation rates in 'Major cities' and 'Very remote' areas were significantly lower than those in other regions.

The lower participation rates in 'Major cities' may reflect greater access to, and use of, private radiology services. Or there may be a group of women in the target age group who are working women and cannot easily access BreastScreen Australia services. For some women, proximity to services could create over-familiarity and lead to postponement of screening in order to accommodate other priorities.

Lower rates in 'Very remote' areas may reflect a larger proportion of Indigenous women in the target age group who may not find services culturally accessible. The lower rates may also reflect the unavailability of BreastSceen Australia services in some remote areas of the Northern Territory. However, there are no data to test these hypotheses. Participation in rural areas is encouraged through the use of mobile mammography units.

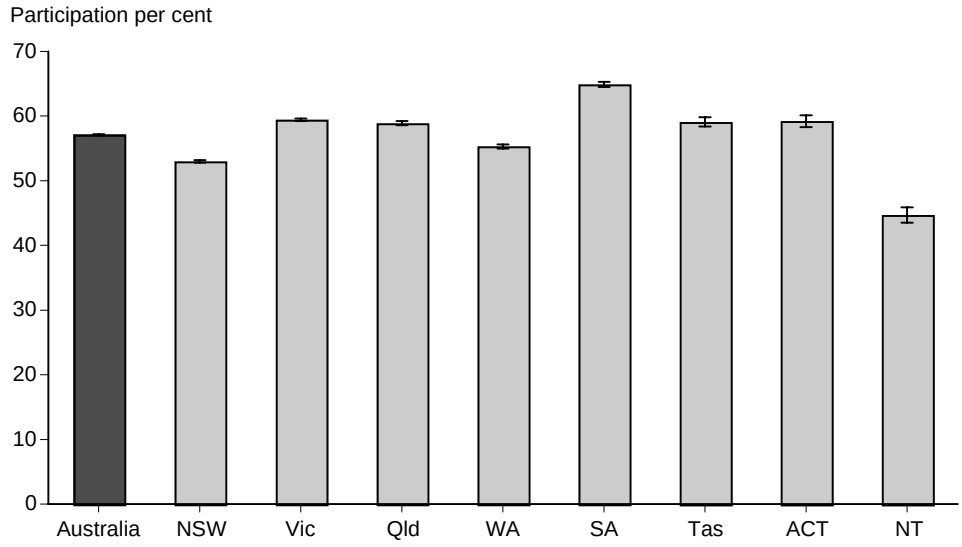
Socioeconomic status

Breast cancer incidence and mortality are highest among women with the highest socioeconomic status (Tracey et al. 2004; Dunn et al. 2002). There was some variation in the participation rates among different socioeconomic groups, but there was only a marginally significant difference between the most and the least disadvantaged groups. This demonstrates the success of the program in reaching women at all socioeconomic levels, since there is no decline in participation with decreasing socioeconomic status.

Indigenous status and main language spoken at home

Participation among Indigenous women was significantly lower than that of non-Indigenous women. Similarly, participation among women who speak a language other than English at home was significantly lower than that of women who speak English at home. These results should, however, be treated with caution because of the data issues discussed in the report.

Participation of women aged 50–69 years in BreastScreen Australia, 2001–2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	57.1	53.0*	59.4*	58.9*	55.3*	64.9*	59.1*	59.2*	44.7*
95% CI	57.0–57.2	52.8–53.2	59.2–59.6	58.6–59.1	55.0–55.7	64.5–65.3	58.5–59.8	58.3–60.1	43.5–45.9

* Significantly different from the all-Australia rate.

Notes

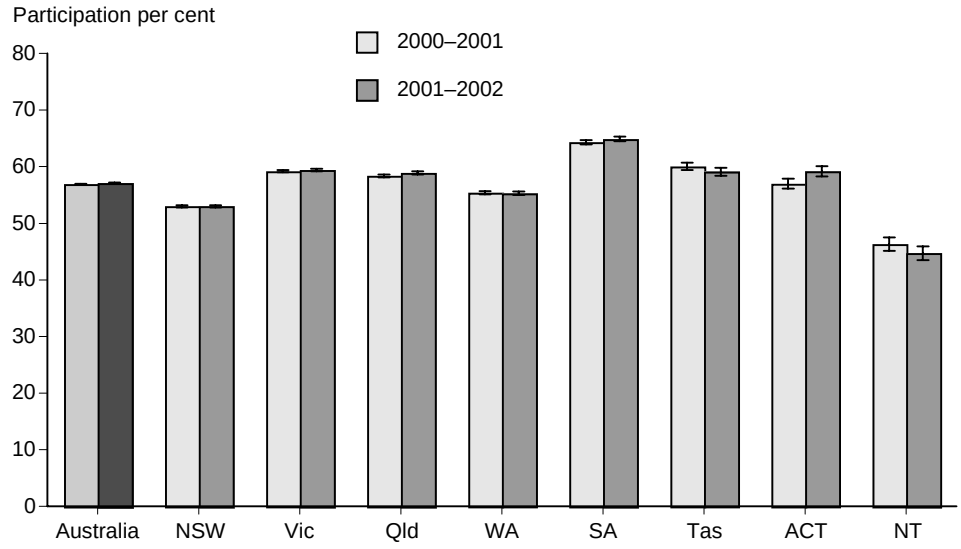
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Period covers 1 January 2001 to 31 December 2002.

- Of the 1,611,262 women screened during 2001 and 2002 as part of the BreastScreen Australia Program, 1,102,227 (68%) were in the target age group (50–69 years).
- In 2001–2002, 57.1% (age-standardised) of women in the target age group attended a BreastScreen Australia service. The corresponding participation rate for all women aged 40 and over was 37.5%.
- Across states and territories, the age-standardised participation rate for women in the target age group ranged from 44.7% in the Northern Territory to 64.9% in South Australia. It should be noted that BreastScreen Australia services are not provided in some remote areas of the Northern Territory and this may lower the participation rate for this jurisdiction.

For more information, see:

Tables 1 and 2

Participation of women aged 50–69 years in BreastScreen Australia, 2000–2001 and 2001–2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2000–2001	56.9	53.0	59.2	58.4	55.4	64.3	60.0	57.0	46.3
95% CI	56.8–57.0	52.9–53.2	59.0–59.4	58.1–58.6	55.1–55.7	63.9–64.7	59.3–60.6	56.0–57.8	45.1–47.5
2001–2002	57.1	53.0	59.4	58.9	55.3	64.9	59.1	59.2*	44.7
95% CI	57.0–57.2	52.8–53.2	59.2–59.6	58.6–59.1	55.0–55.7	64.5–65.3	58.5–59.8	58.3–60.1	43.5–45.9

* Significantly different from the 2000–2001 rate.

Notes

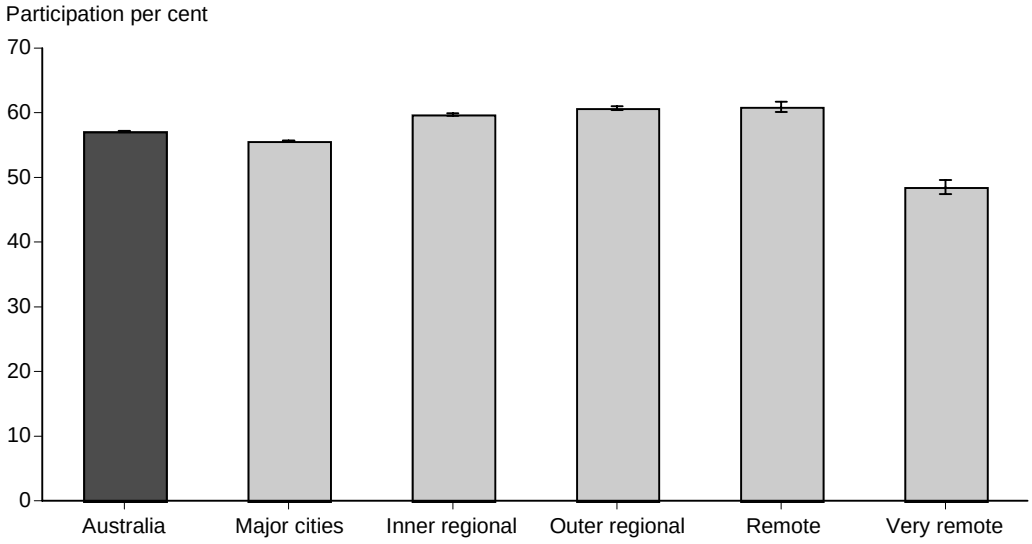
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Periods cover 1 January 2000 to 31 December 2001 and 1 January 2001 to 31 December 2002.

- Participation in BreastScreen Australia among women in the target age group rose from 56.9% (age-standardised) in 2000–2001 to 57.1% in 2001–2002. However, this difference was not significant.
- The Australian Capital Territory was the only jurisdiction to show a significant increase in participation for women in the target age group in 2001–2002. In the Australian Capital Territory, the age-standardised participation rate rose from 57.0% in 2000–2001 to 59.2% in 2001–2002.

For more information, see:

Tables 1 and 2

Participation of women aged 50–69 years in BreastScreen Australia by region, 2001–2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
Rate (%)	57.1	55.6*	59.7*	60.7*	60.9*	47.9*
95% CI	57.0–57.2	55.5–55.7	59.5–60.0	60.3–61.0	59.9–61.8	46.6–49.2

* Significantly different from the all-Australia rate.

Notes

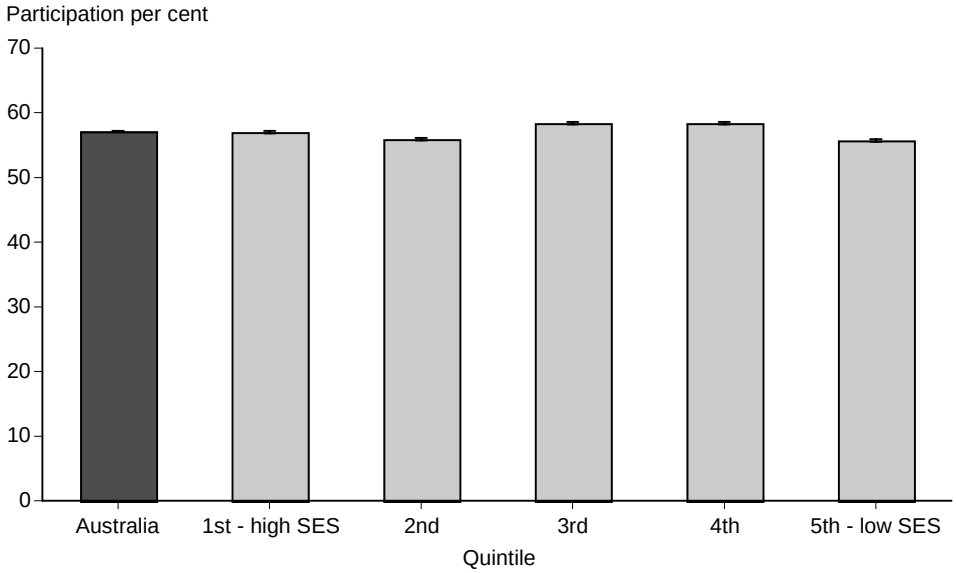
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Period covers 1 January 2001 to 31 December 2002.
3. The Australian Standard Geographical Classification (ASGC) was used to create the above categories (ABS 2001).

- Participation in BreastScreen Australia varied significantly between regions in 2001–2002.
- Age-standardised participation rates for women in the target age group in 'Major cities' (55.6%) and 'Very remote' areas (47.9%) were significantly lower than the national rate of 57.1%. Significantly higher than the national rate were 'Inner regional' areas at 59.7%, 'Outer regional' areas at 60.7% and 'Remote' areas at 60.9%.

For more information, see:

Table 3

Participation of women aged 50–69 years in BreastScreen Australia by socioeconomic status, 2001–2002



Notes

1. Bars on columns represent 95% confidence intervals.
2. SES means socioeconomic status (see details in Appendix A).

Source: AIHW analysis of BreastScreen Australia data.

	Australia	1st quintile	2nd quintile	3rd quintile	4th quintile	5th quintile
Rate (%)	57.1	57.0	55.9*	58.4*	58.4*	55.7*
95% CI	57.0–57.2	56.7–57.2	55.6–56.1	58.2–58.6	58.1–58.6	55.5–56.0

* Significantly different from the all-Australia rate.

Notes

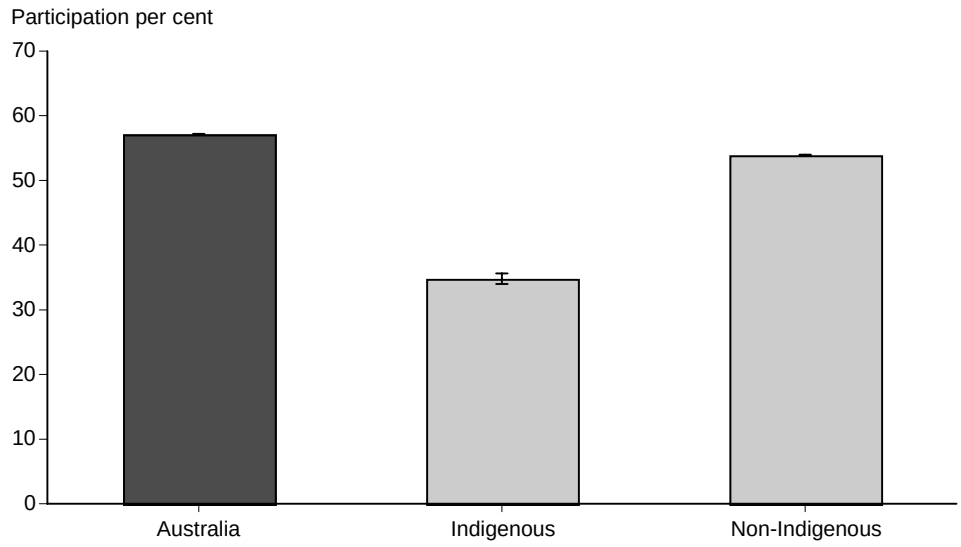
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Period covers 1 January 2001 to 31 December 2002.
3. The first quintile corresponds to the highest socioeconomic status and the fifth to the lowest socioeconomic status.

- Women in the target age group living in postcodes with the lowest socioeconomic status had the lowest age-standardised participation rate (55.7%) in 2001–2002. The socioeconomic groups with the highest participation rates were the third and fourth quintiles, both 58.4%.
- The participation rate for women living in postcodes with the highest socioeconomic status (57.0%) was significantly higher than women in the lowest socioeconomic group.

For more information, see:

Table 4

Participation of women aged 50–69 years in BreastScreen Australia by Indigenous status, 2001–2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	Indigenous	Non-Indigenous
Rate (%)	57.1	34.8*	53.9
95% CI	57.0–57.2	34.0–35.6	53.8–54.0

* Significantly different from the non-Indigenous rate.

Notes

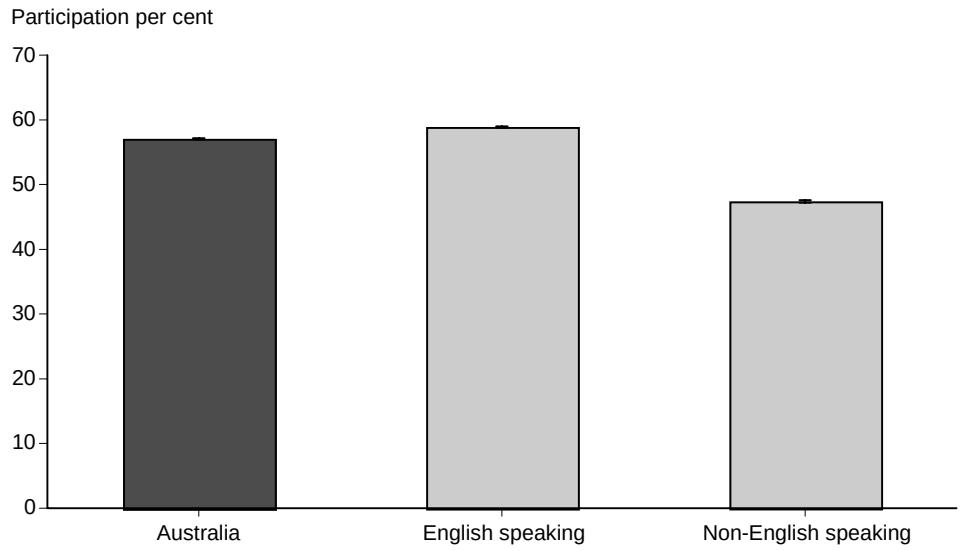
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Period covers 1 January 2001 to 31 December 2002.
3. Women whose Indigenous status was recorded as 'not stated' were included in the analysis for all women but excluded from the analysis by Indigenous status.

- At the 2001 national population Census, 1.1% of the female population aged 50–69 years were Aboriginal and Torres Strait Islander people.
- Of the 1,611,262 women aged 40 and over participating in screening through the BreastScreen Australia Program in 2001–2002, there were 11,542 (0.7%) who identified themselves as Indigenous. While 85,037 women were classified as not stating their Indigenous status, the true figure is higher because some jurisdictions classified these women as 'non-Indigenous' (see Appendix A for coding of Indigenous status). The comparison of participation rates between Indigenous and non-Indigenous women should therefore be treated with caution.
- The age-standardised participation rate for Indigenous women (34.8%) was significantly lower than both the non-Indigenous rate (53.9%) and the national rate (57.1%).

For more information, see:

Table 5

Participation of women aged 50–69 years in BreastScreen Australia by language spoken at home, 2001–2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	English speaking	Non-English speaking
Rate (%)	57.1	58.9*	47.4*
95% CI	57.0–57.2	58.8–59.0	47.2–47.7

* Significantly different from the all-Australia rate.

Notes

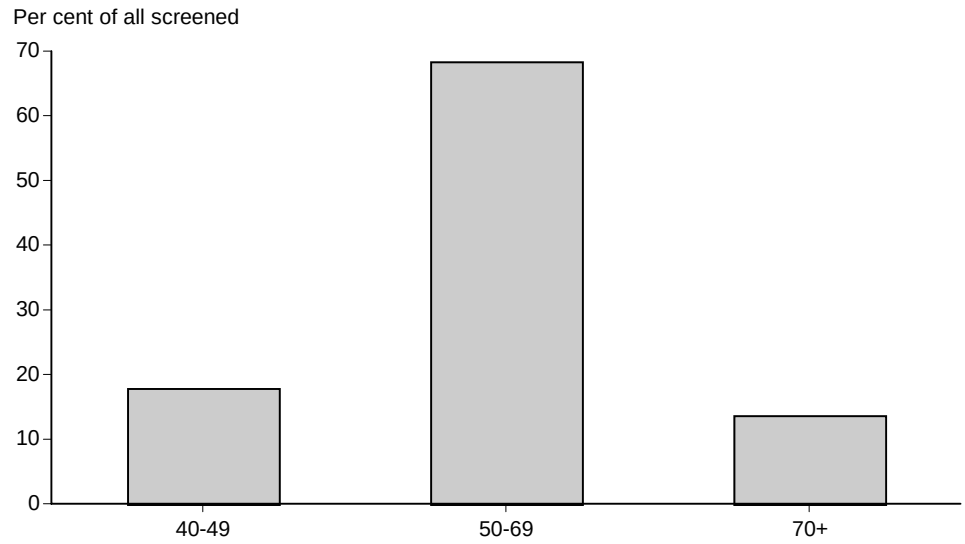
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Period covers 1 January 2001 to 31 December 2002.
3. Women who were recorded as not stating their language spoken at home are included in the analysis for all women but excluded from the analysis by language.

- Of the 1,611,262 women aged 40 and over participating in screening through the BreastScreen Australia Program in 2001–2002, there were 214,986 (13%) who identified as non-English speaking. While 3,944 women were classified as not stating the language they spoke at home, the true figure may be higher as some jurisdictions did not use the 'not stated' category. Women in these jurisdictions who did not state the language they spoke at home were allocated to one of the other two categories (Appendix A). Participation rates between English speaking and non-English speaking women should therefore be treated with caution.
- There was a significantly lower age-standardised participation rate for women in the target age group from a non-English speaking background (47.4%) than for English speaking women (58.9%). English speaking women had a significantly higher participation rate, at 58.9%, than the national rate of 57.1% (age-standardised).

For more information, see:

Table 6

Age distribution of women aged 40 years and over screened by BreastScreen Australia, 2001–2002



Source: AIHW analysis of BreastScreen Australia data.

Age	40–49	50–69	70+
%	17.9	68.4	13.7

Notes

1. Rates are the number of women screened as a percentage of all women aged 40 or over screened by BreastScreen Australia.
2. Period covers 1 January 2001 to 31 December 2002.

- Two-thirds (64.4%) of women participating in the BreastScreen Australia Program in 2001–2002 were in the target age group (50–69 years). Of all women screened, 17.9% were aged 40–49 years, and 13.7% were aged 70 years and over.

For more information, see:

Tables 1 and 2

Indicator 2: Detection of small invasive cancers

Small invasive cancer detection rate

The detection rate for small invasive cancers is the rate of women with small diameter (≤ 15 mm) invasive breast cancers per 10,000 women screened by five-year age groups (40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, 75–79, 80–84, 85+ years) and for the target age group (50–69 years). Detection rates for all invasive cancers are also provided by screening round (that is, first round and subsequent rounds), five-year age groups and for the target age group.

The small invasive cancer detection indicator

The small invasive cancer detection indicator measures the rate of women with invasive breast cancers that are 15 mm or less in size detected at a BreastScreen Australia service. This is expressed as the number of women with small cancers detected for every 10,000 women screened.

A greater rate of detection of small cancers within the BreastScreen Australia Program increases the likelihood that the desired reductions in morbidity and mortality from breast cancer will be achieved. One of BreastScreen Australia's aims is to maximise the early detection of breast cancers (BSANAC & DHAC 2000). Finding breast cancer early often means that the cancer is small, can be more effectively treated and is less likely to have spread to other parts of the body. As a result, women who have cancers detected early may suffer less morbidity from breast cancer (Day 1991).

In 2002, 63% of all invasive breast cancers detected by BreastScreen Australia in women aged 40 and over were small-diameter cancers.

The table below shows the percentage of all invasive cancers detected that were small diameter invasive breast cancers, by screening round, for women screened in 2002.

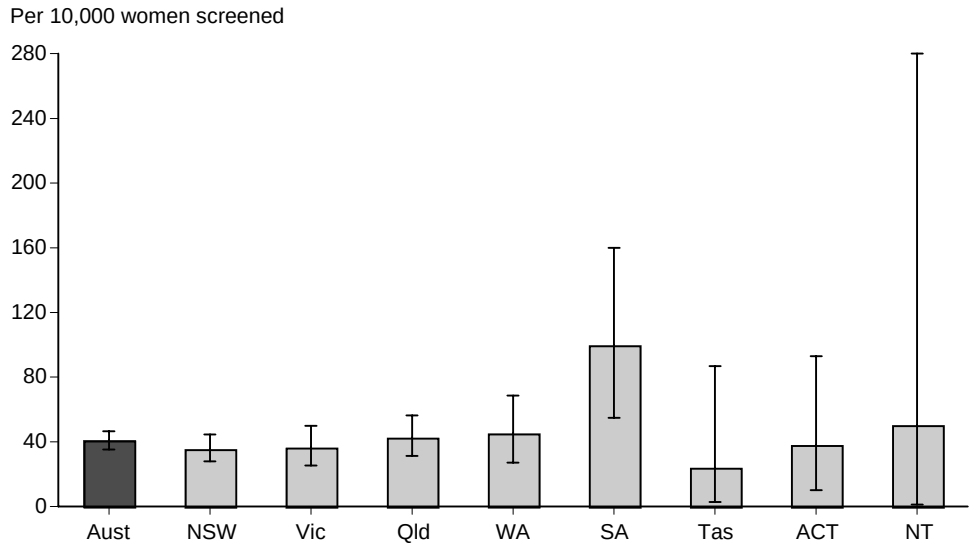
Percentage of invasive cancers detected that were small (≤ 15 mm) in diameter, 2002

Age group	First screening round	Subsequent screening rounds
50–69 years	55.7	65.2
40 years and over	54.0	65.8

Source: AIHW analysis of BreastScreen Australia data.

It is evident that a higher proportion of women attending the program for the first time have tumours larger than 15 mm compared with those who have been screened previously. This is because regular, biennial mammography provides the best chance for the detection of early-stage small cancers (AHMAC 1990).

Small (≤ 15mm) invasive breast cancer detection in women aged 50–69, first screening round, 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	40.5	35.5	36.4	42.5	45.2	99.7*	24.0	38.0	50.3
95% CI	35.1–46.4	27.9–44.5	25.5–50.0	31.2–56.4	27.2–68.6	54.8–159.8	2.9–86.8	10.2–93.0	1.3–280.0

* Significantly different from the all-Australia rate.

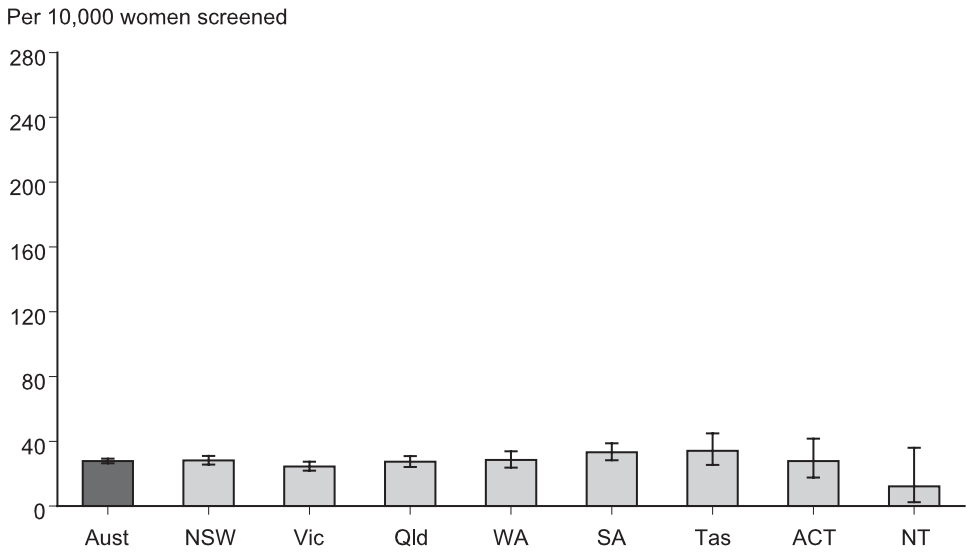
Note: Rates are the number of women with small invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- In 2002, small-diameter invasive cancers were found in 394 women aged 40 and over attending a BreastScreen Australia service for their first screen. Of these women, 256 were in the target age group (50–69 years). The age-standardised detection rate was 40.5 per 10,000 women screened for women in the target age group and 39.1 per 10,000 women screened for all women aged 40 and over.
- Across the states and territories, the age-standardised detection rate for small invasive cancers in women in the target age group ranged from 24.0 per 10,000 women screened in Tasmania to 99.7 per 10,000 women screened in South Australia. Large confidence intervals can be observed in the smaller states and territories due to the small number of cases detected in these jurisdictions.

For more information, see:

Tables 7 and 8

Small (≤ 15 mm) invasive breast cancer detection in women aged 50–69, subsequent screening rounds, 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	27.8	28.2	24.5	27.4	28.5	33.2	34.1	27.8	12.2
95% CI	26.3–29.3	25.6–31.0	21.9–27.4	24.3–30.9	23.9–33.8	28.2–38.7	25.3–44.8	17.7–41.6	2.3–36.0

Notes

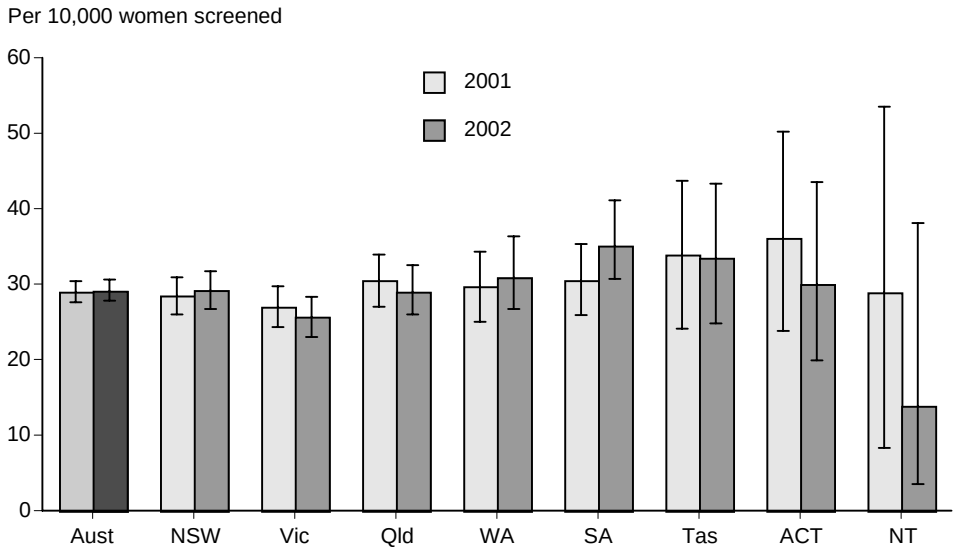
1. Rates are the number of women with small invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. None of the rates was significantly different from the all-Australia rate.

- In 2002, small-diameter invasive cancers were found in 1,963 women aged 40 and over attending a BreastScreen Australia service for their second or subsequent screen. Of these women, 1,408 were in the target age group (50–69 years). The age-standardised detection rate was 27.8 per 10,000 women screened for women in the target age and 26.2 for all women aged 40 and over. In both age categories, the small cancer detection rates for women attending their second or subsequent screen were significantly lower than the rates for women attending their first screen (tables 8 and 10).
- The age-standardised detection rate of small invasive cancers by state and territory ranged from 12.2 per 10,000 women screened in the Northern Territory to 34.1 in Tasmania. However, this difference is not statistically significant. The large confidence intervals observed in the smaller states and territories are due to the small number of cases detected in these jurisdictions.

For more information, see:

Tables 9 and 10

Small (≤ 15 mm) invasive breast cancer detection in women aged 50–69, all screening rounds, 2001 and 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2001 rate	29.0	28.5	27.0	30.5	29.7	30.5	33.9	36.1	28.9
95% CI	27.7–30.4	26.0–30.9	24.3–29.7	27.1–33.9	25.0–34.3	26.0–35.3	24.1–43.7	23.8–50.2	8.3–53.5
2002 rate	29.1	29.1	25.6	29.1	31.2	35.7	33.1	30.1	14.6
95% CI	27.7–30.5	26.6–31.7	23.0–28.3	26.0–32.4	26.6–36.3	30.7–41.2	24.8–43.3	20.0–43.5	3.6–38.1

Notes

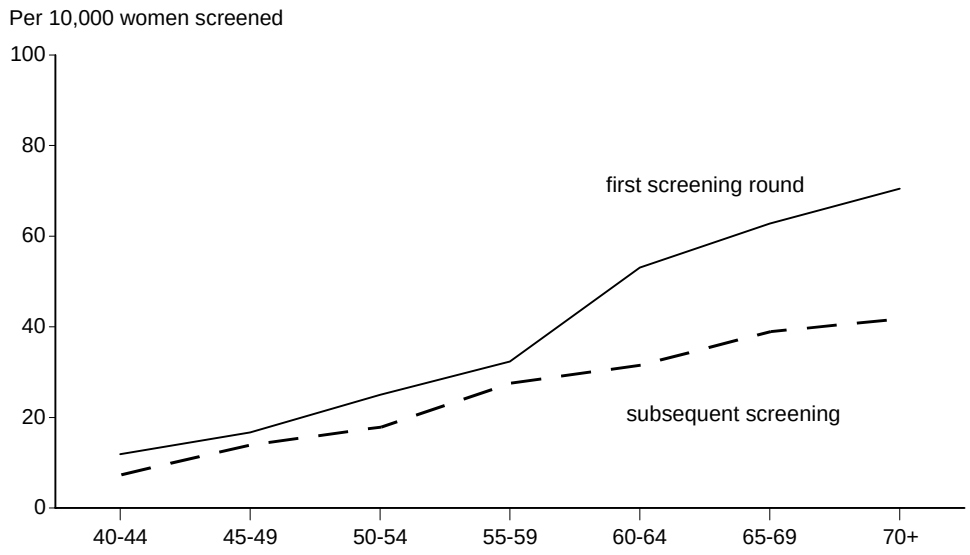
1. Rates are the number of women with small invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. None of the 2002 rates was significantly different from the 2001 rates.

- There was no significant change in the detection rate of small invasive cancers from 2001 to 2002. The national age-standardised detection rate was 29.0 per 10,000 women screened in 2001 and 29.1 per 10,000 women screened in 2002.
- In 2002, small invasive cancers were detected in 2,357 women. Of these women, 1,664 (71%) were in the target age group. Small invasive cancers made up 64% of all cancers detected in 2002. For women in the target age group, the proportion of small invasive cancers out of all cancers was also 64%.

For more information, see:

Tables 7, 8, 9, 10, 11 and 12

Small (≤ 15mm) invasive breast cancer detection by age, 2002



Source: AIHW analysis of BreastScreen Australia data.

Age-specific rate	40–44	45–49	50–54	55–59	60–64	65–69	70+
First screening round	11.9	16.7	25.0	32.3	53.1	62.8	70.5
Subsequent screening rounds	7.6	14.1	18.1	27.8	31.8	39.2	42.0

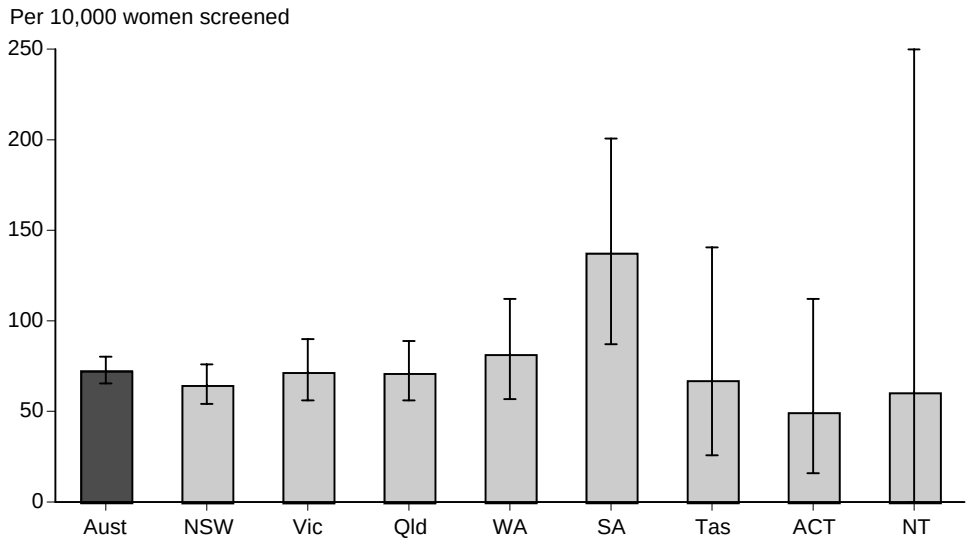
Note: Rates are the number of women with small invasive cancers detected per 10,000 women screened.

- The steady increase in the detection of small (≤ 15 mm diameter) invasive cancers with age reflects the greater incidence of breast cancer with age (Table 43). The detection rate for women aged 40–44 years making a first round attendance at a BreastScreen Australia service in 2002 was 11.9 per 10,000 women screened. This rate increased to 70.5 per 10,000 women screened for women aged 70 and over. A similar pattern occurred for women making a second or subsequent round attendance, although the rate of increase with age was not as great.

For more information, see:

Tables 8, 10 and 43

All-size invasive breast cancer detection in women aged 50–69 years, first screening round, 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	72.2	64.4	71.7	71.2	81.6	137.5*	67.1	49.5	60.4
95% CI	65.0–80.0	54.1–76.0	56.0–89.8	56.2–88.9	56.7–112.1	87.0–200.6	25.8–140.5	15.8–112.1	0.0–249.9

* Significantly different from the all-Australia rate.

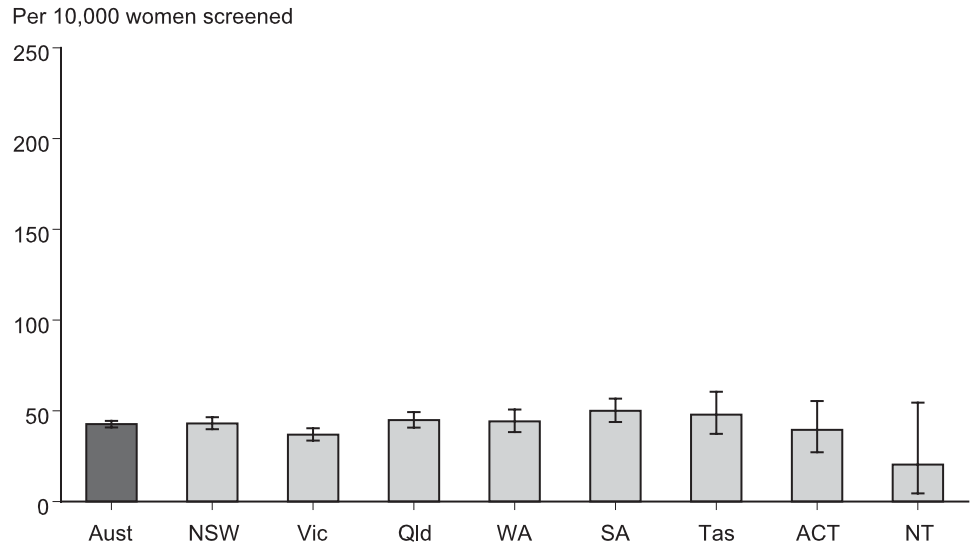
Note: Rates are the number of women with invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- In 2002, the age-standardised invasive cancer detection rate for women attending a BreastScreen Australia Service for the first time was 72.2 per 10,000 women screened. Across the states and territories, the Australian Capital Territory had the lowest age-standardised detection rate, at 49.5 per 10,000 women screened, and South Australia had the highest rate, at 137.5 per 10,000 women screened.
- The invasive cancer detection rate for all women aged 40 and over (70.6 per 10,000 women screened) was not significantly different from the rate for women in the target age group (72.2 per 10,000 women screened).

For more information, see:

Tables 13 and 14

All-size invasive breast cancer detection in women aged 50–69 years, subsequent screening rounds, 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	42.7	43.1	36.9*	44.9	44.2	50.0	47.9	39.5	20.4
95% CI	40.9–44.5	39.9–46.5	33.7–40.4	40.9–49.3	38.3–50.7	43.9–56.7	37.4–60.5	27.2–55.5	4.5–54.5

* Significantly different from the all-Australia rate.

Notes: Rates are the number of women with invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- In 2002, the age-standardised invasive cancer detection rate for women in the target age group attending a BreastScreen Australia service for their second or subsequent screen was 42.7 per 10,000 women screened. This is significantly lower than the detection rate for first round attendances (72.2 per 10,000 women screened).
- The age-standardised invasive cancer detection rate for all women aged 40 and over, attending for their second or subsequent screen, was 40.1 per 10,000 women screened. This is not significantly different from the rate for women in the target group (42.7 per 10,000 women screened).
- Across the states and territories, the age-standardised invasive cancer detection rate for women in the target age group ranged from 20.4 per 10,000 women screened in the Northern Territory to 50.0 per 10,000 women screened in South Australia.

For more information, see:

Tables 15 and 16

Indicator 3: Sensitivity

3a. Interval cancer rate

The interval cancer rate is the rate of invasive breast cancers detected during an interval between two screening rounds per 10,000 women-years. It is stratified by 10-year age groups (40–49, 50–59, 60–69, 70+ years), time since screen (0–12 months, 13–24 months, and 0–24 months) and screening round (first or subsequent).

3b. Program sensitivity

The program sensitivity rate is the percentage of women with screen-detected invasive breast cancer among all Program-screened women diagnosed with invasive breast cancer during the screening interval (screen-detected and interval cancers). It is stratified by 10-year age groups (40–49, 50–59, 60–69, 70+ years), time since screen (0–12 months, 0–24 months) and screening round (first or subsequent).

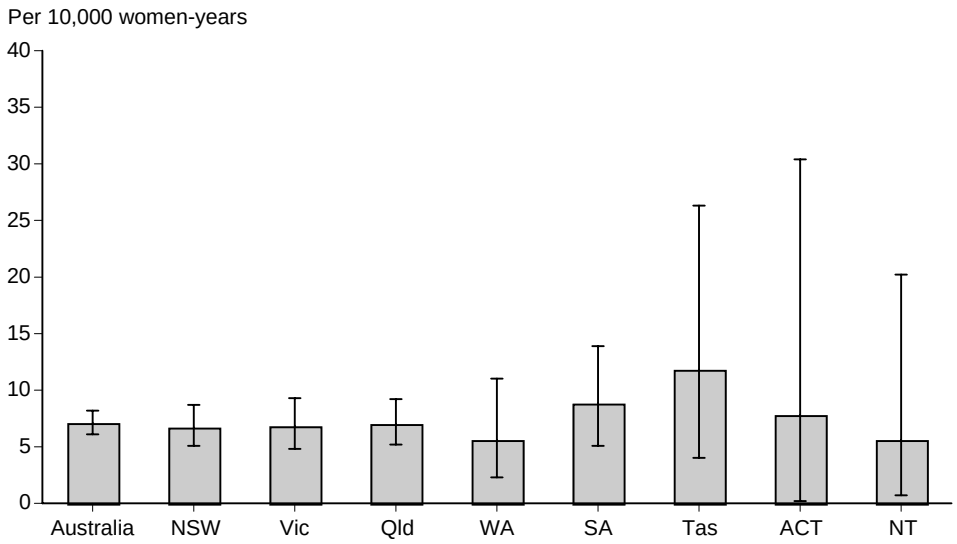
The sensitivity indicator

An interval cancer is an invasive breast cancer that is diagnosed after a screening episode that detected no cancer and before the next scheduled screening episode. The interval cancer rate is expressed per 10,000 women-years at risk (see the glossary for definitions of 'women-years at risk' and 'interval cancer'). It measures how effective the BreastScreen Australia Program is at detecting the presence of breast cancer in well women. A low interval cancer rate is one measure of the effectiveness of the screening process.

Program sensitivity measures the ability of the Program to detect invasive breast cancers in women attending for screening. The Program needs to achieve a high sensitivity in order to be effective. Program sensitivity is the proportion of invasive breast cancers that are detected within the BreastScreen Australia Program out of all invasive breast cancers (interval cancers plus screen-detected cancers) diagnosed in Program-screened women in the screening interval.

In this chapter data for the years 1998, 1999 and 2000 are combined. This aggregation improves the stability of rates, especially those of the small states and territories.

Interval cancer rate for women aged 50–69 years, screened during years 1998, 1999 and 2000, first screening round, 0–12 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	7.1	6.7	6.8	7.0	5.6	8.8	11.8	7.8	5.6
95% CI	6.1–8.2	5.1–8.7	4.8–9.3	5.2–9.2	2.4–11.0	5.1–13.9	4.0–26.3	0.2–30.4	0.7–20.1

Notes

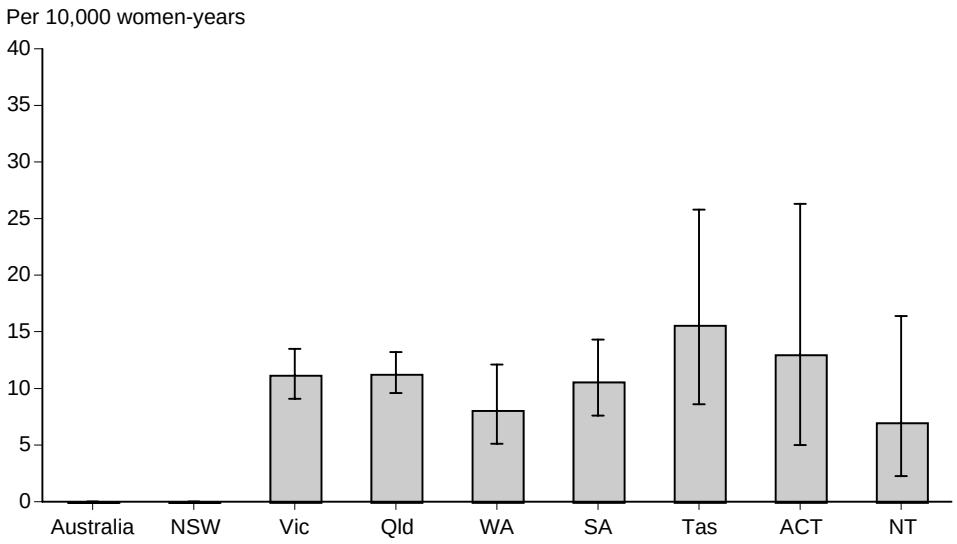
1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.
3. None of the rates was significantly different from the all-Australia rate.

- The age-standardised interval cancer rate for women in the target age group 0–12 months after their first screen was 7.1%.
- Across the states and territories, the age-standardised rates of interval cancer ranged from 5.6 per 10,000 women-years in the Northern Territory and Western Australia to 11.8 per 10,000 women-years in Tasmania.

For more information, see:

Table 17

Interval cancer rate for women aged 50–69 years, screened during years 1998, 1999 and 2000, first screening round, 0–24 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	n.a.	n.a.	11.2	11.3	8.1	10.6	15.6	13.0	7.0
95% CI	n.a.	n.a.	9.2–13.5	9.6–13.2	5.1–12.1	7.6–14.3	8.6–25.8	5.0–26.3	2.3–16.4

n.a. Not available

Notes

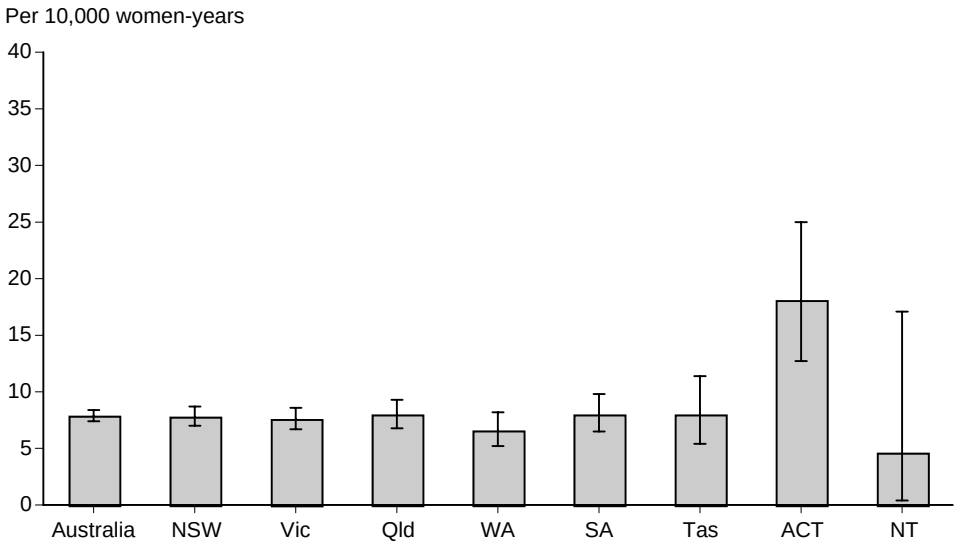
1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.
3. New South Wales data were unavailable at the time of publication.

- Across the states and territories with data available, the age-standardised rates of interval cancer for women in the target age group (50–69 years) 0–24 months after their first screen ranged from 7.0 per 10,000 women-years in the Northern Territory to 15.6 per 10,000 women-years in Tasmania.

For more information, see:

Table 19

Interval cancer rate for women aged 50–69 years, screened during years 1998, 1999 and 2000, subsequent screening round, 0–12 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	7.9	7.8	7.6	8.0	6.6	8.0	8.0	18.1*	4.6
95% CI	7.4–8.4	7.0–8.7	6.7–8.6	6.8–9.4	5.3–8.3	6.4–9.8	5.4–11.4	12.7–25.0	0.4–17.1

* Significantly different from the all-Australia rate.

Notes

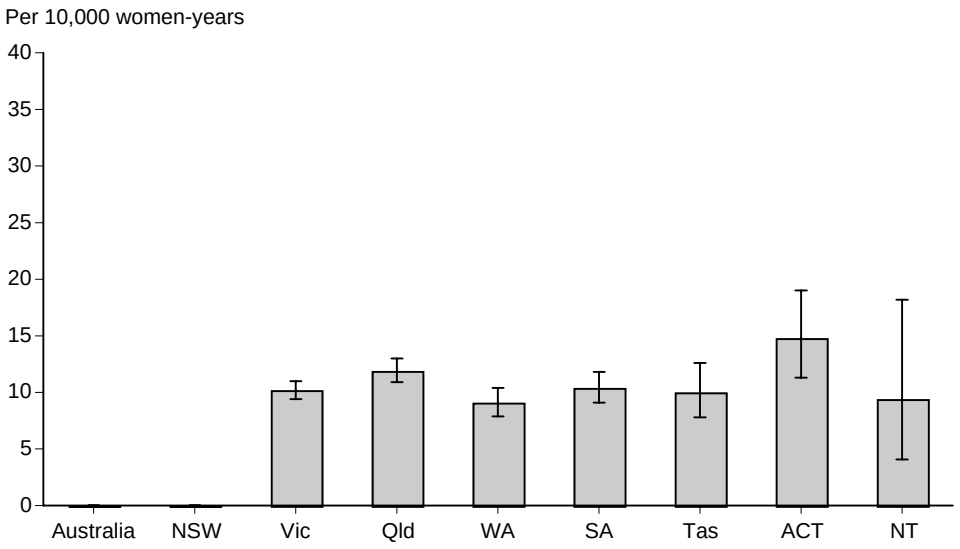
1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.

- The age-standardised interval cancer rate for women in the target age group 0–12 months after their second or subsequent screen was 7.9%.
- Across the states and territories, the age-standardised rates of interval cancer ranged from 4.6 per 10,000 women-years in the Northern Territory to 18.1 per 10,000 women-years in the Australian Capital Territory.

For more information, see:

Table 20

Interval cancer rate for women aged 50–69 years, screened during years 1998, 1999 and 2000, subsequent screening round, 0–24 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	n.a.	n.a.	10.2	11.9	9.1	10.4	10.0	14.8	9.4
95% CI	n.a.	n.a.	9.5–11.1	10.9–13.0	7.9–10.5	9.1–11.8	7.8–12.6	11.3–19.0	4.0–18.2

n.a. Not available.

Notes

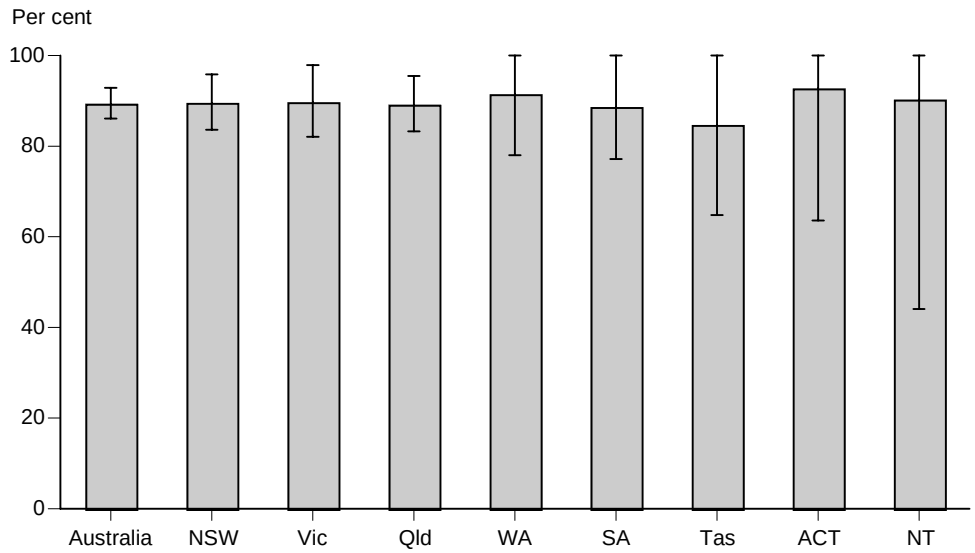
1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.
3. New South Wales data were unavailable at the time of publication.

- Across the states and territories with data available, the age-standardised rates of interval cancer for women in the target age group (50–69 years) 0–24 months after their second or subsequent screen ranged from 9.1 per 10,000 women-years in Western Australia to 14.8 per 10,000 women-years in the Australian Capital Territory.

For more information, see:

Table 22

Program sensitivity for women aged 50–69 years, screened during years 1998, 1999 and 2000, first screening round, 0–12 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	89.4	89.6	89.7	89.2	91.5	88.7	84.7	92.8	90.3
95% CI	86.1–92.9	83.7–96.0	82.0–97.9	83.3–95.5	77.9–100.0	77.2–100.0	64.7–100.0	63.6–100.0	44.1–100.0

Notes

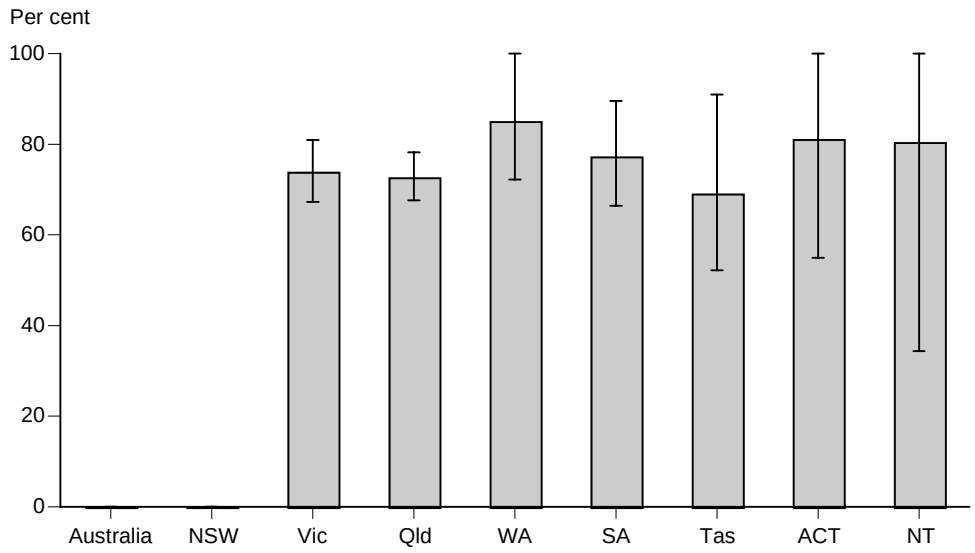
1. Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.
3. None of the rates was significantly different from the all-Australia rate.

- The age-standardised Program sensitivity rate for women in the target age group 0–12 months after their first screen was 89.4%.
- Across the states and territories, the Program sensitivity rate ranged from 84.7% in Tasmania to 92.8% in the Australian Capital Territory.

For more information, see:

Table 23

Program sensitivity for women aged 50–69 years, screened during years 1998, 1999 and 2000, first screening round, 0–24 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	n.a.	n.a.	73.9	72.7	85.1	77.3	69.1	81.2	80.5
95% CI	n.a.	n.a.	67.3–81.0	67.6–78.1	72.2–100.0	66.4–89.6	52.2–91.0	54.9–100.0	34.4–100.0

n.a. Not available.

Notes

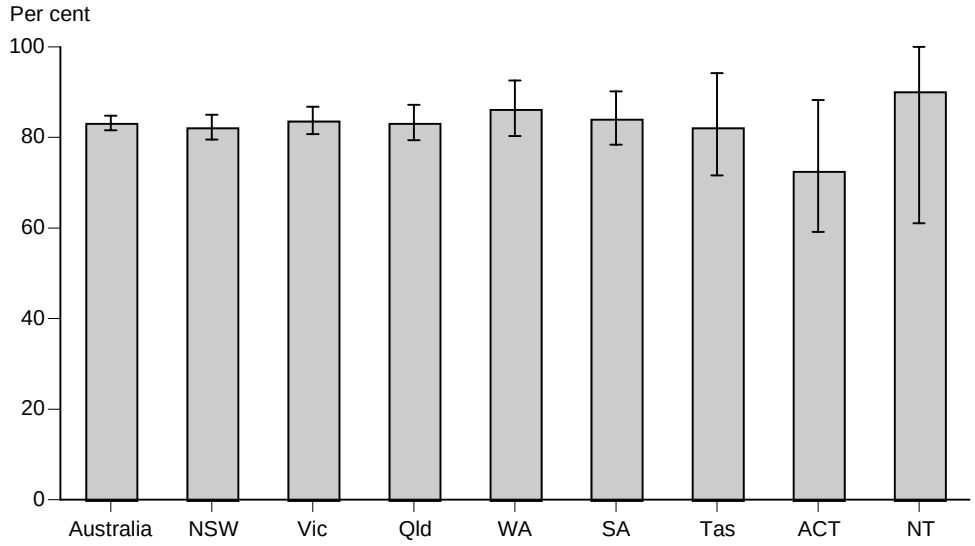
1. Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.
3. New South Wales data were unavailable at the time of publication.

- Across the states and territories with data available, the Program sensitivity rate for women in the target age group 0–24 months after their first screen ranged from 69.1% in Tasmania to 85.1% in Western Australia.

For more information, see:

Table 24

Program sensitivity for women aged 50–69 years, screened during years 1998, 1999 and 2000, subsequent screening round, 0–12 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	83.2	82.2	83.7	83.2	86.3	84.1	82.2	72.6	90.2
95% CI	81.6–84.8	79.5–85.0	80.7–86.8	79.4–87.2	80.3–92.6	78.4–90.2	71.6–94.2	59.1–88.2	61.0–100.0

Notes

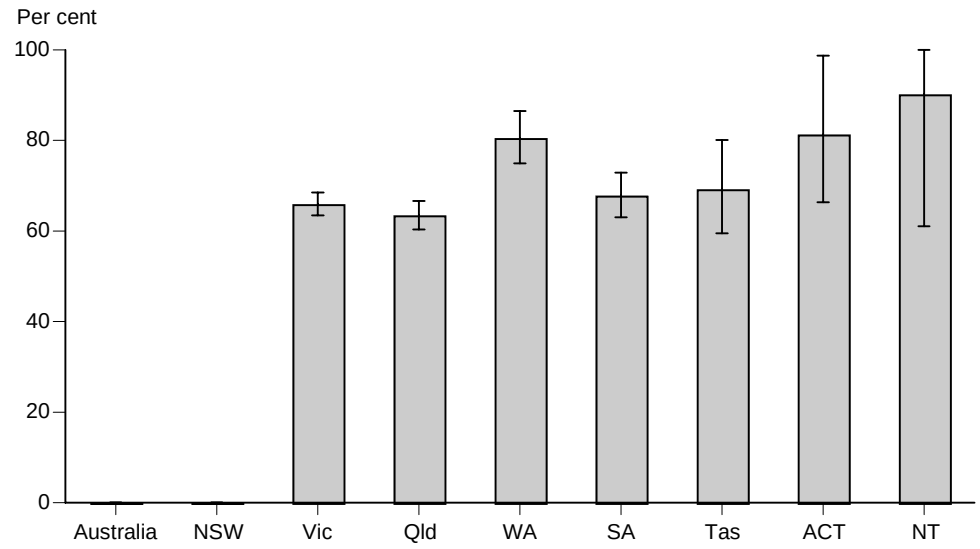
1. Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.
3. None of the rates was significantly different from the all-Australia rate.

- The Program sensitivity rate for women in the target age group 0–12 months after their second or subsequent screen was 83.2%.
- Across the states and territories, the Program sensitivity rate ranged from 72.6% in the Australian Capital Territory to 90.2% in the Northern Territory.

For more information, see:

Table 25

Program sensitivity for women aged 50–69 years, screened during years 1998, 1999 and 2000, subsequent screening round, 0–24 months follow-up



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	n.a.	n.a.	65.9	63.4	80.5	67.8	69.2	81.3	90.2
95% CI	n.a.	n.a.	63.4–68.5	60.3–66.6	74.9–86.5	63.0–72.9	59.5–80.1	66.3–98.7	61.0–100.0

n.a. Not available.

Notes

1. Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. The data include both symptomatic and asymptomatic women.
3. New South Wales data were unavailable at the time of publication.

- Across the states and territories with data available, the Program sensitivity rate for women in the target age group 0–24 months after their second or subsequent screen ranged from 63.4% in Queensland to 90.2% in the Northern Territory.

For more information, see:

Table 26

Indicator 4: Detection of ductal carcinoma in situ

Ductal carcinoma in situ detection rate

The ductal carcinoma in situ (DCIS) detection rate is the rate of women with DCIS per 10,000 women screened by 10-year age groups (40–49, 50–59, 60–69, 70+ years) and for the target age group (50–69 years).

The DCIS detection indicator

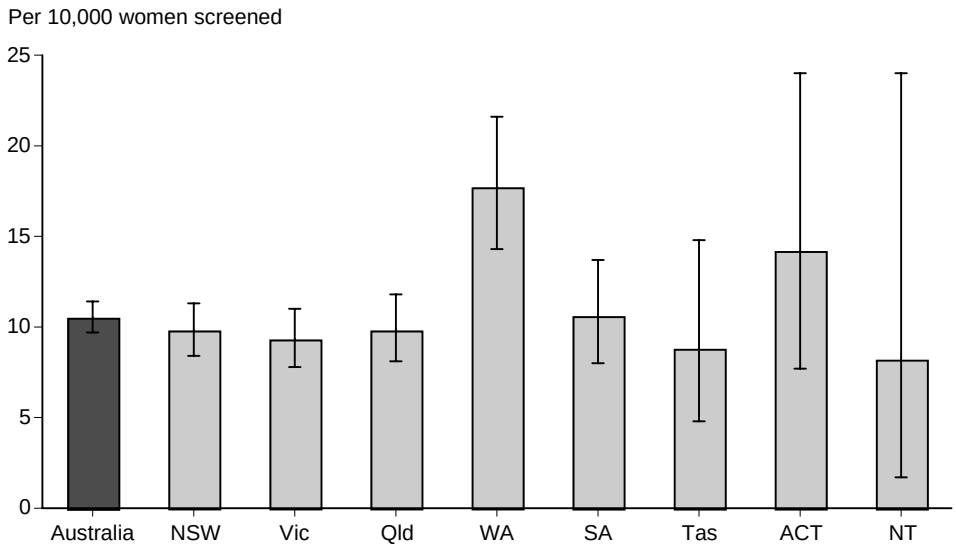
The DCIS indicator measures the rate of DCIS diagnosed in women attending a BreastScreen Australia service. This is expressed as the number of women with DCIS detected for every 10,000 women screened. DCIS is a disease that involves changes in the cells in the lining of the ducts of the breast. Although the changes are like those seen in breast cancer, DCIS has not spread beyond the ducts (NBCC et al. 2000). The natural history of DCIS is still not well understood, although women with the condition are at increased risk of subsequent development of invasive breast cancer (NQMC unpublished).

DCIS is asymptomatic in the majority of cases and is usually detected as a change on a mammogram or as a chance finding on a breast biopsy for another condition. Before the introduction of nationwide mammographic screening in Australia in 1991, DCIS was rarely found. Since then, screening mammography has increased the detection rate for DCIS (NBCC et al. 2000).

Early detection of high-grade DCIS through screening, and its subsequent treatment, is likely to prevent deaths from breast cancer (NQMC unpublished). The ability to detect DCIS can also be seen as an indicator of the quality of the screening process, since it reflects good-quality imaging and screen-film reading.

In 2002, the national age-standardised rate of DCIS detection was 10.0 women with DCIS per 10,000 women aged 40 and over. This is slightly lower than the detection rate for 2001, at 10.5 per 10,000 women screened, but the difference is not statistically significant.

Ductal carcinoma in situ detection in women aged 50–69 years, 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	10.5	9.8	9.3	9.8	17.7*	10.6	8.8	14.2	8.2
95% CI	9.7–11.4	8.4–11.3	7.8–11.0	8.0–11.8	14.3–21.6	8.0–13.8	4.8–14.8	7.7–24.0	1.7–24.0

* Significantly different from the all-Australia rate.

Note: Rates are the number of cases of DCIS per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- DCIS was detected in 849 women participating in the BreastScreen Australia Program in 2002, including 603 cases in women in the target age group. The age-standardised DCIS detection rate was 10.5 per 10,000 women screened for women in the target age group, and 10.0 per 10,000 women screened for all women aged 40 and over.
- The age-standardised rate of DCIS detection for women in the target age group ranged from 8.2 per 10,000 women screened in the Northern Territory to 17.7 per 10,000 women screened in Western Australia.

For more information, see:

Tables 27 and 28

Indicator 5: Recall to assessment

Recall to assessment rate

The recall to assessment rate is the proportion of all women screened in the calendar year 2002 who were recalled for assessment by five-year age groups (40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, 75–79, 80–84, and 85+ years) and for the target age group (50–69 years).

The recall to assessment indicator

The recall to assessment indicator measures the rate of women who are recalled for assessment following attendance for a routine screening at a BreastScreen Australia service. In most cases, the recall is made because a woman's screening mammogram shows signs that there may be breast cancer. Women may also be recalled for other non-mammographic reasons. During assessment, a woman might undergo further tests, such as additional mammography, physical examination, ultrasound and, if required, a fine needle aspiration or a core biopsy.

BreastScreen Australia aims to maximise the number of cancers detected—in particular, the number of small cancers—while minimising the number of unnecessary investigations. Most women recalled to assessment are found not to have breast cancer (BreastScreen SA 1999; BreastScreen Queensland 2000).

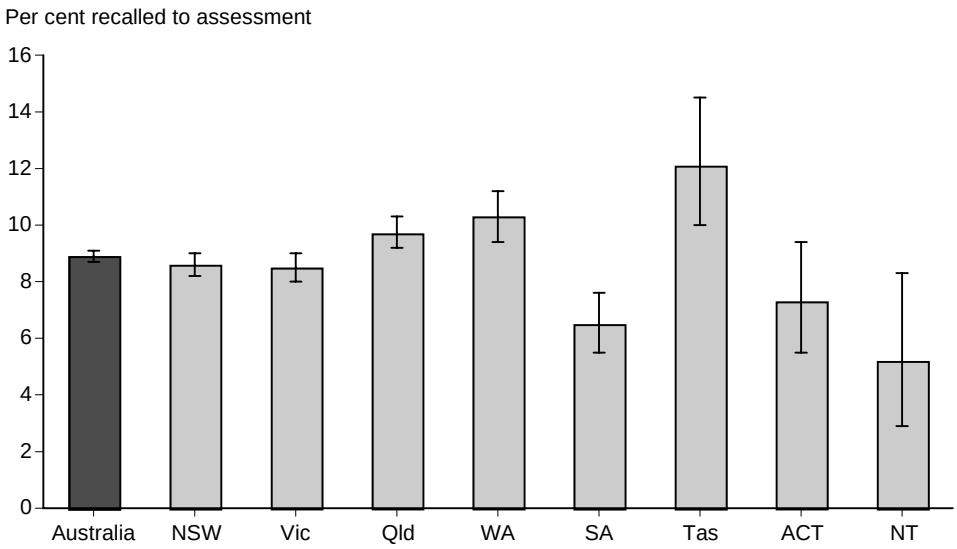
Women attending the program for the first time have a higher all-size cancer detection rate than those who have previously been screened. This is reflected in a higher recall to assessment rate for women who attend for their first screening round compared with those who attend for a subsequent round. The table below shows recall to assessment rates by screening round for 2001 and 2002.

Age-standardised recall to assessment rates for women aged 40 and over, 2001 and 2002

	First screening round	Subsequent screening rounds
2001 rate (%)	8.3	4.0
95% CI	8.1–8.5	4.0–4.1
2002 rate (%)	8.7	4.2
95% CI	8.5–8.9	4.1–4.2

Source: AIHW analysis of BreastScreen Australia data.

Recall to assessment rate for women aged 50–69 years, mammographic reasons, first screening round, 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	8.9	8.6	8.5	9.7	10.3*	6.5*	12.1*	7.3	5.2*
95% CI	8.6–9.1	8.3–9.0	7.9–9.0	9.1–10.2	9.4–11.2	5.5–7.6	10.0–14.5	5.5–9.4	2.9–8.4

* Significantly different from the all-Australia rate.

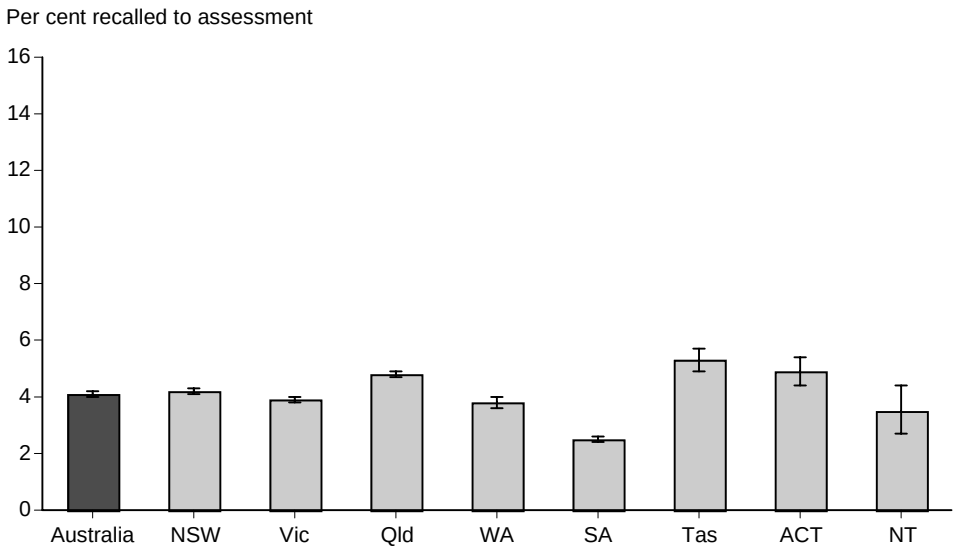
Note: Rates are the number of women recalled for assessment as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- In 2002, 8.9% (age-standardised) of women in the target age group attending their first screen were recalled for assessment due to an abnormal mammogram result.
- Age-standardised rates of recall for assessment for women in the target age group ranged from 5.2% in the Northern Territory to 12.1% in Tasmania. South Australia, at 6.5%, and the Northern Territory, at 5.2%, both had recall rates significantly lower than the national rate. Western Australia, at 10.3%, and Tasmania, 12.1%, had recall rates significantly higher than the national rate.

For more information, see:

Tables 29 and 30

Recall to assessment rate for women aged 50–69 years, mammographic reasons, subsequent screening round, 2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	4.1	4.2	3.9	4.8*	3.8*	2.5*	5.3*	4.9*	3.5
95% CI	4.0–4.1	4.1–4.3	3.8–4.0	4.7–4.9	3.6–3.9	2.4–2.7	4.9–5.7	4.4–5.4	2.7–4.4

* Significantly different from the all-Australia rate.

Note: Rates are the number of women recalled for assessment as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- Of women in the target age group who were screened for a second or subsequent time in 2002, 4.1% (age-standardised) were recalled for assessment due to an abnormal mammogram result. This is significantly lower than the rate for women attending for their first screen (Table 30).
- Age-standardised rates of recall for assessment for women in the target age group screened for a second or subsequent time ranged from 2.5% in the South Australia to 5.3% in Tasmania.

For more information, see:

Tables 31 and 32

Indicator 6: Rescreening

Rescreen rate

The rescreen rate is the proportion of all women screened in 2000 whose screening outcome was a recommendation to return for screening in two years who returned for a screen within 27 months. This rate is reported by five-year age groups (40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, 75–79, 80–84, and 85+ years) and for the target age group (50–67 years). Although the BreastScreen Australia target age group is 50–69 years, only women aged 50–67 years are reported for the rescreen indicator. This is because women aged 68–69 years in the index year were outside the target age group 27 months after their index screen and, therefore, were not expected to return for screening.

The rescreen indicator

The rescreen indicator measures the proportion of women who return for screening in the program within the recommended screening interval. The interval between screens is an important factor influencing the level of detection of cancers within the program. Intervals that are too long may allow tumours to grow to the point where symptoms become evident, thus eliminating the advantage of screening. A high rescreen rate is also important for maintaining the participation rate. The anticipated reductions in mortality can be achieved only if a high proportion of women in the target age group attend for screening every two years. By having a mammogram every two years, a woman can reduce her chance of dying from breast cancer by up to 40% (Duffy et al. 1991; Fletcher et al. 1993; Feig 1998). The recommended interval of 27 months includes an additional 3 months to allow for potential delays in screening availability.

Women in the target age group are re-invited biennially. Some states and territories have a policy of re-inviting a proportion of women annually, for example, women with a strong family history of breast cancer. The data for this indicator include women who are recommended for annual screening as well as those screened biennially.

The proportion of women who returned for screening within the recommended screening interval increased with the number of screens a woman had previously attended. As can be seen in the table below, the rescreen rate is greater for women who have attended for two previous screens than for women who have been screened only once before, and greater still for women who have previously attended three or more screening episodes.

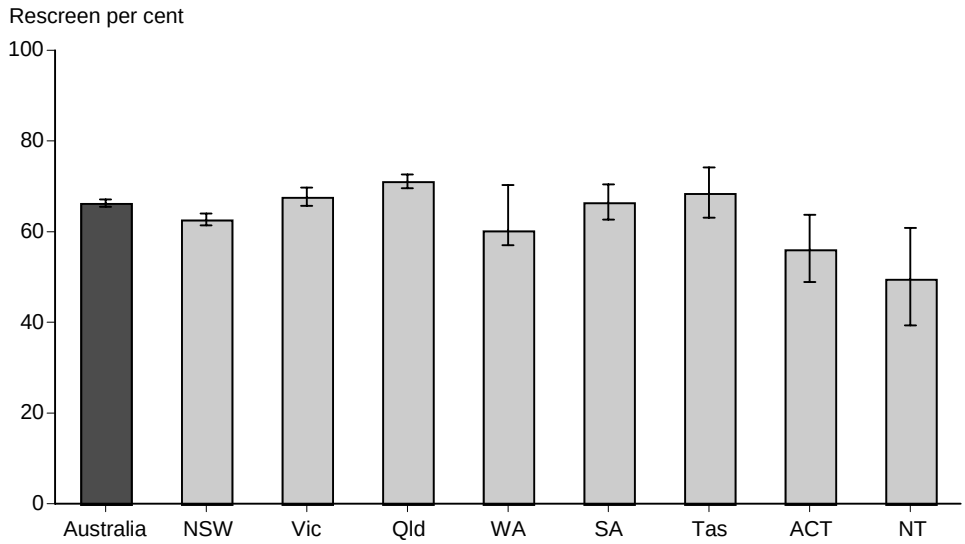
One of the objectives of the BreastScreen Australia Program is 'To rescreen all women in the Program at two-yearly intervals' (BSANAC & DHAC 2000).

Age-standardised rescreen rates for women aged 40 years and over, screened during 2000, Australia

	First screening round	Second screening round	Subsequent screening rounds
Rate (%)	61.8	72.0	80.6
95% CI	61.3–62.3	71.6–72.4	80.3–81.0

Source: AIHW analysis of BreastScreen Australia data.

Rescreen rate for women aged 50–67 years, screened during 2000, first screening round



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	66.3	62.7*	67.7	71.1*	60.3*	66.5	68.5	56.1*	49.6*
95% CI	65.5–67.1	61.4–64.0	65.8–69.7	69.6–72.6	57.0–63.8	62.7–70.4	63.1–74.1	48.9–63.7	39.2–60.8

* Significantly different from the all-Australia rate.

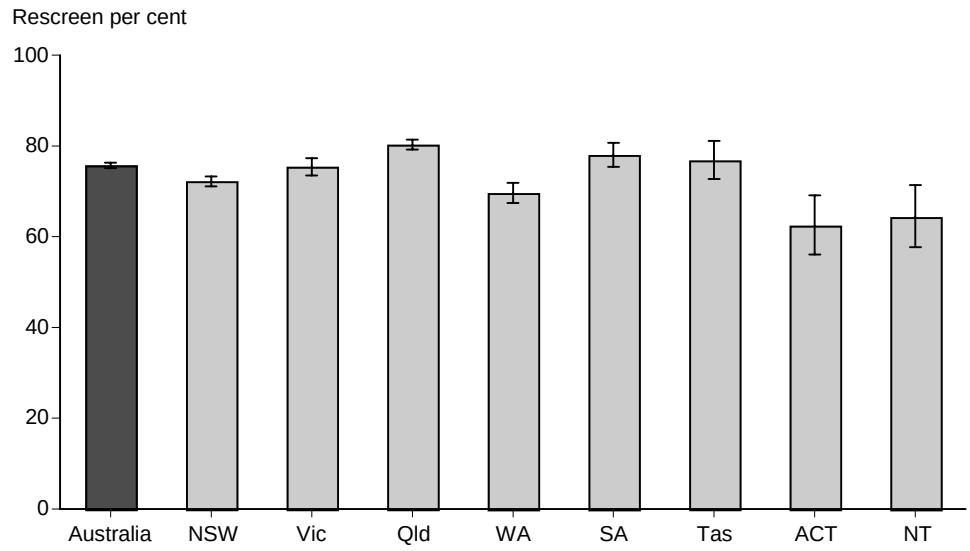
Note: Rates are the number of women attending for rescreening as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- The age-standardised national rescreen rate for women aged 50–67 years returning for screening within 27 months of attending a BreastScreen Australia service in 2000 for the first time was 66.3%. Of all women aged 40 and over, 61.8% returned for screening.
- Across the states and territories, the age-standardised rescreen rates for women in the target age group ranged from 49.6% in the Northern Territory to 71.1% in Queensland. The rate for Queensland was significantly higher than the national rate.

For more information, see:

Tables 37 and 38

Rescreen rate for women aged 50–67 years, screened during 2000, second screening round



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	75.7	72.2*	75.4	80.3*	69.6*	78.0	76.8	62.4*	64.3*
95% CI	75.1–76.3	71.1–73.3	73.5–77.3	79.2–81.3	67.4–71.9	75.4–80.7	72.7–81.0	56.1–69.1	57.6–71.3

* Significantly different from the all-Australia rate.

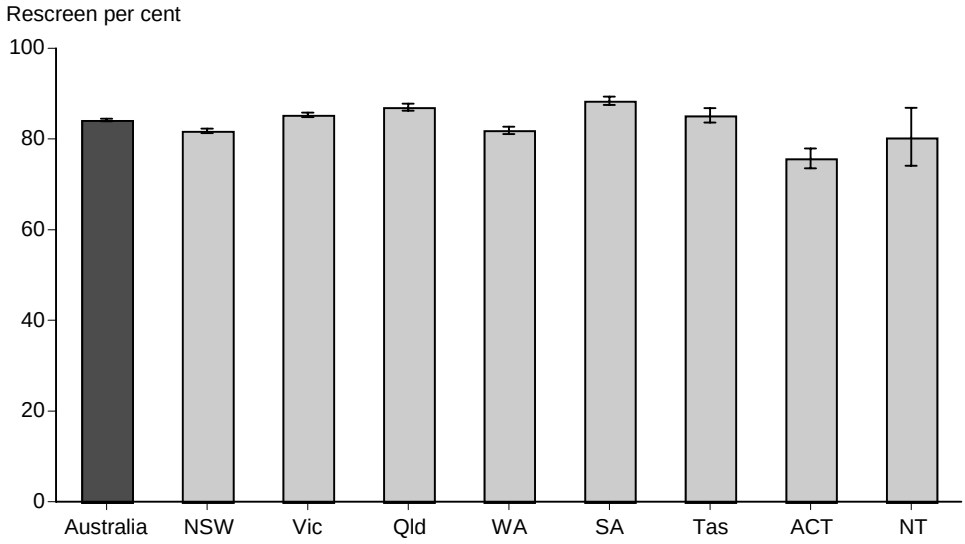
Note: Rates are the number of women attending for rescreening as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- The age-standardised national rescreen rate for women aged 50–67 years returning for screening within 27 months of attending a BreastScreen Australia service in 2000 for the second time was 75.7%. This is significantly higher than the rate for women attending for their first visit.
- Across the states and territories, the age-standardised rescreen rates for the target age group ranged from 62.4% in the Australian Capital Territory to 80.3% in Queensland. The rate for Queensland was significantly higher than the national rate.

For more information, see:

Tables 39 and 40

Rescreen rate for women aged 50–67 years, screened during 2000, third and subsequent screening rounds



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate (%)	84.2	81.8*	85.3*	87.0*	81.9*	88.4*	85.2	75.7*	80.3
95% CI	83.9–84.4	81.3–82.3	84.8–85.7	86.2–87.8	81.1–82.7	87.6–89.3	83.6–86.8	73.5–78.0	74.1–86.8

* Significantly different from the all-Australia rate.

Note: Rates are the number of women attending for rescreening as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- The age-standardised national rescreen rate for women aged 50–67 years returning for screening within 27 months of attending a BreastScreen Australia service in 2000 for their third or subsequent visit was 84.2%. This is significantly higher than the rate for women attending for their second visit.
- Across the states and territories, the age-standardised rescreen rates for the target age group ranged from 75.7% in the Australian Capital Territory to 88.4% in South Australia. Rescreen rates in Victoria, Queensland and South Australia were significantly higher than the national rate.

For more information, see:

Tables 41 and 42

Indicator 7: Incidence

7a. Incidence of breast cancer

The incidence of breast cancer is calculated per 100,000 estimated resident female population in a 12-month period by five-year age groups (0–4, 5–9, 10–14, 15–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, 75–79, 80–84, 85+ years) and for the target age group (50–69 years).

7b. Incidence of ductal carcinoma in situ

The incidence of DCIS is calculated per 100,000 estimated resident female population in a six-year period by ten-year age groups (0–19, 20–29, 30–39, 40–49, 50–59, 60–69, 70+ years) and for the target age group (50–69 years).

The incidence indicator

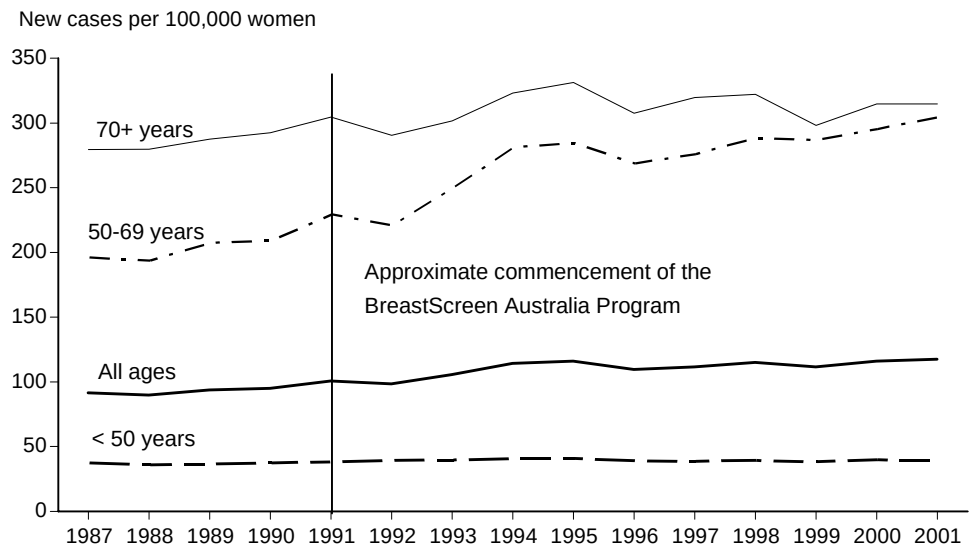
Registration of cancer cases is required by law in each of the states and territories. The data are collected by state and territory cancer registries and compiled in a national database, the National Cancer Statistics Clearing House, which is held by the Australian Institute of Health and Welfare (AIHW). The data include clinical and demographic information about people with newly diagnosed cancer. The incidence indicator measures the number of new cases of breast cancer in the community each year. It does not distinguish between screen-detected cancers and other detection methods.

Incidence data provide information about the underlying level of breast cancer in the Australian community. This knowledge can be used to assist in developing policies on breast cancer screening. For example, examining the trends in breast cancer incidence in different age groups helps to identify the ages at which women are most at risk of developing breast cancer. Incidence data can also be used to set performance standards for breast cancer detection.

This chapter reports the rates of breast cancer from 1987 to 2001, the latest national data available. This chapter also reports on breast cancer incidence by state and territory, and by geographical region.

Similarly, data on the incidence of DCIS provide information about the underlying level of the condition among Australian women. Data are required to build more knowledge about DCIS, which was rarely detected before screening was introduced. Since the introduction of screening mammography, the detection of DCIS has increased (NBCC et al. 2000). More information is given on DCIS in the chapter headed 'Indicator 4'.

Incidence of breast cancer in women, Australia, 1987–2001



Source: AIHW National Cancer Statistics Clearing House.

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
All ages	91.2	89.6	93.4	94.8	100.4	98.2	105.4	114.0	115.7	109.2	111.3	114.6	111.3	115.6	117.2
<50	38.2	36.7	37.2	38.1	38.8	39.8	40.5	41.3	41.6	39.9	39.4	40.2	39.1	40.7	40.4
50–69	196.9	194.5	208.1	209.7	230.3	222.0	250.8	282.0	285.3	269.6	276.7	289.2	287.7	296.2	305.4
70+	279.4	279.6	287.6	292.4	304.5	290.5	301.7	323.1	331.4	307.6	319.7	322.1	298.1	314.7	314.7

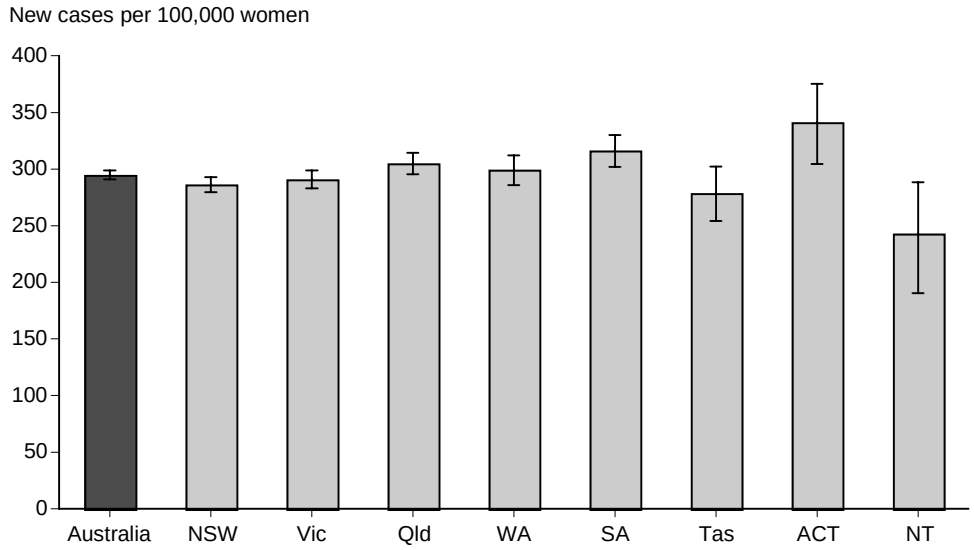
Note: Rates are the number of breast cancers detected per 100,000 women and age-standardised to the Australian population at 30 June 2001.

- With some fluctuations, a notable increase over the period 1987 to 2001 can be seen in the age-standardised breast cancer incidence rates for women in the target age group. Incidence has increased in this group from 196.9 new cancers per 100,000 women in 1987 to 305.4 per 100,000 women in 2001. A similar pattern of increase in incidence rates is apparent in the 70 and over age group. Incidence rates have remained more consistent over time in the 'all ages' category and in women under 50 years of age.
- The increase in the rate of new cancers, especially in the target age group, corresponds with the introduction in 1991 of BreastScreen Australia (then known as the National Program for the Early Detection of Breast Cancer). Although the underlying rate for breast cancer is increasing, the sharp increase between 1992 and 1994 is likely to be, at least partly, the result of the early detection of cancers in women who may otherwise have gone undiagnosed for some years.

For more information, see:

Tables 43 and 44

Incidence of breast cancer in women aged 50–69 years, 1998–2001



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW National Cancer Statistics Clearing House.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	294.9	286.3	290.9	305.0	299.3	316.2*	278.9	341.3*	242.9
95% CI	290.9–298.9	279.7–293.0	283.1–298.8	295.6–314.6	286.4–312.7	302.3–330.7	255.6–303.7	307.2–378.1	197.4–295.5

* Significantly different from the all-Australia rate.

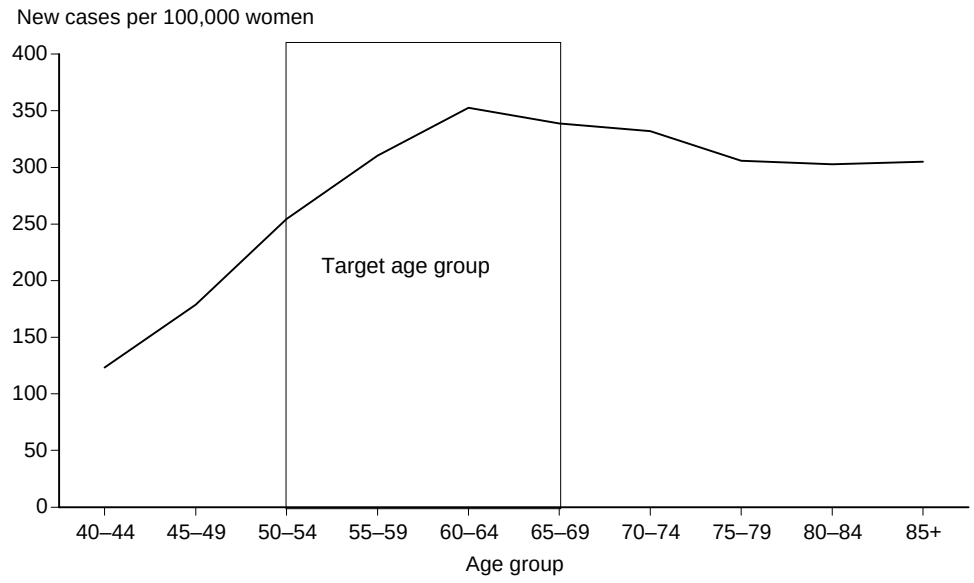
Note: Rates are the number of breast cancers detected per 100,000 women and age-standardised to the Australian population at 30 June 2001.

- The national age-standardised incidence rate for 1998 to 2001 was 294.9 new cancers per 100,000 women. Across the states and territories, incidence rates ranged from 242.9 new cancers per 100,000 women in the Northern Territory to 341.3 new cases per 100,000 women in the Australian Capital Territory. The rates for the Australian Capital Territory and South Australian (316.2 per 100,000 women) were significantly above the national rate.

For more information, see:

Tables 45 and 46

Age-specific incidence rates for breast cancer in women, Australia, 2001



Source: AIHW National Cancer Statistics Clearing House.

Age	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
Rate	123.1	178.9	254.4	310.3	352.7	338.7	332.1	305.8	302.8	304.9

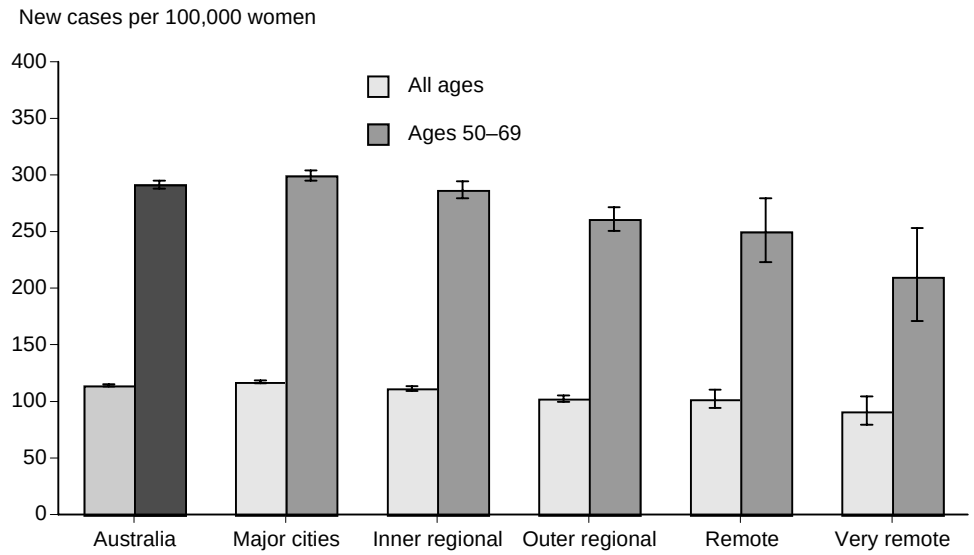
Note: Rates are the number of breast cancers detected per 100,000 women.

- All women aged 40 and over are able to attend for screening with BreastScreen Australia, although the Program is specifically aimed at women aged 50–69 years of age who are without symptoms. Of the 11,791 new cases of breast cancer in 2001, 5,802 (49%) occurred in women in the target age group. Only 6% of cases were women aged under 40 years.
- Age-specific incidence rates in 2001 ranged from 123.1 new cancers per 100,000 women in the 40–44 age group to 352.7 new cases per 100,000 women in the 60–64 age group.
- The mean age at diagnosis for women diagnosed with breast cancer in 2001 was 60 years. The median age at diagnosis was 59 years.

For more information, see:

Table 44

Incidence of breast cancer in women by region, 1997–2001



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW National Cancer Statistics Clearing House.

	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
All ages	114.1	117.2*	111.3	102.3*	101.9*	91.2*
95% CI	113.1–115.0	116.0–118.4	109.3–113.4	99.5–105.2	94.1–110.2	79.2–104.3
Ages 50–69	291.4	299.4	286.7	260.9*	249.9*	209.8*
95% CI	287.9–295.0	295.0–303.9	279.3–294.3	250.7–271.4	222.8–279.4	171.0–253.0

* Significantly different from the all-Australian rate.

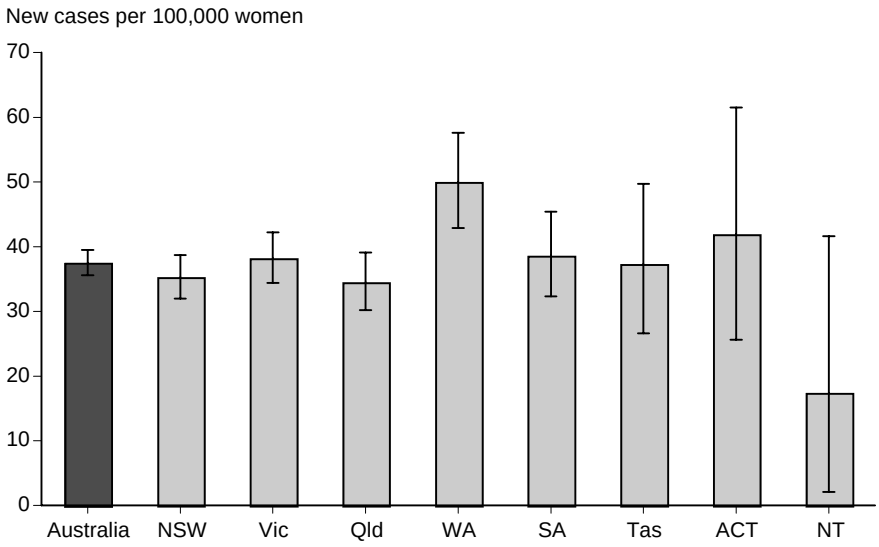
Note: Rates are the number of breast cancers detected per 100,000 women and age-standardised to the Australian population at 30 June 2001.

- For the period 1997 to 2001, the age-standardised incidence rate was 291.4 cases of breast cancer per 100,000 women for women in the target age group, and 114.1 cases per 100,000 women for all women aged 40 and over. Breast cancer incidence rates for women in the target age group ranged from 209.8 cases per 100,000 women in very remote areas to 299.4 cases per 100,000 women in major cities.

For more information, see:

Tables 47 and 48

Incidence of ductal carcinoma in situ in women aged 50–69 years, 1996–2001



Note: Bars on columns represent 95% confidence intervals.

Source: National Cancer Statistics Clearing House.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	37.5	35.3	38.2	34.5	50.0*	38.6	37.3	41.9	17.4
95% CI	35.6–39.5	32.0–38.6	34.3–42.1	30.2–39.1	43.0–57.6	32.3–45.4	26.5–49.7	25.6–61.5	2.1–41.6

* Significantly different from the all-Australia rate.

Notes: Rates are the number of DCIS detected per 100,000 women and age-standardised to the Australian population at 30 June 2001.

- For the period 1996 to 2001, the national age-standardised incidence rate of DCIS for women aged 50–69 years was 37.5 per 100,000 women. Western Australia was the only state or territory to have a DCIS incidence rate significantly different from the national rate, with 50 cases per 100,000, well above the national rate.
- For the period 1996 to 2001, the age-standardised incidence of DCIS ranged from 17.4 cases per 100,000 women in the Northern Territory to 50.0 cases per 100,000 women in Western Australia.

For more information, see:

Tables 49 and 50

Indicator 8: Mortality

Mortality rate

The mortality rate from breast cancer is calculated per 100,000 estimated resident female population in a 12-month period by 5-year age groups (0–4, 5–9, 10–14, 15–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, 75–79, 80–84, 85+ years) and for the target age group (50–69 years).

The mortality indicator

Mortality statistics are one of the most comprehensively collected national data sets. Registration of death is a legal requirement in Australia and, as a result, compliance is virtually complete. Registration of deaths is the responsibility of the Registrar of Births, Deaths and Marriages in each state and territory. The Registrars provide the mortality data to the Australian Bureau of Statistics (ABS) for coding the cause of death and compilation into national statistics. The AIHW also holds these data in a national mortality database. The data presented here are from the AIHW National Mortality Database and are based on the year of registration of the death. Note that about 5% of deaths are not registered until the year following the death (ABS 2002).

Breast cancer is the most common cause of cancer death in Australian women. The number of deaths from breast cancer in recent years has remained fairly stable, with 2,609 women dying from the disease in 1997 and 2,698 women in 2002. However, over this period the rates of deaths caused by breast cancer have steadily fallen.

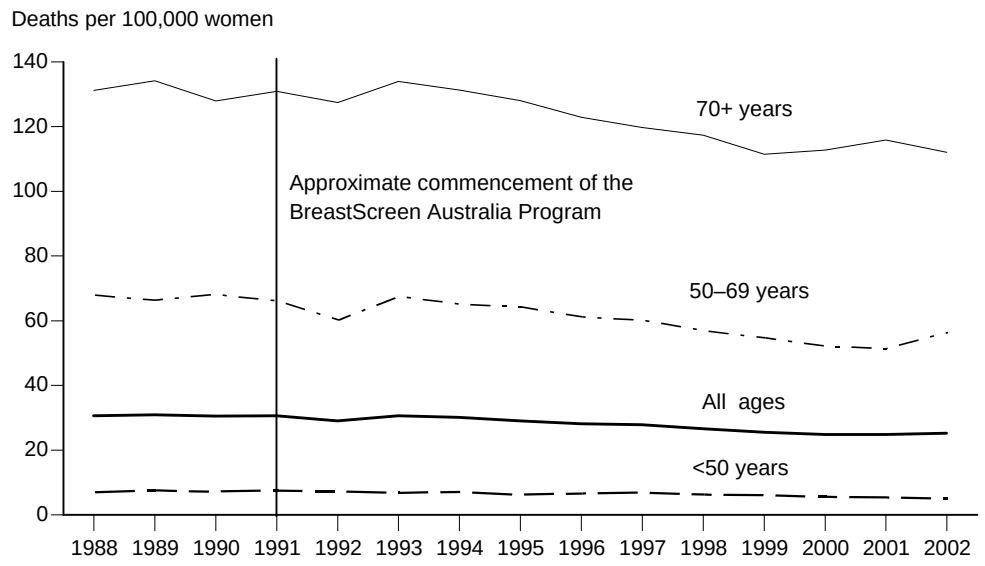
In the longer term, mortality rates from breast cancer are an important indicator of the effectiveness of the screening program. A particularly important indication of the effectiveness of a screening program is the change in mortality rates over time in the target age group for screening. There are, however, two difficulties with using these mortality rates as an indicator of screening effectiveness. The first is that changes in mortality over time may reflect factors additional to screening, such as new and more effective treatments. The second is that changes in the mortality rates may not be apparent for a number of years following the commencement of a screening program. Accordingly, this is a measure that needs to be viewed over the long term and interpreted with caution.

The mortality rates presented in this chapter are for the total female population of Australia, not only for those women who participated in the BreastScreen Australia Program.

This chapter shows the trend in breast cancer mortality from 1988 to 2002, the latest national data available. It also reports on breast cancer mortality by state and territory, by age, by region and by Indigenous status.

Some changes have been made to the coding and processing of mortality data. These are described in Appendix A.

Mortality from breast cancer, females, Australia, 1988–2002



Source: AIHW National Mortality Database.

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
All ages	30.5	30.8	30.4	30.5	28.9	30.5	30.0	28.9	28.1	27.8	26.5	25.4	24.7	24.7	25.1
<50	7.3	7.9	7.5	7.8	7.6	7.1	7.4	6.5	6.9	7.2	6.6	6.4	5.9	5.7	5.4
50–69	68.3	66.7	68.5	66.5	60.6	67.9	65.5	64.6	61.5	60.6	57.3	55.0	52.5	51.8	56.7
70+	131.2	134.1	127.9	130.9	127.4	133.9	131.3	128.0	122.9	119.7	117.3	111.4	112.7	115.9	112.0

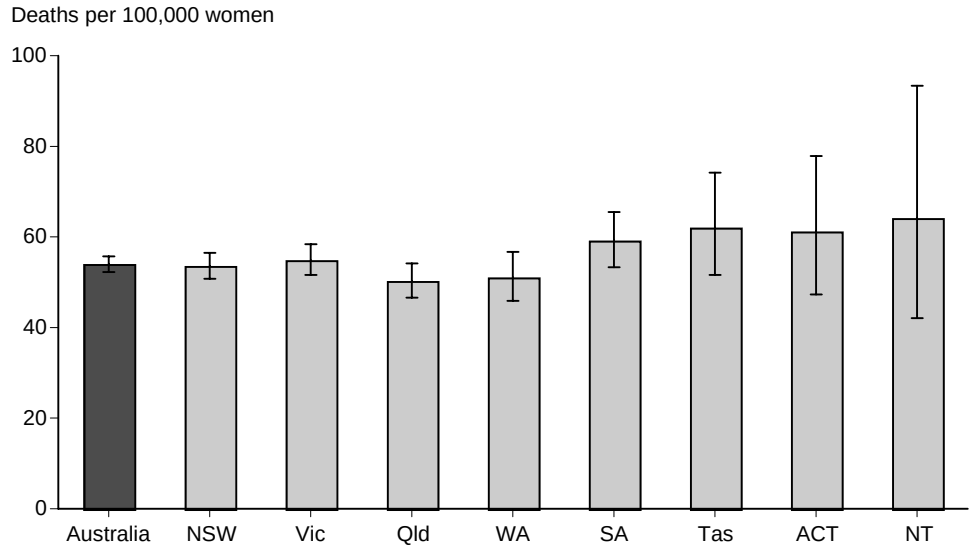
Note: Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.

- Since 1993 the age-standardised mortality rates for women in the target age group have declined steadily. The mortality rate for these women was 68.3 deaths per 100,000 women in 1988; in 2001 the corresponding figure was 51.8 deaths per 100,000 women. There was a small increase in the mortality rate in 2002, rising to 56.7 deaths per 100,000 women. However, this increase was not statistically significant. A similar pattern of decline in mortality rates can be observed in women aged 70 and over. Mortality rates for women aged under 50 years remained the lowest and most consistent, staying below 8 deaths per 100,000 women for the period 1988 to 2002.

For more information, see:

Tables 51 and 52

Mortality from breast cancer in women aged 50–69, 1999–2002



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW National Mortality Database.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Rate	54.0	53.6	54.9	50.3	51.1	59.2	62.1	61.2	64.2
95% CI	52.3–55.7	50.8–56.5	51.6–58.4	46.6–54.2	46.0–56.7	53.3–65.5	51.6–74.2	47.3–77.9	42.1–93.3

Notes

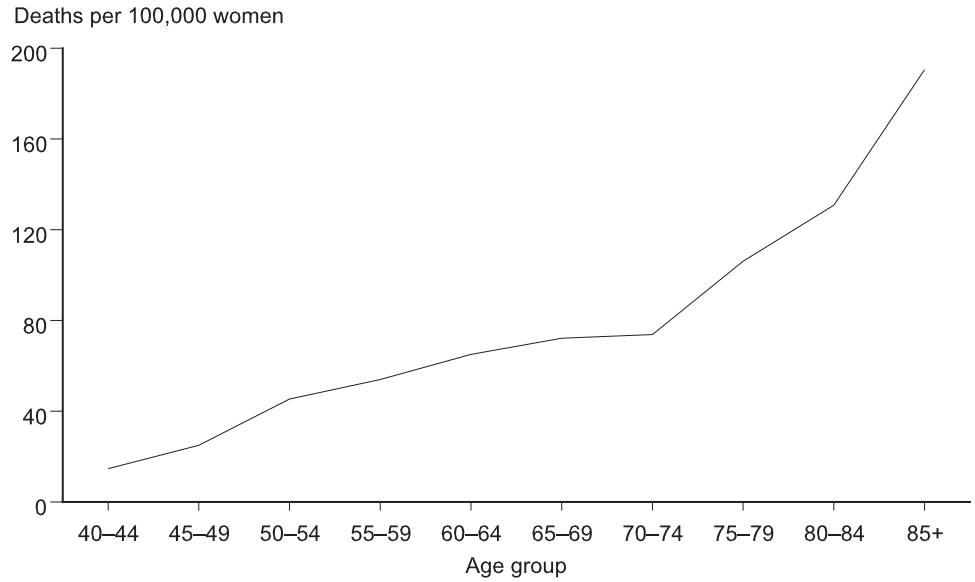
1. Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.
2. None of the rates was significantly different from the all-Australia rate.

- The national age-standardised mortality rate was 54.0 deaths per 100,000 women for the period 1999 to 2002. Across the states and territories, the mortality rate ranged from 50.3 deaths per 100,000 women in Queensland to 64.2 deaths per 100,000 women in the Northern Territory, despite the incidence rate in the Northern Territory being the lowest of any state or territory (Tables 45 and 46).

For more information, see:

Tables 53 and 54

Age-specific mortality rates for breast cancer, females, Australia, 2002



Source: AIHW National Mortality Database.

Age	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
Rate	14.7	25.0	45.4	54.0	65.0	72.0	73.6	105.9	131.0	192.6

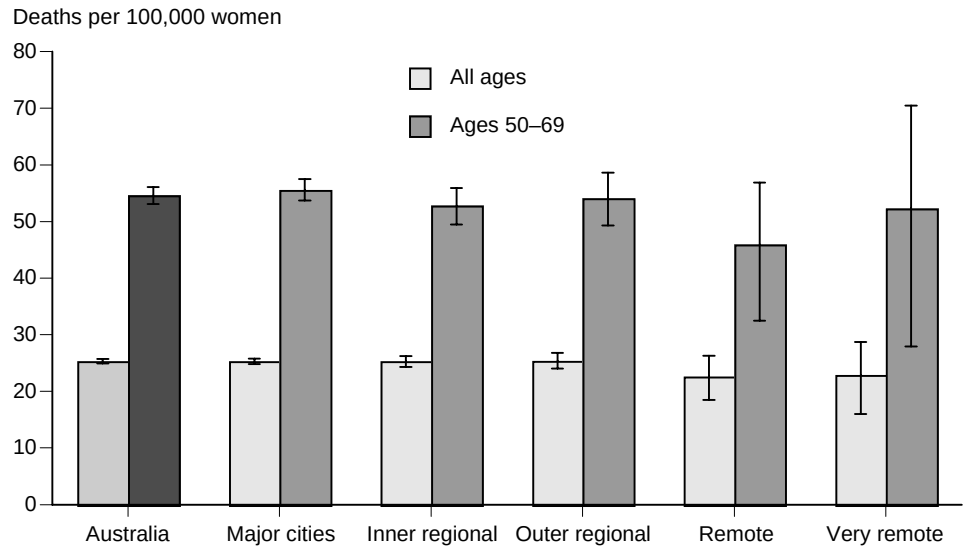
Note: Rates are the number of deaths from breast cancer per 100,000 women.

- In 2002, age-specific mortality rates increased consistently with age. For women aged 40–44 years, the rate was 14.7 deaths per 100,000 women. The rate increased to 192.6 deaths per 100,000 women for women aged 85 and over.
- The pattern of breast cancer mortality by age group has remained the same over the period 1988 to 2002 (Table 51).
- The mean age at death for women dying from breast cancer in 2002 was 67 years. The median age at death was also 67 years.

For more information, see:

Tables 51 and 52

Mortality from breast cancer by region, females, 1998–2002



Source: AIHW National Mortality Database.

	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
All ages	25.3	25.3	25.3	25.4	22.6	22.6
95% CI	24.8–25.7	24.8–25.9	24.4–26.3	24.0–26.8	18.9–26.7	16.8–29.5
Ages 50–69	54.6	55.6	52.8	54.1	45.9	51.8
95% CI	53.1–56.1	53.8–57.5	49.6–56.0	49.6–59.0	34.9–59.3	33.8–75.9

Notes

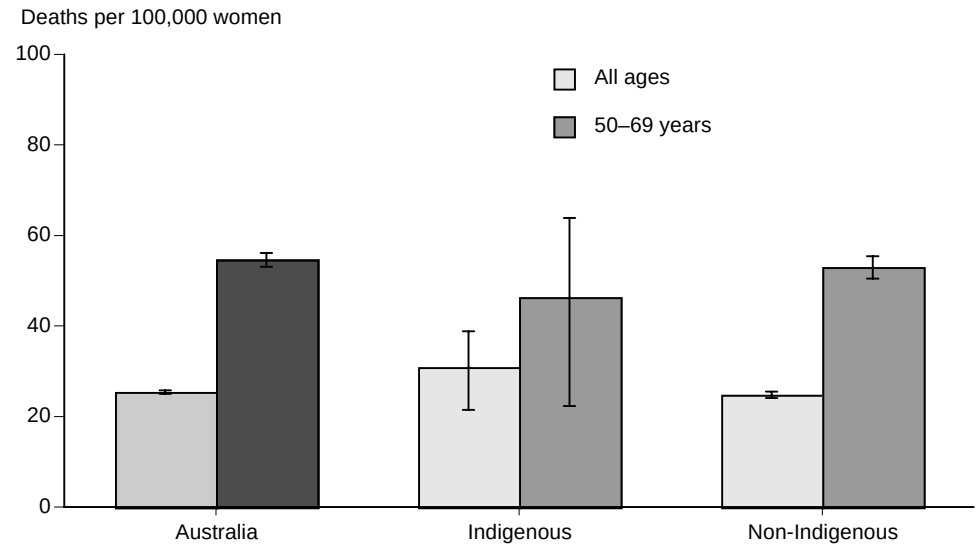
1. Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.
2. The Australian Standard Geographical Classification (ASGC) was used to create the above categories (ABS 2001).
3. None of the rates was significantly different from the all-Australia rate.

- Across all regions, mortality rates were significantly higher for women in the target age group than the 'all ages' group.
- For women in the target age group, mortality rates were highest in major cities with 55.6 deaths per 100,000 women, and lowest in remote areas, with 45.9 deaths per 100,000 women. These differences were not statistically significant because the relatively small number of deaths in remote areas have wide confidence intervals. The actual number of deaths by region can be seen in Table 55.

For more information, see:

Tables 55 and 56

Mortality from breast cancer by Indigenous status, females, 1998–2002



Source: AIHW National Mortality Database.

	Australia	Indigenous	Non-Indigenous
All ages	25.4	30.9	24.8
95% CI	25.0–25.9	23.1–40.4	24.1–25.6
Ages 50–69	54.6	46.4	53.0
95% CI	53.1–56.1	28.9–70.5	50.5–55.5

Notes

1. Only Queensland, Western Australia, South Australia and the Northern Territory had Indigenous death registration data considered to be of a publishable standard at the time this report was prepared. Therefore data from these jurisdictions only are included in the analysis by Indigenous status.
2. 'Australia' includes all states and territories.
3. Women whose Indigenous status was recorded as 'not stated' are included in the analysis for all women but excluded from the analysis by Indigenous status.
4. Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.
5. None of the rates was significantly different from the all-Australia rate.

- In the target age group, the age-standardised mortality rate for Indigenous women (46.4 deaths per 100,000 women) was lower than that for non-Indigenous women (53.0 deaths per 100,000 women). However, this difference was not significant.
- Nationally and among non-Indigenous women, the mortality rate was significantly higher for women in the target age group than for all women. There was no significant difference between age groups for Indigenous women.

For more information, see:

Tables 57 and 58

Tables

Indicator 1: Participation

Table 1: Number of women participating in BreastScreen Australia by age, states and territories, 2001–2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	43,630	11,142	33,786	7,118	6,319	2,716	1,125	735	106,571
45–49	73,009	20,464	49,513	15,581	12,819	5,571	3,053	1,364	181,374
50–54	105,512	90,654	68,239	33,319	33,533	8,881	6,441	2,374	348,953
55–59	96,035	78,822	59,039	27,343	28,384	8,417	5,166	1,749	304,955
60–64	79,426	63,975	46,513	22,305	23,000	6,795	3,576	1,010	246,600
65–69	66,111	52,843	36,907	18,032	19,120	5,575	2,593	538	201,719
70–74	53,087	42,364	28,590	5,096	6,949	2,615	588	312	139,601
75–79	32,771	11,343	10,136	2,049	3,158	682	268	126	60,533
80–84	11,057	1,707	2,886	522	735	158	77	66	17,208
85+	2,445	364	675	115	106	25	11	7	3,748
Ages 40+	**563,083**	**373,678**	**336,284**	**131,480**	**134,123**	**41,435**	**22,898**	**8,281**	**1,611,262**
Ages 50–69	**347,084**	**286,294**	**210,698**	**100,999**	**104,037**	**29,668**	**17,776**	**5,671**	**1,102,227**

Note: Period covers 1 January 2001 to 31 December 2002.

Source: AIHW analysis of BreastScreen Australia data.

Table 2: Percentage of women participating in BreastScreen Australia, states and territories, 2001–2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	17.3	6.0	23.9	9.5	10.8	14.7	8.7	9.8	14.2
45–49	31.9	12.1	38.5	22.2	23.5	32.5	24.9	20.9	26.4
50–54	49.0	56.4	55.7	51.9	63.3	54.5	54.7	42.5	53.7
55–59	55.1	61.9	60.3	56.8	66.4	63.1	62.1	49.6	59.1
60–64	56.0	61.6	61.2	57.7	66.8	61.2	62.5	45.5	59.6
65–69	53.9	58.6	60.0	56.7	63.7	59.6	59.5	40.5	57.4
70–74	44.9	49.1	49.9	17.8	23.1	29.8	15.8	32.9	41.8
75–79	31.5	14.8	20.6	8.5	11.4	8.8	8.0	20.7	20.6
80–84	15.0	3.2	8.2	3.1	3.7	2.8	3.5	15.8	8.3
85+	3.7	0.7	2.2	0.7	0.6	0.5	0.6	2.2	2.0
Ages 40+									
Crude rate	37.6	33.9	42.0	31.8	36.4	36.7	34.5	28.6	36.7
ASR(A)	38.3	34.8	42.6	32.4	37.8	37.6	34.3	29.8	37.5
95% CI	38.2–38.4	34.6–34.9	42.5–42.7	32.2–32.6	37.6–38.0	37.2–38.0	33.8–34.7	29.1–30.6	37.4–37.6
Ages 50–69									
Crude rate	53.1	59.4	58.9	55.3	64.9	59.2	58.9	44.8	57.1
ASR(A)	53.0	59.4	58.9	55.3	64.9	59.1	59.2	44.7	57.1
95% CI	52.8–53.2	59.2–59.6	58.6–59.1	55.0–55.7	64.5–65.3	58.5–59.8	58.3–60.1	43.5–45.9	57.0–57.2

Notes

1. Period covers 1 January 2001 to 31 December 2002.
2. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
3. BreastScreen Australia services are not provided in some remote areas of the Northern Territory. This may affect the Northern Territory's participation rate.

Source: AIHW analysis of BreastScreen Australia data.

Table 3: Participation in BreastScreen Australia by age and region, 2001–2002

Age group	Number/ rate	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
40–44	Number	65,739	22,939	14,351	2,422	1,120	106,571
	Rate	13.2	14.4	18.5	19.9	19.2	14.2
45–49	Number	112,870	40,380	22,886	3,738	1,500	181,374
	Rate	24.6	27.8	32.9	35.8	30.4	26.4
50–54	Number	228,708	75,496	37,450	5,362	1,938	348,953
	Rate	52.7	55.5	57.1	56.6	44.7	53.7
55–59	Number	193,629	70,867	34,177	4,706	1,576	304,955
	Rate	57.6	62.1	62.4	63.6	50.7	59.1
60–64	Number	152,732	60,332	28,846	3,526	1,163	246,600
	Rate	57.8	62.8	63.1	63.0	50.9	59.6
65–69	Number	124,953	50,202	23,135	2,680	749	201,719
	Rate	55.5	60.7	61.9	62.3	46.3	57.4
70–74	Number	87,232	35,341	15,015	1,576	437	139,601
	Rate	40.0	45.6	44.5	45.0	35.2	41.8
75–79	Number	38,866	14,621	6,197	647	202	60,533
	Rate	19.8	22.2	22.3	24.2	22.9	20.6
80–84	Number	11,035	4,150	1,754	213	56	17,208
	Rate	7.9	9.0	9.1	11.5	9.3	8.3
85+	Number	2,360	913	405	51	19	3,748
	Rate	1.9	2.2	2.3	3.2	3.8	2.0
Ages 40+	**Number**	**1,018,122**	**375,242**	**184,217**	**24,922**	**8,759**	**1,611,262**
	Crude rate	35.2	38.9	41.0	42.2	34.6	36.7
	ASR(A)	36.2	39.4	41.3	42.4	34.6	37.5
	95% CI	36.1–36.2	39.3–39.5	41.1–41.5	41.8–42.9	33.9–35.4	37.4–37.6
Ages 50–69	**Number**	**700,022**	**256,897**	**123,608**	**16,275**	**5,425**	**1,102,227**
	Crude rate	55.6	59.9	60.8	60.8	47.8	57.1
	ASR(A)	55.6	59.7	60.7	60.9	47.9	57.1
	95% CI	55.5–55.7	59.5–60.0	60.3–61.0	59.9–61.8	46.6–49.2	57.0–57.2

Notes

1. Period covers 1 January 2001 to 31 December 2002.
2. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
3. The Australian Standard Geographical Classification (ASGC) was used to create the above categories (ABS 2001).

Source: AIHW analysis of BreastScreen Australia data.

Table 4: Participation in BreastScreen Australia by age and socioeconomic status, 2001–2002

Age group	Number/ rate	1st quintile	2nd quintile	3rd quintile	4th quintile	5th quintile	Australia
40–44	Number	21,020	19,955	23,154	22,397	20,045	106,571
	Rate	13.4	13.0	15.4	15.4	13.7	14.2
45–49	Number	37,540	32,860	38,709	38,019	34,246	181,374
	Rate	25.2	23.3	28.6	28.8	26.1	26.4
50–54	Number	77,887	69,952	70,317	68,132	62,667	348,953
	Rate	54.0	53.0	56.1	54.9	50.7	53.7
55–59	Number	65,631	58,345	61,598	61,941	57,439	304,955
	Rate	59.2	57.3	60.8	60.3	58.1	59.1
60–64	Number	47,840	45,582	50,433	53,025	49,721	246,600
	Rate	58.9	58.2	60.1	60.8	59.7	59.6
65–69	Number	37,420	36,724	41,156	45,249	41,169	201,719
	Rate	56.9	56.6	57.1	59.3	57.1	57.4
70–74	Number	27,102	25,952	29,300	30,109	27,138	139,601
	Rate	42.1	42.2	42.5	42.0	40.4	41.8
75–79	Number	12,967	9,993	12,872	13,341	11,360	60,533
	Rate	21.4	18.1	21.2	22.2	20.1	20.6
80–84	Number	3,818	2,724	3,711	3,828	3,128	17,208
	Rate	8.4	6.9	8.6	9.4	8.3	8.3
85+	Number	819	537	833	853	707	3,748
	Rate	1.8	1.5	2.2	2.5	2.2	2.0
Ages 40+	**Number**	**332,044**	**302,624**	**332,082**	**336,893**	**307,619**	**1,611,262**
	Crude rate	35.9	35.0	37.8	38.5	36.3	36.7
	ASR(A)	37.2	36.1	38.8	38.9	36.6	37.5
	95% CI	37.1–37.3	35.9–36.2	38.6–38.9	38.7–39.0	36.5–36.8	37.4–37.6
Ages 50–69	**Number**	**228,778**	**210,603**	**223,504**	**228,347**	**210,996**	**1,102,227**
	Crude rate	56.9	55.8	58.4	58.5	55.8	57.1
	ASR(A)	57.0	55.9	58.4	58.4	55.7	57.1
	95% CI	56.7–57.2	55.6–56.1	58.2–58.6	58.1–58.6	55.5–56.0	57.0–57.2

Notes

1. Period covers 1 January 2001 to 31 December 2002.
2. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
3. The first quintile corresponds to the highest level of socioeconomic status and the fifth to the lowest.

Source: AIHW analysis of BreastScreen Australia data.

Table 5: Participation in BreastScreen Australia by age and Indigenous status, 2001–2002

Age group	Number/rate	Indigenous	Non-Indigenous	Australia
40–44	Number	1,473	102,227	106,571
	Rate	10.9	13.8	14.2
45–49	Number	2,097	174,009	181,374
	Rate	20.0	25.7	26.4
50–54	Number	2,609	324,085	348,953
	Rate	31.7	50.6	53.7
55–59	Number	2,005	285,183	304,955
	Rate	36.4	55.9	59.1
60–64	Number	1,542	230,901	246,600
	Rate	36.4	56.4	59.6
65–69	Number	1,046	189,080	201,719
	Rate	36.3	54.3	57.4
70–74	Number	551	130,844	139,601
	Rate	27.4	39.4	41.8
75+	Number	219	78,354	81,489
	Rate	8.7	11.4	11.9
Ages 40+	**Number**	**11,542**	**1,514,683**	**1,611,262**
	Crude rate	23.4	34.9	36.7
	ASR(A)	24.2	35.6	37.4
	95% CI	23.7–24.6	35.5–35.6	37.3–37.5
Ages 50–69	**Number**	**7,202**	**1,029,249**	**1,102,227**
	Crude rate	34.6	53.9	57.1
	ASR(A)	34.8	53.9	57.1
	95% CI	34.0–35.6	53.8–54.0	57.0–57.2

Notes

1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Period covers 1 January 2001 to 31 December 2002.
3. Women in the 'unknown' category are included in the column for all women, but are not included in the other columns.

Source: AIHW analysis of BreastScreen Australia data.

Table 6: Participation in BreastScreen Australia by age and main language spoken at home, 2001–2002

Age group	Number/rate	English-speaking	Non-English-speaking	Australia
40–44	Number	92,787	13,451	106,571
	Rate	14.9	10.4	14.2
45–49	Number	157,380	23,438	181,374
	Rate	27.5	20.4	26.4
50–54	Number	302,313	45,641	348,953
	Rate	55.4	44.1	53.7
55–59	Number	264,460	39,711	304,955
	Rate	60.6	50.0	59.1
60–64	Number	208,276	37,758	246,600
	Rate	61.5	50.1	59.6
65–69	Number	170,383	30,976	201,719
	Rate	59.8	46.9	57.4
70–74	Number	122,684	16,683	139,601
	Rate	43.8	31.1	41.8
75–79	Number	54,480	5,974	60,533
	Rate	21.9	13.4	20.6
80–84	Number	16,032	1,146	17,208
	Rate	8.7	4.9	8.3
85+	Number	3,537	208	3,748
	Rate	2.1	1.1	2.0
Ages 40+	**Number**	**1,392,332**	**214,986**	**1,611,262**
	Crude rate	37.8	30.3	36.7
	ASR(A)	38.9	30.1	37.5
	95% CI	38.8–38.9	29.9–30.2	37.4–37.6
Ages 50–69	**Number**	**945,432**	**154,086**	**1,102,227**
	Crude rate	58.9	47.5	57.1
	ASR(A)	58.9	47.4	57.1
	95% CI	58.8–59.0	47.2–47.7	57.0–57.2

Notes

1. Period covers 1 January 2001 to 31 December 2002.
2. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.

Source: AIHW analysis of BreastScreen Australia data.

Indicator 2: Detection rate for small invasive cancers

Table 7: Numbers of women screened and cases of small-diameter (≤ 15 mm) invasive cancers detected in these women, first screening round, by age, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	13,402	4,758	10,296	2,209	1,904	821	53	191	33,634
	Cases	16	4	15	1	2	2	0	0	40
45–49	Screened	10,513	5,672	6,227	2,763	2,077	605	71	218	28,146
	Cases	14	7	20	3	2	1	0	0	47
50–54	Screened	13,400	12,430	6,945	5,564	4,027	638	652	319	43,975
	Cases	31	24	19	21	12	0	3	0	110
55–59	Screened	6,378	2,853	3,231	1,313	785	299	225	86	15,170
	Cases	20	10	12	2	3	0	2	0	49
60–64	Screened	4,190	1,949	2,261	851	380	184	118	44	9,977
	Cases	17	8	13	7	5	2	0	1	53
65–69	Screened	3,027	1,459	1,552	541	229	108	61	26	7,003
	Cases	17	9	9	3	6	0	0	0	44
70–74	Screened	1,708	843	801	168	113	38	18	16	3,705
	Cases	12	6	9	1	1	0	0	0	29
75–79	Screened	1,088	494	490	113	114	37	25	8	2,369
	Cases	6	2	1	1	2	0	0	0	12
80–84	Screened	436	191	156	49	64	11	6	3	916
	Cases	2	2	1	0	2	0	0	0	7
85+	Screened	118	49	53	17	8	4	0	0	249
	Cases	2	0	1	0	0	0	0	0	3
Ages 40+	**Screened**	**54,260**	**30,698**	**32,012**	**13,588**	**9,701**	**2,745**	**1,229**	**911**	**145,144**
	Cases	**137**	**72**	**100**	**39**	**35**	**5**	**5**	**1**	**394**
Ages 50–69	**Screened**	**26,995**	**18,691**	**13,989**	**8,269**	**5,421**	**1,229**	**1,056**	**475**	**76,125**
	Cases	**85**	**51**	**53**	**33**	**26**	**2**	**5**	**1**	**256**

Source: AIHW analysis of BreastScreen Australia data.

Table 8: Age-specific rates of small-diameter (≤ 15 mm) invasive cancers detected in women screened, first screening round, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	11.9	8.4	14.6	4.5	10.5	24.4	0.0	0.0	11.9
45–49	13.3	12.3	32.1	10.9	9.6	16.5	0.0	0.0	16.7
50–54	23.1	19.3	27.4	37.7	29.8	0.0	46.0	0.0	25.0
55–59	31.4	35.1	37.1	15.2	38.2	0.0	88.9	0.0	32.3
60–64	40.6	41.0	57.5	82.3	131.6	108.7	0.0	227.3	53.1
65–69	56.2	61.7	58.0	55.5	262.0	0.0	0.0	0.0	62.8
70–74	70.3	71.2	112.4	59.5	88.5	0.0	0.0	0.0	78.3
75–79	55.1	40.5	20.4	88.5	175.4	0.0	0.0	0.0	50.7
80–84	45.9	104.7	64.1	0.0	312.5	0.0	0.0	0.0	76.4
85+	169.5	0.0	188.7	0.0	0.0	0.0	. .	. .	120.5
Ages 40+									
Crude rate	25.2	23.5	31.2	28.7	36.1	18.2	40.7	11.0	27.1
ASR(A)	34.7	34.7	44.6	39.6	84.1	20.1	25.4	33.6	39.1
95% CI	28.4–41.8	25.7–45.4	34.6–56.2	23.7–59.8	50.0–128.0	2.5–54.8	6.8–62.1	0.8–187.1	34.6–43.9
Ages 50–69									
Crude rate	31.5	27.3	37.9	39.9	48.0	16.3	47.3	21.1	33.6
ASR(A)	35.5	36.4	42.5	45.2	99.7	24.0	38.0	50.3	40.5
95% CI	27.9–44.5	25.5–50.0	31.2–56.4	27.2–68.6	54.8–159.8	2.9–86.8	10.2–93.0	1.3–280.0	35.1–46.4

. . Not applicable—no women in this age group screened in 2002.

Note: Rates are the number of women with small invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 9: Numbers of women screened and cases of small-diameter (≤ 15 mm) invasive cancers detected in these women, subsequent screening rounds, by age, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	8,975	970	7,532	1,334	1,259	630	266	130	21,096
	Cases	7	0	6	0	1	2	0	0	16
45–49	Screened	27,505	4,793	19,961	5,172	4,504	2,325	1,268	493	66,021
	Cases	24	11	38	5	7	3	5	0	93
50–54	Screened	41,214	32,554	29,251	12,047	13,385	4,052	2,808	922	136,233
	Cases	85	46	54	22	27	7	4	2	247
55–59	Screened	44,772	36,210	29,285	13,539	13,884	4,364	2,682	804	145,540
	Cases	113	102	88	37	38	16	11	0	405
60–64	Screened	37,151	30,222	22,610	11,100	11,025	3,368	1,797	431	117,704
	Cases	126	91	67	33	40	13	3	1	374
65–69	Screened	31,253	25,425	17,812	9,130	9,495	2,807	1,313	236	97,471
	Cases	120	78	65	42	56	15	6	0	382
70–74	Screened	25,851	20,856	14,114	2,538	3,350	1,525	279	143	68,656
	Cases	90	73	69	7	13	7	1	1	261
75–79	Screened	16,370	5,234	3,607	975	1,611	295	117	56	28,265
	Cases	65	28	22	6	10	0	0	0	131
80–84	Screened	5,506	652	800	234	319	72	30	30	7,643
	Cases	28	4	8	2	2	1	0	0	45
85+	Screened	1,170	100	180	36	38	6	4	5	1,539
	Cases	5	0	0	2	1	0	1	0	9
Ages 40+	**Screened**	**239,767**	**157,016**	**145,152**	**56,105**	**58,870**	**19,444**	**10,564**	**3,250**	**690,168**
	Cases	**663**	**433**	**417**	**156**	**195**	**64**	**31**	**4**	**1,963**
Ages 50–69	**Screened**	**154,390**	**124,411**	**98,958**	**45,816**	**47,789**	**14,591**	**8,600**	**2,393**	**496,948**
	Cases	**444**	**317**	**274**	**134**	**161**	**51**	**24**	**3**	**1,408**

Source: AIHW analysis of BreastScreen Australia data.

Table 10: Age-specific rates of small-diameter (≤ 15 mm) invasive cancers detected in women screened, subsequent screening rounds, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	7.8	0.0	8.0	0.0	7.9	31.7	0.0	0.0	7.6
45–49	8.7	23.0	19.0	9.7	15.5	12.9	39.4	0.0	14.1
50–54	20.6	14.1	18.5	18.3	20.2	17.3	14.2	21.7	18.1
55–59	25.2	28.2	30.0	27.3	27.4	36.7	41.0	0.0	27.8
60–64	33.9	30.1	29.6	29.7	36.3	38.6	16.7	23.2	31.8
65–69	38.4	30.7	36.5	46.0	59.0	53.4	45.7	0.0	39.2
70–74	34.8	35.0	48.9	27.6	38.8	45.9	35.8	69.9	38.0
75–79	39.7	53.5	61.0	61.5	62.1	0.0	0.0	0.0	46.3
80–84	50.9	61.3	100.0	85.5	62.7	138.9	0.0	0.0	58.9
85+	42.7	0.0	0.0	555.6	263.2	0.0	2,500.0	0.0	58.5
Ages 40+									
Crude rate	27.7	27.6	28.7	27.8	33.1	32.9	29.3	12.3	28.4
ASR(A)	25.2	24.4	28.2	26.3	30.9	32.0	31.3	14.0	26.2
95% CI	23.3–27.3	21.7–27.2	25.5–31.1	22.0–31.1	26.5–35.9	24.2–41.3	18.6–48.0	3.0–37.5	25.0–27.4
Ages 50–69									
Crude rate	28.8	25.5	27.7	29.2	33.7	35.0	27.9	12.5	28.3
ASR(A)	28.2	24.5	27.4	28.5	33.2	34.1	27.8	12.2	27.8
95% CI	25.6–31.0	21.9–27.4	24.3–30.9	23.9–33.8	28.2–38.7	25.3–44.8	17.7–41.6	2.3–36.0	26.3–29.3

Note: Rates are the number of women with small invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 11: Numbers of women screened and cases of small-diameter (≤ 15 mm) invasive cancers detected in these women, all screening rounds, by age, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	22,377	5,728	17,828	3,543	3,163	1,451	319	321	54,730
	Cases	23	4	21	1	3	4	0	0	56
45–49	Screened	38,018	10,465	26,188	7,935	6,581	2,930	1,339	711	94,167
	Cases	38	18	58	8	9	4	5	0	140
50–54	Screened	54,614	44,984	36,196	17,611	17,412	4,690	3,460	1,241	180,208
	Cases	116	70	73	43	39	7	7	2	357
55–59	Screened	51,150	39,063	32,516	14,852	14,669	4,663	2,907	890	160,710
	Cases	133	112	100	39	41	16	13	0	454
60–64	Screened	41,341	32,171	24,871	11,951	11,405	3,552	1,915	475	127,681
	Cases	143	99	80	40	45	15	3	2	427
65–69	Screened	34,280	26,884	19,364	9,671	9,724	2,915	1,374	262	104,474
	Cases	137	87	74	45	62	15	6	0	426
70–74	Screened	27,559	21,699	14,915	2,706	3,463	1,563	297	159	72,361
	Cases	102	79	78	8	14	7	1	1	290
75–79	Screened	17,458	5,728	4,097	1,088	1,725	332	142	64	30,634
	Cases	71	30	23	7	12	0	0	0	143
80–84	Screened	5,942	843	956	283	383	83	36	33	8,559
	Cases	30	6	9	2	4	1	0	0	52
85+	Screened	1,288	149	233	53	46	10	4	5	1,788
	Cases	7	0	1	2	1	0	1	0	12
Ages 40+	**Screened**	**294,027**	**187,714**	**177,164**	**69,693**	**68,571**	**22,189**	**11,793**	**4,161**	**835,312**
	Cases	**800**	**505**	**517**	**195**	**230**	**69**	**36**	**5**	**2,357**
Ages 50–69	**Screened**	**181,385**	**143,102**	**112,947**	**54,085**	**53,210**	**15,820**	**9,656**	**2,868**	**573,073**
	Cases	**529**	**368**	**327**	**167**	**187**	**53**	**29**	**4**	**1,664**

Source: AIHW analysis of BreastScreen Australia data.

Table 12: Age-specific rates of small-diameter (≤ 15 mm) invasive cancers detected in women screened, all screening rounds, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	10.3	7.0	11.8	2.8	9.5	27.6	0.0	0.0	10.2
45–49	10.0	17.2	22.1	10.1	13.7	13.7	37.3	0.0	14.9
50–54	21.2	15.6	20.2	24.4	22.4	14.9	20.2	16.1	19.8
55–59	26.0	28.7	30.8	26.3	28.0	34.3	44.7	0.0	28.2
60–64	34.6	30.8	32.2	33.5	39.5	42.2	15.7	42.1	33.4
65–69	40.0	32.4	38.2	46.5	63.8	51.5	43.7	0.0	40.8
70–74	37.0	36.4	52.3	29.6	40.4	44.8	33.7	62.9	40.1
75–79	40.7	52.4	56.1	64.3	69.6	0.0	0.0	0.0	46.7
80–84	50.5	71.2	94.1	70.7	104.4	120.5	0.0	0.0	60.8
85+	54.3	0.0	42.9	377.4	217.4	0.0	2,500.0	0.0	67.1
Ages 40+									
Crude rate	27.2	26.9	29.2	28.0	33.5	31.1	30.5	12.0	28.2
ASR(A)	26.4	25.1	30.2	28.1	33.1	30.8	32.4	15.0	27.6
95% CI	24.5–28.3	22.8–27.5	27.6–32.9	24.0–32.6	28.8–37.9	23.8–39.2	19.8–48.6	4.0–36.7	26.5–28.7
Ages 50–69									
Crude rate	29.2	25.7	29.0	30.9	35.1	33.5	30.0	13.9	29.0
ASR(A)	29.1	25.6	29.1	31.2	35.7	33.1	30.1	14.6	29.1
95% CI	26.6–31.7	23.0–28.3	26.0–32.4	26.6–36.3	30.7–41.2	24.8–43.3	20.0–43.5	3.6–38.1	27.7–30.5

Note: Rates are the number of women with small invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 13: Numbers of women screened and cases of invasive cancer detected in these women, first screening round, by age, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	13,402	4,758	10,296	2,209	1,904	821	53	191	33,634
	Cases	27	12	24	2	5	4	0	0	74
45–49	Screened	10,513	5,672	6,227	2,763	2,077	605	71	218	28,146
	Cases	32	18	32	8	5	1	0	1	97
50–54	Screened	13,400	12,430	6,945	5,564	4,027	638	652	319	43,975
	Cases	56	53	27	28	24	1	3	1	193
55–59	Screened	6,378	2,853	3,231	1,313	785	299	225	86	15,170
	Cases	44	16	20	6	8	3	3	0	100
60–64	Screened	4,190	1,949	2,261	851	380	184	118	44	9,977
	Cases	32	17	23	15	7	3	0	1	98
65–69	Screened	3,027	1,459	1,552	541	229	108	61	26	7,003
	Cases	25	18	16	4	6	0	0	0	69
70–74	Screened	1,708	843	801	168	113	38	18	16	3,705
	Cases	14	13	13	2	2	0	0	1	45
75–79	Screened	1,088	494	490	113	114	37	25	8	2,369
	Cases	18	4	7	4	2	0	0	0	35
80–84	Screened	436	191	156	49	64	11	6	3	916
	Cases	2	4	2	0	2	0	0	0	10
85+	Screened	118	49	53	17	8	4	0	0	249
	Cases	5	1	2	0	0	0	0	0	8
Ages 40+	**Screened**	**54,260**	**30,698**	**32,012**	**13,588**	**9,701**	**2,745**	**1,229**	**911**	**145,144**
	Cases	**255**	**156**	**166**	**69**	**61**	**12**	**6**	**4**	**729**
Ages 50–69	**Screened**	**26,995**	**18,691**	**13,989**	**8,269**	**5,421**	**1,229**	**1,056**	**475**	**76,125**
	Cases	**157**	**104**	**86**	**53**	**45**	**7**	**6**	**2**	**460**

Source: AIHW analysis of BreastScreen Australia data.

Table 14: Age-specific rates of invasive breast cancers per 10,000 women screened, first screening round, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	20.1	25.2	23.3	9.1	26.3	48.7	0.0	0.0	22.0
45–49	30.4	31.7	51.4	29.0	24.1	16.5	0.0	45.9	34.5
50–54	41.8	42.6	38.9	50.3	59.6	15.7	46.0	31.3	43.9
55–59	69.0	56.1	61.9	45.7	101.9	100.3	133.3	0.0	65.9
60–64	76.4	87.2	101.7	176.3	184.2	163.0	0.0	227.3	98.2
65–69	82.6	123.4	103.1	73.9	262.0	0.0	0.0	0.0	98.5
70–74	82.0	154.2	162.3	119.0	177.0	0.0	0.0	625.0	121.5
75–79	165.4	81.0	142.9	354.0	175.4	0.0	0.0	0.0	147.7
80–84	45.9	209.4	128.2	0.0	312.5	0.0	0.0	0.0	109.2
85+	423.7	204.1	377.4	0.0	0.0	0.0	. .	. .	321.3
Ages 40+									
Crude rate	47.0	50.8	51.9	50.8	62.9	43.7	48.8	43.9	50.2
ASR(A)	61.6	71.5	75.7	79.7	119.9	50.9	33.1	98.4	70.6
95% CI	53.4–70.7	58.4–86.2	62.6–90.5	56.1–107.9	79.8–168.3	21.2–96.7	10.6–74.9	7.2–294.2	64.7–76.9
Ages 50–69									
Crude rate	58.2	55.6	61.5	64.1	83.0	57.0	56.8	42.1	60.4
ASR(A)	64.4	71.7	71.2	81.6	137.5	67.1	49.5	60.4	72.2
95% CI	54.1–76.0	56.0–89.8	56.2–88.9	56.7–112.1	87.0–200.6	25.8–140.5	15.8–112.1	0.0–249.9	65.0–80.0

. . Not applicable—no women in this age group screened in 2002.

Note: Rates are the number of women with invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 15: Numbers of women screened and cases of invasive cancer detected in these women, subsequent screening rounds, by age, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	8,975	970	7,532	1,334	1,259	630	266	130	21,096
	Cases	11	0	12	1	4	4	1	0	33
45–49	Screened	27,505	4,793	19,961	5,172	4,504	2,325	1,268	493	66,021
	Cases	41	20	58	9	9	4	6	1	148
50–54	Screened	41,214	32,554	29,251	12,047	13,385	4,052	2,808	922	136,233
	Cases	128	73	95	39	45	12	5	2	399
55–59	Screened	44,772	36,210	29,285	13,539	13,884	4,364	2,682	804	145,540
	Cases	181	154	146	58	58	19	15	0	631
60–64	Screened	37,151	30,222	22,610	11,100	11,025	3,368	1,797	431	117,704
	Cases	193	129	101	49	59	19	6	1	557
65–69	Screened	31,253	25,425	17,812	9,130	9,495	2,807	1,313	236	97,471
	Cases	177	120	106	60	80	21	8	1	573
70–74	Screened	25,851	20,856	14,114	2,538	3,350	1,525	279	143	68,656
	Cases	139	112	89	15	17	9	2	1	384
75–79	Screened	16,370	5,234	3,607	975	1,611	295	117	56	28,265
	Cases	96	39	28	11	13	0	1	1	189
80–84	Screened	5,506	652	800	234	319	72	30	30	7,643
	Cases	37	4	10	2	4	2	0	0	59
85+	Screened	1,170	100	180	36	38	6	4	5	1,539
	Cases	7	1	0	2	1	0	1	0	12
Ages 40+	**Screened**	**239,767**	**157,016**	**145,152**	**56,105**	**58,870**	**19,444**	**10,564**	**3,250**	**690,168**
	Cases	**1,010**	**652**	**645**	**246**	**290**	**90**	**45**	**7**	**2,985**
Ages 50–69	**Screened**	**154,390**	**124,411**	**98,958**	**45,816**	**47,789**	**14,591**	**8,600**	**2,393**	**496,948**
	Cases	**679**	**476**	**448**	**206**	**242**	**71**	**34**	**4**	**2,160**

Source: AIHW analysis of BreastScreen Australia data.

Table 16: Age-specific rates of invasive breast cancers per 10,000 women screened, subsequent screening rounds, by age, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	12.3	0.0	15.9	7.5	31.8	63.5	37.6	0.0	15.6
45–49	14.9	41.7	29.1	17.4	20.0	17.2	47.3	20.3	22.4
50–54	31.1	22.4	32.5	32.4	33.6	29.6	17.8	21.7	29.3
55–59	40.4	42.5	49.9	42.8	41.8	43.5	55.9	0.0	43.4
60–64	52.0	42.7	44.7	44.1	53.5	56.4	33.4	23.2	47.3
65–69	56.6	47.2	59.5	65.7	84.3	74.8	60.9	42.4	58.8
70–74	53.8	53.7	63.1	59.1	50.7	59.0	71.7	69.9	55.9
75–79	58.6	74.5	77.6	112.8	80.7	0.0	85.5	178.6	66.9
80–84	67.2	61.3	125.0	85.5	125.4	277.8	0.0	0.0	77.2
85+	59.8	100.0	0.0	555.6	263.2	0.0	2,500.0	0.0	78.0
Ages 40+									
Crude rate	42.1	41.5	44.4	43.8	49.3	46.3	42.6	21.5	43.3
ASR(A)	38.6	37.5	43.7	42.5	46.8	46.6	48.7	27.5	40.1
95% CI	36.2–41.2	34.1–41.1	40.4–47.3	36.9–48.7	41.0–53.0	36.8–58.1	32.2–69.4	9.9–58.7	38.7–41.6
Ages 50–69									
Crude rate	44.0	38.3	45.3	45.0	50.6	48.7	39.5	16.7	43.5
ASR(A)	43.1	36.9	44.9	44.2	50.0	47.9	39.5	20.4	42.7
95% CI	39.9–46.5	33.7–40.4	40.9–49.3	38.3–50.7	43.9–56.7	37.4–60.5	27.2–55.5	4.5–54.5	40.9–44.5

Note: Rates are the number of women with invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Indicator 3a: Interval cancer rate

Table 17: Numbers and age-specific rates of interval cancers in women screened during 1998, 1999 and 2000, first screening round, 0–12 months, states and territories

Age group	Number/ rate	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	Number	49	23	25	10	14	3	3	2	129
	Rate	6.0	7.0	4.8	5.9	9.2	5.8	8.4	11.7	6.2
50–59	Number	45	42	36	6	19	3	1	2	154
	Rate	7.3	8.1	7.3	4.8	10.3	7.0	3.5	9.5	7.6
60–69	Number	16	6	16	3	3	3	1	0	48
	Rate	5.9	5.0	6.5	6.8	6.7	18.5	13.9	0.0	6.4
70+	Number	19	6	5	1	0	0	0	0	31
	Rate	13.2	9.7	5.2	5.1	0.0	0.0	0.0	0.0	8.7
Ages 40+	**Number**	**129**	**77**	**82**	**20**	**36**	**9**	**5**	**4**	**362**
	Crude rate	7.0	7.5	6.0	5.6	8.9	7.6	6.7	9.0	6.9
	ASR(A)	7.4	7.2	6.3	5.6	7.8	9.1	7.0	6.2	7.1
	95% CI	6.0–8.9	5.4–9.2	4.9–7.9	3.0–9.4	5.1–11.2	3.5–18.3	0.6–19.5	1.6–16.0	6.3–7.9
Ages 50–69	**Number**	**61**	**48**	**52**	**9**	**22**	**6**	**2**	**2**	**202**
	Crude rate	6.9	7.5	7.0	5.3	9.6	10.2	5.6	7.7	7.3
	ASR(A)	6.7	6.8	7.0	5.6	8.8	11.8	7.8	5.6	7.1
	95% CI	5.1–8.7	4.8–9.3	5.2–9.2	2.4–11.0	5.1–13.9	4.0–26.3	0.2–30.4	0.7–20.1	6.1–8.2

Note: Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 18: Numbers and age-specific rates of interval cancers in women screened during 1998, 1999 and 2000, first screening round, 13–24 months, states and territories

Age group	Number/ rate	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	Number	n.a.	36	62	10	21	3	2	0	n.a.
	Rate	n.a.	11.0	12.4	6.0	14.6	6.2	5.6	0.0	n.a.
50–59	Number	n.a.	72	71	12	27	6	6	3	n.a.
	Rate	n.a.	13.8	15.0	9.8	14.9	14.8	21.2	14.6	n.a.
60–69	Number	n.a.	22	41	5	4	4	1	0	n.a.
	Rate	n.a.	18.3	16.8	11.6	9.2	26.5	14.1	0.0	n.a.
70+	Number	n.a.	9	9	2	1	0	1	0	n.a.
	Rate	n.a.	14.5	9.5	10.5	4.7	0.0	32.9	0.0	n.a.
Ages 40+	**Number**	**n.a.**	**139**	**183**	**29**	**53**	**13**	**10**	**3**	**n.a.**
	Crude rate	n.a.	13.5	14.0	8.2	13.6	11.6	13.6	7.2	n.a.
	ASR(A)	n.a.	14.6	14.3	9.6	12.0	14.4	17.5	5.7	n.a.
	95% CI	n.a.	11.8–17.6	12.2–16.7	5.9–14.5	8.5–16.3	6.9–25.8	6.5–35.1	1.2–16.6	n.a.
Ages 50–69	**Number**	**n.a.**	**94**	**112**	**17**	**31**	**10**	**7**	**3**	**n.a.**
	Crude rate	n.a.	14.7	15.6	10.3	13.8	18.0	19.8	11.8	n.a.
	ASR(A)	n.a.	15.7	15.8	10.5	12.5	19.7	18.3	8.5	n.a.
	95% CI	n.a.	12.2–19.8	12.9–19.0	5.9–17.3	8.0–18.5	8.9–37.0	6.0–40.0	1.8–24.9	n.a.

n.a. Not available.

Notes

1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. New South Wales data were unavailable at the time of publication.

Source: AIHW analysis of BreastScreen Australia data.

Table 19: Numbers and age-specific rates of interval cancers in women screened during 1998, 1999 and 2000, first screening round, 0–24 months, states and territories

Age group	Number/ rate	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	Number	n.a.	59	87	20	35	6	5	2	n.a.
	Rate	n.a.	9.0	8.5	5.9	11.8	6.0	7.0	6.3	n.a.
50–59	Number	n.a.	114	107	18	46	9	7	5	n.a.
	Rate	n.a.	10.9	11.1	7.3	12.6	10.8	12.3	12.0	n.a.
60–69	Number	n.a.	28	57	8	7	7	2	0	n.a.
	Rate	n.a.	11.6	11.6	9.2	7.9	22.3	14.0	0.0	n.a.
70+	Number	n.a.	15	14	3	1	0	1	0	n.a.
	Rate	n.a.	12.1	7.3	7.8	2.3	0.0	16.4	0.0	n.a.
Ages 40+	**Number**	**n.a.**	**216**	**265**	**49**	**89**	**22**	**15**	**7**	**n.a.**
	Crude rate	n.a.	10.5	9.9	6.9	11.2	9.6	10.1	8.1	n.a.
	ASR(A)	n.a.	10.9	10.2	7.6	9.8	11.7	12.2	6.0	n.a.
	95% CI	n.a.	9.2–12.7	9.0–11.6	5.3–10.5	7.6–12.5	6.8–18.4	5.5–22.1	2.4–12.4	n.a.
Ages 50–69	**Number**	**n.a.**	**142**	**164**	**26**	**53**	**16**	**9**	**5**	**n.a.**
	Crude rate	n.a.	11.1	11.3	7.8	11.7	14.0	12.6	9.8	n.a.
	ASR(A)	n.a.	11.2	11.3	8.1	10.6	15.6	13.0	7.0	n.a.
	95% CI	n.a.	9.2–13.5	9.6–13.2	5.1–12.1	7.6–14.3	8.6–25.8	5.0–26.3	2.3–16.4	n.a.

n.a. Not available.

Notes

1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. New South Wales data were unavailable at the time of publication.

Source: AIHW analysis of BreastScreen Australia data.

Table 20: Numbers and age-specific rates of interval cancers in women screened during 1998, 1999 and 2000, subsequent screening rounds, 0–12 months, states and territories

Age group	Number/ rate	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	Number	76	13	55	21	18	4	3	1	191
	Rate	7.6	7.0	8.3	10.5	11.3	4.1	8.3	6.3	8.1
50–59	Number	178	138	100	48	61	19	24	1	569
	Rate	7.8	7.8	8.4	6.9	9.4	8.9	18.4	2.8	8.2
60–69	Number	151	107	63	33	33	11	13	1	412
	Rate	8.0	7.3	7.5	6.3	6.0	6.7	17.8	7.2	7.4
70+	Number	68	37	43	5	6	3	2	0	164
	Rate	5.8	5.4	8.9	6.1	4.9	12.0	18.3	0.0	6.3
Ages 40+	**Number**	**473**	**295**	**261**	**107**	**118**	**37**	**42**	**3**	**1,336**
	Crude rate	7.4	7.2	8.2	7.1	8.0	7.4	16.7	4.2	7.7
	ASR(A)	7.5	7.2	8.2	7.4	8.3	7.7	16.1	4.4	7.7
	95% CI	6.9–8.3	6.2–8.3	7.2–9.3	5.9–9.0	6.7–10.0	5.2–10.8	11.1–22.4	0.8–13.1	7.3–8.2
Ages 50–69	**Number**	**329**	**245**	**163**	**81**	**94**	**30**	**37**	**2**	**981**
	Crude rate	7.9	7.6	8.0	6.6	7.8	8.0	18.2	4.0	7.8
	ASR(A)	7.8	7.6	8.0	6.6	8.0	8.0	18.1	4.6	7.9
	95% CI	7.0–8.7	6.7–8.6	6.8–9.4	5.3–8.3	6.4–9.8	5.4–11.4	12.7–25.0	0.4–17.1	7.4–8.4

Notes: Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 21: Numbers and age-specific rates of interval cancers in women screened during 1998, 1999 and 2000, subsequent screening rounds, 13–24 months, states and territories

Age group	Number/ rate	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	Number	n.a.	24	79	15	14	14	5	0	n.a.
	Rate	n.a.	12.9	13.0	9.4	10.1	15.9	9.8	0.0	n.a.
50–59	Number	n.a.	216	180	69	79	32	19	5	n.a.
	Rate	n.a.	12.3	16.0	11.6	12.8	16.1	14.7	13.9	n.a.
60–69	Number	n.a.	203	131	56	70	10	5	2	n.a.
	Rate	n.a.	13.8	15.9	12.7	13.3	6.6	6.9	14.7	n.a.
70+	Number	n.a.	67	63	8	12	3	2	3	n.a.
	Rate	n.a.	9.8	13.3	12.1	10.4	13.2	18.3	64.5	n.a.
Ages 40+	**Number**	**n.a.**	**510**	**453**	**148**	**175**	**59**	**31**	**10**	**n.a.**
	Crude rate	n.a.	12.4	14.9	11.7	12.5	12.8	11.8	14.5	n.a.
	ASR(A)	n.a.	12.5	15.0	11.5	12.1	13.0	12.0	17.5	n.a.
	95% CI	n.a.	11.2–14.0	13.6–16.4	9.6–13.7	10.2–14.1	9.7–17.1	7.6–17.6	7.7–33.4	n.a.
Ages 50–69	**Number**	**n.a.**	**419**	**311**	**125**	**149**	**42**	**24**	**7**	**n.a.**
	Crude rate	n.a.	13.0	15.9	12.1	13.0	12.0	11.9	14.1	n.a.
	ASR(A)	n.a.	12.9	15.9	12.0	13.0	12.1	11.4	14.2	n.a.
	95% CI	n.a.	11.7–14.2	14.2–17.8	10.0–14.4	11.0–15.2	8.7–16.4	7.3–17.1	5.3–30.1	n.a.

n.a. Not available.

Notes

1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. New South Wales data were unavailable at the time of publication.

Source: AIHW analysis of BreastScreen Australia data.

Table 22: Numbers and age-specific rates of interval cancers in women screened during 1998, 1999 and 2000, subsequent screening rounds, 0–24 months, states and territories

Age group	Number/ rate	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	Number	n.a.	37	134	36	32	18	8	1	n.a.
	Rate	n.a.	9.9	10.6	10.0	10.7	9.7	9.2	3.3	n.a.
50–59	Number	n.a.	354	280	117	140	51	43	6	n.a.
	Rate	n.a.	10.1	12.1	9.1	11.0	12.4	16.5	8.3	n.a.
60–69	Number	n.a.	310	194	89	103	21	18	3	n.a.
	Rate	n.a.	10.5	11.7	9.2	9.6	6.7	12.4	10.9	n.a.
70+	Number	n.a.	104	106	13	18	6	4	3	n.a.
	Rate	n.a.	7.6	11.1	8.8	7.5	12.6	18.3	32.1	n.a.
Ages 40+	**Number**	**n.a.**	**805**	**714**	**255**	**293**	**96**	**73**	**13**	**n.a.**
	Crude rate	n.a.	9.8	11.5	9.2	10.2	10.0	14.2	9.3	n.a.
	ASR(A)	n.a.	9.8	11.5	9.3	10.1	10.3	14.1	10.9	n.a.
	95% CI	n.a.	9.0–10.7	10.7–12.4	8.1–10.6	8.9–11.4	8.2–12.7	10.7–18.1	5.5–19.3	n.a.
Ages 50–69	**Number**	**n.a.**	**664**	**474**	**206**	**243**	**72**	**61**	**9**	**n.a.**
	Crude rate	n.a.	10.3	11.9	9.1	10.4	9.9	15.0	9.0	n.a.
	ASR(A)	n.a.	10.2	11.9	9.1	10.4	10.0	14.8	9.4	n.a.
	95% CI	n.a.	9.5–11.1	10.9–13.0	7.9–10.5	9.1–11.8	7.8–12.6	11.3–19.0	4.0–18.2	n.a.

n.a. Not available.

Notes

1. Rates are the number of interval cancers detected per 10,000 women-years and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. New South Wales data were unavailable at the time of publication.

Source: AIHW analysis of BreastScreen Australia data.

Indicator 3b: Program sensitivity

Table 23: Program sensitivity rates for women screened during 1998, 1999 and 2000, first screening round, 0–12 months, states and territories

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–49	75.7	79.3	85.7	81.1	70.2	75.0	70.0	75.0	79.1
50–59	87.9	85.7	86.8	90.6	84.2	88.0	94.7	83.3	86.9
60–69	92.1	95.2	92.7	92.7	95.2	80.0	90.0	100.0	92.9
70+	90.2	95.0	96.8	95.8	100.0	100.0	100.0	100.0	94.3
Ages 40+									
Crude rate	86.7	88.2	90.0	89.0	86.2	85.7	88.1	84.0	88.0
ASR(A)	86.8	88.2	89.4	89.9	86.3	84.6	88.9	88.3	87.9
95% CI	80.9–93.1	80.8–96.0	83.0–96.2	76.3–100.0	75.3–98.5	63.3–100.0	61.8–100.0	50.0–100.0	84.5–91.4
Ages 50–69									
Crude rate	89.4	88.5	89.4	91.4	87.9	85.0	93.1	86.7	89.1
ASR(A)	89.6	89.7	89.2	91.5	88.7	84.7	92.8	90.3	89.4
95% CI	83.7–96.0	82.0–97.9	83.3–95.5	77.9–100.0	77.2–100.0	64.7–100.0	63.6–100.0	44.1–100.0	86.1–92.9

Notes: Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 24: Program sensitivity rates for women screened during years 1998, 1999 and 2000, first screening round, 0–24 months, states and territories

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–49	n.a.	59.9	63.3	81.1	48.5	60.0	77.8	77.8	n.a.
50–59	n.a.	68.9	68.8	82.9	68.7	73.3	75.0	66.7	n.a.
60–69	n.a.	81.0	78.1	88.4	89.4	63.2	90.0	100.0	n.a.
70+	n.a.	88.5	91.6	92.0	97.0	100.0	75.0	100.0	n.a.
Ages 40+									
Crude rate	n.a.	72.7	73.7	84.8	71.7	72.0	78.7	75.9	n.a.
ASR(A)	n.a.	72.8	73.1	85.2	73.8	71.1	79.7	82.4	n.a.
95% CI	n.a.	66.7–79.2	67.9–78.6	72.4–99.6	64.3–84.3	53.3–92.8	55.4–100.0	45.7–100.0	n.a.
Ages 50–69									
Crude rate	n.a.	72.3	72.8	85.0	75.1	69.4	79.4	72.2	n.a.
ASR(A)	n.a.	73.9	72.7	85.1	77.3	69.1	81.2	80.5	n.a.
95% CI	n.a.	67.3–81.0	67.6–78.1	72.2–100.0	66.4–89.6	52.2–91.0	54.9–100.0	34.4–100.0	n.a.

n.a. Not available.

Notes

1. Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. New South Wales data were unavailable at the time of publication.

Source: AIHW analysis of BreastScreen Australia data.

Table 25: Program sensitivity rates for women screened during 1998, 1999 and 2000, subsequent screening rounds, 0–12 months, states and territories

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–49	67.9	78.0	71.6	63.2	70.5	81.0	75.0	75.0	70.4
50–59	80.4	80.8	80.2	83.8	80.4	79.3	72.7	93.3	80.6
60–69	84.7	87.8	87.4	89.8	89.4	86.3	72.3	85.7	86.8
70+	90.5	91.9	88.1	92.5	92.8	87.0	81.8	100.0	90.5
Ages 40+									
Crude rate	83.4	86.0	83.3	85.6	84.6	82.9	73.4	90.3	84.2
ASR(A)	80.3	83.5	81.4	82.3	82.4	82.5	74.2	88.2	81.4
95% CI	76.7–84.0	77.9–89.4	76.8–86.2	75.2–89.7	75.5–89.7	70.0–96.5	59.4–91.3	57.4–100.0	79.3–83.6
Ages 50–69									
Crude rate	82.6	84.6	83.8	86.9	84.9	82.6	72.6	90.9	83.8
ASR(A)	82.2	83.7	83.2	86.3	84.1	82.2	72.6	90.2	83.2
95% CI	79.5–85.0	80.7–86.8	79.4–87.2	80.3–92.6	78.4–90.2	71.6–94.2	59.1–88.2	61.0–100.0	81.6–84.8

Notes: Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 26: Program sensitivity rates for women screened during 1998, 1999 and 2000, subsequent screening rounds, 0–24 months, states and territories

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–49	n.a.	55.4	50.9	70.6	57.3	50.0	64.3	75.0	n.a.
50–59	n.a.	62.1	59.2	78.2	64.1	61.3	77.1	93.3	n.a.
60–69	n.a.	71.3	69.2	83.8	73.0	80.2	87.2	85.7	n.a.
70+	n.a.	80.2	75.0	88.6	81.1	76.9	81.8	100.0	n.a.
Ages 40+									
Crude rate	n.a.	69.3	64.5	81.1	68.9	67.5	78.9	90.3	n.a.
ASR(A)	n.a.	65.5	62.2	79.5	67.3	66.2	77.8	88.2	n.a.
95% CI	n.a.	61.3–69.8	58.7–65.8	72.4–87.0	61.6–73.2	56.6–76.9	63.0–94.8	57.4–100.0	n.a.
Ages 50–69									
Crude rate	n.a.	67.0	64.0	81.1	68.5	69.3	80.3	90.9	n.a.
ASR(A)	n.a.	65.9	63.4	80.5	67.8	69.2	81.3	90.2	n.a.
95% CI	n.a.	63.4–68.5	60.3–66.6	74.9–86.5	63.0–72.9	59.5–80.1	66.3–98.7	61.0–100.0	n.a.

n.a. Not available.

Notes

1. Rates are the number of screen-detected cancers as a percentage of all cancers (screen-detected and interval cancers) and age-standardised to the population of women attending a BreastScreen Australia service in 1998.
2. New South Wales data were unavailable at the time of publication.

Source: AIHW analysis of BreastScreen Australia data.

Indicator 4: Ductal carcinoma in situ

Table 27: Number of women screened and cases of DCIS detected in these women by age, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	Screened	60,395	16,193	44,016	11,478	9,744	4,381	1,658	1,032	148,897
	Cases	35	16	24	15	7	3	0	0	100
50–59	Screened	105,764	84,047	68,712	32,463	32,081	9,353	6,367	2,131	340,918
	Cases	100	70	62	50	41	9	10	3	345
60–69	Screened	75,621	59,055	44,235	21,622	21,129	6,467	3,289	737	232,155
	Cases	77	63	48	45	16	5	4	0	258
70+	Screened	52,247	28,419	20,201	4,130	5,617	1,988	479	261	113,342
	Cases	64	28	20	11	18	5	0	0	146
Ages 40+	**Screened**	**294,027**	**187,714**	**177,164**	**69,693**	**68,571**	**22,189**	**11,793**	**4,161**	**835,312**
	Cases	**276**	**177**	**154**	**121**	**82**	**22**	**14**	**3**	**849**
Ages 50–69	**Screened**	**181,385**	**143,102**	**112,947**	**54,085**	**53,210**	**15,820**	**9,656**	**2,868**	**573,073**
	Cases	**177**	**133**	**110**	**95**	**57**	**14**	**14**	**3**	**603**

Source: AIHW analysis of BreastScreen Australia data.

Table 28: Age-specific rate of DCIS detected in women screened, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–49	5.8	9.9	5.5	13.1	7.2	6.8	0.0	0.0	6.7
50–59	9.5	8.3	9.0	15.4	12.8	9.6	15.7	14.1	10.1
60–69	10.2	10.7	10.9	20.8	7.6	7.7	12.2	0.0	11.1
70+	12.2	9.9	9.9	26.6	32.0	25.2	0.0	0.0	12.9
Ages 40+									
Crude rate	9.4	9.4	8.7	17.4	12.0	9.9	11.9	7.2	10.2
ASR(A)	9.2	9.5	8.9	17.8	12.6	10.5	9.5	5.5	10.0
95% CI	8.2–10.4	8.0–11.1	7.5–10.4	14.6–21.5	9.9–15.7	6.5–15.9	5.1–16.0	1.1–16.1	9.4–10.7
Ages 50–69									
Crude rate	9.8	9.3	9.7	17.6	10.7	8.8	14.5	10.5	10.5
ASR(A)	9.8	9.3	9.8	17.7	10.6	8.8	14.2	8.2	10.5
95% CI	8.4–11.3	7.8–11.0	8.0–11.8	14.3–21.6	8.0–13.8	4.8–14.8	7.7–24.0	1.7–24.0	9.7–11.4

Note: Rates are the number of cases of DCIS per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Indicator 5: Recall to assessment rate

Table 29: Numbers of women screened and women recalled for assessment by age, mammographic reasons, first screening round, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	13,404	4,758	10,296	2,210	1,904	821	53	191	33,637
	Recalled	944	374	876	246	75	79	5	11	2,610
45–49	Screened	10,514	5,672	6,227	2,763	2,077	605	71	218	28,147
	Recalled	864	499	684	331	113	60	6	11	2,568
50–54	Screened	13,400	12,430	6,946	5,564	4,027	638	652	319	43,976
	Recalled	1,180	1,169	728	635	248	85	60	14	4,119
55–59	Screened	6,378	2,853	3,231	1,313	785	299	225	86	15,170
	Recalled	569	227	309	106	50	26	18	6	1,311
60–64	Screened	4,190	1,949	2,261	851	380	184	118	44	9,977
	Recalled	340	155	218	96	26	25	7	4	871
65–69	Screened	3,027	1,459	1,552	541	229	108	61	26	7,003
	Recalled	260	118	133	55	16	14	3	0	599
70–74	Screened	1,708	843	801	168	113	38	18	16	3,705
	Recalled	128	58	64	13	11	5	3	1	283
75–79	Screened	1,088	494	490	113	114	37	25	8	2,369
	Recalled	98	22	50	10	6	3	0	0	189
80–84	Screened	436	191	156	49	64	11	6	3	916
	Recalled	33	9	19	5	6	1	0	1	74
85+	Screened	118	49	53	17	8	4	0	0	249
	Recalled	18	6	6	3	1	1	0	0	35
Ages 40+	**Screened**	**54,263**	**30,698**	**32,013**	**13,589**	**9,701**	**2,745**	**1,229**	**911**	**145,149**
	Recalled	**4,434**	**2,637**	**3,087**	**1,500**	**552**	**299**	**102**	**48**	**12,659**
Ages 50–69	**Screened**	**26,995**	**18,691**	**13,990**	**8,269**	**5,421**	**1,229**	**1,056**	**475**	**76,126**
	Recalled	**2,349**	**1,669**	**1,388**	**892**	**340**	**150**	**88**	**24**	**6,900**

Source: BreastScreen Australia.

Table 30: Age-specific and age-standardised recall to assessment rates, mammographic reasons, first screening round, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	7.0	7.9	8.5	11.1	3.9	9.6	9.4	5.8	7.8
45–49	8.2	8.8	11.0	12.0	5.4	9.9	8.5	5.0	9.1
50–54	8.8	9.4	10.5	11.4	6.2	13.3	9.2	4.4	9.4
55–59	8.9	8.0	9.6	8.1	6.4	8.7	8.0	7.0	8.6
60–64	8.1	8.0	9.6	11.3	6.8	13.6	5.9	9.1	8.7
65–69	8.6	8.1	8.6	10.2	7.0	13.0	4.9	0.0	8.6
70–74	7.5	6.9	8.0	7.7	9.7	13.2	16.7	6.3	7.6
75–79	9.0	4.5	10.2	8.8	5.3	8.1	0.0	0.0	8.0
80–84	7.6	4.7	12.2	10.2	9.4	9.1	0.0	33.3	8.1
85+	15.3	12.2	11.3	17.6	12.5	25.0	. .	. .	14.1
Ages 40+									
Crude rate	8.2	8.6	9.6	11.0	5.7	10.9	8.3	5.3	8.7
ASR(A)	8.4	8.2	9.7	10.3	6.4	11.6	8.1	5.4	8.7
95% CI	8.1–8.7	7.8–8.6	9.2–10.1	9.6–11.1	5.6–7.3	9.8–13.5	5.9–10.7	3.4–7.9	8.5–8.9
Ages 50–69									
Crude rate	8.7	8.9	9.9	10.8	6.3	12.2	8.3	5.1	9.1
ASR(A)	8.6	8.5	9.7	10.3	6.5	12.1	7.3	5.2	8.9
95% CI	8.3–9.0	7.9–9.0	9.1–10.2	9.4–11.2	5.5–7.6	10.0–14.5	5.5–9.4	2.9–8.4	8.6–9.1

. . Not applicable—no women in this age group screened in 2002.

Note: Rates are the number of women recalled for assessment as the percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 31: Numbers of women screened and women recalled for assessment by age, mammographic reasons, subsequent screening rounds, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	8,974	970	7,532	1,333	1,259	630	266	130	21,094
	Recalled	387	48	359	60	38	41	16	2	951
45–49	Screened	27,503	4,793	19,961	5,172	4,504	2,325	1,268	493	66,019
	Recalled	1,268	294	1,073	241	108	151	81	22	3,238
50–54	Screened	41,214	32,554	29,250	12,047	13,385	4,052	2,808	922	136,232
	Recalled	1,760	1,362	1,400	488	335	222	154	28	5,749
55–59	Screened	44,773	36,210	29,285	13,539	13,884	4,364	2,682	804	145,541
	Recalled	1,878	1,389	1,390	494	303	238	115	34	5,841
60–64	Screened	37,150	30,222	22,610	11,100	11,025	3,368	1,797	431	117,703
	Recalled	1,598	1,136	1,070	399	282	162	96	13	4,756
65–69	Screened	31,253	25,425	17,812	9,130	9,495	2,807	1,313	236	97,471
	Recalled	1,236	911	891	331	287	153	56	9	3,874
70–74	Screened	25,852	20,856	14,114	2,538	3,350	1,525	279	143	68,657
	Recalled	995	703	624	103	95	74	11	6	2,611
75–79	Screened	16,369	5,234	3,607	975	1,611	295	117	56	28,264
	Recalled	599	188	167	38	50	11	4	3	1,060
80–84	Screened	5,506	652	800	234	319	72	30	30	7,643
	Recalled	179	26	40	9	13	2	2	0	271
85+	Screened	1,170	100	180	36	38	6	4	5	1,539
	Recalled	47	5	10	3	2	0	1	0	68
Ages 40+	**Screened**	**239,764**	**157,016**	**145,151**	**56,104**	**58,870**	**19,444**	**10,564**	**3,250**	**690,163**
	Recalled	**9,947**	**6,062**	**7,024**	**2,166**	**1,513**	**1,054**	**536**	**117**	**28,419**
Ages 50–69	**Screened**	**154,390**	**124,411**	**98,957**	**45,816**	**47,789**	**14,591**	**8,600**	**2,393**	**496,947**
	Recalled	**6,472**	**4,798**	**4,751**	**1,712**	**1,207**	**775**	**421**	**84**	**20,220**

Source: BreastScreen Australia.

Table 32: Age-specific and age-standardised recall to assessment rates, mammographic reasons, subsequent screening rounds, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	4.3	4.9	4.8	4.5	3.0	6.5	6.0	1.5	4.5
45–49	4.6	6.1	5.4	4.7	2.4	6.5	6.4	4.5	4.9
50–54	4.3	4.2	4.8	4.1	2.5	5.5	5.5	3.0	4.2
55–59	4.2	3.8	4.7	3.6	2.2	5.5	4.3	4.2	4.0
60–64	4.3	3.8	4.7	3.6	2.6	4.8	5.3	3.0	4.0
65–69	4.0	3.6	5.0	3.6	3.0	5.5	4.3	3.8	4.0
70–74	3.8	3.4	4.4	4.1	2.8	4.9	3.9	4.2	3.8
75–79	3.7	3.6	4.6	3.9	3.1	3.7	3.4	5.4	3.8
80–84	3.3	4.0	5.0	3.8	4.1	2.8	6.7	0.0	3.5
85+	4.0	5.0	5.6	8.3	5.3	0.0	25.0	0.0	4.4
Ages 40+									
Crude rate	4.1	3.9	4.8	3.9	2.6	5.4	5.1	3.6	4.1
ASR(A)	4.2	4.2	4.8	4.0	2.6	5.4	5.1	3.5	4.2
95% CI	4.1–4.3	4.0–4.4	4.7–5.0	3.8–4.2	2.5–2.8	5.1–5.8	4.6–5.6	2.9–4.3	4.1–4.2
Ages 50–69									
Crude rate	4.2	3.9	4.8	3.7	2.5	5.3	4.9	3.5	4.1
ASR(A)	4.2	3.9	4.8	3.8	2.5	5.3	4.9	3.5	4.1
95% CI	4.1–4.3	3.8–4.0	4.7–4.9	3.6–3.9	2.4–2.7	4.9–5.7	4.4–5.4	2.7–4.4	4.0–4.1

Note: Rates are the number of women recalled for assessment as the percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 33: Numbers of women screened and women recalled for assessment by age, other reasons only, first screening round, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	13,404	4,758	10,296	2,210	1,904	821	53	191	33,637
	Recalled	24	131	205	29	0	0	0	0	389
45–49	Screened	10,514	5,672	6,227	2,763	2,077	605	71	218	28,147
	Recalled	12	124	118	46	0	0	0	0	300
50–54	Screened	13,400	12,430	6,946	5,564	4,027	638	652	319	43,976
	Recalled	11	198	77	41	0	0	0	0	327
55–59	Screened	6,378	2,853	3,231	1,313	785	299	225	86	15,170
	Recalled	0	55	42	10	0	0	0	0	107
60–64	Screened	4,190	1,949	2,261	851	380	184	118	44	9,977
	Recalled	1	28	15	5	0	0	0	0	49
65–69	Screened	3,027	1,459	1,552	541	229	108	61	26	7,003
	Recalled	0	26	15	3	0	0	0	0	44
70–74	Screened	1,708	843	801	168	113	38	18	16	3,705
	Recalled	2	5	8	1	0	0	0	0	16
75–79	Screened	1,088	494	490	113	114	37	25	8	2,369
	Recalled	0	5	5	1	0	0	0	0	11
80–84	Screened	436	191	156	49	64	11	6	3	916
	Recalled	2	2	4	0	0	0	0	0	8
85+	Screened	118	49	53	17	8	4	0	0	249
	Recalled	0	0	0	0	0	0	0	0	0
Ages 40+	**Screened**	**54,263**	**30,698**	**32,013**	**13,589**	**9,701**	**2,745**	**1,229**	**911**	**145,149**
	Recalled	**52**	**574**	**489**	**136**	**0**	**0**	**0**	**0**	**1,251**
Ages 50–69	**Screened**	**26,995**	**18,691**	**13,990**	**8,269**	**5,421**	**1,229**	**1,056**	**475**	**76,126**
	Recalled	**12**	**307**	**149**	**59**	**0**	**0**	**0**	**0**	**527**

Source: BreastScreen Australia.

Table 34: Age-specific and age-standardised recall to assessment rates, first screening round, other reasons only, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	0.2	2.8	2.0	1.3	0.0	0.0	0.0	0.0	1.2
45–49	0.1	2.2	1.9	1.7	0.0	0.0	0.0	0.0	1.1
50–54	0.1	1.6	1.1	0.7	0.0	0.0	0.0	0.0	0.7
55–59	0.0	1.9	1.3	0.8	0.0	0.0	0.0	0.0	0.7
60–64	0.0	1.4	0.7	0.6	0.0	0.0	0.0	0.0	0.5
65–69	0.0	1.8	1.0	0.6	0.0	0.0	0.0	0.0	0.6
70–74	0.1	0.6	1.0	0.6	0.0	0.0	0.0	0.0	0.4
75–79	0.0	1.0	1.0	0.9	0.0	0.0	0.0	0.0	0.5
80–84	0.5	1.0	2.6	0.0	0.0	0.0	0.0	0.0	0.9
85+	0.0	0.0	0.0	0.0	0.0	0.0	. .	. .	0.0
Ages 40+									
Crude rate	0.1	1.9	1.5	1.0	0.0	0.0	0.0	0.0	0.9
ASR(A)	0.1	1.7	1.2	0.8	0.0	0.0	0.0	0.0	0.7
95% CI	0.0–0.1	1.5–1.9	1.1–1.4	0.7–1.1	. .	. .	. .	. .	0.7–0.8
Ages 50–69									
Crude rate	0.0	1.6	1.1	0.7	0.0	0.0	0.0	0.0	0.7
ASR(A)	0.0	1.7	1.0	0.7	0.0	0.0	0.0	0.0	0.7
95% CI	0.0–0.1	1.5–1.9	0.9–1.2	0.5–0.9	. .	. .	. .	. .	0.6–0.7

. . Not applicable.

Note: Rates are the number of women recalled for assessment as the percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 35: Numbers of women screened and women recalled for assessment by age, other reasons only, subsequent screening rounds, states and territories, 2002

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	8,974	970	7,532	1,333	1,259	630	266	130	21,094
	Recalled	10	19	120	11	0	0	0	0	160
45–49	Screened	27,503	4,793	19,961	5,172	4,504	2,325	1,268	493	66,019
	Recalled	15	80	259	37	0	0	0	0	391
50–54	Screened	41,214	32,554	29,250	12,047	13,385	4,052	2,808	922	136,232
	Recalled	26	381	286	59	0	0	0	0	752
55–59	Screened	44,773	36,210	29,285	13,539	13,884	4,364	2,682	804	145,541
	Recalled	19	390	243	53	0	0	0	0	705
60–64	Screened	37,150	30,222	22,610	11,100	11,025	3,368	1,797	431	117,703
	Recalled	15	208	150	28	0	0	1	0	402
65–69	Screened	31,253	25,425	17,812	9,130	9,495	2,807	1,313	236	97,471
	Recalled	15	107	130	26	0	0	0	0	278
70–74	Screened	25,852	20,856	14,114	2,538	3,350	1,525	279	143	68,657
	Recalled	4	85	81	6	0	0	0	0	176
75–79	Screened	16,369	5,234	3,607	975	1,611	295	117	56	28,264
	Recalled	4	23	45	3	0	0	0	0	75
80–84	Screened	5,506	652	800	234	319	72	30	30	7,643
	Recalled	2	5	16	1	0	0	0	0	24
85+	Screened	1,170	100	180	36	38	6	4	5	1,539
	Recalled	0	1	4	1	0	0	0	0	6
Ages 40+	**Screened**	**239,764**	**157,016**	**145,151**	**56,104**	**58,870**	**19,444**	**10,564**	**3,250**	**690,163**
	Recalled	**110**	**1,299**	**1,334**	**225**	**0**	**0**	**1**	**0**	**2,969**
Ages 50–69	**Screened**	**154,390**	**124,411**	**98,957**	**45,816**	**47,789**	**14,591**	**8,600**	**2,393**	**496,947**
	Recalled	**75**	**1,086**	**809**	**166**	**0**	**0**	**1**	**0**	**2,137**

Source: BreastScreen Australia.

Table 36: Age-specific and age-standardised recall to assessment rates, other reasons only, subsequent screening rounds, states and territories, 2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	0.1	2.0	1.6	0.8	0.0	0.0	0.0	0.0	0.8
45–49	0.1	1.7	1.3	0.7	0.0	0.0	0.0	0.0	0.6
50–54	0.1	1.2	1.0	0.5	0.0	0.0	0.0	0.0	0.6
55–59	0.0	1.1	0.8	0.4	0.0	0.0	0.0	0.0	0.5
60–64	0.0	0.7	0.7	0.3	0.0	0.0	0.1	0.0	0.3
65–69	0.0	0.4	0.7	0.3	0.0	0.0	0.0	0.0	0.3
70–74	0.0	0.4	0.6	0.2	0.0	0.0	0.0	0.0	0.3
75–79	0.0	0.4	1.2	0.3	0.0	0.0	0.0	0.0	0.3
80–84	0.0	0.8	2.0	0.4	0.0	0.0	0.0	0.0	0.3
85+	0.0	1.0	2.2	2.8	0.0	0.0	0.0	0.0	0.4
Ages 40+									
Crude rate	0.0	0.8	0.9	0.4	0.0	0.0	0.0	0.0	0.4
ASR(A)	0.1	1.0	0.9	0.4	0.0	0.0	0.0	0.0	0.5
95% CI	0.0–0.1	0.9–1.1	0.9–1.0	0.4–0.5	. .	. .	. .	. .	0.4–0.5
Ages 50–69									
Crude rate	0.0	0.9	0.8	0.4	0.0	0.0	0.0	0.0	0.4
ASR(A)	0.0	0.9	0.8	0.4	0.0	0.0	0.0	0.0	0.4
95% CI	0.0–0.1	0.8–0.9	0.8–0.9	0.3–0.4	. .	. .	0.0–0.1	. .	0.4–0.5

. . Not applicable.

Note: Rates are the number of women recalled for assessment as the percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Indicator 6: Rescreen rate

Table 37: Number of women screened during 2000 and number of those women who returned for screening within 27 months by age, first screening round, states and territories

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	12,586	4,503	9,192	2,246	2,337	755	525	235	32,379
	Returned	7,771	696	6,360	1,278	1,307	532	233	129	18,306
45–49	Screened	10,342	5,493	6,394	2,937	2,488	586	583	238	29,061
	Returned	6,346	2,262	4,280	1,778	1,565	380	291	143	17,045
50–54	Screened	12,156	12,300	8,439	3,199	5,184	792	656	444	43,170
	Returned	7,666	8,670	5,784	1,864	3,561	543	370	252	28,710
55–59	Screened	5,179	3,147	4,269	915	1,088	339	198	117	15,252
	Returned	3,204	2,061	3,042	542	698	224	118	59	9,948
60–64	Screened	3,986	2,434	3,136	702	626	221	126	55	11,286
	Returned	2,516	1,645	2,300	448	430	153	69	24	7,585
65–69	Screened	2,822	1,733	2,414	450	523	154	82	29	8,207
	Returned	1,763	1,125	1,767	217	224	111	33	14	5,254
70–74	Screened	1,734	850	1,291	232	239	78	41	15	4,480
	Returned	1,079	471	764	50	41	46	6	2	2,459
75–79	Screened	1,242	605	745	169	237	59	23	7	3,087
	Returned	733	41	98	23	40	11	2	3	951
80–84	Screened	457	224	234	46	65	17	11	2	1,056
	Returned	240	11	28	3	6	2	1	1	292
85+	Screened	128	56	78	9	13	10	6	1	301
	Returned	44	2	12	0	0	0	0	1	59
Ages 40+	**Screened**	**50,632**	**31,345**	**36,192**	**10,905**	**12,800**	**3,011**	**2,251**	**1,143**	**148,279**
	Returned	**31,362**	**16,984**	**24,435**	**6,203**	**7,872**	**2,002**	**1,123**	**628**	**90,609**
Ages 50–67	**Screened**	**23,140**	**19,025**	**17,353**	**5,103**	**7,211**	**1,506**	**1,038**	**639**	**75,015**
	Returned	**14,527**	**13,121**	**12,241**	**3,032**	**4,882**	**1,031**	**586**	**344**	**49,764**

Source: BreastScreen Australia.

Table 38: Age-specific and age-standardised rescreen rates for women screened during 2000, first screening round, states and territories

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	61.7	15.5	69.2	56.9	55.9	70.5	44.4	54.9	56.5
45–49	61.4	41.2	66.9	60.5	62.9	64.8	49.9	60.1	58.7
50–54	63.1	70.5	68.5	58.3	68.7	68.6	56.4	56.8	66.5
55–59	61.9	65.5	71.3	59.2	64.2	66.1	59.6	50.4	65.2
60–64	63.1	67.6	73.3	63.8	68.7	69.2	54.8	43.6	67.2
65–69	62.5	64.9	73.2	48.2	42.8	72.1	40.2	48.3	64.0
70–74	62.2	55.4	59.2	21.6	17.2	59.0	14.6	13.3	54.9
75–79	59.0	6.8	13.2	13.6	16.9	18.6	8.7	42.9	30.8
80–84	52.5	4.9	12.0	6.5	9.2	11.8	9.1	50.0	27.7
85+	34.4	3.6	15.4	0.0	0.0	0.0	0.0	0.0	19.6
Ages 40+									
Crude rate	61.9	54.2	67.5	56.9	61.5	66.5	49.9	54.9	61.1
ASR(A)	62.1	56.4	67.1	53.1	56.3	65.4	47.4	48.7	61.8
95% CI	61.3–63.0	55.4–57.5	66.1–68.1	51.4–54.9	54.6–58.0	61.9–69.0	43.7–51.2	43.1–54.6	61.3–62.3
Ages 50–67									
Crude rate	62.8	69.0	70.5	59.4	67.7	68.5	56.5	53.8	66.3
ASR(A)	62.7	67.7	71.1	60.3	66.5	68.5	56.1	49.6	66.3
95% CI	61.4–64.0	65.8–69.7	69.6–72.6	57.0–63.8	62.7–70.4	63.1–74.1	48.9–63.7	39.2–60.8	65.5–67.1

Note: Rates are the number of women attending for rescreening as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 39: Number of women screened during 2000 and number of those women who returned for screening within 27 months by age, second screening round, states and territories

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	8,014	939	5,641	1,092	1,015	602	238	104	17,645
	Returned	5,870	346	4,430	787	765	493	152	73	12,916
45–49	Screened	11,133	3,105	7,335	2,529	2,069	901	478	213	27,763
	Returned	7,946	1,574	5,679	1,800	1,588	699	313	149	19,748
50–54	Screened	14,595	17,935	11,191	3,867	4,634	1,244	803	476	54,745
	Returned	10,590	14,132	8,840	2,719	3,730	973	544	320	41,848
55–59	Screened	8,010	4,338	8,415	1,887	1,910	648	268	263	25,739
	Returned	5,660	3,151	6,733	1,273	1,495	499	152	155	19,118
60–64	Screened	6,095	2,862	6,316	1,403	1,084	405	180	124	18,469
	Returned	4,485	2,133	5,183	1,000	824	298	110	83	14,116
65–69	Screened	4,614	2,107	5,254	972	852	336	108	92	14,335
	Returned	3,318	1,550	4,236	491	482	263	50	55	10,445
70–74	Screened	3,331	1,428	3,392	333	309	96	36	53	8,978
	Returned	2,268	883	2,327	74	93	57	5	30	5,737
75–79	Screened	2,026	538	1,239	214	310	72	32	21	4,452
	Returned	1,335	71	183	40	86	15	6	14	1,750
80–84	Screened	646	223	387	41	85	19	7	5	1,413
	Returned	389	27	48	9	17	4	1	3	498
85+	Screened	141	41	121	9	9	3	0	1	325
	Returned	54	4	7	2	1	0	0	0	68
Ages 40+	**Screened**	**58,605**	**33,516**	**49,291**	**12,347**	**12,277**	**4,326**	**2,150**	**1,352**	**173,864**
	Returned	**41,915**	**23,871**	**37,666**	**8,195**	**9,081**	**3,301**	**1,333**	**882**	**126,244**
Ages 50–67	**Screened**	**31,577**	**26,465**	**29,037**	**7,755**	**8,180**	**2,633**	**1,318**	**922**	**107,887**
	Returned	**22,812**	**20,398**	**23,276**	**5,406**	**6,461**	**2,033**	**848**	**595**	**81,829**

Source: BreastScreen Australia.

Table 40: Age-specific and age-standardised rescreen rates in women screened during 2000, second screening round, states and territories

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	73.2	36.8	78.5	72.1	75.4	81.9	63.9	70.2	73.2
45–49	71.4	50.7	77.4	71.2	76.8	77.6	65.5	70.0	71.1
50–54	72.6	78.8	79.0	70.3	80.5	78.2	67.7	67.2	76.4
55–59	70.7	72.6	80.0	67.5	78.3	77.0	56.7	58.9	74.3
60–64	73.6	74.5	82.1	71.3	76.0	73.6	61.1	66.9	76.4
65–69	71.9	73.6	80.6	50.5	56.6	78.3	46.3	59.8	72.9
70–74	68.1	61.8	68.6	22.2	30.1	59.4	13.9	56.6	63.9
75–79	65.9	13.2	14.8	18.7	27.7	20.8	18.8	66.7	39.3
80–84	60.2	12.1	12.4	22.0	20.0	21.1	14.3	60.0	35.2
85+	38.3	9.8	5.8	22.2	11.1	0.0	. .	100.0	20.9
Ages 40+									
Crude rate	71.5	71.2	76.4	66.4	74.0	76.3	62.0	65.2	72.6
ASR(A)	71.5	65.4	76.1	61.5	69.0	73.6	54.9	64.3	72.0
95% CI	70.7–72.2	64.3–66.4	75.3–76.8	60.1–63.0	67.4–70.6	70.7–76.5	51.4–58.5	59.7–69.1	71.6–72.4
Ages 50–67									
Crude rate	72.2	77.1	80.2	69.7	79.0	77.2	64.3	64.5	75.8
ASR(A)	72.2	75.4	80.3	69.6	78.0	76.8	62.4	64.3	75.7
95% CI	71.1–73.3	73.5–77.3	79.2–81.3	67.4–71.9	75.4–80.7	72.7–81.0	56.1–69.1	57.6–71.3	75.1–76.3

. . Not applicable—no women in this age group screened in 2000.

Note: Rates are the number of women attending for rescreening as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Table 41: Number of women screened during 2000 and number of those women who returned for screening within 27 months by age, third and subsequent screening rounds, states and territories

Age group	Number	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
40–44	Screened	1,962	132	1,726	396	228	219	60	37	4,760
	Returned	1,591	74	1,474	337	191	182	53	29	3,931
45–49	Screened	15,567	2,038	10,387	2,622	2,384	1,775	906	224	35,903
	Returned	12,318	1,385	8,787	2,131	2,006	1,486	618	181	28,912
50–54	Screened	25,618	13,787	14,720	9,382	6,987	2,988	1,713	341	75,536
	Returned	20,720	11,516	12,614	7,531	6,111	2,527	1,283	272	62,574
55–59	Screened	32,329	26,086	14,629	10,099	9,194	3,056	1,837	331	97,561
	Returned	26,424	22,339	12,775	8,268	8,112	2,607	1,389	259	82,173
60–64	Screened	29,089	24,702	12,354	9,205	9,030	2,826	1,273	188	88,667
	Returned	24,073	21,478	10,879	7,724	8,103	2,430	996	148	75,831
65–69	Screened	25,242	21,337	10,108	7,637	7,529	2,331	864	102	75,150
	Returned	20,658	18,215	8,803	4,924	5,228	1,980	483	83	60,374
70–74	Screened	21,594	18,409	8,385	1,934	2,846	520	208	79	53,975
	Returned	17,245	12,800	6,189	918	1,551	391	59	56	39,209
75–79	Screened	11,241	4,287	4,293	598	779	147	59	28	21,432
	Returned	8,522	700	906	300	400	69	20	20	10,937
80–84	Screened	3,207	380	1,354	124	147	23	6	14	5,255
	Returned	2,127	103	252	58	66	7	1	11	2,625
85+	Screened	718	61	300	19	22	6	4	0	1,130
	Returned	353	10	50	7	8	1	0	0	429
Ages 40+	**Screened**	**166,567**	**111,219**	**78,256**	**42,016**	**39,146**	**13,891**	**6,930**	**1,344**	**459,369**
	Returned	**134,031**	**88,620**	**62,729**	**32,198**	**31,776**	**11,680**	**4,902**	**1,059**	**366,995**
Ages 50–67	**Screened**	**102,246**	**77,609**	**47,956**	**33,425**	**29,858**	**11,201**	**5,382**	**923**	**308,600**
	Returned	**83,847**	**66,556**	**41,769**	**27,446**	**26,470**	**9,544**	**4,079**	**735**	**260,446**

Source: BreastScreen Australia.

Table 42: Age-specific and age-standardised rescreen rates in women screened during 2000, third and subsequent screening rounds, states and territories

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
				(Per cent)					
40–44	81.1	56.1	85.4	85.1	83.8	83.1	88.3	78.4	82.6
45–49	79.1	68.0	84.6	81.3	84.1	83.7	68.2	80.8	80.5
50–54	80.9	83.5	85.7	80.3	87.5	84.6	74.9	79.8	82.8
55–59	81.7	85.6	87.3	81.9	88.2	85.3	75.6	78.2	84.2
60–64	82.8	86.9	88.1	83.9	89.7	86.0	78.2	78.7	85.5
65–69	81.8	85.4	87.1	64.5	69.4	84.9	55.9	81.4	80.3
70–74	79.9	69.5	73.8	47.5	54.5	75.2	28.4	70.9	72.6
75–79	75.8	16.3	21.1	50.2	51.3	46.9	33.9	71.4	51.0
80–84	66.3	27.1	18.6	46.8	44.9	30.4	16.7	78.6	50.0
85+	49.2	16.4	16.7	36.8	36.4	16.7	0.0	. .	38.0
Ages 40+									
Crude rate	80.5	79.7	80.2	76.6	81.2	84.1	70.7	78.8	79.9
ASR(A)	80.8	76.6	82.7	75.5	80.6	82.2	67.5	78.4	80.6
95% CI	80.3–81.3	75.4–77.8	82.0–83.4	74.4–76.6	79.3–81.9	80.5–84.0	64.9–70.2	73.3–83.7	80.3–81.0
Ages 50–67									
Crude rate	82.0	85.8	87.1	82.1	88.7	85.2	75.8	79.6	84.4
ASR(A)	81.8	85.3	87.0	81.9	88.4	85.2	75.7	80.3	84.2
95% CI	81.3–82.3	84.8–85.7	86.2–87.8	81.1–82.7	87.6–89.3	83.6–86.8	73.5–78.0	74.1–86.8	83.9–84.4

. . Not applicable—no women screened in this age group in 2000.

Note: Rates are the number of women attending for rescreening as a percentage of women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

Source: AIHW analysis of BreastScreen Australia data.

Indicator 7a: Incidence of breast cancer

Table 43: Number of new cases of breast cancer in women by age, Australia, 1987–2001

Age group	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
0–4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15–19	0	0	0	0	0	0	0	0	1	0	2	3	0	2	0
20–24	4	7	8	4	11	6	13	7	8	6	14	15	11	4	9
25–29	59	47	44	54	51	46	58	57	57	42	50	50	51	54	46
30–34	191	164	158	204	182	180	169	199	202	194	173	197	184	186	170
35–39	363	345	367	341	400	379	412	395	399	423	446	418	438	437	449
40–44	590	653	652	671	721	714	781	772	751	759	759	850	819	843	917
45–49	693	673	751	829	855	1,014	1,030	1,144	1,235	1,187	1,160	1,159	1,152	1,271	1,223
50–54	599	632	726	788	857	859	978	1,106	1,243	1,188	1,329	1,466	1,500	1,564	1,649
55–59	693	633	680	689	807	821	926	1,033	1,142	1,123	1,176	1,266	1,297	1,430	1,539
60–64	821	850	885	824	886	788	973	1,102	1,067	1,016	1,076	1,142	1,243	1,337	1,439
65–69	768	769	828	857	951	930	1,002	1,215	1,097	1,067	1,077	1,142	1,095	1,121	1,175
70–74	629	697	712	756	791	778	900	1,020	1,008	990	1,032	1,057	987	1,097	1,112
75–79	584	576	624	633	672	655	691	784	849	740	864	885	836	899	893
80–84	390	385	396	425	487	491	468	527	580	571	577	590	558	578	611
85+	304	301	329	337	372	366	395	377	414	436	446	490	491	522	559
All ages	6,688	6,732	7,160	7,412	8,043	8,027	8,796	9,738	10,054	9,742	10,181	10,730	10,662	11,345	11,791
Ages 50–69	2,881	2,884	3,119	3,158	3,501	3,398	3,879	4,456	4,549	4,394	4,658	5,016	5,135	5,452	5,802

Source: AIHW National Cancer Statistics Clearing House.

Table 44: Age-specific and age-standardised incidence rates for breast cancer in women, Australia, 1987–2001

Age group	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.5	0.0	0.3	0.0
20–24	0.6	1.1	1.2	0.6	1.6	0.9	1.8	1.0	1.1	0.9	2.1	2.3	1.7	0.6	1.4
25–29	8.6	6.8	6.2	7.6	7.3	6.7	8.5	8.4	8.3	5.9	6.9	6.8	7.0	7.4	6.5
30–34	29.5	24.8	23.3	29.4	25.6	24.8	23.1	27.1	27.6	26.8	24.2	27.8	25.9	25.9	23.0
35–39	58.1	54.4	56.8	51.9	60.2	55.9	59.9	56.6	56.0	58.0	60.0	55.6	57.8	57.8	59.8
40–44	110.1	114.6	109.4	108.4	112.8	111.3	120.7	117.5	112.5	111.8	109.7	121.0	114.6	115.7	123.1
45–49	164.3	154.6	164.7	173.2	170.1	188.3	179.8	192.0	200.3	185.6	180.5	177.3	173.2	188.5	178.9
50–54	162.7	167.5	186.5	196.6	207.4	202.5	225.4	244.1	261.1	238.8	247.4	256.0	250.9	251.0	254.4
55–59	188.7	174.1	188.4	191.8	225.0	224.1	246.4	267.9	288.7	275.6	279.2	292.1	286.5	302.0	310.3
60–64	222.9	229.7	238.8	222.3	239.4	215.7	270.6	308.7	299.1	284.9	295.9	306.6	323.5	336.9	352.7
65–69	242.9	233.5	241.5	245.9	270.7	263.5	282.0	342.8	309.7	300.8	305.7	327.2	316.4	324.9	338.7
70–74	235.4	260.5	267.9	279.3	280.2	265.9	296.5	321.5	312.1	302.7	314.0	319.3	296.1	328.8	332.1
75–79	293.7	279.8	290.5	286.8	298.0	285.9	300.4	344.2	363.8	303.5	336.9	329.2	297.6	312.4	305.8
80–84	315.1	298.3	295.9	305.0	334.9	324.2	295.7	315.2	336.4	323.3	320.8	324.1	304.8	304.2	302.8
85+	312.8	301.6	318.8	319.1	338.1	316.5	324.2	295.7	308.2	307.9	298.6	312.6	295.6	298.0	304.9
All Ages															
Crude rate	82.1	81.3	85.0	86.7	92.8	91.4	99.2	108.6	110.7	105.9	109.3	113.9	111.9	117.6	120.5
ASR	91.2	89.6	93.4	94.8	100.4	98.2	105.4	114.0	115.7	109.2	111.3	114.6	111.3	115.6	117.2
Ages 50–69															
Crude rate	202.9	200.2	213.1	213.5	234.5	225.2	254.4	287.5	287.5	271.8	278.2	290.3	288.3	296.5	305.5
ASR	196.9	194.5	208.1	209.7	230.3	222.0	250.8	282.0	285.3	269.6	276.7	289.2	287.7	296.2	305.4

Note: Rates are the number of cases of invasive cancers per 100,000 women and age-standardised to the Australian population at 30 June 2001.

Source: AIHW National Cancer Statistics Clearing House.

Table 45: Number of new cases of breast cancer in women by age, states and territories, 1998–2001

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0
15–19	0	1	2	2	0	0	0	0	5
20–24	17	9	6	3	4	0	0	0	39
25–29	56	69	39	17	11	2	3	4	201
30–34	242	192	120	85	61	18	15	4	737
35–39	604	422	318	183	143	31	27	14	1,742
40–44	1,196	870	618	301	277	76	63	28	3,429
45–49	1,557	1,206	910	483	419	109	88	33	4,805
50–54	2,016	1,520	1,114	611	575	159	141	43	6,179
55–59	1,910	1,314	1,047	505	492	136	96	32	5,532
60–64	1,683	1,299	1,010	474	456	139	79	21	5,161
65–69	1,514	1,195	828	425	408	95	57	11	4,533
70–74	1,543	1,159	763	295	316	117	47	13	4,253
75–79	1,213	945	604	293	322	90	40	6	3,513
80–84	781	614	448	194	220	47	29	4	2,337
85+	691	572	349	168	208	52	17	5	2,062
All ages	15,023	11,387	8,176	4,039	3,912	1,071	702	218	44,528
Ages 50–69	7,123	5,328	3,999	2,015	1,931	529	373	107	21,405

Source: AIHW National Cancer Statistics Clearing House.

Table 46: Age-specific and age-standardised incidence rates for breast cancer in women, states and territories, 1998–2001

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.2	0.4	0.8	0.0	0.0	0.0	0.0	0.2
20–24	2.0	1.4	1.2	1.2	2.1	0.0	0.0	0.0	1.5
25–29	5.7	9.4	7.2	6.1	5.3	3.2	5.6	10.7	6.9
30–34	25.1	26.0	22.8	30.1	28.4	27.5	29.8	11.5	25.6
35–39	59.2	56.2	57.0	61.3	61.5	42.2	52.3	42.9	57.7
40–44	123.2	121.6	116.0	103.5	121.6	104.8	124.7	97.2	118.7
45–49	174.6	182.2	183.9	179.1	194.1	162.0	178.4	131.4	179.5
50–54	246.7	250.6	244.6	260.3	284.6	256.9	319.6	216.8	253.1
55–59	301.5	284.6	304.5	292.0	320.3	280.0	332.7	257.6	298.2
60–64	310.7	326.7	365.7	330.5	344.3	332.2	379.1	279.2	330.5
65–69	309.7	333.7	347.7	347.1	336.7	255.0	349.7	227.3	326.8
70–74	325.5	334.4	339.6	265.3	257.1	333.0	316.6	382.6	319.1
75–79	301.2	322.4	320.2	319.3	298.6	293.4	319.5	267.6	311.0
80–84	287.7	316.9	350.6	316.8	304.9	220.6	371.9	280.5	308.8
85+	289.0	317.2	312.1	286.9	314.1	287.4	278.0	456.6	302.7
All ages									
Crude rate	115.5	119.0	115.4	108.7	128.8	112.0	110.6	59.1	116.0
ASR(A)	112.4	115.6	118.3	113.4	118.3	106.2	124.8	100.0	114.7
95% CI	110.6–114.3	113.4–117.7	115.8–120.9	109.9–116.9	114.6–122.1	99.9–112.7	115.6–134.5	85.0–116.6	113.7–115.8
Ages 50–69									
Crude rate	287.1	292.1	304.4	299.1	317.0	279.1	338.7	239.9	295.4
ASR(A)	286.3	290.9	305.0	299.3	316.2	278.9	341.3	242.9	294.9
95% CI	279.7–293.0	283.1–298.8	295.6–314.6	286.4–312.7	302.3–330.7	255.6–303.7	307.2–378.1	197.4–295.5	290.9–298.9

Note: Rates are the number of cases of invasive cancers per 100,000 women and age-standardised to the Australian population at 30 June 2001.

Source: AIHW National Cancer Statistics Clearing House.

Table 47: Number of new cases of breast cancer in women, by age and region, 1997–2001

Age group	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
0–4	0	0	0	0	0	0
5–9	0	0	0	0	0	0
10–14	0	0	0	0	0	0
15–19	4	2	1	0	0	7
20–24	42	9	2	0	0	53
25–29	184	38	22	4	3	251
30–34	661	154	78	10	6	910
35–39	1,559	393	198	30	9	2,188
40–44	2,895	801	390	75	25	4,188
45–49	4,104	1,181	554	91	35	5,965
50–54	5,198	1,488	687	94	40	7,508
55–59	4,483	1,436	684	79	27	6,708
60–64	4,102	1,436	596	81	21	6,237
65–69	3,723	1,300	514	55	19	5,610
70–74	3,551	1,222	445	45	21	5,285
75–79	2,953	997	379	38	10	4,377
80–84	2,019	619	245	21	10	2,914
85+	1,711	540	231	21	5	2,508
All ages	37,188	11,616	5,028	645	232	54,709
Ages 50–69	17,506	5,660	2,482	309	107	26,063

Source: AIHW National Cancer Statistics Clearing House.

Table 48: Age-specific and age-standardised incidence rates for breast cancer in women by region, 1997–2001

Age group	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
0–4	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.2	0.3	0.3	0.0	0.0	0.2
20–24	1.8	1.7	0.6	0.0	0.0	1.6
25–29	7.1	6.3	6.5	6.7	7.9	6.9
30–34	26.7	23.3	22.2	15.9	17.0	25.3
35–39	62.2	51.3	50.7	44.5	26.5	58.2
40–44	122.1	106.5	104.9	129.0	92.4	116.9
45–49	184.6	171.8	165.4	182.1	148.7	179.7
50–54	260.6	241.2	225.7	214.6	208.8	252.0
55–59	302.3	288.3	276.0	234.5	189.6	294.6
60–64	331.4	326.8	281.4	314.0	208.9	324.0
65–69	330.8	322.8	280.9	262.8	242.5	322.5
70–74	323.4	324.3	270.8	277.0	371.4	318.1
75–79	316.7	325.2	290.1	303.0	268.5	315.8
80–84	320.7	299.4	274.7	244.8	367.6	311.1
85+	303.4	302.2	296.3	272.9	220.2	301.9
All ages						
Crude rate	117.0	117.8	103.0	84.8	56.8	114.7
ASR(A)	117.2	111.3	102.3	101.9	91.2	114.1
95% CI	116.0–118.4	109.3–113.4	99.5–105.2	94.1–110.2	79.2–104.3	113.1–115.0
Ages 50–69						
Crude rate	299.7	289.2	262.0	248.7	208.7	292.2
ASR(A)	299.4	286.7	260.9	249.9	209.8	291.4
95% CI	295.0–303.9	279.3–294.3	250.7–271.4	222.8–279.4	171.0–253.0	287.9–295.0

Note: Rates are the number of cases of invasive cancers per 100,000 women and age-standardised to the Australian population at 30 June 2001.

Source: AIHW National Cancer Statistics Clearing House.

Indicator 7b: Incidence of ductal carcinoma in situ

Table 49: Number of new cases of ductal carcinoma in situ by age, states and territories, 1996–2001

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–19	0	0	1	0	0	0	0	0	1
20–29	10	9	1	2	2	0	1	0	25
30–39	96	65	46	30	11	5	4	2	259
40–49	510	318	222	157	88	23	39	4	1361
50–59	723	559	363	277	204	62	44	8	2240
60–69	556	460	290	209	139	41	22	3	1720
70+ years	466	281	224	115	71	19	15	0	1191
All ages	**2,361**	**1,692**	**1,147**	**790**	**515**	**150**	**125**	**17**	**6,797**
Ages 50–69	**1,279**	**1,019**	**653**	**486**	**343**	**103**	**66**	**11**	**3,960**

Source: AIHW National Cancer Statistics Clearing House.

Table 50: Age-specific and age-standardised rates of ductal carcinoma in situ, states and territories, 1996–2001

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–29	0.4	0.4	0.1	0.2	0.3	0.0	0.6	0.0	0.3
30–39	3.2	2.9	2.9	3.5	1.6	2.4	2.6	2.0	2.9
40–49	18.5	15.6	14.7	19.1	13.3	11.1	26.0	5.1	16.6
50–59	34.6	36.4	32.0	47.7	39.9	38.8	42.7	17.8	36.4
60–69	36.2	40.9	38.4	53.6	36.6	34.9	40.7	16.9	39.3
70+ years	22.9	18.9	23.6	24.5	13.1	12.3	25.3	0.0	20.9
All ages									
Crude rate	12.2	11.9	11.0	14.4	11.4	10.4	13.2	3.1	11.9
ASR(A)	12.3	12.0	11.5	15.4	11.0	10.4	14.8	4.5	12.2
95% CI	11.8–12.8	11.4–12.6	10.8–12.2	14.3–16.5	10.1–12.0	8.8–12.2	12.3–17.7	2.5–7.3	11.9–12.5
Ages 50–69									
Crude rate	35.3	38.3	34.5	50.1	38.5	37.2	42.0	17.5	37.6
ASR(A)	35.3	38.2	34.5	50.0	38.6	37.3	41.9	17.4	37.5
95% CI	32.0–38.6	34.3–42.1	30.2–39.1	43.0–57.6	32.3–45.4	26.5–49.7	25.6–61.5	2.1–41.6	35.6–39.5

Note: Rates are the number of cases of DCIS per 100,000 women and age-standardised to the Australian population at 30 June 2001.

Source: AIHW National Cancer Statistics Clearing House.

Indicator 8: Mortality

Table 51: Number of deaths from breast cancer in women, Australia, 1988–2002

Age group	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
0–4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15–19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20–24	0	1	0	2	1	0	1	1	0	1	2	2	1	1	0
25–29	5	7	6	12	4	2	2	5	9	6	7	6	5	2	4
30–34	26	34	26	25	33	39	19	25	28	37	28	20	23	21	24
35–39	66	67	63	79	79	73	87	57	90	84	68	59	66	63	71
40–44	120	137	149	150	136	116	139	120	136	135	128	141	122	126	112
45–49	152	170	168	177	196	202	211	207	189	211	207	203	187	185	173
50–54	202	212	228	232	212	225	239	221	230	271	265	247	255	262	295
55–59	238	217	215	227	219	252	249	248	240	236	227	260	257	253	289
60–64	291	287	282	258	236	276	262	268	258	239	255	263	239	228	273
65–69	290	297	328	306	272	316	290	317	289	284	252	212	216	242	256
70–74	251	251	258	305	287	264	308	288	296	297	268	288	287	315	245
75–79	254	261	254	249	254	298	274	281	279	291	300	274	281	289	312
80–84	184	205	205	211	213	257	250	259	252	244	236	232	237	273	277
85+	222	238	219	229	247	268	271	280	273	273	314	298	335	325	367
All ages	**2,301**	**2,384**	**2,401**	**2,462**	**2,389**	**2,589**	**2,602**	**2,577**	**2,569**	**2,609**	**2,557**	**2,505**	**2,511**	**2,585**	**2,698**
Ages 50–69	**1,021**	**1,013**	**1,053**	**1,023**	**939**	**1,069**	**1,040**	**1,054**	**1,017**	**1,030**	**999**	**982**	**967**	**985**	**1,113**

Source: AIHW National Mortality Database.

Table 52: Age-specific and age-standardised mortality rates for breast cancer in women, Australia, 1988–2002

Age group	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.0	0.2	0.0	0.3	0.1	0.0	0.1	0.1	0.0	0.1	0.3	0.3	0.2	0.2	0.0
25–29	0.7	1.0	0.8	1.7	0.6	0.3	0.3	0.7	1.3	0.8	1.0	0.8	0.7	0.3	0.6
30–34	3.9	5.0	3.7	3.5	4.6	5.3	2.6	3.4	3.9	5.2	3.9	2.8	3.2	2.8	3.2
35–39	10.4	10.4	9.6	11.9	11.7	10.6	12.5	8.0	12.3	11.3	9.0	7.8	8.7	8.4	9.6
40–44	21.1	23.0	24.1	23.5	21.2	17.9	21.2	18.0	20.0	19.5	18.2	19.7	16.7	16.9	14.7
45–49	34.9	37.3	35.1	35.2	36.4	35.3	35.4	33.6	29.5	32.8	31.7	30.5	27.7	27.1	25.0
50–54	53.5	54.5	56.9	56.2	50.0	51.8	52.8	46.4	46.2	50.4	46.3	41.3	40.9	40.4	45.4
55–59	65.5	60.1	59.9	63.3	59.8	67.1	64.6	62.7	58.9	56.0	52.4	57.4	54.3	51.0	54.0
60–64	78.6	77.4	76.1	69.7	64.6	76.8	73.4	75.1	72.3	65.7	68.5	68.4	60.2	55.9	65.0
65–69	88.1	86.6	94.1	87.1	77.1	88.9	81.8	89.5	81.5	80.6	72.2	61.3	62.6	69.8	72.0
70–74	93.8	94.4	95.3	108.1	98.1	87.0	97.1	89.2	90.5	90.4	80.9	86.4	86.0	94.1	73.6
75–79	123.4	121.5	115.1	110.4	110.9	129.5	120.3	120.4	114.4	113.5	111.6	97.6	97.7	99.0	105.9
80–84	142.6	153.2	147.1	145.1	140.6	162.4	149.5	150.2	142.7	135.7	129.6	126.7	124.7	135.3	131.0
85+	222.4	230.6	207.4	208.1	213.6	219.9	212.5	208.4	192.8	182.8	200.3	179.4	191.3	177.3	192.6
All ages															
Crude rate	27.8	28.3	28.1	28.4	27.2	29.2	29.0	28.4	27.9	28.0	27.2	26.3	26.0	26.4	27.3
ASR(A)	30.5	30.8	30.4	30.5	28.9	30.5	30.0	28.9	28.1	27.8	26.5	25.4	24.7	24.7	25.1
Ages 50–69															
Crude rate	70.9	69.2	71.2	68.5	62.2	70.1	67.1	66.6	62.9	61.5	57.8	55.1	52.6	51.9	56.8
ASR(A)	68.3	66.7	68.5	66.5	60.6	67.9	65.5	64.6	61.5	60.6	57.3	55.0	52.5	51.8	56.7

Note: Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.

Source: AIHW National Mortality Database.

Table 53: Number of deaths from breast cancer in women by age, states and territories, 1999–2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0
15–19	0	0	0	0	0	0	0	0	0
20–24	1	1	1	1	0	0	0	0	4
25–29	4	8	2	2	1	0	0	0	17
30–34	34	17	18	9	5	2	1	2	88
35–39	75	81	43	20	25	9	4	2	259
40–44	148	127	96	52	55	14	4	5	501
45–49	228	201	137	69	67	23	12	11	748
50–54	311	283	213	98	93	34	17	10	1,059
55–59	368	271	184	95	90	26	16	9	1,059
60–64	351	267	159	80	92	31	17	6	1,003
65–69	347	211	133	85	98	31	17	4	926
70–74	376	311	202	104	93	26	19	4	1,135
75–79	394	339	187	91	96	37	11	1	1,156
80–84	352	284	165	76	96	32	11	3	1,019
85+	430	371	208	123	138	40	14	1	1,325
All ages	**3,419**	**2,772**	**1,748**	**905**	**949**	**305**	**143**	**58**	**10,299**
Ages 50–69	**1,377**	**1,032**	**689**	**358**	**373**	**122**	**67**	**29**	**4,047**

Note: State refers to the state of usual residence.

Source: AIHW National Mortality Database.

Table 54: Age-specific and age-standardised mortality rates for breast cancer in women, states and territories, 1999–2002

Age group	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.1	0.2	0.2	0.4	0.0	0.0	0.0	0.0	0.2
25–29	0.4	1.1	0.4	0.7	0.5	0.0	0.0	0.0	0.6
30–34	3.5	2.3	3.3	3.2	2.3	3.1	2.0	5.6	3.0
35–39	7.4	10.8	7.7	6.7	10.9	12.6	7.8	6.1	8.6
40–44	14.9	17.4	17.5	17.6	23.8	19.1	7.8	17.1	17.0
45–49	25.2	30.0	27.1	25.1	30.8	33.8	24.4	42.8	27.5
50–54	37.1	45.3	45.1	39.9	44.9	53.5	37.2	47.6	42.0
55–59	55.3	55.9	50.1	52.0	55.6	51.0	51.6	67.6	54.1
60–64	63.3	65.6	54.8	53.7	68.0	72.0	77.8	73.9	62.3
65–69	71.0	58.8	55.1	68.2	81.3	83.2	101.2	79.0	66.5
70–74	79.4	89.9	89.0	92.2	76.4	74.0	127.4	112.0	85.0
75–79	95.9	112.8	96.8	96.6	87.4	119.5	84.3	42.7	100.1
80–84	125.0	141.2	123.6	119.4	128.2	146.4	133.0	195.7	129.6
85+	171.1	196.9	176.6	199.7	199.5	209.8	209.0	85.0	185.3
All ages									
Crude rate	26.0	28.6	24.2	24.0	31.1	31.9	22.3	15.6	26.5
ASR(A)	23.9	26.4	24.0	24.3	26.4	28.2	26.6	27.1	25.0
95% CI	23.1–24.8	25.4–27.4	22.9–25.2	22.8–26.0	24.7–28.2	25.1–31.6	22.4–31.4	19.5–36.3	24.5–25.5
Ages 50–69									
Crude rate	54.1	55.0	50.2	51.0	59.7	62.6	58.1	61.0	54.1
ASR(A)	53.6	54.9	50.3	51.1	59.2	62.1	61.2	64.2	54.0
95% CI	50.8–56.5	51.6–58.4	46.6–54.2	46.0–56.7	53.3–65.5	51.6–74.2	47.3–77.9	42.1–93.3	52.3–55.7

Notes

1. Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.
2. State refers to the state of usual residence.

Source: AIHW National Mortality Database.

Table 55: Number of deaths from breast cancer in women by age and region, 1998–2002

Age group	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
0–4	0	0	0	0	0	0
5–9	0	0	0	0	0	0
10–14	0	0	0	0	0	0
15–19	0	0	0	0	0	0
20–24	3	2	0	0	0	6
25–29	18	5	1	0	0	24
30–34	69	24	19	2	2	116
35–39	222	67	28	6	4	327
40–44	382	149	79	12	7	629
45–49	637	209	93	10	5	955
50–54	863	296	145	15	5	1,324
55–59	867	261	134	17	7	1,286
60–64	819	282	137	15	7	1,258
65–69	803	240	115	12	8	1,178
70–74	928	315	137	15	7	1,403
75–79	972	330	141	13	0	1,456
80–84	862	275	107	9	3	1,255
85+	1,087	372	163	13	4	1,639
All ages	**8,533**	**2,827**	**1,299**	**139**	**58**	**12,856**
Ages 50–69	**3,352**	**1,079**	**531**	**58**	**26**	**5,046**

Note: Regions have been defined according to the ASGC Remoteness Areas classification.

Source: AIHW National Mortality Database.

Table 56: Age-specific and age-standardised mortality rates for breast cancer in women by region, 1998–2002

Age group	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
0–4	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.1	0.4	0.2	0.0	0.0	0.2
25–29	0.7	0.8	0.3	0.0	0.0	0.7
30–34	2.8	3.6	5.3	3.6	4.7	3.2
35–39	8.8	8.8	7.3	9.0	11.3	8.7
40–44	15.8	19.3	20.9	20.7	24.7	17.2
45–49	28.3	29.7	27.3	20.3	22.7	28.3
50–54	41.7	46.1	46.1	33.4	23.4	42.8
55–59	55.6	49.6	52.0	48.9	50.2	53.8
60–64	64.4	61.9	62.5	54.4	61.5	63.5
65–69	71.5	59.2	62.6	55.1	96.5	67.6
70–74	84.8	82.6	82.7	91.6	115.2	84.2
75–79	101.6	104.3	105.0	99.0	7.0	102.2
80–84	132.6	127.8	116.0	105.8	92.6	129.6
85+	183.9	197.1	199.7	160.7	161.9	188.0
All ages						
Crude rate	26.5	28.3	26.4	18.3	14.0	26.6
ASR(A)	25.3	25.3	25.4	22.6	22.6	25.3
95% CI	24.8–25.9	24.4–26.3	24.0–26.8	18.9–26.7	16.8–29.5	24.8–25.7
Ages 50–69						
Crude rate	55.7	53.1	54.5	45.6	49.1	54.8
ASR(A)	55.6	52.8	54.1	45.9	51.8	54.6
95% CI	53.8–57.5	49.6–56.0	49.6–59.0	34.9–59.3	33.8–75.9	53.1–56.1

Notes

1. Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.
2. The Australian Standard Geographical Classification (ASGC) was used to create the above categories (ABS 2001).

Source: AIHW National Mortality Database.

Table 57: Number of deaths from breast cancer in women by age and Indigenous status, Queensland, Western Australia, South Australia, Northern Territory, 1998–2002

Age group	Indigenous	Non–Indigenous	Australia
0–4	0	0	0
5–9	0	0	0
10–14	0	0	0
15–19	0	0	0
20–24	0	2	6
25–29	1	8	24
30–34	3	40	116
35–39	4	115	327
40–44	11	240	629
45–49	8	340	955
50–54	7	499	1,324
55–59	4	452	1,286
60–64	6	429	1,258
65–69	5	378	1,178
70–74	7	465	1,403
75+	12	1,479	4,350
All ages	**68**	**4,447**	**12,856**
Ages 50–69	**22**	**1,758**	**5,046**

Notes

1. Only Queensland, Western Australia, South Australia, and the Northern Territory have Indigenous death registration data considered to be of a publishable standard; therefore data from these jurisdictions only are included in the analysis by Indigenous status.
2. 'Australia' includes all states and territories of Australia.
3. Deaths in the 'not stated' category are included in the column for all women, but they are not included in the other columns.

Source: AIHW National Mortality Database.

Table 58: Age-standardised and age-specific mortality rates for breast cancer in women by Indigenous status, Queensland, Western Australia, South Australia, Northern Territory, 1998–2002

Age group	Indigenous	Non-Indigenous	Australia
0–4	0.0	0.0	0.0
5–9	0.0	0.0	0.0
10–14	0.0	0.0	0.0
15–19	0.0	0.0	0.0
20–24	0.0	0.2	0.2
25–29	2.0	0.6	0.7
30–34	6.5	3.1	3.2
35–39	10.1	8.5	8.7
40–44	34.6	18.0	17.2
45–49	31.7	27.4	28.3
50–54	37.1	43.8	42.8
55–59	30.4	51.9	53.8
60–64	59.7	60.9	63.5
65–69	71.7	62.3	67.6
70–74	150.5	81.0	84.2
75+	184.6	131.2	133.3
All ages			
Crude rate	11.8	25.7	26.6
ASR(A)	30.9	24.8	25.4
95% CI	23.1–40.4	24.1–25.6	25.0–25.9
Ages 50–69			
Crude rate	44.9	53.0	54.8
ASR(A)	46.4	53.0	54.6
95% CI	28.9–70.5	50.5–55.5	53.1–56.1

Notes

1. Only Queensland, Western Australia, South Australia, and the Northern Territory have Indigenous death registration data considered to be of a publishable standard; therefore data from these jurisdictions only are included in the analysis by Indigenous status.
2. 'Australia' includes all states and territories of Australia.
3. Rates are the number of deaths from breast cancer per 100,000 women and age-standardised to the Australian population at 30 June 2001.
4. Deaths in the 'not stated' category are included in the column for all women, but they are not included in the other columns.

Source: AIHW National Mortality Database.

Appendix A: Data and statistical issues

Data sources

Multiple data sources were analysed to produce this report. These are summarised in Table A1. All data used in this report are based on calendar years.

Table A1: Sources for data presented in this report

Indicator	Description	Data source
1	Participation	BreastScreen Australia state and territory services
2	Cancer detection	BreastScreen Australia state and territory services
3	Sensitivity	BreastScreen Australia state and territory services
4	DCIS detection	BreastScreen Australia state and territory services
5	Recall to assessment	BreastScreen Australia state and territory services
6	Rescreening	BreastScreen Australia state and territory services
7	Incidence (ICD 174)	National Cancer Statistics Clearing House, AIHW
8	Mortality (ICD 174)	National Mortality Database, AIHW

Population data

The ABS estimated resident population (ERP) data were used to calculate screening participation, and cancer incidence and mortality rates.

Participation rates were calculated using the average of the 2001 and 2002 estimated resident female populations. The only exceptions to this were participation rates by socioeconomic status, by language spoken at home and by Indigenous status.

As the ABS does not calculate ERP by socioeconomic status or language spoken at home alternative methods were used to calculate the denominators for these rates. In the case of language spoken at home, the denominator was calculated by applying the age-specific distribution from the language question in the 2001 national population census to the relevant age-specific ERP counts. The denominator for rates based on socioeconomic status was calculated by applying an ABS concordance between statistical local area (SLA) and socioeconomic status to the relevant ERP by SLA counts.

The most recent direct count of the Aboriginal and Torres Strait Islander population was carried out in the 2001 census. However, the ABS has released estimates of Aboriginal and Torres Strait Islander population for more recent years. The average of the direct count for 2001 and the estimated population for 2002 was used as the denominator for Indigenous participation rates.

Mortality data

Mortality data in this report are given for 1988 to 2002. During this time, changes have been made to the coding and processing of mortality data that affect the comparability of the data. Data holdings for 1987–1996 were manually coded using the ninth revision of the International Classification of Diseases (ICD-9). Data holdings for 1997 onwards have been coded using ICD-10. These data were coded using an automated system with slightly different coding rules.

The change to the coding and processing of mortality data has introduced a break in the data time series. The ABS has developed comparability factors, which are applied to the pre-1997 data, so that a single time series may still be derived (ABS 2002). For breast cancer, the comparability factor is close to one.

The application of a comparability factor causes the number of deaths before 1997 to be non-integer. Rounding has been used to put the number of deaths into whole numbers.

Statistical analysis of BreastScreen monitoring indicators

Crude rates

A crude rate is defined as the number of events over a specified period (for example, a year) divided by the total population at risk of the event. For example, a crude cancer incidence rate is defined as the number of new cases of cancer in a specified period divided by the population at risk.

Age-specific rates

An age-specific rate is defined as the number of events for a specified age group over a specified period (for example, a year) divided by the total population at risk of the event in that age group. Age-specific rates in this report were calculated by dividing the number of deaths, cancer cases or women participating in the screening programs in each specified age group by the corresponding population in the same age group.

Age-standardised rates (ASR)

Age-standardised rates enable comparisons to be made between populations which have different age structures. This publication uses direct standardisation, in which the age-specific rates are multiplied by a constant population. This effectively removes the influence of the age structure on the summary rate.

As the *National Health Data Dictionary* recommends the use of the 2001 Australian total estimated resident population as the standard population for health statistics, this population has been used for age-standardising mortality, incidence and participation rates. For statistics based on the population of women screened—that is, cancer detection rates, interval cancer rates and program sensitivity—rates are standardised to the 1998 population of women screened by BreastScreen Australia.

The method used for all these calculations consists of three steps:

Step 1: Calculate the age-specific rate for each age group.

Step 2: Calculate the expected number of cases in each five-year age group by multiplying the age-specific rates by the corresponding standard population and dividing by the appropriate factor (that is, 100,000 for mortality and incidence rates, 10,000 for cancer detection and sensitivity rates, and 100 for the participation rate).

Step 3: Sum the expected number of cases in each age group, divide by the total of the standard population and multiply by the appropriate factor (that is, 100,000 for mortality and incidence rates, 10,000 for cancer detection and sensitivity rates, and 100 for the participation rate). This gives the age-standardised rate.

Rate denominators

Death rates and cancer incidence rates are expressed in this report as annual rates per 100,000 population. Rates for cancer detection are calculated per 10,000 women screened. Screening participation rates are expressed as a percentage of the eligible population. Rescreen and recall-to-assessment rates are expressed as a percentage of women screened.

Confidence intervals (CI)

The 95% confidence intervals in this report were calculated using a method developed by Dobson et al. (1991). This method calculates approximate confidence intervals for a weighted sum of Poisson parameters.

The confidence intervals are used to provide an approximate indication of the differences between rates. Where the confidence intervals of two rates do not overlap, the corresponding rates are statistically significantly different from each other. This is used to compare individual stratified rates with the all-Australia rate. To be truly rigorous, such a comparison should be between a given rate and the rate calculated from the all-Australia data excluding the data underlying the specific rate in the comparison. Presentation of such a comparison in this report would, however, be unnecessarily complex. The approximate comparisons presented might understate the statistical significance of some differences, but they are sufficiently accurate for the purposes of this report.

As with all statistical comparisons, care should be exercised in interpreting the results of the comparison. If two rates are statistically significantly different from each other, this means that the difference is unlikely to have arisen by chance. Judgement should, however, be exercised in deciding whether or not the difference is of any practical significance.

Stratification variables

The data in this report are presented stratified by the age of the women at the time of screening (for the screening data), at the time of diagnosis (for the cancer incidence data) or at the time of death (for the cancer mortality data). A number of stratification variables apply to some or all of the data presented:

- state or territory
- geographic location
- socioeconomic status

- Indigenous status
- main language spoken at home
- tumour size
- screening round.

State or territory

The state or territory reported is the one where screening took place (for the screening data) or where the diagnosis was made (for the cancer incidence data) or the place of usual residence for the cancer mortality data.

This means that it is possible for a woman to be double-counted in the screening data. If she was screened in one jurisdiction and then screened again less than two years later in another jurisdiction, both screens may be included in the participation rate. This should, however, have a negligible effect on the reported participation rates.

Geographic location

In all previous reports, analysis of participation, incidence and mortality data by geographic region used the Rural, Remote and Metropolitan Areas (RRMA) classification. This classification was developed in 1994 by the then Department of Primary Industries and Energy and the then Department of Human Services and Health. It allows geographic regions to be classified into seven zones: two metropolitan, three rural and two remote.

This report uses a more recent geographic classification in place of RRMA. The new system, known as the Australian Standard Geographical Classification (ASGC), groups geographic areas into five classes. These classes are based on Census Collection Districts (CDs) and defined using the Accessibility/Remoteness Index for Australia (ARIA). ARIA is a measure of the remoteness of a location from the services provided by large towns or cities. A higher ARIA score denotes a more remote location. The five classes of the ASGC Remoteness classification, along with a sixth 'Migratory' class, are listed in Table A2.

Table A2: The Remoteness Areas for the ASGC Remoteness Classification

Region	Collection Districts within region
Major cities of Australia	CDs with an average ARIA index value of 0 to 0.2
Inner regional Australia	CDs with an average ARIA index value greater than 0.2 and less than or equal to 2.4
Outer regional Australia	CDs with an average ARIA index value greater than 2.4 and less than or equal to 5.92
Remote Australia	CDs with an average ARIA index value greater than 5.92 and less than or equal to 10.53
Very remote Australia	CDs with an average ARIA index value greater than 10.53
Migratory	Areas composed of off-shore, shipping and migratory CDs

Source: ABS 2001.

The ASGC Remoteness classification is not directly comparable to the RRMA classification. Accessibility is judged purely on distance to one of the major urban centres. For example, the ASGC Remoteness classification allocates Hobart to its second group (Inner regional Australia) and Darwin to its third group (Outer regional Australia), whereas the RRMA classification grouped them together with the other capital cities.

Socioeconomic status

Socioeconomic status was coded according to the Index of Relative Socio-economic Disadvantage (IRSD). The IRSD is one of the socioeconomic indexes for areas (SEIFA indexes) developed by the ABS to categorise geographic areas according to their social and economic characteristics.

It is important to note that the IRSD relates to the average disadvantage of all people living in a geographic area. Hence any variability between groups based on the IRSD will probably be smaller than if the variability had been measured between individuals.

Indigenous status

The BreastScreen Australia Data Dictionary (AIHW & DoHA forthcoming) specifies that Indigenous status should be coded as:

- Aboriginal
- Torres Strait Islander
- both Aboriginal and Torres Strait Islander
- not Indigenous or
- not stated.

For the purposes of this report these categories were amalgamated and the data stratified into three categories:

- Indigenous
- not Indigenous or
- not stated.

Main language spoken at home

The BreastScreen Australia Data Dictionary (AIHW & DoHA forthcoming) recommends that main language spoken at home be coded according to the four digit ABS Australian Standard Classification of Languages, 1998 (ABS cat. no. 1267.0). This report has collapsed the classification into the simple dichotomy of 'English' and 'Other language'.

Although this stratification is reported as 'main language spoken at home', practice varies between the jurisdictions as to how this information is collected. In some jurisdictions there may thus be some lack of comparability with the BreastScreen Data Dictionary definition of 'main language'.

In addition, some jurisdictions do not use the 'Not stated' classification. If main language spoken at home is not given, it is set to a default value. The default used is not the same for all jurisdictions. This means that the analysis based upon main language spoken at home should be interpreted with caution.

Tumour size

Tumour size is the size in millimetres of the malignant lesion, and applies to invasive cancers only. For more details about this stratification, see the definition given in the BreastScreen Australia Data Dictionary (AIHW & DoHA forthcoming).

Screening round

The BreastScreen Australia Data Dictionary distinguishes between a woman's screening round in the national program and her round in the state or territory program. Round in the national program is used for this stratification in this report. However, it is not always possible to determine round in the national program, so for some women this stratification has been collected as round number in the state or territory program.

BreastScreen Australia Data Dictionary

A data dictionary has been developed for the BreastScreen Australia Program (AIHW & DoHA forthcoming). Summary definitions of key concepts and terminology used in this report are given in the glossary. More detailed definitions and explanations may be found in the data dictionary.

Abbreviations

AACR: Australasian Association of Cancer Registries
ABS: Australian Bureau of Statistics
ACT: Australian Capital Territory
AIHW: Australian Institute of Health and Welfare
AHMAC: Australian Health Ministers Advisory Council
ARIA: Accessibility/Remoteness Index for Australia
ASGC: Australian Standard Geographical Classification
ASR: age-standardised rate
ASR(A): age-standardised rate, standardised to the Australian standard population
BSANAC: BreastScreen Australia National Advisory Committee
CD: Census Collection District
CI: confidence interval (see glossary)
DoHA: Australian Government Department of Health and Ageing
DCIS: ductal carcinoma in situ
ERP: estimated resident population
ICD: International Classification of Diseases
IRSD: Index of Relative Socio-economic Disadvantage
NBCC: National Breast Cancer Centre
NQMC: National Quality Management Committee
NSW: New South Wales
NT: Northern Territory
Qld: Queensland
RRMA: Rural, Remote and Metropolitan Areas classification
SA: South Australia
SES: socioeconomic status
SLA: statistical local area
Tas: Tasmania
Vic: Victoria
WA: Western Australia
WHO: World Health Organization

Glossary

Administrative databases: observations about events that are routinely recorded or required by law to be recorded. Such events include births, deaths, hospital separations and cancer incidence. Administrative databases include the National Mortality Database, the National Hospital Morbidity Database and the National Cancer Statistics Clearing House Database.

Age-specific rate: a rate for a specific age group. The numerator and denominator relate to the same age group.

Age-standardised rate: weighted average of age-specific rates according to a standard distribution of the population by age to eliminate the effect of different age distributions and thus facilitate valid comparison of groups with differing age compositions.

Assessment: further investigation of a mammographic abnormality or symptom reported at screening. This includes women who choose assessment outside the Program.

Benign: not cancerous.

Cancer (malignant neoplasm): a term used to describe one of several diseases that result when the process of cell division, by which tissues normally grow and renew themselves, becomes uncontrolled and leads to the development of malignant cells. These cancer cells multiply in an uncoordinated way, independently of normal growth control mechanisms, to form a tumour. The tumour can expand locally by invasion or systemically by metastasis via the lymphatic or vascular systems. If left untreated, most malignant tumours eventually result in death.

Cancer death: a death where the underlying cause is indicated as cancer. People with cancer who died of other causes are not counted in the death statistics in this publication.

Confidence interval: a range determined by variability in data, within which there is a specified (usually 95%) chance that the true value of a calculated parameter (for example, relative risk) lies.

Core biopsy: removal of a cylindrical sample of breast tissue under a local or general anaesthetic through a needle for microscopic examination.

Data: refers to the building blocks of health information, including observations from administrative databases and health survey data sets.

Ductal carcinoma in situ: a non-invasive tumour of the mammary gland (breast) arising from cells lining the ducts.

Early review: a woman is screened but not cleared for routine rescreening and instead is referred for further assessment within 6 to 12 months of the index screen.

Epidemiology: the quantitative study of the distribution and determinants of health-related states and events in populations and the application of this study to the control of health problems.

False negative: means that the test has incorrectly observed that the disease is not present.

False positive: means that the test has incorrectly observed that the disease is present.

Film reading: viewing of a radiographic depiction of the breast (a mammogram) to determine the presence or absence of an abnormality indicative of a tumour.

Fine needle aspiration biopsy: the sampling of cells from breast tissue for examination by a pathologist.

First screening round: see *Screening round.*

Incidence: see *New cancer case.*

Index screening year: the year for which the interval cancer rate and the program sensitivity rate are determined.

Index screens: all screening examinations performed within the index screening year.

Indicators: observations about data that have been analysed to provide a means of comparing measures of health within and between population groups.

Indigenous: a person of Aboriginal and/or Torres Strait Islander descent who identifies as an Aboriginal and/or Torres Strait Islander person and is accepted as such by the community with which he or she is associated.

Information: observations about data that have been analysed to provide a means of comparing measures of health within and between population groups.

International Classification of Diseases: WHO's internationally accepted classification of death and disease. The tenth revision (ICD-10) is currently in use.

Interval cancer—invasive (as defined for national reporting purposes by Kavanagh et al. (1999), with minor changes pending endorsement by the National Advisory Committee):

- an invasive breast cancer diagnosed after completion of a negative screening episode and before the next screening examination (within 24 months from the date of the previous screen)
- a case of invasive breast cancer that is diagnosed at early review or in the interval between assessment and early review, where the recommendation for early review is six months or more from the screening date
- breast cancer diagnosed in a woman by BreastScreen Australia within 24 months of a negative screen (early rescreen) if the woman presents with a breast lump and/or clear or blood-stained nipple discharge in the breast in which the breast cancer was diagnosed, or
- an invasive breast cancer diagnosed between six and 24 months after a recommendation for assessment is made and a woman fails to attend assessment.

Invasive cancer: a tumour whose cells have invaded healthy or normal tissue.

Lymph node: masses of lymphatic tissue, often bean-shaped, that produce lymphocytes and through which lymph filters. These are located throughout the body.

Mammogram: a radiographic depiction of the breast.

Metastasis: the process by which a disease is transferred from one part of the body to another—for example, via the lymphatic system or the bloodstream.

Mortality: see *Cancer death.*

New cancer case: a person who has a new cancer diagnosed for the first time. One person can have more than one cancer and therefore may be counted twice in incidence statistics if it is decided that the two cancers are not of the same origin. This decision is based on a series of principles set out in more detail in a publication by Jensen et al. (1991).

Next scheduled screening examination: 24 months after previous screen unless the woman is recommended for annual rescreening, when the next scheduled screening examination is 12 months.

Population estimates: official population numbers compiled by the Australian Bureau of Statistics at both state and territory and statistical local area levels by age and sex, as at 30

June each year. These estimates allow comparisons to be made between geographic areas of differing population sizes and age structures.

Prevalence: the number of instances of a specific disease or other condition in a given population at a designated time.

Recruitment: strategies that aim to promote participation of women in the BreastScreen Australia Program through direct contact with women in the target age group and education of health practitioners and the general public. Women are encouraged to attend every two years.

Rescreening: the next screening examination after the screening episode in the index screening year.

Risk factor: an attribute or exposure that is associated with an increased probability of a specified outcome, such as the occurrence of a disease. Risk factors are not necessarily the causes of disease.

Screening: the performance of tests on apparently well people in order to detect a medical condition at an earlier stage than would otherwise be the case. As a screening test is not intended to be diagnostic, so a person with a positive or suspicious result must be referred for diagnosis and treatment.

Screening episode: includes screening examination and assessment. Early review within 6 to 12 months of an initial screen is not considered part of the screening episode.

Screening round: the first screening round is a woman's first visit to a mammography screening service; a subsequent screening round means that she has been screened before. If she attends for the fourth screening round, she has been screened three times before.

Screening round (first): a woman's first visit to a BreastScreen Australia mammography screening service.

Screening round (subsequent): a woman's visit to a BreastScreen Australia mammography screening service when she has attended such a service before.

Sensitivity: the proportion of people with a disease who have a positive test result for the disease.

Significant difference: where rates are referred to as significantly different, or one rate is deemed significantly higher or lower than another, these differences are statistically significant. Rates are deemed statistically significantly different when their confidence intervals do not overlap, since their difference is greater than what could be explained by chance. See 'confidence intervals' in Appendix A for more information.

Symptom: any evidence of disease apparent to the patient. For the purposes of this report, symptoms refer to a self-reported breast lump and/or blood-stained or watery nipple discharge.

Ultrasound: diagnostic method based on the reflection of ultrasonic sound waves generated through scanning of, in this case, the breast. The reflections are viewed on a computer screen or photograph and checked for variations in images.

Unit record file: observations containing person-specific records from health surveys and administrative databases that are unanalysed and not tabulated. This is the most basic form of data and cannot be accessed for general use without appropriate confidentiality measures being in place.

Women-years at risk: all women screened in the index screening year who are resident in the state or territory in which they are screened who have not reported a personal history of breast cancer.

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