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 2002 and 2003 and presents trends from 1996 onwards.

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 2002–2003 was 56.1%. This rate has been steadily increasing since 1996–1997, when it was 52.3%, to 57.1% in 2001–2002 but decreased to 56.1% in 2002–2003. The decrease in participation between 2001–2002 and 2002–2003 is statistically significant.

Age-standardised participation rates for women in the target age group (50–69 years), Australia, 1996–1997 to 2002–2003

	Objective[(a)]	1996–1997	1997–1998	1998–1999	1999–2000	2000–2001	2001–2002	2002–2003
Rate (%)	70.0	52.3	54.6	55.7	55.9	56.9	57.1	56.1
95% CI	. .	*52.2–52.4*	*54.5–54.7*	*55.6–55.8*	*55.8–56.0*	*56.8–57.0*	*57.0–57.2*	*56.0–56.2*

(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 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, or may be less likely to screen regularly within the recommended 2-year screening interval.

Participation is highest in rural and remote areas, but is below the rates for all other regions in 'Very remote' areas.

Participation in rural areas is encouraged through fixed mammography units in larger towns and the use of mobile mammography units in other areas.

It is not known why rates are relatively low in 'Very remote' areas. However, lower participation may be due to unavailability of BreastScreen Australia services in some remote areas of the Northern Territory and to lower participation by Indigenous women in very remote areas.

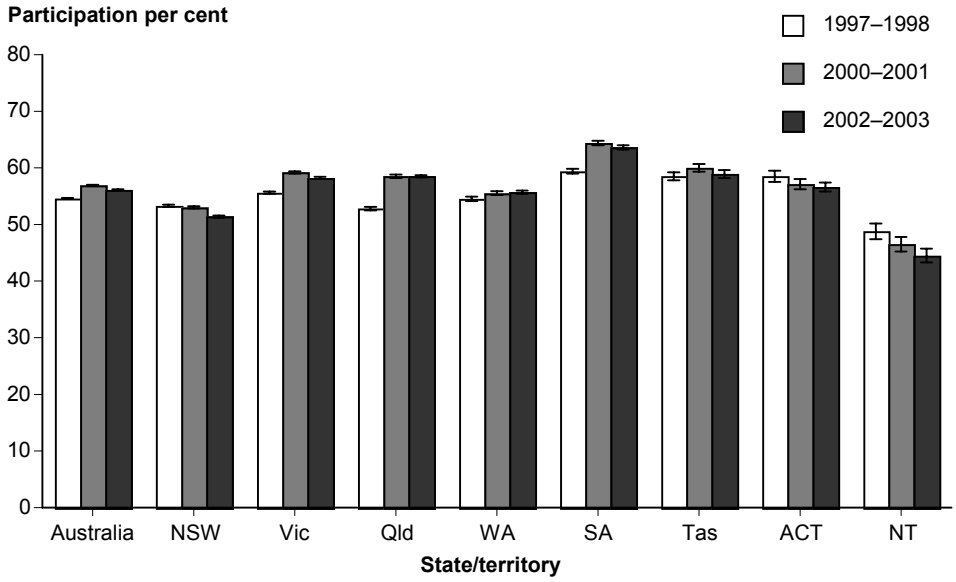
Socioeconomic status

Breast cancer mortality rates were highest among women with the highest socioeconomic status although the difference between the groups was not statistically significant (Dunn et al. 2002). There was only minor variation in the participation rates among different socioeconomic groups.

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 whose language spoken at home was not English was significantly lower than for women whose main language spoken at home was English. 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, 1997–1998, 2000–2001 and 2002–2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2002–2003	56.1*#	51.4*#	58.2*#	58.5#	55.7#	63.6#	58.9	56.6#	44.5#
95% CI	*56.0–56.2*	*51.2–51.6*	*57.9–58.4*	*58.3–58.8*	*55.3–56.0*	*63.3–64.0*	*58.3–59.6*	*55.7–57.4*	*43.3–45.7*
2000–2001	56.9	53.0	59.2	58.5	55.5	64.4	60.0	57.1	46.5
95% CI	*56.8–57.0*	*52.8–53.2*	*58.9–59.4*	*58.2–58.7*	*55.2–55.9*	*64.0–64.8*	*59.3–60.7*	*56.2–58.0*	*45.2–47.7*
1997–1998	54.6	53.3	55.6	52.8	54.5	59.4	58.5	58.5	48.8
95% CI	*54.5–54.7*	*53.2–53.5*	*55.4–55.8*	*52.5–53.1*	*54.1–54.9*	*59.0–59.8*	*57.8–59.2*	*57.5–59.5*	*47.4–50.3*

* Significantly different from the 2000–2001 rate.

Significantly different from the 1997–1998 rate.

Notes

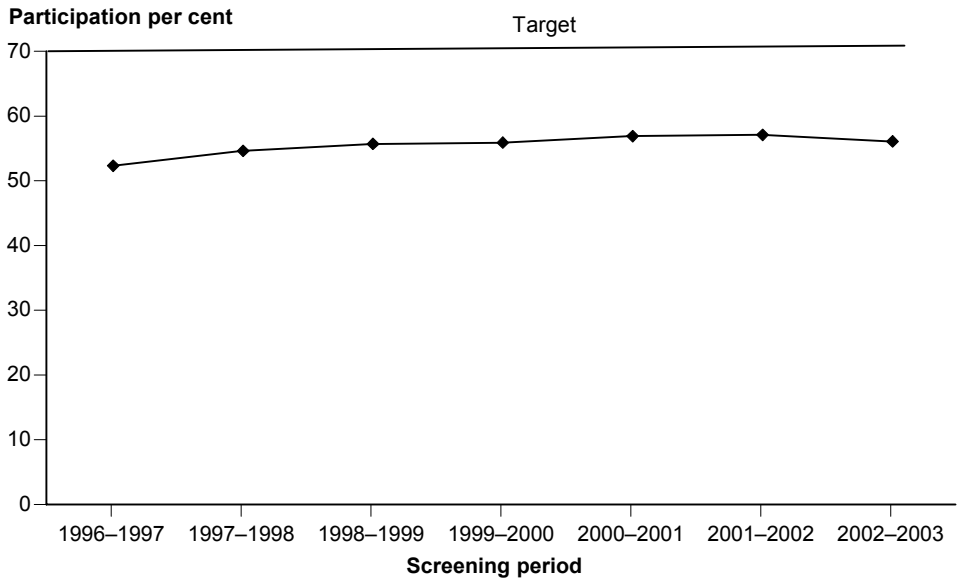
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Periods cover 1 January 1997 to 31 December 1998, 1 January 2000 to 31 December 2001 and 1 January 2002 to 31 December 2003.

- Of the 1,618,306 women screened during 2002 and 2003 as part of the BreastScreen Australia Program, 1,118,429 (69%) were in the target age group (50–69 years).
- In 2002–2003, 56.1% (age-standardised) of women in the target age group attended a BreastScreen Australia service.
- Across states and territories, the age-standardised participation rate for women in the target age group ranged from 44.5% in the Northern Territory to 63.6% 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.

- Participation in BreastScreen Australia among women in Australia in the target age group increased from 54.6% (age-standardised) in 1997–1998 to 56.1% in 2002–2003. This increase in participation was statistically significant.
- Victoria, Queensland, Western Australia and South Australia were jurisdictions with a statistically significant increase in participation for women in the target age group between 1997–1998 and 2002–2003. In New South Wales, Australian Capital Territory and the Northern Territory, the participation rate declined between 1997–1998 and 2002–2003 and the decrease was statistically significant.

For more information, see: Tables 1 and 2 beginning on page 80. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Participation of women aged 50–69 years in BreastScreen Australia, 1996–1997 to 2002–2003



Source: AIHW analysis of BreastScreen Australia data.

	1996–1997	1997–1998	1998–1999	1999–2000	2000–2001	2001–2002	2002–2003
Rate (%)	52.3	54.6	55.7	55.9	56.9	57.1	56.1*
95% CI	*52.2–52.4*	*54.5–54.7*	*55.6–55.8*	*55.8–56.0*	*56.8–57.0*	*57.0–57.2*	*56.0–56.2*

* Significantly different from the 1996–1997, 1997–1998, 1998–1999 and 2001–2002 rates.

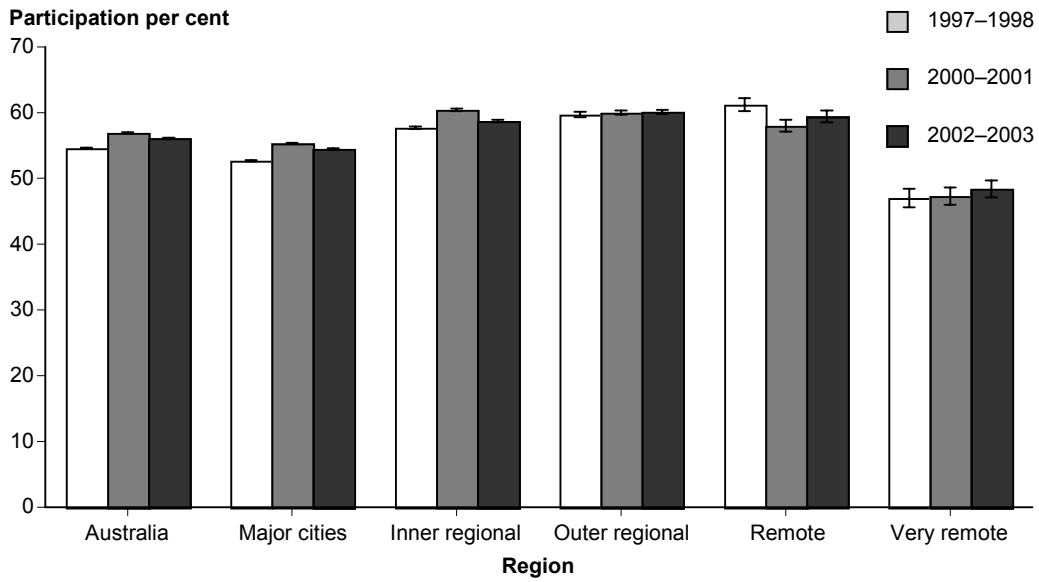
Notes

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 1996 to 31 December 1997, 1 January 1997 to 31 December 1998, 1 January 1998 to 31 December 1999, 1 January 1999 to 31 December 2000, 1 January 2000 to 31 December 2001, 1 January 2001 to 31 December 2002 and 1 January 2002 to 31 December 2003.

- Participation in BreastScreen Australia among women in the target age group increased from 52.3% (age-standardised) in 1996–1997 to 57.1% in 2001–2002, falling to 56.1% in 2002–2003. The fall in 2002–2003 was statistically significant.

For more information, see: Tables 1 and 2 beginning on page 80 . Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Participation of women aged 50–69 years in BreastScreen Australia by region, 1997–1998, 2000–2001 and 2002–2003



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
2002–2003 rate (%)	56.1#	54.5*#	58.7*	60.1	59.4#	48.4
95% CI	*56.0–56.2*	*54.4–54.6*	*58.5–58.9*	*59.8–60.4*	*58.5–60.4*	*47.2–49.7*
2000–2001 rate (%)	56.9	55.3	60.4	60.0	58.0	47.3
95% CI	*56.8–57.0*	*55.2–55.5*	*60.1–60.6*	*59.6–60.3*	*57.0–58.9*	*46.0–48.7*
1997–1998 rate (%)	54.6	52.7	57.7	59.7	61.2	47.0
95% CI	*54.5–54.7*	*52.6–52.8*	*57.5–58.0*	*59.4–60.1*	*60.2–62.2*	*45.6–48.3*

* Significantly different from the 2000–2001 rate.

Significantly different from the 1997–1998 rate.

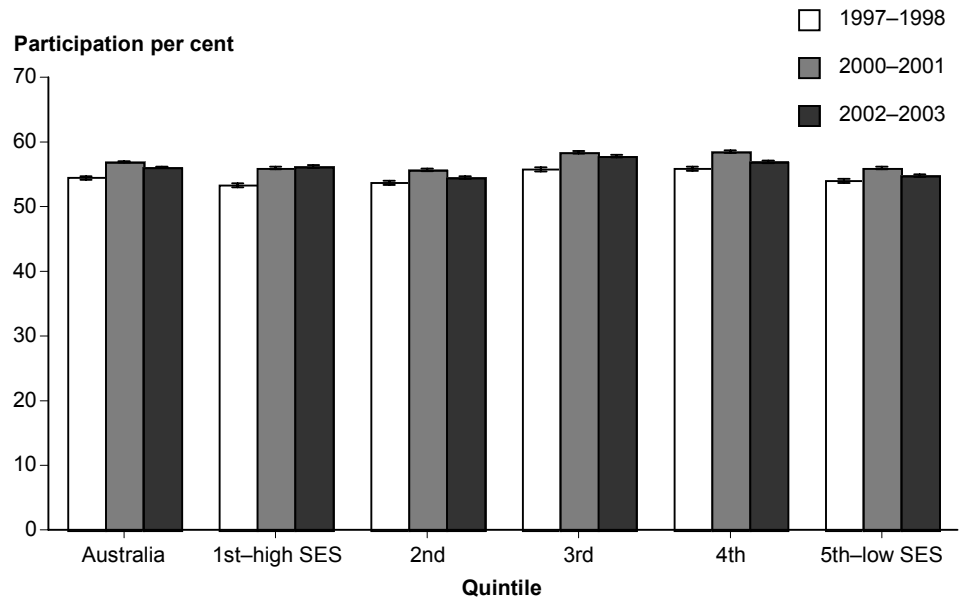
Notes

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 1997 to 31 December 1998, 1 January 2000 to 31 December 2001 and 1 January 2002 to 31 December 2003.
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 1997–1998, 2000–2001 and 2002–2003.
- In 2002–2003 the age-standardised participation rates were lower than the national rate (56.1%) for women in the target age group in major cities (54.5%) and very remote areas (48.4%). Higher rates than the national rate were in the inner regional, outer regional areas and remote (58.7%, 60.1% and 59.4%, respectively).

For more information, see: Table 3 on page 82. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Participation of women aged 50–69 years in BreastScreen Australia by socioeconomic status, 1997–1998, 2000–2001 and 2002–2003



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
2002–2003 rate (%)	56.1*#	56.2#	54.5*#	57.8*#	56.9*#	54.8*#
95% CI	*56.0–56.2*	*56.0–56.5*	*54.2–54.7*	*57.5–58.0*	*56.6–57.1*	*54.6–55.1*
2000–2001 rate (%)	56.9	56.0	55.7	58.4	58.5	56.0
95% CI	*56.8–57.0*	*55.7–56.2*	*55.5–56.0*	*58.2–58.7*	*58.3–58.8*	*55.8–56.2*
1997–1998 rate (%)	54.6	53.4	53.8	55.9	56.0	54.1
95% CI	*54.5–54.7*	*53.1–53.6*	*53.6–54.1*	*55.7–56.2*	*55.7–56.3*	*53.9–54.3*

* Significantly different from the 2000–2001 rate.

Significantly different from the 1997–1998 rate.

Notes

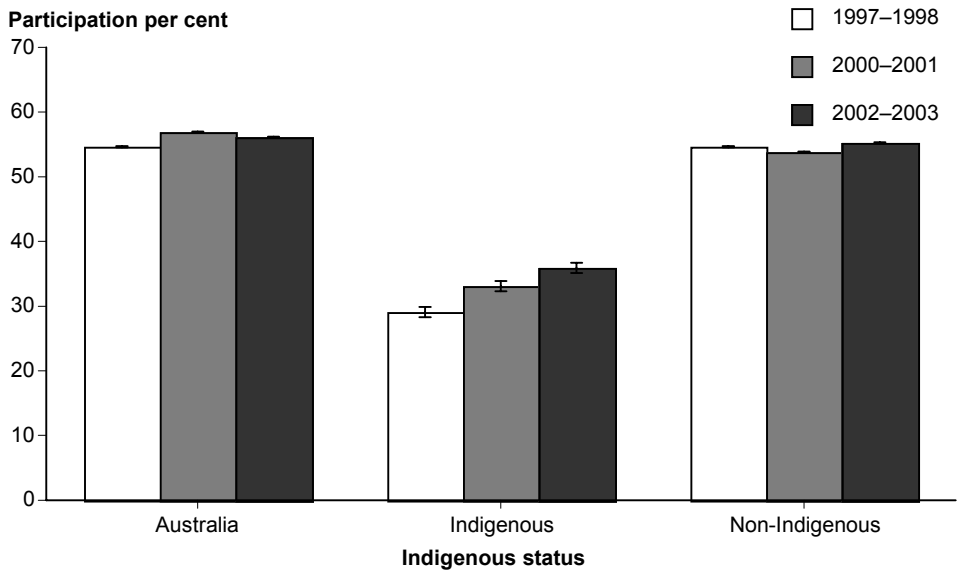
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Periods cover 1 January 1997 to 31 December 1998, 1 January 2000 to 31 December 2001 and 1 January 2002 to 31 December 2003.
3. The first quintile corresponds to the highest socioeconomic status and the fifth to the lowest socioeconomic status.

- In 2002–2003 women in the target age group living in socioeconomic status postcodes with the highest participation rates were the first, third and fourth quintiles, 56.2%, 57.8% and 56.9%, respectively.
- Between the years 1997–1998 and 2002–2003 there were statistically

significant increases in participation in all socioeconomic categories.

For more information, see: Table 4 on page 83. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Participation of women aged 50–69 years in BreastScreen Australia by Indigenous status, 1997–1998, 2000–2001 and 2002–2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	Indigenous	Non-Indigenous
2002–2003 rate (%)	56.1*#	35.9*#	55.2*#
95% CI	*56.0–56.2*	*35.1–36.7*	*55.1–55.3*
2000–2001 rate (%)	56.9	33.1	53.8
95% CI	*56.8–57.0*	*32.3–33.9*	*53.7–53.9*
1997–1998 rate (%)	54.6	29.1	54.6
95% CI	*54.5–54.7*	*28.3–29.9*	*54.5–54.8*

* Significantly different from the 2000–2001 rate.

Significantly different from the 1997–1998 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 1997 to 31 December 1998, 1 January 2000 to 31 December 2001 and 1 January 2002 to 31 December 2003.
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.

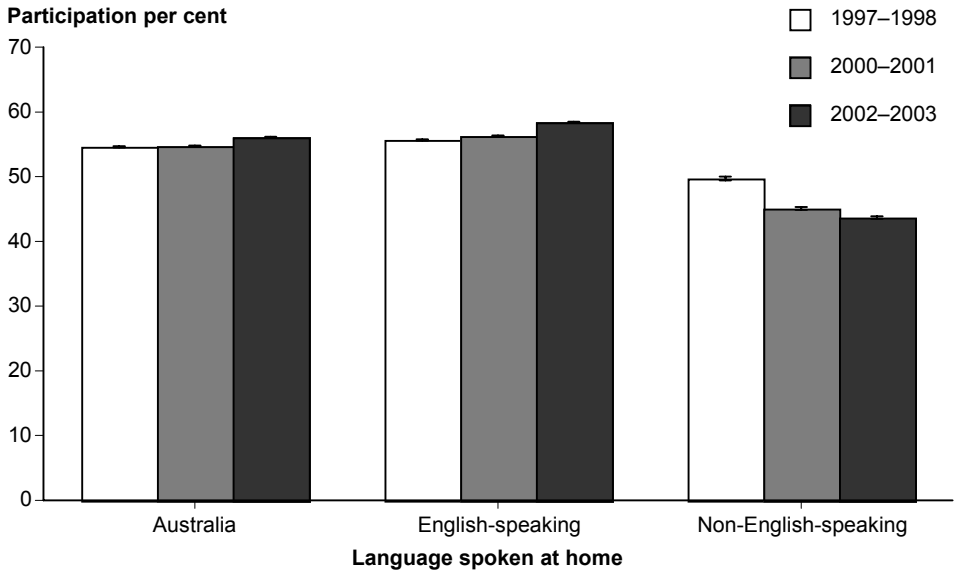
- In 2003, 1.1% of the Australian female population aged 50–69 years were Aboriginal and Torres Strait Islander women. This estimate is based on the experimental Indigenous population projections 2001–2009 (ABS 2004).
- Of the 1,618,306 women aged 40 and over participating in screening through the BreastScreen Australia Program in 2002–2003, there were 12,354 (0.8%) who identified themselves as Aboriginal or Torres Strait Islander (0.6% in 1997–1998 and 0.7% in 2000–2001). While 29,380 women in 2002–2003 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.

- In 2002–2003 the age-standardised participation rate for Indigenous women (35.9%) was much lower than the non-Indigenous rate (55.2%) but the rate for Indigenous women increased significantly from 29.1% in 1997–1998 to 35.9% in 2002–2003.

For more information, see: Table 5 on page 84. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Participation of women aged 50–69 years in BreastScreen Australia by language spoken at home, 1997–1998, 2000–2001 and 2002–2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	English-speaking	Non-English-speaking
2002–2003 rate (%)	56.1*#	58.4*#	43.7*#
95% CI	*56.0–56.2*	*58.3–58.5*	*43.4–43.9*
2000–2001 rate (%)	54.7	56.3	45.1
95% CI	*54.5–54.8*	*56.2–56.4*	*44.9–45.3*
1997–1998 rate (%)	54.6	55.7	49.7
95% CI	*54.5–54.7*	*55.5–55.8*	*49.5–50.0*

* Significantly different from the 2000–2001 rate.

Significantly different from the 1997–1998 rate.

Notes

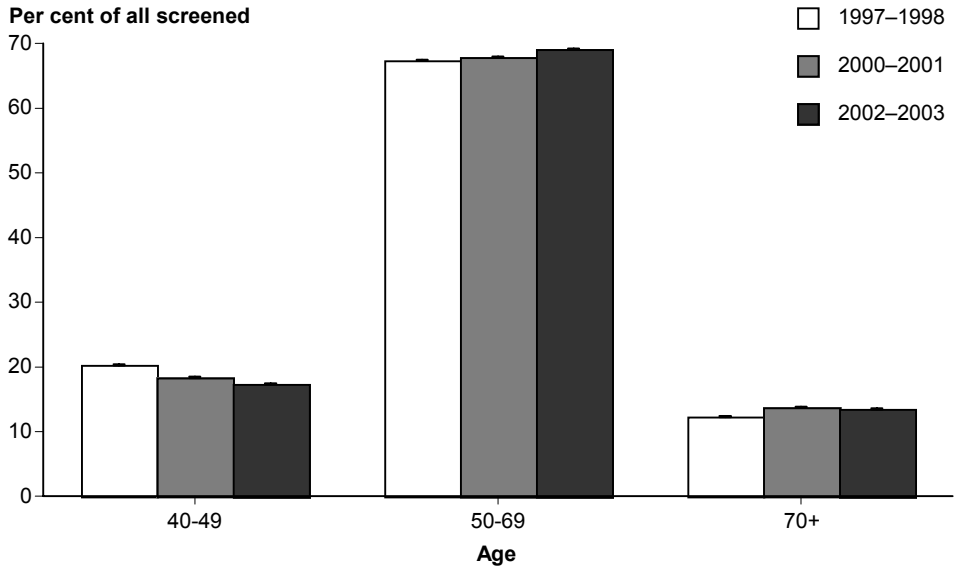
1. Rates are the number of women screened as a percentage of the eligible female population and age-standardised to the Australian population at 30 June 2001.
2. Periods cover 1 January 1997 to 31 December 1998, 1 January 2000 to 31 December 2001 and 1 January 2002 to 31 December 2003.
3. Women who were 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 1,618,306 women aged 40 years and over participating in screening through the BreastScreen Australia Program in 2002–2003, there were 205,683 (12.7%) who identified as non-English-speaking (14.2% in 1997–1998 and 13.1% in 2000–2001). While 4,514 women in 2002–2003 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.

- In 2002–2003 there was a much lower age-standardised participation rate for women in the target age group from a non-English-speaking background (43.7%) than for English-speaking women (58.4%). The same applied for the periods 1997–1998 and 2000–2001.
- The age-standardised participation rate for women in the target age group from a non-English-speaking background decreased from 49.7% in 1997–1998 to 43.7% in 2002–2003. The reverse was true for women from an English-speaking background where the age-standardised rate increased from 55.7% in 1997–1998 to 58.4% in 2002–2003.

For more information, see: Table 6 on page 85. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Age distribution of women aged 40 years and over screened by BreastScreen Australia, 1997–1998, 2000–2001 and 2002–2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

Age	40–49	50–69	70+
2002–2003 (%)	17.4*#	69.1*#	13.5*#
95%CI	*17.3–17.4*	*69.0–69.2*	*13.5–13.6*
2000–2001 (%)	18.4	67.9	13.8
95%CI	*18.3–18.4*	*67.7–68.0*	*13.7–13.8*
1997–1998 (%)	20.3	67.4	12.3
95%CI	*20.2–20.4*	*67.3–67.5*	*12.2–12.4*

* Significantly different from the 2000–2001 rate.

Significantly different from the 1997–1998 rate.

Notes

1. Rates are the number of women screened as a percentage of all women aged 40 or over screened by BreastScreen Australia.
2. Periods cover 1 January 1997 to 31 December 1998, 1 January 2000 to 31 December 2001 and 1 January 2002 to 31 December 2003.

- More than two-thirds (69.1%) of women participating in the BreastScreen Australia Program in 2002–2003 were in the target age group (50–69 years). Of all women screened, 17.4% were aged 40–49 years, and 13.5% were aged 70 years and over.
- The proportion of women in the target age group increased from 67.4% in 1997–1998 to 69.1% in 2002–2003. In the 70+ age group there was also an increase from 12.3% to 13.5% between 1997–1998 and 2002–2003.
- The only age group with a downward trend was the 40–49 age group. The proportion of women in this age group decreased from 20.3% in 1997–1998 to 17.4% in 2002–2003.

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).

The National Accreditation Standards for the detection of small (≤15 mm) invasive breast cancers require:

- ≥25 per 10,000 women aged 50–69 years who attend for screening are diagnosed with small (≤15 mm) invasive breast cancer.

The following table shows the detection rate of small-diameter invasive breast cancers achieved by the BreastScreen Australia Program in 1998, 2002 and 2003. The objective of detecting at least 25 small-diameter (≤15 mm) cancers per 10,000 women screened was achieved at the national level in 2002 and 2003 for all screening rounds and age groups and in 1998 for women attending for their first screening round.

In 2003, the age-standardised detection rate for small invasive cancers in women in the target age group attending for their first screening round ranged from 23.3 to 92.7 per 10,000 women screened across the states and territories, but because of small numbers involved this apparently large variation in the detection rate was not statistically significant.

Small (≤ 15 mm) invasive breast cancer detection rate per 10,000 women, first and subsequent rounds, 1998, 2002 and 2003

	Objective[(a)]	1998	2002	2003
First screening round				
Rate for women aged 50–69 years	≥25	36.5	37.9	38.8
95% CI		*32.7–40.5*	*32.7–43.6*	*33.2–45.1*
Rate for women aged 40 years and over	..	36.3	36.4	40.8
95% CI		*33.3–39.6*	*32.1–41.0*	*35.7–46.2*
Subsequent screening rounds				
Rate for women aged 50–69 years	..	24.8	26.7	26.5
95% CI		*23.3–26.5*	*25.3–28.2*	*25.1–27.9*
Rate for women aged 40 years and over	..	24.0	25.0	25.0
95% CI		*22.7–25.3*	*23.8–26.1*	*23.8–26.1*

(a) Performance objective for BreastScreen services as set out in the National Accreditation Standards (NQMC unpublished).

. . Not applicable.

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.

The table below shows the percentage of all invasive cancers detected that were small-diameter (≤15 mm) invasive breast cancers, by screening round, for women screened in 1998, 2002 and 2003.

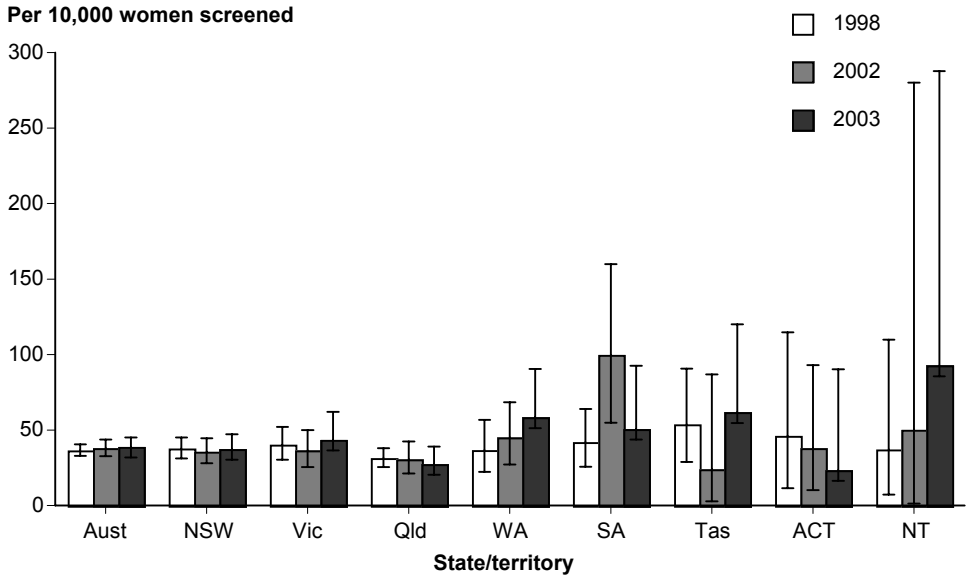
Percentage of invasive cancers detected that were small (≤ 15 mm) in diameter, 1998, 2002 and 2003

	1998	2002	2003
First screening round			
Women aged 50–69 years	58.3	56.1	55.4
Women aged 40 years and over	55.8	54.3	54.1
Subsequent screening rounds			
Women aged 50–69 years	68.5	65.7	64.0
Women aged 40 years and over	69.0	66.1	65.0

Source: AIHW analysis of BreastScreen Australia data.

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 shows that mammography was successful at detecting the majority of large cancers in the first round and most of the remaining cases have not had time to develop into large cancers in the two years before the second round.

Small (≤ 15 mm) invasive breast cancer detection in women aged 50–69 years, first screening round, 1998, 2002 and 2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2003 rate	38.8	37.3	43.5	27.4	58.4	50.6	61.8	23.3	92.7
95% CI	*33.2–45.1*	*28.9–47.1*	*28.6–62.0*	*18.3–39.1*	*33.9–90.5*	*21.2–92.7*	*26.5–120.1*	*0.8–90.2*	*12.2–287.6*
2002 rate	37.9	35.6	36.5	30.6	45.2	99.7*	24.0	38.0	50.3
95% CI	*32.7–43.6*	*27.9–44.5*	*25.5–50.0*	*21.2–42.4*	*27.2–68.6*	*54.9–159.9*	*2.9–86.8*	*10.2–93.0*	*1.3–280.0*
1998 rate	36.5	37.7	40.3	31.3	36.7	41.9	53.8	46.2	37.2
95% CI	*32.7–40.5*	*31.2–45.0*	*30.2–52.1*	*25.5–38.0*	*22.3–56.7*	*25.7–63.9*	*28.8–90.7*	*11.5–114.8*	*7.2–110.0*

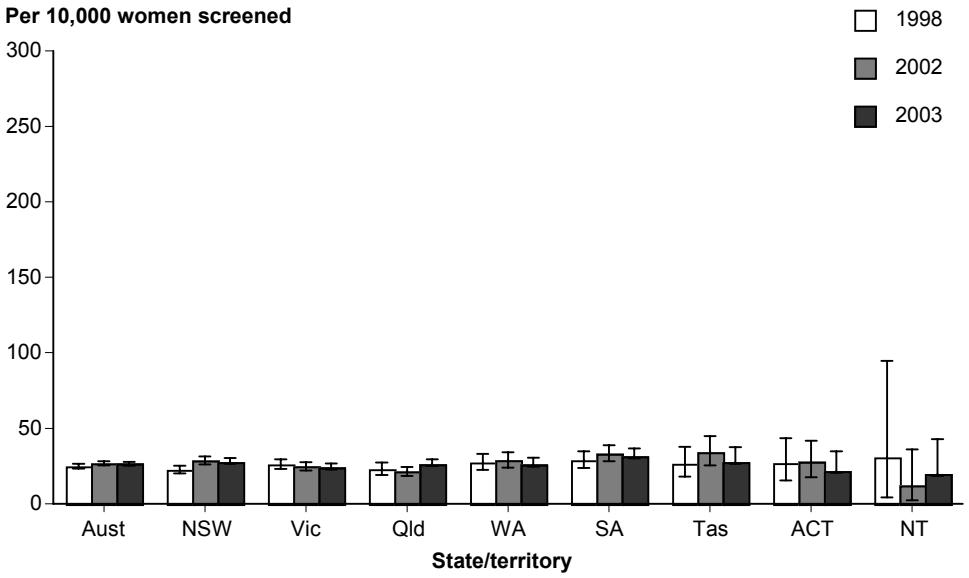
* Statistically different from the 2002 Australian rate.

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 2003, small-diameter invasive cancers were found in 361 women aged 40 and over attending a BreastScreen Australia service for their first screen. Of these women, 225 were in the target age group (50–69 years). The age-standardised detection rate was 38.8 per 10,000 women screened for women in the target age group and 40.8 per 10,000 women screened for all women aged 40 and over. The detection rate for small-diameter invasive cancers for women in the target age group increased from 36.5 per 10,000 women screened in 1998 to 38.8 in 2003. The increase was not statistically significant.
- In 2003, across the states and territories, there are no statistically significant differences in the age-standardised detection rate for small invasive cancers in women in the target age group due to the large confidence intervals arising from small numbers of cases.

For more information, see: Tables 7 to 10 beginning on page 86. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Small (≤ 15 mm) invasive breast cancer detection in women aged 50–69 years, subsequent screening rounds, 1998, 2002 and 2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2003 rate	26.5	27.6	23.8	26.1	25.8	31.7	27.6	21.6	19.6
95% CI	*25.1–27.9*	*25.1–30.3*	*21.2–26.6*	*23.1–29.5*	*21.6–30.5*	*26.9–37.1*	*19.8–37.3*	*12.5–34.7*	*7.1–42.8*
2002 rate	26.7	28.6	24.7	21.3*	28.7	33.1	34.0	27.8	12.1
95% CI	*25.3–28.2*	*26.0–31.4*	*22.0–27.6*	*18.5–24.4*	*24.1–34.1*	*28.2–38.7*	*25.3–44.8*	*17.7–41.6*	*2.3–35.9*
1998 rate	24.8	22.5	26.1	22.8	27.3	28.8	26.5	26.9	30.6
95% CI	*23.3–26.5*	*20.0–25.2*	*23.0–29.4*	*18.9–27.2*	*22.4–33.0*	*23.5–34.8*	*18.0–37.6*	*15.6–43.3*	*4.2–94.7*

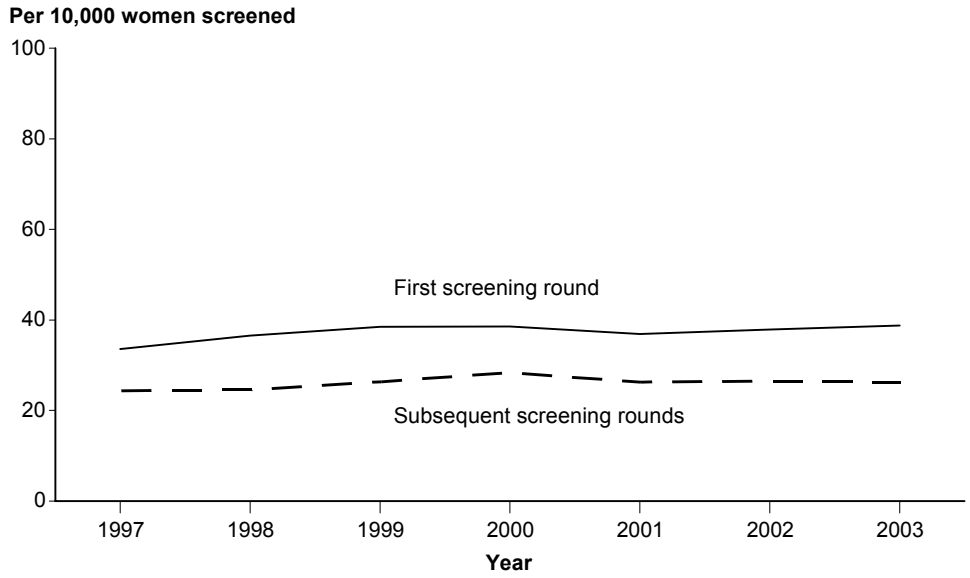
* Statistically different from the 2002 Australian rate.

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 2003, small-diameter invasive cancers were found in 1,948 women aged 40 years and over attending a BreastScreen Australia service for their second or subsequent screen. Of these women, 1,409 were in the target age group (50–69 years). The age-standardised detection rate was 26.5 per 10,000 women screened for women in the target age group and 25.0 for all women aged 40 years and over. In both age categories, the small-diameter cancer detection rates for Australia for women attending their second or subsequent screen were lower than the rates for women attending their first screen.

For more information, see: Tables 7 to 10 beginning on page 86. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Small (≤ 15 mm) invasive breast cancer detection in women aged 50–69 years, first and subsequent screening rounds, trend data, 1997–2003



Source: AIHW analysis of BreastScreen Australia data.

	1997	1998	1999	2000	2001	2002	2003
First screening round							
Rate	33.6*	36.5*	38.5*	38.6*	36.9*	37.9*	38.8*
95% CI	*30.2–37.2*	*32.7–40.5*	*33.9–43.5*	*33.7–43.9*	*32.3–41.9*	*32.7–43.6*	*33.2–45.1*
Subsequent screening rounds							
Rate	24.6	24.8	26.6	28.6	26.5	26.7	26.5
95% CI	*22.9–26.3*	*23.3–26.5*	*25.1–28.2*	*27.1–30.2*	*25.1–28.0*	*25.3–28.2*	*25.1–27.9*

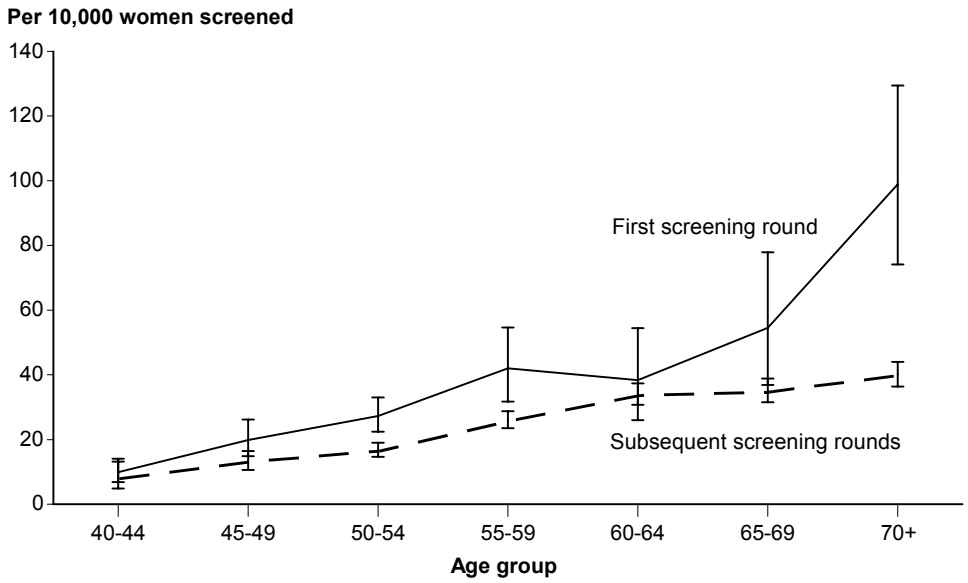
* Significantly different from subsequent screening rounds.

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.

- The detection rate of small (≤15 mm) invasive breast cancers differs between the first and subsequent screening rounds. The detection rate is higher for the first screening round across all years from 1997 to 2003.

For more information, see: Tables 7 to 10 beginning on page 86. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Small (≤ 15 mm) invasive breast cancer detection by age, 2003



Note: Bars represent 95% confidence intervals.

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							
Rate	9.9	19.9*	27.3*	42.0*	38.3	54.5*	98.9*
95% CI	*6.8–13.9*	*14.8–26.1*	*22.4–32.9*	*31.8–54.6*	*26.0–54.4*	*36.8–77.8*	*74.1–129.3*
Subsequent screening rounds							
Rate	8.2	13.3	16.7	26.0	33.9	35.0	40.1
95% CI	*4.8–13.1*	*10.7–16.5*	*14.6–19.0*	*23.5–28.6*	*30.7–37.3*	*31.4–38.8*	*36.4–44.0*

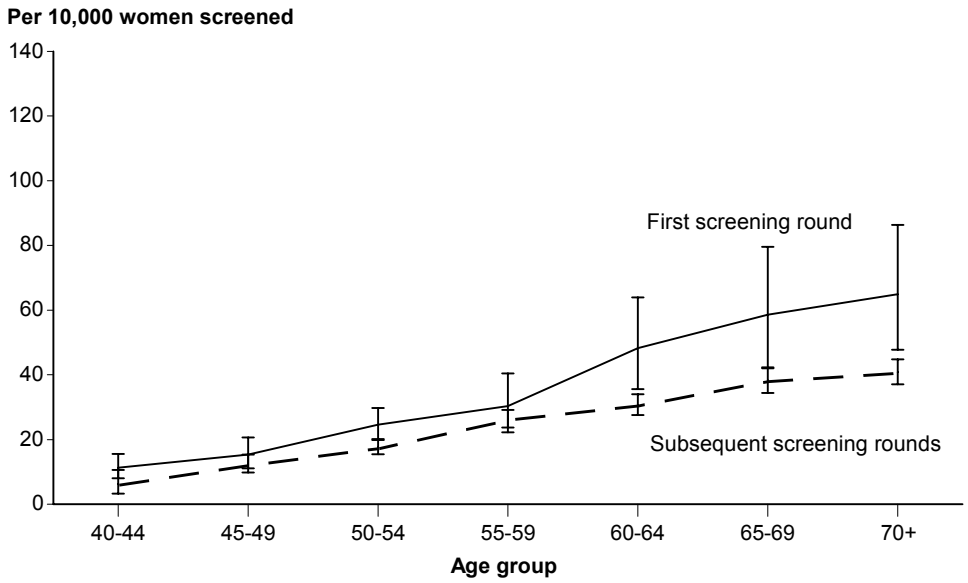
* Significantly different from subsequent screening rounds.

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 44 on page 119). The detection rate for women aged 40–44 years making a first round attendance at a BreastScreen Australia service in 2003 was 9.9 per 10,000 women screened. This rate increased to 98.9 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 7 to 10 beginning on page 86. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

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



Note: Bars represent 95% confidence intervals.

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							
Rate	11.3	15.3	24.6*	30.3	48.2*	58.6	64.9*
95% CI	*8.0–15.5*	*11.0–20.6*	*20.2–29.7*	*22.2–40.5*	*35.5–63.8*	*42.1–79.5*	*47.7–86.3*
Subsequent screening rounds							
Rate	6.2	12.3	17.5	26.3	30.7	38.2	40.8
95% CI	*3.3–10.5*	*9.7–15.2*	*15.3–19.8*	*23.7–29.1*	*27.7–34.1*	*34.4–42.2*	*37.0–44.8*

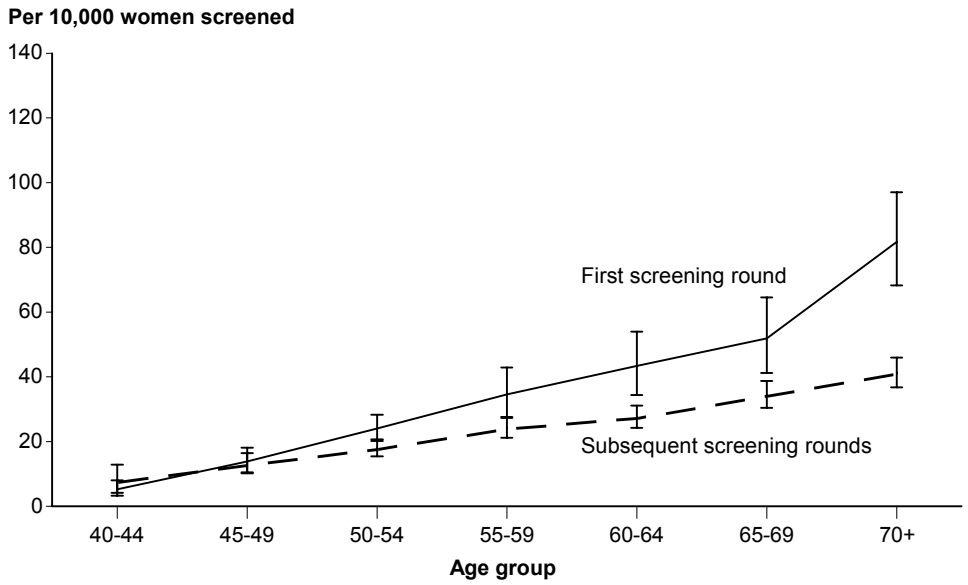
* Significantly different from subsequent screening rounds.

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

- The detection rate for women aged 40–44 years making a first round attendance at a BreastScreen Australia service in 2002 was 11.3 per 10,000 women screened. This rate increased to 64.9 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 7 to 10 beginning on page 86. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

Small (≤ 15 mm) invasive breast cancer detection by age, 1998



Note: Bars represent 95% confidence intervals.

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							
Rate	5.3	13.9	24.0	34.6*	43.4*	51.9*	81.7*
95% CI	*3.3–8.1*	*10.5–18.1*	*20.2–28.3*	*27.6–42.9*	*34.4–54.0*	*41.3–64.6*	*68.3–97.0*
Subsequent screening rounds							
Rate	7.7	13.0	17.9	24.1	27.5	34.4	41.2
95% CI	*4.2–13.0*	*10.1–16.3*	*15.4–20.7*	*21.3–27.3*	*24.2–31.1*	*30.4–38.6*	*36.8–46.0*

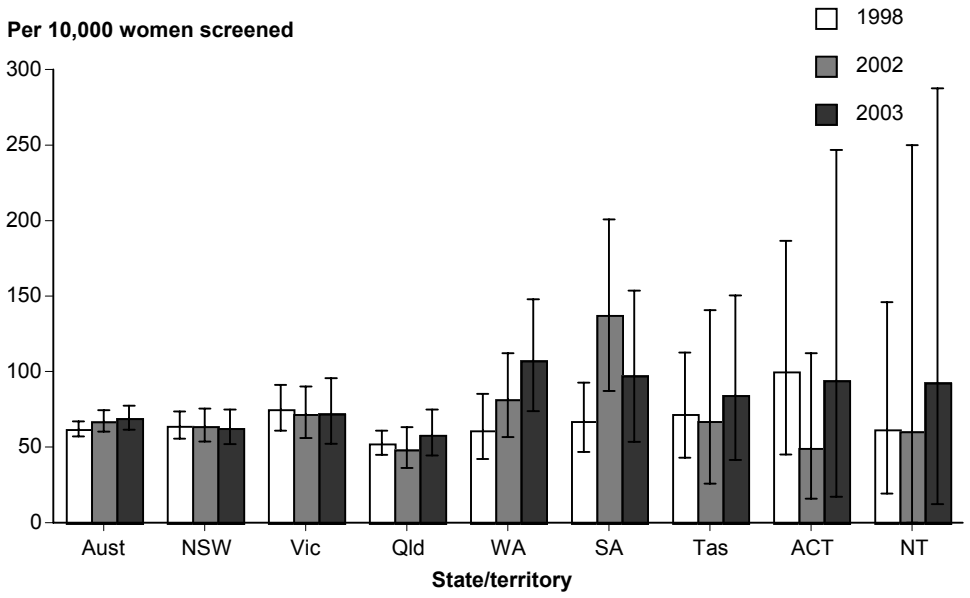
* Significantly different from subsequent screening rounds.

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

- The detection rate for women aged 40–44 years making a first round attendance at a BreastScreen Australia service in 1998 was 5.3 per 10,000 women screened. This rate increased to 81.7 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 7 to 10 beginning on page 86. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

All-size invasive breast cancer detection in women aged 50–69 years, first screening round, 1998, 2002 and 2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2003 rate	69.2	62.6	72.1	58.2	107.3	97.3	84.3	94.2	92.7
95% CI	*61.6–77.4*	*51.8–74.8*	*52.2–95.5*	*44.4–74.8*	*73.8–147.9*	*53.4–153.6*	*41.4–150.5*	*17.0–246.7*	*12.2–287.6*
2002 rate	67.1	63.9	71.8	48.4	81.6	137.6*	67.2	49.5	60.5
95% CI	*60.2–74.6*	*53.7–75.4*	*56.1–90.0*	*36.2–63.2*	*56.7–112.2*	*87.1–200.6*	*25.8–140.7*	*15.8–112.2*	*0.0–249.9*
1998 rate	61.9	64.1	75.1	52.4	61.0	67.2	72.0	100.0	61.8
95% CI	*57.1–67.1*	*55.6–73.6*	*60.9–91.1*	*44.9–60.8*	*42.1–85.2*	*46.8–92.7*	*42.8–112.5*	*45.1–186.7*	*19.2–146.0*

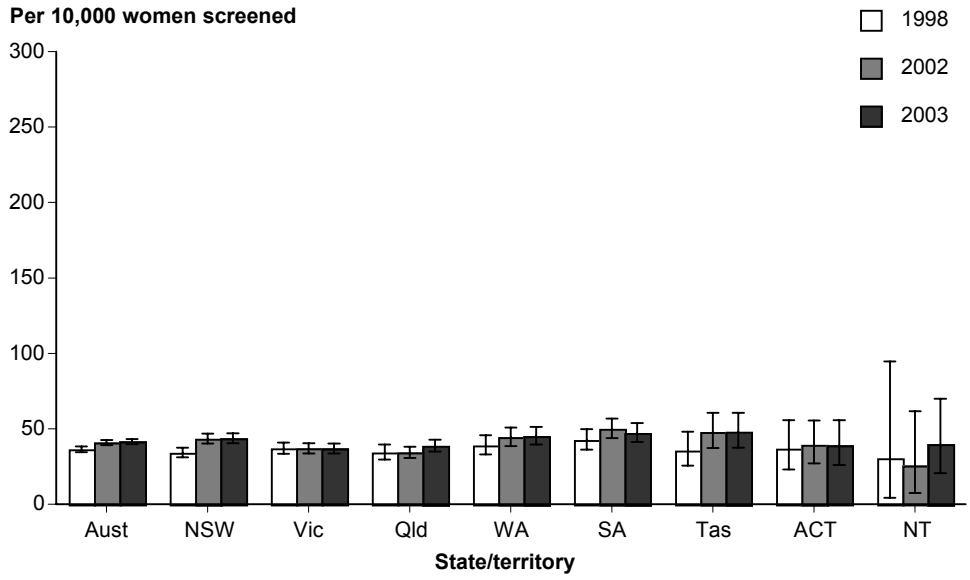
* Statistically different from the 2002 Australian rate.

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 2003, the age-standardised invasive cancer detection rate for women attending a BreastScreen Australia Service for the first time was 69.2 per 10,000 women screened.
- Across the states and territories, Queensland had the lowest age-standardised detection rate, at 58.2 per 10,000 women screened, and Western Australia had the highest rate, at 107.3 per 10,000 women screened, but this difference was not statistically significant.

For more information, see: Tables 11 to 14 beginning on page 90. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

All-size invasive breast cancer detection in women aged 50–69 years, subsequent screening rounds, 1998, 2002 and 2003



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of BreastScreen Australia data.

	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2003 rate	41.5#	43.7	36.8	38.7	45.2	47.3	48.0	38.9	39.9
95% CI	*39.8–43.3*	*40.5–47.0*	*33.6–40.2*	*35.0–42.7*	*39.6–51.3*	*41.5–53.8*	*37.5–60.6*	*26.1–55.7*	*20.5–69.9*
2002 rate	40.8	43.5	37.0	34.3*	44.4	50.0*	47.9	39.5	25.6
95% CI	*39.0–42.6*	*40.3–46.9*	*33.8–40.5*	*30.8–38.2*	*38.5–50.9*	*43.9–56.7*	*37.4–60.5*	*27.2–55.5*	*7.3–61.5*
1998 rate	36.4	34.2	37.0	34.4	39.0	42.6	35.6	36.9	30.6
95% CI	*34.5–38.4*	*31.1–37.6*	*33.3–40.9*	*29.7–39.8*	*33.1–45.7*	*36.2–49.8*	*25.6–48.1*	*23.3–55.6*	*4.2–94.7*

* Statistically different from the 2002 Australian rate.

Statistically different from the 1998 Australian rate.

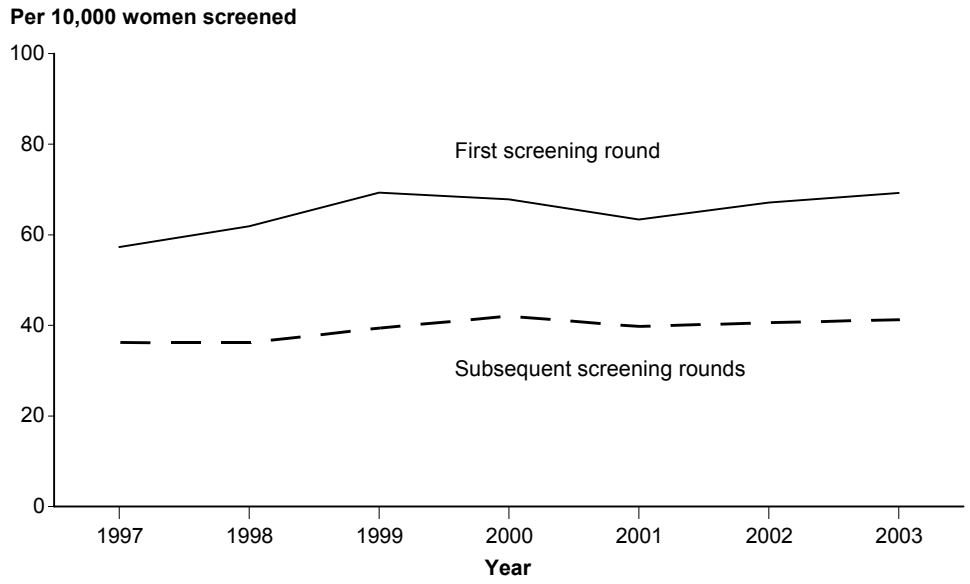
Notes: Rates are the number of women with invasive cancers detected per 10,000 women screened and age-standardised to the population of women attending a BreastScreen Australia service in 1998.

- In 2003, 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 41.5 per 10,000 women screened. This is significantly lower than the detection rate for first round attendances (69.2 per 10,000 women screened).
- In 2003 the age-standardised invasive cancer detection rate for all women aged 40 and over, attending for their second or subsequent screen, was 38.5 per 10,000 women screened. This is lower than the rate for women in the target age group (41.5 per 10,000 women screened), although the difference is not statistically significant.
- Across the states and territories, the age-standardised invasive cancer detection rate for women in the target age group in 2003 ranged from 36.8 per 10,000 women screened in Victoria to 48.0 per 10,000 women screened in Tasmania.

- The increase in the detection rate of all invasive cancers for Australia from 36.4 in 1998 to 41.5 in 2003 was statistically significant.

For more information, see: Tables 11 to 14 beginning on page 90. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

All-size invasive breast cancer detection in women aged 50–69, first and subsequent screening rounds, trend data, 1997–2003



Source: AIHW analysis of BreastScreen Australia data.

	1997	1998	1999	2000	2001	2002	2003
First screening round							
Rate	57.3*	61.9*	69.3*	67.8*	63.4*	67.1*	69.2*
95% CI	*52.9–62.0*	*57.1–67.1*	*63.1–75.9*	*61.3–74.8*	*57.3–70.0*	*60.2–74.6*	*61.6–77.4*
Subsequent screening rounds							
Rate	36.5	36.4	39.7	42.3	40.0	40.8	41.5
95% CI	*34.5–38.7*	*34.5–38.4*	*37.9–41.7*	*40.4–44.2*	*38.3–41.8*	*39.0–42.6*	*39.8–43.3*

* Statistically different from subsequent rounds.

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.

- The detection rate of all invasive breast cancers was significantly higher in the first screening round across all years from 1997 to 2003. The rate of detection in the first screening round increased from 57.3 in 1997 to 69.2 in 2003. This increase was not statistically significant.
- The detection rate of all invasive breast cancers also rose in subsequent screening rounds from 36.5 in 1997 to 41.5 in 2003. The increase was not statistically significant.

For more information, see: Tables 11 to 14 beginning on page 90. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.