

# 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 cancers detected by other 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 1988 to 2002, 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'.

The following table shows the incidence of breast cancer in 1997, 2001 and 2002. The incidence of breast cancer for women in the target age group 50–69 increased significantly from 276.7 cases per 100,000 women in 1997 to 304.3 cases per 100,000 women in 2002.

### Incidence of breast cancer in women aged 50-69 years and 0-85 and over, 1997, 2001 and 2002

	1997	2001	2002
<b>Rate for women aged 50-69 years</b>	276.7	305.0	304.3
<i>95% CI</i>	268.8-284.8	297.2-312.9	296.6-312.1
<b>Rate for women aged 0-85 years and over</b>	111.3	117.1	116.8
<i>95% CI</i>	109.1-113.5	115.0-119.2	114.7-118.9

Incidence of breast cancer by regions is shown in the table below. In 1993-1997 and 1998-2002 the age-standardised breast cancer incidence rate was significantly lower in outer regional, remote and very remote areas than the national rate.

### Incidence of breast cancer in women aged 50-69 years, 1993-1997 and 1998-2002 by region

	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
<b>Rate 1998-2002</b>	296.5	302.1	295.5	273.0	253.5	216.4
<i>95% CI</i>	292.9-300.0	297.7-306.5	288.1-303.1	262.8-283.6	226.6-282.8	177.6-259.1
<b>Rate 1993-1997</b>	273.0	278.8	270.4	251.5	230.8	204.4
<i>95% CI</i>	269.3-276.6	274.2-283.3	262.6-278.3	241.0-262.4	203.5-260.7	163.7-249.7

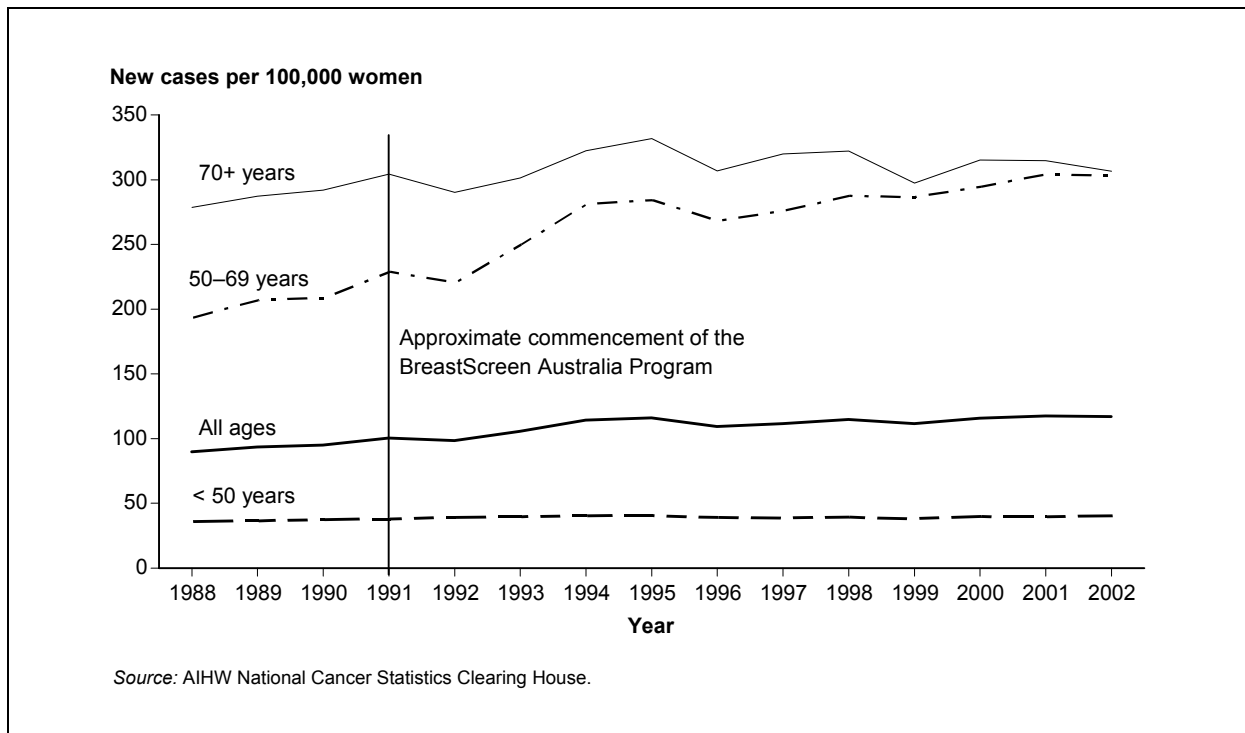
The following table shows the incidence of DCIS. Incidence of DCIS increased from 31.5 cases per 100,000 women in the target age group in 1993-1998 to 40.3 cases per 100,000 women in 1997-2002. Similarly, the DCIS incidence rate for women aged 0-70 and over increased from 10.6 cases per 100,000 women in 1993-1998 to 13.0 cases per 100,000 women in 1997-2002.

### Incidence of ductal carcinoma in situ in women aged 0-70 and over and 50-69 years, 1993-1998 and 1997-2000

	1993-1998	1997-2002
<b>Rate for women aged 50-69 years</b>	31.5	40.3
<i>95% CI</i>	30.3-32.6	39.1-41.5
<b>Rate for women aged 0-70 years and over</b>	10.6	13.0
<i>95% CI</i>	10.3-10.9	12.7-13.3

Note: Comparisons between time periods should be treated with caution because of overlapping periods.

## Incidence of breast cancer in women, Australia, 1988–2002



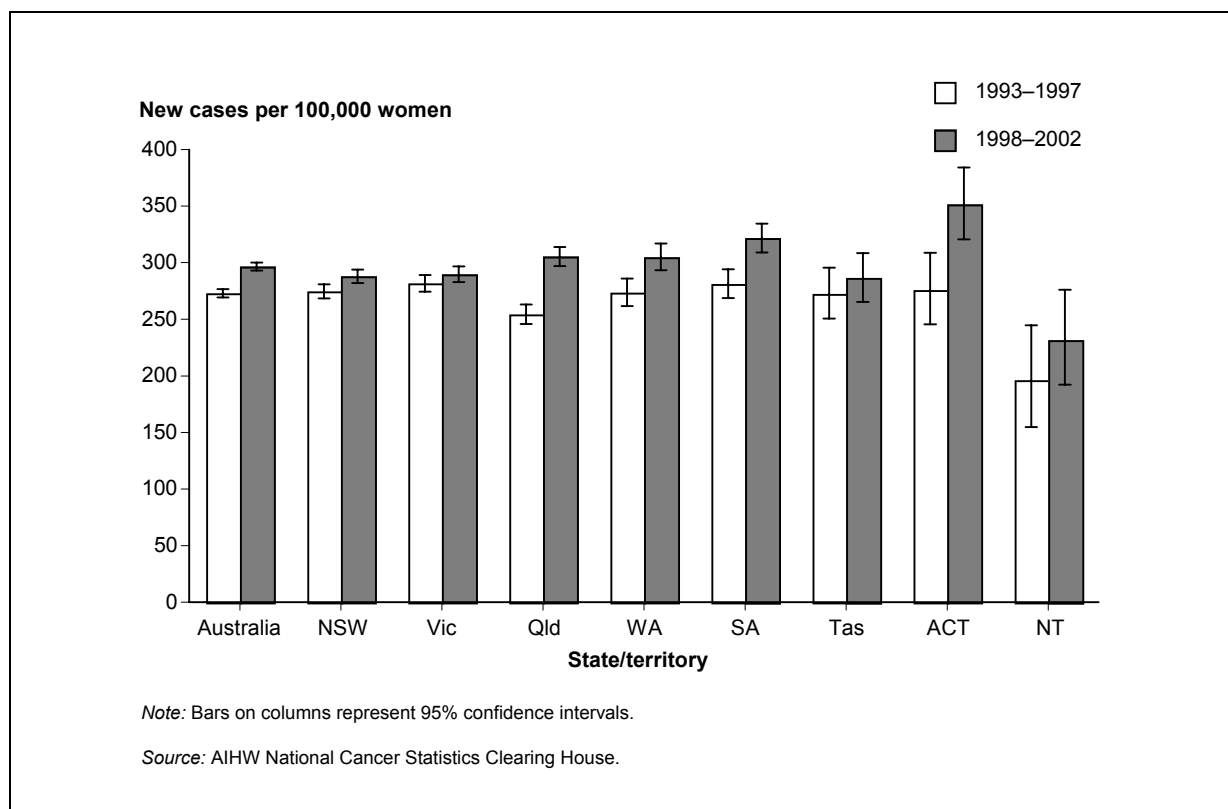
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>All ages</b>	89.5	93.3	94.7	100.2	98.1	105.3	113.9	115.6	109.0	111.3	114.5	111.2	115.5	117.1	116.8
<b>&lt;50</b>	36.6	37.2	38.1	38.7	39.8	40.4	41.1	41.5	39.9	39.3	40.2	39.0	40.6	40.3	41.1
<b>50-69</b>	194.3	207.9	209.6	229.9	221.7	250.7	282.1	285.1	269.0	276.7	288.6	287.5	295.5	305.0	304.3
<b>70+</b>	278.8	287.3	292.1	304.3	290.4	301.5	322.5	331.7	306.9	319.8	322.2	297.5	315.2	314.7	306.6

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 1988 to 2002 can be seen in the age-standardised breast cancer incidence rates for women in the target age group (aged 50–69). Incidence has increased in this group from 194.3 new cancers per 100,000 women in 1988 to 304.3 per 100,000 women in 2002.
- Although the underlying rate for breast cancer has been increasing since 1988, the sharp increase between 1992 and 1995 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.
- From 1994 onwards, incidence has been relatively constant among women aged less than 50 years, and aged 70 years and over.

**For more information, see:** Tables 43 to 48 beginning on page 118. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

## Incidence of breast cancer in women aged 50–69 years, 1993–1997 and 1998–2002



	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<b>Rate</b>									
<b>1998–2002</b>	296.5 <sup>#</sup>	287.8 <sup>#</sup>	289.7	305.3 <sup>#</sup>	305.0 <sup>#</sup>	321.7 <sup>#</sup>	286.4	351.4 <sup>#</sup>	231.5 <sup>*</sup>
<b>95% CI</b>	292.9–300.0	281.9–293.8	282.9–296.8	297.0–313.8	293.5–316.9	309.1–334.6	265.4–308.7	320.7–384.2	192.2–276.1
<b>Rate</b>									
<b>1993–1997</b>	273.0	274.6	281.6	254.4 <sup>*</sup>	273.6	281.2	272.4	275.9	196.1 <sup>*</sup>
<b>95% CI</b>	269.3–276.6	268.4–280.9	274.4–289.0	246.1–263.0	261.6–286.0	268.8–294.2	250.6–295.7	245.6–308.9	154.8–244.8

\* Significantly different from the Australian rate.

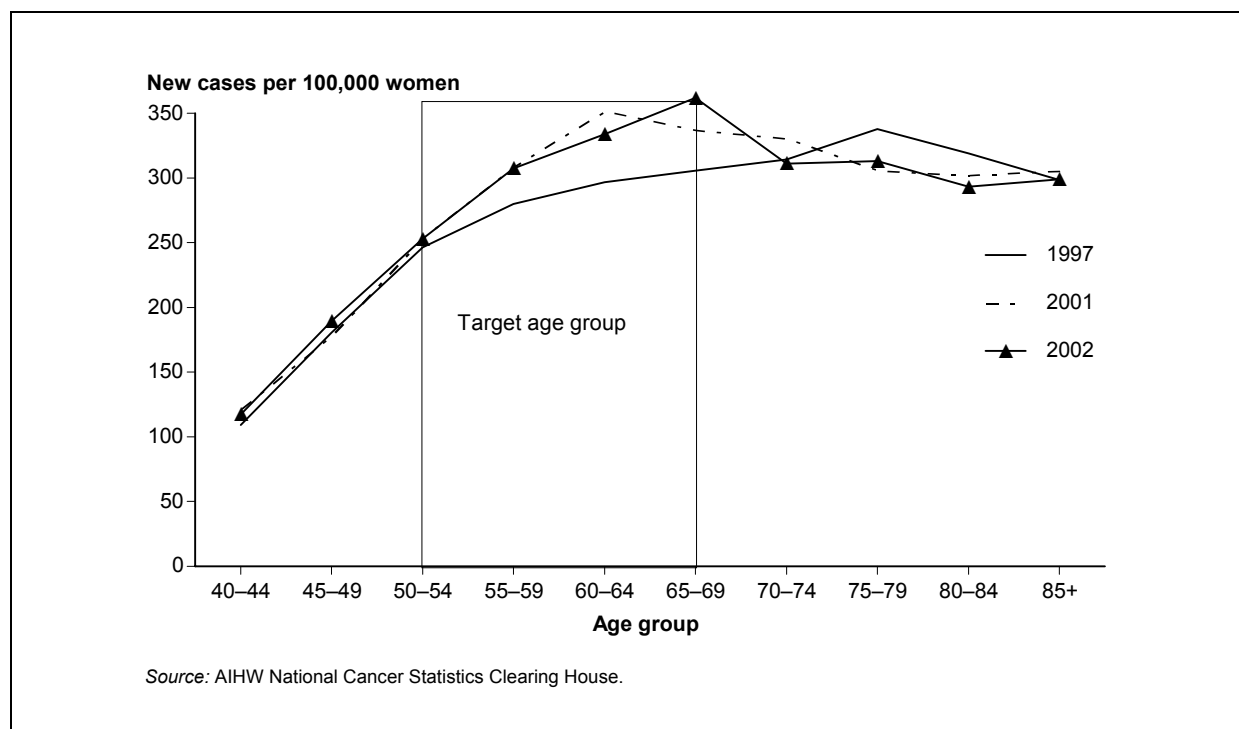
<sup>#</sup> Significantly different from the 1993–1997 rate.

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 1998–2002 was 296.5 new cancers per 100,000 women. Across the states and territories, incidence rates ranged from 231.5 new cancers per 100,000 women in the Northern Territory to 351.4 new cases per 100,000 women in the Australian Capital Territory. The rates for South Australia and Australian Capital Territory (321.7 and 351.4 per 100,000 women respectively) were much higher than the national rate.
- In 1993–1997 the age-standardised breast cancer incidence rates in the Northern Territory and Queensland (196.1 and 254.4 new cases per 100,000 women respectively) were lower than the national rate (273.0 per 100,000 women).
- Between 1993–1997 and 1998–2002 there was an increase in age-standardised incidence rates in all states and territories except Victoria, Tasmania and the Northern Territory.

**For more information, see:** Tables 43 to 48 beginning on page 118. 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-specific incidence rates for breast cancer in women, Australia, 1997, 2001 and 2002



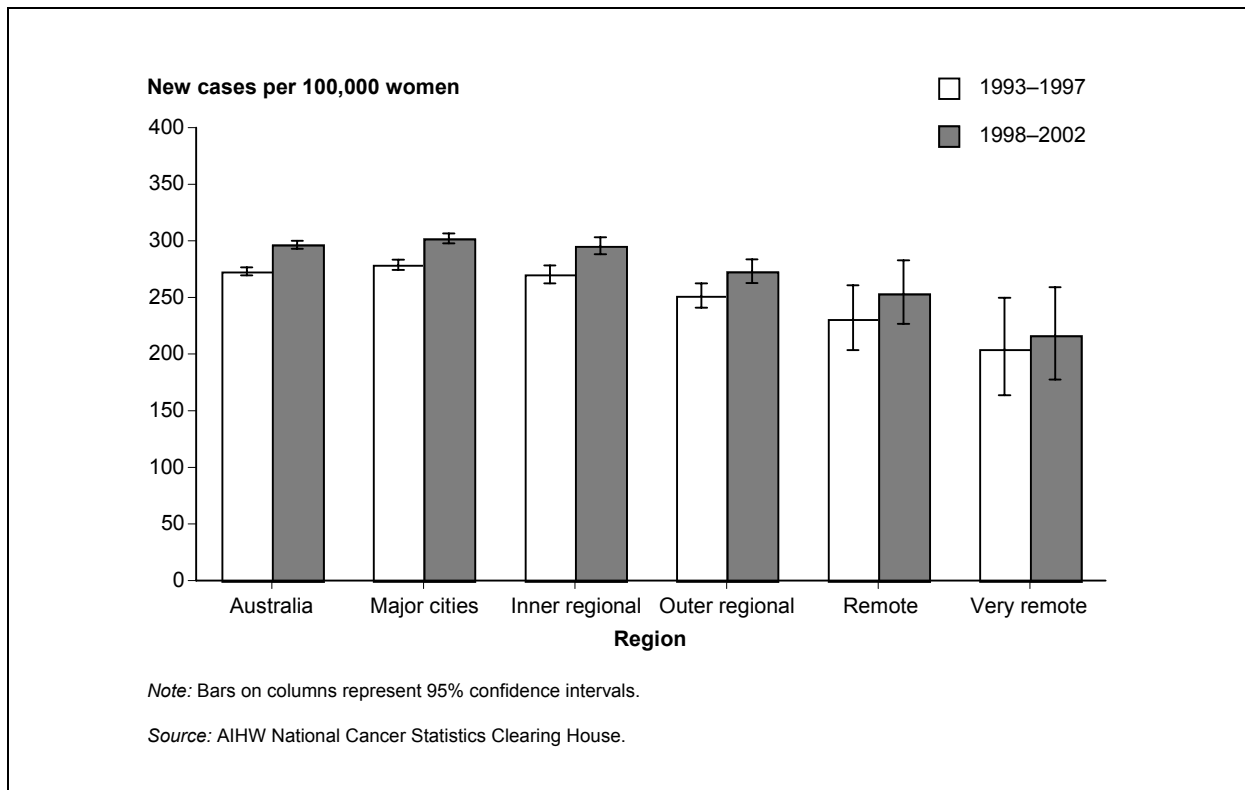
Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
<b>2002 rate</b>	117.3	189.4	253.0	307.4	333.9	361.9	311.2	313.2	293.2	299.1
<b>2001 rate</b>	122.2	179.1	254.5	309.3	352.4	337.5	331.2	306.5	302.8	306.0
<b>1997 rate</b>	109.2	180.5	246.5	279.9	296.7	305.7	314.3	337.7	319.1	298.6

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

- The expectation of breast cancer screening is that breast cancers are being detected earlier. The graph above illustrates this. In 1997 the highest breast cancer incidence rate was in the 75-79 age group (337.7 new cases per 100,000 women). In 2001 the incidence peak shifted towards the younger age group 60-64 years with 352.4 cases per 100,000 women. Similarly, in 2002 the age group with the highest breast cancer incidence rate of 361.9 new cases per 100,000 women was 65-69 years old.

**For more information, see:** Tables 43 to 48 beginning on page 118. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

## Incidence of breast cancer in women aged 50–69 years, by region, 1993–1997 and 1998–2002



	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
<b>1998–2002 rate</b>	296.5 <sup>#</sup>	302.1 <sup>#</sup>	295.5 <sup>#</sup>	273.0* <sup>#</sup>	253.5*	216.4*
95% CI	292.9–300.0	297.7–306.5	288.1–303.1	262.8–283.6	226.6–282.8	177.6–259.1
<b>1993–1997 rate</b>	273.0	278.8	270.4	251.5*	230.8*	204.4*
95% CI	269.3–276.6	274.2–283.3	262.6–278.3	241.0–262.4	203.5–260.7	163.7–249.7

\* Significantly different from the Australian rate.

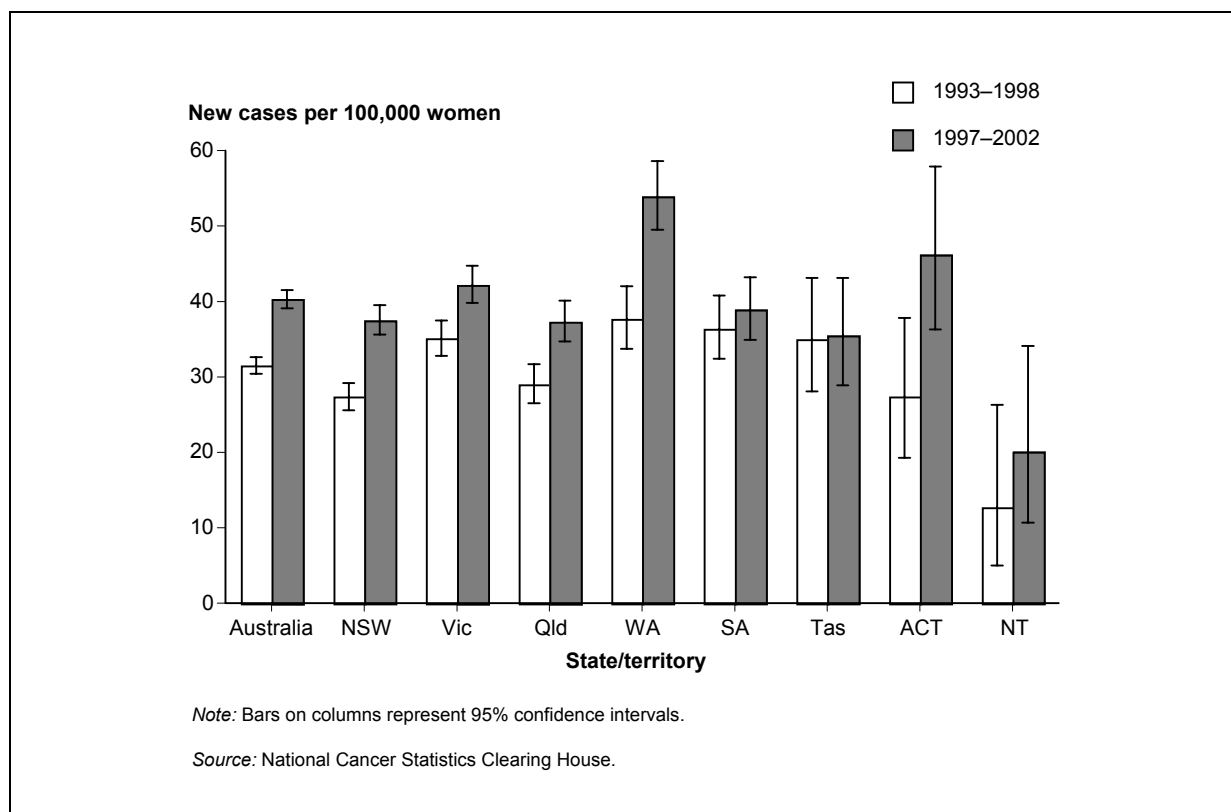
<sup>#</sup> Significantly different from the 1993–1997 rate.

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

- In 1993–1997 and 1998–2002 the age-standardised breast cancer incidence rate was significantly lower in outer regional, remote and very remote areas than the national rate.
- Between 1993–1997 and 1998–2002 there were significant increases in the age-standardised breast cancer incidence rate in major cities, inner regional and outer regional areas.

**For more information, see:** Tables 43 to 48 beginning on page 118. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

## Incidence of ductal carcinoma in situ in women aged 50–69 years, 1993–1998 and 1997–2002



	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<b>Rate 1997–2002</b>	40.3	37.5	42.2	37.3	53.9*	38.9	35.5	46.2	20.1*
<i>95% CI</i>	39.1–41.5	35.6–39.5	39.8–44.7	34.6–40.1	49.5–58.7	35.0–43.2	28.9–43.1	36.4–58.0	10.7–34.1
<b>Rate 1993–1998</b>	31.5	27.4*	35.1*	29.0	37.7*	36.4	35.0	27.4	12.7*
<i>95% CI</i>	30.3–32.6	25.7–29.3	32.8–37.5	26.5–31.7	33.7–42.0	32.3–40.7	28.1–43.1	19.3–37.7	5.0–26.3

\* Significantly different from the Australian rate.

### Notes

- Comparisons between time periods should be treated with caution because of overlapping periods.
- 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 1997 to 2002, the national age-standardised incidence rate of DCIS for women aged 50–69 years was 40.3 per 100,000 women.
- In 1997–2002 the age-standardised DCIS rate in Western Australia (53.9 cases per 100,000 women) was significantly higher, and in the Northern Territory (20.1 cases per 100,000 women) the rate was significantly lower, than the national rate (40.3 per 100,000 women).
- In 1993–1998 the age-standardised DCIS rate in Victoria and Western Australia (35.1 and 37.7 cases per 100,000 women, respectively) was significantly higher and in the Northern Territory (12.7 cases per 100,000 women) and New South Wales (27.4 cases per 100,000 women) significantly lower, than the national rate (31.5 per 100,000 women).

**For more information, see:** Tables 49 to 50 beginning on page 124. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

# 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 2,557 women dying from the disease in 1998 and 2,713 women in 2003. However, over this period the rates of death 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 1989 to 2003, 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.

The following table shows the breast cancer mortality rate trends between 1994–1998 and 1999–2003. Mortality from breast cancer for women in the target age group 50–69 decreased significantly from 61.8 deaths per 100,000 women in 1994–1998 to 54.0 deaths per 100,000 women in 1999–2003. Similarly, mortality rates also decreased significantly for women in all

age groups from 28.2 deaths per 100,000 women in 1994–1998 to 24.9 deaths per 100,000 women in 1999–2003.

#### Mortality from breast cancer in women aged 0–85 and over and 50–69 years, 1994–1998 and 1999–2003

	1994–1998	1999–2003
<b>Rate for women aged 50–69 years</b>	61.8	54.0
<i>95% CI</i>	60.1–63.6	52.5–55.5
<b>Rate for women aged 0–85 years and over</b>	28.2	24.9
<i>95% CI</i>	27.8–28.7	24.5–25.3

*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.

The following table shows the breast cancer mortality rates by regions. For women in the target age group, mortality rates in 1999–2003 were highest in outer regional areas with 55.3 deaths per 100,000 women, and lowest in very remote areas, with 47.4 deaths per 100,000 women. The difference was not statistically significant because the relatively small number of deaths in very remote areas have wide confidence intervals.

#### Mortality from breast cancer in women aged 50–69 years, 1999–2003 by region

	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
<b>Rate 1999–2003</b>	54.0	55.1	50.8	55.3	49.3	47.4
<i>95% CI</i>	52.5–55.5	53.3–57.0	47.8–53.9	50.8–60.1	37.9–62.7	30.3–70.2

##### 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. AIHW Mortality data by the ASGC remoteness categories are available from 1997 only; therefore, there is no comparable non-overlapping 5-year period prior to 1999–2003.

*Source:* AIHW National Mortality Database.

The following table shows the mortality rates by Indigenous status for Queensland, Western Australia, South Australia and Northern Territory combined. In 1999–2003 in the target age group, the age-standardised mortality rate for Indigenous women (39.4 deaths per 100,000 women) was lower than that for non-Indigenous women (52.9 deaths per 100,000 women); however, this difference was not statistically significant. In 1994–1998 there was a statistically significant difference in mortality rates between the Indigenous and non-Indigenous populations (44.8 and 97.1 deaths per 100,000 women, respectively). Across the time periods 1994–1998 and 1999–2003, the national mortality rates decreased significantly from 61.8 to 54.0 deaths per 100,000 women, respectively. Similarly, mortality rates for non-Indigenous women decreased significantly from 97.1 in 1994–1998 to 52.9 deaths per 100,000 women in 1999–2003. For Indigenous women, the mortality rates decreased from 44.8 to 39.4 deaths per 100,000 women over the same time periods; however, these changes were not statistically significant.

### Mortality from breast cancer in women aged 50-69 years, 1994-1998 and 1999-2003 by Indigenous status

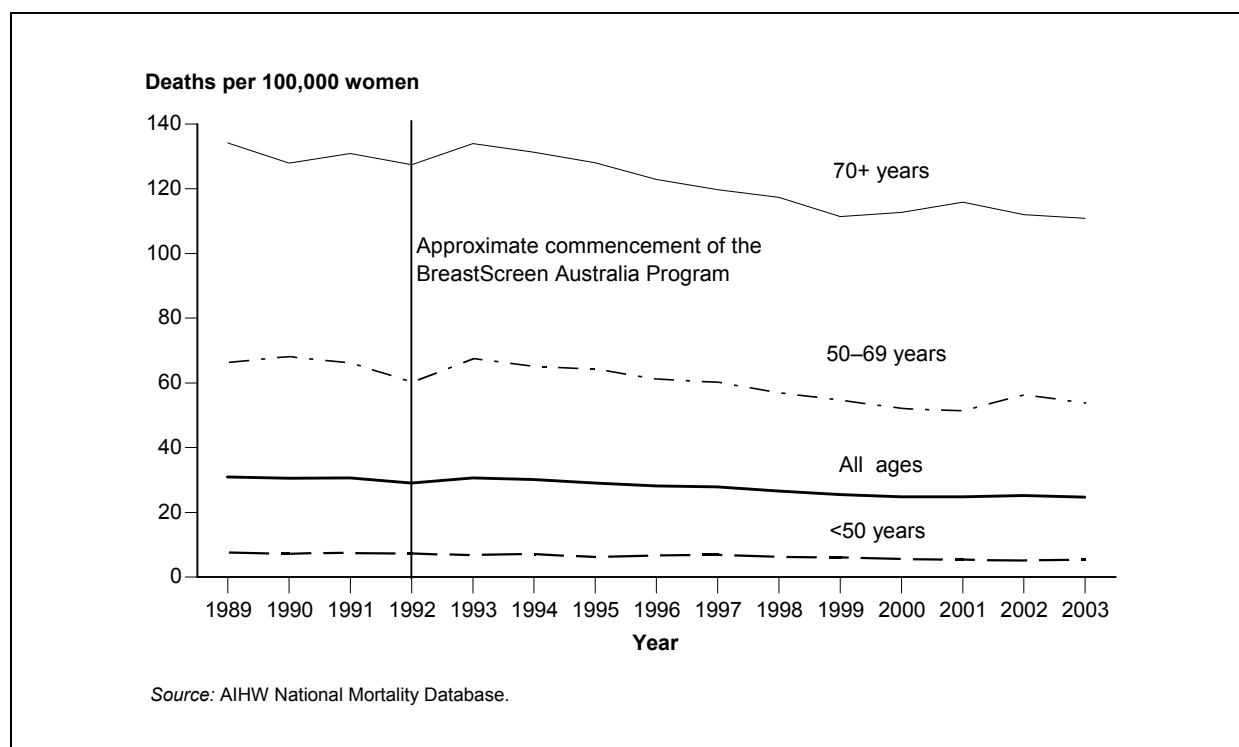
	Australia	Indigenous	Non-Indigenous
<b>Rate 1999-2003</b>	54.0	39.4	52.9
<i>95% CI</i>	52.5-55.5	24.5-59.8	50.5-55.4
<b>Rate 1994-1998</b>	61.8	44.8	97.1
<i>95% CI</i>	60.1-63.6	24.4-75.3	92.5-101.8

*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. Queensland data are included from 1998 onwards.
2. 'Australia' includes all states and territories of Australia. 'Indigenous' and 'Non-Indigenous' includes Queensland, Western Australia, South Australia, and the Northern Territory.
3. Deaths in the 'not-stated' category are included in the column 'Australia', but they are not included in the other columns.
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.

Source: AIHW National Mortality Database.

## Mortality from breast cancer, females, Australia, 1989–2003



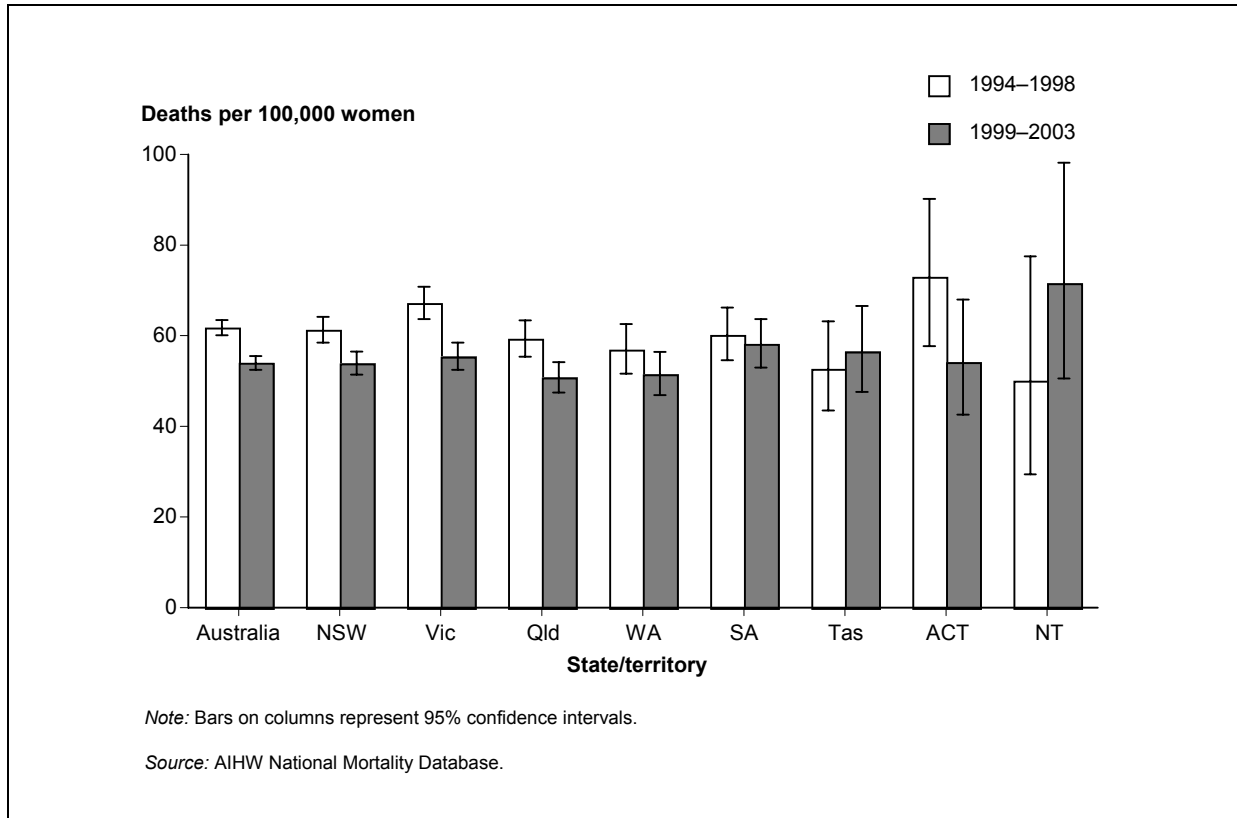
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>All ages</b>	30.8	30.4	30.5	28.9	30.5	30.0	28.9	28.1	27.8	26.5	25.4	24.7	24.7	25.1	24.6
<b>&lt;50</b>	7.9	7.5	7.8	7.6	7.1	7.4	6.5	6.9	7.2	6.6	6.4	5.9	5.7	5.4	5.6
<b>50–69</b>	66.7	68.5	66.5	60.6	67.9	65.5	64.6	61.5	60.6	57.3	55.0	52.5	51.8	56.7	54.1
<b>70+</b>	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	110.8

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.

- The age-standardised mortality rate for women in the target age group has been declining steadily. The mortality rate for these women was 66.7 deaths per 100,000 women in 1989; in 2003 the corresponding figure was 54.1 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 less than 50 years remained the lowest and most consistent, staying below 8 deaths per 100,000 women for the period 1989 to 2003.

**For more information, see:** Tables 51 to 58 beginning on page 125. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <www.aihw.gov.au>.

## Mortality from breast cancer in women aged 50–69 years, 1994–1998 and 1999–2003



	Australia	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<b>Rate</b>									
<b>1999–2003</b>	54.0*	53.9*	55.4*	50.8*	51.5	58.2	56.5	54.2	71.6
<b>95% CI</b>	52.5–55.5	51.4–56.5	52.4–58.4	47.5–54.2	46.9–56.4	53.0–63.7	47.5–66.6	42.6–68.0	50.6–98.2
<b>Rate</b>									
<b>1994–1998</b>	61.8	61.3	67.2	59.3	56.9	60.2	52.7	73.0	50.1
<b>95% CI</b>	60.1–63.6	58.5–64.3	63.7–70.8	55.4–63.4	51.6–62.6	54.7–66.2	43.5–63.1	57.6–90.2	29.4–77.5

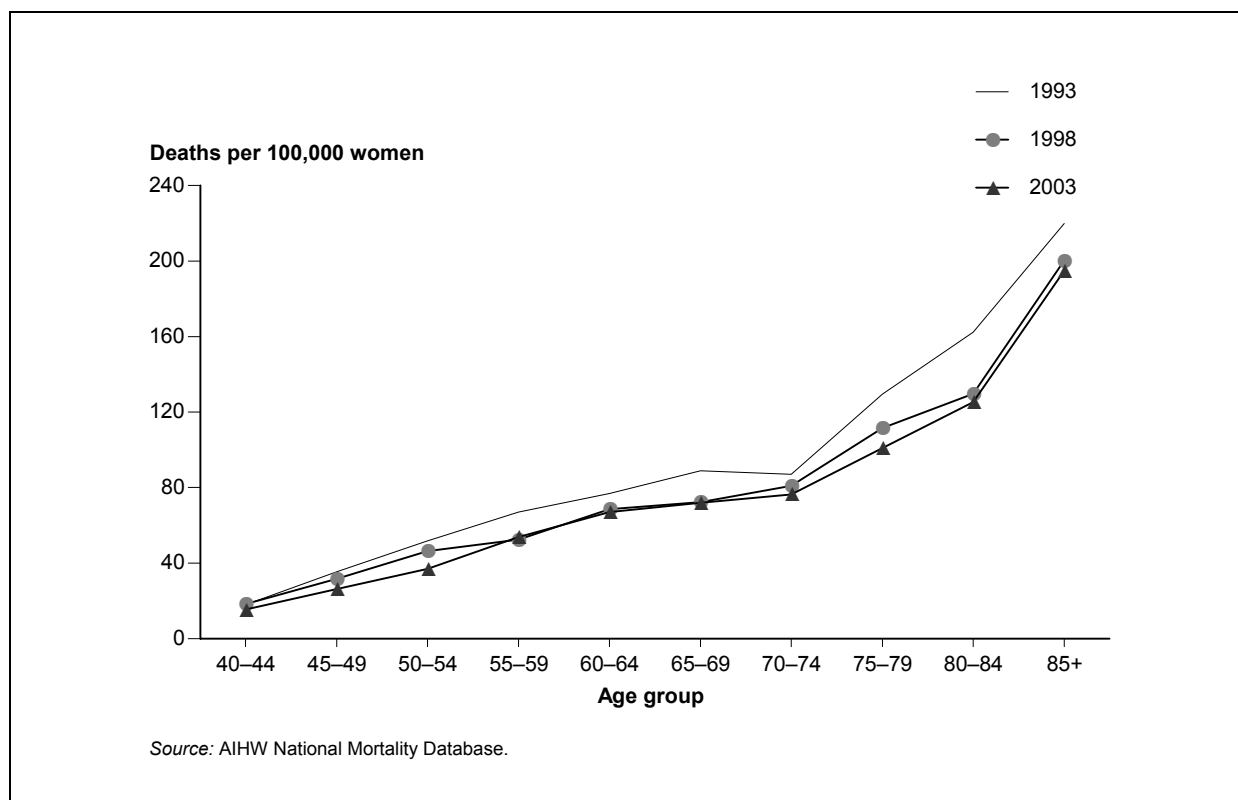
\* Statistically different from the 1994–1998 rate.

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.

- There were statistically significant changes in the mortality rates between the states and territories and across the time periods. The national mortality rate declined between 1994–1998 and 1999–2003 from 61.8 to 54.0 deaths per 100,000 women. New South Wales, Victoria and Queensland followed a similar trend of decreases in mortality between the two time periods.

**For more information, see:** Tables 51 to 58 beginning on page 125. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

## Age-specific mortality rates for breast cancer, females, Australia, 1993, 1998 and 2003



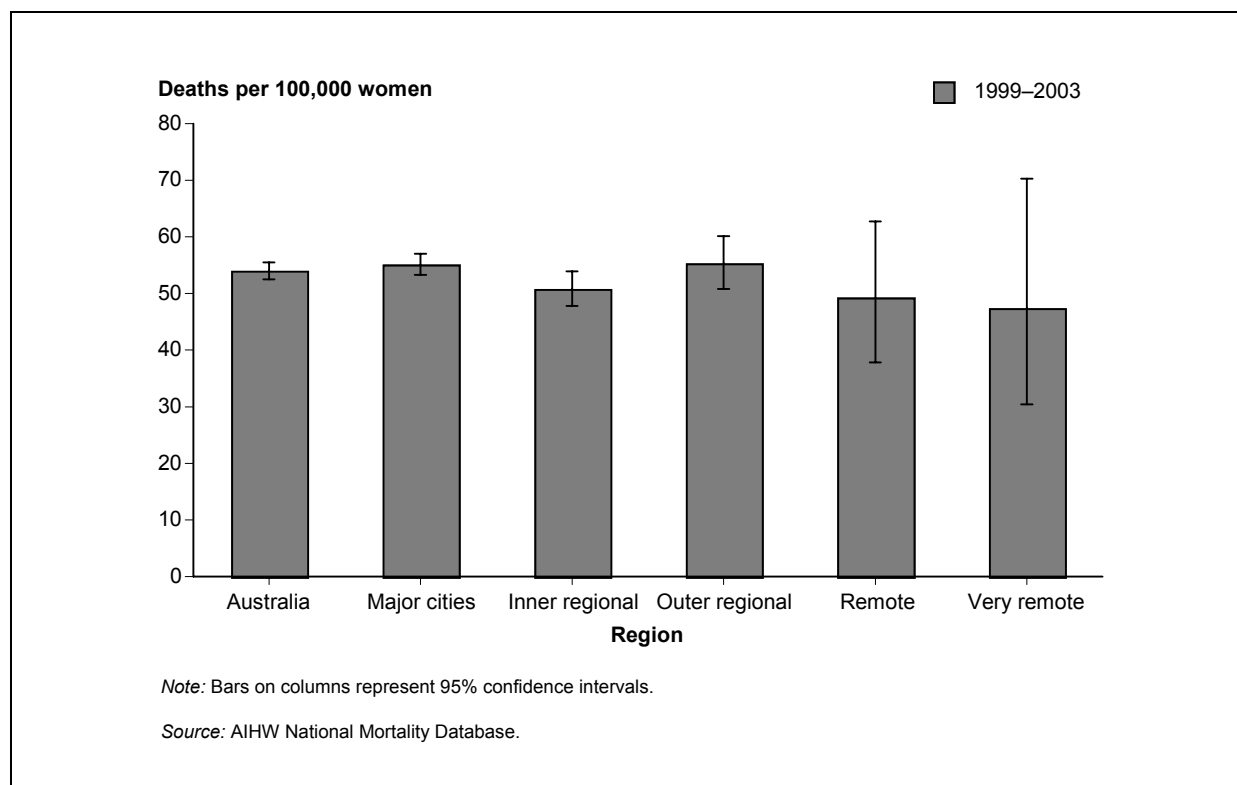
Age	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
2003	15.3	26.2	36.8	53.8	67.1	71.9	76.4	100.9	125.2	194.9
1998	18.2	31.7	46.3	52.4	68.5	72.2	80.9	111.6	129.6	200.3
1993	17.9	35.3	51.8	67.1	76.8	88.9	87.0	129.5	162.4	219.9

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

- In 1993, 1998 and 2003, age-specific mortality rates increased consistently with age. For women aged 40-44 years, the rate was 17.9, 18.2 and 15.3 deaths per 100,000 women, respectively. The rate increased to 219.9, 200.3 and 194.9 deaths per 100,000 women in 1993, 1998 and 2003, respectively, for women aged 85 and over.
- The mean age at death for women dying from breast cancer increased from 65.6 years in 1993 to 67 years in 2003. The median age at death increased from 66 years in 1993 to 67 years in 2003.

**For more information, see:** Tables 51 to 58 beginning on page 125. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

## Mortality from breast cancer by region, females aged 50–69 years, 1999–2003



	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
<b>Rate 1999–2003</b>	54.0	55.1	50.8	55.3	49.3	47.4
<b>95% CI</b>	52.5–55.5	53.3–57.0	47.8–53.9	50.8–60.1	37.9–62.7	30.3–70.2

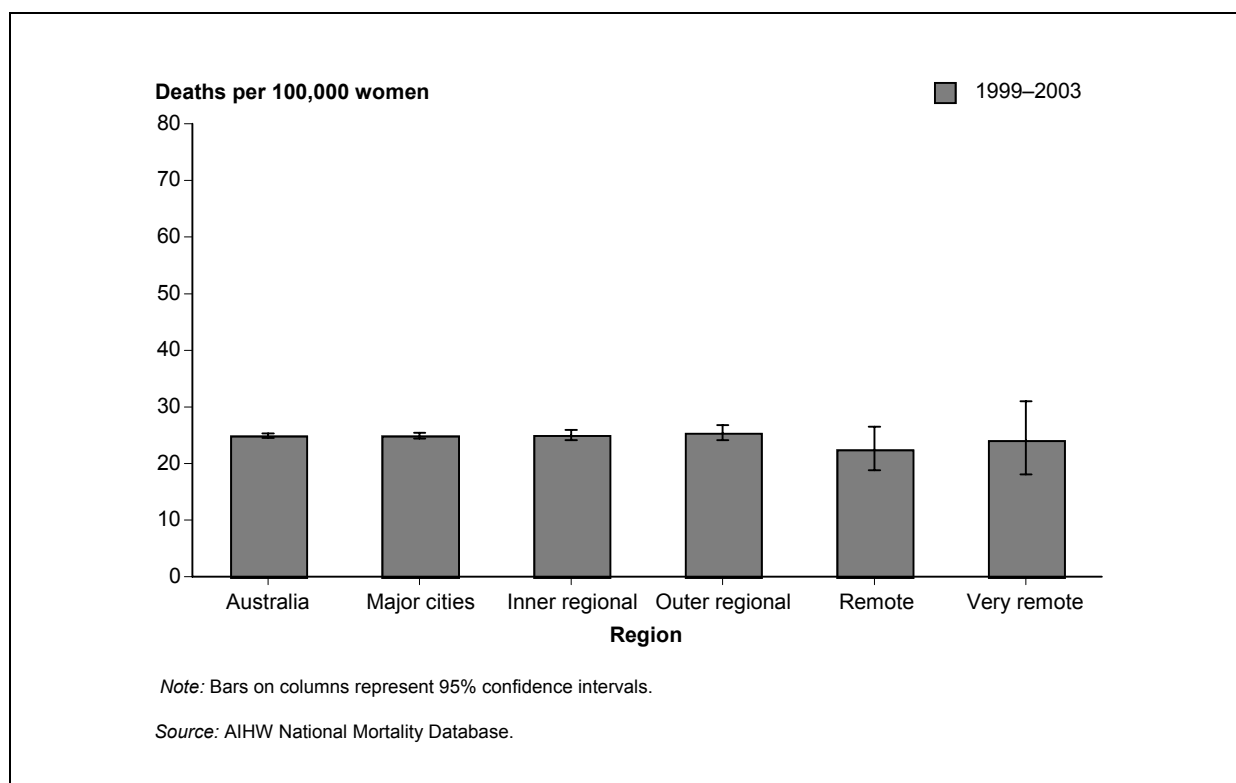
### Notes

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. AIHW Mortality data by ASGC remoteness categories are available from 1997 only; therefore, there is no comparable non-overlapping 5-year period prior to 1999–2003.

- For women in the target age group, mortality rates in 1999–2003 were highest in outer regional areas with 55.3 deaths per 100,000 women, and lowest in very remote areas, with 47.4 deaths per 100,000 women. The difference was not statistically significant because the relatively small number of deaths in very remote areas have wide confidence intervals.

**For more information, see:** Tables 51 to 58 beginning on page 125. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

## Mortality from breast cancer by region, females all ages, 1999–2003



	Australia	Major cities	Inner regional	Outer regional	Remote	Very remote
<b>Rate 1999–2003</b>	24.9	24.9	25.0	25.4	22.5	24.1
<b>95% CI</b>	24.5–25.3	24.3–25.4	24.1–25.9	24.0–26.8	18.9–26.5	18.1–31.0

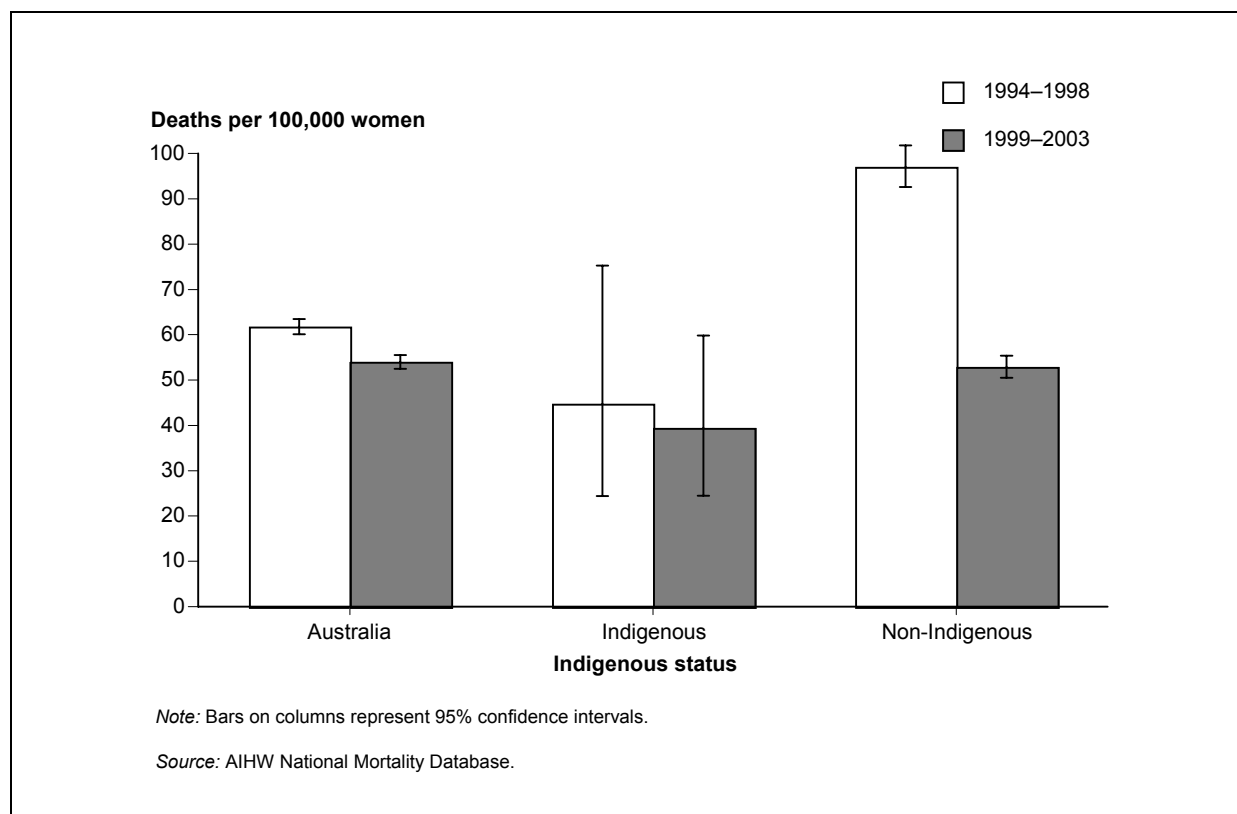
### Notes

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. AIHW Mortality data by ASGC remoteness categories are available from 1997 only; therefore, there is no comparable non-overlapping 5-year period prior to 1999–2003.

- For women of all ages, mortality rates in 1999–2003 were highest in outer regional areas with 25.4 deaths per 100,000 women, and lowest in remote areas, with 22.5 deaths per 100,000 women. The difference between the rates was not statistically significant because the relatively small number of deaths in remote areas have wide confidence intervals.

**For more information, see:** Tables 51 to 58 beginning on page 125. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

## Mortality from breast cancer by Indigenous status, females aged 50–69 years, 1994–1998 and 1999–2003



	Australia	Indigenous	Non-Indigenous
<b>Rate 1999–2003</b>	54.0*	39.4	52.9*
<i>95% CI</i>	52.5–55.5	24.5–59.8	50.5–55.4
<b>Rate 1994–1998</b>	61.8	44.8	97.1
<i>95% CI</i>	60.1–63.6	24.4–75.3	92.5–101.8

\* Statistically different from the 1994–1998 rate.

### Notes

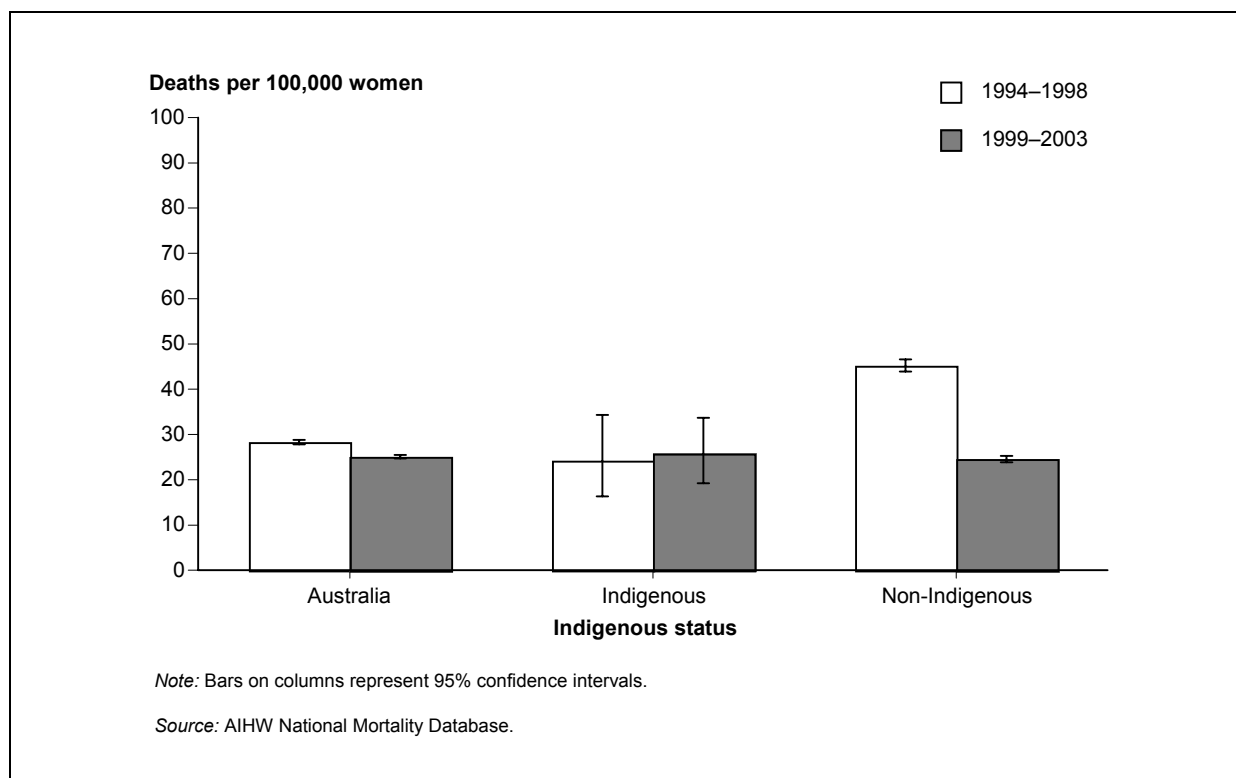
1. Only Queensland, Western Australia, South Australia and the Northern Territory had Indigenous death registration data considered to be of a publishable standard at the time this report was prepared. Therefore, data from these jurisdictions only are included in the analysis by Indigenous status. Queensland data are included from 1998 onwards.
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.

- In 1999–2003 in the target age group, the age-standardised mortality rate for Indigenous women in Queensland, Western Australia, South Australia and Northern Territory combined (39.4 deaths per 100,000 women) was lower than that for non-Indigenous women (52.9 deaths per 100,000 women); however, this difference was not statistically significant. In 1994–1998 there was a statistically significant difference in mortality rates between the Indigenous and non-Indigenous populations (44.8 and 97.1 deaths per 100,000 women, respectively).
- Across the time periods from 1994–1998 to 1999–2003 the national mortality rates decreased from 61.8 to 54.0 deaths per 100,000 women, respectively. Similarly, mortality

rates for non-Indigenous women decreased from 97.1 in 1994–1998 to 52.9 deaths per 100,000 women in 1999–2003. For Indigenous women, the mortality rates decreased from 44.8 to 39.4 deaths per 100,000 women over the same time periods; however, these changes were not statistically significant.

**For more information, see:** Tables 51 to 58 beginning on page 125. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

## Mortality from breast cancer by Indigenous status, females all ages, 1994–1998 and 1999–2003



	Australia	Indigenous	Non-Indigenous
<b>Rate 1999–2003</b>	25.1*	25.8	24.6*
<i>95% CI</i>	24.6–25.5	19.2–33.6	23.9–25.3
<b>Rate 1994–1998</b>	28.3	24.2	45.2
<i>95% CI</i>	27.8–28.8	16.3–34.3	43.8–46.5

\* Statistically different from the 1994–1998 rate.

### 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. Queensland data are included from 1998 onwards.
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.

- In 1999–2003 the age-standardised mortality rate for Indigenous women of all ages in Queensland, Western Australia, South Australia and Northern Territory combined (25.8 deaths per 100,000 women) was not very different from the rate for non-Indigenous women (24.6 deaths per 100,000 women) and from the national rate (25.1 deaths per 100,000 women).
- Across the years from 1994–1998 to 1999–2003, the national mortality rate decreased from 28.3 to 25.1 deaths per 100,000 women respectively. Similarly, for non-Indigenous women, the mortality rate decreased from 45.2 to 24.6 deaths per 100,000 women over the same time periods. The mortality rates for Indigenous women increased from 24.2 in

1994-1998 to 25.8 deaths per 100,000 women in 1999-2003, although this change was not statistically significant.

**For more information, see:** Tables 51 to 58 beginning on page 125. Tables with data other than for the latest reporting period can be found on the AIHW's web site at <[www.aihw.gov.au](http://www.aihw.gov.au)>.

