Indicator 6: Mortality

Cancer of the cervix is one of the few cancers for which there is an efficacious screening test for detection of precursors of the disease. Most deaths due to cervical cancer are potentially avoidable (Marcus & Crane 1998). The objective of the National Cervical Screening Program is to reduce this mortality rate.

The three mortality indicators for the Program are mortality by age and state; mortality by location (metropolitan, rural and remote); and Indigenous mortality (Indigenous and other Australian women). However, it should be noted that changes in mortality rates may not be evident for a number of years following an improvement in the participation rate. Therefore, the effectiveness of this measure needs to be viewed in the longer rather than the shorter term.

Data issues

Two major changes that have occurred in the classification and processing of Australian mortality data require some caution when interpreting mortality data over time. They are:

1. the introduction of the tenth revision of the International Classification of Diseases (ICD-10) for classifying deaths registered from 1 January 1997; and
2. the introduction by the Australian Bureau of Statistics (ABS) of the Automated Coding System for processing deaths registered from 1 January 1997.

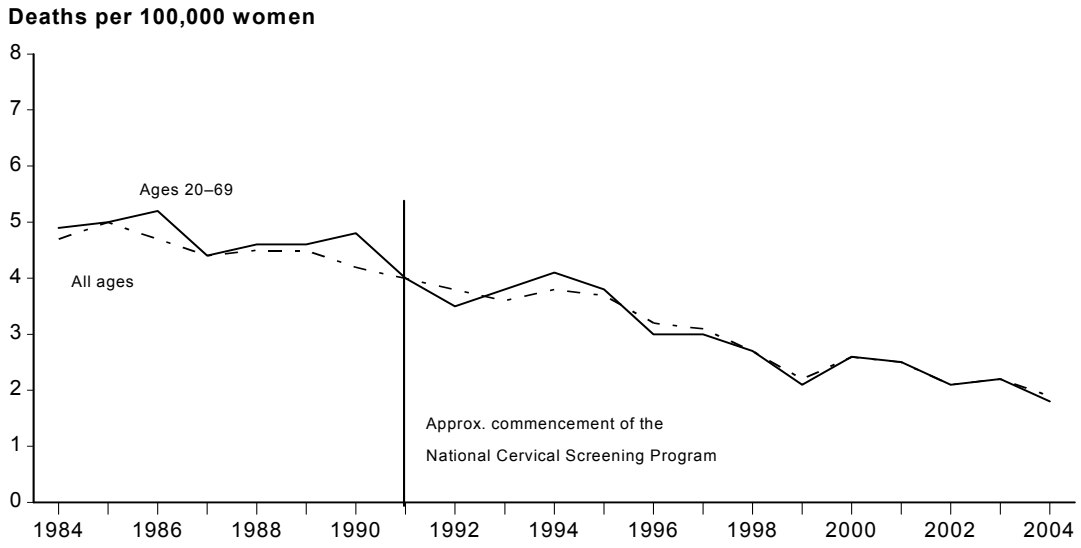
As a result, a break occurred in the mortality data series. In order to make mortality data coded using ICD-9 and ICD-10 comparable, the ABS derived comparability factors to adjust data based on ICD–9. These comparability factors are derived from the movements in the underlying causes of death coded in ICD–9 compared with ICD–10 (ABS 2000).

For cervical cancer deaths, the comparability factor is 0.98, and the pre-1997 mortality data presented in this report have been adjusted accordingly. The effect of this is that the pre-1997 number of deaths appearing in this report are slightly different from figures in some earlier *Cervical screening in Australia* reports.

Indicator 6.1: Mortality by age group

Death rate from cervical cancer per 100,000 estimated resident female population in a 12-month period for females of all ages and for the target age group 20–69 years.

Trend in mortality from cervical cancer



Notes

1. Rates are expressed per 100,000 females and age-standardised to the Australian 2001 population.
2. Deaths were derived by year of registration.

Source: AIHW Mortality Database.

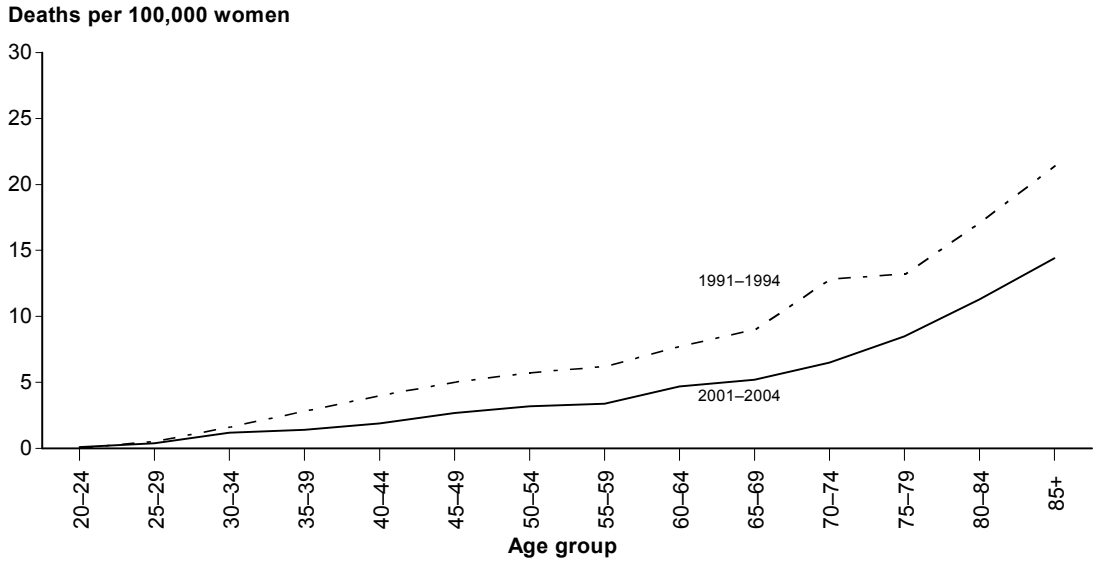
Figure 17: Age-standardised death rates from cervical cancer, 1984–2004

	Year																			
	85	**86**	**87**	**88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**
All ages	5.0	4.7	4.4	4.5	4.5	4.2	4.0	3.8	3.6	3.8	3.7	3.2	3.1	2.7	2.2	2.6	2.5	2.1	2.2	1.9
Ages 20–69	5.0	5.2	4.4	4.6	4.6	4.8	4.0	3.5	3.8	4.1	3.8	3.0	3.0	2.7	2.1	2.6	2.5	2.1	2.2	1.8

- Cervical cancer was the 18th most common cause of cancer deaths in Australian women in 2004, accounting for 212 deaths.
- The age-standardised death rate from cervical cancer for females of all ages has fallen from 4.0 per 100,000 females in 1991 at the start of the screening program to 1.9 per 100,000 women in 2004.

For more information, see Tables 31 and 32 beginning on page 60.

Mortality by age



Notes

1. Rates are expressed per 100,000 women.
2. Deaths were derived by year of registration.

Source: AIHW Mortality Database.

Figure 18: Age-specific cervical cancer death rates, by age group, 1991–1994 and 2001–2004

	Age group													
Period	**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+**
1991–1994	0.1	0.6	1.7	2.9	4.1	5.1	5.8	6.3	7.8	9.1	12.9	13.3	17.2	21.5
2001–2004	0.1	0.4	1.2	1.4	1.9	2.7	3.2	3.4	4.7	5.2	6.5	8.5	11.3	14.4

- Mortality from cervical cancer between the periods 1991–1994 and 2001–2004 declined in all age groups for women aged 25 years and over.
- Age-specific rates of cervical cancer mortality increase with age. The highest mortality rate in 2001–2004 was in women aged 85 years and over with 14.4 deaths per 100,000 women.

For more information, see Tables 33 and 36 beginning on page 62.

Mortality by states and territories

Notes

1. The age-standardised rates were averaged over four years to smooth annual variations that may occur in the smaller states and territories.
2. Deaths derived by year and state of registration.
3. Rates are expressed per 100,000 women and age-standardised to the Australian 2001 population.
4. Bars on graphs represent 95% confidence intervals.

Source: AIHW Mortality Database.

Figure 19: Age-standardised cervical cancer death rates in women aged 20–69 years, states and territories, 1997–2000 and 2001–2004

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
Rate 1997–2000	2.7	2.0	3.0	3.0	1.9	3.6	3.8	4.7	2.6
95% CI	2.3–3.0	1.6–2.4	2.5–3.6	2.3–3.8	1.3–2.6	2.3–5.4	2.0–6.4	2.0–9.1	2.4–2.8
Rate 2001–2004	2.2	1.6	2.2	2.3	2.5	3.6	2.0	4.4	2.1
95% CI	1.9–2.5	1.3–2.0	1.8–2.6	1.8–3.0	1.9–3.3	2.2–5.4	0.8–3.9	1.8–8.6	1.9–2.3

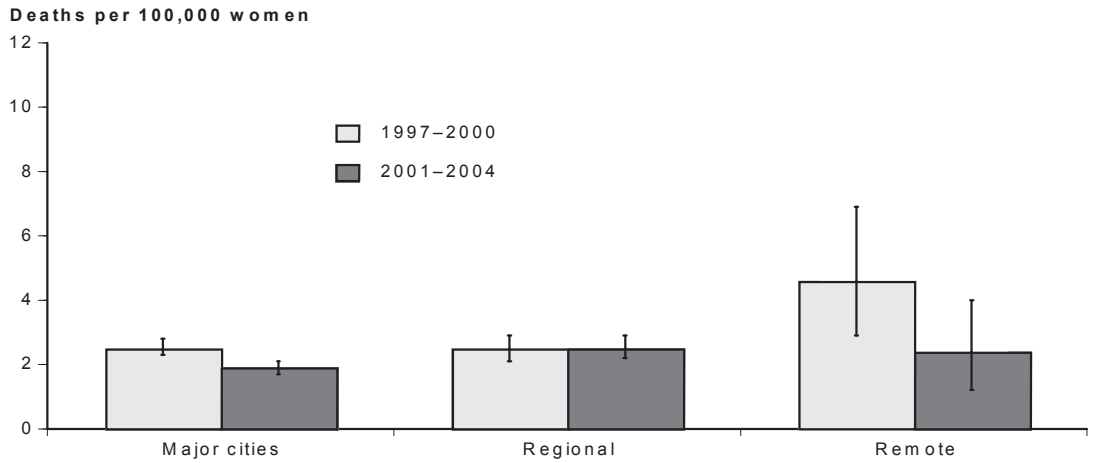
- In the four-year period 2001–2004 there were 939 deaths from cervical cancer in all states and territories compared with 1,046 in 1997–2000.
- Age-standardised mortality varied from 1.6 deaths per 100,000 females in Victoria to 4.4 per 100,000 in the Northern Territory in the 2001–2004 period.
- The age-standardised death rates decreased in all jurisdictions between the two periods except in South Australia where the rate increased from 1.9 to 2.5 and in Tasmania where the rate did not change. Although the decline at the national level from 2.6 deaths per 100,000 women in 1997–2000 to 2.1 per 100,000 in 2001–2004 was significant, the numbers in each jurisdiction were too small for any changes to be statistically significant.

For more information, see Tables 33 and 36 beginning on page 62.

Indicator 6.2: Mortality by location

Death rate from cervical cancer per 100,000 estimated resident female population in a 4-year period by location for females of all ages and for the target age group 20–69 years.

Mortality by location



Notes

1. Age-standardised rates are presented as four-year rolling blocks of data.
2. Deaths were derived from place of usual residence and by year of registration.
3. Rates are expressed per 100,000 females and age-standardised to the Australian 2001 population.
4. Bars on graphs represent 95% confidence intervals.
5. The ASGC has been used in this report and the 2001–2002 report; previous reports used the RRMA classification (see page xiii).

Source: AIHW Mortality Database.

Figure 20: Age-standardised cervical cancer death rates, by location, women aged 20–69 years, 1997–2000 and 2001–2004

	Major cities		Regional		Remote	
	1997–2000	2001–2004	1997–2000	2001–2004	1997–2000	2001–2004
Rate	2.5	1.9	2.5	2.5	4.6	2.4
95% CI	2.2–2.8	1.7–2.1	2.2–2.9	2.2–2.9	2.9–6.9	1.2–4.0

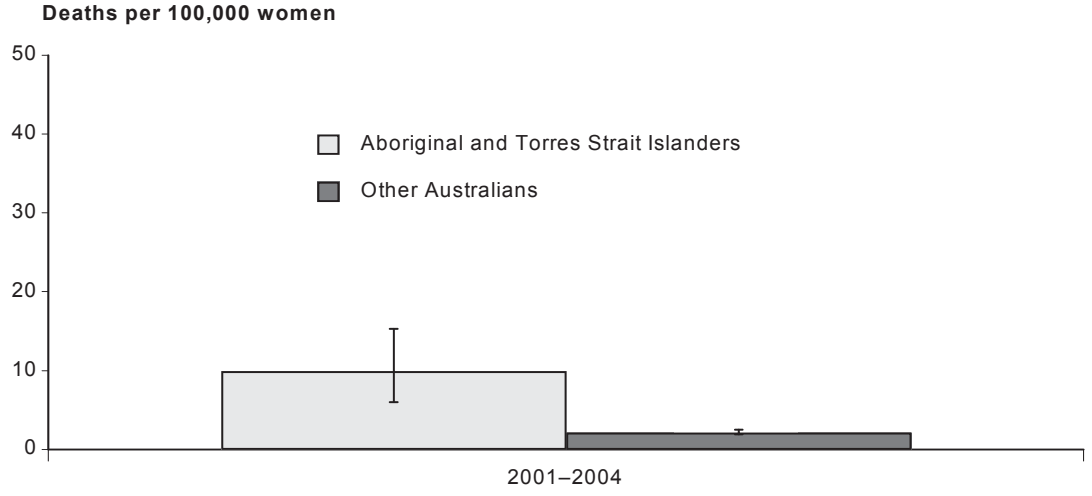
- During the four-year period 2001–2004 in major cities, there were 589 deaths (62.7% of all cervical cancer deaths in that period) in major cities, 324 deaths in regional areas (34.5% of all cervical cancer deaths) and 23 deaths in remote areas (2.5% of all cervical cancer deaths).
- In major cities and remote areas the age-standardised mortality rates declined between the periods 1997–2000 and 2001–2004 whereas in regional areas there was no change between the two periods. The decline in major cities was statistically significant. The largest overall mortality reduction, of 48%, was in remote areas, but these rates are based on small numbers and have a high standard error, and therefore should be treated with caution.

For more information, see Tables 37 and 38 beginning on page 66.

Indicator 6.3: Indigenous mortality

Death rate from cervical cancer per 100,000 estimated resident female population in a four-year period by Indigenous status for females of all ages and for the target age group 20–69 years.

Mortality by Indigenous status



Notes

1. Age-standardised rates are presented as a four-year rolling block of data.
2. Deaths were derived by state and year of registration.
3. Rates are expressed per 100,000 females and age-standardised to the Australian 2001 population.
4. Only Queensland, Western Australia, South Australia and the Northern Territory have Indigenous death registration data considered to be of a publishable standard.
5. Bars on graphs represent 95% confidence intervals.

Source: AIHW Mortality Database.

Figure 21: Age-standardised cervical cancer mortality rates, by Indigenous status, women aged 20–69 years (Queensland, Western Australia, South Australia and Northern Territory), 2001–2004

	Aboriginal and Torres Strait Islander women	Other Australian women
AS rate (A)	9.9	2.1
95% CI	6.0–15.3	1.9–2.5

Only Indigenous mortality data from Queensland, Western Australia, South Australia and the Northern Territory are considered to be statistically reliable. Therefore, cervical cancer mortality data used in this analysis are confined to these jurisdictions.

- The age-standardised mortality rate attributable to cervical cancer among Aboriginal and Torres Strait Islander women aged 20–69 years in the 2001–2004 period was 9.9 per 100,000 women and was 4.7 times higher than the mortality rate for other Australian women in the same age range.

For more information, see Table 39 on page 68.