

**Cervical screening
in Australia
2001–2002**

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**The Australian Institute of Health and Welfare
and the
Australian Government Department of Health and Ageing
for the
National Cervical Screening Program**

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Summary

This report is the sixth national report on the performance of the National Cervical Screening Program in Australia. Cervical screening services are provided as part of mainstream health services with general practitioners performing approximately 80% of Pap smears. The program is funded by the Australian Government, and the state and territory governments (AIHW & AACR 2002).

This report presents statistics on the performance monitoring indicators agreed to by the National Advisory Committee to the program.

Overview

The major goals of the program are to reduce incidence and mortality through screening to detect abnormalities of the cervix early so that medical intervention can avert the possible progression to cervical cancer.

The statistics in this report show that the program is continuing to be very successful in meeting this goal. The combined detection rate of both high- and low-grade abnormalities in 2002 was approximately 1.8% (33,096) of all screens; consequently incidence of cervical cancer was halved among women aged 20–69 from 18.0 per 100,000 women in 1989 to 9.5 in 2000 and the mortality rate has declined by 61% from 5.4 per 100,000 women in 1982 to 2.1 in 2002.

The participation level is currently around 61.0%; this is a decline from 63.4% reported in 1998–1999. Part of the reason for the decline is in improvements in measurement by the screening programs of participation. However, the level of participation suggests that there is scope for further improvements in the rate of screening. This is of particular importance for Indigenous women; cervical cancer incidence was higher among Indigenous women than among non-Indigenous women in Queensland and the Northern Territory, the only jurisdictions for which adequate data were available (ABS & AIHW 2003).

The other main features in this report are described below.

Participation

- From January 2001 to December 2002 there were 3,331,013 women screened in Australia for pre-cancerous changes to cervical cells; the target age group, 20–69 years, accounted for 98% of the women screened. These figures exclude women from the Northern Territory because data were unavailable.
- The national participation rate for women aged 20–69 declined from 63.4% in 1998–1999 to 61.3% in 1999–2000; since then the rate has stabilised at 61.0% for the 2000–2001 and 2001–2002 reporting periods.

Early re-screening

- The recommended screening interval is 2 years following a negative smear. Of a cohort of women screened in February 2001 who had a negative Pap smear result, 29% were screened again within 21 months. It is not known what proportion of this early re-screening is justified on clinical grounds.
- There has been an improvement in the proportion of women following a normal Pap smear who are being re-screened within the recommended 2-year interval. For the February 2001 cohort the re-screening rate was 29%, while for the February 1999 and 2000 cohorts it was 32%.

- A low-grade abnormality includes atypia, warty atypia, possible cervical intraepithelial neoplasia (CIN), equivocal CIN, and CIN 1. A high-grade abnormality is defined to include CIN 1/2, CIN 2 and CIN 3 or adenocarcinoma in situ. The ratio of histologically confirmed low-grade abnormalities to high-grade abnormalities was 1.26 for Australia in 2002 compared with 1.34 in 2001; the ratio has fluctuated each year between 1.26 and 1.47 since 1997. The 2001 and 2002 ratios did not include data for the Northern Territory.
- In 2002, the National Cervical Screening Program detected 14,590 women in the target age group 20–69 years with high-grade abnormalities. The number of high-grade abnormalities detected per 1,000 women screened was highest in the younger age groups. For women under 30 years of age, the rate of high-grade abnormalities was over 10 per 1,000 women screened whereas it was less than 2 per 1,000 women aged 50–69 years.

Incidence and mortality

- In 2000 there were 89 new cases of micro-invasive cervical cancer for women of all ages; all but 3 of these women were in the target age group, 20–69 years. The highest detection rates were for women in the 30–34 and 45–49 age groups.
- The number of new cases of cervical cancer in Australia has continued to decline. There were 745 new cases in Australia in 2000 compared with 1,072 detected in 1989 prior to the start of the screening program.
- Cervical cancer is the 18th most common cause of cancer mortality in women, accounting for 227 deaths in 2002. Although there was some fluctuation from year to year, the age-standardised mortality rate from cervical cancer declined between 1982 and 2002. For all women aged 20 years and over there was a decline from 5.1 deaths per 100,000 women in 1982 to 2.1 per 100,000 in 2002. During the same period, for women in the target age group of 20–69 years, the rate declined from 5.4 per 100,000 to 2.1 per 100,000.
- Women in the target age group from remote locations experienced relatively high incidence and mortality rates from cervical cancer compared with women in major cities. A contributor to the higher incidence and mortality rates in remote locations was the higher incidence (ABS & AIHW 2003) and mortality rates among Indigenous women who make up a greater proportion of the remote population than they do in the major cities. The cervical cancer mortality rate for Indigenous women was 14.9 per 100,000 women aged 20–69 and 18.9 for women of all ages in the period 1999–2002.
- Between the periods 1995–1998 and 1999–2002, the age-standardised cervical cancer mortality rate declined in all regions (major cities, regional and remote).
- Prior to 1998, only Western Australia, South Australia and the Northern Territory had Indigenous mortality registration data of sufficient quality to be publishable. In 1998, Queensland's coverage of Indigenous deaths reached an acceptable level to be included in the analysis of Indigenous mortality data. For these jurisdictions, in the period 1999–2002 there were 24 deaths from cervical cancer among Indigenous women in the target age group (an age-standardised mortality rate of 14.9 per 100,000 women). This is almost six times the corresponding rate in non-Indigenous women (2.5 per 100,000 in 1999–2002). However, these rates are based on relatively small numbers of cases and may be subject to large variability.

National cervical screening monitoring indicators

This report monitors the performance of the National Cervical Screening Program using ten indicators which measure program activity, performance and outcome. They help measure changes in disease patterns and examine the contribution health interventions may have in preventing or reducing deaths. They can also be used to help evaluate screening or other health interventions.

Screening indicators for the National Cervical Screening Program cover the areas of participation, early re-screening, low- and high-grade abnormality detection, incidence and mortality. These have been endorsed by the National Advisory Committee and state and territory cervical screening programs. A listing of the ten indicators and their definitions follows. The target age group for the National Cervical Screening Program is 20 to 69 years.

Indicator 1: Participation rate for cervical screening

Percentage of women screened in a 24-month period by 5-year age groups (20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69), for all ages (20–80+) and the target age group (20–69 years).

Indicator 2: Early re-screening

Proportion of women re-screened by number of re-screens during a 21-month period following a negative smear.

Indicator 3: Low-grade abnormality detection

Number of women with a histologically verified low-grade intraepithelial abnormality detected in a 12-month period as a ratio of the number of women with a histologically verified high-grade intraepithelial abnormality detected in the same period.

Indicator 4: High-grade abnormality detection

Detection rate for histologically verified high-grade intraepithelial abnormalities per 1,000 women screened in a 12-month period by 5-year age groups (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+) and for the target age group (20–69 years, age-standardised).

Indicator 5.1: Incidence of micro-invasive squamous cell carcinoma

Incidence rate of micro-invasive squamous cell carcinoma per 100,000 estimated resident female population in a 12-month period by 5-year age groups (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+) and for the target age group (20–69 years, age-standardised).