

Incidence

The major objective of the National Cervical Screening Program is to minimise the incidence of cervical cancer by detecting treatable pre-cancerous lesions before their progression to cancer. However, where these pre-cancerous lesions cannot be detected, diagnosis of cancer at its earliest stage, the micro-invasive stage, is the best alternative. The next two indicators measure the incidence rates of micro-invasive and all cervical cancers in the community. These indicators provide information for formulating policy and allocating resources to deal with the disease. The indicators also provide information on the impact of screening on the disease.

In 1994 the International Federation of Gynaecology and Obstetrics endorsed the following definition of micro-invasive carcinoma of the cervix:

Stage 1a1. Measured invasion of stroma no greater than 3 mm in depth and no wider than 7 mm.

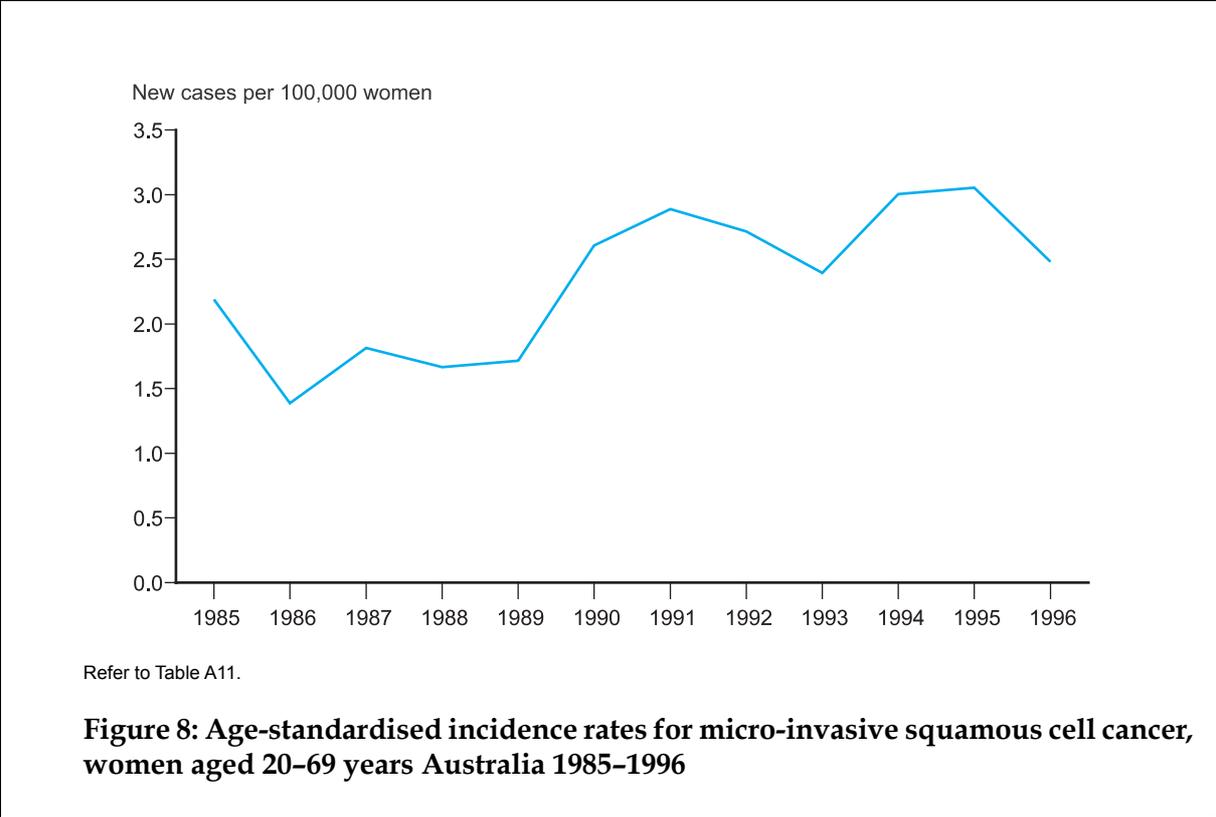
Stage 1a2. Measured invasion of stroma greater than 3 mm and no greater than 5 mm in depth and no wider than 7 mm. The depth of invasion should not be more than 5 mm taken from the base of the epithelium, either surface or glandular, from which it originates.

Vascular space involvement, either venous or lymphatic, should not alter the staging. (Ostor & Mulvany 1996).

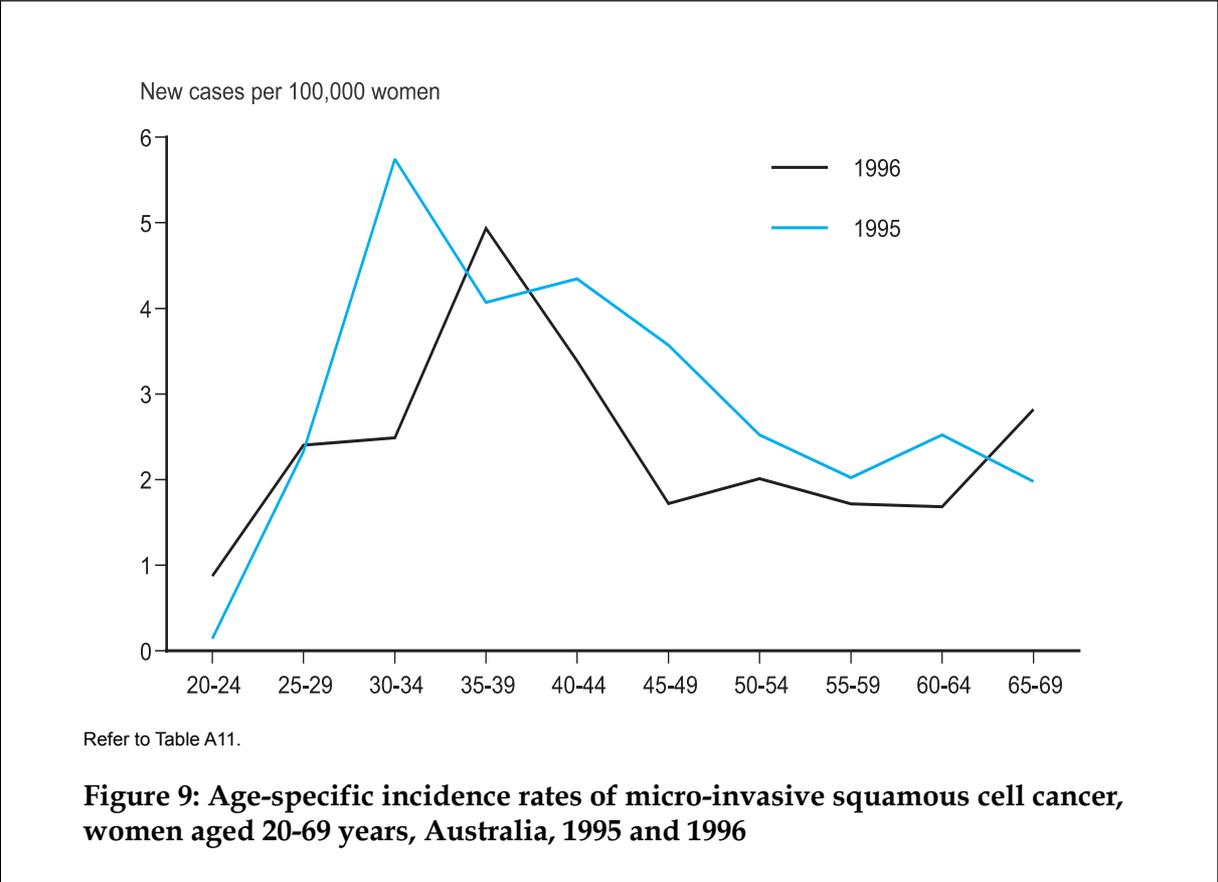
Cervical screening has been available on an ad hoc basis since the 1960s, but it is only since the late 1980s and early 1990s that there has been an organised national approach to screening at a population level. The introduction of cervical screening programs may result in the paradox whereby in the short term the number of new cases of micro-invasive cancer increases because cancers are found earlier than they would have been without screening, with the rate of more advanced cancers decreasing in the longer term.

Indicator 5: Incidence of micro-invasive cervical cancer

Incidence rate of micro-invasive cervical cancer 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).



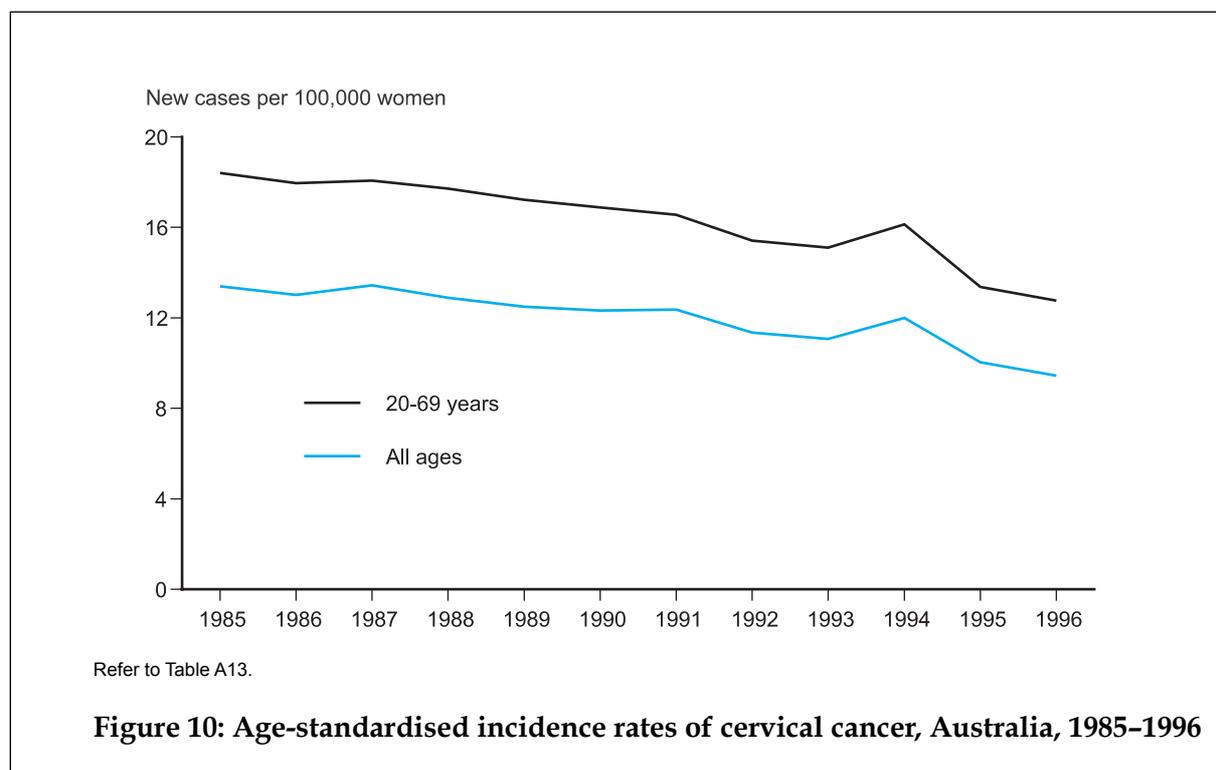
- The age-standardised incidence rate of micro-invasive cervical cancer was 1.6 per 100,000 for all women in 1996, and 2.5 per 100,000 for the target age group 20-69 years (Table A11).
- In 1996 there were 151 new cases of micro-invasive cervical cancer among women of all ages, and for the target age group 20-69 years there were 144 new cases (Table A10).
- The age-standardised incidence rate for micro-invasive squamous cell carcinoma of the cervix has fluctuated during the period 1985-1996, but, in general, has continued to show an upward trend. The increase in micro-invasive squamous cell carcinoma is a positive one as long as it is offset by a decline in later stage cancers (Table A11).



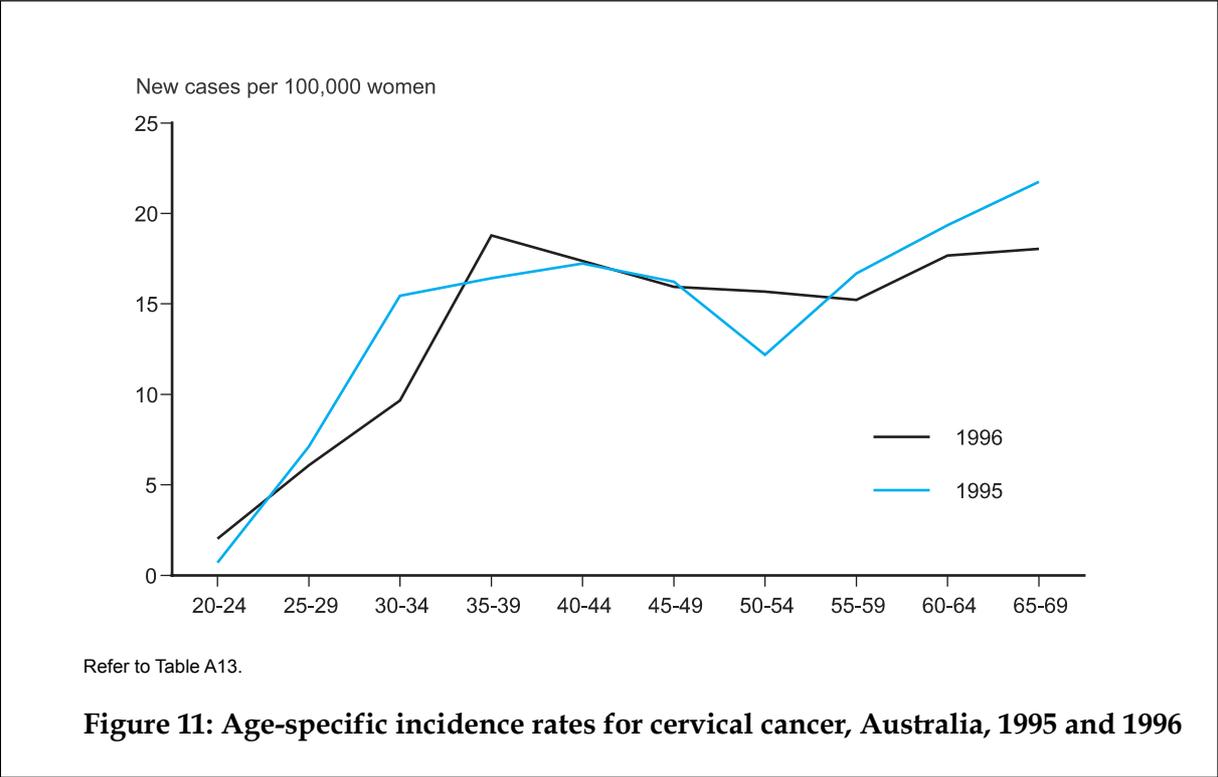
- In 1996, women in the 35–39 years age group had the highest rate of micro-invasive squamous cell cancer at 4.9 per 100,000 women, whereas in 1995 women in the 30–34 years age group had the highest incidence. The rate declined with age until the 60–64 years age group (1.7 per 100,000 women). The increase in rate for women in the 65–69 years age group reflects the relatively small number of cases in this age group (10 cases) (Table A11).
- In 1996, there were 36 cases of micro-invasive squamous cell cervical cancer in women aged 35–39 years. The number of cancers declined to 10 or less for women in their sixties (Table A10).

Indicator 6: Incidence of squamous, adenocarcinoma, adeno-squamous and other cervical cancer

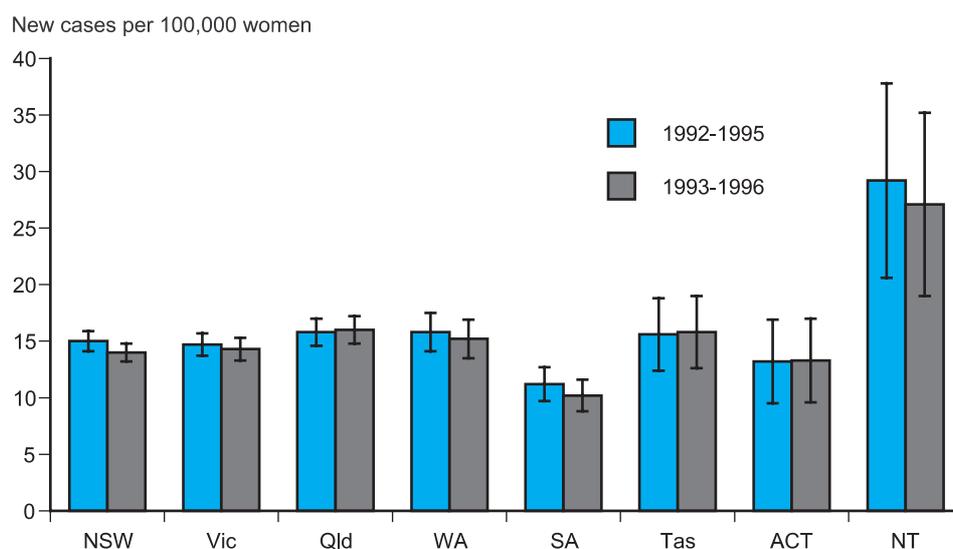
Incidence rate of squamous, adenocarcinoma, adeno-squamous and other cervical cancer per 100,000 estimated resident female population in a 12-month period by 5-year age groups (20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+) and for the target age group (20-69 years – age-standardised).



- In 1996, the incidence rate of all cervical cancers declined to 9.4 per 100,000 for all women in Australia, and 12.8 per 100,000 for the target group (Table A13).
- In 1996, cervical cancer was the ninth most frequently diagnosed new cancer. There were 923 new cases of cervical cancer diagnosed in Australia in 1996, of these 751 were women in the target age group 20-69 years (Table A12).
- Between 1985 and 1996 the age-standardised incidence rate for cervical cancer for women of all ages declined by more than 29%, and for the target age group by nearly 31% (Table A13).



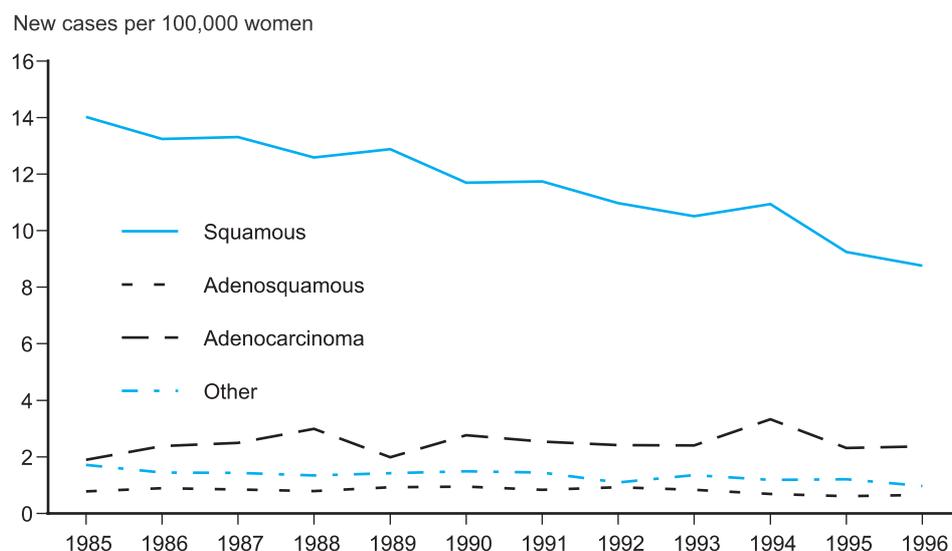
- The age-specific rate of cervical cancer differs from most other cancers in that it rises rapidly in women in the young age groups; in 1996 the age-specific rate for women aged 35–39 years was 18.8 per 100,000 women. From that age, the rate declines slightly until the age group 55–59, after which it shows an upward trend.



Refer to Table A15.

Figure 12: Age-standardised cervical cancer incidence rate by women aged 20–69 years, by State and Territory, 1992–1995 and 1993–1996

- There was a considerable range in cervical cancer incidence between States and Territories for women aged 20–69 years. In the period 1993–1996 South Australia had the lowest incidence at 10.2 per 100,000 women compared with the Northern Territory which had the highest rate of 27.1 per 100,000 women. However, only Northern Territory was significantly different from the other States and the Australian Capitol Territory (Table A15).
- There was a decrease in the incidence rate of cervical cancer in New South Wales (6.6%), Victoria (2.7%), South Australia (8.9%) and the Northern Territory (7.2%) between the two periods 1992–1995 (see AIHW 1998a) and 1993–1996 (Table A15).



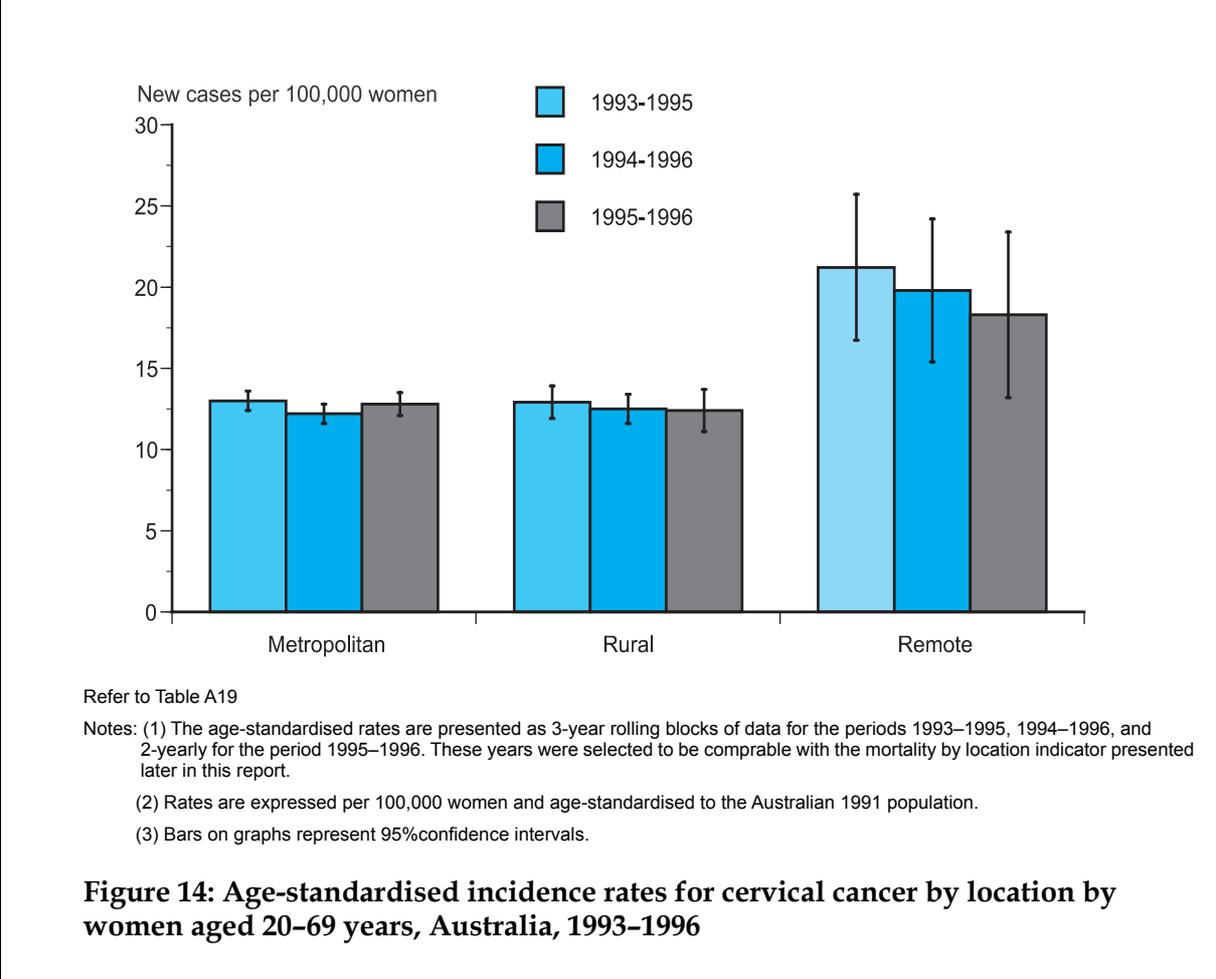
Refer to Table A17.

Figure 13: Age-standardised incidence rates for cervical cancer by histological type by women aged 20–69 years, Australia, 1985–1996

- There are several forms of cervical cancer. The greatest proportion of cervical cancers are squamous cell carcinomas and adenocarcinomas or combination of these.
- In 1996, squamous cell carcinomas of the cervix accounted for approximately 68.6% of all cervical cancers, adenocarcinomas 18.6%, adeno-squamous 5.2% and a range of other mixed and unknown histologies comprised the remaining 7.6% (Table A16).
- Squamous cell carcinoma of the cervix is mostly preceded, over a period of years, by a spectrum of asymptomatic abnormalities known as cervical intraepithelial neoplasia (CIN) graded as CIN 1 (mild dysplasia), CIN II (moderate dysplasia) and CIN III (severe dysplasia and carcinoma in situ). CIN usually occurs at least a decade before cervical cancer. If CIN remains untreated, some women will develop cervical cancer while others will progress to invasive cervical cancer, despite treatment (Jelfs 1995).
- Because of the high risk associated with squamous cell carcinoma of the cervix, the National Cervical Screening Program aims to detect this type of cancer early.

Indicator 8: Incidence by location

Incidence rate of cervical cancer per 100,000 estimated resident female population in a 3-year period by location 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).



- In the 2-year period 1995–1996 there were 1,334 new cases (72% of all new cases) of cervical cancer in metropolitan locations, 453 new cases (25% of all new cases) in rural locations and 58 new cases (3% of all new cases) in remote locations (Table A18).
- The age-standardised cervical cancer incidence rate for women in the target age group 20–69 years was highest in remote locations (18.3 per 100,000 women) in the period 1995–1996. During the same period the rate for cervical cancer deaths in metropolitan and rural locations were 12.8 and 12.4 per 100,000 women (Table A19).
- There was no significant change in the age-standardised incidence rate of cervical cancer between the periods 1994–1996 and 1995–1996 in all three locations.
- The higher rate in remote location probably reflects to a large extent the relatively high proportion of Indigenous women in this location.