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for the National Cervical Screening Program**

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Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au> for any amendments.

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Abbreviations

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
AMBS 2004	Australian Modified Bethesda System 2004
ARIA	Accessibility/Remoteness Index for Australia
ASGC	Australian Standard Geographical Classification
AS rate	age-standardised rate
AS rate (A)	age-standardised rate, standardised to the Australian 2001 Population
AS rate (W)	age-standardised rate, standardised to the (WHO) World Standard Population
CD	census Collection District
CI	confidence interval (see Appendix C)
CIN	cervical intraepithelial neoplasia
DoHA	Department of Health and Ageing
ERP	estimated resident population
HPV	human papillomavirus
ICD	International Classification of Diseases
NCSP	National Cervical Screening Program
NHMRC	National Health and Medical Research Council
NSW	New South Wales
NT	Northern Territory
Pap	Papanicolaou
Qld	Queensland
SA	South Australia
SEIFA	Socio-Economic Index for Areas
SES	socioeconomic status
Tas	Tasmania
Vic	Victoria
WA	Western Australia
WHO	World Health Organization

Summary

The National Cervical Screening Program is a joint program of the Australian Government and state and territory governments. The main objective of the Program is to reduce incidence and mortality from cervical cancer through organised cervical screening. The target age group is women aged 20–69 years.

Cervical screening in Australia 2006–2007 is the 11th annual report on key program activity, performance and outcome indicators to monitor the achievements of the National Cervical Screening Program. This report, a comprehensive national picture of cervical screening in Australia for 2006–2007, combines data provided by state and territory cervical screening programs, as well as data sourced from the National Cancer Statistics Clearing House and the AIHW Mortality Database. It presents the most recent information on the six Program performance indicators that cover participation in cervical screening, rate of early re-screening, low- and high-grade abnormality detection, and incidence and mortality of cervical cancer.

Participation in cervical screening

The number of women 20–69 years participating in cervical screening in Australia increased from 2,563,107* in 1996–1997, when reporting commenced, to 3,549,524 in 2006–2007.

Two-year participation in 2006–2007 was 61.5% for women aged 20–69 years. This is the highest participation has been since it peaked at 63.4% in 1998–1999. Higher participation in cervical screening means that more women with pre-cancerous abnormalities can be detected and managed before progression to cervical cancer, thus reducing incidence and mortality.

Three-year participation for 2005–2007 was 74.0% and 5-year participation for 2003–2007 was 86.4% for women aged 20–69 years, indicating that Australia has comparable participation rates to international cervical screening programs.

Compliance with recommended screening interval

The proportion of women who were re-screened early following a normal Pap test has continued to decline from 32.0% in a cohort of women from 1999 to 23.1% in a cohort of women from 2006. This trend indicates greater compliance with the recommend screening interval of 2 years, which is important for maintaining the cost-effectiveness of the Program.

Detection of abnormalities

The detection of high-grade abnormalities by histology in women aged 20–69 years was 7.0 per 1,000 women screened in 2007, lower than the 2006 rate of 7.3. Most high-grade abnormalities were detected in women aged 20–34 years.

Incidence and mortality of cervical cancer

Incidence and mortality of cervical cancer in Australia remain low, consistent with the Program's aim to reduce incidence and mortality. There were 9.2 new cases per 100,000 women in 2005, and 1.9 deaths per 100,000 women in 2006 (aged 20–69 years). Incidence for Aboriginal and Torres Strait Islander women has been estimated to be more than double (ABS & AIHW 2008), and mortality found to be five times that of other Australian women.

* Note that this figure does not include women screened by the Queensland program.

Summary trend comparison table for national data for women 20–69 years

	Current reporting period		Previous reporting period		Reporting commencement	
Indicator	**Year(s)**		**Year(s)**		**Year(s)**	
Participation in 2-year period (per cent) (age-standardised rate)	2006–2007	61.5	2005–2006	60.6	1996–1997	61.0
Participation in 3-year period (per cent) (age-standardised rate)	2005–2007	74.0	2004–2006	73.1	2004–2006	73.1
Participation in 5-year period (per cent) (age-standardised rate)	2003–2007	86.4	2002–2006	85.9	2002–2006	85.9
Early re-screening within 21 months of normal Pap test[(a)] (per cent)	2006	23.1	2005	24.4	1999[(a)]	32.0
Ratio of low-grade to high-grade abnormalities	2007	0.95	2006	1.05	1997	1.47
High-grade abnormalities per 1,000 women screened (age-standardised rate)	2007	7.0	2006	7.3	1997	6.4
Incidence of cervical cancer per 100,000 women (age-standardised rate)	2005	9.2	2004	9.0	1997	11.4
Mortality from cervical cancer per 100,000 women (age-standardised rate)	2006	1.9	2005	2.0	1997	3.0

(a) From 1996–1998 the indicator reported on a 2-year period following a normal Pap test; in 1999, the indicator was changed to a 21-month interval, hence 1999 is the earliest year for which data are available for comparison.

Note: The New South Wales Pap test register commenced in July 1996; therefore data have been estimated for the period January to July 1996. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for the 1996–1997 reporting period. The Northern Territory Pap test register commenced in March 1996, therefore data have been estimated for the period January to March 1996.

Introduction

Cancer

Cancer is a group of several hundred diseases in which abnormal cells are not destroyed by normal cell processes, but instead proliferate and spread out of control. Cancers are distinguished from each other by the specific type of cell involved and the place in the body in which the disease begins.

Normally, cells grow and multiply in an orderly way to form tissues and organs that have a specific function in the body. Occasionally, however, cells multiply in an uncontrolled way after developing from a random genetic mutation, or after being affected by a carcinogen, and form a mass which is called a tumour or neoplasm. Tumours can be benign (not a cancer) or malignant (a cancer). Benign tumours do not invade other tissues or spread to other parts of the body, although they can expand to interfere with healthy structures. The main features of a malignant tumour are its ability to grow in an uncontrolled way and to invade and spread to other parts of the body (metastasise).

Although various risk factors for cancer have been identified, for most cancers the causes are not fully known. While some of the causes are modifiable through lifestyle changes, some others are inherited and cannot be avoided through personal action. However, the risk of death due to particular cancers may be reduced through intensive monitoring of individuals at high risk, reducing external risk factors, detecting and treating cancers early in their development, and treating them in accordance with the best available evidence.

Many cancers can be serious and even fatal. However, medical treatment is often successful if the cancer is detected early, as is the aim of cancer screening programs. The goal of treatment is to destroy the cancer cells and stop them from returning. This can be done by surgery to remove the growth or by other methods such as chemotherapy (cancer-destroying drugs) or radiation therapy.

Cervical cancer

Cervical cancer affects the cells of the cervix, which is the lower part of the uterus where it joins the inner end of the vagina. Like other cancers, cervical cancer is a disease where normal cells change, begin to multiply out of control, and form a growth or tumour. Cervical cells however exhibit precancerous changes/abnormalities which can be detected through screening before progression to cancer occurs. The cancer may arise from the squamous cells that cover the outer surface of the cervix (squamous cell carcinoma) or from the glandular (columnar) cells in the cervical canal (adenocarcinoma). Over two thirds of cervical cancers are squamous cell carcinoma, and about 20% are adenocarcinomas.

During the last decade a greater understanding of the natural history of cervical cancer has developed. It is now recognised that cervical cancer is a rare outcome of persistent infection with human papillomavirus (HPV), and that infection with a high-risk HPV type is necessary, although not sufficient, for the development of cancer (Walboomers et al. 1999; Bosch et al. 2002). At least 13 high-risk types of HPV are currently recognised, with HPV types 16, 18, 45, 39, and 73 most predominantly associated with cervical cancer in Australia

(HPV types 16 and 18 account for around 70% of these) (Stevens et al. 2006). It has also been recognised that low-grade abnormalities represent acute infection with HPV, and as such most will regress without treatment within a short period of time. High-grade abnormalities can occur after persistent infection with HPV. The probability of a high-grade abnormality progressing to cancer increases with age and extent of abnormality (NHMRC 2005), but this is still a very rare outcome, with regression rates for high-grade abnormalities estimated to be at least 80% (Raffle et al. 2003).

Because HPV infection is necessary for the development of cervical cancer, risk factors for cervical cancer include having multiple sexual partners and becoming sexually active at a young age. Smoking is also known to increase a woman's likelihood of developing cervical cancer. Daughters of women who took the drug diethylstilboestrol (DES) whilst pregnant with them may also be at increased risk of developing cervical cancer (NMHRC 2005; RANZCOG 2007).

Incidence and mortality

Worldwide, in 2002, the age-standardised (world) incidence of cervical cancer was 16.2 new cases per 100,000 women, and the age-standardised (world) mortality from cervical cancer was 9.0 deaths per 100,000 women. This makes cervical cancer the second most common cancer affecting women behind breast cancer, and the third most common cause of cancer mortality in women worldwide (Parkin et al. 2005).

Since implementing an organised approach to screening in 1991, Australian figures perform better than world figures. Cervical cancer is the 13-th most common cancer affecting Australian women, with an age-standardised (world) incidence of 5.9 new cases per 100,000 women in 2005, and the 19-th most common cause of cancer mortality, with an age-standardised (world) mortality of 1.5 deaths per 100,000 women in 2006.

Screening

Population-based screening involves the systematic use of a test to identify individuals who have a previously unrecognised disease in an asymptomatic population (that is, in people not showing any symptoms of the disease). The aim of population-based screening is to reduce the burden of disease, which may include a reduction in the incidence, morbidity and mortality of the disease, through detection at an early stage in individuals who would not otherwise know they were affected (Wald 2001; Strong et al. 2005; Screening Subcommittee 2008).

The screening test used in a population-based screening program is not intended to be diagnostic; rather it aims to distinguish between individuals who test positive (and therefore may have or may develop the disease) and require further specific testing to ascertain whether they have the disease, and those who test negative (show no early indications of the disease) and require no further testing (Strong et al. 2005; Screening Subcommittee 2008). The screening test should both minimise false-positives (a positive screening result that further diagnostic testing showed was actually negative) and maximise true-positives. Balanced information as to the benefits and potential harms of the screening should be made available to the target population to ensure they can make an informed decision regarding their participation (Screening Subcommittee 2008).

In 1968 the World Health Organization (WHO) endorsed ten principles to be used when determining if a new population-based screening program should be introduced for a disease or condition (Wilson & Jungner 1968). These principles were designed to ensure that the disease in question was well understood and the correct test, treatment and resources were in place to allow screening to be of benefit to the target population. Currently in Australia there are eight National Health Priority Area cancers: lung cancer, bowel cancer, melanoma, non-melanocytic skin cancer, prostate cancer, breast cancer, cervical cancer and non-Hodgkin lymphoma (NHPAC 2006). Of these, bowel, breast and cervical cancer have met the criteria for approved population-based screening programs. This report focuses on the National Cervical Screening Program.

Cervical screening

The National Cervical Screening Program commenced in 1991. The main objective of the Program is to reduce incidence and mortality from cervical cancer. The Program depends on the use of organised regular screening using the Pap test (the terms Pap test and Pap smear are often used interchangeably) to identify treatable pre-cancerous lesions as well as cervical cancer. The Program targets women aged 20–69 years.

Currently, the screening test for cervical cancer is the Pap test, which is carried out by a general practitioner, nurse, or gynaecologist as part of mainstream health services (approximately 80% are performed by general practitioners). During a Pap test, cells are collected from the surface of the cervix, transferred onto a slide or into a special liquid, and sent to a pathology laboratory for assessment. Details of the woman, the Pap test results, and any follow-up that may be recommended are then stored on a cervical cytology register.

The National Cervical Screening Program has both national and state and territory components. Although policy is usually decided at a national level, coordination of screening activity is the responsibility of the individual state or territory.

National policy for the National Cervical Screening Program currently recommends:

- Routine screening with Pap tests every 2 years for women without symptoms or history suggestive of cervical pathology.
- Women who have been sexually active to commence Pap tests between the ages of 18 and 20 years, or 1 or 2 years after first having sexual intercourse, whichever is later.
- Pap tests may cease at the age of 70 years for women who have had two normal Pap tests within the last 5 years (women over 70 years who have never had a Pap test, or who request a Pap test, should be screened).

Cervical cytology registries in each state and territory maintain their cervical cytology register, and play a key role in performance and monitoring of the National Cervical Screening Program. This is done through collecting screening histories of individual women, sending reminder letters to women overdue for screening, providing a safety net for women who have not had follow-up of an abnormal result, and also providing cytology laboratories and Pap test providers with previous results for a woman, to allow a more detailed evaluation of present findings. State and territory cervical cytology registries also fulfil an important role by providing data on the epidemiology and natural history of pre-cancerous lesions, as well as providing data for *Cervical screening in Australia* to allow national monitoring of the Program.

The National Cervical Screening Program is affected by shifts in the understanding, management and treatment of cervical cancer. In 2006–2007, Australia experienced two major changes directly related to cervical cancer.

First, on 1 July 2006, new National Health and Medical Research Council (NHMRC) *Guidelines for the management of asymptomatic women with screen detected abnormalities* (NHMRC 2005) were introduced, which recognise that cervical cellular changes are an infective rather than a neoplastic process. This is reflected in the Guidelines, with changes to the recommendation for the clinical management of women with low-grade squamous intraepithelial lesions, favouring less intervention than previous guidelines, giving HPV infection an opportunity to resolve without treatment. The new guidelines also recommend new management for women who have been treated for high-grade intraepithelial disease, whereby women return to a normal screening interval once they have fulfilled a 'test of cure' criteria (NHMRC 2005).

Second, in 2007, a vaccine against HPV types 16, 18, 6, and 11 was introduced under the National Immunisation Program, free to all women aged 12–26 years. While the vaccine is expected to lower cervical cancer incidence and mortality rates, the slow progression of this disease means that these effects will not be evident for some time.

National Cervical Screening Program Performance Indicators

The National Cervical Screening Program commenced in 1991. The main objective of the Program is to reduce incidence and mortality from cervical cancer through organised cervical screening of women in the target age group 20–69 years. The current method of cervical screening is the Pap test (or Pap smear), and the currently recommended screening interval is 2 years for asymptomatic women with no history suggestive of cervical pathology.

This report monitors the performance of the National Cervical Screening Program using indicators which measure program activity, performance and outcome. These indicators help measure changes in disease patterns and examine the contribution of cervical screening to preventing or reducing death from cervical cancer.

Performance 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 were developed and endorsed by the former National Advisory Committee and by state and territory cervical screening programs.

A listing of the current Performance Indicators for the National Cervical Screening Program and their definitions follows:

Indicators

Indicator 1 Participation

Indicator 1.1.1 Two-year participation rate for cervical screening

The percentage of women screened in a 2-year period for women aged 20 years and over and for the target age group 20–69 years.

Indicator 1.1.2 Three-year participation rate for cervical screening

The percentage of women screened in a 3-year period for women aged 20 years and over and for the target age group 20–69 years.

Indicator 1.1.3 Five-year participation rate for cervical screening

The percentage of women screened in a 5-year period for women aged 20 years and over and for the target age group 20–69 years.

Indicator 1.2 Participation by geographic region

The percentage of women screened during a 2-year period by geographic region of residence for women aged 20 years and over and for the target age group 20–69 years.

Indicator 1.3 Participation by socioeconomic status

The percentage of women screened during a 2-year period by socioeconomic status of area of residence for women aged 20 years and over and for the target age group 20–69 years.

This indicator was not able to be reported for 2006–2007 due to technical problems with new data based on the 2006 census, which were unable to be resolved in time for this report.

Indicator 2 Early re-screening

The proportion of women re-screened, by number of re-screens, during a 21-month period following a normal Pap test for women in the target age group 20–69 years.

Indicator 3 Low-grade abnormality detection

The ratio of the number of women with a histologically verified low-grade intraepithelial abnormality detected in a 12-month period to the number of women with a histologically verified high-grade intraepithelial abnormality detected in the same period, for women in the target age group 20–69 years.

Indicator 4 High-grade abnormality detection

Detection rate of histologically verified high-grade intraepithelial abnormalities per 1,000 women screened in a 12-month period for women aged 20 years and over and for the target age group 20–69 years.

Indicator 5.1 Incidence of micro-invasive squamous cervical cancer

Incidence rate of micro-invasive squamous cell carcinoma per 100,000 estimated resident female population in a 12-month period for women of all ages and for the target age group 20–69 years.

Indicator 5.2 Incidence of squamous, adenocarcinoma, adenosquamous and other cervical cancer

Incidence rate of squamous, adenocarcinoma, adenosquamous and other cervical cancer (micro-invasive and invasive) per 100,000 estimated resident female population in a 12-month period for women of all ages and for the target age group 20–69 years.

Indicator 5.3 Incidence by geographic region

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

Indicator 6.1 Mortality by age group

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

Indicator 6.2 Mortality by geographic region

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

Indicator 6.3 Mortality in Aboriginal and Torres Strait Islander women

Mortality rate for cervical cancer per 100,000 estimated resident female population in a 4-year period for Aboriginal and Torres Strait Islander women and for Other Australian women, for women of all ages and for the target age group 20–69 years.

Indicator 1 Participation

The participation indicator

The major objective of the National Cervical Screening Program is to reduce incidence and mortality from cervical cancer by detecting treatable pre-cancerous lesions before their progression to cancer. Through increased participation, more women with pre-cancerous abnormalities can be detected and managed before progression to cervical cancer, thus reducing incidence and mortality. In addition, increased participation will lead to the detection of early stage cancer, where treatment can reduce mortality in more women.

The Program, through a variety of recruitment initiatives, targets women in the age group 20–69 years. The recommended screening interval for women in this age group who have been sexually active at any stage of their lives is 2 years. Pap tests may cease at the age of 70 years for women who have had two normal Pap tests within the previous 5 years. Women over 70 years who have never had a Pap test, or who request a Pap test, are screened.

Some women in the target population are unlikely to require screening. They include those who have had a total hysterectomy with their cervix removed and those who have never been sexually active. Women who have previously been diagnosed with gynaecological cancer may also not be eligible for screening.

Participation rate calculations should, in principle, exclude all three groups from the data. In practice, the data are adjusted to remove women who have had a hysterectomy but the latter two groups cannot be excluded due to a lack of reliable data. Hysterectomy rates are derived from self-reported information on hysterectomies in the 2001 National Health Survey conducted by the Australian Bureau of Statistics (ABS), the validity of which was confirmed using data on hysterectomy separations from the National Hospital Morbidity Database.

The objectives and usefulness of participation as an indicator are outlined below:

- Participation data are important in assessing the contribution of the National Cervical Screening Program to reducing cervical cancer incidence and mortality.
- The participation indicator can be used as a means of evaluating the effect of communication and recruitment strategies, particularly if participation is analysed by demographic characteristics.
- When the participation indicator is used in conjunction with others, it can be used to support analysis relating to target groups and screening intervals.
- The participation indicator measures the proportion of the target population participating in the National Cervical Screening Program in the recommended 2-year screening interval. Participation for 3-year and 5-year intervals is also reported, which allows international comparisons of cervical screening performance to be made, since many other countries use a 3-year or 5-year screening interval (Dickinson 2002).
- Participation is also reported by age and for the states and territories, as well as for different geographic regions and quintiles of socioeconomic status (not able to be reported for 2006–2007), to provide information on the demographics of the population that are participating in the Program.

Data issues

Except for Victoria and the Australian Capital Territory, where only women with an address in these jurisdictions are included, 2-year, 3-year and 5-year participation is based on all women screened in each jurisdiction, not just those women resident in each jurisdiction. This may lead to overestimation of numbers of women screened.

Participation by geographic region and socioeconomic status (not able to be reported for 2006–2007) includes only women with a postcode in the jurisdiction in which they were screened for all states and territories, which may lead to underestimation of numbers of women screened.

The denominators for participation rates presented in this report have been calculated using the average of the ABS estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the ABS 2001 National Health Survey.

At the time of preparation of this report, the latest estimated resident population figures available—according to the Australian Standard Geographical Classification (ASGC)—were for the year 2006. Therefore, the denominators for participation rates by geographic location presented in this report have been calculated using the estimated resident female population for 2006 only (adjusted for hysterectomy), rather than the average of the estimated resident populations for 2006 and 2007.

At the time of preparation of this report, participation by socioeconomic status of area of residence was not able to be reported for 2006–2007 due to technical problems related to new methods based on the 2006 census, which were unable to be resolved in time for this report.

There may be discrepancies between participation rates that appear in this report and those presented in state and territory reports in some jurisdictions. This may be due to participation numerators being extracted from the cervical cytology register at a different time, a different source of population data, and state and territory-specific hysterectomy fractions being applied to the population. None of these represent any error in participation estimates, and published participation rates do not differ greatly between national and state and territory reports.

Key points

Participation in the National Cervical Screening Program among women in the target age group 20–69 years for the 2006–2007 reporting period was 61.5%. This is a significant increase from the previous non-overlapping 2-year rate for 2004–2005 of 61.0%, and the highest participation has been since it peaked at 63.4% in 1998–1999.

The number of women screened in 2006–2007 was 3,602,994 (3,549,524 aged 20–69 years), greater than the 3,462,907 (3,407,219 aged 20–69 years) women screened in 2004–2005, and far greater than the 2,630,235[*] (2,563,107 aged 20–69 years) women screened in 1996–1997 when reporting commenced.*

From 1996–1997 to 2006–2007, there was a decline in participation among women aged less than 40 years. In 2006–2007, participation was highest in women aged 55–59 years (69.1%) and lowest in women aged 20–24 years (48.0%).

Three-year participation for 2005–2007 was 74.0% and 5-year participation for 2003–2007 was 86.4% for women in the target age group 20–69 years.

The Australian 3-year participation rate of 74.0% is comparable with the 3-year participation rates of 73% reported for New Zealand for 2003 (National Cervical Screening Programme 2005), 69.4% for England for 2007 (National Health Service 2007), 63.6% for Wales for 2007 (Cervical Screening Wales 2007), and to the previously reported average for the European Union countries of 75% (van Ballegooijen et al. 2000), although direct comparisons should be made with caution.

The Australian 5-year participation rate of 86.4% also compares favourably with the 5-year participation rates of 79.2% reported for England for 2007 (National Health Service 2007), 74.6% for Wales for 2007 (Cervical Screening Wales 2007), 77% for the Netherlands for 2003 (Rebolj et al. 2006), and the previously estimated participation rate of 90% for Finland (Antilla & Nieminen 2000), although direct comparisons should be made with caution.

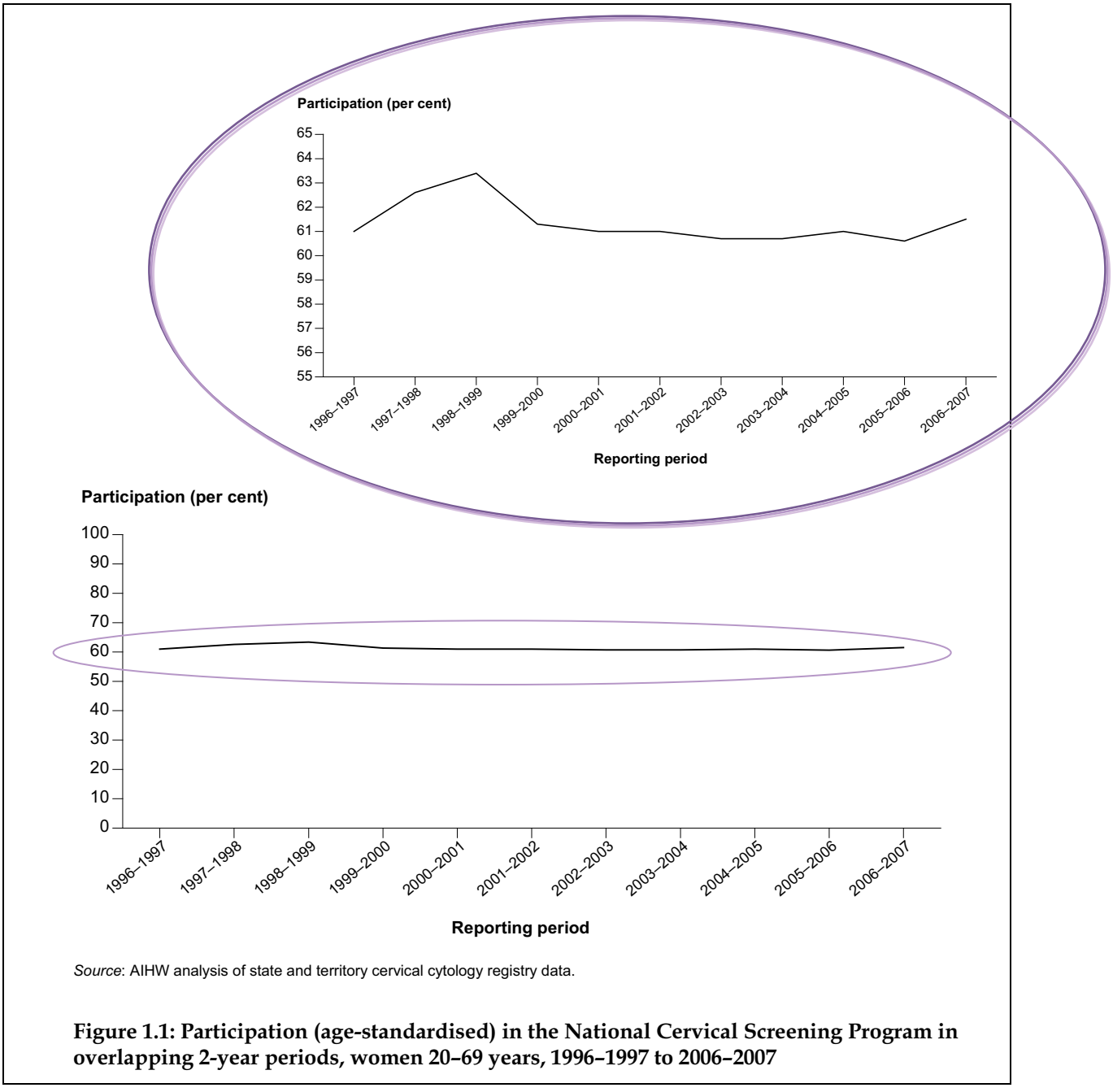
In 2006–2007, participation by geographic region was 62.5% for Major cities, 61.2% for Inner regional, 58.9%for Outer regional, 53.6% for Remote and 54.0% for Very remote areas. Differences between geographic regions are significant, apart from Remote and Very remote, which are not significantly different from each other. This trend reflects the greater difficulty in providing cervical screening to women in Remote and Very remote areas.

* Note that because the Queensland Health Pap Smear Register did not commence until 1999, this figure does not include women screened by the Queensland program.

Indicator 1.1.1 Two-year participation

The percentage of women screened in a 2-year period for women aged 20 years and over and for the target age group 20–69 years

Participation in the National Cervical Screening Program



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.1: Participation (age-standardised) in the National Cervical Screening Program in overlapping 2-year periods, women 20–69 years, 1996–1997 to 2006–2007

Table 1.1: Participation (age-standardised) in the National Cervical Screening Program in overlapping 2-year periods, women 20–69 years, 1996–1997 to 2006–2007

	Reporting period										
	1996–1997	1997–1998	1998–1999	1999–2000	2000–2001	2001–2002	2002–2003	2003–2004	2004–2005	2005–2006	2006–2007
	Per cent										
AS rate	61.0	62.6	63.4	61.3	61.0	61.0	60.7	60.7	61.0	60.6	61.5
95% CI	60.9–61.1	62.5–62.6	63.4–63.5	61.2–61.3	60.9–61.1	60.9–61.0	60.6–60.8	60.6–60.7	60.9–61.0	60.6–60.7	61.4–61.5

Notes

1. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for the 1996–1997, 1997–1998, or 1998–1999 reporting periods.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. 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, 1 January 2002 to 31 December 2003, 1 January 2003 to 31 December 2004, 1 January 2004 to 31 December 2005, 1 January 2005 to 31 December 2006 and 1 January 2006 to 31 December 2007.

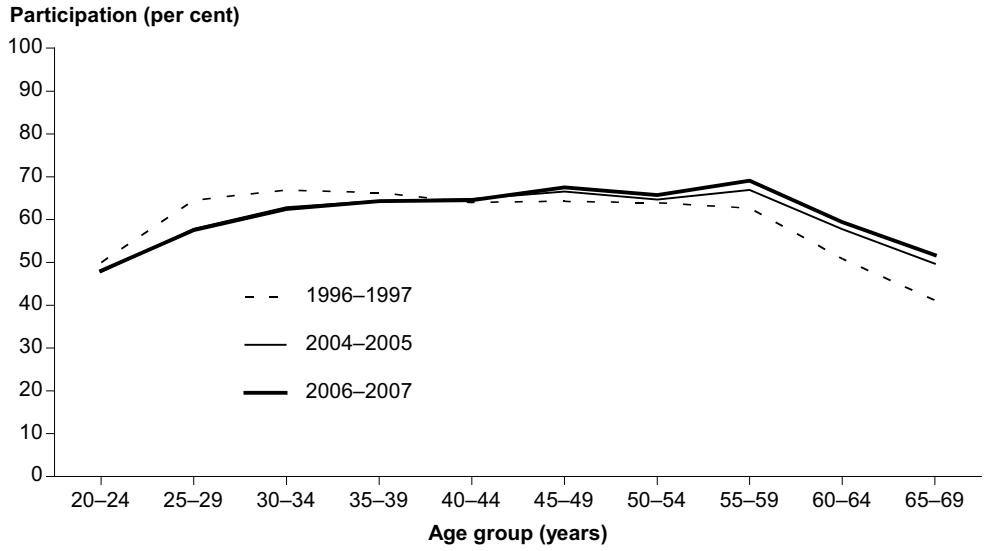
- Participation in the National Cervical Screening Program among women in the target age group 20–69 years was 61.0% in 1996–1997 when reporting commenced. This increased to 63.4% in 1998–1999 when there was a national media campaign, and has been stable at around 61% ever since. Participation in 2006–2007 was 61.5%, which is the first time participation has been above 61.0% since 1999–2000, and the highest participation has been since it peaked at 63.4% in 1998–1999.
- While participation has remained relatively stable over this period, there has been an overall increase in the number of women participating in the Program, from 2,630,235* (2,563,107* aged 20–69 years) in 1996–1997 when reporting commenced (AIHW 1998) to 3,462,907 (3,407,219 aged 20–69 years) in 2004–2005 (AIHW 2007), and 3,602,994 (3,549,524 aged 20–69 years) in 2006–2007.
- Between 2004–2005 and 2006–2007, participation increased from 61.0% in 2004–2005 to 61.5% in 2006–2007, which equates to an increase of 140,087 women aged 20 years and over, and an increase of 142,305 women aged 20–69 years. With the number of eligible women aged 20–69 years increasing each year (3.58% between 2004–2005 and 2006–2007†), the increase in the number of women participating in the Program has to increase by an equal amount just to keep the participation rate constant. In this case, the increase in participating women aged 20–69 years (an increase of 4.18% between 2004–2005 and 2006–2007†) surpassed the increase in eligible women, resulting in increased participation.

* Note that because the Queensland Health Pap Smear Register did not commence until 1999, this figure does not include women screened by the Queensland program.

† AIHW unpublished data.

For more information, see tables A1–A12 beginning on page 60.

Participation by age



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.2: Participation (age-specific) in the National Cervical Screening Program, by age, 1996–1997, 2004–2005 and 2006–2007

Table 1.2: Participation (age-specific and age-standardised) in the National Cervical Screening Program, by age, 1996–1997 to 2006–2007

2-year period	Age group (years)										
	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	20–69
	Per cent										
1996–1997	50.0	64.5	66.9	66.4	64.0	64.3	64.0	62.7	50.9	41.2	61.0 (60.9–61.1)
1998–1999	53.5	65.5	68.7	68.2	66.5	66.7	64.7	65.9	56.0	46.5	63.4 (63.4–63.5)
2000–2001	50.3	61.0	64.9	64.8	64.4	65.0	63.0	64.9	55.3	46.7	61.0 (60.9–61.1)
2002–2003	49.0	59.0	63.4	63.9	64.1	65.6	63.1	66.2	56.4	48.8	60.7 (60.6–60.8)
2004–2005	47.7	57.8	62.9	64.4	64.8	66.5	64.7	66.9	57.7	49.7	61.0 (60.9–61.0)
2006–2007	48.0	57.5	62.4	64.3	64.5	67.5	65.7	69.1	59.4	51.7	61.5 (61.4–61.5)

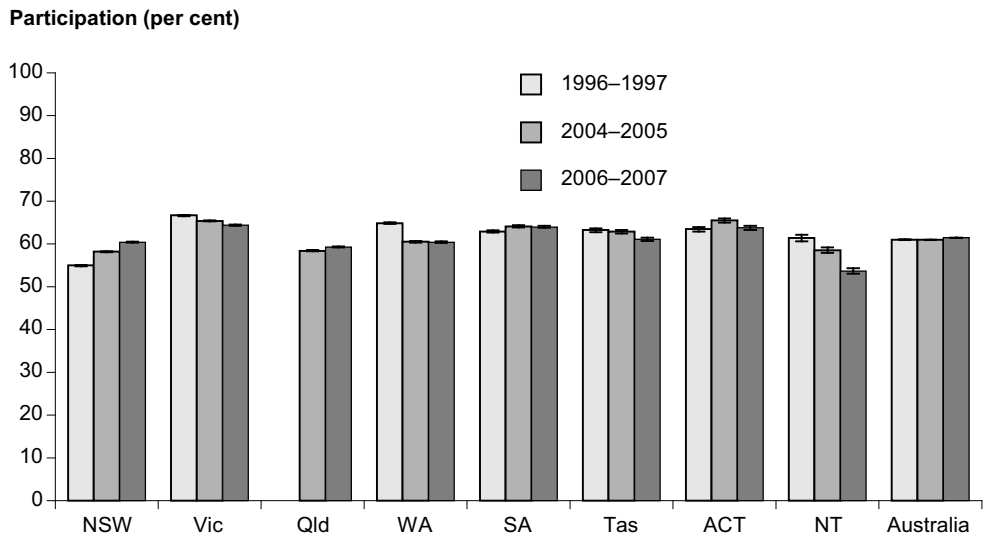
Notes

1. Age-specific rates for 5-year age groups are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates for the target age group 20–69 years are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for the 1996–1997 or 1998–1999 reporting periods.
4. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
5. These data exclude women who have opted not to be included on a cervical cytology register.
6. Periods cover 1 January 1996 to 31 December 1997, 1 January 1998 to 31 December 1999, 1 January 2000 to 31 December 2001, January 2002 to 31 December 2003, 1 January 2004 to 31 December 2005, and 1 January 2006 to 31 December 2007.

- Over the 2-year period 2006–2007, 3,602,994 women participated in the National Cervical Screening Program. Of these women 3,549,524 (98.5%) were aged 20–69 years.
- Participation for the 2-year period 2006–2007 was 61.5% for women in the target age group 20–69 years.
- From 1996–1997 to 2006–2007, there was a decline in participation among women aged less than 40 years, most prominent in the 25–29 year age group, and an increase in participation among women aged 55 years and over.
- In 2006–2007, participation was highest in women aged 55–59 years (69.1%) and lowest in women aged 20–24 years (48.0%).

For more information, see tables A1–A12 beginning on page 60.

Participation by state and territory



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.3: Participation (age-standardised) in the National Cervical Screening Program, by state and territory, women 20–69 years, 1996–1997, 2004–2005 and 2006–2007

- Between 2004–2005 and 2006–2007, significant declines in participation occurred in Victoria, Tasmania, the Australian Capital Territory, and the Northern Territory.
- Between 2004–2005 and 2006–2007, significant increases in participation occurred in New South Wales and Queensland.
- In 2006–2007, participation was highest in Victoria (64.4%), South Australia (64.0%) and the Australian Capital Territory (63.8%). Participation was lowest in the Northern Territory (53.7%).

Table 1.3: Participation (age-standardised) in the National Cervical Screening Program, by state and territory, women 20–69 years, 1996–1997 to 2006–2007

2-year period	States and territories								
	NSW[a]	Vic	Qld[b]	WA[c]	SA	Tas	ACT	NT[d]	Australia
	Per cent								
1996–1997	55.0	66.7	. .	64.9	62.9	63.3	63.5	61.4	61.0
95% CI	54.8–55.1	66.5–66.8	. .	64.7–65.1	62.7–63.2	62.8–63.7	62.9–64.0	60.6–62.2	60.9–61.1
1998–1999	59.4	67.7	. .	63.9	66.0	64.5	65.7	62.6	63.4
95% CI	59.3–59.5	67.6–67.9	. .	63.7–64.1	65.7–66.2	64.0–64.9	65.1–66.2	61.8–63.3	63.4–63.5
2000–2001	59.1	64.6	57.0	61.4	64.9	65.2	62.8	61.7	61.0
95% CI	59.0–59.3	64.5–64.8	56.8–57.1	61.2–61.6	64.6–65.1	64.7–65.6	62.3–63.4	61.0–62.4	60.9–61.1
2002–2003	58.8	64.2	57.2	60.6	65.1	63.1	62.7	60.2	60.7
95% CI	58.7–58.9	64.1–64.4	57.0–57.3	60.3–60.8	64.8–65.3	62.6–63.5	62.2–63.3	59.5–60.9	60.6–60.8
2004–2005	58.2	65.4	58.4	60.5	64.1	62.9	65.5	58.5	61.0
95% CI	58.1–58.3	65.3–65.5	58.3–58.6	60.3–60.7	63.9–64.4	62.5–63.3	65.0–66.0	57.9–59.2	60.9–61.0
2006–2007	60.4	64.4	59.3	60.4	64.0	61.1	63.8	53.7	61.5
95% CI	60.3–60.5	64.3–64.6	59.2–59.4	60.2–60.6	63.8–64.3	60.7–61.5	63.3–64.3	53.1–54.3	61.4–61.5

. . Not applicable

(a) The New South Wales Pap test register commenced in July 1996; therefore data have been estimated for the period January to July 1996.

(b) The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for the 1996–1997 or 1998–1999 reporting periods.

(c) The Western Australia cervical cytology registry only reported on women with a Western Australia address for the 1998–1999 to 2000–2001 reporting periods.

(d) The Northern Territory Pap test register commenced in March 1996, therefore data have been estimated for the period January to March 1996.

Notes

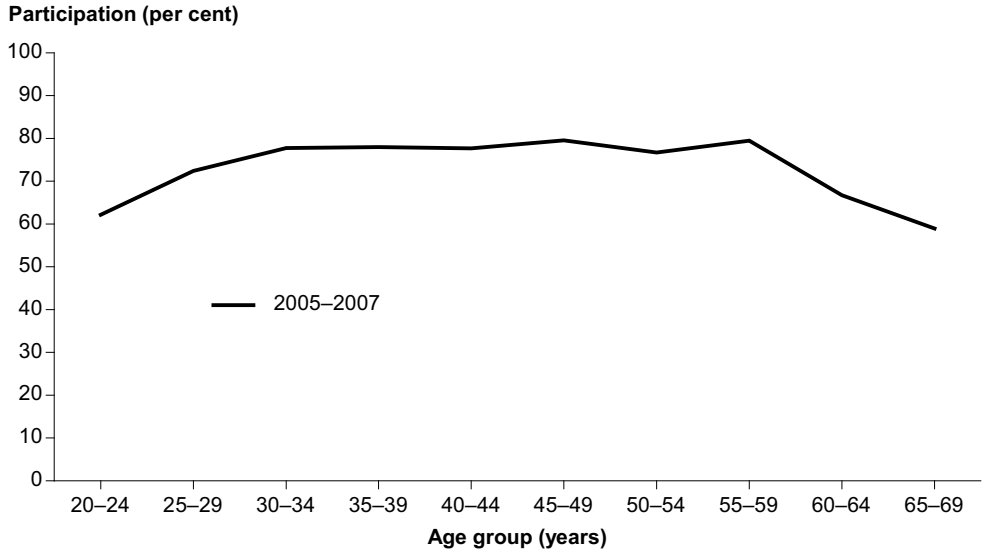
1. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. Periods cover 1 January 1996 to 31 December 1997, 1 January 1998 to 31 December 1999, 1 January 2000 to 31 December 2001, 1 January 2002 to 31 December 2003, 1 January 2004 to 31 December 2005, and 1 January 2006 to 31 December 2007.

For more information, see tables A1–A12 beginning on page 60.

Indicator 1.1.2 Three-year participation

The percentage of women screened in a three-year period for women aged 20 years and over and for the target age group 20–69 years

Three-year participation by age



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.4: Three-year participation (age-specific) in the National Cervical Screening Program, by age, 2005–2007

Table 1.4: Three-year participation (age-specific and age-standardised) in the National Cervical Screening Program, by age, 2005–2007

	Age group (years)										
3-year period	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	20–69
	Per cent										
2005–2007	62.2	72.4	77.8	78.0	77.7	79.6	76.7	79.5	66.7	59.0	74.0 (73.9–74.1)

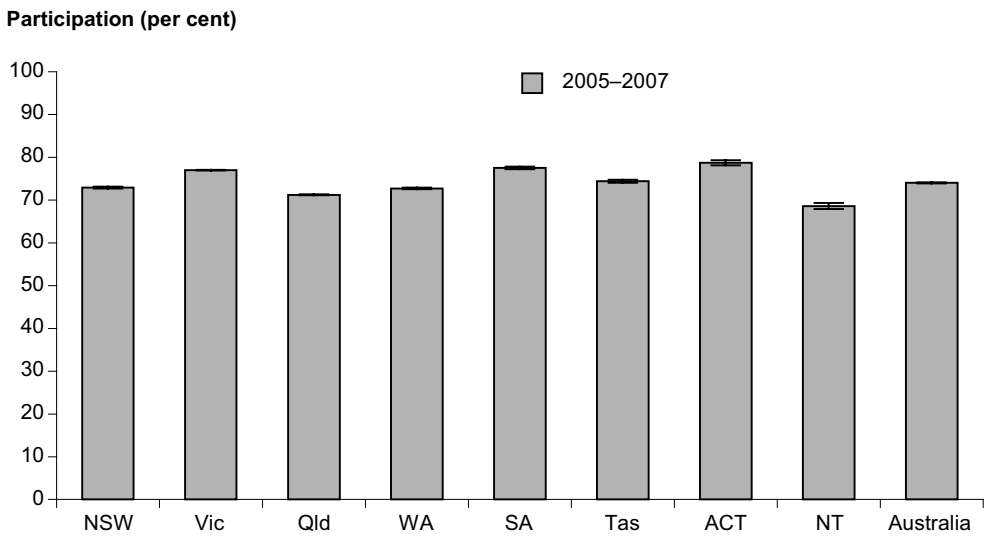
Notes

1. Age-specific rates for 5-year age groups are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates for the target age group 20–69 years are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. Period covers 1 January 2005 to 31 December 2007.

- Over the 3-year period 2005–2007, 4,324,344 women participated in the National Cervical Screening Program. Of these women 4,257,889 (98.5%) were aged 20–69 years.
- Participation for the 3-year period 2005–2007 was 74.0% for women in the target age group 20–69 years.
- Over the 3-year period 2005–2007, participation was highest in women aged 45–49 years (79.6%) and 55–59 years (79.5%), and lowest in women aged 65–69 years (59.0%).
- The Australian 3-year participation rate of 74.0% is comparable with the 3-year participation rates of 73% reported for New Zealand for 2003 (National Cervical Screening Programme 2005), 69.4% for England for 2007 (National Health Service 2007), 63.6% for Wales for 2007 (Cervical Screening Wales 2007), and to the previously reported average for the European Union countries of 75% (van Ballegooijen et al. 2000). Note that while it is useful to compare 3-year participation in Australia to 3-year participation in other countries, direct comparisons are restricted by the different recommended screening intervals and screening frameworks, which impact on these figures.

For more information, see tables A1–A12 beginning on page 60.

Three-year participation by state and territory



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.5: Three-year participation (age-standardised) in the National Cervical Screening Program, by state and territory, women 20–69 years, 2005–2007

Table 1.5: Three-year participation (age-standardised) in the National Cervical Screening Program, by state and territory, women 20–69 years, 2005–2007

	States and territories								
3-year period	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Per cent				
2005–2007	72.9	77.0	71.2	72.7	77.5	74.4	78.7	68.6	74.0
95% CI	72.8–73.1	76.8–77.1	71.0–71.3	72.4–72.9	77.2–77.8	73.9–74.8	78.2–79.3	67.9–69.3	73.9–74.1

Notes

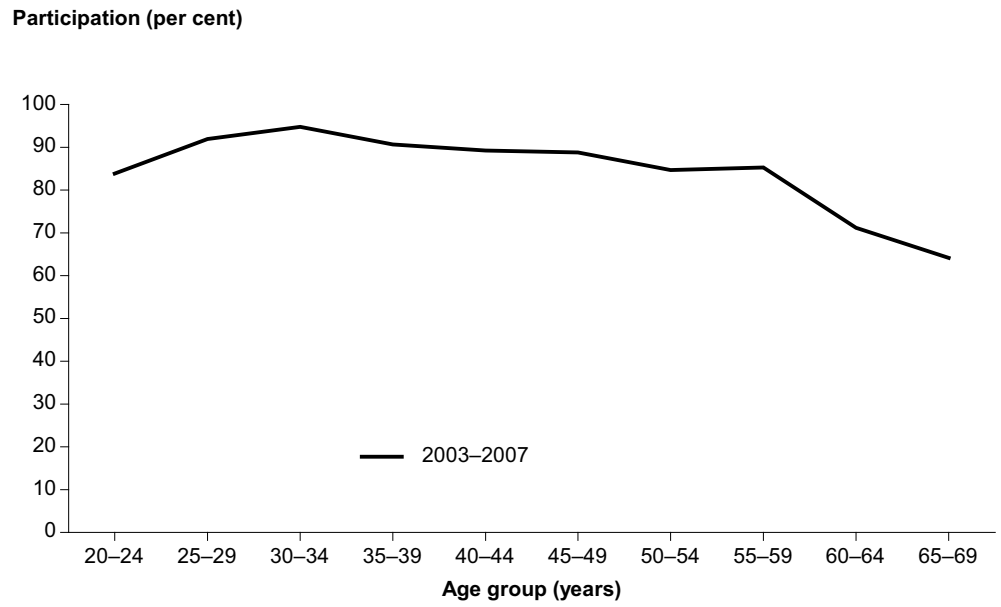
1. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. Period covers 1 January 2005 to 31 December 2007.

- Over the 3-year period 2005–2007, participation was highest in Victoria (77.0%), South Australia (77.5%) and the Australian Capital Territory (78.7%). Participation was lowest in the Northern Territory (68.6%).

For more information, see tables A1–A12 beginning on page 60.

Indicator 1.1.3 Five-year participation

Five-year participation by age



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.6: Five-year participation (age-specific) in the National Cervical Screening Program, by age, 2003–2007

Table 1.6: Five-year participation (age-specific and age-standardised) in the National Cervical Screening Program, by age, 2003–2007

	Age group (years)										
5-year period	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	20–69
	Per cent										
2003–2007	83.9	92.0	94.8	90.7	89.3	88.8	84.7	85.3	71.2	64.2	86.4 (86.3–86.5)

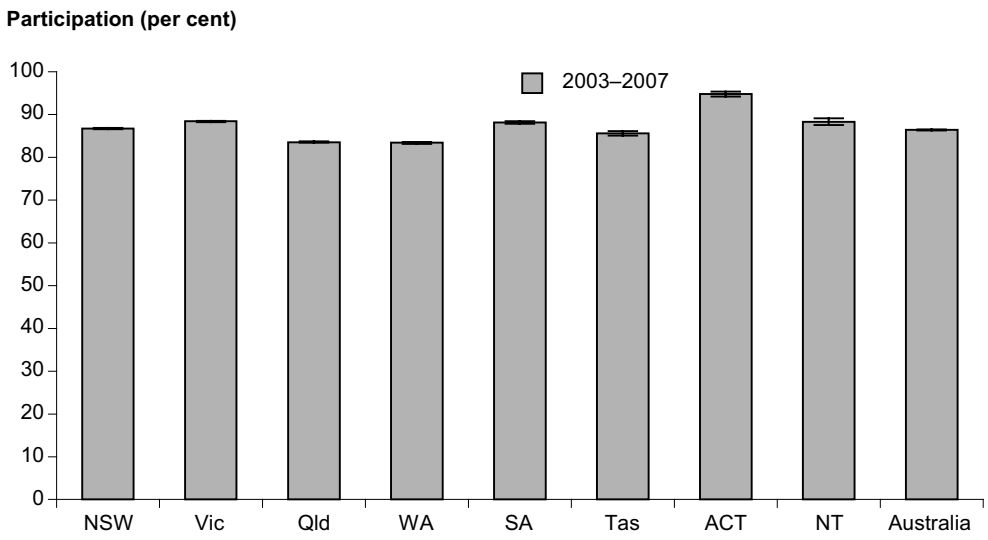
Notes

1. Age-specific rates for 5-year age groups are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates for the target age group 20–69 years are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. Period covers 1 January 2003 to 31 December 2007.

- Over the 5-year period 2003–2007, 5,023,821 women participated in the National Cervical Screening Program. Of these women 4,936,890 (98.3%) were aged 20–69 years.
- Participation for the 5-year period 2003–2007 was 86.4% for women in the target age group 20–69 years.
- Over the 5-year period 2003–2007, participation was highest in women aged 25–29 years (92.0%) and 30–34 years (94.8%), and lowest in women aged 65–69 years (64.2%).
- The Australian 5-year participation rate of 86.4% also compares favourably with the 5-year participation rates of 79.2% reported for England for 2007 (National Health Service 2007), 74.6% for Wales for 2007 (Cervical Screening Wales 2007), 77% for the Netherlands for 2003 (Rebolj et al. 2006), and the previously estimated participation rate of 90% for Finland (Antilla & Nieminen 2000). Note that while it is useful to compare 5-year participation in Australia to 5-year participation in other countries, direct comparisons are restricted by the different recommended screening intervals and screening frameworks, which impact on these figures.

For more information, see tables A1–A12 beginning on page 60.

Five-year participation by state and territory



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.7: Five-year participation (age-standardised) in the National Cervical Screening Program, by state and territory, women 20–69 years, 2003–2007

Table 1.7: Five-year participation (age-standardised) in the National Cervical Screening Program, by state and territory, women 20–69 years, 2003–2007

	States and territories								
5-year period	NSW	Vic	Qld	WA	SA	Tas	ACT[(a)]	NT[(a)]	Australia
					Per cent				
2003–2007	86.7	88.4	83.5	83.4	88.1	85.6	94.8	88.3	86.4
95% CI	86.6–86.9	88.2–88.5	83.4–83.7	83.1–83.6	87.8–88.4	85.1–86.1	94.2–95.4	87.5–89.1	86.3–86.5

(a) Australian Capital Territory and the Northern Territory have populations that are both highly transient and relatively small, which may lead to erroneously high participation rates in some age groups over a 5-year period.

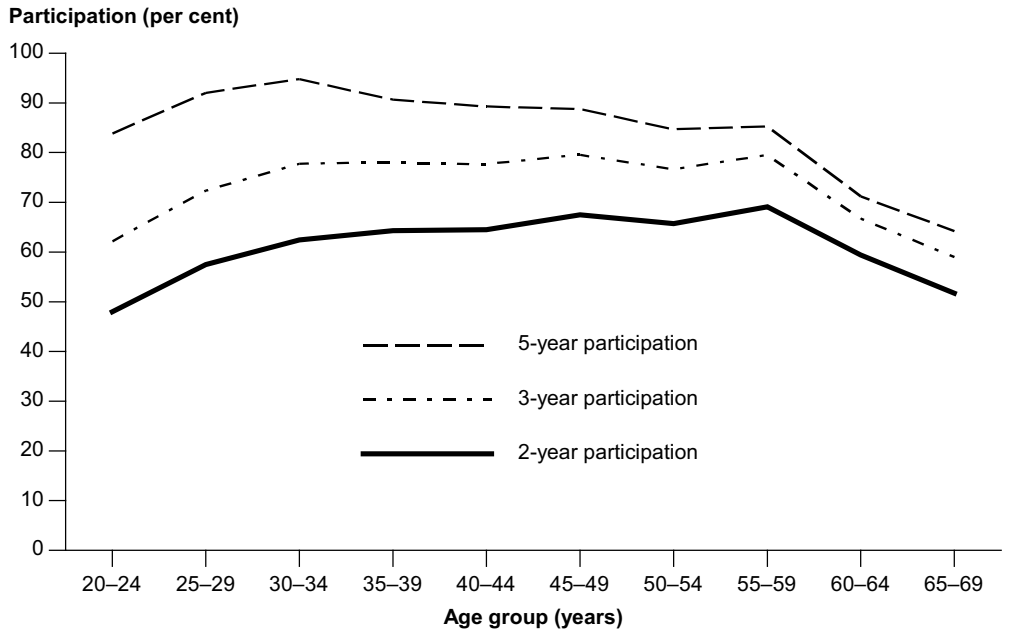
Notes

1. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. Period covers 1 January 2003 to 31 December 2007.

- Over the 5-year period 2003–2007, participation was highest in the Australian Capital Territory (94.8%), and lowest in Queensland (83.5%) and Western Australia (83.4%).

For more information, see tables A1–A12 beginning on page 60.

Two-year, three-year and five-year participation



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.8: Two-year, three-year and five-year participation (age-specific) in the National Cervical Screening Program, by age, women 20–69 years, 2006–2007, 2005–2007 and 2003–2007

Table 1.8: Two-year, three-year and five-year participation (age-specific and age-standardised) in the National Cervical Screening Program, by age, women 20–69 years, 2006–2007, 2005–2007 and 2003–2007

	Age group (years)										
Period	**20–24**	**25–29**	**30–34**	**35–39**	**40–44**	**45–49**	**50–54**	**55–59**	**60–64**	**65–69**	**20–69**
						Per cent					
2006–2007	48.0	57.5	62.4	64.3	64.5	67.5	65.7	69.1	59.4	51.7	61.5 (61.4–61.5)
2005–2007	62.2	72.4	77.8	78.0	77.7	79.6	76.7	79.5	66.7	59.0	74.0 (73.9–74.1)
2003–2007	83.9	92.0	94.8	90.7	89.3	88.8	84.7	85.3	71.2	64.2	86.4 (86.3–86.5)

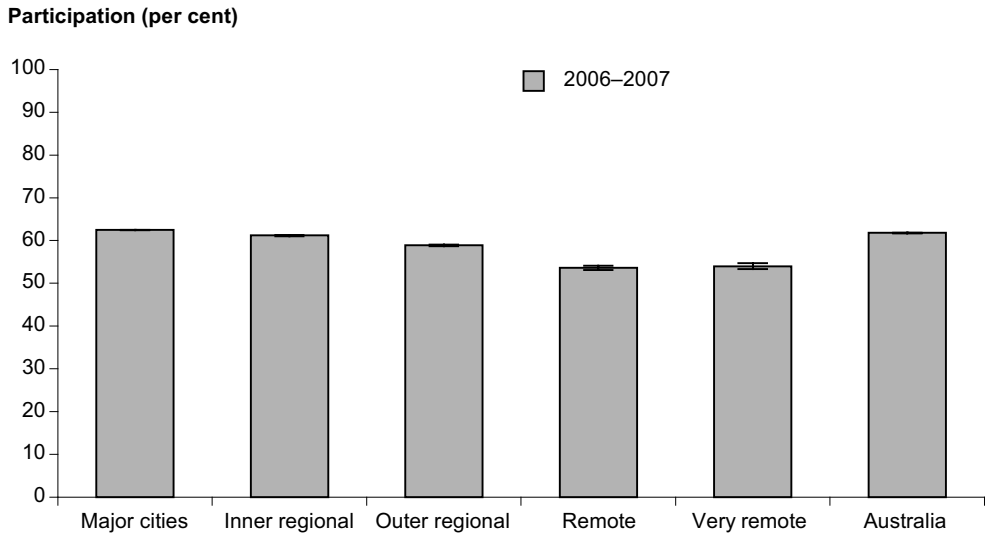
Notes

1. Age-specific rates for 5-year age groups are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates for the target age group 20–69 years are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. Australian Capital Territory and the Northern Territory have populations that are both highly transient and relatively small, which may lead to erroneously high participation rates in some age groups over a 5-year period.
5. These data exclude women who have opted not to be included on a cervical cytology register.
6. Periods cover 1 January 2006 to 31 December 2007, 1 January 2005 to 31 December 2007, and 1 January 2003 to 31 December 2007.

For more information, see tables A1–A12 beginning on page 60.

Indicator 1.2 Participation by geographic region

Participation by geographic region



Note: Bars on columns represent 95% confidence intervals.

Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 1.9: Participation (age-standardised) in the National Cervical Screening Program, by geographic region, women 20–69 years, 2006–2007

Table 1.9: Participation (age-standardised) in the National Cervical Screening Program, by geographic region, women 20–69 years, 2006–2007

	Geographic regions					
2-year period	**Major cities**	**Inner regional**	**Outer regional**	**Remote**	**Very remote**	**Australia**
			Per cent			
2006–2007	62.5	61.2	58.9	53.6	54.0	61.8
95% CI	62.4–62.5	61.0–61.3	58.7–59.1	53.1–54.1	53.3–54.7	61.7–61.8

Notes

1. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Only women with a postcode in the jurisdiction in which they were screened have been counted.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. The Australian Standard Geographic Classification (ASGC) was used to create regional categories (ABS 2001).
5. Women were placed in regional categories based on their postcode of residence, using a postcode to region concordance.
6. Period covers 1 January 2006 to 31 December 2007.

- In 2006–2007, participation was highest in *Major cities* (62.5%), followed by *Inner regional* areas (61.2%) and *Outer regional* areas (58.9%). Participation was lowest in *Remote* (53.6%) and *Very remote* areas (54.0%).

For more information, see tables A1–A12 beginning on page 60.

Indicator 2 Early re-screening

Proportion of women re-screened, by number of re-screens, during a 21-month period following a normal Pap test for women in the target age group 20–69 years

The National Cervical Screening Program seeks to maximise the reduction in mortality from cervical cancer within a cost-effective framework. The screening Program defines two key parameters for achieving this objective—target populations and screening intervals. Compliance with these parameters is crucial to maintaining the effectiveness of the Program and cost efficiency, so that resources may be used to increase population coverage. For most women who have a negative test, the recommended interval before their next screen is 2 years. An early re-screen is defined as having a repeat Pap test within 21 months of a negative result. Reasons for the choice of 21 months as the timeline for reporting are discussed under 'Data issues' below.

This indicator tracks (over a period of 21 months) a cohort of women from all states and territories who had a negative test result in February 2006, to determine the extent of early re-screening within the National Cervical Screening Program. February was selected as the index month nationally because it has been shown to be a relatively stable month in terms of the number of women who are screened. This pattern has been consistent over a number of years, partly because fewer women take holidays at this time. It is also helped by the fact that February is not a month during which public holidays are nationally gazetted. The early re-screening indicator measures the compliance with the recommended screening interval following a negative test, and is important in assessing screening coverage around the recommended interval, as significant differences may reduce Program effectiveness.

This indicator should be interpreted with caution as some early re-screening after a negative Pap test is appropriate and in accordance with the NHMRC Guidelines.

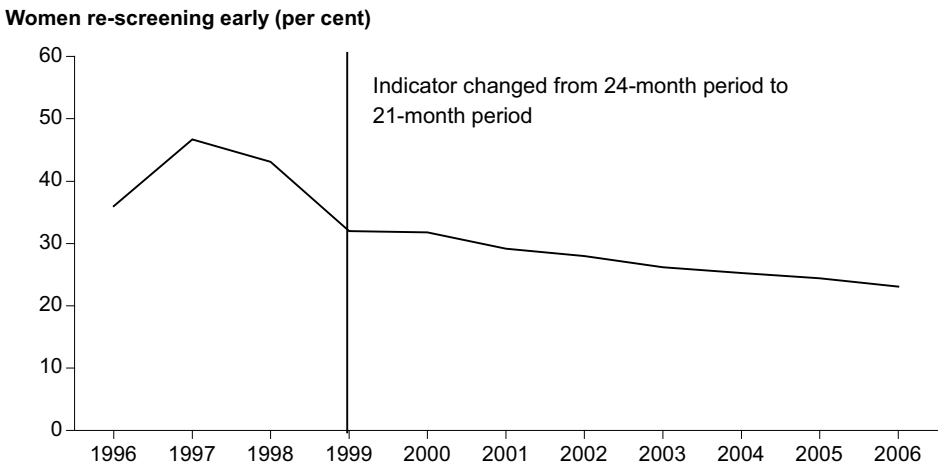
Data issues

The data for Indicator 2 published in reports prior to *Cervical screening in Australia 1999–2000* are not directly comparable with the data in this report, as this indicator has been modified to change the follow-up period from 24 months to 21 months. This change was made because women often have their Pap test performed at a time convenient to them, with some choosing to have their biennial screening immediately before the 2-year anniversary. Also, prescriptions for oral contraceptives lapse at 22 months and some women are then likely to combine their Pap test with their visit to the general practitioner for renewing their prescription.

Key points

The proportion of women who were re-screened early following a normal Pap test has continued to decline since 1999, at which time it was 32.0%. The national figure for the 2006 cohort was 23.1%, which was slightly lower than the 2005 cohort figure of 24.4%. This trend indicates greater compliance with the recommended screening interval of 2-years, which is important for maintaining the cost-effectiveness of the Program.

Trend in early re-screening



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 2.1: Proportion of women re-screening early following a normal Pap test, women 20–69 years, 1996–2006 cohorts

Table 2.1: Proportion of women re-screening early following a normal Pap test, women 20–69 years, 1996–2006 cohorts

	Year										
No. of screens	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
				Per cent							
1 screen	28.0	37.2	34.7	27.3	27.3	25.3	24.1	22.7	22.1	21.5	20.6
2 screens	6.2	7.6	6.9	3.8	3.6	3.1	3.1	2.8	2.6	2.4	2.2
3+ screens	1.8	1.9	1.5	0.9	0.9	0.8	0.8	0.7	0.6	0.5	0.3
Total	**36.0**	**46.7**	**43.1**	**32.0**	**31.8**	**29.2**	**28.0**	**26.2**	**25.3**	**24.4**	**23.1**

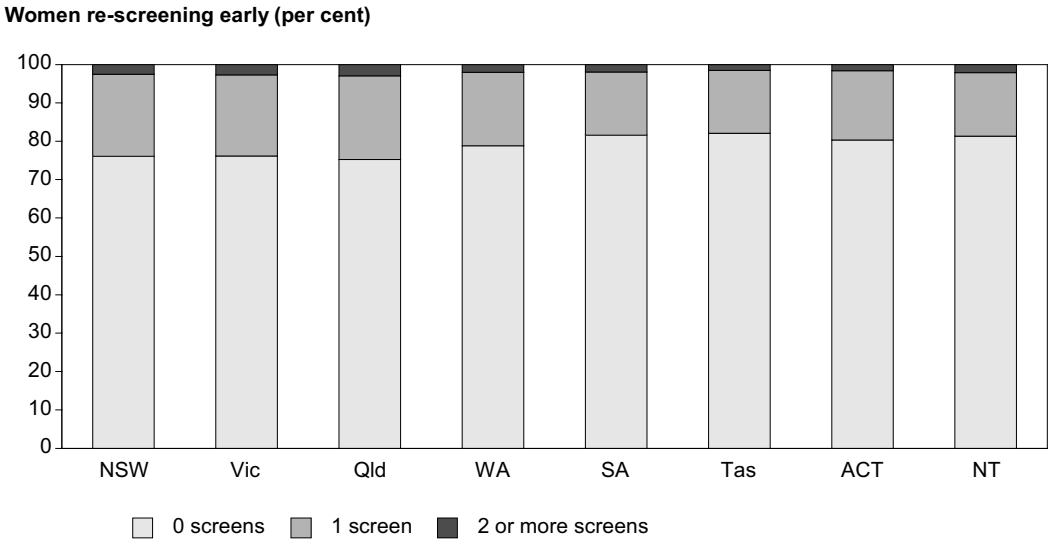
Notes

1. This indicator reported on a 2-year period following a normal Pap test up to and including 1998. In 1999 the indicator was changed to a 21-month interval; therefore data up to and including 1998 are not directly comparable with data in subsequent years.
2. The reference period for the 1996, 1997 and 1998 cohorts was the 24 months following the index month of February.
3. The reference period for the 1999 to 2006 cohorts was the 21 months following the index month of February (in 1999 the index month for Queensland was March).
4. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997 and 1998.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These data exclude women who have opted not to be included on a cervical cytology register.

- A cohort of 164,585 women screened in February 2006 whose Pap test results were normal was tracked over a 21-month period to measure the extent of early re-screening in Australia. The proportion of women being screened early fell from 32.0% in the 1999 cohort to 23.1% in the 2006 cohort.

For more information, see tables A13–A16 beginning on page 72.

Early re-screening by state and territory



Source: AIHW analysis of state and territory cervical cytology registry data.

Note: The reference period for this indicator was the 21 months following the index month February.

Figure 2.2: Proportion of women re-screening within 21 months of a normal Pap test, by state and territory, women 20–69 years, 2006 cohort

- In the 2006 cohort, South Australia (81.6%), Tasmania (82.1%), the Australian Capital Territory (80.3%) and the Northern Territory (81.3%) had the highest proportions of women who did not screen again within 21 months of a normal Pap test, compared with 76.9% nationally.

For more information, see tables A13–A16 beginning on page 72.

Table 2.2: Proportion of women re-screening within 21 months of a normal Pap test, by state and territory, women 20–69 years, 1999–2006 cohorts

	States and territories								
Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Per cent				
1999 cohort									
0 screens	67.5	66.1	70.8	66.8	70.2	68.9	71.3	70.8	68.0
1 screen	28.3	28.3	24.7	29.1	25.4	26.6	24.0	25.0	27.3
2 or more	4.2	5.6	4.5	4.2	4.5	4.5	4.7	4.2	4.7
2000 cohort									
0 screens	68.5	65.0	69.5	67.7	73.9	69.9	70.4	76.2	68.1
1 screen	27.6	29.4	25.6	28.6	22.4	26.4	25.3	18.9	27.3
2 or more	3.9	5.6	4.9	3.7	3.7	3.7	4.4	4.9	4.5
2001 cohort									
0 screens	70.4	67.8	72.3	71.8	76.7	73.1	72.9	76.0	70.8
1 screen	26.1	27.4	23.6	25.1	20.6	23.9	23.1	20.9	25.3
2 or more	3.5	4.8	4.1	3.1	2.7	3.1	4.0	3.1	3.9
2002 cohort									
0 screens	72.0	69.5	73.3	71.9	77.3	74.9	74.1	75.1	72.0
1 screen	24.6	25.8	22.5	24.6	20.1	21.9	22.2	20.5	24.1
2 or more	3.4	4.7	4.2	3.5	2.6	3.2	3.7	4.4	3.9
2003 cohort									
0 screens	73.6	72.7	73.9	72.9	78.5	77.1	74.0	72.8	73.8
1 screen	23.2	23.1	22.1	24.0	19.4	20.3	22.4	23.3	22.7
2 or more	3.1	4.3	4.0	3.0	2.1	2.6	3.6	3.9	3.5
2004 cohort									
0 screens	74.1	74.0	74.0	74.2	80.2	76.4	75.3	77.2	74.7
1 screen	23.0	22.1	22.1	23.4	17.6	20.8	21.4	20.2	22.1
2 or more	2.9	3.9	3.9	2.5	2.1	2.8	3.3	2.6	3.2
2005 cohort									
0 screens	75.3	74.6	75.3	76.3	79.7	77.4	78.6	76.1	75.6
1 screen	22.0	22.0	21.3	21.3	18.2	19.7	18.7	20.9	21.5
2 or more	2.7	3.5	3.4	2.4	2.1	2.9	2.7	3.0	2.9
2006 cohort									
0 screens	76.1	76.2	75.3	78.8	81.6	82.1	80.3	81.3	76.9
1 screen	21.4	21.1	21.8	19.2	16.5	16.4	18.1	16.6	20.6
2 or more	2.5	2.7	2.9	2.0	1.9	1.5	1.6	2.1	2.5

Notes

1. The reference period was the 21 months following the index month of February (in 1999 the index month for Queensland was March).
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997 and 1998.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.

Indicator 3 Low-grade abnormality detection

The ratio of the number of women with a histologically verified low-grade intraepithelial abnormality detected in a 12-month period to the number of women with a histologically verified high-grade intraepithelial abnormality detected in the same period, for women in the target age group 20–69 years

This ratio is based only on the results for women who were referred for histological follow-up. The numerator represents those that were found to be low-grade abnormalities by follow-up histology. The denominator represents those that were identified as high-grade abnormalities by follow-up histology. The majority of low-grade abnormalities identified at follow-up represent cases where the initial Pap test result was incorrectly identified as high-grade. Therefore, in this indicator, a lower ratio of low-grade abnormalities to high-grade abnormalities is the desired outcome.

In this report, low-grade histological abnormalities include atypia, warty atypia, possible cervical intraepithelial neoplasia (CIN) and CIN 1. High-grade abnormalities include CIN 1/2, CIN 2, CIN 3 and adenocarcinoma in situ.

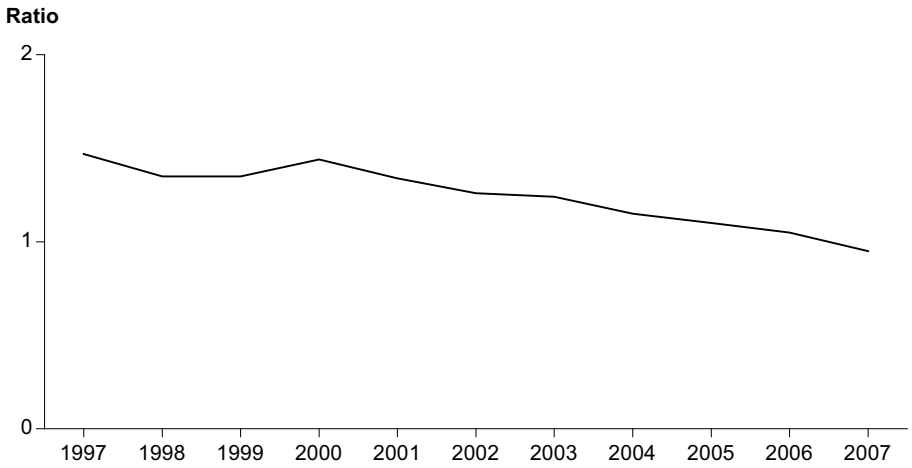
Data issues

NHMRC Guidelines introduced on 1 July 2006 recommend that asymptomatic women with a low-grade abnormality detected on cytology (Pap test) have repeat Pap tests to monitor the abnormality, rather than proceed to colposcopy and biopsy if indicated, as was the management recommended under the previous Guidelines. As a result of the introduction of these new management guidelines, there may be fewer low-grade abnormalities detected by histology, and this needs to be considered when comparing 2007 with previous years, since this indicator is based only on histology.

Key points

The ratio of low-grade to high-grade intraepithelial abnormalities detected by histology decreased from 1.47 in 1997 to 0.95 in 2007. This is the first time that this ratio has fallen below 1.0 nationally. There was a concurrent decline in the number of low-grade abnormalities detected by histology as a percentage of all screens from 1.04% in 1997 to 0.68% in 2007.

Trend in ratio of low- to high-grade abnormalities



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 3.1: Ratio of low-grade to high-grade abnormalities detected by histology, women 20–69 years, 1997–2007

Table 3.1: Low-grade and high-grade abnormalities detected by histology, women 20–69 years, 1997–2007

	Year										
Abnormalities	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
						Number					
Low-grade	15,314	14,411	15,753	19,985	18,126	18,781	18,443	16,627	16,274	15,118	13,709
High-grade	10,392	10,704	11,686	13,851	13,555	14,903	14,840	14,507	14,837	14,414	14,479
Total	**25,706**	**25,115**	**27,439**	**33,836**	**31,681**	**33,684**	**33,283**	**31,134**	**31,111**	**29,532**	**28,188**
Ratio	1.47	1.35	1.35	1.44	1.34	1.26	1.24	1.15	1.10	1.05	0.95
95% CI	1.44–1.51	1.31–1.38	1.32–1.38	1.41–1.47	1.31–1.37	1.23–1.29	1.22–1.27	1.12–1.17	1.07–1.12	1.03–1.07	0.92–0.97
						Per cent of screens					
Low-grade	1.04	0.93	1.02	1.07	0.98	1.01	0.98	0.88	0.84	0.79	0.68
High-grade	0.71	0.69	0.75	0.74	0.73	0.80	0.79	0.77	0.77	0.75	0.72
Total	**1.75**	**1.61**	**1.77**	**1.81**	**1.71**	**1.80**	**1.77**	**1.64**	**1.61**	**1.53**	**1.39**

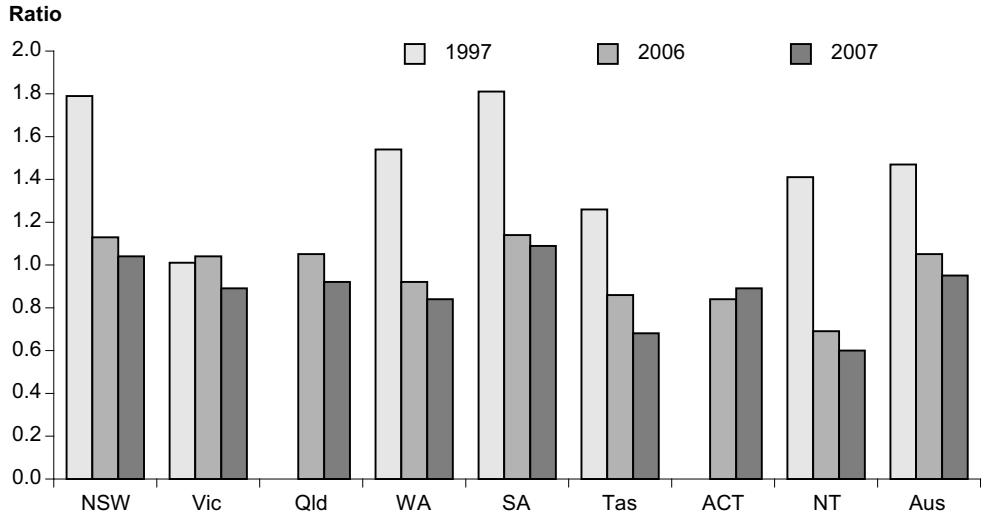
Notes

1. Ratio is the number of women with a low-grade abnormality detected by histology divided by the number of women with a high-grade abnormality detected by histology.
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
3. Australian Capital Territory data were not available for 1997 and 1998.
4. Northern Territory data were not available for 2001.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These data exclude women who have opted not to be included on a cervical cytology register.

- In 2007, 28,188 abnormalities were detected by histology in women aged 20–69 years, of which 13,709 were low-grade and 14,479 were high-grade. This is the first time that the number of low-grade abnormalities detected was lower than the number of high-grade abnormalities. While there has been a consistent trend of fewer low-grade abnormalities detected by histology, this may also be a reflection of the new NHMRC Guidelines, as these recommend repeat cytology as follow-up for a low-grade Pap test rather than colposcopy and biopsy, which would plausibly result in fewer low-grade abnormalities detected by histology.
- Between 1997 and 2007, the ratio of low-grade to high-grade abnormalities detected in women aged 20–69 years declined from 1.47 to 0.95.
- The total number of abnormalities detected fell from 1.75% of screens in 1997 to 1.39% of screens in 2007.
- The number of low-grade abnormalities detected fell from 1.04% of screens in 1997 to 0.68% of screens in 2007.

For more information, see tables A17 and A18 beginning on page 75.

Ratio of low- to high-grade abnormalities by state and territory



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 3.2: Ratio of low-grade to high-grade abnormalities detected by histology, by state and territory, women 20–69 years, 1997, 2006 and 2007

Table 3.2 Ratio of low-grade to high-grade abnormalities detected by histology, by state and territory, women 20–69 years, 1997–2007

	States and territories								
Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Ratio				
1997	1.79	1.01	. .	1.54	1.81	1.26	. .	1.41	1.47
1998	1.46	1.11	. .	1.48	1.45	1.42	. .	0.87	1.35
1999	1.37	1.18	. .	1.70	1.43	1.36	1.24	0.88	1.35
2000	1.42	1.24	1.62	1.67	1.47	1.42	1.24	1.13	1.44
2001	1.39	1.09	1.41	1.52	1.39	1.25	1.17	. .	1.34
2002	1.29	0.91	1.40	1.62	1.27	1.13	1.31	1.42	1.26
2003	1.41	0.95	1.11	1.71	1.32	0.96	1.06	1.31	1.24
2004	1.16	1.00	1.20	1.36	1.20	1.01	0.85	1.25	1.15
2005	1.15	0.93	1.24	1.22	1.06	0.93	0.69	0.91	1.10
2006	1.13	1.04	1.05	0.92	1.14	0.86	0.84	0.69	1.05
2007	1.04	0.89	0.92	0.84	1.09	0.68	0.89	0.60	0.95

. . Not applicable.

Notes

1. Ratio is the number of women with a low-grade abnormality detected by histology divided by the number of women with a high-grade abnormality detected by histology.
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
3. Australian Capital Territory data were not available for 1997 and 1998.
4. Northern Territory data were not available for 2001.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These data exclude women who have opted not to be included on a cervical cytology register.

- In 2007, New South Wales and South Australia had the highest ratio of low- to high-grade abnormalities detected by histology at 1.04 and 1.09, respectively, and Tasmania and the Northern Territory had the lowest at 0.68 and 0.60.
- Between 2006 and 2007 all states and territories had a decrease in the ratio of low- to high-grade abnormalities except for the Australian Capital Territory.

For more information, see tables A17 and A18 beginning on page 75.

Indicator 4 High-grade abnormality detection

Detection rate of histologically verified high-grade intraepithelial abnormalities per 1,000 women screened in a 12-month period for women aged 20 years and over and for the target age group 20–69 years

The detection of high-grade abnormalities is an indicator of Program performance. High-grade abnormalities have a greater probability of progressing to invasive cancer than do low-grade lesions. Therefore, one of the aims of the National Cervical Screening Program is to set a screening interval that detects most of these lesions before they progress and become invasive. It should be emphasised, however, that high-grade abnormalities do not always progress to invasive cervical cancer, with a recent study suggesting that at least 80% of high-grade abnormalities regress spontaneously (Raffle et al. 2003). Factors that influence the progression of high-grade abnormalities to invasive cervical cancer include age—with regression more likely in younger women, and extent of high-grade abnormality—with extensive and persistent high-grade abnormalities more likely to progress to invasive cervical cancer (NHMRC 2005).

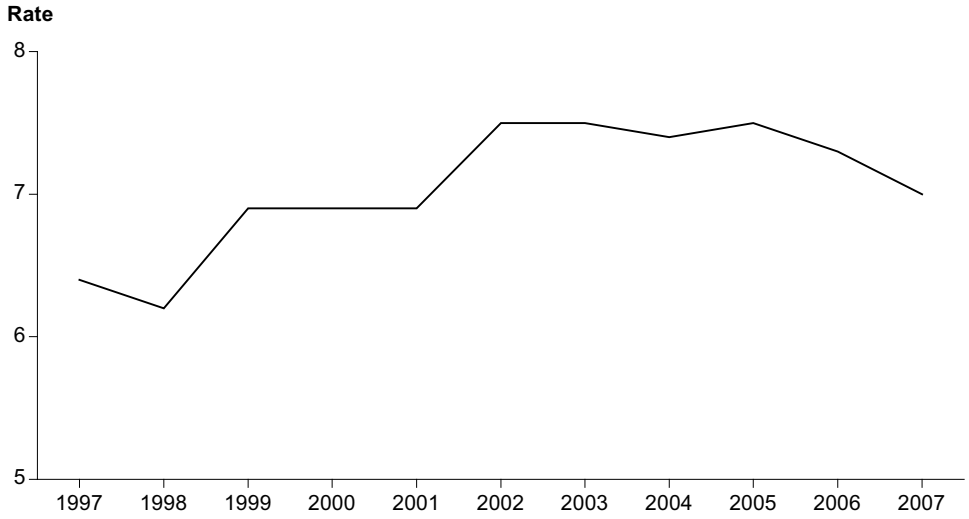
The rate of detection of high-grade abnormalities is an indicator of how well the Program detects these abnormalities. The best way to interpret this is to look at these rates in combination with cervical cancer incidence and mortality rates, since the aim of detecting high-grade abnormalities is to reduce the incidence and mortality from cervical cancer.

This indicator measures the frequency of histological verified high-grade abnormalities in the screened population. In this report high-grade abnormalities include CIN 1/2, CIN 2, CIN 3 and adenocarcinoma in situ.

Key points

The detection rate of high-grade abnormalities in women aged 20–69 years increased from 6.4 per 1,000 women in 1997 to 7.0 in 2007. The rate of high-grade abnormalities was highest in women aged 20–34 years and lowest in women aged 50–69 years. This is consistent with reported higher prevalence of HPV infection in women younger than 34 years (De Sanjosé et al. 2007), and current understanding of the natural history of high-grade abnormalities, with significant regression of high-grade abnormalities occurring in younger women (NHMRC 2005).

Trend in high-grade abnormalities detected



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 4.1: High-grade abnormalities detected by histology per 1,000 women screened (age-standardised), women 20–69 years, 1997–2007

Table 4.1: High-grade abnormalities detected by histology per 1,000 women screened (age-standardised), women 20–69 years, 1997–2007

	Year										
	1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
	Number detected per 1,000 women screened										
AS rate	6.4	6.2	6.9	6.9	6.9	7.5	7.5	7.4	7.5	7.3	7.0
95% CI	6.2–6.5	6.1–6.3	6.8–7.1	6.8–7.0	6.8–7.0	7.4–7.6	7.4–7.6	7.3–7.5	7.3–7.6	7.2–7.4	6.9–7.1

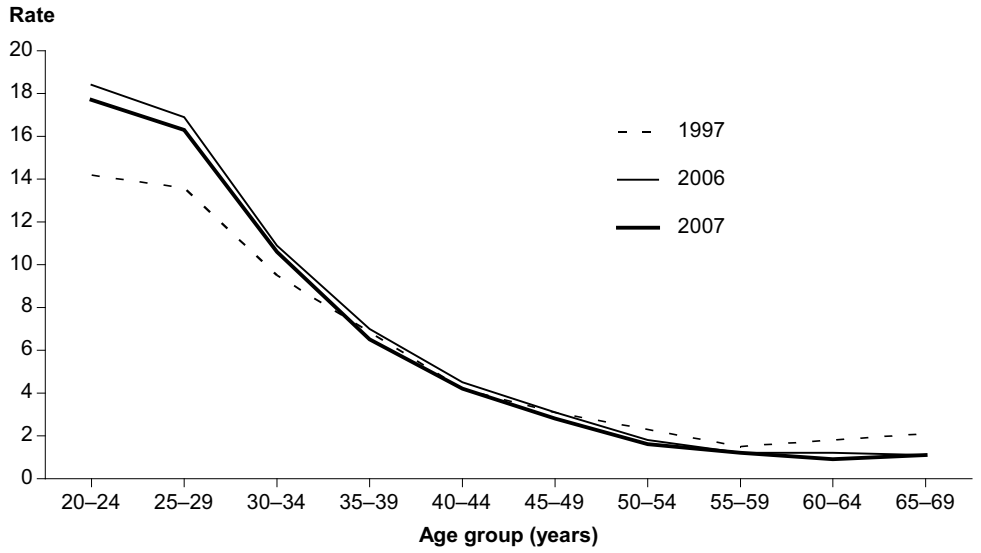
Notes

1. Age-standardised rates are the number of women with a high-grade abnormality detected by histology per 1,000 women screened and age-standardised to the Australian population at 30 June 2001.
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
3. Australian Capital Territory data were not available for 1997 and 1998.
4. Northern Territory data were not available for 2001.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These data exclude women who have opted not to be included on a cervical cytology register.

- In 2007, there were 14,466 high-grade intraepithelial abnormalities detected by histology in 2,021,751 women screened aged 20–69 years.
- The age-standardised rate of high-grade intraepithelial abnormalities detected by histology increased significantly over the period 1997–2007, from 6.4 per 1,000 women screened in 1997 to 7.0 in 2007, for women aged 20–69 years.

For more information, see tables A19–A24 beginning on page 77.

High-grade abnormalities detected by age



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 4.2: High-grade abnormalities detected by histology per 1,000 women screened (age-specific), by age, 1997, 2006 and 2007

Table 4.2: High-grade abnormalities detected by histology per 1,000 women screened (age-specific and age-standardised), by age, 1997–2007

	Age group (years)										
Year	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	20–69
	Number detected per 1,000 women screened										
1997	14.2	13.6	9.5	6.3	4.2	3.1	1.9	1.5	1.7	2.1	6.4 (6.2–6.5)
1998	14.3	13.9	8.8	6.3	4.1	2.6	1.9	1.6	1.7	1.0	6.2 (6.1–6.3)
1999	16.8	15.0	10.0	6.7	4.4	3.2	2.0	1.7	1.6	2.0	6.9 (6.8–7.1)
2000	16.3	15.5	10.3	6.5	4.5	3.0	1.9	1.5	1.5	1.7	6.9 (6.8–7.0)
2001	16.3	15.6	10.1	6.6	4.4	3.0	1.8	1.5	1.5	1.6	6.9 (6.8–7.0)
2002	18.9	16.7	11.3	6.9	4.8	3.0	2.0	1.7	1.3	1.4	7.5 (7.4–7.6)
2003	18.5	16.9	11.0	6.9	5.0	3.2	1.8	1.5	1.6	1.4	7.5 (7.4–7.6)
2004	19.4	16.8	11.3	6.8	4.4	2.9	1.7	1.4	1.2	1.0	7.4 (7.3–7.5)
2005	19.2	17.3	11.3	6.9	4.3	2.9	1.6	1.5	1.3	1.0	7.5 (7.3–7.6)
2006	18.4	16.9	10.9	7.0	4.5	3.1	1.8	1.2	1.2	1.1	7.3 (7.2–7.4)
2007	17.7	16.3	10.6	6.5	4.2	2.8	1.6	1.2	0.9	1.1	7.0 (6.9–7.1)

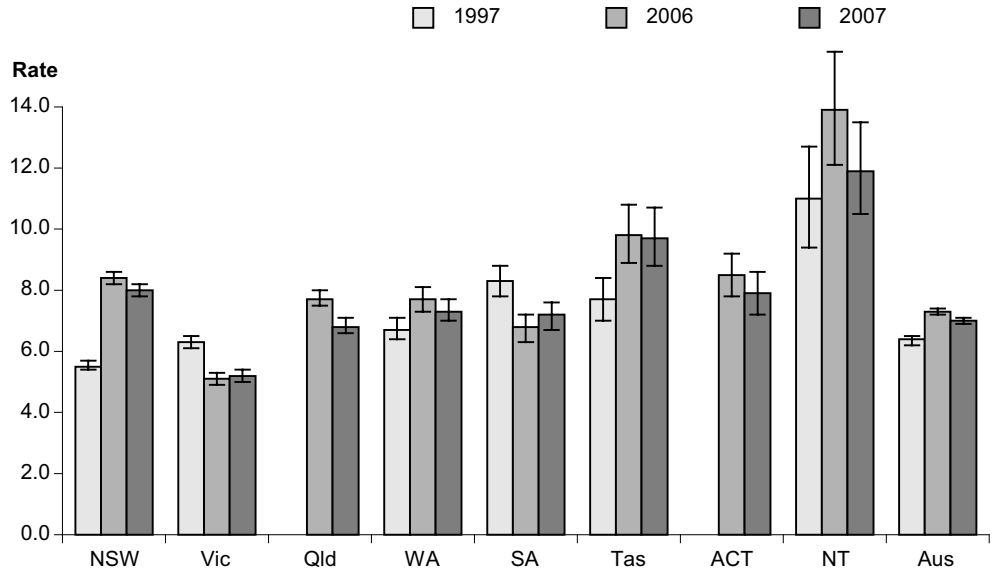
Notes

1. Age-specific rates for 5-year age groups are the number of women with a high-grade abnormality detected by histology per 1,000 women screened.
2. Age-standardised rates for the target age group 20–69 years are the number of women with a high-grade abnormality detected by histology per 1,000 women screened, age-standardised to the Australian population at 30 June 2001.
3. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
4. Australian Capital Territory data were not available for 1997 and 1998.
5. Northern Territory data were not available for 2001.
6. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
7. These data exclude women who have opted not to be included on a cervical cytology register.

- The detection rate for high-grade abnormalities was much higher in the younger age groups. In 2007, the rate for women aged 20–24 years was 17.7 per 1,000 women screened compared with less than 2.0 per 1,000 women screened in women aged 50–69 years.

For more information, see tables A19–A24 beginning on page 77.

High-grade abnormalities detected by state and territory



Source: AIHW analysis of state and territory cervical cytology registry data.

Figure 4.3: High-grade abnormalities detected by histology per 1,000 women screened (age-standardised), by state and territory, women 20–69 years, 1997, 2006 and 2007

- The only jurisdiction to have a significantly different rate of detection of high-grade abnormalities in 2007 compared with 2006 was Queensland, with a decrease from 7.7 per 1,000 women screened in 2006 to 6.8 per 1,000 women screened in 2007.
- In New South Wales there was an overall increase in the rate of high-grade abnormalities detected from 5.5 per 1,000 women screened in 1997 to 8.0 in 2007. Western Australia has a smaller increase in the rate of high-grade abnormality detection from 6.7 per 1,000 women screened in 1997 to 7.3 in 2007. Tasmania also had an increase in the detection rate, from 7.7 in 1997 to 9.7 in 2007.
- In Victoria, there was an overall decrease in the rate of high-grade abnormalities detected from 6.3 per 1,000 women screened in 1997 to 5.2 in 2007. Queensland had a decrease in the rate of high-grade abnormalities detected from 8.6 in 2000 (the first year for which these data are available) to 6.8 per 1,000 women screened in 2007. Similarly in South Australia there was a decrease in the detection rate from 8.3 per 1,000 women screened in 1997 to 7.2 in 2007.
- The Northern Territory had the highest rates of high-grade abnormalities detected for most years there data were available between 1997 and 2007.

For more information, see tables A19–A24 beginning on page 77.

Table 4.3: High-grade abnormalities detected by histology per 1,000 women screened (age-standardised), by state and territory, women 20–69 years, 1997–2007

	States and territories								
Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number detected per 1,000 women screened								
1997	5.5	6.3	. .	6.7	8.3	7.7	. .	11.0	6.4
95% CI	5.4–5.7	6.1–6.5	. .	6.4–7.1	7.8–8.8	7.0–8.5	. .	9.4–12.7	6.2–6.5
1998	5.8	5.3	. .	6.2	8.9	9.6	. .	12.5	6.2
95% CI	5.6–6.0	5.1–5.5	. .	5.9–6.5	8.4–9.4	8.8–10.5	. .	11.0–14.1	6.1–6.3
1999	7.0	6.3	. .	7.1	7.9	9.1	6.4	8.3	6.9
95% CI	6.8–7.2	6.1–6.6	. .	6.7–7.5	7.5–8.3	8.3–10.0	5.6–7.4	6.9–9.8	6.8–7.1
2000	7.0	5.6	8.6	5.9	6.7	9.7	6.4	12.0	6.9
95% CI	6.8–7.2	5.4–5.8	8.3–8.9	5.6–6.3	6.3–7.1	8.9–10.7	5.5–7.3	10.4–13.6	6.8–7.0
2001	7.1	5.4	8.2	7.4	6.3	9.5	7.0	. .	6.9
95% CI	6.9–7.3	5.2–5.6	7.9–8.6	7.0–7.8	5.9–6.8	8.6–10.4	6.2–8.0	. .	6.8–7.0
2002	7.9	6.3	8.7	7.9	6.2	8.9	7.1	10.6	7.5
95% CI	7.7–8.1	6.1–6.5	8.4–9.0	7.5–8.3	5.8–6.6	8.1–9.8	6.3–8.1	9.1–12.1	7.4–7.6
2003	7.2	7.1	8.5	7.8	6.3	7.5	9.3	10.7	7.5
95% CI	7.0–7.4	6.8–7.3	8.2–8.8	7.4–8.2	5.9–6.7	6.7–8.3	8.3–10.5	9.3–12.3	7.4–7.6
2004	8.3	6.2	7.8	7.7	5.8	9.4	8.5	9.0	7.4
95% CI	8.0–8.5	6.0–6.5	7.5–8.1	7.3–8.1	5.4–6.2	8.5–10.3	7.5–9.5	7.7–10.4	7.3–7.5
2005	8.3	6.2	7.5	7.1	7.1	10.5	9.3	11.5	7.5
95% CI	8.1–8.5	5.6–6.4	7.3–7.8	6.7–7.4	6.6–7.5	9.6–11.5	8.4–10.4	10.0–13.2	7.3–7.6
2006	8.4	5.1	7.7	7.7	6.8	9.8	8.5	13.9	7.3
95% CI	8.2–8.6	4.9–5.3	7.5–8.0	7.3–8.1	6.3–7.2	8.9–10.8	7.8–9.2	12.1–15.8	7.2–7.4
2007	8.0	5.2	6.8	7.3	7.2	9.7	7.9	11.9	7.0
95% CI	7.8–8.2	5.0–5.4	6.6–7.1	7.0–7.7	6.7–7.6	8.8–10.7	7.2–8.6	10.5–13.5	6.9–7.1

. . Not applicable.

Notes

1. Age-standardised rates are the number of women with a high-grade abnormality detected by histology per 1,000 women screened and age-standardised to the Australian population at 30 June 2001.
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
3. Australian Capital Territory data were not available for 1997 and 1998.
4. Northern Territory data were not available for 2001.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These data exclude women who have opted not to be included on a cervical cytology register.

Indicator 5 Incidence

A 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. But where these pre-cancerous lesions cannot be detected, diagnosis of cancer at its earliest stage, the micro-invasive stage, is the most desirable outcome. The incidence indicators measure the incidence rates of micro-invasive and all cervical cancers. Incidence by geographic region is also measured.

Data issues

In interpreting cervical cancer incidence statistics, note that 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 which achieve higher participation rates 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, but the rate of more advanced cancers decreases in the longer term.

For this report the most recent national data available on incidence are for 2005, in contrast to screening data which are available for 2006–2007 and mortality data which are available for 2006. This time lag in the availability of incidence data is due to the time taken for cancer registries to consolidate and confirm cancer cases.

Key points

In 2005, the age-standardised incidence rate of micro-invasive squamous cervical cancer was 1.5 per 100,000 women in the target age group 20–69 years, down from the peak incidence rate in 1995 of 3.2 per 100,000 women, and significantly lower than the rate of 2.9 new cases per 100,000 women in 1991 at the commencement of the cervical screening program.

Incidence rate of all cervical cancer in 2005 was 9.2 per 100,000 women in the target age group 20–69 years, significantly lower than the rate of 17.1 new cases per 100,000 women in 1991 at the commencement of the cervical screening program.

In 2005, within the target age group 20–69 years, women in 40–44 year age group had the highest incidence rates of micro-invasive squamous cervical cancer (3.0 per 100,000 women) and all cervical cancer (13.6 per 100,000 women). For women of all ages, incidence rate of micro-invasive squamous cervical cancer remained highest in the 40–44 year age group (3.0 per 100,000 women), but incidence rate of all cervical cancer was highest in the 85 years and over age group (15.4 per 100,000 women).

In 2005, the incidence rate of adenocarcinoma was 1.8 per 100,000 women, down from the peak incidence rate in 1994 of 3.5 per 100,000 women, and significantly lower than the rate of 2.8 per 100,000 women at the commencement of cervical screening program in 1991. Despite this significance, the decrease in incidence of adenocarcinoma is not as marked as the decrease in squamous cervical cancer, a trend which has been attributed to difficulties in cytological sampling of endocervical cells using the Pap test, diverse appearance and less well defined characteristics of adenocarcinoma, and a poorer understanding of the natural history of how glandular abnormalities give rise to adenocarcinoma (NHMRC 2005; Wang et al. 2006).

Identification of Aboriginal and Torres Strait Islander people in cancer registry records of new cases is not complete as Indigenous status is not yet included in pathology forms and reporting of Indigenous status is primarily sourced from hospital records.

In 2000–2004, despite under-reporting, cervical cancer incidence in Aboriginal and Torres Strait Islander women was 16.9 new cases per 100,000 women for New South Wales, Victoria, Queensland, Western Australia and the Northern Territory combined, more than double the non-indigenous rate of 7.1 new cases per 100,000 women (ABS & AIHW 2008).

Indicator 5.1 Incidence of micro-invasive squamous cervical cancer

Incidence of micro-invasive squamous cell carcinoma per 100,000 estimated resident population in a 12-month period for women of all ages and for the target age group 20–69 years

Trend in incidence of micro-invasive squamous cervical cancer

Source: National Cancer Statistics Clearing House (AIHW).

Figure 5.1: Incidence (age-standardised) of micro-invasive squamous cell carcinoma, women of all ages and women 20–69 years, 1991–2005

Table 5.1: Incidence (age-standardised) of micro-invasive squamous cell carcinoma, women of all ages and women 20–69 years, 1991–2005

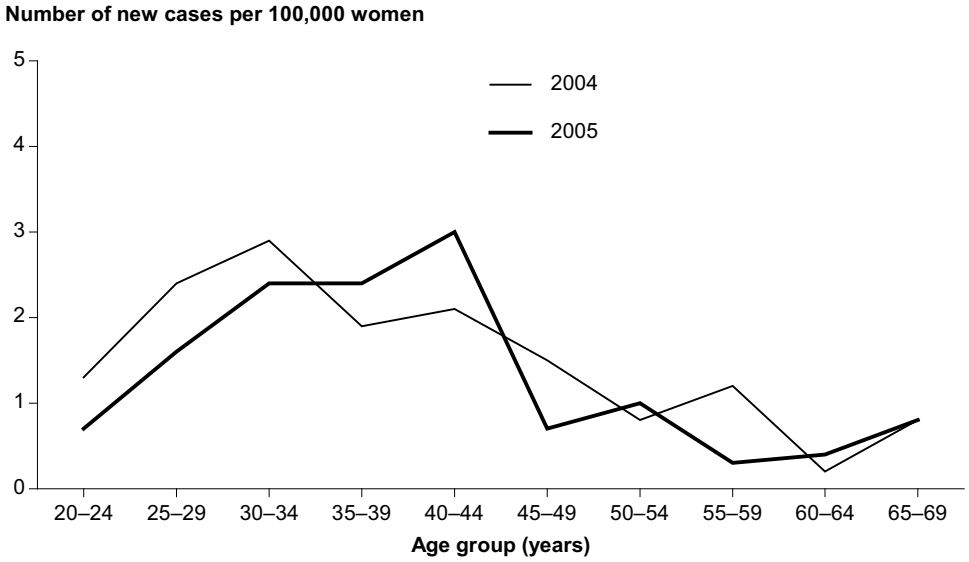
	Year														
Age	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
	Number of new cases per 100,000 women														
All ages	1.9	1.9	1.7	2.1	2.2	1.7	1.4	1.4	1.0	1.0	1.0	1.0	0.9	1.1	1.0
Ages 20–69 years	2.9	2.9	2.5	3.1	3.2	2.5	2.0	2.1	1.5	1.5	1.5	1.5	1.4	1.6	1.5

Note: Age-standardised rates are the number of micro-invasive squamous cell carcinomas detected per 100,000 women and age-standardised to the Australian population at 30 June 2001.

- In 1991, when the Program commenced, 167 new cases of micro-invasive squamous cell carcinoma were diagnosed, 156 of which were in the 20–69 years age group. By 2005, this number had declined to 97 new cases, with 94 of these in the 20–69 years age group.
- In 1991, the age-standardised incidence rate of micro-invasive squamous cell carcinoma was 1.9 per 100,000 women for women of all ages and 2.9 per 100,000 women for women aged 20–69 years. By 2005, these rates had decreased to 1.0 per 100,000 women of all ages and 1.5 per 100,000 women in the target age group of 20–69 years.

For more information, see tables A25 and A26 beginning on page 84.

Incidence of micro-invasive squamous cervical cancer by age



Source: National Cancer Statistics Clearing House (AIHW).

Figure 5.2: Incidence (age-specific) of micro-invasive squamous cell carcinoma, by age, 2004 and 2005

Table 5.2: Incidence (age-specific and age-standardised) of micro-invasive squamous cell carcinoma, by age, 2004 and 2005

	Age group (years)										
Year	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	20–69
	Number of new cases per 100,000 women										
2004	1.3	2.4	2.9	1.9	2.1	1.5	0.8	1.2	0.2	0.8	1.6 (1.3–2.0)
2005	0.7	1.6	2.4	2.4	3.0	0.7	1.0	0.3	0.4	0.8	1.5 (1.2–1.8)

Notes

1. Age-specific rates for 5-year age groups are the number of micro-invasive squamous cell carcinomas detected per 100,000 women.
2. Age-standardised rates for the target age group 20–69 years are the number of micro-invasive squamous cell carcinomas detected per 100,000 women, age-standardised to the Australian population at 30 June 2001.

- In 2005, the highest incidence rates for micro-invasive squamous cell carcinoma were for women aged 40–44 years, 35–39 years and 30–34 years, at 3.0, 2.4, and 2.4 cases per 100,000 women, respectively. The rate declined to 1.0 or below per 100,000 women for women aged 45 years and over.
- The incidence of micro-invasive squamous cell carcinoma increased in women aged 35–44 years between 2004 and 2005. This was from 1.9 per 100,000 women to 2.4 per 100,000 women in the 30–34 year age group, and from 2.1 to 3.0 in women aged 40–44 years.
- The incidence of micro-invasive squamous cell carcinoma decreased in women aged 20–34 years between 2004 and 2005. This was from 1.3 per 100,000 women to 0.7 per 100,000 women in the 20–24 year age group, from 2.4 to 1.6 in women aged 25–29 years, and from 2.9 to 2.4 in women aged 30–34 years.

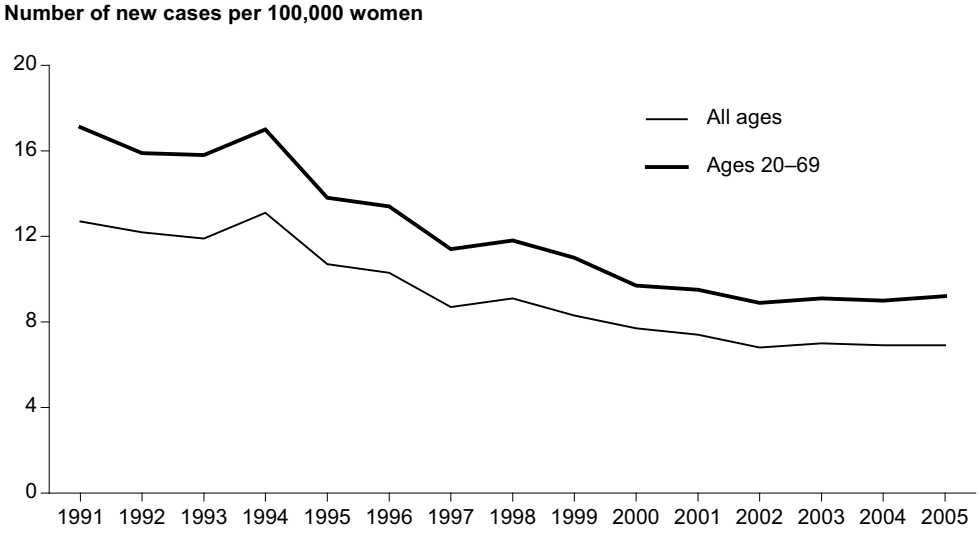
- The age-standardised incidence rates of micro-invasive cell carcinoma for women in the target age group 20–69 years did not differ significantly between 2004 and 2005.

For more information, see tables A25 and A26 beginning on page 84.

Indicator 5.2 Incidence of squamous, adenocarcinoma, adenosquamous and other cervical cancer

Incidence of squamous, adenocarcinoma, adenosquamous and other cervical cancer (micro-invasive and invasive) per 100,000 estimated resident female population in a 12-month period for women of all ages and for the target age group 20–69 years

Trend in incidence of all cervical cancer



Source: National Cancer Statistics Clearing House (AIHW).

Figure 5.3: Incidence (age-standardised) of all cervical cancer (squamous, adenocarcinoma, adenosquamous and other cervical cancer), women of all ages and women 20–69 years, 1991–2005

Table 5.3: Incidence (age-standardised) of all cervical cancer (squamous, adenocarcinoma, adenosquamous and other cervical cancer), women of all ages and women 20–69 years, 1991–2005

	Year														
Age	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
	Number of new cases per 100,000 women														
All ages	12.7	12.2	11.9	13.1	10.7	10.3	8.7	9.1	8.3	7.7	7.4	6.8	7.0	6.9	6.9
Ages 20–69 years	17.1	15.9	15.8	17.0	13.8	13.4	11.4	11.8	11.0	9.7	9.5	8.9	9.1	9.0	9.2

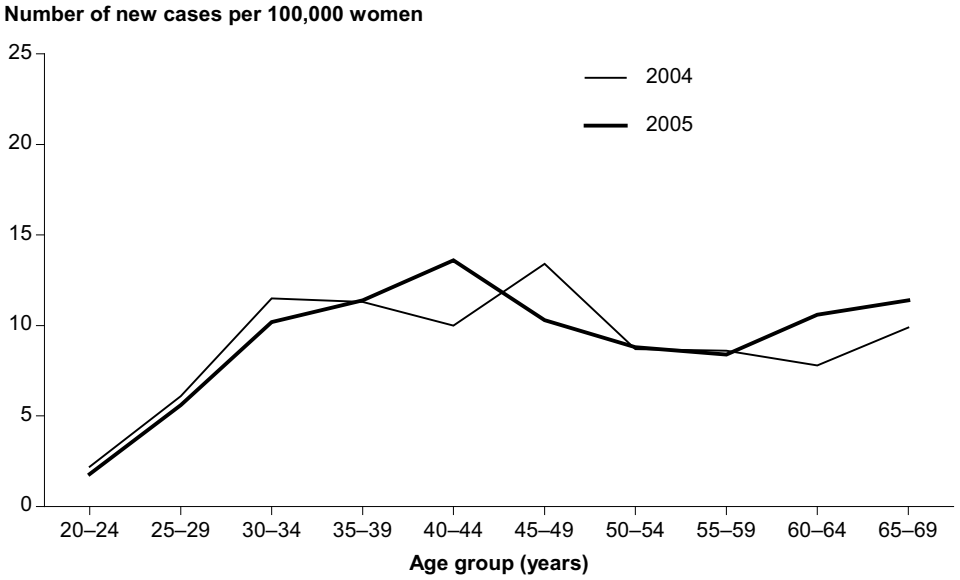
Note: Age-standardised rates are the number of cervical cancers detected per 100,000 women, age-standardised to the Australian population at 30 June 2001.

- In 1991, when the Program commenced, there were 1,092 new cases of cervical cancer diagnosed in Australia, 893 of these in women aged 20–69 years. In 2005, there were 734 new cases diagnosed, with 601 in the 20–69 years age group.

- In 1991, the age-standardised incidence rate of all cervical cancer was 12.7 per 100,000 women for women of all ages and 17.1 per 100,000 women for women aged 20–69 years. In 2005, these decreased to 6.9 per 100,000 women for women of all ages and 9.2 per 100,000 women for women aged 20–69 years.

For more information, see tables A27 and A28 beginning on page 86.

Incidence by age



Source: National Cancer Statistics Clearing House (AIHW).

Figure 5.4: Incidence (age-specific) of cervical cancer, by age, women 20–69 years, 2004 and 2005

Table 5.4: Incidence (age-specific and age-standardised) of cervical cancer, by age, women 20–69 years, 2004 and 2005

	Age group (years)										
Year	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	20–69
	Number of new cases per 100,000 women										
2004	2.2	6.1	11.5	11.3	10.0	13.4	8.7	8.6	7.8	9.9	9.0 (8.3–9.8)
2005	1.8	5.6	10.2	11.4	13.6	10.3	8.8	8.4	10.6	11.4	9.2 (8.4–9.9)

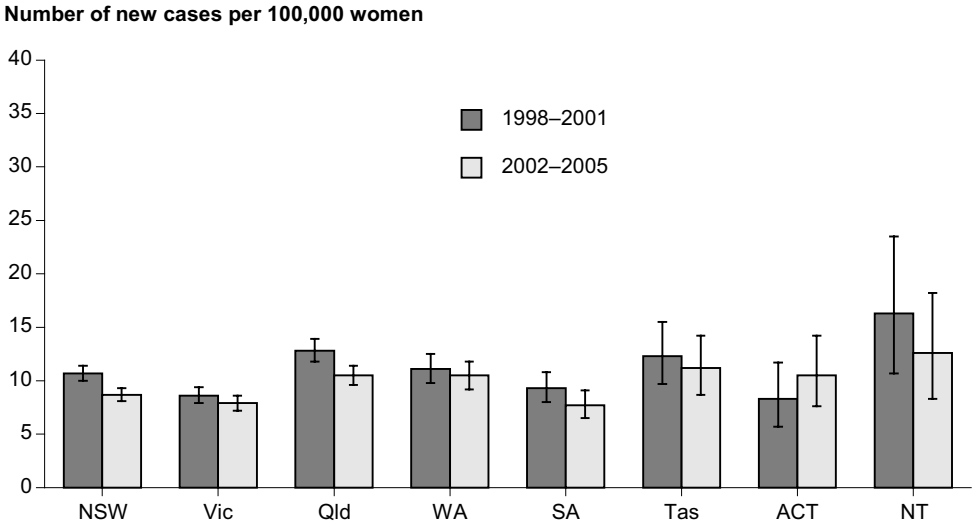
Notes

1. Age-specific rates for 5-year age groups are the number of cervical cancers detected per 100,000 women.
2. Age-standardised rates for the target age group 20–69 years are the number of cervical cancers detected per 100,000 women, age-standardised to the Australian population at 30 June 2001.

- For women in the target age group 20–69 years, the highest incidence rate of cervical cancer in 2005 was for women aged 40–44 years with 13.6 new cases per 100,000 women, and the lowest incidence rate was for women aged 20–24 years with 1.8 new cases per 100,000 women.
- For women of all ages, the highest incidence rate of cervical cancer in 2005 was for women aged 85 years and over with 15.4 new cases per 100,000 women.
- The age-standardised incidence rates of cervical cancer for women in the target age group 20–69 years did not differ significantly between 2004 and 2005.

For more information, see tables A27 and A28 beginning on page 86.

Incidence by state and territory



Note: Bars on graphs represent 95% confidence intervals.

Source: National Cancer Statistics Clearing House (AIHW).

Figure 5.5: Incidence (age-standardised) of cervical cancer, by state and territory, women 20–69 years, 1998–2001 and 2002–2005

Table 5.5: Incidence (age-standardised) of cervical cancer, by state and territory, women 20–69 years, 1998–2001 and 2002–2005

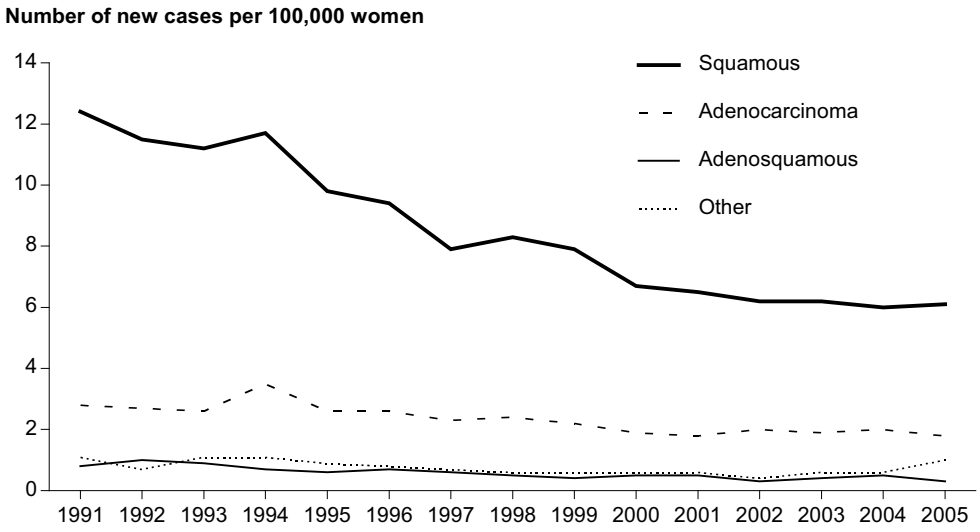
	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number of new cases per 100,000 women								
1998–2001	10.7	8.6	12.8	11.1	9.3	12.3	8.3	16.3	10.5
95% CI	10.0–11.4	7.9–9.4	11.8–13.9	9.8–12.5	8.0–10.8	9.7–15.5	5.7–11.7	10.7–23.5	10.1–10.9
2002–2005	8.7	7.9	10.5	10.5	7.7	11.2	10.5	12.6	9.0
95% CI	8.1–9.3	7.2–8.6	9.6–11.4	9.2–11.8	6.5–9.1	8.7–14.2	7.6–14.2	8.3–18.2	8.7–9.4

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

- In the period 2002–2005, Victoria and South Australia had the lowest age-standardised incidence rates of cervical cancer, at 7.9 and 7.7 new cases per 100,000 women, respectively, for women aged 20–69 years. The Northern Territory had the highest rate, at 12.6 new cases per 100,000 women.
- The age-standardised incidence rates declined in all states and territories, except for the Australian Capital Territory, between the periods 1998–2001 and 2002–2005. The declines were significant in New South Wales, Queensland and Australia as a whole.

For more information, see tables A29–A32 beginning on page 88.

Incidence by histological type



Source: National Cancer Statistics Clearing House (AIHW).

Figure 5.6: Incidence (age-standardised) of cervical cancer, by histological type, women 20–69 years, 1992–2005

Table 5.6: Incidence (age-standardised) of cervical cancer, by histological type, women 20–69 years, 1992–2005

	Year														
Histological type	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
	Number of new cases per 100,000 women														
Squamous	12.4	11.5	11.2	11.7	9.8	9.4	7.9	8.3	7.9	6.7	6.5	6.2	6.2	6.0	6.1
Adenocarcinoma	2.8	2.7	2.6	3.5	2.6	2.6	2.3	2.4	2.2	1.9	1.8	2.0	1.9	2.0	1.8
Adenosquamous	0.8	1.0	0.9	0.7	0.6	0.7	0.6	0.5	0.4	0.5	0.5	0.3	0.4	0.5	0.3
Other	1.1	0.7	1.1	1.1	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.4	0.6	0.6	1.0

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

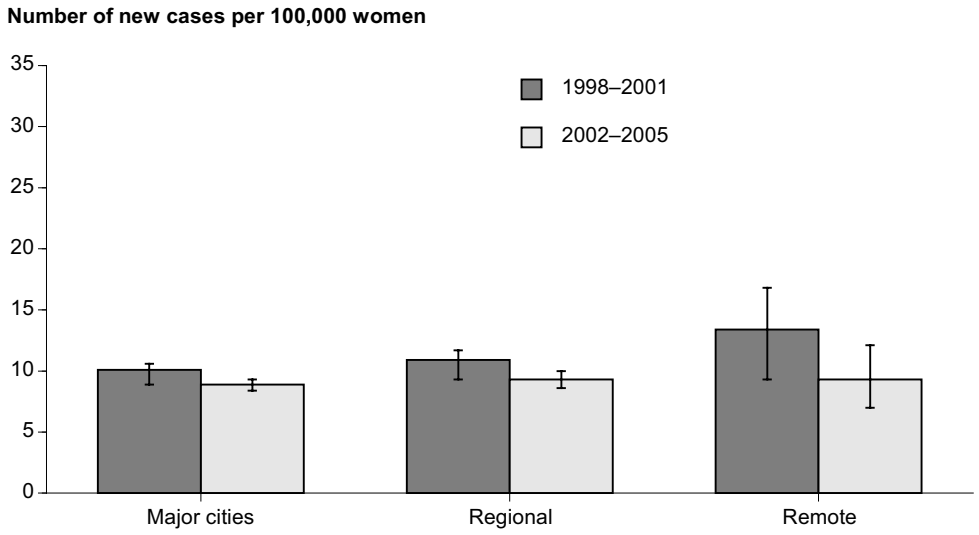
- In 2005, squamous cell carcinomas of the cervix accounted for 66.1% of all new cases of cervical cancer in women aged 20–69 years, adenocarcinomas 19.8%, adenosquamous 3.2%, and the remaining 11.0% a range of other mixed and unknown histologies.
- The trend from 1991 to 2005 for squamous, adenocarcinoma and adenosquamous histological types has been a significant decrease in the age-standardised rates of cervical cancer per 100,000 women aged 20–69 years.
- Despite cervical screening being less effective in reducing adenocarcinoma incidence rates due to the difficulties in sampling and detecting cells in the endocervical canal with a Pap test (Heley 2007), the incidence rate of adenocarcinoma declined significantly between 1991 and 2005.

For more information, see tables A33–A36 beginning on page 92.

Indicator 5.3 Incidence by geographic region

Incidence of cervical cancer per 100,000 resident female population in a 4-year period by geographic region for women of all ages and for the target age group 20–69 years

Incidence by geographic region



Note: Bars on graphs represent 95% confidence intervals.

Source: National Cancer Statistics Clearing House (AIHW).

Figure 5.7: Incidence (age-standardised) of cervical cancer, by geographic region, women 20–69 years, 1998–2001 and 2002–2005

Table 5.7: Incidence (age-standardised) rates of cervical cancer, by geographic region, women 20–69 years, 1998–2001 and 2002–2005

	Geographic regions					
	Major cities		Inner and outer regional		Remote and very remote	
	1998–2001	2002–2005	1998–2001	2002–2005	1998–2001	2002–2005
	Number of new cases per 100,000 women					
AS rate	10.1	8.9	10.9	9.3	13.4	9.3
95% CI	9.6–10.6	8.4–9.3	10.2–11.7	8.6–10.0	10.5–16.8	7.0–12.1

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

- In 2002–2005, there were 1,900 new cases of cervical cancer in *Major cities* (66.1% of all new cases), 888 new cases in *Inner and outer regional* areas (30.9% of all new cases) and 69 new cases in *Remote and very remote* areas (2.4% of all new cases).
- The age-standardised cervical cancer incidence rates for women aged 20–69 years were significantly lower in *Major cities* (8.9 per 100,000 women) and *Inner and outer regional* areas (9.3) in 2002–2005 than in 1998–2001 (10.1 and 10.9 respectively). The incidence rate in *Remote and very remote* areas did not change significantly between 1998–2001 (13.4 per 100,000 women) and 2002–2005 (9.3).

For more information, see tables A37 and A38 beginning on page 94.

Indicator 6 Mortality

Cervical cancer 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 1988). 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 (*Major cities*, *Inner and outer regional* and *Remote and very remote*), and mortality in Aboriginal and Torres Strait Islander 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 rates. Therefore, the effectiveness of this measure needs to be viewed in the longer rather than the shorter term.

For this report the most recent national data available on mortality are for 2006.

Key points

In 2006, mortality from cervical cancer was 1.9 deaths per 100,000 women for the target age group 20–69 years and for women of all ages. This is a substantial reduction from mortality in 1991, at the start of the screening program, when it was 4.0 deaths per 100,000 women for the target age group and for women of all ages.

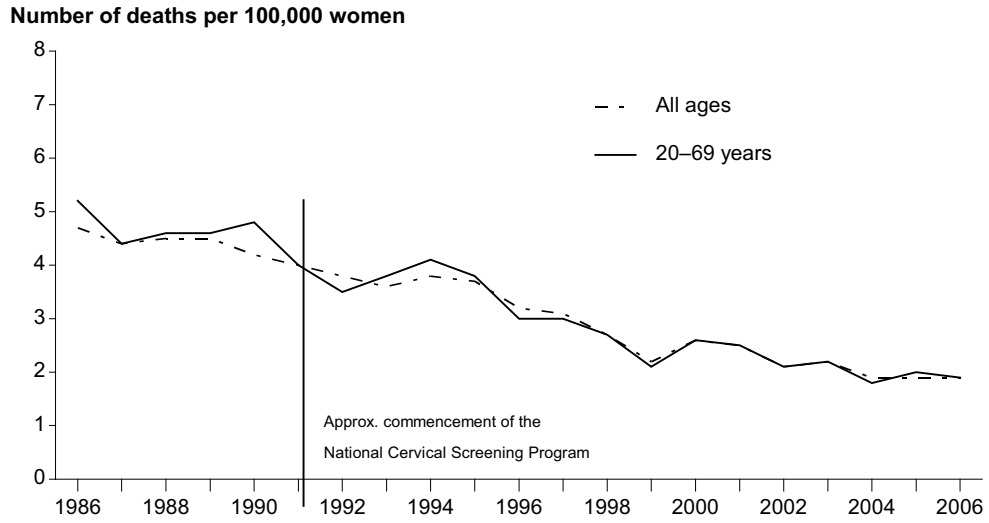
In 2006, the highest mortality from cervical cancer was in women aged 85 years and over, at 13.8 deaths per 100,000 women. Within the target age group, the highest mortality was in women aged 60–64 years, at 5.7 deaths per 100,000 women.

Mortality from cervical cancer in women aged 20–69 years for the period 2003–2006 was 10.3 per 100,000 women for Aboriginal and Torres Strait Islander women, 5.15 times as high as the mortality rate of 2.0 per 100,000 women for other Australian women.

Indicator 6.1 Mortality by age group

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

Trend in mortality from cervical cancer



Source: AIHW Mortality Database.

Figure 6.1: Mortality (age-standardised) for cervical cancer, women of all ages and women 20–69 years, 1986–2006

Table 6.1: Mortality (age-standardised) for cervical cancer, women of all ages and women 20–69 years, 1986–2006

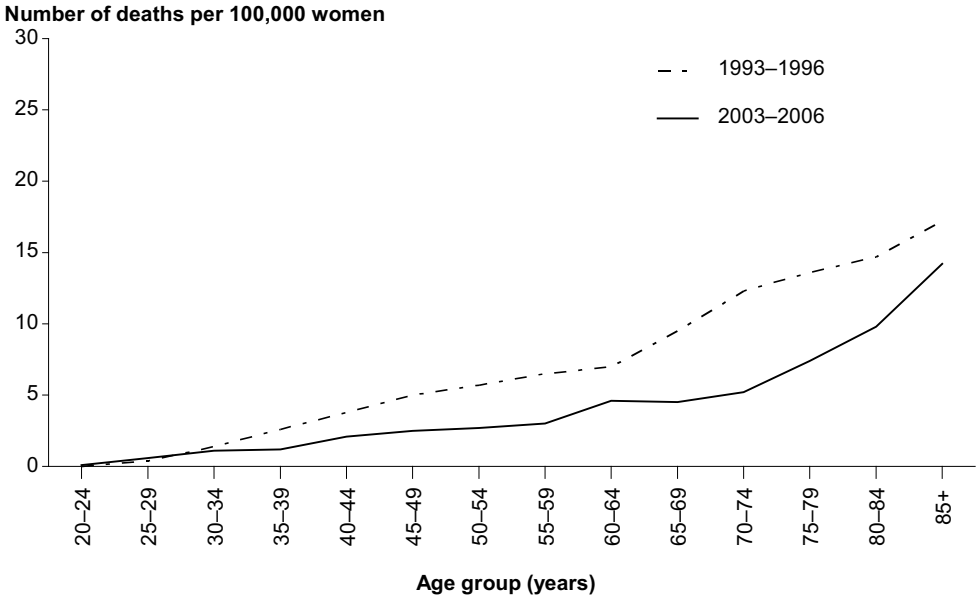
	Year																				
Age group (years)	**86**	**87**	**88**	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**
	Number of death per 100,000 women																				
All ages	4.7	4.4	4.5	4.5	4.2	4.0	3.8	3.6	3.8	3.7	3.2	3.1	2.7	2.2	2.6	2.5	2.1	2.2	1.9	1.9	1.9
Ages 20–69 years	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	2.0	1.9

Note: Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001.

- Cervical cancer was the 19th most common cause of cancer death in Australia women in 2006, accounting for 224 deaths.
- The age-standardised mortality rate from cervical cancer for women of all ages has fallen from 4.0 per 100,000 women in 1991 at the start of the screening program to 1.9 per 100,000 women in 2006.

For more information, see tables A39 and A40 beginning on page 96.

Mortality by age



Source: AIHW Mortality Database.

Figure 6.2: Mortality (age-specific) for cervical cancer, by age, 1993–1996 and 2003–2006

Table 6.2: Mortality (age-specific) for cervical cancer, by age, 1993–1996 and 2003–2006

	Age group (years)													
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+**
	Number of deaths per 100,000 women													
1993–1996	0.0	0.4	1.4	2.6	3.8	5.0	5.7	6.5	7.0	9.5	12.3	13.6	14.7	17.2
2003–2006	0.1	0.6	1.1	1.2	2.1	2.5	2.7	3.0	4.6	4.5	5.2	7.4	9.8	14.2

Note: Age-specific rates are the number of deaths from cervical cancer per 100,000 women.

- Mortality from cervical cancer declined between the periods 1993–1996 and 2003–2006 in all age groups for women aged 30 years and over.
- Mortality rates of cervical cancer increase with age. The highest mortality rate in 2003–2006 was in women aged 85 years and over with 14.2 deaths per 100,000 women.

For more information, see tables A39 and A40 beginning on page 96.

Mortality by state and territory

Note: Bars on graphs represent 95% confidence intervals.

Source: AIHW Mortality Database.

Figure 6.3: Mortality (age-standardised) for cervical cancer, by state and territory, women 20–69 years, 1999–2002 and 2003–2006

Table 6.3: Mortality (age-standardised) for cervical cancer, by state and territory, women 20–69 years, 1999–2002 and 2003–2006

	States and territories								
Period	**NSW**	**Vic**	**Qld**	**WA**	**SA**	**Tas**	**ACT**	**NT**	**Australia**
	Number of deaths per 100,000 women								
1999–2002	2.3	1.6	2.7	2.8	2.4	3.1	2.6	5.5	2.3
95% CI	2.0–2.6	1.3–2.0	2.3–3.3	2.1–3.5	1.7–3.2	1.8–4.7	1.2–4.8	2.5–10.2	2.1–2.5
2003–2006	2.0	1.5	2.2	2.0	2.2	3.4	0.9	1.8	2.0
95% CI	1.8–2.4	1.2–1.8	1.8–2.7	1.5–2.7	1.6–2.9	2.1–5.1	0.3–2.4	0.5–4.7	1.8–2.2

Note: Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001.

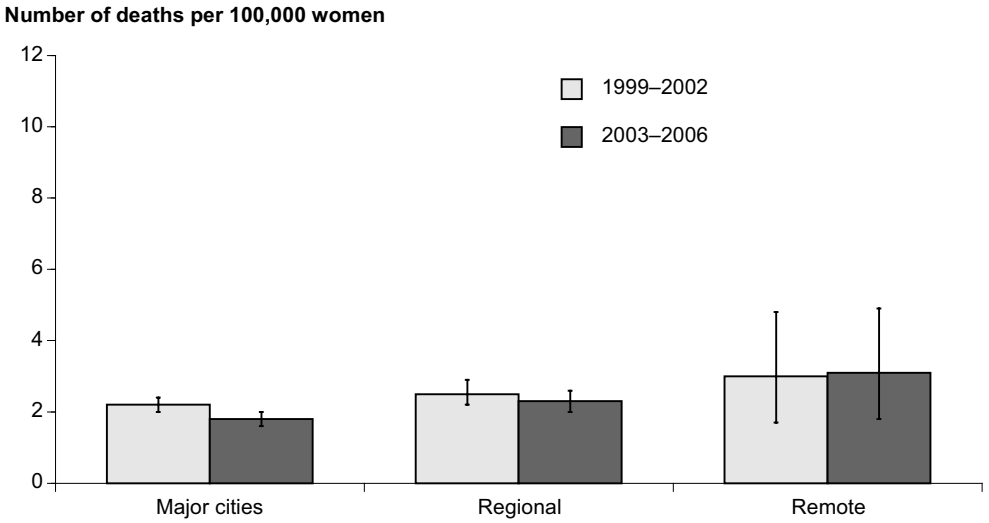
- In the 4-year period 2003–2006, there were 890 deaths from cervical cancer in Australia compared with 976 in 1999–2002.
- In 2003–2006, age-standardised mortality rates for women in the age group 20–69 years ranged between 0.9 deaths per 100,000 women in the Australian Capital Territory to 3.4 deaths per 100,000 women in Tasmania.
- In women aged 20–69 years, the age-standardised mortality rates decreased in all jurisdictions between the periods 1999–2002 and 2003–2006, except in Tasmania where the rate increased from 3.1 to 3.4 deaths per 100,000 women. However, there was no significant decline in each jurisdiction or at the national level between the two periods.

For more information, see tables A41–A44 beginning on page 98.

Indicator 6.2 Mortality by geographic region

Mortality for cervical cancer per 100,000 estimated resident female population in a 4-year period by geographic region for women of all ages and for the target age group 20–69 years

Mortality by geographic region



Note: Bars or graphs represent 95% confidence intervals.

Source: AIHW Mortality Database.

Figure 6.4: Mortality (age-standardised) for cervical cancer, by geographic region, women 20–69 years, 1999–2002 and 2003–2006

Table 6.4: Mortality (age-standardised) for cervical cancer, by geographic region, women 20–69 years, 1999–2002 and 2003–2006

	Geographic regions					
	Major cities		Inner and outer regional		Remote and very remote	
	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006
	Number of deaths per 100,000 women					
AS rate	2.2	1.8	2.5	2.3	3.0	3.1
95% CI	2.0–2.4	1.6–2.0	2.1–2.9	2.0–2.6	1.7–4.9	1.8–4.9

Note: Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001.

- During the 4-year period 2003–2006, there were 565 deaths in *Major cities* (63.5% of all cervical cancer deaths in that period), 299 deaths in *Inner and outer regional* areas (33.6% of all cervical cancer deaths) and 25 deaths in *Remote and very remote* (2.8% of all cervical cancer deaths) areas.

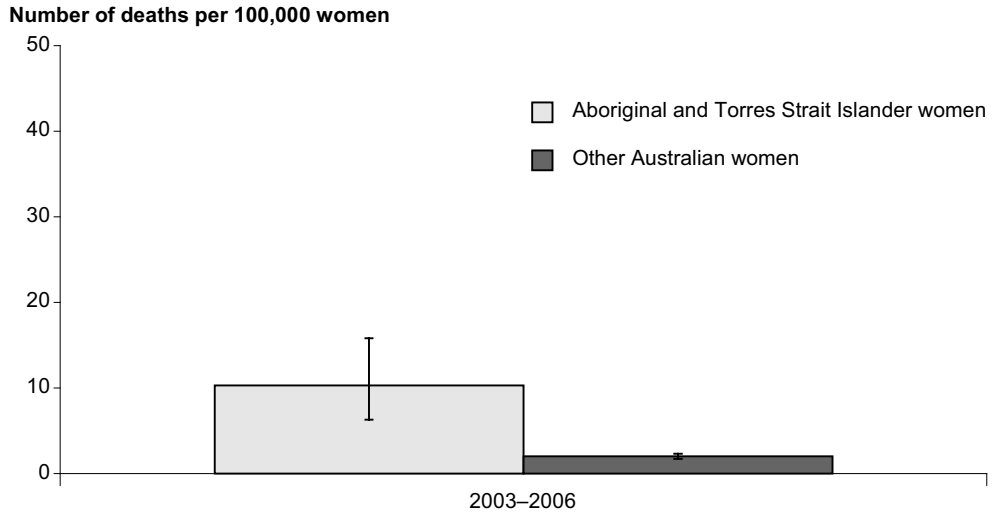
- In women aged 20–69 years during the 4-year period 2003–2006, age-standardised mortality rates from cervical cancer were 1.8 per 100,000 women in *Major cities*, 2.3 deaths per 100,000 women in *Inner and outer regional* areas, and 3.1 in *Remote and very remote* areas. These were not significantly different.

For more information, see tables A45 and A46 beginning on page 102.

Indicator 6.3 Mortality in Aboriginal and Torres Strait Islander women

Mortality for cervical cancer per 100,000 estimated resident female population in a 4-year period for Aboriginal and Torres Strait Islander women and for other Australian women for women of all ages and for the target age group 20–69 years

Mortality in Aboriginal and Torres Strait Islander women



Note: Bars or graphs represent 95% confidence intervals.

Source: AIHW Mortality Database.

Figure 6.5: Mortality (age-standardised) for cervical cancer (Queensland, Western Australia, South Australia and Northern Territory), for Aboriginal and Torres Strait Islander women and for other Australian women, women 20–69 years, 2003–2006

Table 6.5: Mortality (age-standardised) for cervical cancer (Queensland, Western Australia, South Australia and Northern Territory), for Aboriginal and Torres Strait Islander women and for other Australian women, women 20–69 years, 2003–2006

	Aboriginal and Torres Strait Islander women	Other Australian women
	Number of deaths per 100,000 women	
AS rate	10.3	2.0
95% CI	6.3–15.8	1.7–2.3

Notes

1. Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001.
2. 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 2003–2006 period was 10.3 per 100,000 women, compared with 2.0 deaths per 100,000 women for other Australian women in the same age range. This difference was significant.

For more information, see Table A47 on page 104.

Appendix A Additional data tables

Indicator 1.1.1 Two-year participation

Table A1: Participation in the National Cervical Screening Program, by age, 1996–1997 to 2006–2007

Age group (years)	Reporting period					
	1996–1997	1998–1999	2000–2001	2002–2003	2004–2005	2006–2007
	Per cent					
20–24	50.0	53.5	50.3	49.0	47.7	48.0
25–29	64.5	65.5	61.0	59.0	57.8	57.5
30–34	66.9	68.7	64.9	63.4	62.9	62.4
35–39	66.4	68.2	64.8	63.9	64.4	64.3
40–44	64.0	66.5	64.4	64.1	64.8	64.5
45–49	64.3	66.7	65.0	65.6	66.5	67.5
50–54	64.0	64.7	63.0	63.1	64.7	65.7
55–59	62.7	65.9	64.9	66.2	66.9	69.1
60–64	50.9	56.0	55.3	56.4	57.7	59.4
65–69	41.2	46.5	46.7	48.8	49.7	51.7
70–74	24.5	20.6	19.7	18.3	17.0	16.7
75–79	4.9	7.7	7.0	7.1	5.9	5.3
80+	1.9	2.4	2.3	2.2	1.8	1.5
Ages 20 years and over						
Crude rate	55.9	57.8	55.3	54.7	54.6	55.0
AS rate	54.8	56.9	54.7	54.3	54.4	54.8
95% CI	54.7–54.8	56.8–56.9	54.6–54.7	54.3–54.4	54.4–54.5	54.8–54.9
Ages 20–69 years						
Crude rate	61.2	63.7	61.1	60.6	60.8	61.1
AS rate	61.0	63.4	61.0	60.7	61.0	61.5
95% CI	60.9–61.1	63.4–63.5	60.9–61.1	60.6–60.8	60.9–61.0	61.4–61.5

Notes

1. Crude rates are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. Periods cover 1 January 1996 to 31 December 1997, 1 January 1998 to 31 December 1999, 1 January 2000 to 31 December 2001, 1 January 2002 to 31 December 2003, 1 January 2004 to 31 December 2005, and 1 January 2006 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A2: Participation (age-standardised) in the National Cervical Screening Program, by state and territory, women 20–69 years, 1996–1997 to 2006–2007

States and territories	Reporting period					
	1996–1997	1998–1999	2000–2001	2002–2003	2004–2005	2006–2007
	Ages 20 years and over (per cent)					
NSW	49.2	53.2	53.0	52.6	52.0	53.8
Vic[(a)]	60.2	60.7	57.7	57.4	58.2	57.3
Qld[(b)]	. .	. .	51.3	51.5	52.9	53.1
WA[(c)]	58.1	57.3	55.0	54.2	54.0	53.9
SA	56.6	59.3	58.2	58.3	57.4	57.3
Tas	56.5	57.4	58.0	56.1	55.8	54.2
ACT	56.9	59.1	56.2	55.9	58.4	56.8
NT[(d)]	55.6	56.9	55.9	54.5	52.4	48.0
Australia	54.8	56.9	54.7	54.3	54.4	54.8
	Ages 20–69 years (per cent)					
NSW	55.0	59.4	59.1	58.8	58.2	60.4
Vic[(a)]	66.7	67.7	64.6	64.2	65.4	64.4
Qld[(b)]	. .	. .	57.0	57.2	58.4	59.3
WA[(c)]	64.9	63.9	61.4	60.6	60.5	60.4
SA	62.9	66.0	64.9	65.1	64.1	64.0
Tas	63.3	64.5	65.2	63.1	62.9	61.1
ACT	63.5	65.7	62.8	62.7	65.5	63.8
NT[(d)]	61.4	62.6	61.7	60.2	58.5	53.7
Australia	61.0	63.4	61.0	60.7	61.0	61.5

. . Not applicable.

(a) The New South Wales Pap test register commenced in July 1996; therefore data have been estimated for the period January to July 1996.

(b) The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for the 1996–1997 or 1998–1999 reporting periods.

(c) The Western Australia cervical cytology registry only reported on women with a Western Australia address for the 1998–1999 to 2000–2001 reporting periods.

(d) The Northern Territory Pap test register commenced in March 1996, therefore data have been estimated for the period January to March 1996.

Notes

1. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. Periods cover 1 January 1996 to 31 December 1997, 1 January 1998 to 31 December 1999, 1 January 2000 to 31 December 2001, 1 January 2002 to 31 December 2003, 1 January 2004 to 31 December 2005, and 1 January 2006 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A3: Participation (number) in the National Cervical Screening Program, by state and territory, 2006–2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
20–24	104,511	86,649	73,962	37,911	26,974	8,392	7,373	4,258	350,030
25–29	131,379	103,654	79,651	40,508	28,922	8,373	8,186	4,848	405,521
30–34	152,855	118,688	87,752	44,270	32,149	9,324	8,271	4,768	458,077
35–39	154,446	126,700	90,743	47,003	35,308	10,347	8,150	4,603	477,300
40–44	145,138	117,291	85,395	44,539	34,761	10,159	7,471	3,885	448,639
45–49	137,629	110,371	79,949	41,313	33,596	10,116	7,044	3,508	423,526
50–54	111,960	91,561	64,374	33,705	28,605	8,563	6,035	2,724	347,527
55–59	92,715	77,784	54,039	27,271	24,663	7,277	5,154	1,935	290,838
60–64	67,828	56,548	38,867	18,076	18,290	5,348	3,365	1,077	209,399
65–69	44,184	38,902	24,577	12,173	12,663	3,569	2,047	553	138,668
70–74	12,339	9,196	7,647	3,282	3,980	743	456	114	37,757
75–79	3,648	2,303	2,238	877	1,335	190	100	34	10,725
80+	1,447	1,154	1,041	465	639	78	32	13	4,869
Not stated	96	0	1	0	21	1	0	0	119
Ages 20 years and over	**1,160,175**	**940,800**	**690,236**	**351,393**	**281,906**	**82,480**	**63,684**	**32,320**	**3,602,994**
Ages 20–69 years	**1,142,645**	**928,147**	**679,309**	**346,769**	**275,931**	**81,468**	**63,096**	**32,159**	**3,549,524**

Notes

1. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
2. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. Period covers 1 January 2006 to 31 December 2007.

Source: State and territory cervical cytology registry data.

Table A4: Participation (per cent) in the National Cervical Screening Program, by state and territory, 2006–2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Per cent				
20–24	44.7	47.3	50.3	52.0	50.3	54.3	51.0	51.2	48.0
25–29	55.9	57.9	57.7	59.1	60.3	59.9	58.7	53.9	57.5
30–34	62.2	63.8	60.6	62.3	64.6	62.3	63.9	54.4	62.4
35–39	64.1	66.6	61.7	63.5	66.3	63.1	65.9	55.5	64.3
40–44	64.0	67.6	61.7	63.2	66.8	63.4	65.8	55.0	64.5
45–49	66.9	71.5	64.4	65.3	69.4	65.1	67.3	57.3	67.5
50–54	65.0	70.6	62.0	62.5	68.4	63.8	67.8	54.3	65.7
55–59	67.9	75.0	64.7	65.5	71.9	66.3	74.3	57.9	69.1
60–64	58.1	65.2	55.4	54.6	62.7	56.6	64.8	47.8	59.4
65–69	49.1	57.9	48.0	48.3	56.5	49.5	57.9	42.3	51.7
70–74	16.0	15.9	18.8	16.0	20.5	12.4	16.4	14.6	16.7
75–79	5.2	4.4	6.2	5.0	7.3	3.6	4.4	6.4	5.3
80+	1.3	1.4	1.9	1.7	2.1	0.9	0.9	2.2	1.5
Ages 20 years and over									
Crude rate	53.6	57.1	53.9	55.0	56.2	53.8	58.6	52.6	55.0
AS rate	53.8	57.3	53.1	53.9	57.3	54.2	56.8	48.0	54.8
95% CI	53.7–53.9	57.2–57.5	52.9–53.2	53.7–54.0	57.1–57.5	53.9–54.6	56.3–57.2	47.4–48.5	54.8–54.9
Ages 20–69 years									
Crude rate	60.0	63.9	59.2	60.4	63.8	61.1	63.0	54.1	61.1
AS rate	60.4	64.4	59.3	60.4	64.0	61.1	63.8	53.7	61.5
95% CI	60.3–60.5	64.3–64.6	59.2–59.4	60.2–60.6	63.8–64.3	60.7–61.5	63.3–64.3	53.1–54.3	61.4–61.5

Notes

1. Crude rates are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. Period covers 1 January 2006 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Indicator 1.1.2 Three-year participation

Table A5: Three-year participation (number) in the National Cervical Screening Program, by state and territory, 2005–2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
20–24	136,055	110,998	93,221	47,412	34,525	10,658	9,570	5,695	448,134
25–29	164,618	129,143	98,236	49,891	35,848	10,589	10,466	6,372	505,163
30–34	191,506	149,693	109,753	55,752	40,818	12,010	10,719	6,321	576,572
35–39	185,658	150,280	107,777	56,658	42,836	12,603	10,030	5,879	571,721
40–44	175,863	140,491	102,868	53,839	42,563	12,756	9,417	4,952	542,749
45–49	161,190	127,780	92,849	48,323	39,991	11,980	8,453	4,339	494,905
50–54	130,436	105,035	74,018	38,735	33,345	10,050	7,269	3,400	402,288
55–59	106,348	87,972	61,118	30,774	28,494	8,363	5,988	2,261	331,318
60–64	75,669	60,790	42,208	19,506	19,919	5,892	3,725	1,267	228,976
65–69	51,353	43,157	26,885	13,611	14,281	3,880	2,283	612	156,062
70–74	15,305	10,703	9,133	3,820	4,561	900	549	122	45,093
75–79	4,903	3,095	2,978	1,181	1,752	256	157	49	14,371
80+	2,091	1,543	1,464	662	830	111	58	20	6,779
Not stated	185	0	1	0	26	1	0	0	213
Ages 20 years and over	**1,401,180**	**1,120,680**	**822,509**	**420,164**	**339,789**	**100,049**	**78,684**	**41,289**	**4,324,344**
Ages 20–69 years	**1,378,696**	**1,105,340**	**808,933**	**414,501**	**332,620**	**98,781**	**77,920**	**41,098**	**4,257,889**

Notes

1. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
2. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. Period covers 1 January 2005 to 31 December 2007.

Source: State and territory cervical cytology registry data.

Table A6: Three-year participation (per cent) in the National Cervical Screening Program, by state and territory, 2005–2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Per cent				
20–24	58.6	61.4	64.3	66.0	65.3	69.2	66.4	69.0	62.2
25–29	70.6	73.1	72.2	73.8	75.4	76.3	76.4	71.6	72.4
30–34	77.1	79.6	75.4	78.1	81.1	78.7	82.4	71.6	77.8
35–39	78.0	80.1	74.6	77.7	81.1	77.7	82.1	71.7	78.0
40–44	76.9	80.9	74.3	76.4	81.3	78.3	82.5	70.1	77.7
45–49	79.1	83.6	76.0	77.0	83.1	77.8	81.2	71.8	79.6
50–54	76.3	81.7	72.1	72.6	80.2	75.5	81.7	68.9	76.7
55–59	78.5	85.7	74.1	75.1	83.8	76.8	87.3	69.4	79.5
60–64	66.5	72.1	62.1	60.5	70.4	64.1	74.2	58.6	66.7
65–69	57.6	64.9	53.6	54.9	64.3	54.5	65.9	49.7	59.0
70–74	19.9	18.6	22.6	18.8	23.6	15.1	20.1	16.3	20.1
75–79	6.9	5.9	8.3	6.7	9.5	4.8	6.9	9.5	7.1
80+	1.9	1.9	2.7	2.5	2.8	1.3	1.7	3.5	2.1
Ages 20 years and over									
Crude rate	65.1	68.6	65.0	66.4	68.2	65.6	72.9	68.0	66.5
AS rate	65.1	68.5	63.7	64.8	69.4	66.0	70.2	61.3	66.0
95% CI	65.0–65.2	68.4–68.7	63.6–63.9	64.6–65.0	69.1–69.6	65.6–66.4	69.7–70.7	60.7–62.0	66.0–66.1
Ages 20–69 years									
Crude rate	72.8	76.6	71.3	72.9	77.3	74.3	78.4	69.8	73.9
AS rate	72.9	77.0	71.2	72.7	77.5	74.4	78.7	68.6	74.0
95% CI	72.8–73.1	76.8–77.1	71.0–71.3	72.4–72.9	77.2–77.8	73.9–74.8	78.2–79.3	67.9–69.3	73.9–74.1

Notes

1. Crude rates are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. Period covers 1 January 2005 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Indicator 1.1.3 Five-year participation

Table A7: Five-year participation (number) in the National Cervical Screening Program, by state and territory, 2003–2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
20–24	185,524	147,106	119,551	59,889	44,228	13,530	13,114	7,940	590,882
25–29	209,993	161,727	122,350	61,443	43,967	12,986	13,654	8,640	634,760
30–34	236,450	183,561	134,264	68,080	49,913	14,882	13,947	8,719	709,816
35–39	216,529	168,126	123,024	64,267	48,562	14,525	12,013	7,387	654,433
40–44	205,721	158,512	119,023	61,129	48,563	14,829	11,189	6,209	625,175
45–49	180,968	136,324	101,003	52,283	42,704	13,025	9,739	5,279	541,325
50–54	144,739	112,575	80,925	40,664	35,557	10,722	8,298	3,968	437,448
55–59	115,275	89,667	63,970	30,155	28,524	8,624	6,260	2,531	345,006
60–64	80,052	60,579	42,169	19,456	19,525	5,806	3,737	1,328	232,652
65–69	59,229	43,875	27,566	13,595	14,249	3,936	2,289	654	165,393
70–74	20,075	12,441	10,925	4,327	5,028	1,061	617	191	54,665
75–79	7,115	4,566	4,340	1,687	2,315	407	211	70	20,711
80+	3,354	2,312	2,299	999	1,143	200	94	33	10,434
Not stated	1,089	0	1	0	31	1	0	0	1,122
Ages 20 years and over	**1,666,113**	**1,281,370**	**951,410**	**477,974**	**384,309**	**114,534**	**95,162**	**52,949**	**5,023,821**
Ages 20–69 years	**1,634,480**	**1,262,052**	**933,845**	**470,961**	**375,792**	**112,865**	**94,240**	**52,655**	**4,936,890**

Notes

1. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
2. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. Period covers 1 January 2003 to 31 December 2007.

Source: State and territory cervical cytology registry data.

Table A8: Five-year participation (per cent) in the National Cervical Screening Program, by state and territory, 2003–2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Per cent				
20–24	81.2	83.3	85.2	85.7	86.1	89.6	91.9	98.5	83.9
25–29	90.5	92.5	91.7	92.2	93.3	94.1	102.1	99.3	92.0
30–34	94.0	96.3	92.4	94.6	97.1	95.2	106.6	97.8	94.8
35–39	91.8	91.2	87.5	89.6	92.5	90.3	99.4	92.4	90.7
40–44	89.2	91.4	86.7	87.0	91.8	89.3	97.0	88.2	89.3
45–49	90.3	91.0	85.2	84.9	90.1	86.2	94.2	89.5	88.8
50–54	85.8	88.8	80.5	77.8	86.2	81.8	93.2	83.4	84.7
55–59	87.1	90.1	80.4	76.8	86.0	81.6	94.1	83.0	85.3
60–64	73.4	75.2	65.8	63.3	72.4	66.2	79.0	66.1	71.2
65–69	67.7	67.5	57.4	56.7	65.6	57.1	68.7	57.9	64.2
70–74	25.9	21.6	27.4	21.6	25.8	17.8	23.2	26.7	24.4
75–79	10.0	8.7	12.3	9.8	12.4	7.7	9.2	14.2	10.2
80+	3.1	2.9	4.4	3.9	3.9	2.4	2.8	6.0	3.4
Ages 20 years and over									
Crude rate	78.1	79.5	77.0	76.9	77.9	75.8	89.3	89.3	78.4
AS rate	77.6	78.8	75.0	74.5	78.9	76.2	84.5	79.3	77.3
95% CI	77.5–77.7	78.7–78.9	74.9–75.2	74.3–74.7	78.7–79.2	75.7–76.6	83.9–85.0	78.5–80.0	77.2–77.4
Ages 20–69 years									
Crude rate	87.1	88.8	84.3	84.4	88.3	85.7	95.9	91.5	87.0
AS rate	86.7	88.4	83.5	83.4	88.1	85.6	94.8	88.3	86.4
95% CI	86.6–86.9	88.2–88.5	83.4–83.7	83.1–83.6	87.8–88.4	85.1–86.1	94.2–95.4	87.5–89.1	86.3–86.5

Notes

1. Crude rates are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. Period covers 1 January 2003 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Indicator 1.2 Participation by geographic region

Table A9: Participation (number) in the National Cervical Screening Program, by geographic region, 2006–2007

Age group (years)	Geographic regions					
	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
			Number			
20–24	249,141	61,964	28,384	4,914	3,261	350,030
25–29	299,895	62,289	31,675	5,722	3,413	405,521
30–34	336,721	73,342	35,814	6,136	3,532	458,077
35–39	342,479	83,442	39,369	6,262	3,396	477,300
40–44	314,601	84,663	38,772	5,701	2,860	448,639
45–49	292,407	83,519	37,865	5,206	2,631	423,526
50–54	239,946	69,404	30,669	4,043	1,899	347,527
55–59	199,386	59,383	26,170	3,211	1,379	290,838
60–64	139,786	45,873	19,618	2,283	913	209,399
65–69	91,259	31,186	13,661	1,481	513	138,668
70–74	26,035	7,368	3,645	430	136	37,757
75–79	7,785	1,840	903	110	43	10,725
80+	3,659	769	357	55	10	4,869
Not stated	96	11	6	1	0	119
Ages 20 years and over	**2,543,195**	**665,053**	**306,908**	**45,555**	**23,985**	**3,602,994**
Ages 20–69 years	**2,505,621**	**655,064**	**301,997**	**44,959**	**23,797**	**3,549,524**

Notes

1. These numbers may be underestimates because only women with a postcode in the jurisdiction in which they were screened have been counted.
2. These data exclude women who have opted not to be included on a cervical cytology register.
3. The Australian Standard Geographic Classification (ASGC) was used to create regional categories (ABS 2001).
4. Women were placed in regional categories based on their postcode of residence, using a postcode to region concordance.
5. Period covers 1 January 2006 to 31 December 2007.

Source: State and territory cervical cytology registry data.

Table A10: Participation (per cent) in the National Cervical Screening Program, by geographic region, 2006–2007

Age group (years)	Geographic regions					
	Major cities	Inner regional	Outer regional	Remote	Very remote	Australia
	Per cent					
20–24	46.1	54.9	54.6	50.5	48.2	48.0
25–29	57.6	59.7	57.5	52.9	50.4	57.5
30–34	62.5	59.9	57.8	53.2	52.8	62.4
35–39	66.1	62.5	60.4	55.0	57.0	64.3
40–44	65.3	61.7	59.4	54.2	56.0	64.5
45–49	69.2	66.0	63.5	56.2	60.6	67.5
50–54	67.7	64.4	60.8	53.5	55.4	65.7
55–59	70.8	66.7	63.4	57.8	57.9	69.1
60–64	63.0	60.2	56.9	52.0	51.6	59.4
65–69	53.2	51.7	50.8	48.1	45.2	51.7
70–74	17.7	14.6	17.0	18.2	17.0	16.7
75–79	5.7	4.1	4.9	5.9	6.8	5.3
80+	1.7	1.1	1.3	2.1	1.5	1.5
Ages 20 years and over						
Crude rate	55.9	53.9	53.0	50.3	51.7	55.0
AS rate	55.8	54.4	52.6	48.1	48.3	54.8
95% CI	55.7–55.8	54.3–54.5	52.4–52.8	47.6–48.5	47.7–49.0	54.8–54.9
Ages 20–69 years						
Crude rate	61.8	61.2	59.0	53.6	53.7	61.1
AS rate	62.5	61.2	58.9	53.6	54.0	61.5
95% CI	62.4–62.5	61.0–61.3	58.7–59.1	53.1–54.1	53.3–54.7	61.4–61.5

Notes

1. Crude rates are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
2. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. Only women with a postcode in the jurisdiction in which they were screened have been counted.
4. These data exclude women who have opted not to be included on a cervical cytology register.
5. The Australian Standard Geographic Classification (ASGC) was used to create regional categories (ABS 2001).
6. Women were placed in regional categories based on their postcode of residence, using a postcode to region concordance.
7. Period covers 1 January 2006 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A11: Participation (number) in the National Cervical Screening Program, by geographic region (collapsed into three broad regional groupings), 2006–2007

Age group (years)	Geographic regions			
	Major cities	Inner and outer regional	Remote and very remote	Australia
		Number		
20–24	249,141	90,348	8,176	350,030
25–29	299,895	93,965	9,135	405,521
30–34	336,721	109,156	9,668	458,077
35–39	342,479	122,811	9,658	477,300
40–44	314,601	123,435	8,561	448,639
45–49	292,407	121,384	7,837	423,526
50–54	239,946	100,072	5,942	347,527
55–59	199,386	85,554	4,590	290,838
60–64	139,786	65,490	3,196	209,399
65–69	91,259	44,847	1,994	138,668
70–74	26,035	11,013	566	37,757
75–79	7,785	2,743	152	10,725
80+	3,659	1,126	65	4,869
Not stated	96	17	1	119
Ages 20 years and over	**2,543,195**	**971,961**	**69,540**	**3,602,994**
Ages 20–69 years	**2,505,621**	**957,062**	**68,756**	**3,549,524**

Notes

1. These regional groupings aid in comparison of participation by geographic region with incidence and mortality by geographic region.
2. These numbers may be underestimates because only women with a postcode in the jurisdiction in which they were screened have been counted.
3. These data exclude women who have opted not to be included on a cervical cytology register.
4. The Australian Standard Geographic Classification (ASGC) was used to create regional categories (ABS 2001).
5. Women were placed in regional categories based on their postcode of residence, using a postcode to region concordance.
6. Period covers 1 January 2006 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A12: Participation (per cent) in the National Cervical Screening Program, by geographic region (collapsed into three broad regional groupings), 2006–2007

Age group (years)	Geographic regions			
	Major cities	Inner and outer regional	Remote and very remote	Australia
		Per cent		
20–24	46.1	54.8	49.6	48.0
25–29	57.6	58.9	51.9	57.5
30–34	62.5	59.2	53.1	62.4
35–39	66.1	61.8	55.7	64.3
40–44	65.3	61.0	54.8	64.5
45–49	69.2	65.2	57.6	67.5
50–54	67.7	63.3	54.1	65.7
55–59	70.8	65.6	57.8	69.1
60–64	63.0	59.2	51.9	59.4
65–69	53.2	51.4	47.3	51.7
70–74	17.7	15.3	17.9	16.7
75–79	5.7	4.3	6.1	5.3
80+	1.7	1.2	2.0	1.5
Ages 20 years and over				
Crude rate	55.9	53.6	50.7	55.0
AS rate	55.8	53.8	48.1	54.8
95% CI	55.7–55.8	53.7–53.9	47.8–48.5	54.8–54.9
Ages 20–69 years				
Crude rate	61.8	60.5	53.6	61.1
AS rate	62.5	60.4	53.7	61.5
95% CI	62.4–62.5	60.3–60.5	53.3–54.1	61.4–61.5

Notes

1. These regional groupings aid in comparison of participation by geographic region with incidence and mortality by geographic region.
2. Crude rates are the number of women screened as a proportion of the eligible female population. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
3. Age-standardised rates are the number of women screened as a proportion of the eligible female population and age-standardised to the Australian population at 30 June 2001. The eligible female population is the average of the Australian Bureau of Statistic's estimated resident population, adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the Australian Bureau of Statistics 2001 National Health Survey.
4. Only women with a postcode in the jurisdiction in which they were screened have been counted.
5. These data exclude women who have opted not to be included on a cervical cytology register.
6. The Australian Standard Geographic Classification (ASGC) was used to create regional categories (ABS 2001).
7. Women were placed in regional categories based on their postcode of residence, using a postcode to region concordance.
8. Period covers 1 January 2006 to 31 December 2007.

Source: AIHW analysis of state and territory cervical cytology registry data.

Indicator 2 Early re-screening

Table A13: Number of women re-screening early following a normal Pap test, women 20–69 years, 1996–2006 cohorts

	Year										
No. of screens	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
						Per cent					
0	52,617	76,560	78,693	119,556	114,902	121,736	120,609	125,979	124,416	153,857	126,574
1	22,998	53,456	48,088	47,916	46,105	43,594	40,334	38,772	36,761	43,798	33,911
2	5,088	10,922	9,572	6,591	6,075	5,296	5,162	4,795	4,367	4,932	3,543
3	1,078	2,080	1,568	1,310	1,199	1,092	1,051	982	800	817	452
4	296	508	412	269	251	206	195	169	184	134	87
5	99	196	157	81	108	61	70	65	58	27	18

Notes

1. This indicator reported on a 2-year period following a normal Pap test up to and including 1998. In 1999 the indicator was changed to a 21-month interval; therefore data up to and including 1998 are not directly comparable with data in subsequent years.
2. The reference period for the 1996, 1997 and 1998 cohorts was the 24 months following the index month of February.
3. The reference period for the 1999 to 2006 cohorts was the 21 months following the index month of February (in 1999 the index month for Queensland was March).
4. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997 and 1998.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
7. These data exclude women who have opted not to be included on a cervical cytology register.

Source: State and territory cervical cytology registry data.

Table A14: Proportion of women re-screening early following a normal Pap test, women 20–69 years, 1996–2006 cohorts

No. of screens	Year										
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
				Per cent							
0	64.0	53.3	56.8	68.0	68.1	70.8	72.0	73.8	74.7	75.6	76.9
1	28.0	37.2	34.7	27.3	27.3	25.3	24.1	22.7	22.1	21.5	20.6
2	6.2	7.6	6.9	3.8	3.6	3.1	3.1	2.8	2.6	2.4	2.2
3	1.3	1.4	1.1	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.3
4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Notes

1. This indicator reported on a 2-year period following a normal pap test up to and including 1998. In 1999 the indicator was changed to a 21-month interval; therefore data up to and including 1998 are not directly comparable with data in subsequent years.
2. The reference period for the 1996, 1997 and 1998 cohorts was the 24 months following the index month of February.
3. The reference period for the 1999 to 2006 cohorts was the 21 months following the index month of February (in 1999 the index month for Queensland was March).
4. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997 and 1998.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These data exclude women who have opted not to be included on a cervical cytology register.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A15: Proportion of women re-screening within 21 months of a normal Pap test, by state and territory, women 20–69 years, 2006 cohort

	States and territories								
Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
0	39,992	32,596	24,643	12,552	10,395	2,975	2,256	1,165	126,574
1	11,234	9,036	7,136	3,058	2,108	594	507	238	33,911
2	1,142	960	836	289	201	47	43	25	3,543
3	128	153	97	29	33	6	2	4	452
4	30	28	20	2	5	2	0	0	87
5	4	6	5	0	2	0	0	1	18

Notes

1. The reference period was the 21 months following the index month of February.
2. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
3. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
4. These data exclude women who have opted not to be included on a cervical cytology register.

Source: State and territory cervical cytology registry data.

Table A16: Proportion of women re-screening within 21 months of a normal Pap test, by state and territory, women 20–69 years, 2006 cohort

	States and territories								
Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Per cent				
0	76.1	76.2	75.3	78.8	81.6	82.1	80.3	81.3	76.9
1	21.4	21.1	21.8	19.2	16.5	16.4	18.1	16.6	20.6
2	2.2	2.2	2.6	1.8	1.6	1.3	1.5	1.7	2.2
3	0.2	0.4	0.3	0.2	0.3	0.2	0.1	0.3	0.3
4	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0

Notes

1. The reference period was the 21 months following the index month of February.
2. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
3. These data exclude women who have opted not to be included on a cervical cytology register.

Source: AIHW analysis of state and territory cervical cytology registry data.

Indicator 3 Low-grade abnormality detection

Table A17: Low-grade and high-grade abnormalities detected by histology, women 20–69 years, 1997–2007

	Year										
Abnormalities	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
						Number					
Low-grade	15,314	14,411	15,753	19,985	18,126	18,781	18,443	16,627	16,274	15,118	13,709
High-grade	10,392	10,704	11,686	13,851	13,555	14,903	14,840	14,507	14,837	14,414	14,479
Total	**25,706**	**25,115**	**27,439**	**33,836**	**31,681**	**33,684**	**33,283**	**31,134**	**31,111**	**29,532**	**28,188**
Ratio	1.47	1.35	1.35	1.44	1.34	1.26	1.24	1.15	1.10	1.05	0.95
95% CI	1.44–1.51	1.31–1.38	1.32–1.38	1.41–1.47	1.31–1.37	1.23–1.29	1.22–1.27	1.12–1.17	1.07–1.12	1.03–1.07	0.92–0.97
						Per cent of screens					
Low-grade	1.0	0.9	1.0	1.1	1.0	1.0	1.0	0.9	0.8	0.8	0.7
High-grade	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.7
Total	**1.8**	**1.6**	**1.8**	**1.8**	**1.7**	**1.8**	**1.8**	**1.6**	**1.6**	**1.5**	**1.4**

Notes

1. Ratio is the number of women with a low-grade abnormality detected by histology divided by the number of women with a high-grade abnormality detected by histology.
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
3. Australian Capital Territory data were not available for 1997 and 1998.
4. Northern Territory data were not available for 2001.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
7. There are small discrepancies between the way this Indicator was calculated between the states and territories, which may result in discrepancies when comparing totals with Indicator 4.
8. These data exclude women who have opted not to be included on a cervical cytology register.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A18: Ratio of low-grade to high-grade abnormalities detected by histology, by state and territory, women 20–69 years, 2007

	States and territories								
Year	**NSW**	**Vic**	**Qld**	**WA**	**SA**	**Tas**	**ACT**	**NT**	**Australia**
					Number				
Low-grade	5,451	2,417	2,557	1,273	1,102	285	474	150	13,709
High-grade	5,248	2,727	2,772	1,514	1,012	419	535	252	14,479
Total	**10,699**	**5,144**	**5,329**	**2,787**	**2,114**	**704**	**1,009**	**402**	**28,188**
Ratio	**1.04**	**0.89**	**0.92**	**0.84**	**1.09**	**0.68**	**0.89**	**0.60**	**0.95**
95% CI	1.00–1.08	0.84–0.94	0.87–0.97	0.78–0.91	1.00–1.19	0.59–0.79	0.78–1.00	0.49–0.73	0.92–0.97
					Per cent of screens				
Low-grade	0.8	0.5	0.7	0.7	0.8	0.7	0.8	0.8	0.7
High-grade	0.8	0.5	0.7	0.8	0.7	1.0	0.9	1.4	0.7
Total	**1.6**	**1.0**	**1.4**	**1.4**	**1.5**	**1.6**	**1.6**	**2.2**	**1.4**

Notes

1. Ratio is the number of women with a low-grade abnormality detected by histology divided by the number of women with a high-grade abnormality detected by histology.
2. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
3. Australian Capital Territory data were not available for 1997 and 1998.
4. Northern Territory data were not available for 2001.
5. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
6. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
7. There are small discrepancies between the way this Indicator was calculated between the states and territories, which may result in small differences when comparing totals with Indicator 4.
8. These data exclude women who have opted not to be included on a cervical cytology register.

Source: AIHW analysis of state and territory cervical cytology registry data.

Indicator 4 High-grade abnormality detection

Table A19: High-grade abnormalities detected by histology, 1997–2007

Age group (years)	Year										
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Number										
20–24	2,123	2,220	2,565	2,922	2,909	3,425	3,379	3,509	3,620	3,463	3,609
25–29	2,913	3,126	3,283	3,937	3,775	3,920	3,913	3,671	3,809	3,720	3,877
30–34	2,115	2,041	2,238	2,767	2,699	3,078	2,976	3,020	3,040	2,805	2,731
35–39	1,384	1,468	1,520	1,754	1,717	1,804	1,774	1,725	1,792	1,819	1,779
40–44	795	833	888	1,113	1,080	1,195	1,250	1,135	1,096	1,123	1,069
45–49	496	447	554	628	635	642	680	653	661	723	684
50–54	240	257	275	325	319	352	332	308	307	333	324
55–59	122	145	156	178	184	218	202	202	229	198	196
60–64	106	115	109	127	136	113	147	117	132	128	113
65–69	98	52	98	100	101	86	92	69	70	84	84
70–74	72	62	61	83	54	64	38	43	35	40	26
75–79	17	21	28	31	30	21	28	31	21	19	17
80–84	9	11	6	11	12	11	13	15	19	7	9
85+	3	4	3	3	3	13	9	4	11	7	4
Age not stated	6	4	5	3	1	1	0	1	1	0	1
Ages 20 years and over	**10,499**	**10,806**	**11,789**	**13,982**	**13,655**	**14,943**	**14,833**	**14,503**	**14,843**	**14,469**	**14,523**
Ages 20–69 years	**10,392**	**10,704**	**11,686**	**13,851**	**13,555**	**14,833**	**14,745**	**14,409**	**14,756**	**14,396**	**14,466**

Notes

1. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
2. Australian Capital Territory data were not available for 1997 and 1998.
3. Northern Territory data were not available for 2001.
4. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
5. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
6. There are small discrepancies between the way this Indicator was calculated between the states and territories, which may result in small differences when comparing totals with Indicator 3.
7. These data exclude women who have opted not to be included on a cervical cytology register.

Source: State and territory cervical cytology registry data.

Table A20: High-grade abnormalities detected by histology per 1,000 women screened, 1997–2007

Age group (years)	Year										
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	Number detected per 1,000 women screened										
20–24	14.2	14.3	16.8	16.3	16.3	18.9	18.5	19.4	19.2	18.4	17.7
25–29	13.6	13.9	15.0	15.5	15.6	16.7	16.9	16.8	17.3	16.9	16.3
30–34	9.5	8.8	10.0	10.3	10.1	11.3	11.0	11.3	11.3	10.9	10.6
35–39	6.3	6.3	6.7	6.5	6.6	6.9	6.9	6.8	6.9	7.0	6.5
40–44	4.2	4.1	4.4	4.5	4.4	4.8	5.0	4.4	4.3	4.5	4.2
45–49	3.1	2.6	3.2	3.0	3.0	3.0	3.2	2.9	2.9	3.1	2.8
50–54	1.9	1.9	2.0	1.9	1.8	2.0	1.8	1.7	1.6	1.8	1.6
55–59	1.5	1.6	1.7	1.5	1.5	1.7	1.5	1.4	1.5	1.2	1.2
60–64	1.7	1.7	1.6	1.5	1.5	1.3	1.6	1.2	1.3	1.2	0.9
65–69	2.1	1.0	2.0	1.7	1.6	1.4	1.4	1.0	1.0	1.1	1.1
70–74	3.0	2.9	2.9	3.2	2.1	2.7	1.7	2.0	1.7	2.0	1.2
75–79	. .	3.4	4.1	3.8	3.9	2.5	3.5	4.5	3.2	3.1	2.9
80–84	. .	6.0	3.0	4.3	4.9	4.2	5.2	6.7	8.8	3.5	4.9
85+	. .	4.8	4.4	3.1	3.2	13.5	9.2	5.1	16.0	9.4	6.5
Ages 20 years and over											
Crude rate	. .	6.8	7.5	7.3	7.2	7.8	7.7	7.5	7.6	7.3	7.1
AS rate	. .	5.9	6.5	6.5	6.4	7.1	7.0	7.0	7.2	6.9	6.5
95% CI	. .	5.7–6.1	6.3–6.7	6.3–6.6	6.3–6.6	7.0–7.3	6.9–7.2	6.8–7.2	7.0–7.5	6.7–7.1	6.3–6.7
Ages 20–69 years											
Crude rate	7.1	6.9	7.5	7.4	7.3	7.9	7.8	7.6	7.6	7.4	7.2
AS rate	6.4	6.2	6.9	6.9	6.9	7.5	7.5	7.4	7.5	7.3	7.0
95% CI	6.2–6.5	6.1–6.3	6.8–7.1	6.8–7.0	6.8–7.0	7.4–7.6	7.4–7.6	7.3–7.5	7.3–7.6	7.2–7.4	6.9–7.1

. . Not applicable.

Notes

1. Crude rates are the number of women with a high-grade abnormality detected by histology per 1,000 women screened.
2. Age-standardised rates are the number of women with a high-grade abnormality detected by histology per 1,000 women screened, age-standardised to the Australian population at 30 June 2001.
3. From 1997 to 2001 inclusive South Australia grouped all women aged 70 years and over, and for the purposes of this table they appear in the 70–74 years age group.
4. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
5. Australian Capital Territory data were not available for 1997 and 1998.
6. Northern Territory data were not available for 2001.
7. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
8. These data exclude women who have opted not to be included on a cervical cytology register.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A21: Number of high-grade abnormalities detected by histology, by state and territory, 2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
20–24	1,193	717	720	370	254	149	153	53	3,609
25–29	1,447	725	718	406	260	113	145	63	3,877
30–34	1,020	526	492	292	189	53	109	50	2,731
35–39	663	350	331	187	114	42	52	40	1,779
40–44	418	195	195	98	83	22	32	26	1,069
45–49	261	102	147	64	58	18	22	12	684
50–54	104	53	76	38	28	13	8	4	324
55–59	67	28	48	21	17	5	8	2	196
60–64	43	16	25	12	7	4	5	1	113
65–69	32	15	20	13	2	0	1	1	84
70–74	6	2	9	1	7	0	1	0	26
75–79	3	1	7	2	2	0	2	0	17
80–84	3	1	2	0	2	0	1	0	9
85+	1	0	0	2	1	0	0	0	4
Age not stated	1	0	0	0	0	0	0	0	1
Ages 20 years and over	**5,262**	**2,731**	**2,790**	**1,506**	**1,024**	**419**	**539**	**252**	**14,523**
Ages 20–69 years	**5,248**	**2,727**	**2,772**	**1,501**	**1,012**	**419**	**535**	**252**	**14,466**

Notes

1. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
2. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
3. There are small discrepancies between the way this Indicator was calculated between the states and territories, which may result in small differences when comparing totals with Indicator 3.
4. These data exclude women who have opted not to be included on a cervical cytology register.

Source: State and territory cervical cytology registry data.

Table A22: High-grade abnormalities detected by histology per 1,000 women screened, by state and territory, 2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number detected per 1,000 women screened								
20–24	19.8	14.4	16.6	16.7	17.6	31.9	21.0	21.9	17.7
25–29	18.9	12.1	15.4	17.4	16.8	24.5	17.9	22.8	16.3
30–34	11.9	8.0	9.9	12.0	11.4	10.9	13.3	19.1	10.6
35–39	7.5	4.9	6.3	7.1	6.1	7.5	6.4	15.2	6.5
40–44	5.1	3.0	4.1	4.0	4.6	4.1	4.3	12.3	4.2
45–49	3.3	1.6	3.2	2.8	3.3	3.3	3.1	6.2	2.8
50–54	1.6	1.0	2.1	2.0	1.9	2.9	1.3	2.7	1.6
55–59	1.3	0.7	1.6	1.4	1.3	1.3	1.6	1.8	1.2
60–64	1.1	0.5	1.1	1.2	0.7	1.3	1.5	1.7	0.9
65–69	1.3	0.7	1.5	2.0	0.3	0.0	0.5	3.3	1.1
70–74	0.9	0.4	2.1	0.6	3.3	0.0	2.2	0.0	1.2
75–79	1.5	0.8	5.9	4.3	2.9	0.0	19.6	0.0	2.9
80–84	5.5	2.3	4.9	0.0	8.4	0.0	31.3	0.0	4.9
85+	5.1	0.0	0.0	26.3	12.7	0.0	0.0	0.0	6.5
Ages 20 years and over									
Crude rate	8.0	5.2	7.1	7.7	6.9	9.5	8.5	14.0	7.1
AS rate	7.3	4.7	6.4	7.1	7.0	8.5	8.4	10.4	6.5
95% CI	7.0–7.6	4.5–4.9	6.1–6.7	6.3–7.9	6.3–7.7	7.7–9.4	6.6–10.4	9.1–11.8	6.3–6.7
Ages 20–69 years									
Crude rate	8.1	5.2	7.1	7.7	7.0	9.6	8.5	14.0	7.2
AS rate	8.0	5.2	6.8	7.3	7.2	9.7	7.9	11.9	7.0
95% CI	7.8–8.2	5.0–5.4	6.6–7.1	7.0–7.7	6.7–7.6	8.8–10.7	7.2–8.6	10.5–13.5	6.9–7.1

Notes

1. Crude rates are the number of women with a high-grade abnormality detected by histology per 1,000 women screened.
2. Age-standardised rates are the number of women with a high-grade abnormality detected by histology per 1,000 women screened, age-standardised to the Australian population at 30 June 2001.
3. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
4. These data exclude women who have opted not to be included on a cervical cytology register.

Source: AIHW analysis of state and territory cervical cytology registry data.

Table A23a: Number of women screened, 1997–2001

Age group (years)	Year				
	1997	1998	1999	2000	2001
			Number		
20–24	149,203	154,804	152,337	179,312	178,267
25–29	214,958	225,693	218,499	254,534	241,353
30–34	221,661	231,024	223,700	268,031	267,038
35–39	219,961	234,358	228,337	270,740	261,728
40–44	187,533	201,812	200,770	245,627	246,640
45–49	160,788	171,088	171,528	209,487	209,163
50–54	123,427	133,964	140,438	175,187	178,425
55–59	82,996	88,706	93,374	116,943	122,168
60–64	60,841	66,272	69,887	85,383	88,351
65–69	45,781	49,835	49,941	59,248	61,556
70–74	23,862	21,657	21,199	25,548	25,152
75–79	3,147	6,226	6,898	8,204	7,774
80–84	1,069	1,843	1,978	2,535	2,435
85+	22	833	685	970	929
Age not stated	359	4,492	2,441	1,975	2,058
Ages 20 years and over	**1,495,608**	**1,592,607**	**1,582,012**	**1,903,724**	**1,893,037**
Ages 20–69 years	**1,467,149**	**1,557,556**	**1,548,811**	**1,864,492**	**1,854,689**

Notes

1. The Queensland Health Pap smear register began operations in February 1999; therefore no data are available for 1997, 1998 and 1999.
2. Australian Capital Territory data were not available for 1997 and 1998.
3. Northern Territory data were not available for 2001.
4. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
5. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
6. These data exclude women who have opted not to be included on a cervical cytology register.

Source: State and territory cervical cytology registry data.

Table A23b: Number of women screened, 2002–2007

	Year					
Age group (years)	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
			Number			
20–24	180,961	182,264	180,911	188,375	188,386	204,279
25–29	234,688	231,713	219,045	220,542	220,451	237,208
30–34	271,399	270,492	267,553	268,793	257,055	258,060
35–39	260,097	258,040	253,730	258,908	261,604	274,208
40–44	249,958	251,113	255,197	255,267	250,219	251,944
45–49	212,372	214,324	221,712	227,281	231,495	241,475
50–54	176,949	180,162	183,853	186,689	190,004	196,634
55–59	130,107	135,062	146,837	152,411	158,529	162,161
60–64	89,625	92,047	97,916	101,992	109,111	119,536
65–69	62,438	65,023	68,036	70,176	73,711	76,247
70–74	23,731	22,781	21,055	20,508	20,461	20,868
75–79	8,349	7,971	6,920	6,505	6,085	5,773
80–84	2,642	2,514	2,249	2,148	2,006	1,846
85+	965	974	789	686	742	613
Age not stated	1,857	1,841	286	164	69	45
Ages 20 years and over	**1,906,138**	**1,916,321**	**1,926,089**	**1,960,446**	**1,969,929**	**2,050,897**
Ages 20–69 years	**1,868,594**	**1,880,240**	**1,894,790**	**1,930,435**	**1,940,566**	**2,021,751**

Notes

1. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
2. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
3. These data exclude women who have opted not to be included on a cervical cytology register.

Source: State and territory cervical cytology registry data.

Table A24: Number of women screened, by state and territory, 2007

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number								
20–24	60,265	49,664	43,405	22,119	14,439	4,667	7,295	2,425	204,279
25–29	76,416	59,867	46,626	23,355	15,441	4,618	8,121	2,764	237,208
30–34	85,874	65,856	49,557	24,428	16,646	4,882	8,193	2,624	258,060
35–39	88,486	72,165	52,217	26,396	18,610	5,610	8,098	2,626	274,208
40–44	81,319	65,686	47,885	24,240	17,950	5,322	7,434	2,108	251,944
45–49	78,268	62,272	45,728	22,967	17,808	5,475	7,022	1,935	241,475
50–54	63,306	51,158	36,593	18,649	14,931	4,483	6,016	1,498	196,634
55–59	51,716	42,694	30,106	14,878	12,696	3,847	5,142	1,082	162,161
60–64	38,689	31,782	22,192	10,187	9,760	2,963	3,357	606	119,536
65–69	24,311	21,028	13,526	6,567	6,624	1,850	2,037	304	76,247
70–74	6,722	5,130	4,214	1,777	2,131	376	457	61	20,868
75–79	1,961	1,251	1,194	470	686	93	102	16	5,773
80–84	549	438	405	149	238	30	32	5	1,846
85+	197	176	64	76	79	11	8	2	613
Age not stated	41	0	0	0	4	0	0	0	45
Ages 20 years and over	**658,120**	**529,167**	**393,712**	**196,258**	**148,043**	**44,227**	**63,314**	**18,056**	**2,050,897**
Ages 20–69 years	**648,650**	**522,171**	**387,835**	**193,786**	**144,905**	**43,717**	**62,715**	**17,972**	**2,021,751**

Notes

1. With the exception of Victoria and the Australian Capital Territory, number of women screened includes all women screened in each jurisdiction, not just those women resident in each jurisdiction.
2. These numbers may be overestimates because of double counting of some women between some states and territories. This may be the result of difficulty in identifying state of residence for women in border areas, tests inadvertently transferred to interstate registers, and inclusion of women resident overseas. However, the impact of double counting is probably very small.
3. These data exclude women who have opted not to be included on a cervical cytology register.

Source: State and territory cervical cytology registry data.

Indicator 5.1 Incidence of micro-invasive squamous cervical cancer

Table A25: Number of new cases of micro-invasive squamous cervical cancer, by age, 1991–2005

	Year														
Age group (years)	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
								Number							
0–4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15–19	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1
20–24	0	5	1	7	1	6	3	3	2	1	2	10	3	9	5
25–29	14	14	9	17	18	18	10	17	14	12	12	13	11	16	11
30–34	32	33	32	36	41	18	28	18	13	27	22	16	16	22	18
35–39	39	24	26	31	29	36	22	27	22	13	14	13	12	14	18
40–44	30	24	17	25	30	23	21	23	14	9	6	11	16	16	23
45–49	9	14	15	26	23	11	11	18	7	15	15	13	17	11	5
50–54	12	11	17	9	12	11	8	12	7	6	9	4	3	5	7
55–59	6	12	5	5	10	7	8	2	8	4	4	6	3	7	2
60–64	7	9	7	10	11	6	6	5	2	3	4	5	4	1	2
65–69	7	9	9	8	6	10	2	2	3	0	2	3	2	3	3
70–74	5	2	4	6	5	4	5	3	2	0	2	1	4	3	0
75–79	3	3	1	3	5	2	2	2	1	1	3	2	0	2	1
80–84	2	0	0	1	1	1	0	2	0	2	0	2	3	3	1
85+	0	0	1	1	1	1	0	0	0	0	2	0	0	1	0
All ages	**167**	**160**	**144**	**185**	**193**	**155**	**126**	**134**	**95**	**93**	**97**	**99**	**94**	**113**	**97**
Ages 20–69 years	**156**	**155**	**138**	**174**	**181**	**146**	**119**	**127**	**92**	**90**	**90**	**94**	**87**	**104**	**94**

Note: Cancer incidence estimates provided in this publication were made in December 2008. These estimates may be updated at any time as case details are added, modified or deleted in the national database. These modifications may occur several years after the initial diagnosis, as additional case details are received by the state and territory cancer registries from data suppliers and then passed to the National Cancer Statistics Clearing House. This may have the impact of making incidence estimates for the same year incompatible between publications, but for the most part these changes are very small.

Source: National Cancer Statistics Clearing House (AIHW).

Table A26: Incidence of micro-invasive squamous cervical cancer, by age, 1991–2005

Age group (years)	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	Number of new cases per 100,000 women														
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
20–24	0.0	0.7	0.1	1.0	0.1	0.9	0.4	0.5	0.3	0.2	0.3	1.5	0.4	1.3	0.7
25–29	2.0	2.0	1.3	2.5	2.6	2.5	1.4	2.3	1.9	1.7	1.7	1.9	1.6	2.4	1.6
30–34	4.5	4.6	4.4	4.9	5.6	2.5	3.9	2.5	1.8	3.8	3.0	2.1	2.1	2.9	2.4
35–39	5.9	3.5	3.8	4.4	4.1	4.9	3.0	3.6	2.9	1.7	1.9	1.7	1.6	1.9	2.4
40–44	4.7	3.7	2.6	3.8	4.5	3.4	3.0	3.3	2.0	1.2	0.8	1.4	2.1	2.1	3.0
45–49	1.8	2.6	2.6	4.4	3.7	1.7	1.7	2.8	1.1	2.2	2.2	1.9	2.4	1.5	0.7
50–54	2.9	2.6	3.9	2.0	2.5	2.2	1.5	2.1	1.2	1.0	1.4	0.6	0.5	0.8	1.0
55–59	1.7	3.3	1.3	1.3	2.5	1.7	1.9	0.5	1.8	0.8	0.8	1.1	0.5	1.2	0.3
60–64	1.9	2.5	1.9	2.8	3.1	1.7	1.6	1.3	0.5	0.8	1.0	1.2	0.9	0.2	0.4
65–69	2.0	2.5	2.5	2.3	1.7	2.8	0.6	0.6	0.9	0.0	0.6	0.8	0.5	0.8	0.8
70–74	1.1	0.7	1.3	1.9	1.5	1.2	1.5	0.9	0.6	0.0	0.6	0.3	1.2	0.9	0.0
75–79	0.9	1.3	0.4	1.3	2.1	0.8	0.8	0.7	0.4	0.3	1.0	0.7	0.0	0.7	0.3
80–84	1.4	0.0	0.0	0.6	0.6	0.6	0.0	1.1	0.0	1.1	0.0	0.9	1.4	1.3	0.4
85+	0.0	0.0	0.8	0.8	0.7	0.7	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.5	0.0
All ages															
Crude rate	1.9	1.8	1.6	2.1	2.1	1.7	1.4	1.4	1.0	1.0	1.0	1.0	0.9	1.1	0.9
AS rate (A)	1.9	1.9	1.7	2.1	2.2	1.7	1.4	1.4	1.0	1.0	1.0	1.0	0.9	1.1	1.0
95% CI	1.7–2.3	1.6–2.2	1.4–2.0	1.8–2.4	1.9–2.5	1.4–2.0	1.1–1.6	1.2–1.7	0.8–1.2	0.8–1.2	0.8–1.2	0.8–1.2	0.8–1.1	0.9–1.3	0.8–1.2
AS rate (W)	1.8	1.7	1.5	1.9	2.0	1.5	1.2	1.3	0.9	0.9	0.9	0.9	0.9	1.0	0.9
95% CI	1.5–2.1	1.5–2.0	1.3–1.8	1.6–2.2	1.7–2.2	1.3–1.8	1.0–1.5	1.1–1.5	0.7–1.1	0.7–1.1	0.7–1.1	0.8–1.2	0.7–1.1	0.9–1.3	0.7–1.1
Ages 20–69 years															
Crude rate	2.9	2.8	2.5	3.1	3.2	2.5	2.0	2.1	1.5	1.5	1.5	1.5	1.4	1.6	1.4
AS rate (A)	2.9	2.9	2.5	3.1	3.2	2.5	2.0	2.1	1.5	1.5	1.5	1.5	1.4	1.6	1.5
95% CI	2.5–3.4	2.4–3.4	2.1–3.0	2.6–3.6	2.7–3.7	2.1–3.0	1.7–2.4	1.8–2.5	1.2–1.9	1.2–1.8	1.2–1.8	1.2–1.8	1.1–1.7	1.3–2.0	1.2–1.8
AS rate (W)	2.8	2.8	2.4	3.0	3.1	2.5	2.0	2.1	1.5	1.5	1.4	1.5	1.4	1.7	1.5
95% CI	2.4–3.3	2.4–3.3	2.1–2.9	2.6–3.5	2.7–3.6	2.1–2.9	1.7–2.4	1.7–2.5	1.2–1.8	1.2–1.8	1.2–1.8	1.2–1.9	1.1–1.7	1.4–2.0	1.2–1.8

Notes

1. Crude rates are the number of micro-invasive squamous cell carcinomas detected per 100,000 women.
2. Age-standardised rates are the number of micro-invasive squamous cell carcinomas detected per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: National Cancer Statistics Clearing House (AIHW).

Indicator 5.2 Incidence of squamous, adenocarcinoma, adenosquamous and other cervical cancer

Table A27: Number of new cases of cervical cancer, by age, 1992–2005

Age group (years)	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	Number														
0–4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5–9	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15–19	1	0	1	1	1	1	1	2	0	2	2	0	1	3	1
20–24	12	9	9	16	4	15	11	12	9	7	7	14	7	15	13
25–29	50	54	39	51	54	46	44	49	57	40	41	42	37	41	38
30–34	122	109	103	124	111	68	80	82	75	88	58	72	63	88	78
35–39	139	127	128	135	114	142	104	106	103	68	88	77	87	83	85
40–44	150	126	129	133	119	119	101	101	102	80	68	76	79	78	106
45–49	102	102	101	132	98	101	78	114	79	75	104	79	91	97	76
50–54	88	78	89	86	59	81	79	64	67	59	77	70	73	58	59
55–59	61	77	81	74	68	63	51	53	52	56	55	42	53	51	52
60–64	81	76	73	86	71	61	53	57	62	65	46	42	49	35	50
65–69	88	85	91	98	77	64	57	57	55	52	43	42	41	37	44
70–74	81	71	64	78	71	61	45	56	47	56	40	34	42	29	29
75–79	48	53	46	65	50	51	46	44	41	50	41	35	35	47	36
80–84	36	34	36	41	30	41	33	42	33	36	41	33	41	36	35
85+	33	22	21	22	33	26	28	28	19	24	29	31	30	26	32
All ages	**1,092**	**1,023**	**1,011**	**1,143**	**960**	**940**	**811**	**867**	**801**	**758**	**740**	**689**	**729**	**724**	**734**
Ages 20–69 years	**893**	**843**	**843**	**935**	**775**	**760**	**658**	**695**	**661**	**590**	**587**	**556**	**580**	**583**	**601**

Notes

1. Includes the incidence of micro-invasive and invasive cervical cancers.
2. Cancer incidence estimates provided in this publication were made in December 2008. These estimates may be updated at any time as case details are added, modified or deleted in the national database. These modifications may occur several years after the initial diagnosis as additional case details are received by the state and territory cancer registries from data suppliers and then passed to the National Cancer Statistics Clearing House. This may have the impact of making incidence estimates for the same year incompatible between publications, but for the most part these changes are very small.

Source: National Cancer Statistics Clearing House (AIHW).

Table A28: Incidence of cervical cancer, by age, 1992–2005

Age group (years)	Year														
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	Number of new cases per 100,000 women														
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.3	0.0	0.3	0.3	0.0	0.1	0.4	0.1
20–24	1.7	1.3	1.3	2.3	0.6	2.2	1.6	1.8	1.4	1.1	1.1	2.1	1.0	2.2	1.8
25–29	7.2	7.8	5.7	7.5	7.9	6.5	6.1	6.7	7.8	5.5	5.8	6.1	5.4	6.1	5.6
30–34	17.1	15.0	14.1	16.9	15.2	9.4	11.2	11.6	10.5	12.3	7.8	9.5	8.2	11.5	10.2
35–39	20.9	18.7	18.6	19.3	16.0	19.5	14.0	14.1	13.6	9.0	11.7	10.4	11.8	11.3	11.4
40–44	23.5	19.6	19.9	20.2	17.8	17.5	14.6	14.4	14.3	11.0	9.1	10.0	10.2	10.0	13.6
45–49	20.3	18.9	17.6	22.2	15.9	15.8	12.1	17.4	11.9	11.1	15.2	11.4	12.8	13.4	10.3
50–54	21.3	18.4	20.5	19.0	12.4	16.3	14.7	11.2	11.2	9.5	11.9	10.8	11.1	8.7	8.8
55–59	17.0	21.0	21.6	19.2	17.2	15.5	12.1	12.2	11.5	11.8	11.1	7.8	9.3	8.6	8.4
60–64	21.9	20.8	20.3	24.1	19.9	17.1	14.6	15.3	16.1	16.4	11.3	10.0	11.4	7.8	10.6
65–69	25.1	24.1	25.6	27.6	21.7	18.0	16.2	16.3	15.9	15.1	12.4	11.8	11.3	9.9	11.4
70–74	17.0	24.3	21.1	24.6	22.0	18.7	13.7	16.9	14.1	16.8	11.9	10.2	12.8	8.9	8.9
75–79	16.0	23.1	20.0	28.5	21.4	20.9	17.9	16.4	14.6	17.4	14.0	11.9	11.8	15.7	12.0
80–84	24.8	22.5	22.7	24.5	17.4	23.2	18.3	23.1	18.0	18.9	20.3	15.6	18.6	15.7	14.8
85+	30.0	19.0	17.2	17.3	24.6	18.4	18.7	17.9	11.4	13.7	15.8	16.4	15.5	13.1	15.4
All ages															
Crude rate	12.6	11.7	11.4	12.7	10.6	10.2	8.7	9.2	8.4	7.9	7.6	7.0	7.3	7.1	7.1
AS rate (A)	12.7	12.2	11.9	13.1	10.7	10.3	8.7	9.1	8.3	7.7	7.4	6.8	7.0	6.9	6.9
95% CI	11.9–13.5	11.4–12.9	11.1–12.6	12.3–13.8	10.1–11.4	9.7–11.0	8.1–9.4	8.5–9.8	7.8–8.9	7.2–8.3	6.9–7.9	6.3–7.3	6.5–7.6	6.4–7.4	6.4–7.4
AS rate (W)	10.8	10.3	10.0	11.1	9.1	8.7	7.4	7.7	7.1	6.5	6.2	5.8	6.0	5.9	5.9
95% CI	10.1–11.5	9.7–10.9	9.4–10.7	10.4–11.7	8.5–9.7	8.2–9.3	6.9–7.9	7.2–8.3	6.6–7.6	6.0–7.0	5.8–6.7	5.3–6.2	5.5–6.4	5.5–6.4	5.5–6.4
Ages 20–69 years															
Crude rate	16.5	15.4	15.2	16.6	13.6	13.1	11.2	11.7	11.0	9.7	9.5	8.9	9.1	9.0	9.2
AS rate (A)	17.1	15.9	15.8	17.0	13.8	13.4	11.4	11.8	11.0	9.7	9.5	8.9	9.1	9.0	9.2
95% CI	16.0–18.3	14.9–17.0	14.7–16.9	16.0–18.2	12.9–14.9	12.5–14.4	10.5–12.3	10.9–12.7	10.2–11.9	9.0–10.6	8.8–10.3	8.1–9.6	8.4–9.9	8.3–9.8	8.4–9.9
AS rate (W)	16.2	15.1	14.9	16.2	13.2	12.7	10.8	11.3	10.6	9.3	9.0	8.5	8.7	8.7	8.8
95% CI	15.2–17.3	14.1–16.2	13.9–15.9	15.1–17.3	12.3–14.2	11.8–13.7	10.0–11.7	10.4–12.1	9.8–11.4	8.6–10.1	8.3–9.8	7.8–9.3	8.0–9.4	8.0–9.5	8.1–9.5

Notes

1. Crude rates are the number of cervical cancers detected per 100,000 women.
2. Age-standardised rates are the number of cervical cancers detected per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: National Cancer Statistics Clearing House (AIHW).

Table A29: Number of new cases of cervical cancer, by age, state and territory, 1998–2001

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0
15–19	3	1	1	1	0	0	0	0	6
20–24	16	5	7	3	1	3	0	0	35
25–29	56	35	46	18	14	7	8	3	187
30–34	105	60	64	37	25	8	3	1	303
35–39	122	70	90	27	25	17	8	6	365
40–44	109	71	92	43	24	6	2	4	351
45–49	133	76	74	46	25	8	4	6	372
50–54	103	51	54	27	17	7	3	5	267
55–59	73	51	44	19	14	9	2	4	216
60–64	76	55	57	17	20	4	0	1	230
65–69	78	47	37	22	13	4	4	2	207
70–74	80	46	32	24	11	4	2	0	199
75–79	66	44	28	16	15	2	3	2	176
80–84	53	43	25	19	11	1	0	0	152
85+	36	29	14	11	7	2	1	0	100
All ages	**1,109**	**684**	**665**	**330**	**222**	**82**	**40**	**34**	**3,166**
Ages 20–69 years	**871**	**521**	**565**	**259**	**178**	**73**	**34**	**32**	**2,533**

Source: National Cancer Statistics Clearing House (AIHW).

Table A30: Incidence of cervical cancer, by age, state and territory, 1998–2001

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number of new cases per 100,000 women								
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.4	0.2	0.2	0.4	0.0	0.0	0.0	0.0	0.2
20–24	1.9	0.8	1.4	1.2	0.5	5.2	0.0	0.0	1.4
25–29	5.7	4.8	8.5	6.4	6.8	11.2	15.0	8.0	6.4
30–34	10.9	8.1	12.2	13.1	11.7	12.2	6.0	2.9	10.5
35–39	12.0	9.3	16.1	9.1	10.7	23.1	15.5	18.4	12.1
40–44	11.2	9.9	17.3	14.8	10.5	8.3	4.0	13.9	12.1
45–49	14.9	11.5	15.0	17.1	11.6	11.9	8.1	23.9	13.9
50–54	12.6	8.4	11.9	11.5	8.4	11.3	6.8	25.2	10.9
55–59	11.5	11.0	12.8	11.0	9.1	18.5	6.9	32.2	11.6
60–64	14.0	13.8	20.6	11.9	15.1	9.6	0.0	13.3	14.7
65–69	16.0	13.1	15.5	18.0	10.7	10.7	24.5	41.3	14.9
70–74	16.9	13.3	14.2	21.6	9.0	11.4	13.5	0.0	14.9
75–79	16.4	15.0	14.8	17.4	13.9	6.5	24.0	89.2	15.6
80–84	19.5	22.2	19.6	31.0	15.2	4.7	0.0	0.0	20.1
85+	15.1	16.1	12.5	18.8	10.6	11.1	16.4	0.0	14.7
All ages									
Crude rate	8.5	7.1	9.4	8.9	7.3	8.6	6.3	9.2	8.2
AS rate (A)	8.3	6.9	9.5	9.0	7.0	8.6	6.6	12.7	8.1
95% CI	7.8–8.8	6.4–7.5	8.8–10.2	8.1–10.0	6.1–8.0	6.8–10.7	4.7–9.0	8.1–18.7	7.9–8.4
AS rate (W)	7.0	5.8	8.2	7.5	6.0	7.7	5.7	10.4	6.9
95% CI	6.6–7.5	5.3–6.2	7.6–8.8	6.7–8.4	5.2–6.9	6.1–9.7	4.0–7.7	6.9–15.0	6.7–7.1
Ages 20–69 years									
Crude rate	10.7	8.6	12.7	11.0	9.4	12.4	8.2	13.6	10.5
AS rate (A)	10.7	8.6	12.8	11.1	9.3	12.3	8.3	16.3	10.5
95% CI	10.0–11.4	7.9–9.4	11.8–13.9	9.8–12.5	8.0–10.8	9.7–15.5	5.7–11.7	10.7–23.5	10.1–10.9
AS rate (W)	10.2	8.2	12.2	10.6	8.9	12.1	8.2	15.1	10.0
95% CI	9.5–10.9	7.5–8.9	11.2–13.3	9.3–11.9	7.7–10.4	9.5–15.3	5.6–11.4	10.0–21.7	9.6–10.4

Notes

1. Crude rates are the number of cervical cancers detected per 100,000 women.
2. Age-standardised rates are the number of cervical cancers detected per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: National Cancer Statistics Clearing House (AIHW).

Table A31: Number of new cases of cervical cancer, by age, state and territory, 2002–2005

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0
15–19	1	1	0	3	0	0	0	0	5
20–24	11	12	15	7	1	2	0	1	49
25–29	41	42	45	15	6	5	0	4	158
30–34	85	59	77	32	28	7	5	8	301
35–39	103	68	76	45	23	8	6	3	332
40–44	95	64	81	46	28	13	7	5	339
45–49	126	76	59	37	18	14	8	5	343
50–54	93	59	55	26	16	4	5	2	260
55–59	72	44	42	17	11	8	3	1	198
60–64	59	44	32	22	7	6	6	0	176
65–69	59	36	32	16	13	2	4	2	164
70–74	49	25	25	19	7	5	2	2	134
75–79	49	42	35	15	7	3	1	1	153
80–84	55	31	26	9	15	7	1	1	145
85+	37	32	21	15	9	4	1	0	119
All ages	**935**	**635**	**621**	**324**	**189**	**88**	**49**	**35**	**2,876**
Ages 20–69 years	**744**	**504**	**514**	**263**	**151**	**69**	**44**	**31**	**2,320**

Source: National Cancer Statistics Clearing House (AIHW).

Table A32: Incidence of cervical cancer, by age, state and territory, 2002–2005

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number of new cases per 100,000 women								
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.1	0.2	0.0	1.1	0.0	0.0	0.0	0.0	0.2
20–24	1.2	1.8	2.8	2.6	0.5	3.4	0.0	3.2	1.8
25–29	4.4	6.1	8.6	5.7	3.2	9.1	0.0	11.7	5.8
30–34	8.3	7.5	13.2	10.9	13.1	10.8	9.4	21.9	9.8
35–39	10.5	9.0	13.4	15.3	10.5	12.0	12.0	9.2	11.2
40–44	9.2	8.4	13.6	14.9	11.9	17.4	13.6	16.2	11.0
45–49	13.3	10.8	10.8	12.7	8.0	19.7	16.1	18.2	12.0
50–54	10.7	9.1	10.8	9.8	7.5	6.0	10.7	8.5	9.8
55–59	9.4	7.7	9.3	7.7	5.7	13.2	7.9	6.0	8.5
60–64	9.9	10.0	9.4	13.2	4.8	12.7	23.9	0.0	9.9
65–69	11.6	9.6	11.9	11.7	10.3	5.1	21.3	33.9	11.1
70–74	10.7	7.4	10.8	16.5	6.0	14.3	13.3	51.1	10.2
75–79	11.7	13.6	17.2	15.1	6.3	9.6	7.4	37.2	12.9
80–84	17.4	13.4	16.9	12.2	17.5	28.9	10.0	57.9	16.2
85+	13.4	15.6	15.7	22.3	11.9	18.8	12.5	0.0	15.1
All ages									
Crude rate	6.9	6.3	8.0	8.3	6.1	9.0	7.4	9.1	7.1
AS rate (A)	6.7	6.0	8.0	8.2	5.7	8.6	7.7	11.7	6.9
95% CI	6.2–7.1	5.6–6.5	7.4–8.6	7.3–9.1	4.9–6.6	6.9–10.6	5.7–10.1	7.4–17.2	6.7–7.2
AS rate (W)	5.6	5.1	6.9	7.0	4.9	7.4	6.5	9.6	5.9
95% CI	5.3–6.0	4.7–5.6	6.3–7.5	6.2–7.8	4.2–5.7	5.8–9.2	4.8–8.6	6.4–13.7	5.7–6.1
Ages 20–69 years									
Crude rate	8.7	7.9	10.5	10.5	7.7	11.4	10.0	12.4	9.1
AS rate (A)	8.7	7.9	10.5	10.5	7.7	11.2	10.5	12.6	9.0
95% CI	8.1–9.3	7.2–8.6	9.6–11.4	9.2–11.8	6.5–9.1	8.7–14.2	7.6–14.2	8.3–18.2	8.7–9.4
AS rate (W)	8.2	7.6	10.2	10.1	7.4	10.9	9.8	12.3	8.7
95% CI	7.7–8.9	6.9–8.3	9.3–11.1	8.9–11.4	6.3–8.7	8.4–13.9	7.1–13.2	8.2–17.7	8.3–9.0

Notes

1. Crude rates are the number of cervical cancers detected per 100,000 women.
2. Age-standardised rates are the number of cervical cancers detected per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: National Cancer Statistics Clearing House (AIHW).

Table A33: Number of new cases of cervical cancer, by histological type, women 20–69 years, 1991–2005

	Year														
Histological type	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
	Number														
Squamous	647	611	595	639	545	529	455	490	470	403	401	389	396	388	397
Adenocarcinoma	143	140	142	194	148	147	131	141	132	118	114	123	118	128	119
Adenosquamous	42	52	47	40	34	40	33	30	24	30	32	18	26	29	19
Other	61	40	59	62	48	44	39	34	35	39	40	26	40	38	66
Total	**893**	**843**	**843**	**935**	**775**	**760**	**658**	**695**	**661**	**590**	**587**	**556**	**580**	**583**	**601**
Micro-invasive	*156*	*155*	*138*	*174*	*181*	*146*	*119*	*127*	*92*	*90*	*90*	*94*	*87*	*104*	*94*

Source: National Cancer Statistics Clearing House (AIHW).

Table A34: Incidence (age-standardised) of cervical cancer, by histological type, women 20–69 years, 1991–2005

	Year														
Histological type	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
	Number of new cases per 100,000 women														
Squamous	12.4	11.5	11.2	11.7	9.8	9.4	7.9	8.3	7.9	6.7	6.5	6.2	6.2	6.0	6.1
Adenocarcinoma	2.8	2.7	2.6	3.5	2.6	2.6	2.3	2.4	2.2	1.9	1.8	2.0	1.9	2.0	1.8
Adenosquamous	0.8	1.0	0.9	0.7	0.6	0.7	0.6	0.5	0.4	0.5	0.5	0.3	0.4	0.5	0.3
Other	1.1	0.7	1.1	1.1	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.4	0.6	0.6	1.0
Micro-invasive	*2.9*	*2.9*	*2.5*	*3.1*	*3.2*	*2.5*	*2.0*	*2.1*	*1.5*	*1.5*	*1.5*	*1.5*	*1.4*	*1.6*	*1.5*

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

Source: National Cancer Statistics Clearing House (AIHW).

Table A35: Number of new cases of cervical cancer, by histological type, women of all ages, 1992–2005

	Year														
Histological type	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
	Number														
Squamous	790	751	705	788	676	670	553	613	577	525	509	486	500	492	486
Adenocarcinoma	171	156	163	224	174	167	162	166	151	136	136	135	139	148	133
Adenosquamous	50	57	56	50	39	47	39	35	26	31	36	20	31	29	23
Other	81	59	87	81	71	56	57	53	47	66	59	48	59	55	92
Total	**1092**	**1023**	**1011**	**1143**	**960**	**940**	**811**	**867**	**801**	**758**	**740**	**689**	**729**	**724**	**734**
Micro-invasive	*167*	*160*	*144*	*185*	*193*	*155*	*126*	*134*	*95*	*93*	*97*	*99*	*94*	*113*	*97*

Source: National Cancer Statistics Clearing House (AIHW).

Table A36: Incidence (age-standardised) of cervical cancer, by histological type, women of all ages, 1992–2005

	Year														
Histological type	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
	Number of new cases per 100,000 women														
Squamous	9.6	8.9	8.3	9.0	7.6	7.4	6.0	6.5	6.0	5.3	5.1	4.8	4.8	4.7	4.6
Adenocarcinoma	2.1	1.9	1.9	2.6	1.9	1.8	1.7	1.8	1.6	1.4	1.4	1.3	1.3	1.4	1.3
Adenosquamous	0.6	0.7	0.7	0.6	0.4	0.5	0.4	0.4	0.3	0.3	0.4	0.2	0.3	0.3	0.2
Other	0.9	0.7	1.0	0.9	0.8	0.6	0.6	0.5	0.5	0.7	0.6	0.4	0.6	0.5	0.8
Micro-invasive	*1.9*	*1.9*	*1.7*	*2.1*	*2.2*	*1.7*	*1.4*	*1.4*	*1.0*	*1.0*	*1.0*	*1.0*	*0.9*	*1.1*	*1.0*

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

Source: National Cancer Statistics Clearing House (AIHW).

Indicator 5.3 Incidence by geographic region

Table A37: Number of new cases of cervical cancer, by age, geographic region, 1998–2001 and 2002–2005

	Geographic regions							
	Major cities		Inner and outer regional		Remote and very remote		Australia	
Age group (years)	1998–2001	2002–2005	1998–2001	2002–2005	1998–2001	2002–2005	1998–2001	2002–2005
	Number							
0–4	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0
15–19	4	3	2	2	0	0	6	5
20–24	23	35	11	13	1	0	35	49
25–29	126	108	54	43	5	5	187	158
30–34	205	199	87	88	8	13	303	301
35–39	217	228	134	98	11	3	365	332
40–44	226	210	112	117	12	11	351	339
45–49	240	222	117	111	13	7	372	343
50–54	180	173	78	84	7	2	267	260
55–59	133	125	75	66	8	5	216	198
60–64	142	113	78	56	7	4	230	176
65–69	136	107	67	52	2	4	207	164
70–74	142	93	54	35	2	6	199	134
75–79	126	103	49	47	1	2	176	153
80–84	106	94	45	47	0	4	152	145
85+	67	86	31	30	2	2	100	119
All ages	**2,072**	**1,900**	**992**	**888**	**86**	**69**	**3,166**	**2,876**
Ages 20–69 years	**1,628**	**1,521**	**812**	**728**	**74**	**55**	**2,533**	**2,320**

Notes

1. The numbers are presented as 4-year non-overlapping blocks of data.
2. In the periods 1997–2000 and 2001–2004, there were 11 and 7 cases, respectively, that were excluded from these data because the respective postcodes were not able to be matched to the coding used for this analysis.
3. Because some postcodes cross boundaries, totals may not add up due to rounding.
4. The Australian Standard Geographical Classification (ASGC) was used to create the above categories (ABS 2001).

Source: National Cancer Statistics Clearing House (AIHW).

Table A38: Incidence of cervical cancer, by age, geographic region, 1998–2001 and 2002–2005

	Geographic regions							
	Major cities		Inner and outer regional		Remote and very remote		Australia	
Age group (years)	1998–2001	2002–2005	1998–2001	2002–2005	1998–2001	2002–2005	1998–2001	2002–2005
	Number of new cases per 100,000 women							
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.2	0.2	0.3	0.2	0.0	0.0	0.2	0.2
20–24	1.2	1.8	1.7	1.9	1.6	0.0	1.4	1.8
25–29	6.1	5.5	7.3	6.3	6.2	6.9	6.4	5.8
30–34	10.3	9.3	10.8	10.5	9.7	15.7	10.5	9.8
35–39	10.8	11.4	14.5	11.2	14.3	4.7	12.1	11.2
40–44	11.8	10.3	12.3	12.1	17.6	15.2	12.1	11.0
45–49	13.4	11.8	14.2	12.3	21.8	11.4	13.9	12.0
50–54	11.0	9.9	10.3	10.1	13.6	4.1	10.9	9.8
55–59	11.0	8.2	12.3	8.7	19.8	11.3	11.6	8.5
60–64	14.2	10.1	14.6	9.1	23.4	11.8	14.7	9.9
65–69	15.2	11.3	14.4	10.0	9.7	15.8	14.9	11.1
70–74	16.1	10.9	12.3	7.8	13.5	28.3	14.9	10.2
75–79	16.5	13.0	13.8	11.9	7.9	14.1	15.6	12.9
80–84	20.9	15.5	18.6	16.5	0.2	35.0	20.1	16.2
85+	14.5	16.0	14.6	11.8	25.6	21.1	14.7	15.1
All ages								
AS rate (A)	8.0	6.8	8.3	6.9	9.5	8.1	8.1	6.9
95% CI	7.6–8.3	6.5–7.1	7.7–8.8	6.5–7.4	7.5–11.9	6.2–10.3	7.9–8.4	6.7–7.2
AS rate (W)	6.7	5.8	7.1	6.0	8.2	6.7	6.9	5.9
95% CI	6.4–7.0	5.5–6.1	6.6–7.5	5.6–6.4	6.5–10.3	5.2–8.5	6.7–7.1	5.7–6.1
Ages 20–69 years								
AS rate (A)	10.1	8.9	10.9	9.3	13.4	9.3	10.5	9.0
95% CI	9.6–10.6	8.4–9.3	10.2–11.7	8.6–10.0	10.5–16.8	7.0–12.1	10.1–10.9	8.7–9.4
AS rate (W)	9.6	8.5	10.5	8.9	12.7	9.0	10.0	8.7
95% CI	9.2–10.1	8.1–8.9	9.8–11.3	8.3–9.6	9.9–15.9	6.7–11.7	9.6–10.4	8.3–9.0

Notes

1. The rates are presented as 4-year non-overlapping blocks of data.
2. Age-standardised rates are the number of cervical cancers detected per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: National Cancer Statistics Clearing House (AIHW).

Indicator 6.1 Mortality by age group

Table A39: Number of deaths from cervical cancer, by age, 1986–2006

Age group (years)	Year																				
	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
	Number																				
0–4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15–19	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
20–24	2	2	0	1	1	3	0	0	0	0	1	0	3	1	1	0	2	0	0	1	2
25–29	6	5	3	3	10	5	5	2	6	3	1	2	6	2	4	1	2	5	4	5	3
30–34	12	15	12	21	14	13	15	11	11	7	13	8	5	6	10	11	6	13	7	8	6
35–39	16	20	15	18	30	25	19	25	11	16	23	18	19	7	12	12	9	12	9	2	13
40–44	26	20	24	24	36	19	27	32	28	21	20	16	19	18	14	19	13	12	13	20	20
45–49	24	19	27	31	36	29	26	23	35	32	30	28	16	25	27	23	15	22	17	25	9
50–54	25	24	19	27	17	21	13	29	37	26	13	21	24	15	19	21	32	17	15	24	16
55–59	41	32	41	20	25	25	23	20	26	34	22	24	15	14	19	20	15	19	21	17	16
60–64	41	28	41	33	34	33	31	25	24	30	21	22	28	15	24	25	19	21	15	20	28
65–69	50	46	41	54	43	35	25	30	37	37	29	30	19	21	26	20	18	20	17	12	20
70–74	32	55	34	48	25	37	45	38	33	43	41	36	28	30	37	28	18	23	17	13	15
75–79	23	29	35	29	32	30	32	28	30	30	38	32	26	26	25	30	26	29	16	23	20
80–84	23	20	34	24	8	22	35	24	26	27	22	27	26	19	23	28	26	21	23	21	26
85+	24	16	17	22	25	32	23	24	24	20	24	30	31	21	26	24	26	24	37	25	30
All ages	**343**	**329**	**343**	**355**	**337**	**329**	**319**	**311**	**329**	**328**	**296**	**294**	**265**	**220**	**267**	**262**	**227**	**238**	**212**	**216**	**224**
Ages 20–69 years	**242**	**210**	**222**	**231**	**246**	**208**	**184**	**197**	**216**	**207**	**172**	**169**	**154**	**124**	**156**	**152**	**131**	**141**	**118**	**134**	**133**

Notes

1. Deaths were derived by year of registration.
2. A comparability factor of 0.98 was applied to mortality data for years before 1997 because, in processing deaths registered from 1 January 1997, Australia adopted the use of the Automated Coding System and introduced ICD-10 codes. The comparability factor provides a link between the two data series (that is, pre-1997 and 1997–2004). Comparability factors close to 1.0 indicate there were no significant coding differences between automated ICD-10 and manual ICD-9 coding.

Source: AIHW Mortality Database.

Table A40: Mortality from cervical cancer, by age, 1986–2006

Age group (years)	Year																				
	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
	Number of deaths per 100,000 women																				
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
20–24	0.3	0.3	0.0	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.2	0.2	0.0	0.3	0.0	0.0	0.1	0.3
25–29	0.9	0.7	0.4	0.4	1.4	0.7	0.7	0.3	0.9	0.4	0.1	0.3	0.8	0.3	0.6	0.1	0.3	0.7	0.6	0.7	0.4
30–34	1.9	2.3	1.8	3.0	2.0	1.8	2.0	1.5	1.5	0.9	1.8	1.1	0.7	0.8	1.4	1.5	0.8	1.7	0.9	1.0	0.8
35–39	2.5	3.1	2.3	2.7	4.6	3.7	2.7	3.6	1.5	2.2	3.1	2.4	2.5	0.9	1.6	1.6	1.2	1.6	1.2	0.3	1.7
40–44	5.4	3.7	4.1	3.9	5.9	2.9	4.3	5.0	4.3	3.1	2.9	2.3	2.7	2.5	1.9	2.6	1.7	1.6	1.7	2.6	2.6
45–49	5.7	4.4	6.3	6.9	7.6	5.8	4.9	3.9	5.9	5.2	4.7	4.4	2.4	3.8	4.0	3.4	2.2	3.1	2.3	3.4	1.2
50–54	6.8	6.4	4.9	7.1	4.2	5.0	3.0	6.8	8.2	5.6	2.6	3.9	4.2	2.5	3.0	3.2	4.9	2.6	2.3	3.6	2.3
55–59	11.1	8.8	11.3	5.4	6.8	7.1	6.2	5.2	6.9	8.7	5.3	5.7	3.5	3.1	4.0	4.0	2.8	3.3	3.5	2.8	2.5
60–64	11.2	7.7	11.1	9.0	9.3	9.0	8.6	7.1	6.6	8.5	5.8	6.0	7.5	3.9	6.0	6.1	4.5	4.9	3.3	4.3	5.7
65–69	16.4	14.6	12.5	15.7	12.4	10.0	7.2	8.5	10.5	10.5	8.3	8.5	5.4	6.1	7.5	5.8	5.1	5.5	4.5	3.1	5.1
70–74	12.3	20.5	12.8	18.1	9.4	13.2	15.4	12.6	10.5	13.4	12.6	11.0	8.5	9.0	11.1	8.4	5.4	7.0	5.2	4.0	4.6
75–79	11.8	14.8	17.1	13.7	14.7	13.5	14.1	12.4	13.3	13.0	15.7	12.5	9.7	9.3	8.7	10.3	8.8	9.8	5.3	7.7	6.7
80–84	19.0	15.8	26.6	17.6	5.6	14.8	23.3	14.9	15.8	15.9	12.2	15.0	14.3	10.4	12.1	13.9	12.3	9.5	10.0	8.9	10.9
85+	24.9	16.1	16.7	20.9	23.2	29.4	19.5	19.3	18.4	14.6	16.6	20.1	19.8	12.6	14.8	13.1	13.7	12.4	18.7	12.0	13.8
All ages																					
AS rate (A)	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	1.9	1.9
AS rate (W)	3.7	3.4	3.4	3.5	3.3	3.1	2.8	2.8	2.9	2.8	2.4	2.3	2.1	1.7	2.0	1.9	1.6	1.7	1.4	1.5	1.5
Ages 20–69 years																					
AS rate (A)	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	2.0	1.9
AS rate (W)	4.8	4.1	4.2	4.3	4.5	3.8	3.3	3.4	3.7	3.5	2.8	2.7	2.5	1.9	2.4	2.3	1.9	2.0	1.7	1.8	1.8

Note: Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: AIHW Mortality Database.

Table A41: Number of deaths from cervical cancer, by age, state and territory, 1999–2002

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0
15–19	0	0	0	0	0	0	0	0	0
20–24	4	0	0	0	0	0	0	0	4
25–29	1	3	2	1	0	0	1	1	9
30–34	5	4	11	9	2	1	1	0	33
35–39	14	9	8	2	2	2	1	2	40
40–44	18	12	20	5	4	1	2	2	64
45–49	29	16	19	11	13	1	0	1	90
50–54	33	16	13	7	8	6	1	3	87
55–59	25	13	14	7	5	2	1	1	68
60–64	31	15	20	9	6	2	0	0	83
65–69	28	12	16	14	7	4	3	1	85
70–74	36	29	23	17	4	3	0	1	113
75–79	31	30	16	13	10	3	3	1	107
80–84	30	27	16	14	5	3	0	1	96
85+	35	22	16	12	7	5	0	0	97
All ages	**320**	**208**	**194**	**121**	**73**	**33**	**13**	**14**	**976**
Ages 20–69 years	**224**	**124**	**118**	**68**	**35**	**26**	**16**	**11**	**563**

Notes

1. Numbers were averaged over 4 years to smooth annual variations that may occur in the smaller states and territories.
2. Deaths were derived by year and state of registration.

Source: AIHW Mortality Database.

Table A42: Mortality from cervical cancer, by age, state and territory, 1999–2002

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number of deaths per 100,000 women								
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
25–29	0.1	0.4	0.4	0.4	0.0	0.0	1.9	2.7	0.3
30–34	0.5	0.5	2.0	3.2	0.9	1.5	2.0	0.0	1.1
35–39	1.4	1.2	1.4	0.7	0.9	2.8	2.0	6.1	1.3
40–44	1.8	1.6	3.6	1.7	1.7	1.4	3.9	6.8	2.2
45–49	3.2	2.4	3.8	4.0	6.0	1.5	0.0	3.9	3.3
50–54	3.9	2.6	2.8	2.9	3.9	9.4	2.2	14.3	3.5
55–59	3.8	2.7	3.8	3.8	3.1	3.9	3.2	7.5	3.5
60–64	5.6	3.7	6.9	6.0	4.4	4.6	0.0	0.0	5.2
65–69	5.7	3.3	6.6	11.2	5.8	10.7	17.9	19.8	6.1
70–74	7.6	8.4	10.1	15.1	3.3	8.5	0.0	28.1	8.5
75–79	7.5	10.0	8.3	13.8	9.1	9.7	23.0	42.7	9.3
80–84	10.7	13.4	12.0	22.0	6.7	13.7	0.0	65.7	12.2
85+	14.0	11.7	13.6	19.5	10.1	26.2	0.0	0.0	13.6
All ages									
AS rate (A)	2.3	2.0	2.7	3.3	2.1	3.1	2.3	6.7	2.4
95% CI	2.0–2.5	1.7–2.3	2.3–3.1	2.7–3.9	1.6–2.7	2.1–4.3	1.2–3.9	3.0–12.2	2.2–2.5
AS rate (W)	1.7	1.4	2.1	2.4	1.6	2.3	1.8	4.9	1.8
95% CI	1.5–1.9	1.2–1.7	1.8–2.4	2.0–2.9	1.3–2.1	1.5–3.3	1.0–3.2	2.4–8.6	1.7–1.9
Ages 20–69 years									
AS rate (A)	2.3	1.6	2.7	2.8	2.4	3.1	2.6	5.5	2.3
95% CI	2.0–2.6	1.3–2.0	2.3–3.3	2.1–3.5	1.7–3.2	1.8–4.7	1.2–4.8	2.5–10.2	2.1–2.5
AS rate (W)	2.1	1.5	2.5	2.6	2.2	2.8	2.5	5.0	2.1
95% CI	1.8–2.4	1.2–1.8	2.1–3.0	2.0–3.3	1.6–2.9	1.6–4.3	1.1–4.5	2.3–9.3	2.0–2.3

Notes

1. Age-standardised rates were averaged over 4 years to smooth annual variations that may occur in the smaller states and territories.
2. Deaths were derived by year and state of registration.
3. Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: AIHW Mortality Database.

Table A43: Number of deaths from cervical cancer, by age, state and territory, 2003–2006

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
					Number				
0–4	0	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0	0
15–19	0	0	0	1	0	0	0	0	1
20–24	1	1	1	0	0	0	0	0	3
25–29	2	2	7	2	2	2	0	0	17
30–34	13	5	9	5	1	0	1	0	34
35–39	10	10	8	3	2	1	1	1	36
40–44	28	7	17	7	4	2	0	0	65
45–49	21	17	10	7	10	7	1	0	73
50–54	29	10	15	9	4	3	0	2	72
55–59	25	16	17	8	3	4	0	0	73
60–64	30	17	19	5	8	3	1	1	84
65–69	22	16	12	7	12	0	0	0	69
70–74	28	16	12	8	2	2	0	0	68
75–79	32	24	16	4	6	5	1	0	88
80–84	38	13	17	13	6	3	0	1	91
85+	43	22	17	16	15	1	2	0	116
All ages	**322**	**176**	**177**	**95**	**75**	**33**	**7**	**5**	**890**
Ages 20–69 years	**181**	**101**	**115**	**53**	**46**	**22**	**4**	**4**	**526**

Notes

1. Numbers were averaged over 4 years to smooth annual variations that may occur in the smaller states and territories.
2. Deaths were derived by year and state of registration.

Source: AIHW Mortality Database.

Table A44: Mortality from cervical cancer, by age, state and territory, 2003–2006

Age group (years)	States and territories								
	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
	Number of deaths per 100,000 women								
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
20–24	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1
25–29	0.2	0.3	1.3	0.8	1.1	3.6	0.0	0.0	0.6
30–34	1.3	0.6	1.5	1.7	0.5	0.0	1.9	0.0	1.1
35–39	1.0	1.3	1.4	1.0	0.9	1.5	2.0	3.0	1.2
40–44	2.7	0.9	2.8	2.3	1.7	2.7	0.0	0.0	2.1
45–49	2.2	2.4	1.8	2.4	4.4	9.6	2.0	0.0	2.5
50–54	3.3	1.5	2.9	3.3	1.9	4.4	0.0	8.2	2.7
55–59	3.1	2.7	3.6	3.4	1.5	6.3	0.0	0.0	3.0
60–64	4.9	3.7	5.3	2.9	5.3	6.1	3.8	8.9	4.6
65–69	4.2	4.2	4.3	5.0	9.3	0.0	0.0	0.0	4.5
70–74	6.2	4.8	5.2	6.9	1.8	5.8	0.0	0.0	5.2
75–79	7.6	7.7	7.7	4.0	5.4	16.0	7.4	0.0	7.4
80–84	11.7	5.4	10.7	17.0	6.8	12.0	0.0	55.9	9.8
85+	15.0	10.4	12.1	23.0	19.1	4.5	23.8	0.0	14.2
All ages									
AS rate (A)	2.1	1.6	2.1	2.3	2.0	3.0	1.1	2.1	2.0
95% CI	1.9–2.4	1.3–1.8	1.8–2.5	1.8–2.8	1.5–2.5	2.1–4.3	0.4–2.3	0.4–5.4	1.9–2.1
AS rate (W)	1.6	1.2	1.7	1.7	1.5	2.4	0.8	1.5	1.5
95% CI	1.4–1.8	1.0–1.4	1.4–1.9	1.3–2.1	1.2–1.9	1.6–3.4	0.3–1.7	0.4–3.6	1.4–1.6
Ages 20–69 years									
AS rate (A)	2.0	1.5	2.2	2.0	2.2	3.4	0.9	1.8	2.0
95% CI	1.8–2.4	1.2–1.8	1.8–2.7	1.5–2.7	1.6–2.9	2.1–5.1	0.3–2.4	0.5–4.7	1.8–2.2
AS rate (W)	1.9	1.4	2.1	1.9	2.0	3.2	0.9	1.6	1.8
95% CI	1.6–2.2	1.1–1.7	1.7–2.5	1.4–2.5	1.5–2.7	2.0–4.8	0.2–2.3	0.4–4.3	1.7–2.0

Notes

1. Age-standardised rates were averaged over 4 years to smooth annual variations that may occur in the smaller states and territories.
2. Deaths were derived by year and state of registration.
3. Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: AIHW Mortality Database.

Indicator 6.2 Mortality by geographic region

Table A45: Number of deaths from cervical cancer, by age, geographic region, 1999–2002 and 2003–2006

	Geographic regions							
	Major cities		Inner and outer regional		Remote and very remote		Australia	
Age group (years)	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006
					Number			
0–4	0	0	0	0	0	0	0	0
5–9	0	0	0	0	0	0	0	0
10–14	0	0	0	0	0	0	0	0
15–19	0	1	0	0	0	0	0	1
20–24	1	3	3	0	0	0	4	3
25–29	4	10	5	6	0	1	9	17
30–34	21	21	8	11	4	2	33	34
35–39	23	27	17	8	0	1	40	36
40–44	35	36	24	25	5	4	64	65
45–49	66	46	22	26	0	1	90	73
50–54	55	39	30	31	1	1	87	72
55–59	41	50	24	21	3	2	68	73
60–64	52	45	29	36	0	3	83	84
65–69	53	42	30	25	2	2	85	69
70–74	73	43	36	23	3	2	113	68
75–79	70	58	35	27	1	3	107	88
80–84	64	58	28	31	2	1	96	91
85+	64	86	30	29	3	1	97	116
All ages	**621**	**565**	**321**	**299**	**26**	**25**	**976**	**890**
Ages 20–69 years	**350**	**319**	**192**	**190**	**17**	**18**	**563**	**526**

Notes

1. Deaths were derived from place of usual residence and by year of registration.
2. The number of deaths is presented as 4-year non-overlapping blocks of data.
3. Because some postcodes cross boundaries, totals may not add up due to rounding.

Source: AIHW Mortality Database.

Table A46: Mortality from cervical cancer, by age, geographic region, 1999–2002 and 2003–2006

	Geographic regions							
	Major cities		Inner and outer regional		Remote and very remote		Australia	
Age group (years)	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006
	Number of deaths per 100,000 women							
0–4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5–9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10–14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15–19	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
20–24	0.0	0.1	0.5	0.0	0.0	0.0	0.2	0.1
25–29	0.2	0.5	0.6	1.0	0.5	1.2	0.3	0.6
30–34	1.0	1.0	1.0	1.4	5.0	2.5	1.1	1.1
35–39	1.1	1.3	1.9	1.0	0.2	1.4	1.3	1.2
40–44	1.8	1.8	2.6	2.6	6.6	5.4	2.2	2.1
45–49	3.6	2.4	2.6	2.8	0.4	1.9	3.3	2.5
50–54	3.2	2.2	3.9	3.7	2.4	2.1	3.5	2.7
55–59	3.2	3.1	3.7	2.7	8.3	4.2	3.5	3.0
60–64	5.1	3.8	5.3	5.7	1.4	9.9	5.2	4.6
65–69	5.9	4.3	6.4	4.8	8.6	7.9	6.1	4.5
70–74	8.3	5.1	8.1	5.2	15.2	10.3	8.5	5.2
75–79	9.0	7.3	9.5	6.9	9.1	19.0	9.3	7.4
80–84	12.2	9.2	11.3	10.8	26.4	10.2	12.2	9.8
85+	13.2	15.4	13.5	11.1	35.9	11.1	13.6	14.2
All ages								
AS rate (A)	2.3	1.9	2.5	2.1	3.6	3.2	2.4	2.0
95% CI	2.1–2.5	1.7–2.0	2.2–2.8	1.9–2.4	2.3–5.3	2.0–4.7	2.2–2.5	1.9–2.1
AS rate (W)	1.7	1.4	1.9	1.7	2.6	2.4	1.8	1.5
95% CI	1.6–1.9	1.3–1.5	1.7–2.1	1.5–1.9	1.7–3.9	1.6–3.6	1.7–1.9	1.4–1.6
Ages 20–69 years								
AS rate (A)	2.2	1.8	2.5	2.3	3.0	3.1	2.3	2.0
95% CI	2.0–2.4	1.6–2.0	2.1–2.9	2.0–2.6	1.7–4.9	1.8–4.9	2.1–2.5	1.8–2.2
AS rate (W)	2.0	1.7	2.3	2.1	2.8	2.9	2.1	1.8
95% CI	1.8–2.2	1.5–1.9	2.0–2.7	1.8–2.4	1.6–4.6	1.7–4.6	2.0–2.3	1.7–2.0

Notes

1. Age-standardised rates are presented as 4-year non-overlapping blocks of data.
2. Deaths were derived from place of usual residence and by year of registration.
3. Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: AIHW Mortality Database.

Indicator 6.3 Mortality in Aboriginal and Torres Strait Islander women

Table A47: Number of deaths and mortality from cervical cancer, by age, for Aboriginal and Torres Strait Islander women and for other Australian women (Queensland, Western Australia, South Australia and Northern Territory), 2003–2006

	Aboriginal and Torres Strait Islander women		Other Australian women	
Age group (years)	Number	Number of deaths per 100,000 women	Number	Number of deaths per 100,000 women
0–4	0	0.0	0	0.0
5–9	0	0.0	0	0.0
10–14	0	0.0	0	0.0
15–19	0	0.0	1	0.1
20–24	0	0.0	1	0.1
25–29	0	0.0	10	1.0
30–34	3	6.3	12	1.1
35–39	2	4.8	12	1.1
40–44	6	16.7	23	2.0
45–49	1	3.6	25	2.3
50–54	3	13.6	28	2.8
55–59	3	19.7	24	2.6
60–64	1	9.4	31	4.5
65–69	4	52.8	27	4.9
70–74	1	20.4	21	4.5
75+	3	49.2	105	10.2
All ages	**27**	. .	**320**	. .
AS rate (A)	. .	10.0	. .	2.0
95% CI	. .	6.0–15.5	. .	1.8–2.2
AS rate (W)	. .	7.6	. .	1.5
95% CI	. .	4.8–11.4	. .	1.4–1.7
Ages 20–69 years	**23**	. .	**193**	. .
AS rate (A)	. .	10.3	. .	2.0
95% CI	. .	6.3–15.8	. .	1.7–2.3
AS rate (W)	. .	9.4	. .	1.8
95% CI	. .	5.8–14.4	. .	1.6–2.1

. . Not applicable.

Notes

1. Deaths were derived by state and year of registration. The number of deaths is presented as a 4-year block of data.
2. Only Queensland, Western Australia, South Australia and the Northern Territory have Indigenous death registration data considered to be of a publishable standard.
3. Age-standardised rates are the number of deaths from cervical cancer per 100,000 women, age-standardised to the Australian population at 30 June 2001 (A) and the WHO World Standard Population (W).

Source: AIHW Mortality Database.

Appendix B National Cervical Screening Program contact list

New South Wales

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Appendix C Data sources and classifications

Data sources

Data used in this report are derived from multiple sources and are summarised below. All data are based on calendar years.

Indicator	Description	Data source
1	Participation in cervical screening	National Cervical Screening Program
2	Early re-screening	National Cervical Screening Program
3	Low-grade abnormality detection	National Cervical Screening Program
4	High-grade abnormality detection	National Cervical Screening Program
5.1	Incidence of micro-invasive cervical cancer	National Cancer Statistics Clearing House
5.2	Incidence of squamous, adenocarcinoma, adenosquamous and other cervical cancer	National Cancer Statistics Clearing House
5.3	Incidence by geographic region	National Cancer Statistics Clearing House
6.1	Mortality from cervical cancer	AIHW Mortality Database
6.2	Mortality by geographic region	AIHW Mortality Database
6.3	Mortality by Indigenous status	AIHW Mortality Database

National Cervical Screening Program data

The National Cervical Screening Program (NCSP) has both national and state and territory components. Although policy is usually decided at a national level, coordination of screening activity is the responsibility of the individual state or territory. Each of the eight states and territories in Australia has a cervical cytology registry that manages the cervical cytology register in their jurisdiction. The provision of data from the register to the AIHW is coordinated by the cervical screening program in each state and territory. Data for participation, early re-screening, and low- and high-grade abnormality detection are sourced from the cervical cytology register in each state and territory and then compiled into national figures to allow national monitoring of the NCSP.

NCSP data from state and territory cervical cytology registers includes all women screened in each jurisdiction, not just those women resident in each jurisdiction. The two exceptions to this are Victoria, which only supplies data on women resident in Victoria, and the Australian Capital Territory, which only registers women resident in the Australian Capital Territory.

National monitoring of the NCSP commenced in 1996–1997, with cervical cytology registries established in most states and territories at this time. The commencement dates for the cervical cytology registry in each state and territory are shown below:

States and territories	Date registry commenced
New South Wales	July 1996
Victoria	November 1989
Queensland	February 1999
Western Australia	July 1994
South Australia	June 1993
Tasmania	May 1994
Australian Capital Territory	March 1995
Northern Territory	March 1996

Limitations in the data specific to each indicator are detailed in the preamble for each indicator within the body of the report, and footnotes have been provided advising limitations of data where jurisdictions were not able to supply data or where there were differences in how data were reported for some reporting periods. For some states and territories the absence of data is due to a later commencement date for the cervical cytology registry.

Data sourced from state and territory cervical cytology registers in previous *Cervical screening in Australia* reports were based primarily on the 1994 NHMRC *Guidelines for the management of women with screen-detected abnormalities* (NHMRC 1994). In 2005, the NHMRC approved revised guidelines as a result of an improved understanding of the natural history of HPV and its link to cervical cancer. Particularly, this involves evidence of the pivotal role of persistent infection with high-risk HPV subtypes as a necessary, but not sufficient, cause for cervical malignancy to occur, and that most HPV infections acquired by women resolve without medical intervention (NHMRC 2005).

The major changes in the revised guidelines include: the use of a new terminology for the classification of cervical cytology reporting—the Australian Modified Bethesda System 2004 (AMBS 2004); repeat Pap test for most women with low-grade squamous change; more conservative management of women with biopsy proven CIN 1; colposcopy for all women with atypical glandular cell reports; and the use of HPV testing as test of cure following treatment for high-grade abnormalities (CIN 2 and CIN 3) (NHMRC 2005).

While there will still be some influence of the 1994 Guidelines on the data presented in this report, the introduction of the 2005 Guidelines six months into the reporting period means that effects of the new Guidelines on data may be seen in this report. The next report, *Cervical screening in Australia 2007–2008* will be the first report based solely on data collected under the 2005 Guidelines.

Incidence data

Incidence data in this report come from the National Cancer Statistics Clearing House (NCSCH), a national collection of cancer statistics held and operated by the AIHW. The NCSCH receives data from individual state and territory cancer registries on cancers diagnosed in residents of Australia, and produces reports on national incidence.

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 to no greater than 3 millimetres in depth and no wider than 7 millimetres.

Stage 1a2. Measured invasion of stroma between 3 millimetres and 5 millimetres in depth and no wider than 7 millimetres. The depth of invasion should be measured 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).

Some incidence figures are based on a reporting period of 4 years rather than 12 months. This longer period allows for a greater aggregation of information on issues that are subject to wide fluctuations and for a more confident and meaningful estimate of the outcomes.

Mortality data

Mortality data in this report come from the AIHW's National Mortality Database. The National Mortality Database is a national collection of de-identified information for all deaths in Australia and is maintained by the AIHW. Information on the characteristics and causes of death of the deceased is provided by the Registrars of Births, Deaths and Marriages and coded nationally by the ABS. Information on the cause of death is supplied by the medical practitioner certifying the death, or by a coroner. The data are updated each calendar year.

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 10th revision of the International Classification of Diseases (ICD-10) for classifying deaths registered from 1 January 1997
2. the introduction by the 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 numbers of deaths appearing in this report are slightly different from figures in some earlier *Cervical screening in Australia* reports.

Data have been analysed using the year of occurrence of death. This is because mortality data by year of occurrence of death is a more accurate reflection of mortality during a particular year than year of registration data.

All states and territories have provision for the identification of Indigenous deaths on their death registration forms. However, the coverage of deaths identified as Indigenous varies across states and territories and over time. While the identification of Indigenous deaths is incomplete in all state and territory registration systems, four jurisdictions (Queensland, Western Australia, South Australia and the Northern Territory) have been assessed by the ABS and the AIHW as having adequate identification. These four jurisdictions represent approximately 60% of the Indigenous population of Australia.

Some mortality figures are based on a reporting period of 4 years rather than 12 months. This longer period allows for a greater aggregation of information on issues that are subject to wide fluctuations and for a more confident and meaningful estimate of the outcomes.

Population data

The ABS estimated resident female population was used to calculate participation, incidence and mortality rates in this report.

Participation rates were calculated using the average of the estimated resident female population for the 2-year, 3-year or 5-year reporting period. In this report, denominators for participation rates have been calculated using the average of the ABS estimated resident population for 2006 and 2007 (for 2-year participation) the average for 2005, 2006 and 2007 (for 3-year participation), and the average of the ABS estimated resident population for 2003, 2004, 2005, 2006 and 2007 (for 5-year participation). These average populations have been adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the ABS 2001 National Health Survey.

Table A48: National hysterectomy fractions, 2001

Age group (years)	Percentage of women who have not had a hysterectomy
18–19	100.0
20–24	100.0
25–29	100.0
30–34	98.9
35–39	95.6
40–44	90.6
45–49	82.5
50–54	76.5
55–59	66.2
60–64	68.9
65–69	66.8
70–74	68.1
75–79	67.9
80+	69.0

Source: ABS 2002.

There may be some variation in published participation rates because of different sources of estimated resident population data between national reports and state and territory reports. Further, national denominators are adjusted for the estimated proportion of women who have had a hysterectomy using national hysterectomy fractions derived from the ABS 2001 National Health Survey, whereas state and territory reports may use hysterectomy fractions for their state or territory, which will give more reliable figures at the jurisdictional level.

The age-standardised rates in this publication were calculated using the total estimated resident Australian population at June 2001. Where appropriate, rates are also standardised to the World Health Organization (WHO) World Standard Population for international comparison.

Table A49: Australian Standard Population and WHO World Standard Population

	2001 Australian Standard Population (A) [a]	World Standard Population (W) [b]
Age group (years)	Number	Per cent
0–4	1,282,357	8.86
5–9	1,351,664	8.69
10–14	1,353,177	8.60
15–19	1,352,745	8.47
20–24	1,302,412	8.22
25–29	1,407,081	7.93
30–34	1,466,615	7.61
35–39	1,492,204	7.15
40–44	1,479,257	6.59
45–49	1,358,594	6.04
50–54	1,300,777	5.37
55–59	1,008,799	4.55
60–64	822,024	3.72
65–69	682,513	2.96
70–74	638,380	2.21
75–79	519,356	1.52
80–84	330,050	0.91
85+	265,235	0.63
Total	**19,413,240**	**100.00**

Note: The World Standard Population is the WHO World Standard Population Distribution (%), based on the world average population 2000–2025.

Sources:

(a) ABS 2002.

(b) Ahmad et al. 2002.

Classifications

Geographic region

Geographic region is classified according to the Australian Bureau of Statistic's Australian Standard Geographical Classification (ASGC) Remoteness Structure, which groups geographic areas into six categories. These categories, called Remoteness Areas (RAs), are based on Census Collection Districts (CDs) and defined using the Accessibility/Remoteness Index for Australia (ARIA). ARIA is a measure of the remoteness of a location from the services provided by large towns or cities. Accessibility is judged purely on distance to one of the metropolitan centres. A higher ARIA score denotes a more remote location. The six RAs of the ASGC Remoteness Structure are listed in the table below; the sixth 'Migratory' area is not used in this publication.

Residential address postcodes of participants were mapped to CDs in 2006 and then classified to the five main RAs, ranging from *Major cities* to *Very remote* areas. As some postcodes can span different RAs, a weighting for each RA is attributed to the postcode. This

can result in non-integer counts for remoteness classifications. For example, the Northern Territory postal area 0822 is classified as 70.54% *Very Remote*, 6.64% *Remote* and 22.82% *Outer Regional*. Participants with postcode 0822 have their counts apportioned accordingly.

Tables in this report based on geographical location are rounded to integer values. Where figures are rounded, discrepancies may occur between totals and sums of the component items.

Table A50: Remoteness areas for the ASGC

Region	Collection districts within region
Major cities of Australia	CDs with an average ARIA index value of 0 to 0.2
Inner regional Australia	CDs with an average ARIA index value greater than 0.2 and less than or equal to 2.4
Outer regional Australia	CDs with an average ARIA index value greater than 2.4 and less than or equal to 5.92
Remote Australia	CDs with an average ARIA index value greater than 5.92 and less than or equal to 10.53
Very remote Australia	CDs with an average ARIA index value greater than 10.53
Migratory	Areas composed of off-shore, shipping and migratory CDs

Socioeconomic status

Socioeconomic status classifications are based on the ABS Index of Relative Socioeconomic Disadvantage (IRSD). Geographic areas are assigned a score based on attributes such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. It does not refer to the socioeconomic situation of a particular individual but instead refers to the area in which a person lives. A low score means an area has many low income families, people with little training and high unemployment, and may be considered disadvantaged relative to other areas. Areas with high index scores may be considered less disadvantaged relative to other areas.

Quintiles based on the level of the index are used for analysis where the first quintile represents the least disadvantaged fifth of the population and the fifth quintile the most disadvantaged.

Appendix D Statistical methods

Comparisons and tests of statistical significance

This report includes statistical tests of the significance of comparisons of rates between population groups. Any statistical comparison applied to one variable must take account of any other potentially relevant variables. For example, any comparison of participation by state must also take account of differences in the distribution of age and sex between the states. These other variables are known as 'confounding' variables.

Crude rates

A crude rate is defined as the number of events over a specified period of time (for example, a year) divided by the total population. For example, a crude cancer incidence rate is similarly defined as the number of new cases of cancer in a specified period of time divided by the population at risk. Crude mortality rates and cancer incidence rates are expressed in this report as number of deaths or new cases per 100,000 population. Crude participation rate is expressed as a percentage.

Age-specific rates

Age-specific rates are calculated by dividing the number of cases occurring in each specified age group by the corresponding population in the same age group expressed as a percentage or a number per 1,000 or 100,000 population. This rate may be calculated for particular age and sex groupings, for example:

Age-specific cervical cancer incidence rate in females aged 50–54 years

$$= \frac{\text{New cases aged 50 – 54 years}}{\text{Female population aged 50 – 54 years}} \times 100{,}000$$

$$= \frac{78}{650{,}212} \times 100{,}000$$

= 12.0 per 100,000

Age-standardised rates (AS rates)

Rates are adjusted for age to facilitate comparisons between populations that have different age structures, for example, between youthful and ageing communities. There are two different methods commonly used to adjust for age. In this publication, we use direct standardisation in which age-specific rates are multiplied against a constant population (the 2001 Australian Standard Population unless otherwise specified). This effectively removes the influence of age structure on the summary rate that is described as the age-standardised rate. The method may be use for the calculation of participation, incidence and mortality rates.

The method used for this calculation comprises three steps:

1. Calculate the age-specific rate (as shown above) for each age group.
2. Calculate the expected number of cases in each 5-year age group by multiplying the age-specific rates by the corresponding standard population and dividing by the appropriate factor (that is, 100,000 for mortality and incidence rates and 100 for the participation rate).
3. To give the age-standardised rate, sum the expected number of cases in each group, divide by the total of the standard population and multiply by the appropriate factor (that is, 100,000 for mortality and incidence rate and 100 for participation rates).

Confidence intervals

Population numbers for incidence and mortality and screening have a natural level of variability for a single year above and below what might be expected in the mean over many years. The percentage variability is small for large population numbers but high for small numbers such as mortality in a young age group. One measure of the likely difference is that standard error, which indicates the extent to which a population number might have varied by chance in only 1 year of data.

In the 95% confidence interval, there are about 19 chances in 20 that the difference will be less than two standard errors.

The 95% confidence intervals (CIs) in this report were calculated using a method developed by Dobson et al. (1991). This method calculates approximate confidence intervals for a weighted sum of Poisson parameters.

Interpretation of confidence intervals

Where indicators include a comparison between states and territories, between time periods, between geographic regions, between socioeconomic status, or between Indigenous and other Australian women, a 95% confidence interval (CI) is presented along with the rates. This is because the observed value of a rate may vary due to chance, even where there is no variation in underlying value of the rate. The 95% confidence interval represents a range (interval) over which variation in the observed rate is consistent with this chance variation. In other words, there is a 95% confidence that the true value of the rate is somewhere within this range.

These confidence intervals can be used as a guide to whether changes in a particular rate are consistent with chance variation. Where the confidence intervals do not overlap, the difference between rates is greater than that which could be explained by chance and is regarded as statistically significant.

For example, the 2-year participation rate for women aged 20–69 years in Queensland in 2006–2007 was 59.3% with a confidence interval of 59.2% to 59.4.%. The corresponding rate for 2004–2005 was 58.4% with a confidence interval of 58.3% to 58.6%. These two intervals do not overlap, so the difference between the 2004–2005 and 2006–2007 rates is larger than we would expect due to chance alone.

Another example is the comparison between cervical cancer incidence rates for women in the target age group in *Remote and very remote* areas. In the period 1998–2001 there were 13.4 new cases of cervical cancer per 100,000 women living in *Remote and very remote* areas. This rate had a confidence interval of 10.5 to 16.8. The 2002–2005 rate for women living in remote

areas was 9.3 deaths per 100,000 women, with a confidence interval of 7.0 to 12.1. These confidence intervals overlap, so despite the relatively large differences between the two observed rates they are still consistent with chance variation. This arises from the fact that *Remote and very remote* areas of Australia have small populations, resulting in small numbers of cervical cancer cases, and that these rates may fluctuate a great deal from year to year. This in turn leads to relatively wide confidence intervals for an observed incidence rate.

It is important to note that a result such as in this second example does not imply that the difference between the two rates is definitely due to chance. Instead, an overlapping confidence interval represents a difference in rates which is too small to allow differentiation between a real difference and one which is due to chance variation.

Glossary

Adenocarcinoma: a carcinoma arising from the glandular cells of the cervical canal.

Adenosquamous carcinoma: a carcinoma made up of *malignant* glandular cells and *malignant* squamous cells.

Age-standardised rate: a method of removing the influence of age when comparing populations with different age structures. This is usually necessary because the rates of many diseases vary strongly (usually increasing) with age. The age structures of the different populations are converted to the same 'standard' structure, which allows comparison of disease rates (AIHW 2006).

Atypia: abnormality in a cell.

Benign: not *malignant*.

Cancer death: a death where the *underlying cause of death* is indicated as cancer. Persons with cancer who die of other causes are not counted in the *mortality* statistics in this publication.

Cancer (malignant neoplasm): a large range of diseases in which some of the body's cells become defective, and begin to multiply out of control. These cells can invade and damage the area around them, and can also spread to other parts of the body to cause further damage (AIHW 2006).

Cervical cancer: this term, covers all cancers specific to the uterine cervix, including *micro-invasive* cervical cancer. Types of cervical cancers include squamous cell carcinoma, *adenocarcinoma* (including mucoepidermoid and adenoid carcinomas), *adenosquamous*, and other and unspecified carcinomas. The term 'all cervical cancer' denotes all these types of cervical cancer, unless otherwise specified.

Cervical cytology register: a database that stores *Pap test* results and related test results for women in each state and territory of Australia. The term cervical cytology register is often used interchangeably with the terms *Pap test* register and Pap smear register.

Cervical cytology registry: the component of each state and territory cervical screening program which maintains the cervical cytology register. The term cervical cytology registry is often used interchangeably with the terms *Pap test* registry and Pap smear registry.

Cervical intraepithelial neoplasia (CIN): squamous cell carcinoma of the cervix is mostly preceded, over a period of years, by a spectrum of asymptomatic abnormalities known as cervical *neoplasia* (CIN) graded as CIN 1 (I) (mild *dysplasia*), CIN 2 (II) (moderate *dysplasia*) and CIN 3 (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 and others will progress to cervical cancer despite treatment (AIHW: Jelfs 1995).

Colposcopy: a microscopic examination of the lower genital tract with a magnifying instrument called a colposcope. This method of conservative evaluation allows the clinician to more accurately assess the cytologic abnormality by focusing on the areas of greatest cellular abnormality and by sampling them with a biopsy to attain diagnosis (NCSP 2004).

Confidence interval (CI): a range determined by variability in data, within which there is a specified (usually 95%) chance that the true value of a calculated parameter lies.

Dysplasia: abnormal development or growth patterns of cells (NCSP 2004).

Endocervix: the inside of the uterine cervix or the mucous membrane lining of the cervix.

Epidemiology: the study of the patterns and causes of health and disease in populations, and the application of this study to improve health (AIHW 2006).

Epithelium: tissue lining the outer layer of a body or lining a cavity (for example, vagina or mouth) (NCSP 2004).

Exfoliate: to break away or remove (shed) cells. In the context of this report it refers to the removal of cells from a person for the purpose of a *Pap test*.

High-grade abnormalities (HGA): in this report high-grade abnormalities are defined as CIN1/2, CIN 2, CIN 3 (see *CIN)*, endocervical *dysplasia* not otherwise specified, and adenocarcinoma in situ.

Histology: the microscope study of the minute structure and composition of tissues.

Human papillomavirus (HPV): the virus that causes genital warts and which is linked in some cases to the development of more serious cervical cell abnormalities (NCSP 2004).

Hysterectomy: refers to the surgical procedure whereby all or part of the uterus is removed.

Hysterectomy fraction: the proportion of women who have not had their uterus removed by *hysterectomy*.

ICD-10: International Classification of Diseases—a coding system used to identify the primary site of the malignancy. This classification is in its 10th revision.

Incidence: the number of new cases (for example, of an illness or event) occurring during a given period (AIHW 2006).

Indigenous Australian: a person of Aboriginal and/or Torres Strait Islander descent who identifies as Aboriginal and/or Torres Strait Islander and is accepted as such by the community with which he or she is associated (AIHW 2006).

Intraepithelial: the area within the layer of cell tissues forming the epidermis of a body cavity. These cells comprise contiguous cells having minimum intercellular substance (NCSP 2004).

Invasive cancer: a *tumour* whose cells have a tendency to invade healthy or normal tissue.

Low-grade abnormalities: in this report low-grade abnormalities are defined as *atypia*, warty *atypia* (*HPV* effect), possible *CIN*, equivocal *CIN*, and *CIN* 1.

Malignant: abnormal changes consistent with cancer.

Metastasis: the process by which cancerous cells are transferred from one part of the body to another, for example, via the lymphatic system or the bloodstream.

Micro-invasive squamous cell carcinoma (micro-invasive cancer): a lesion in which the cancer cells have invaded just below the surface of the cervix, but have not developed any potential to spread to other tissues.

Mortality: see *Cancer death*.

Neoplasia: the new and abnormal development of cells that may be harmless or cancerous (*malignant*) (NCSP 2004).

New cancer case: a person who has a new cancer diagnosed for the first time. One person may have more than once cancer and therefore may be counted twice in *incidence* statistics if is decided that the two cancers are not of the same origin. This decision is based on a series of principles set out in more detail in a publication by Jensen et al. (1991).

Pap test: a test prepared for the study of *exfoliated* cells from the cervix. The terms Pap test and Pap smear are often used interchangeably.

Radiation therapy: the treatment of disease with any type of radiation, most commonly with ionising radiation, such as X-rays, beta rays and gamma rays.

Screening: the performance of tests on apparently well people in order to detect a medical condition at an earlier stage than would otherwise be the case.

Significant difference: where rates are referred to as significantly different, or one rate is deemed significantly higher or lower than another, these differences are statistically significant. Rates are deemed statistically significantly different when their *confidence intervals* do not overlap, since their difference is greater than what could be explained by chance. See 'confidence intervals' in Appendix D for more information.

Squamous cells: thin and flat cells, shaped like soft fish scales. They line the outer surface of the cervix (ectocervix). They meet with columnar cells in the squamo-columnar junction. Between 80% and 85% of cancers of the cervix arise from squamous cells. Abnormalities associated with squamous cells are most likely abnormalities to be picked up by *Pap test*s (NCSP 2004).

Squamous cell carcinoma: a carcinoma arising from the squamous cells of the cervix.

Stroma: the supporting framework of on organ.

The Institute: the Australian Institute of Health and Welfare.

Tumour: an abnormal growth of tissue. Can be *benign* (not a cancer) or *malignant* (a cancer) (AIHW 2006).

Underlying cause of death: the condition, disease or injury initiating the sequence of events leading directly to death; that is, the primary, chief, main or principal cause (AIHW 2006).

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