Human Papillomavirus in Australia

Quick facts
Detection rates of high-grade cervical abnormalities have dropped in younger women since vaccination was introduced in 2007.
Aboriginal and Torres Strait Islander women experience a higher burden from cervical cancer compared with non-Indigenous women.

What is human papillomavirus?
Human papillomavirus (HPV) is a common sexually transmissible virus that affects both men and women.
The virus causes a range of conditions, from warts on the genitals and surrounding skin, to serious conditions including a range of cancers, such as cancers of the cervix, vagina, vulva, penis and anus.
Many HPV infections are asymptomatic, and cleared by the immune system, however, in a small number of people, ongoing infection with a cancer causing type of HPV may lead to cancer.

Vaccination against human papillomavirus
HPV vaccination for girls was first included in the Australian National Immunisation Program (NIP) in 2007, with vaccination for boys added in 2013. The NIP provides HPV vaccination for boys and girls aged 12–13 years.
Gardasil 9, introduced in 2018, protects against 9 strains of HPV that cause over 90% of cervical cancers in Australia.
Nationally, in 2016, 79% of 15 year old girls and 73% of 15 year old boys were fully immunised against HPV, however vaccination coverage rates varied by state and territory. Vaccination coverage rates for girls ranged from 68% in Tasmania to 83% in the Northern Territory, and for boys from 61% in Tasmania to 76% in Western Australia.
Incidence of cervical cancer

There has been a steady decline in the detection of high-grade cervical abnormalities in younger women (left figure). This decrease is likely due to girls being vaccinated against HPV under the National HPV Vaccination Program, during either the ‘school-based’ or ‘catch-up’ programs.

Between 1982 and 2014, more than 29,000 Australian women were diagnosed with cervical cancer. Over this period, the age-standardised incidence rate has decreased, from 14.2 to 7.4 cases per 100,000 females (right figure). The decrease in incidence over time has been attributed to the introduction of organised cervical screening in 1991. The impact of vaccination on cancer incidence will take decades to be observed.

Hospitalisations and deaths due to cervical cancer

In 2016, there were over 11,000 admissions to hospital for cervical cancer and carcinoma in situ (precancerous lesions) in Australia. Between 1999 and 2016 the hospitalisation rate for cervical cancer decreased from 21.2 to 15.6 hospitalisation admissions per 100,000 females, while the hospitalisation rate for precancerous cervical lesions has varied (left figure).

Between 1982 and 2015, 9,542 Australian women died from cervical cancer, with the age standardised mortality rate falling from 5.2 to 1.7 per 100,000 females (right figure).