Cervical cancer is the second most common cancer in women worldwide, with the majority of cases occurring in the developing world. With effective high-quality cervical cytology screening programs, with wide coverage of target populations, precursor lesions can be detected and treated, ultimately preventing progression to the development of cervix cancer.

In Australia, long-standing and high-quality screening programs have been implemented for several decades and, consequently, incidence and mortality rates from cervical cancer have declined significantly. They are at some of the lowest worldwide: the age-standardised incidence of cervical cancer being 7.0/100,000 and with a mortality 2.2/100,000 women in 2004.

It is noteworthy, however, that, notwithstanding the success of the National Cervical Screening Program in the general population, Indigenous women were over four times more likely to die of cervical cancer than non-Indigenous women in 2001-2004, with cervical cancer incidence also in the order of four to fivefold higher in Indigenous women. Whilst overall for the Australian population, the estimated lifetime screening participation rate is 88% (62% for over 2 years, 73% for over 3 years), the increased rates in Indigenous women reflects poorer access to cervical cytology screening programs.

The causal role of human papillomavirus (HPV) in cervical cancer has now been firmly established, with genotypes 16 and 18 consistently contributing worldwide to approximately 70% of squamous cell carcinomas.

In Australia, we too have shown the preponderance of 16 and 18 in cancers as well as high-grade dysplasias. Recently, prophylactic vaccines (bivalent and quadrivalent) have shown demonstrated high vaccine safety, tolerability and immunogenicity as well as very high efficacy against cervical precancer, attributable to vaccine-related HPV strains, against which the respective vaccines cover.

A proportion of other anogenital cancers are now recognised as also caused by oncogenic HPVs. Vulvar cancer, of the warty basalioid type, is caused predominantly by HPV 16. A high incidence of vulvar cancer has been reported in young Indigenous women in remote communities in the East Arnhem region of the Northern Territory. Cases there are being seen at fiftyfold the rate of anywhere else. As we also know that the quadrivalent vaccine prevents the vulvar cancer precursor caused by 16 and 18, as well as for cervical lesions, it is going to be paramount to ensure very high coverage of the government-funded, school-based vaccine program. To date Australia is leading the world in vaccine coverage, as in its third year’s cohort, the average cover is in the order of 75-80%. Coverage to remote communities is indeed a priority.

### References


