Methods Women attending health services across Australia provided a self-collected (vaginal) or clinician-collected (cervical) specimen for HPV genotyping (Roche Linear Array) and completed a questionnaire. HPV vaccination status was validated against the National HPV Vaccination Program Register. Odds ratios (ORs) and 95% confidence intervals (CI) were calculated for factors associated with detection of any oncogenic HPV (HPV16/18/31/33/35/39/45/51/52/56/58/59/66/68).

Results Among 1,643 women, vaccine coverage (≥ one dose) was 61.5% (69.1%, 58.7% and 41.1% among those 18–24, 25–29 and 30+ years, respectively). Oncogenic HPV prevalence was 25.4% (95% CI: 23.2–27.6%). In univariable analysis, risk factors for detection included younger age (p-trend<0.001), being a current smoker (p=0.05), and reporting more lifetime (p-trend<0.001) and recent (last 12 months) sexual partners (p-trend<0.001). In multivariable analysis, younger age (adjusted OR=1.33 [1.17–1.52]), more lifetime (adjusted OR=1.33 [1.16–1.52]) and recent sexual partners (adjusted OR=2.37 [1.77–3.16]) remained significant. There were no associations with socioeconomic status, area of residence or vaccination history. HPV16/18 prevalence was 1.4% (0.9–2.1%). In univariable analysis, risk factors for detection included older age (p=0.05), being non-Australian born (p=0.05), and being unvaccinated (p<0.001). In multivariable analysis, being unvaccinated remained the only factor significantly associated with HPV16/18 detection (adjusted OR=8.61 [2.45–30.25]). There were no associations with area of residence, socioeconomic status, or sexual behaviour.

Conclusion Oncogenic HPV was commonly detected among young Australian women; prevalence was influenced by risk factors related to sexual behaviour. In contrast, prevalence of quadrivalent vaccine-targeted types 16/18 was very low and influenced only by vaccination status. Vaccination has changed the epidemiology of HPV infection in Australia.

Disclosure No significant relationships.