Methods We adapted a previously published model of the impact and cost-effectiveness of 4vHPV to include the five additional HPV types in 9vHPV. The vaccine strategies we examined were (1) 4vHPV for males and females; (2) 9vHPV for females and 4vHPV for males; and (3) 9vHPV for males and females. In the base case, we assumed 9vHPV cost $13 more per dose than 4vHPV. Our model included a wide range of HPV-associated health outcomes that could potentially be averted by vaccination: cervical intraepithelial neoplasia; genital warts; juvenile-onset recurrent respiratory papillomatosis; and cervical, vaginal, vulvar, anal, oropharyngeal, and penile cancers

Results Compared to no vaccination, 4vHPV for both sexes cost $5,100 to $22,300 (in 2013 US dollars) per quality-adjusted life year (QALY) depending on assumptions regarding vaccine coverage and 4vHPV cross-protection against HPV 31, 33, 45, 52, and 58. Providing 9vHPV for females instead of 4vHPV was cost-saving in most scenarios we examined. The cost per QALY gained by providing 9vHPV to males instead of 4vHPV varied substantially depending on assumptions such as vaccine coverage and cross-protection of 4vHPV. However, the strategy of 9vHPV for both sexes (compared to the strategy of 4vHPV for both sexes) was cost-saving under most scenarios.

Conclusion A vaccination program of 9vHPV for both sexes can save money and improve health outcomes compared to a vaccination program of 4vHPV for both sexes.

Disclosure of interest statement The authors have no conflicts to declare. No pharmaceutical grants were received in the development of this study.

O16.5 HEALTH CARE ATTENDANCE AMONG ABORIGINAL YOUTH AGED 15–19 YEARS PROVIDES OPPORTUNITIES TO IMPROVE HUMAN PAPILLOMARUS VIRUS (HPV) VACCINATION COVERAGE

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Introduction A national school-based HPV vaccination program for 12–13 year olds was introduced in Australia in 2007 for females, and 2013 for males, with about 70% coverage achieved for 3-doses. However lower coverage has been reported in some states. In the context of an Aboriginal Sexual and Reproductive Health Program (2010–2014), we examined health care attendance among Aboriginal adolescents and young Aboriginal people attending Aboriginal Medical Services (AMSs) to determine clinical opportunities to offer HPV vaccination and HPV vaccination uptake.

Methods We extracted de-identified clinical data from 15–24 year old Aboriginal clients attending six AMSs between mid-2013 and mid-2014, and calculated total individuals attending, the median number of medical consultations per person and HPV vaccinations recorded. We used ranksum tests to compare medians.

Results Over 12 months, 1814 15–19 year old Aboriginal people attended (715 males, 1099 females), with similar proportions aged 15, 16, 17, 18 and 19 years in males and females. Among 15–19 year olds, there was a median of 4 consultations per person, higher in females (5, IQR: 2–11) than males (3, IQR: 1–5), $p < 0.001$. A similar number of 20–24 year olds attended (n = 1785), with a median of 5 consultations, higher in females (6, IQR: 3–13) than males (3, IQR: 1–6), $p < 0.001$. HPV vaccination was documented in the records of only three people, all 15 years old females (<2% all 15–19 yos).

Conclusion Despite concerns that many teenagers have poor health seeking behaviour, at six participating AMSs, we found that 15–19 year olds attend at a similar rate to 20–24 year olds, with females in both age groups attending more frequently. However, very few HPV vaccination doses were reported as given. Considering HPV vaccination is provided free at AMSs in NSW, these data highlight the need for better systems to support AMSs to identify incompletely vaccinated Aboriginal adolescents in addition to clinic-based prompts, reminders and feedback reports to raise clinician awareness.

Disclosure of interest statement The Aboriginal Sexual and Reproductive Health Program was funded by the New South Wales Ministry of Health.

O16.6 GENERAL PRACTITIONER AWARENESS OF SEXUAL ORIENTATION IN A COMMUNITY AND INTERNET SAMPLE OF GAY AND BISEXUAL MEN IN NEW ZEALAND: IMPLICATIONS FOR HPV VACCINATION

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Background General practitioners (GPs) can improve HIV and sexually transmitted infection (STI) screening and advice for gay, bisexual and other men who have sex with men (GBM) if they are aware of a patient's sexual orientation. We aimed to estimate GP awareness of their GBM patients' sexual orientation and examine whether HIV and STI screening was associated with this. These data will also inform policy debates about targeted catch-up HPV vaccination strategies for adult GBM.

Methods We analysed anonymous self-completed data from 3168 GBM who participated in the community-based Gay Auckland Periodic Sex Survey (GAPSS) and internet-based Gay men's Online Sex Survey (GOSS) undertaken in New Zealand in 2014. Participants were asked if their usual GP was aware of their sexual orientation or that they had sex with men.

Results Half (50.5%) believed their usual GP was aware of their sexual orientation/behaviour, 17.0% were unsure, and 32.6% believed he/she was unaware. In multivariate analysis, GP awareness was significantly lower if the respondent was younger, Asian or an "other" ethnicity, bisexual-identified, had never had anal intercourse or had first done so very recently or later in life, and had fewer recent male sexual partners. GBM whose GP was aware of their sexual orientation were more likely to have ever had an HIV test (91.5% vs 57.9%; AOR 6.6), specific STI tests (91.7% vs 68.9%; AOR 4.6), and were twice as likely to have had an STI diagnosed.

Conclusions Lack of sexual orientation disclosure is resulting in missed opportunities to reduce sexual health inequalities for GBM. This is despite over 20 years of anti-discrimination law and near complete legal equality. To address this, general practices should provide more proactive, inclusive and safe environments for sexual orientation minorities. Uptake of HPV vaccination among sexually-active GBM will be suboptimal unless communication about sexual orientation with GPs improves.