



## HPV vaccination for gay and bisexual men in New Zealand

### Introduction

- As a starting point, it should be noted that HPV is a highly infectious sexually communicable disease consisting of several different harmful strains. Vaccination against some of the more common and high risk HPV types is now available. Strategies for control must therefore include testing for HPV, and if positive, HPV type, to identify whether individuals would benefit from vaccination.
- In addition to vaccination approaches to anal cancer control, anal pap smears must also become a routine component of prevention for MSM once they reach a high-risk age,<sup>1</sup> in the same way as cervical screening complements HPV vaccination among women.
- The broader context of high levels of undiagnosed anal infections among MSM also needs to be highlighted.<sup>2</sup> Many anal infections, including syphilis, gonorrhoea and chlamydia as well as HPV, are not identified among MSM because anal screening often does not occur when patients present for check-ups, and anal infections are frequently asymptomatic or unnoticed. Thus regular anal testing of all MSM is likely to be part of an effective public health response to HPV and all other STIs.<sup>3, 4</sup>

### HPV vaccination for MSM

- The eligibility criteria and optimal age at which a publicly funded HPV vaccine should be offered to MSM is dependent on several factors.
- These include the age-specific prevalence of the HPV strains preventable by the available vaccine/s, the availability of diagnostic testing for different HPV types in New Zealand, and also issues influencing awareness of and accessibility to a publicly funded vaccine among MSM of different ages.
- To our knowledge there are no age-specific data on rates of HPV infection among New Zealand MSM.
- In the United States, a study of HIV-negative MSM found that while the overall rate of any high or low risk anal HPV infection was steady across all ages at 57%, the distribution of any high-risk HPV types was just 16% among MSM aged under 25, compared to 30% among MSM aged 30-34 (Chin Hong et al, attached, Table 2).<sup>5</sup>
- Furthermore, the distribution of HPV types 16, 6, 11, 18 and 53 (the first four of which are prevented by Gardasil) also appeared to be lower among MSM aged under 25 than among MSM aged between 30-34 (Chin Hong et al, attached, Figure 3).<sup>5</sup>
- If these rates are similar for New Zealand MSM, it suggests that there will be public health benefits in vaccinating MSM early while prevalence of some HPV types is lower; and that there are also benefits in offering a vaccine to older MSM, since not all men will have been infected with all the high risk, or common, HPV strains.
- HPV data among younger (teenage) homosexual and bisexual males is scarce. Age of anal sex initiation will affect both risk of HPV acquisition and the optimal timing of vaccination for younger MSM. New Zealand data on age of first anal sex among MSM suggest that 15.1% had engaged in anal sex by age 14, 25.0% by age 16, 40.2% by age 18, and 52.2% by age 20.<sup>6</sup>

- The major hurdle to the delivery of an HPV vaccine to homosexually-attracted men (since attraction is the precursor to homosexual activity) is likely to be social stigma surrounding homosexuality. Identifying men who are eligible for vaccination is dependent on individuals being comfortable disclosing their same-sex attraction/behaviour, and on medical professionals' training and willingness to inquire about homosexual activity among their male patients.
- Many MSM are vigilant with sexual health check-ups and this will provide an important opportunity for HPV testing, vaccination, and pap smears. In a 2006 periodic behavioural surveillance study, 43.2% of Auckland MSM had been for a sexual health check in the previous year.<sup>6</sup>

### Recommendations

- There are several options for provision of a publicly funded HPV vaccine for MSM in New Zealand.
- One option is to offer all MSM aged under 26 the vaccine regardless of HPV history and without conducting HPV testing. For MSM aged 26 and over, HPV tests could be offered with vaccination proceeding if the individual is uninfected with any of the HPV types prevented by the vaccine.
- A second option is to offer HPV testing to all MSM regardless of age.
- A third option is to offer vaccination to all MSM regardless of age, HPV history and without HPV testing.
- The feasibility of each of these "mixed", "test before vaccinating" or "vaccinate-all" approaches will be influenced by the costs of HPV testing. For example, compared to vaccinating all MSM, testing before vaccination will save the cost of a vaccination among MSM found to be infected with all protected HPV types, but will have additionally incurred an HPV testing cost if vaccination is found to be viable and proceeds.
- This also assumes that HPV testing will be publicly funded for MSM. If HPV testing is not publicly funded for MSM then this will have implications for testing uptake.
- All options would require a social marketing campaign, informing both MSM and health providers of the public health risk of HPV infection, the vaccination and/or testing options. The need for awareness-raising will be particularly acute for younger homosexual men who will not have the benefit of the universal "opt-out" vaccination programme being offered to young women at age 12.
- All options would also need to be supported by a move to routine anal pap smears for MSM once they reach a high-risk age for anal cancer, to complement the vaccination programme.

<sup>1</sup> Chin-Hong, P., Vittinghoff, E., Cranston, R. et al. Age-related prevalence of anal cancer precursors in Homosexual Men: The EXPLORE Study. *Journal of the National Cancer Institute* 2005; 97:896-905.

<sup>2</sup> Altman, L. Sex diseases in many gay men go unfound, experts say. *New York Times*, 13 March 2008.

<sup>3</sup> Young, H., Manavi, K. & McMillan, A. Evaluation of ligase chain reaction for the non-cultural detection of rectal and pharyngeal gonorrhoea in men who have sex with men. *Sexually Transmitted Infections*. 2003; 79:484-6.

<sup>4</sup> Ledger, W., Jeremias, J. & Witken, S. Testing for high-risk human papillomavirus types will become a standard of clinical care. *American Journal of Obstetrics & Gynecology*. 2000; 182:860-6.

<sup>5</sup> Chin-Hong, P., Vittinghoff, E., Cranston, R. et al. Age-specific prevalence of anal human papillomavirus infection in HIV negative sexually-active men who have sex with men: The EXPLORE Study. *Journal of Infectious Diseases* 2004; 190:2070-6.

<sup>6</sup> Saxton, P., Dickson, N. & Hughes, A. GAPSS 2006: Findings from the Gay Auckland Periodic Sex Survey. Auckland: New Zealand AIDS Foundation.