

# HPV Vaccination for Gay Men and Bisexual Men

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# HPV VACCINATION FOR GAY MEN AND BISEXUAL MEN

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## HEALTH INITIATIVE FOR MEN

The Mission of Health Initiative for Men (HiM) is to strengthen gay men’s health and well-being through trusted, tailored, targeted research-based health promotion services and by engaging the community through volunteer involvement, online access and events. We foster mutually beneficial relationships among gay men and health professionals to ensure the best possible outcomes. We do this because we value the ability of gay men to make informed decisions, we value the role of our community in supporting the foundations for healthy living, and we value scientific research.

HiM is a British Columbia community-based non-profit organization. Our approach includes physical, sexual, social and mental health. More information is available at our website [www.checkhimout.ca](http://www.checkhimout.ca).

## Statement of the Issue

Human Papilloma Virus (HPV) is a very common sexually transmitted infection. HPV can be transmitted by oral, anal, and/or genital sexual contact. Studies have found that HPV infection is widespread among sexually active adults, and more so among gay men and other men who have sex with men, particularly those who are HIV-positive.<sup>1</sup> It should be noted that appropriate use of condoms can reduce but not eliminate the transmission of HPV, as transmission can occur from contact outside the area protected by condoms.

Of the more than 100 identified types of HPV, four are most prevalent: Types 6 and 11 are commonly associated with benign genital warts. Of more concern are types 16 and 18 which are linked to some forms of cancer including anal, oral, penile and cervical cancers.<sup>1</sup> Gardasil® is an HPV vaccine that protects against infection caused by these four HPV types. In 2008 British Columbia launched routine immunization against HPV in girls. <sup>1</sup> Two cohorts were targeted to receive Gardasil® –grades 6 and 9 – the rationale being that if young girls are vaccinated, they would also protect boys as both sexes become sexually active. However this strategy does not protect gay and bisexual boys and other men who have sex with men.

The McCreary Centre Society's survey of adolescent health in BC found that 14% of high school students identify as gay, bisexual, 'mostly hetero', or not sure.<sup>2</sup> That's one in seven students. By age 18, more than half (52%) will have engaged in oral sex, a risk activity for HPV.<sup>2</sup> Given the number of young people identifying as non-heterosexual, universal access to HPV vaccination could have greater impact than was previously assessed.

As well, because of the prevalence of HPV in men who have sex with men, there is evidence to suggest that it is worthwhile to vaccinate all MSM regardless of age.<sup>1</sup> Early vaccination of all boys would provide maximum benefit and vaccinating all sexually active gay men would provide protection to those who have not been exposed to HPV and partial protection to those who have not been exposed to all four HPV types.<sup>1</sup>

Given the growing body of evidence that supports HPV vaccination of boys and men, Health Initiative for Men will work with our partners, local health authorities, and gay men to increase knowledge and uptake of the HPV vaccine, Gardasil®.

## Summary of Evidence

### HPV is common among all men

Studies have shown that HPV is common among all sexually active men (upwards of 60%).<sup>1</sup> Those numbers tend to be higher for gay and OMSM and even higher for those with HIV. A recent multi-country study (HPV in Men) identified an overall prevalence of 65.2% in men 18 years of age and older.<sup>1</sup>

The ManCount study of gay men and other men who have sex with men in Vancouver included a sub-study of self-collected rectal swabs.<sup>3</sup> Of the satisfactory specimens, 62% were HPV positive; this was significantly higher among HIV-positive (79%) compared to HIV-negative gay and OMSM (57%). Of the total with HPV, 38% had at least one HPV-vaccine specific type and 23% had a least one of HPV 16 or 18.

In the San Francisco Men's Health Study (SFMHS), anal HPV DNA was detected in 93% of HIV-positive and 61% of HIV-negative MSM.<sup>4</sup> The rates for heterosexual men were found to be comparable in another study reported in the Canada Communicable Disease Report (CCDR) of January 2012. It found that prevalence of any HPV type from any site (glans penis/foreskin, penile shaft and scrotum were sampled) was 69.8% of heterosexual males presenting at STI clinics in Vancouver, BC.<sup>1</sup>

Other studies show that prevalence of high-risk vaccine preventable HPV types 16 and 18 was 38% and 28% for HIV-positive participants and 19% and 3% for HIV-negative participants respectively.<sup>1</sup>

## HPV is costly

Anogenital warts are a significant health and psychosocial burden for men with rates higher than those in women (131-154/100,000).<sup>1</sup> The Canada Communicable Disease Report (CCDR) of January 2012 found the cost of treating anogenital warts to be \$190 per episode.<sup>1</sup> The annual cost of treating anogenital warts in British Columbia is 1 million dollars. The Mancount study of gay and other men who have sex with men reported that 17.9% of participants had genital warts in the past, with 4.1% of the sample being diagnosed with HPV in the last twelve months.<sup>5</sup> Among cancers affecting men, it is estimated that HPV infection is associated with 80-90% of anal cancers, 40-50% penile, 35% oropharyngeal and 25% of oral cavity cancers.<sup>1</sup>

The rate of anal cancer in men is approximately 1.5/100,000 which is slightly lower than that in women.<sup>1</sup> However, over the last few years, the rates of anal cancer in both men and women have been increasing while the 5-year survival probability following anal cancer is decreasing in men. Anal cancer is a particular problem for HIV-positive gay men and other MSM with one study reporting a rate of 137 per 100,000 person years in 1996-2006.<sup>1</sup> These rates are higher than cervical cancer rates in any population.

Oral cancer represents 3% of all diagnosed malignancies worldwide, and it is a global threat to public health.<sup>6,7,8</sup> It has high mortality and morbidity rates and its annual incidence surpasses cervical and ovarian cancer.<sup>9</sup> In Canada, more than 3,000 individuals are diagnosed with oral cancer every year. This is equally distributed among males and females under 40 years of age.<sup>10</sup> The incidence of oral cancer is rising among those Canadians between the ages of 20 and 29.<sup>11</sup> The situation is similar in other countries.<sup>7</sup> Oral cancer significantly impacts the quality of life economically, physically and psychosocially and in most cases, death will occur in less than 12 months after diagnosis, or within 5 years after treatment.<sup>12</sup> The most common risk factors associated with oral cancer include age, unprotected sun exposure, alcohol consumption and tobacco smoking.<sup>13</sup> However, patients with no history of tobacco smoking or alcohol consumption also develop oral cancer. For almost 30% of all oral cancers, HPV is both associated with and thought to play a key causal role.<sup>14</sup> Patients who have had prior HPV infection are 32 times more likely to have an oral malignancy compared with those never infected.<sup>15</sup> This risk dwarfs those cited for smoking and alcohol (3 and 2.5 respectively) and is of a similar order of magnitude to HPV's association with cervical cancer.

## **HPV is preventable**

The National Advisory Committee on Immunization (NACI) is Canada's independent expert body which provides advice on the use of vaccines. Based on their review of published evidence, they have recommended HPV vaccine (Gardasil®) for males 9-26 years of age for the prevention of anogenital warts, and genital cancers (such as anal and perianal cancers, penile cancers, and perineal cancers) and their precursors.<sup>1</sup> This universal strategy intends to create more effective vaccine programs in schools and also helps to reduce the stigma associated with female-only vaccination.

While it is important to protect males before they become sexually active, NACI also recognizes that sexually active men who have sex with men may not have been infected with all four strains of HPV covered by the vaccine and, therefore could derive benefit from being immunized anytime after the age of nine.<sup>1</sup>

While heterosexual males will derive some indirect protection from a female-only vaccination program, protection for all men will be much higher if they are offered the vaccine directly rather than having to rely on all females they come in contact with having been vaccinated.

NACI recognizes that additional protection of women is also possible through a gender neutral universal program rather than gender-based program. Lessons learned from past gender based vaccination programs, such as that for Rubella, support a universal policy to adequately control disease.<sup>1</sup>

## **HPV vaccine is recommended for all gay and other MSM regardless of age**

NACI has also determined that there is good evidence to recommend the use of Gardasil® in men who have sex with men (MSM) of all ages (9 and older).<sup>1</sup> MSM have a higher burden of HPV infection, particularly high-risk HPV 16 and 18 which are associated with cancers. Anal cancer rates are high among MSM and the rate increases for men who are HIV positive. While early immunization is important for maximum protection, MSM may still benefit from Gardasil®, as they may not yet have HPV infection or may not be infected with all four HPV types covered by the vaccine.

## **HPV vaccines are cost-effective**

A modeling study funded by the US National Cancer Institute found that HPV vaccine for MSM 12-26 years of age can be cost effective and well below the accepted threshold of \$50,000/quality adjusted life year (QALY).<sup>16</sup> A QALY is a measure of disease burden and is used in assessing the cost-benefit of a medical intervention. Protection is greatest for young men immunized at 12 years of age with cost per QALY estimated at \$15,290. The cost per QALY was higher for MSM immunized at 26 years old because some of them would have already been exposed to HPV. However, at \$37,830 per QALY it was still well below the \$50,000 threshold.<sup>16</sup>

## Review of Policies/Access to Gardasil®

Currently in the Province of BC, HPV vaccinations are not routinely offered to boys or men. Those wishing to access Gardasil®, often based on their own research and health-seeking behaviour, may do so through their doctor or clinician but are asked to pay the cost of the vaccination which is approximately \$450 for individuals (much higher than the cost would be for a provincial-based program).

Some private health insurance companies cover the cost of HPV vaccination, but the availability and promotion is not well-known.

Since 2008 the Province of BC, like other Canadian provinces, has offered HPV vaccination to girls in grade 6. The program started vaccinating in both grades 6 and 9, but now only vaccinate those in grade 6.

### Canada

In 2006, Health Canada approved the vaccine Gardasil® for preventing certain types of HPV, specifically types 6, 11, 16 and 18.<sup>1</sup> These strains of HPV are responsible for an estimated 70% of cervical cancers and most of the HPV-induced anal, vulvar, vaginal and penile cancer cases. The vaccine also prevents an estimated 90% of genital warts cases. The original recommendation was for girls aged 9 – 26 years of age.<sup>1</sup>

By 2009, the US FDA had approved Gardasil® for use in boys aged 9 – 26 and by February 2010, Health Canada followed suit.<sup>1</sup> Since then, there have been calls by community health advocates to make Gardasil® more widely available to all men, and in particular, to provide it to gay men and other men who have sex with men who do not benefit from female-only programs.

Recently the ministry of health in Prince Edward Island announced plans to vaccinate both girls and boys, as part of their provincial cancer reduction strategy.<sup>17</sup> The ministry of health in Alberta is considering a recommendation by Chief medical officer Dr. Andre Corriveau to do the same.<sup>18</sup> Quebec has also received recommendations to provide universal vaccination.

### Australia

In November 2011, the Pharmaceutical Benefits Advisory Committee (PBAC) recommended the extension of the National HPV Vaccination Program to include males.<sup>42</sup> The PBAC concluded that preventative health benefits can be achieved, such as a reduction in the incidence of anal and penile cancers and other HPV-related diseases.

In July 2012, the Australian Government announced funding to extend the National HPV Vaccination Program to include males, with national implementation in February 2013.<sup>19</sup> Further information is available on the HPV Vaccination Program website at: [www.australia.gov.au/hpv](http://www.australia.gov.au/hpv).

*The US, UK and France do not include boys and men in their vaccination programs.*

## HIM's Position

HPV creates a significant health and psychosocial burden for all men, in particular gay and other men who have sex with men.

HPV vaccinations, specifically Gardasil®, provide protection against harmful strains of HPV including those that have been found to cause anogenital warts as well as anal and oral cancers.

HPV vaccinations are routinely provided to young girls for preventative medicine. The resultant immunity has little impact on gay and other men who have sex with men.

Access to Gardasil® is limited by lack of knowledge, understanding and affordability of the vaccine.

As is the case in some jurisdictions around the world, including the provinces of Alberta and PEI, HPV vaccinations should be considered for all boys in the same manner as for girls, and also for men in high-risk populations.

## Recommendations

Protocols and guidelines for physicians and clinicians should be developed for HPV vaccinations in boys and men, and in gay men and other men who have sex with men, similar to those for women in the case of HPV and for gay men in the case of Hepatitis A, independent of the issue of payment. The protocols need to include procedures whereby clients may obtain a vaccination from a qualified clinician. These guidelines are best developed and supported by the appropriate agencies, in this case, the BC Cancer Agency, BC Centre for Disease Control or Immunize BC. These protocols should be developed and publicised independently of the source of funding for the vaccine costs. This will create a consistent approach and allow for education of parents, men, and their health practitioners who may then access the vaccine in greater numbers through the currently available means.

Awareness and understanding of Gardasil® as an HPV prevention tool should be promoted by local, trusted community organizations, with expertise in knowledge translation. This information should also be disseminated through the medical system to caregivers in an easy-to-apply format, and made available to the community in appropriately accessible media.

Options can then be developed to determine who pays for Gardasil when accessed as an HPV prevention tool for men and boys.



## Actions

Health Initiative for Men will request, on behalf of gay men in BC, for the BC Cancer Agency, the BC Centre for Disease Control and/or Immunize BC to provide clear guidelines on the usage of Gardasil® as a vaccine that is beneficial to gay men and other men who have sex with men.

HIM will collaborate with stakeholders, including the gay community, to determine and disseminate options for access to Gardasil.

HIM will promote and create an awareness of Gardasil® as an HPV prevention tool for gay men as a part of its comprehensive risk-reduction and harm-prevention strategies.

HIM will support efforts to provide HPV vaccination to all boys before their sexual debut in cooperation with health care professionals as a means of lowering rates of infection in men who have sex with men after sexual maturity.

HIM will support efforts to provide vaccinations to gay men and other men who have sex with men.

HIM will participate in pilot programs or other initiatives as appropriate as a key partner in reaching and engaging gay men and other MSM into testing and care in ways that meet the needs of this population.

## Use of the term “Gay Men”

Throughout research, policy and community programming on gay men and gay men’s health, a wide range of terms is used to acknowledge the limits of simply referring to MSM as gay. It is our belief that a gay men’s health movement must incorporate a broad definition of its population and reflect the current diversity of identities and terms within our work and communities. This means including all men who engage with other men romantically or sexually regardless of their gender identity (i.e. men or transmen) or sexual orientation identification (i.e. gay, bisexual, queer, two- spirit, pansexual). However, the term has continuing political and historical resonance and, for the sake of simplicity, we frequently elect to use the term “gay men” with the clear understanding that the diversity of our identities and terms are contained within it.

Within the HIV movement, there is growing acknowledgement that the term “men who have sex with other men” (MSM), which finds its roots in the epidemiological classification of sexual behaviours, partly erases gay men’s cultures, identities and lived experiences and tends to define them solely by whom they have sex with. Conversely, referring simply to “gay men” can be problematic as the term gay is laden with cultural and social meanings and values with which some men do not associate. Indeed, there is a significant number of men who participate in the “gay” community – and who are involved romantically, socially and sexually with “gay” men – but do not themselves identify as gay.

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