

FACTSHEET: HUMAN PAPILLOMAVIRUS (HPV)

HPV DISEASE AND VACCINES

There are over 100 viruses in the human papillomavirus (HPV) family of which about 20 are known to be high risk for HPV related cancers, and two types (6 and 11) that cause over 90% of genital warts. Males and females can carry HPV and transmit the virus via sexual contact. Penetration is not necessary for transmission; genital and mucosal contact can spread the virus. The majority of sexually active persons will be infected with HPV at least once in their lifetime. Persistent HPV infection can cause a considerable disease burden.^{1,2}

In 2012, over 3000 Canadians were diagnosed with cancer caused by HPV. One third of these were cervical cancers, one third nasopharyngeal and throat cancers and the remainder were other anogenital cancers including cancer of the anus and penis.²

Evidence suggests that HPV vaccination should be given to all boys and girls. Vaccination prior to sexual contact assures the greatest protection against infection.^{1,3}

HPV vaccine is publicly funded for grade 6 boys and girls in BC.⁴ Those who do not commence a series in grade 6 are eligible to initiate a series prior to age 19 (for males, born in 2006 or later), but not thereafter. A series commenced prior to age 19 may be completed with publicly funded HPV vaccine prior to the 26th birthday.⁴

HPV vaccine is publicly funded for HIV+ individuals 9-26 years of age who have not received a complete series of HPV vaccine.⁴

HPV vaccine is indicated, but not publicly funded, for all females age 19 - 45 years.⁴

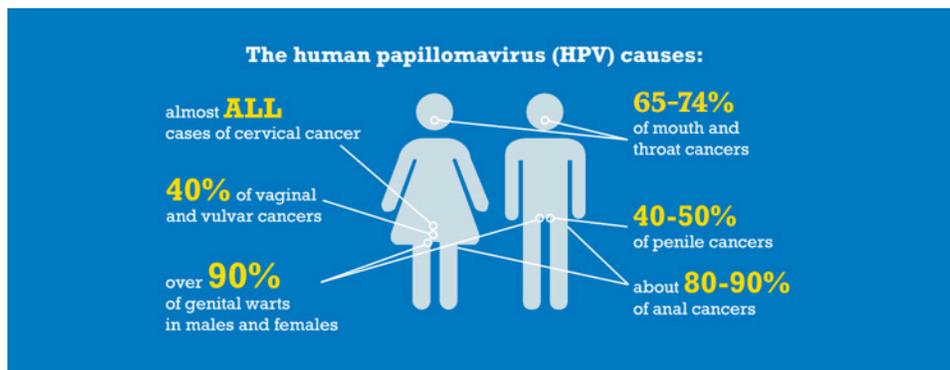
Males aged 9 – 26 years who are at higher risk of contracting HPV (males who have sex with males and are questioning their sexual orientation, males who are HIV positive, youth in custody or street-involved) also qualify for publicly funded HPV vaccine.⁴

HPV vaccine is indicated but not publicly funded, for all males 9 - 26 years of age (who are not indicated above) and males 27 and older who have sex with other males.⁴

Disease

Cervical cancers are related to persistent high risk HPV infection. However, HPV is not simply a women's issue; males are at risk of HPV-related diseases such as genital warts, and cancers of the anus, penis, tonsils, larynx and tongue.^{1,2}

Organized screening programs have played a significant role in reducing the incidence and mortality rates of cervical cancer. Screening is not routinely available for the remaining majority of HPV related cancers. HPV is associated with 80%–90% of anal cancers, 40% of vaginal and vulvar cancers and 40%–50% of penile cancers. Nearly three quarters of all oral cavity and oropharyngeal cancers are attributed to high-risk HPV types.^{2,5,6}



In 2012 there were 1,100 deaths from HPV associated cancer in Canada. HPV related deaths were mainly due to cervical cancer (38%) followed by HPV associated oropharyngeal cancers (32%).²

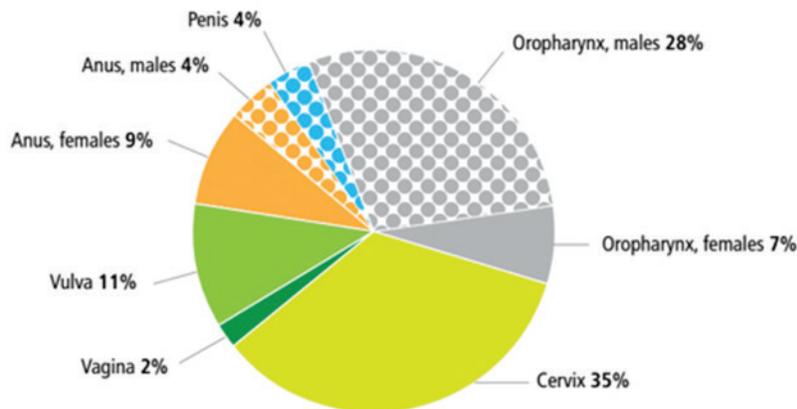


Anogenital HPV infection is very common with 75 - 90% of the population estimated to be infected with the virus at some point in their lives. While women have a peak risk of acquisition in their early 20's, men appear to be at risk of acquiring HPV infection throughout their lifespan.⁸

Most HPV infections will clear within 2 years. However, since the median time to clearance is likely to be ≥ 6 months for both genders, transmission of HPV in a sexually active population is highly likely, underscoring the importance of vaccination.^{8,9}

Percent of New HPV Cancer Types in Canada in 2012

- Important risk factors for acquiring HPV infection include number of sexual partners, early sexual activity and tobacco use.¹
- In Canada, the number of HPV-related oropharyngeal cancers are increasing in men at such a rate that they may soon surpass that of cervical cancer in women.¹



From Canadian Cancer Society's Advisory Committee on Cancer Statistics. *Canadian Cancer Statistics 2016*. Toronto, ON: Canadian Cancer Society; 2016.

- The incidence and prevalence of genital warts in Canadian males has increased substantially in recent years, while rates in women have remained stable since 2002. Incidence of genital warts in males is consistently higher than in females.^{10,11}

Vaccines

Three HPV vaccines are approved for use in Canada:

- Cervarix[®] (HPV2)
- Gardasil[®] (HPV4)
- Gardasil[®]9 (HPV9)

All three vaccines protect against HPV types 16 and 18 that cause about 70% of cervical cancers and 80% of anal cancers. The HPV4 and HPV9 vaccines also protect against HPV types 6 and 11 that cause about 90% of cases of genital warts.^{9,10} Studies have confirmed that after 10 years of use the HPV4 vaccine reduced HPV 6/11/6/18 infections by 90%, HPV related cervical pre-cancers by 85% and genital warts by 90% among vaccinated populations.⁹

The HPV9 vaccine protects against five additional cancer causing types (HPV 31, 33, 45, 52 and 58) which account for about 15% of cervical cancers, 11% of anal cancers in females and 4% of anal cancers in males.

For populations who qualify for publicly funded HPV9 vaccine physicians and pharmacists may order vaccine from their local health unit.



Those who do not commence a series in grade 6 are eligible to initiate a series prior to age 19 (for males, born in 2006 or later), but not thereafter. A series commenced prior to the age 19 may be completed with publicly funded HPV vaccine prior to the 26th birthday.⁴

Those who are not eligible for the publicly funded HPV vaccine may purchase it from pharmacies, travel clinics or physician's offices. HPV9 vaccine may be ordered by physicians and pharmacists directly from Merck Canada; call the order desk at 1-800 463 7251 to order vaccine for non-funded populations who wish to purchase HPV9 vaccine.

Please refer parents to the BC Pediatric Society resource [NPF Vaccines: Access](#) for the steps to follow to obtain Gardasil®9 from their pharmacist for physicians to administer in their office.

Visit the BC Pediatric Society website for Immunization Information for Physicians and for Families at www.bcpeds.ca

The 'HPV vaccine is cancer prevention' message resonates strongly with parents. Studies show that a strong recommendation from you is the single best predictor of vaccination.^{12,13}



For tips on talking with patients and parents and other resources see <http://www.immunizebc.ca/infographic/story.html>



TAKE AWAY MESSAGE FOR PARENTS

»	Males and females can carry the HPV virus and develop HPV-related cancers and other diseases.
»	Males and females can transmit the virus to sexual partners.
»	Early vaccination assures the greatest protection against HPV infection.
»	HPV vaccine has been shown to be safe and effective in males and females.
»	The HVP9 vaccine is recommended and publicly funded for grade 6 boys and girls. HPV vaccination is recommended and publicly funded for HIV+ individuals 9-26 years of age who have not received a complete series of HPV vaccine, high risk males 9-26 years of age, including those who have sex with men, street involved youth, boys who may be questioning their sexual identity, and youth in custody.

Please note that the information in this document is provided for educational purposes only, is not intended to provide medical advice and should in no way replace clinical judgment of the healthcare professional.

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