HPV:

Health Care Provider Guide

BC Centre for Disease Control
Provincial Health Services Authority

SMARTSEX RESOURCE

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Introduction

Clinicians at the BC Centre for Disease Control frequently provide examination, diagnosis, and front-line care of HPV. HPV-related anxiety is very common, this toolkit is designed to give clinicians the skills and knowledge to educate and support clients.

Clinicians can facilitate acceptance by normalizing HPV, providing sympathetic and non-judgmental information around HPV infection, vaccination, screening, and treatment, as well as supporting clients through some of the emotional reactions that may result from a diagnosis of HPV.

A second toolkit has been developed specifically for clients about HPV. This resource is available to read online or to download: https://smartsexresource.com/topics/human-papillomavirus-hpv

An Overview of HPV

Human papillomavirus (HPV) is the most common sexually transmitted infection in the world. Sometimes called the "common cold" of STIs, most sexually active people come into contact with HPV during their lives. It is passed through skin-to-skin vaginal/genital, oral, or anal contact, or shared sex toys. A safe, effective vaccine is available to protect against the most common wart-causing types, and the most-common cancer-causing types.

Oncogenic strains (High Risk HPV)

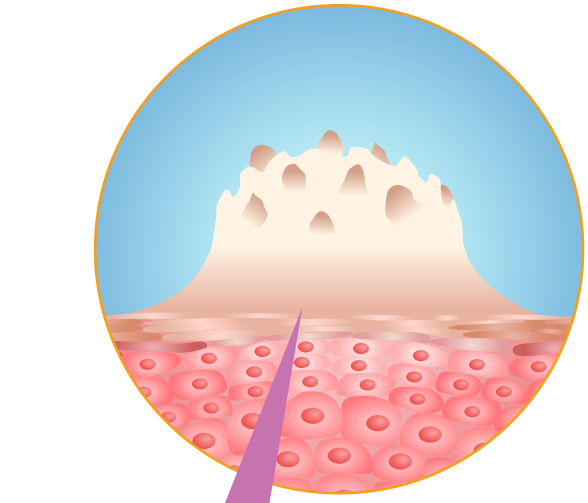
There are more than 100 types of HPV, 40 of which infect the anogenital region. Many strains are harmless, but at least 14 are oncogenic. HPV types 16, 18, 31, 33, 45, 56, and 65 are considered high-risk, with HPV-16 and HPV-18 particularly associated with genital malignancies.

Different strains of HPV may be more or less common depending on body site. In cases of cervical cancer, HPV-16 and HPV-18 contribute to approximately 70% of cervical cancer cases.[1] In a meta-analysis of vulvar, vaginal and anal carcinomas, the most common HPV types in vaginal and vulvar carcinomas were shown to be HPV-16, 18, 31 and 33. In anal carcinomas, HPV-16, 18, and 33 predominated.[2]

In a penile cancer study, HPV-16 or HPV-18 were found in approximately 31% of penile cancers, with HPV-16 being the predominant subtype.[3] In another study focusing on oropharyngeal cancer cases previous to vaccine introduction, HPV-16 was found in 60% of cases, while other strains of HPV included in the 9-valent vaccine made up an additional 8% of cases.[4]

Wart-causing strains (Low Risk HPV)

HPV-6 and HPV-11 cause 90% of anogenital warts (also known as condylomata), which can be a nuisance and emotionally distressing, but are generally harmless. These may appear in clusters or as single bumps on the vulva, vagina, introitus, cervix, penis, scrotum, anus, perianal skin and perineal area. They may appear flat, raised (sometimes "cauliflower-like"), and may be flesh-coloured or hyper-pigmented. Warts are usually painless, but may cause bleeding and itching. Genital warts are not associated with the development of cancer, but they can be a marker for people who don't clear HPV as well as others, so clinicians should ensure routine screening is maintained. The presence of warts on the cervix does not indicate a need for change in cervical screening (i.e. Pap test) frequency.



HPV-6 and HPV-11 cause 90% of anogenital warts

Progress of infection

Most HPV infections (including warts) spontaneously regress in 18 - 24 months. Even high-risk HPV will clear within two years in a majority of people. In rare cases, an HPV infection can persist and over time, usually 10 or more years, can lead to cervical pre-cancer or cancer if not detected and treated early.

Research suggests that HPV can enter a latent or un-detectable state.[5] There is evidence of cervical viral reactivation in some populations, including women living with HIV and older women.[6,7] It is unknown how many HPV infections become latent or un-detectable, or whether re-emergent HPV infections carry a significant cancer risk.

Care

There is increasing public awareness about HPV. Even with more information and emerging literature available, there are still many unknowns and misinformation about HPV, as well as significant social stigma and fear. Providing factual information, awareness, and normalization of HPV can help decrease anxiety and confusion and lead to positive behaviours such as vaccination. It's important that clients receive accurate information in a sensitive, inclusive and respectful way.

The following care models are recommended for best practice:

- Trauma-Informed Practice [8]
- Cultural Safety [9]
- Health Equity
- Gender Affirming Care [10]
- STI Assessment Decision Support Tool (DST) for RN(c) in British Columbia [11]

KEY FACTS ABOUT HPV

HPV is very common, and most unvaccinated sexually active people get HPV in their lifetime. Consider it the "common cold" of STIs.

Anogenital warts, although they may be a nuisance or emotionally upsetting, are medically harmless.

Cervical cancer screening is available for higher risk strains of HPV that are associated with cancer.

A safe, effective vaccine is available to protect against the most common strains as well as the more serious strains of HPV.

HPV prevalence and recurrence

HPV is extremely common: at least 80% of sexually active people will come into contact with HPV in their lifetime.[12,13] It's not realistic to expect that people can avoid HPV, and it's beneficial to counsel clients that they can have HPV and still enjoy an active and healthy sex life.

Overall point prevalence data of HPV: [14-17]

- Cervical HPV: 10-20%
- Vaginal HPV: 40%
- Penile HPV: 45-53%
- Anal HPV (in men who have sex with men): 64-88%

One major source of HPV anxiety is caused by uncertainty around whether the virus has cleared the body or not, and if it will recur. The majority of HPV infections regress on their own within about two years, but it is possible for an HPV infection to recur, for a person to be infected with another HPV type, or re-infected with the same type. Giving accurate and consistent information, and sharing this information in an open, non-judgmental way, can help clients manage anxiety.

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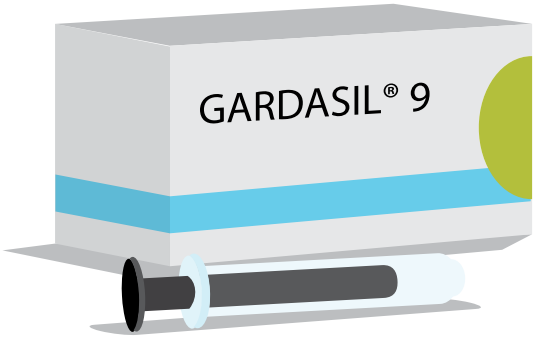
Prevention

The HPV vaccine

The HPV vaccine is the best prevention tool we have against HPV. The vaccine is safe, effective, and is now being offered to school age children of all genders starting in grade 6. Introduction of the BC school-based HPV vaccination program in 2008 has significantly reduced high-grade cervical lesions by half in those who received HPV vaccination compared to those who are unvaccinated. [18] Still, there is only a 67% uptake rate in girls under 18.[19]

The most important factor that makes a difference for clients in decision-making around the HPV vaccine is a recommendation from health care practitioner. By talking to your clients about the HPV vaccine, you can help make a difference.

There is currently one publicly-funded HPV vaccine being used in Canada: Gardasil®9 (HPV9). The HPV9 vaccine protects against nine strains of HPV. This includes the two types of HPV that cause about 70% of cases of cervical cancer and 90% of cases of anal cancer (HPV-16 and 18), as well as 5 additional types of HPV that cause 15% to 20% of cervical cancers and 11% of anal cancers in women and 4% in men (HPV-31, 33, 45, 52, 58), and two types of HPV that cause 90% of anogenital warts (HPV-6 and 11).



Dosing administration [20]

The HPV vaccine is given as a two or three dose series, depending on the age of the individual.

Age	Regimen	Schedule
9 -14 years	2-dose	0, 6 - 12 months
	3-dose (for immunocompromised individuals only)	0, 2, and 6 months
15 - 45 years	3-dose	0, 2, and 6 months
If the second dose is administered earlier than 5 months after the first dose, administer a third dose at least 4 months after the second dose.		

For more information, see the BC Centre for Disease Control immunization manual.

HISTORY OF HPV IMMUNIZATION IN BC [18]

2008 — 2008-2016: Gardasil® (HPV4-valent) offered to Grade 6 girls (birth year cohort 1997)

2014 — 2014: Protocol for school-age girls changed to 2-dose series

2016 — 2016: Gardasil®9 (HPV9-valent) replaces Gardasil® for girls in grade 6 (birth year cohort 2005); HIV positive females age 9-26

2017 — 2017: Gardasil®9 Program expanded to include boys in grade 6 (birth year cohort 2006), boys and men age 9-26 years who have sex with men or are questioning their sexual orientation, and transgender individuals

Vaccine eligibility

In BC, the HPV vaccine is available for free for the following groups:

- All children in grade 6
- Those who did not start a vaccine series in Grade 6 are eligible to initiate a series prior to age 19 (for males born in 2006 or later) but not thereafter.
- HIV positive individuals, 9-26 years of age
- Self-identified trans/transgender individuals, 9-26 years of age*
- Men 9 to 26 years of age who self-identify as:*
  - having sex with other men
  - are not yet sexually active but are questioning their sexual orientation
  - are street involved
- Boys 9 to 18 years of age in the care of the Ministry of Children and Family Development (MCFD)
- Males in youth custody services centres

For a full list of eligibility criteria for public health vaccine, and other vaccine-related questions, see the BC Centre for Disease Control immunization manual.[21]

Clients outside of these demographic ranges can still benefit from vaccination. The vaccine is recommended by the National Advisory Committee on Immunization (NACI) but not publically funded in BC for:

- Women 19- 45 years of age
- Males 9-26 years of age (who are not indicated above)
- Males 27 years of age and older who are men who have sex with men
- Immunocompromised individuals and immunocompetent individuals living with HIV (this is regardless of age, and falls outside of the public program)

Clients who are not eligible for public health vaccine must self-pay for the vaccination. Let clients know that their extended health benefits may cover the cost.

*** SELF-IDENTIFICATION**

Clients who self-identify as trans men who have sex with men, questioning, or street-involved should not be questioned about their identity, and should be offered the vaccine free of charge. It is not our responsibility as clinicians to assess or screen identities.

Other prevention strategies

HPV is passed though oral, anal, and vaginal/genital sexual contact. This includes both penetrative sex and sexual activities where there is skin-to-skin contact. It can also be passed by sharing sex toys. Consistent and correct use of condoms for oral, anal and vaginal/genital sex can reduce, but not eliminate the risk of HPV infection. HPV can occur or be present outside of anogenital areas covered by condoms.

For individuals who smoke, quitting or decreasing the amount they smoke can reduce the risk of acquiring HPV, and may help symptoms clear faster.

Testing and treatment

HPV is detected on the cervix through cervical screening (pap screening), and on the genitals by visual inspection for genital warts. Currently, HPV testing is only available for cervical cancer screening but is not yet the standard of care for screening in BC.

HPV specific testing

HPV DNA testing is standard care for test of cure after a LEEP (Loop Electrosurgical Excision Procedure). Private pay HPV testing at a lab in BC is not recommended. See the BC Cancer Q&A document for more information.

HPV is highly prevalent, usually harmless and most of the time it spontaneously regresses, therefore there is no reason to widely screen a population for HPV. HPV testing does not tell us who would have no complications from HPV or who would be more at risk. This is true even if we know what strain of HPV a person has.

Cervical screening/Pap testing

Testing for high-risk types of HPV for cervical cancer screening is available in some regions, but is not currently the standard of care in BC. Cervical cancer screening as recommended by the BC Cervix Cancer Screening program remains highly effective for decreasing cervical cancer in BC. Paps are recommended for all people with cervixes over the age of 25, and up to the age of 69.

Pap screening is still recommended if people:

- have had the HPV vaccine
- are not heterosexual
- are trans, nonbinary, or gender diverse and have a cervix
- have only had one sexual partner or have been with the same partner for a while;
- have been through menopause.

For the latest details of the cervical screening policy, please see the BC Cancer guidelines.

GENDER INCLUSIVE LANGUAGE

Why should we say "people with cervixes" when talking about cervical screening? Isn't it easier to just say women?

Not all women have cervixes, and not all people with cervixes identify as women. Trans men and non-binary people may have cervixes, and some cisgender (non-transgender) women may have had cervixes removed, or were not born with one. More inclusive language ensures everyone is represented.

Anal Pap Testing

Research is still ongoing regarding anal Pap screening. Anal Pap testing is not yet part of standardized testing. Researchers don't yet have enough data to establish best practices on anal screening for the general population, or on how to interpret results.

There are some populations who may benefit from anal Paps. Men who have sex with men and who are living with HIV have significantly higher risk of developing anal cancer. Refer these clients to their HIV care provider to see whether an anal Pap may be recommended.

Oral and throat screening

HPV can sometimes lead to oral and throat cancers, although oral and throat cancers are relatively rare in the general population. Counsel clients that tobacco and alcohol consumption are two of the strongest risk factor in developing oral pharyngeal cancers.[23] Dentists do visual screening for oral cancer as part of routine dental check-ups.

Warts

It is best to counsel clients that treatment of warts may be done for aesthetic reasons and that the warts may recur. Many genital warts will resolve spontaneously, so deferring treatment and simply monitoring is always an option. Removing warts may not reduce the possibility of transmission.

There are options for clinician- or client-administered treatment for clients who want warts removed. The first choice for treatment is cryotherapy with liquid nitrogen. Alternative cryotherapies approved for treatment can also be used, such as dimethyl ether propane (Histofreezer®). The second choice for clinician-applied treatment would be Podophyllin 10% tincture or 25% resin, and the alternate is Trichloracetic acid (TCA).[24]

Clients can also self-apply prescription drugs such as Imiquimod (Aldara® or generic equivalent) and podopfilox (Condylox® or generic equivalent). These treatment options can be expensive. Some extended health plans may cover these medications.

In most cases, warts will clear with or without intervention, though it is possible to acquire a new strain in the future. For some, genital warts may not respond to treatment, or can return after treatment has temporarily removed them. HPV can remain dormant in the body and recur at some point, especially if the body is under stress that affects the immune system, such as undergoing chemotherapy.

If you are seeing a client who has warts that continue to return through multiple treatment cycles, you can offer a referral to gynecology, dermatology, or surgery for laser treatment or excisional surgery.

Talking about HPV

Misinformation and fear about HPV can get in the way of informed decision-making. When talking with clients around HPV, we can model non-judgmental, supportive and sex positive language to help educate, inform and address client concerns. We can also normalize the high prevalence of asymptomatic HPV in the general population, and empower the client with choices such as vaccination.

Emphasize choice

Clients can feel powerless and overwhelmed about HPV, especially when they feel like they don't have choices about treatment or prevention options. Empower clients by emphasizing that they get to make decisions about their own sexual health.

Be mindful of minimizing

When a client is experiencing a lot of stress about HPV, it's tempting to reassure them by saying that HPV is not a major health concern. For someone feeling a lot of shame, anxiety, anger, or who is just feeling frustrated, this may seem dismissive or patronizing.

Educate and debunk myths

There is a lot of misinformation about HPV, especially about HPV vaccinations. You can help by listening and providing accurate information to address client concerns.

Reframe shame and blame

Sometimes, clients may take on blame or shame about sexual health, or put it on their partners. When talking to clients, try to reframe away from shame and blame, into more neutral language. People often want to know who gave them HPV or when. It can be helpful to remind people that HPV infection can be acquired many years before detection. Most sexually active people will come into contact with HPV during their lifetime. Normalizing HPV is important in conversations with clients

Acknowledge anxiety

People with anxiety may have limited capacity to take in new information. If you notice that a client seems visibly upset, or is asking very similar questions over and over, and/or rapid-firing questions, encourage them to slow down and manage anxiety before proceeding. Let them know information will be there when they're ready to process.

Sample Scenarios

The following scenarios present common reactions to HPV-related anxiety, with answers that model best practice around messaging and language.

Scenario 1

Client: This is awful! Genital warts, ugh. I feel dirty now. I can't deal with this. What am I going to do? I can't tell anyone, ever. Why did this happen? I just can't believe it.

Health Care Provider (HCP): A lot of people feel really anxious when they first find out they have genital warts, until they get more information. It sounds like you're having a lot of anxiety right now. Is it okay if we take a minute for a few deep breaths together? Once we've done that, I can share some information that can help.

Client: Okay, but you'll answer my questions after that right?

HCP: Yes, absolutely. If we need to schedule a follow-up appointment for any questions we don't get answered today, we can do that too.

Scenario 2

Client: So, you're giving me treatment for genital warts but you say they might not go away and I can still infect my partner. Should I stop having sex? Or does this mean I always have to use condoms, no matter what?

HCP: There's no need to abstain from sex under these circumstances. HPV is very common, and it's unrealistic to expect people to not have sex if they have it. Warts can be a nuisance but they don't present a health risk. Whether or not you use condoms is a personal choice you and your partner(s) can make together, and using condoms doesn't always prevent HPV infection. While condoms are one tool that can help to reduce the possibility of transmission, you don't have to use condoms.

Scenario 3

Client: So, this abnormal pap means I've got HPV. This means I always have to tell my partners, right?

HCP: There's no medical reason to tell someone you have HPV, and it is not required to notify your partners - it is your choice. HPV is a very common virus that most sexually active people will get, often years ago, without ever knowing because it usually goes away without symptoms or complications.

Scenario 4

Client: I can't believe you're saying having genital warts is no big deal! I have an STI now, who would ever want to sleep with me?

HCP: I hear you; it can be really upsetting to find out about this. Lots of people find it difficult being told they have HPV, especially before they learn more about it. Is it okay if I share some more information with you? I can also answer any questions you might have.

Client: Okay, I guess. This is just a lot to take in right now.

HCP: It is a lot, and you don't have to take it all in right now. Feel free to ask me to slow down, or ask questions if anything I'm saying doesn't make sense, okay? I'm also going to give you some information to take away.

Scenario 5

Client: I don't know, I've been told I should get the HPV vaccine but I know vaccines are really dangerous. Is this one of the vaccines that causes autism?

HCP: It's great you're taking care of your health by checking in about safety. Actually, there's a lot of misinformation out there about vaccines in general, and the HPV vaccine. The vaccine has been used around the world for over 10 years with continuous monitoring and research that demonstrates that it is safe and effective. Rigorous scientific studies have been done to establish that there is no risk of developing autism from a vaccine.

Scenario 6

Parent: You're saying my child should get a vaccination for a sexually transmitted infection? That's ridiculous! They're just a child. All these vaccines are just a money making scam for big pharma.

HCP: It's important your child gets the best health care possible and it's great that you're asking these questions. The reason we support giving the HPV vaccine early is because it really does make a difference in protecting against cancer later in life. We give it to younger people because research shows that preteens have a better immune response to the vaccine than older teens, and the vaccine works best if it's given well before there's any possibility of being in contact with the virus. This means your child will be better protected in future if they get the vaccine now.

Parent: But doesn't giving this just send the message to kids that they can have sex?

HCP: There is no evidence that being vaccinated against HPV encourages earlier sexual activity. In fact, since the vaccine program was introduced in BC, the age of first sexual activity has actually risen. [25]

HPV vaccine FAQs

Clients often have questions about HPV and the HPV vaccine. The following FAQs feature some of the most common questions, along with suggested answers.[26]

How well do HPV vaccines work?

Gardasil 9 is an effective vaccine, used for the protection of 9 HPV types known to cause about 90% of cervical cancer cases, 78% of cases of anal cancer and 2 HPV types that cause over 90% of genital warts.

Are HPV vaccines safe?

Yes, HPV vaccines are safe. The HPV vaccine has been extensively studied in many clinical trials and in post-marketing surveillance. Since the vaccine has been in use, hundreds of millions of doses of HPV vaccines have been distributed worldwide. Vaccine safety monitoring has continued to show that the HPV vaccine is safe.

Should clients get the HPV vaccine if they're already sexually active?

The HPV vaccine works best when people are vaccinated before they become sexually active. However, a person can still benefit from getting the vaccine even if they are already sexually active. This is because they are unlikely to have been exposed to all of the types of HPV contained in the vaccine.

If a client already has had the HPV4 vaccine, should they get the HPV9 vaccine?

It is recommended but not provided for free. Gardasil®9 (HPV9) protects against 5 additional types of HPV that cause 15-20% of cervical cancers and 11% of anal cancers in women and 4% in men.[27]

Gardasil®9 should be used to complete an HPV series that was initiated with Gardasil®4. Clients should be informed that a complete series of Gardasil®9 is recommended to ensure protection against the five additional HPV types in the vaccine; however, additional doses of Gardasil®9 beyond a complete HPV series are not part of the publicly funded program.[28]

If someone already has HPV, will the vaccine cure it?

The HPV vaccine will not cure an existing type of HPV. However, it can protect against someone getting the same type again, as natural infection with a particular HPV type does not necessarily confer immunity to future infection with that same type. People will also be protected against different strains of HPV that they have not yet contracted. The vaccine is still recommended for someone with known HPV infection.

If a client misses a dose of vaccine, do they need to start the series over again?

No, the client does not need to start the series over again. It's fine to pick up where you left off in the series of shots.

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