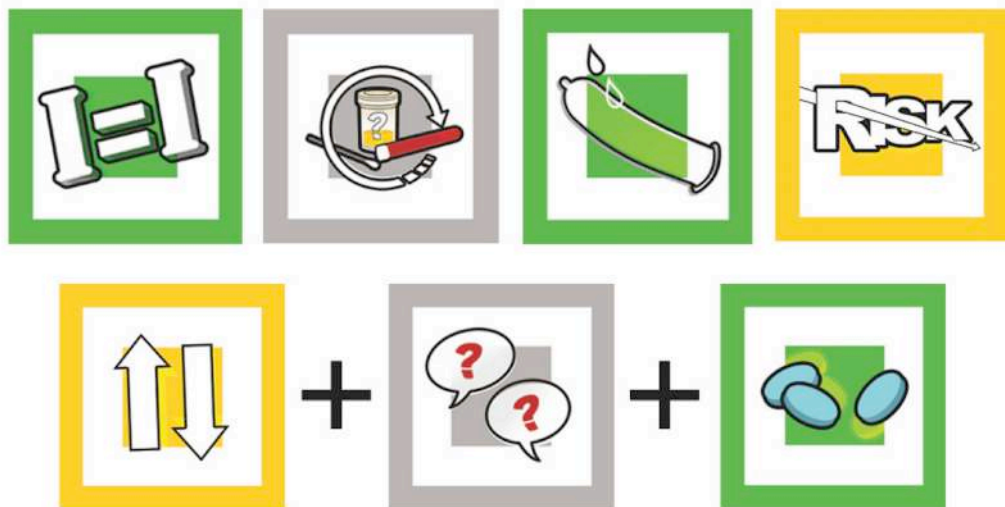


MOBILISE!



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Prevention strategy info sheets
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PROJECT TITLE:

Community mobilization of men who have sex with men (MSM) in Montreal: towards the implementation of combination HIV prevention strategies.

projetmobilise.org

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HIV PREVENTION STRATEGIES

The strategies used to prevent HIV can be grouped into 4 different categories:

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The following introduction gives definitions for the basic terms needed to understand HIV prevention.

HIV/AIDS: The Basics¹

HIV (Human Immunodeficiency Virus) is a virus that weakens the immune system, increasing the risk of contracting other infections.

AIDS (Acquired Immunodeficiency Syndrome) is a phase of HIV infection in which the immune system is in such a weak state that it can no longer defend the body. Since treatments have become available, AIDS is only rarely seen in Quebec.

¹ Based on: Portail VIH/sida du Québec. (2012). *L'Essentiel du VIH/sida*. Retrieved from <http://pvsq.org/wp-content/uploads/SIDA-101-final-2-Internet.pdf>

HIV transmission occurs when a bodily fluid (blood, sperm, pre-ejaculatory fluid, breast milk, vaginal fluid, or anal secretions) containing a sufficient amount of virus enters the body of an uninfected person, through either a break in the skin, the opening (urethra) in the tip of the penis, or the moist skin (mucous membrane) that covers the inside surface of the vagina, rectum, or foreskin.

An HIV infection that is left untreated will typically go through 4 phases:

1. **Primary infection:** After entering the body, the virus multiplies rapidly. If symptoms appear, they resemble those of the flu. The immune system produces antibodies to defend against the virus. The risk of transmitting the virus at this stage is very high.
2. **Asymptomatic phase:** Even when someone is not experiencing any symptoms, the virus is still active and multiplying.
3. **Symptomatic phase:** The immune system is progressively weakened and symptoms appear (e.g. fatigue, fever, diarrhea).
4. **AIDS:** Opportunistic infections takes advantage of a weakened immune system (e.g. pneumonia, cancer). Some may be terminal if left untreated. The risk of transmitting the virus at this stage is very high.

The **window period** is the amount of time between when a person is infected and when that infection can be detected by a test in the majority of cases. All tests used in Quebec can detect HIV in 99% of people three months after an infection. A person can know for sure that they have not been infected with HIV if they get a negative test result at the end of the window period as long as they have not engaged in any risk behaviours during this period. The window period highlights one of the complexities of HIV prevention. After receiving a negative result, a person can still be infected if they have had risky contact in the three months prior to getting tested. It's important to understand what a negative test result really means in order to choose the right prevention strategies.

CD4 cells are part of your immune system. HIV uses CD4 cells to multiply, destroying these cells in the process. Your immune system requires a certain quantity of CD4 cells in order to work properly. When this number is low, the risk of contracting other infections increases.

HIV viral load refers to the amount of virus in the blood. The higher the viral load, the more a person is at risk of transmitting the virus. Viral load is said to be “undetectable” when it goes below 40 copies/ml of blood. Depending on which laboratory techniques are used, this limit can vary (from 20 to 50 copies/ml of blood). However, there is still some virus present in the body.

Antiretroviral therapy tackles different stages of viral replication. It does not cure an HIV infection, but instead reduces the viral load, which makes it possible to maintain the immune system, improve an individual's quality of life, and prevent further transmission of the virus.

Adhering to the therapy consists of following the doctor's instructions for taking your medication, both in terms of how much and at what time you take them. Not taking the medication correctly could lead to therapeutic failure, an increase in viral load, or the development of resistance to the medication.

In medical terms, a person who is infected with HIV is **HIV-positive (HIV+)** and a person who is not infected is **HIV-negative (HIV-)**. Sexual partners with the same serological status are said to be **seroconcordant**, while those do not have the same status are said to be **serodiscordant or serodifferent**.

1. STRATEGIES PROVEN TO BE EFFECTIVE

Strategies proven to be effective *These strategies have been proven effective in preventing HIV transmission. They can be used alone, but since none of them are 100% perfect, it's often a good idea to combine more than one together.*



TAKING PrEP (PRE-EXPOSURE PROPHYLAXIS)

Taking antiretroviral medication (anti-HIV pills) by an HIV-negative person every day or intermittently (before and after sexual relations) to reduce the risk of contracting an HIV infection

Description

- Oral pre-exposure prophylaxis (PrEP) is a drug used to prevent HIV infection that can be taken continuously (every day) and/or intermittently (before and after risky sexual activity) by HIV-negative people who are at high risk of infection.^{1,2,3}
- PrEP does not protect against other sexually transmitted infections (STIs).

Effectiveness

- A number of studies have demonstrated that whether taken every day or intermittently, PrEP is effective at protecting against HIV transmission when used by people at high risk of becoming infected.
- Studies among men who have sex with men have shown that, compared to those who don't take PrEP:
 - The number of new infections was reduced by over 92% among participants in the iPREX study⁴ who took PrEP continuously and never missed a dose. Among participants in the PROUD study,¹⁰ new infections were reduced by 86%.
 - The number of new infections was reduced by 86% among participants of the Ipergay study⁸ who took PrEP intermittently (as needed, before and after sex) rather than on a daily basis.
- These studies offered PrEP in combination with counselling and regular testing. The Quebec ministry of health and social services (Ministère de la Santé et des Services sociaux du Québec, MSSS) also recommends that PrEP be accompanied by an HIV and STI testing routine, as well as by counseling on different risk reduction strategies.³
- For PrEP to be effective, it is essential that you adhere to the treatment by following the prescription without missing a dose. In a few rare cases, PrEP failure has occurred despite adequate use. Some of these cases can be explained by the acquisition of a strain of the virus that is resistant to the molecules present in PrEP.¹¹

Accessibility

- In 2016, Health Canada approved daily use of PrEP in the form of a tenofovir tablet (such as Truvada[®]) by people at high risk of infection. Although intermittent PrEP is not approved by Health Canada, physicians can give a prescription to the medication that does not specify intermittent use.¹¹
- If taken every day, the cost of PrEP is around \$900 to \$950 per month for Truvada[®] and \$200 to \$300 for the generic version of the drug. For people between the ages of 18 and 64 who have public prescription drug insurance (RAMQ), the maximum amount that a person will need to pay is \$85.75 per month.¹² Costs vary for those with private insurance but are generally between 20% and 25% of the monthly cost (about \$200/month for Truvada and \$50/month for the generic version) up to a maximum annual amount. The cost will likely be lower if PrEP is used intermittently because only 4 tablets are needed each time you have sex.

Acceptability

- In a survey that *Mobilise!* conducted among men who have sex with men in Montreal (2016-2017), 84% of respondents said they knew about PrEP. Of these, 88% said they were very confident about its

effectiveness. However, just under half (42%) said they were somewhat or very interested in using it and 15% had already used it.¹³

- In a cross-Canada survey among men who have sex with men, 36% believed PrEP was effective for reducing the risk of transmitting HIV.¹⁴
- If PrEP proves to be effective and is made accessible, as many as 74% of men said they would be prepared to use it.¹⁵⁻¹⁸ Reasons for wanting to use PrEP include¹⁹
 - the protection it can potentially offer against HIV
 - less concern or fear about getting infected
 - being able to have sex without condoms.
- PrEP can also be used if you anticipate being more likely to take risks during a short period, for example when on a trip.²⁰
- In light of encouraging results from clinical studies, activists²¹ and community groups²² have been campaigning for PrEP to be made more accessible to Canadians.
- In discussion groups with members of Montreal's gay community, it was found that²³
 - not everyone had the same understanding of PrEP; some thought that it was a pill that had to be taken every day, while others thought that it only needed to be taken before sex,
 - PrEP sparked some concerns and criticism, in particular about whether it would lead to the medicalization of gay sexuality, about the vested interests of pharmaceutical companies, and about ethical issues raised by this approach to risk reduction,
 - participants had a number of questions about PrEP as a prevention strategy; some thought it had the potential to be useful, others were worried that it would become a replacement for condoms.
- Advantages of PrEP:
 - It gives you a greater sense of control by offering a way to protect yourself from HIV without having to depend on sexual partners.
 - Convenience, given that PrEP is taken in the hours before and after sex (rather than during sex).
 - It offers protection to HIV-negative individuals who have HIV-positive sexual partners.^{11,24}
 - It provides an alternative for individuals who do not use condoms, whatever the reason.^{11,24}
 - It is highly effective in protecting against HIV.²⁴
 - It reduces HIV-related fear and stress.²⁴
- Disadvantages of PrEP:
 - It may cause side effects such as nausea, vomiting, diarrhea, headaches, or dizziness.¹¹ Among participants in the Ipergay study,⁸ 13% of those who took PrEP reported nausea and abdominal pains. These side effects usually went away after a few weeks.
 - Little is known about the long term effects of using PrEP.¹¹
 - PrEP requires planning, especially if you don't take it every day. You need to make sure you remember to take it before and after having sex.
 - Taking the medication requires discipline. For PrEP to be effective, the correct dosage must be taken as prescribed.
 - It does not protect against other STIs.²⁴
- Obstacles to PrEP:
 - Limited access, given that only some doctors are willing to prescribe it.²⁴
 - Thinking that PrEP is not effective enough since it does not offer 100% protection.^{24,25}
 - Needing to ensure you take the medication correctly as prescribed in order for it to be effective.^{24,25}
 - Not wanting to take medication on a daily basis, as is required if PrEP is used continuously.²⁵
 - Having concerns about side effects on health and or the impact on your sex life.^{24,25}
 - Thinking that you're not at risk because you avoid having sex with HIV-positive partners.²⁵
 - Not seeing the need because you already use condoms.²⁵
 - High monthly cost for some people.²⁴
 - Being afraid of what others think can make it difficult for some people to ask their doctors for PrEP, obtain it up at a pharmacy, or tell sexual partners about PrEP use.

- Having concerns that PrEP could lead to drug resistance (if someone is on PrEP when they contract HIV).^{3,11}
- Having concerns about the declining use of other risk reduction strategies, increases in STIs, and the tendency of people to fall into a false sense of security.^{3,25}
- Having concerns about being stigmatized as a careless person or someone with an unbridled sexual appetite (“Truvada whore”).²⁴
- Having difficulty maintaining PrEP in a context of homelessness or substance use.²⁴
- For trans people, having concerns about interactions between PrEP and hormones.²⁴

Cost effectiveness

- In a study using data from Quebec, the direct and indirect costs to the health system for the first year of an HIV infection range from \$27 410 to \$35 358. The annual cost of using PrEP on an intermittent basis is \$12 000 (total cost to the health system for the medication and all medical care; this is not the amount that individuals themselves have to pay).²⁶
- Introducing PrEP would not lead to an increase in costs but rather to savings in the costs associated with an HIV infection (e.g. ambulance calls, hospital stays, emergency visits, psychosocial costs, cost of antiretroviral therapy, absences from work).²⁶
- The availability of generic versions of the drug has increased the cost-effectiveness of PrEP.

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Strategies proven to be effective *These strategies have been proven effective in preventing HIV transmission. They can be used alone, but since none of them are 100% perfect, it's often a good idea to combine more than one together.*



USING A PHYSICAL BARRIER (CONDOM, DENTAL DAM, GLOVE) AND LUBRICANT DURING SEXUAL CONTACT

Use of a physical barrier (condom, dental dam, glove) during oral sex, vaginal/frontal or anal sex, rimming, or fisting, along with an appropriate lubricant

Description

- A physical barrier can be used during sex to reduce the risk of HIV and STI transmission.¹ The types of physical barriers that are available include condoms, dental dams, and disposable gloves. All of these barriers are single use only.
- Condoms can be used during oral, vaginal/frontal, or anal sex. There are two types of condoms:
 - The **male** or external **condom** is made of latex, polyurethane or polyisoprene and used to cover the penis. It comes in different colours, forms, sizes and textures as well as different flavours for oral sex.¹
 - The **female** or internal **condom** is a polyurethane or nitrile sheath that is inserted into the vagina or anus during sex. One end is open and the other end is closed. The open end of the condom stays outside of the body. Both ends have a soft ring, but the inner ring can be removed for more comfort during anal sex.¹
- A dental dam is a thin square of latex that is placed on the vulva or anus during oral contact. You can also make your own dental dam by snipping off the end of a condom and then cutting it lengthwise.²
- A disposable glove or finger cot (sheath that fits over the finger) can be used when penetrating the hand or the finger into the vagina or anus.
- These barriers are manufactured from materials through which bacteria and viruses cannot pass.¹
- Condoms and gloves should be used with lubricant during anal penetration. Using lubricant reduces the risk of that the barrier will tear or split open and can heighten sensation. Water or silicone-based lubricants are the best options, whereas oil-based lubricants should be avoided because they cause latex to weaken and break down.³ To give the person on top more pleasure, a few drops of lubricant can be placed inside the tip of a condom. A few drops of lubricant can also be placed under a dental dam to help it stay in place.

Effectiveness

- The effectiveness of these physical barriers is largely affected by incorrect use which can lead to breakage or slipping, for example:^{1,4}
 - Using a condom that is too small or too large
 - Not checking the expiry date
 - Not using lubricant or using an insufficient amount
 - Using an oil-based lubricant
 - Unrolling the condom before putting it on instead of unrolling it over the penis
 - Not pinching the end of the condom before rolling it down over the penis
 - Pulling on or stretching out a latex barrier before or during use
 - Not holding onto the base of the condom when withdrawing
 - Re-using the same physical barrier more than once or with more than one partner.
- When condoms are used correctly and do not breaking, in theory they are effective 98% of the time. In typical, real-life conditions (e.g. forgetting, breaking, partial usage), their effectiveness varies between 70% and 82%.^{3,5,6}
- Condoms made from animal skins do not protect against STIs and HIV.³

- Putting a condom on after partially inserting the glans into the anus (dipping), after beginning anal penetration, or taking a condom off before ejaculation increase the risks of contracting HIV or an STI.¹
- Although the effectiveness of the internal condom's protection against HIV during anal sex has not been studied, it has been shown to be just as effective against STIs during vaginal/frontal penetration as the external condom.^{7,8}

Accessibility

- Physical barriers of this type are sold over the counter in many locations such as pharmacies, grocery stores, corner stores, big box stores, sex shops, online stores, etc.^{9,10}
- The cost of a pack of 12 male condoms varies between \$6 and \$16. Polyurethane condoms, recommended for people who are allergic to latex, cost around \$16 for a pack of 5 condoms.⁹
- The cost of a single female condom or dental dam ranges from \$2 to \$5. Disposable gloves cost only a few cents each if you purchase a box of them.
- Free condoms can be found at some venues in Montreal's gay village. See RÉZO's website for a list: <http://www.rezosante.org/distribution-de-materiel-de-prevention.html>

Acceptability

- The condom was the most well-known risk-reduction strategy among men who have sex with men who participated in the *Mobilise!* survey conducted in Montreal, with 98% of respondents reporting that they knew about condoms and 85% reporting that they had purchased condoms in the year prior to the survey. Of these, 43% had purchased them at a store and 36% got them for free at a bar, at a community organization, or during an event.¹¹
- In a Vancouver study, 68% of HIV-negative participants and 54% of HIV-positive participants said they always used condoms during anal sex.¹²
- Advantages of physical barriers:
 - When correctly used, they are highly effective in protecting against HIV transmission.^{1,5,13}
 - They offer protection against other STIs.¹
 - There is no need to know your partner's HIV status, something it's difficult to be sure about.¹
 - It's a concrete strategy that can give you more control over your sexual health.¹³
 - Does not involve taking any medication.¹
 - Considered to be more hygienic by some people (e.g. no leftover sperm after ejaculation).^{5,13}
 - Can give rise to the feeling that you are taking responsibility.¹³
 - The male or external condom
 - is easy to obtain and inexpensive^{1,5,13}
 - can delay ejaculation for some men if they have a tendency to come too quickly⁵
 - comes in different sizes, colors, flavours, and textures¹³
 - can be made part of sex by using a playful approach or a game.¹³
 - The female or internal condom¹
 - is an additional option for those who are allergic to latex,
 - can be inserted a few hours before sex,
 - offers additional protection against STIs because of the outer ring,
 - gives the person being penetrated more control over the protection that is used if negotiation over condoms is difficult.
- Disadvantages of physical barriers and obstacles to their use:
 - Can tear or slip; incorrectly using condoms can be high-risk.^{1,5}
 - Must be on hand at the time of sex.¹
 - To ensure proper use of the barrier, a lubricant must also be within easy reach.¹³
 - May be difficult to use in the heat of the moment, for example, unplanned sex isn't planned or if you've been drinking or using drugs.^{1,13}
 - Requires negotiation and good communication with your partner.^{1,5,14}

- Requires trust on the part of the person who is on bottom and who cannot always see whether the barrier is in place.¹³
- Can seem uncomfortable, as something that reduces sexual pleasure and intimacy.^{5,13,15}
- Can make it seem like the spontaneity has been lost.^{5,13,15}
- Your sexual partner may refuse to use one.¹³
- Can reduce sensation.¹³
- Can have an unpleasant taste.¹³
- People who are allergic to latex must use specialized barriers that can be less easy to obtain and more expensive.¹
- Male or internal condoms
 - Can lead to loss of erection.^{1,5,13}
- Female or internal condoms¹
 - are more expensive than external condoms
 - are harder to obtain than external condoms
 - may be uncomfortable and difficult to insert.

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ADAPTING YOUR SEXUAL PRACTICES TO THE VIRAL LOAD OF ANY HIV-POSITIVE PARTNERS WHO ARE INVOLVED

Adapting the prevention strategies that would normally be used, in instances when an HIV-positive partner has an undetectable viral load (fewer than 40 copies per milliliter of blood)

Description

- An HIV-positive person's viral load can be taken into account when choosing which sexual activities or prevention strategies to adopt.
- Viral load goes down when an HIV+ person takes antiretroviral treatment (ART).¹
- Viral load is said to be undetectable when viral multiplication is under control. This generally occurs up to 6 months after treatment is started. The amount of HIV in the blood will at that point have gone below 50 copies per millilitre of blood.¹⁻³ Viral load is usually measured only in the blood; however, there is a correlation with the amount of virus in other bodily fluids (pre-ejaculatory fluid, sperm, vaginal and anal secretions).
- The term "undetectable" refers to the fact that for many years, lab tests were unable to detect viral load when it went below 50 or 40 copies/ml of blood (depending on the test that was used).¹ A more sensitive test that can measure as little as 20 copies/ml is now used in Quebec and the test result is said to be "below 20" or "undetected." However, a viral load that is lower than 40 or 50 copies/ml is still considered to be "undetectable."
- When viral load is undetectable, a person is still carrying the virus but in quantities so small that it cannot be transmitted to another person through sex.² This is the message behind a world-wide educational campaign that has adopted the slogan "Undetectable = Untransmittable" (often shortened to "U=U").⁴
- In all studies conducted up to now, there have been no reports of HIV transmission to an HIV-negative partner during sex with an HIV-positive partner who is on continuous antiretroviral therapy and whose viral load remains consistently suppressed to an undetectable level. We have long known that antiretroviral therapy is essential for maintaining and improving the health of people living with HIV. It has now become clear that when a person living with HIV is on antiretroviral therapy, is taking the medication as prescribed, and has confirmed that viral load is undetectable, the risk of transmitting HIV to sexual partners is virtually zero.⁵
- If an HIV-positive sexual partner who has an undetectable viral load respects the above conditions, it's possible to change the practices one might normally follow. For example, one could decide to no longer engage in serosorting or no longer use condoms during sex. The term "viral sorting" is sometimes used to describe this type of risk-reduction strategy.⁶
- The viral load of an HIV-positive person has no effect with respect to preventing the transmission of other STIs.²

Effectiveness

- Most research that has assessed the effect of an undetectable viral load on the sexual transmission of HIV has been done among heterosexual couples and for the most part only for vaginal sex. According to mathematical estimations and expert consensus, however, the risk of transmission during anal sex if viral load is undetectable would be similar to that of vaginal sex, that is, negligible or very low.^{3,7}

- In recent study among men who have sex with men in a relationship with someone whose HIV status is different from their own, no instances of HIV transmission were found to have occurred within couples where the HIV-positive partner had an undetectable viral load.⁸
- Several factors can cause viral load to change from undetectable to detectable:³
 - Not adhering to the treatment (forgetting to take pills, taking them at different times).
 - Having a resistance to the medication.
 - Being at a more advanced stage of the infection.
- For this reason, it's important that a person who uses viral load for the purposes of prevention takes the medication as prescribed and has regular medical check-ups to verify that viral load has remained undetectable.²

Acceptability

- Over half (65%) of the men who have sex with men who participated in the Mobilise! survey in Montreal (2016-2017) said they were aware that taking viral load into consideration could be used as a risk-reduction strategy. Of these, 67% were very confident about its effectiveness for reducing risk.⁹
- In a Vancouver study, 26% of HIV-positive participants and 6.7% of HIV-negative participants reported that they had anal sex without a condom only when the viral load was undetectable or when the HIV-positive person was on treatment.¹⁰
- During discussion groups held in Montreal's gay community¹¹
 - many participants misunderstood the term "undetectable" and what it means to have an undetectable viral load
 - the idea of undetectability brought up diverse reactions based on perceptions of this strategy's effectiveness and what information people felt could be believed. The practice of identifying as "undetectable" on mobile and online profiles was also a matter of debate.
- Advantages of taking the viral load into account:
 - Makes it possible to have sex without condoms once it has been confirmed that viral load is undetectable.
 - Offers an effective strategy for couples in which one partner is HIV-negative and the other is HIV-positive.¹²
 - Offers effective protection for HIV-negative sexual partners.^{12,13}
 - Improves an HIV-positive person's health through the use of anti-HIV medication.¹³
 - Reduces serophobia and fears of contracting HIV.¹²
- Disadvantages of taking viral load into account:
 - Requires that you know what the viral load is before having sex.
 - Puts responsibility for carrying out the strategy on the shoulders of the HIV-positive person.¹⁴ Conversely, the HIV-negative person does not have direct control over the protection being used and instead relies on the information shared by the HIV-positive person.¹²
 - Requires an HIV-positive person to adhere strictly to their treatment (take the medication every day, at the same time) and go for regular medical check-ups.¹²
 - Does not offer protection against other STIs.^{12,14}
 - Creates a distinction between those who are undetectable and those who are not, as if those who are undetectable had a 'higher' status.¹²
 - Requires a good understanding of how viral load works, and sometimes this has to be explained to sexual partners as well.¹²

Cost effectiveness

- Using mathematical projections based on data from the epidemic among heterosexuals in Africa, a study has shown that reducing the number of new infections would make this strategy cost effective.¹⁵

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TAKING ANTIRETROVIRAL TREATMENT (IF YOU ARE HIV-POSITIVE)

Taking antiretroviral treatment (anti-HIV pills) regularly and correctly as soon as possible after an HIV diagnosis so as to reduce viral load

Description

- For people living with HIV, antiretroviral therapy (ART) can reduce viral load and can greatly reduce the risk of developing long-term complications from the infection. In addition, taking ART significantly reduces the risk of transmitting the virus.¹
- Treatment of HIV for the purposes of prevention (often called “treatment as prevention” or TAsP) is a public health strategy aimed at encouraging patients infected with HIV to begin ART as soon as possible after a diagnosis.²
- The link between testing and treatment (“test and treat”) is another concept that is often talk about and refers to the combination of HIV testing with the use of treatment as a prevention tool. The central idea of this strategy is that members of groups affected by HIV should get tested at least every year and those who are diagnosed should be referred to the healthcare system to begin treatment as soon as possible.³⁻⁵
- By increasing the number of HIV-positive people who know their status and who are being treated, the amount of virus in circulation in a community (community viral load) is goes down, making it possible to reduce the number of new infections in the community.^{6,7}
- With ART, it is possible to control an HIV infection and thereby improve the health of HIV-positive people. People still need to have regular medical follow up to maintain access to treatment, help with treatment adherence, and monitor for side effects.^{7,8}
- Taking ART has no effect with respect to preventing the transmission of other STIs.

Effectiveness

- The effectiveness of treatment as a prevention tool for men who have sex with men is not yet clear:
 - Some claim that despite better access to treatment and a lowering of community viral load, the number of new infections remains the same or continues to rise.⁷
 - However, the number of new infections would be higher if access to treatment were less widespread in high-income countries.⁷
 - Between 2004 and 2011 in San Francisco, a reduction in the number of new cases among men who have sex with men was observed after treatment was made more available and community viral load was reduced.⁹

Accessibility

- After getting a positive HIV test result, a recently diagnosed individual will be referred to a doctor for medical follow up. Taking the patient’s health and other needs into consideration, the doctor and patient will decide together which treatment to take and when to begin.
- HIV medication is covered by health insurance plans based on the same rules as other prescription drugs.

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, just over half (57%) of respondents knew about treatment for the purposes of prevention as a risk reduction strategy.¹⁰

- In a study among individuals recently diagnosed with HIV, 64% of participants went on treatment in the first year after their diagnosis.¹¹
- Advantages of treatment as a prevention tool:
 - Improves the health of HIV-positive people.^{12,13}
 - Reduces an HIV-positive person's viral load.^{12,13}
 - Protects sexual partners and the community against new infections.^{12,13}
- Disadvantages of treatment as a prevention tool:
 - The side effects of ART can cause difficulties.¹³
 - You may have to pay part of the cost of the medication.¹³
 - You have to adhere to your treatment (take all drugs at the time as prescribed) for it to be effective.
 - Does not protect against other STIs.¹⁴
 - Requires regular medical follow up.
- Obstacles to treatment as a prevention tool:
 - Lack of HIV-related knowledge (e.g. that an undetectable viral load reduces the risk of transmission).¹⁴
 - HIV-positive individuals not seeing this as a primary prevention strategy and preferring to use other strategies such as abstinence, condoms, serosorting, or adopting low-risk practices.¹⁴
 - Being afraid of developing drug resistance.¹⁴
 - Implementing on a community level is difficult since a large number of people don't know they are infected.⁷
 - Encountering difficulties in accessing a medical follow up that complicate access to treatment.⁷
 - Being afraid that taking medication will lead to your HIV+ status being revealed.¹³
 - Being concerned about experiencing stigma and discrimination against HIV-positive people from pharmacists, partners, friends, co-workers, or members of your family.¹³

Cost effectiveness

- Using mathematical projections based on data from the epidemic among heterosexual populations in Africa, a study has shown that reducing the number of new infections would make this strategy cost effective.¹⁵

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TAKING PEP (POST-EXPOSURE PROPHYLAXIS)

Starting antiretroviral medication (anti-HIV pills) by an HIV-negative person a maximum of 72 hours after possible exposure to HIV, to reduce the risk that an infection will take hold

Description

- Post-exposure prophylaxis (PEP) consists of a combination of anti-HIV drugs which an HIV-negative person can take to reduce the possibility of actually developing an infection after potentially being exposed to HIV.¹
- Taken orally, the medication used to prevent an infection must be started no more than 72 hours after possible exposure to HIV and taken every day for 4 full weeks.^{1,2}
- PEP does not protect against the transmission of other STIs.

Effectiveness

- In studies on occupational exposure, mother-to-child transmission and transmission among animals, PEP has been proven effective but does not 100% protection.²
- We still know too little about the effectiveness of PEP for exposure during sex. Only a few studies have been done and these show a low rate of transmission (between 0% and 1%).³⁻⁶
- In a study specifically among men who have sex with men who engaged in risky sexual behaviour, 1.5% of participants who used PEP became infected as opposed to 11.6% who did not use PEP.⁷
- Several factors influence the treatment's effectiveness, such as
 - how much time passes before treatment is started; the earlier it is begun, the more effective PEP is
 - treatment adherence; the more closely you follow the prescribed dosage, the more effective it is
 - type of virus; if the virus is resistant to one of the medications, the treatment may be less effective,
 - exposure to other risky sexual contact during the course of the treatment.²
- You must be tested at the time you take PEP, and again three months after the treatment has ended.⁸
- The Quebec ministry of health and social services (MSSS) recommends treatment be started as soon as possible, ideally within 2 hours of exposure.⁹

Accessibility

- PEP is offered in some emergency rooms and urgent care clinics, as well as clinics specializing in sexual health.
- The healthcare provider decides whether or not to prescribe PEP and the decision is handled case by case using an assessment of the risk of transmission based on several factors including²⁻⁹
 - the risk that the sexual partner is HIV-positive and viral load
 - the amount of time that has passed since exposure
 - the risk associated with the type of exposure.
- The medication costs between \$1000 and \$1500 for one month (depending on which medications are prescribed), but the treatment is partly covered by drug insurance plans.¹⁰ For people between 18 and 64 who have public prescription drug insurance (RAMQ), the maximum cost is \$87.75 for one course of treatment.¹¹ The costs vary for people with private insurance, generally between 20% and 25% of the monthly cost.

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, 72% of respondents knew about PEP as a risk reduction strategy. Of these, 82% said they were very confident in its effectiveness for reducing the risk of HIV infection.¹²
- Up to 97% of participants in various studies have shown an interest in using PEP if needed.^{13,14}
- In a study that offered free PEP, 43% of participants chose not to take the medication despite having reported at least one risky practice, their main reasons being
 - the fact that their sexual partner was a regular partner
 - that they did not consider the practice risky enough to require the use of the medication
 - they had concerns about the treatment's side effects⁷
- In a cross-Canada study, only 42% of men considered PEP to be effective and 58% felt it wasn't.¹⁵
- According to an analysis of several studies, 67.2% of men who decided to take PEP followed the treatment in full.¹⁶
- Advantages of PEP:
 - It is highly effective in protecting against HIV.¹⁷
 - It offers an emergency alternative if the prevention strategy you were planning to use fails or is forgotten.¹⁷
 - Brings a sense of relief and reduces the stress that can arise after taking a risk.¹⁷
- Disadvantages of PEP:
 - There are side effects¹⁷, the type and severity of which can vary from person to person and that can make it hard to take the medication correctly or to finish the treatment in full.¹ This sometimes causes patients to stop treatment or prevents them from following medical instructions.²
 - Must be started within a short time span.¹⁷
 - Effectiveness depends on being diligent in completing the full course of medication.¹⁷
 - Does not protect against other STIs.¹⁰
 - Is only available in specialized clinics and in certain healthcare facilities (which may be difficult to access if you live outside of Montreal).¹⁷
 - There is a risk of developing drug resistance if infected with HIV while taking PEP.¹
 - Raises concerns that the availability of PEP may lead to a false sense of security and an increase in risky practices.^{1,17} These concerns have not been scientifically substantiated.^{14,18}
- Obstacles to PEP:
 - Having a negative conception of risky behaviour (e.g. shame, disappointment, feelings of failure).¹⁹
 - Having an inaccurate idea of the risks associated with your practices or choice of partners.^{7,17,19,20}
 - Facing practical barriers (e.g. clinic hours, service providers' lack of knowledge) that make it hard to get quick access to PEP, a key requirement for the treatment to be effective.^{17,21}
 - Feeling that you need to disclose sensitive information to service providers in order to access it (e.g. sexual orientation, sexual practices, number of partners).
 - Being unsure that you can cover the cost if you don't have insurance or if your insurance does not cover the full cost.¹⁷
 - Not knowing that it exists or not knowing where to access it.¹⁷

Cost effectiveness

- PEP is considered to be cost effective if implemented as an additional method complementary to other HIV prevention efforts and if offered to individuals who engage in high risk practices.²²⁻²⁶

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Strategies proven to be effective *These strategies have been proven effective in preventing HIV transmission. They can be used alone, but since none of them are 100% perfect, it's often a good idea to combine more than one together.*



COMBINING YOUR BIOMEDICAL STRATEGY WITH THOSE OF YOUR PARTNERS (BIOMED-MATCHING)

Adapting the prevention strategies that would normally be used, in instances when all partners involved are using a complementary biomedical strategy (PrEP and/or undetectable viral load)

Description

- Biomed-matching is a strategy that involves choosing sexual partners based on their use of biomedical prevention strategies (PrEP and undetectable viral load). Described for the first time in 2016, it involves the disclosure of either PrEP use (by an HIV-negative person) or the use of antiretroviral therapy to achieve an undetectable viral load (by an HIV-positive person) to each partner involved in the sexual relation. With this combination of strategies in place, the partners can feel comfortable making the choice not to use condoms.¹
- A number of combinations are possible for biomed-matching between two partners:
 - PrEP + PrEP
 - Undetectable viral load + Undetectable viral load
 - Undetectable viral load + PrEP
- Biomed-matching is different from serosorting in that it does not necessarily involve choosing partners based on HIV status, but instead based on the use of biomedical prevention strategies.
- The use of online dating applications can facilitate the disclosure of HIV status and the use of biomedical prevention strategies, which may be more difficult to discuss in person.¹

Effectiveness

- The effectiveness of this strategy is reliant on two factors:
 - disclosure that a biomedical prevention strategy is being used
 - appropriate use of a biomedical prevention strategy.
- Since both PrEP and undetectable viral load strategy are highly effective in protecting against HIV transmission, it is likely that biomed-matching is also highly effective as long as each partner strictly follows their treatment.

Acceptability

- According to the study that brought this strategy to light, biomed-matching is mainly used by HIV-positive men.¹
- Since this strategy has only recently emerged, few studies have evaluated its acceptability. However, it can be assumed that the acceptability of biomed matching derives from the acceptability of the biomedical prevention strategies it involves (PrEP and undetectable viral load).

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2. STRATEGIES FOR WHICH EFFECTIVENESS IS LOW OR UNCERTAIN

Strategies for which effectiveness is low or uncertain *The effectiveness of these strategies is low or uncertain and often depends on other factors. Combining them with other strategies is recommended.*



SEROSORTING

Limiting all or certain sexual activities to partners whose HIV status is the same as your own

Description

- Serosorting is a strategy that consists of limiting your sexual activity to partners with the same HIV status as your own. This can be applied to all sexual activity or only to those activities with the most risk for HIV transmission such as anal sex.¹
- For example, an HIV-negative person, for example, may choose to have sex without condoms only with partners who are also HIV-negative. The same approach can be used by HIV-positive individuals.¹
- Serosorting can be practiced in different ways:
 - Condom serosorting with consists of always using a condom unless you are absolutely certain that your partner's HIV status is the same as your own²
 - Oral serosorting consists of limiting sex to oral contact if your partner has a different HIV status²
- Serosorting does not protect against the transmission of other STIs.¹

Effectiveness

- Studies on the effectiveness of serosorting have consistently shown that it reduces the risk in an overall manner compared to using no prevention strategy at all. However, the risk is still higher when compared to regular use of condoms.³
 - When compared to not using condoms with HIV-positive partners or partners of unknown status, serosorting is associated with a 54% reduction in the risk of HIV transmission.⁴
 - When compared to consistent condom use, serosorting is associated with a 64% increase in the risk of HIV transmission.⁴
 - Thus, serosorting poses a higher risk than consistent condom use yet is more effective compared to not using condoms.^{3,4}
- The effectiveness of serosorting can vary because you may not know your partner's HIV status or your own. This lack of knowledge can be due to
 - your partner not disclosing their status
 - the practice of 'seroguessing,' that is, making an assumption about your partner's HIV status rather than directly asking them (in an Australian study, 27% of HIV+ men and 34% of HIV- men who said that they practice serosorting made assumptions about their partner's HIV status without directly discussing it)⁵
 - the fact that even if a person's last test was negative, they can still be HIV+ if they engaged in an activity which exposed them to HIV just after or not long before the test (during the window period)¹
- The strategy's effectiveness also relies on
 - regular and frequent HIV testing^{2,6,7}
 - a good understanding of how and in what contexts HIV can be transmitted⁷
 - open discussion and honesty between partners with respect to HIV status^{2,8}
- If a person who believes they are HIV- has recently contracted HIV, there can be an especially high risk of transmission because viral load is generally higher in the first months of an infection¹

- For people living with HIV, serosorting poses a risk of secondary infection, the acquisition of a different strain of HIV from an HIV positive-partner. For the moment, studies indicate that this is a rare occurrence and few cases have been identified in Canada.^{1,9}
- Even though serosorting is not very effective on its own, it can be combined with other behavioural strategies that taken together can contribute to overall risk reduction.^{5,10}

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, over half (62%) of respondents knew about serosorting as a risk reduction strategy.¹¹
- In a range of studies, the use of serosorting varied from 8.6% to 56%¹²
- In a Vancouver study done in 2009, 50% of HIV-positive and 43% of HIV-negative respondents said they used serosorting as a prevention strategy.¹³
- In cross-Canada study, 50% of respondents thought serosorting was effective and 50% felt it wasn't.¹⁴
- Compared to other strategies, people who decide to adopt serosorting as a strategy are more likely to carry it out.²
- Advantages of using serosorting:
 - For HIV-positive individuals, choosing only partners of the same status allows you to¹⁰⁻¹⁵
 - avoid rejection, stigma, or confrontation related to disclosure your status
 - avoid transmitting the virus
 - legally protect yourself from criminalization of HIV exposure
 - Not using condoms during sex can enhance sexual pleasure and intimacy^{15,16}
 - Using this strategy is more effective than using no strategy at all
 - Does not require use of a service
 - No costs are involved.
- Disadvantages of using serosorting:
 - Does not protect against other STIs, which can themselves increase the possibility of HIV transmission^{10,15}
 - Requires that know your own HIV status.
 - Requires that you know your partner's HIV status, which implies:
 - being comfortable about asking him
 - being sure that he really knows his status (taking the window-period and recent risk-taking into account). The strategy is not effective if you simply take your partner's status for granted.^{10,15}
 - Requires that you trust your partners as there's no way to verify what they tell you¹⁵
 - Requires that you and your partner get tested regularly and often¹⁰
 - May be difficult to maintain this strategy on a day-to-day basis and say no to potential partners because of their HIV status¹⁵
 - Limits your choices in terms of partners, which may cause feelings of sexual dissatisfaction¹⁵
 - Can be used in a way that is discriminatory towards HIV-positive people and encourages serophobia¹⁵
 - Requires that HIV-positive people disclose their HIV status.¹⁵

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Strategies for with effectiveness is low or uncertain *The effectiveness of these strategies is low or uncertain and often depends on other factors. Combining them with other strategies is recommended.*



STRATEGIC POSITIONING

Choosing to be top or bottom depending on your HIV status and your partner's status, based on the notion that the bottom is more at risk than the top

Description

- Strategic positioning consists of adapting the sexual position you take (top or bottom) when your partner's HIV status is different from your own or unknown.
- The idea is that since the top is at less risk of contracting HIV during anal sex without a condom, the HIV-positive partner (or the person whose status is unknown) will be the bottom and the HIV-negative partner will be the top.
- Strategic positioning may also be used by¹
 - an HIV-negative individual who reduces his risk by always being the top regardless of his partner's HIV status
 - an HIV-positive individual who always and intentionally chooses to be the bottom to protect his partners.¹
- Another form of strategic positioning consists of using condoms only when you are the bottom (condom positioning).²
- Strategic positioning does not protect against the transmission of other STIs.

Effectiveness

- The few studies that have assessed the effectiveness of strategic positioning have not produced convincing results.²⁻³
- In one study, the number of HIV infections among men who practiced strategic positioning was similar to that among men who always wore condoms.⁴ However, the results of one study are not sufficient to draw any clear conclusions about the effectiveness of this strategy.
- It's true that in theory the risk of transmission is lower for the top than the bottom.⁴ According to some studies, risk for the top varies from between 1 infection in 625 exposures to 1 in 1667 whereas for the bottom, it varies from between 1 in 70 to 1 in 200.⁵
- However, there is still some risk. Cases of seroconversion have been reported among MSM who have anal sex without a condom as a top.^{4,6}

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, half (52%) of respondents knew about strategic positioning as a risk reduction strategy.⁷
- In a cross-Canada study, 11% of men thought strategic positioning was effective and 89% felt it wasn't.⁸
- In an American study, 33% of HIV-negative participants said they had planned to use strategic positioning as a prevention strategy, but only 19% of them had carried it out. Among HIV-positive participants, 41% said had planned to use this strategy and 39% of them had carried it out.⁹
- In a study of MSM who reported having had sex anal sex without a condom, 25% said they practiced strategic positioning.¹⁰
- Some individuals use strategic positioning as a replacement for serosorting.¹¹
- Advantages of using strategic positioning:
 - Not using condoms during anal sex can enhance sexual pleasure and intimacy.¹²
 - Creates a sense of security and reduces risk for the person who is top.¹³
 - Does not require use of a service.

- No costs are involved.
- Disadvantages of using strategic positioning:
 - Does not protect against other STIs, which can themselves increase the possibility of HIV transmission.^{9,13}
 - Requires that know your own HIV status.
 - Requires that you know your partner's HIV stats, which implies:
 - being comfortable about asking him
 - being sure that he really knows his status (taking the window-period and recent risk-taking into account). The strategy is not effective if you simply take your partner's status for granted.
 - Requires that you know both your own and your partner's HIV status, meaning you need to feel at ease to ask for this information and confirm its accuracy (taking into account the window period and recent risky activities). Seropositioning will not be an effective strategy if you simply take for granted that you know your partner's HIV status.
 - Requires you to have a discussion with your partner in which you agree on which positions to adopt, meaning you need to be able to communicate and assert yourself.
 - May be difficult to maintain on a day-to-day basis and to adopt a sexual position that may not suit you all of the time. This may cause feelings of sexual dissatisfaction.¹³

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MAKING AN AGREEMENT WITH YOUR REGULAR PARTNER (NEGOTIATED SAFETY)

Adapting the prevention strategies that would normally be used, once each partner has been tested and you have come to an agreement regarding sexual activities and the use of prevention strategies outside the relationship

Description

- Negotiated safety involves no longer using condoms in a regular/stable relationship after tests have confirmed that both partners have the same HIV status (seroconcordance). This strategy is also used along with an agreement on sex outside of the relationship. For example:¹
 - Not having other sexual partners (monogamy).
 - Possibly having sex, but not vaginal/frontal or anal sex.
 - Possibly having vaginal/frontal or anal sex as long as condoms are used.
- Certain criteria must be taken into account when deciding to no longer condoms with a partner:¹
 - It must be a regular relationship.
 - All partners must have been tested for HIV and other STIs, taking into account the window period (waiting to get tested until 3 months after the last time you had sex with anyone else but your regular partner).
 - The partners must come to a clear agreement about not using condoms in the relationship.
 - The partners must come to a clear agreement about the extent and type of sexual contact with other people and the prevention strategies to be used with them.

Effectiveness

- In one study, the number of HIV infections among men practicing negotiated safety was similar to the number among men who always used condoms.²
- This strategy is not without risk and its effectiveness depends for the most part on whether each partner respects the agreement.¹
- One study reported that 29% of participants who said they practiced negotiated safety had not respected their agreement in the 3 months prior to the survey. Among these participants, 64% reported having anal sex without a condom.³
- Another study reported that close to one third of participants did not respect their agreement over a 12-month period. The main reasons were wanting sexual contact, being propositioned, feeling attracted to another person, not being able to control impulses, or not being sexually satisfied. Among these participants, half of them had informed their partners.⁴
- Use of condoms outside a relationship is influenced by attitudes within the couple about condom use.¹

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, most (91%) respondents knew about negotiated safety as a risk reduction strategy.⁵
- In a survey of 76 HIV-negative men in a relationship with an HIV-negative partner, 50% said they practiced negotiated safety.³
- Advantages of negotiated safety:
 - Allows you to have sex without a condom with a stable partner.⁶
 - Promotes communication, honesty, and commitment.⁶
 - Does not require use of a service.

- No costs are involved.
- Disadvantages of negotiated safety:
 - Requires communication and trust between partners.⁶
 - Requires that you know both your own and your partner's HIV status and can confirm the accuracy of this information (taking into account the window period and recent risk-taking).
 - Its effectiveness depends whether the agreement is upheld⁶:
 - May be difficult to carry out on a day-to-day basis.
 - You have no control over whether your partner respects the agreement.
 - If sex happens outside the relationship:
 - Frequent HIV testing is required.
 - This strategy does not protect against other STIs.

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Strategies for with effectiveness is low or uncertain *The effectiveness of these strategies is low or uncertain and often depends on other factors. Combining them with other strategies is recommended.*



WITHDRAWAL BEFORE EJACULATION

Withdrawing the penis from the mouth, vagina, or anus before ejaculation

Description

- Withdrawal before ejaculation consists of withdrawing the penis from the mouth or anus before ejaculating when not using a condom.¹
- This strategy is based on the idea that sperm contains a large amount of virus and, therefore, the risk for the person in the bottom position is reduced if they avoid contact with it.
- It is important to understand, however, that the virus is also present in pre-ejaculatory fluid (pre-cum) and this fluid can get into the mouth, the vagina, or the anus before withdrawal.
- Withdrawal before ejaculation does not protect against the transmission of other STIs.

Effectiveness

- Withdrawal requires having good control over your sexual reflexes. Controlling ejaculation can prove to be difficult. Various contextual factors can have an influence such as your level of excitement, the location in which sex takes place, and whether you have been drinking or using drugs.¹
- Practicing withdrawal is riskier than the consistent use of condoms, but has fewer risks overall than having sex but not practicing withdrawal.²
- A study assessed the risk of HIV transmission for anal sex with ejaculation at 1 infection in 70 exposures, compared to 1 in 154 if withdrawal before ejaculation is practiced.³

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, 87% of respondents knew about withdrawal before ejaculation as a risk reduction strategy.⁴
- In a study among MSM who reported having had anal sex without a condom, 47% said they practiced withdrawal before ejaculation.⁵
- For some individuals who believe in the effectiveness of withdrawal as a preventive method, this strategy offers a compromise between using condoms or not having anal sex.^{6,7}
- Advantages of withdrawal before ejaculation:
 - This strategy is more effective than not using any strategy at all
 - It can be exciting to ejaculate on your partner.⁸
 - Does not require use of a service
 - No costs are involved
- Disadvantages of using withdrawal before ejaculation:
 - Requires that you have a discussion ahead of time with your partner, meaning you will need to be able to communicate and assert yourself
 - Can be difficult to stick with this strategy out in the heat of the moment and it can “ruin the fun”⁷
 - Requires that the person on top has good control over his ejaculation.⁸
 - The person on bottom does not have control over whether the strategy is actually carried out⁸
 - May cause feelings of sexual dissatisfaction in people for whom the exchange of sperm has an important intimate or inter-personal meaning
 - HIV is still present in pre-ejaculate (pre-cum)⁸
 - Does not protect against other STIs.⁸

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Strategies for with effectiveness is low or uncertain *The effectiveness of these strategies is low or uncertain and often depends on other factors. Combining them with other strategies is recommended.*



ADOPTING LOW-RISK PRACTICES

Choosing to adopt sexual practices with the lowest risk in situations where the possibility of transmitting HIV is unknown or high

Description

- Adopting low-risk practices is a strategy in which you choose sexual activities that carry a low risk of HIV transmission in circumstances where the risk of HIV transmission is high or unknown.

Sexual activity without protective barrier (condom, glove)	Risk of HIV transmission ¹⁻⁷
Mutual masturbation	no documented risk
Fingering (anal)	negligible risk*
Sadomasochistic activities (without exposure to blood)	negligible risk
Contact with urine or fecal matter	negligible risk
Anilingus (rimming)	negligible risk
Sharing sex toys	negligible risk
Inserting fist into anus (fisting)	negligible risk
Receiving fellatio (the one getting sucked)	negligible risk
Giving fellatio (the one sucking) without ejaculation in the mouth	negligible risk
Giving fellatio (the one sucking) with ejaculation in the mouth	1 transmission for every 2500 sexual contacts
Insertive vaginal/frontal sex (for the person who penetrates)	1 transmission for every 2500 sexual contacts
Insertive vaginal/frontal sex (for the person who is penetrated)	1 transmission for every 2500 sexual contacts
Insertive anal sex (top)	1 transmission for every 909 sexual contacts
Receptive anal sex (bottom)	1 transmission for every 72 sexual contacts

*A negligible risk means that there is a potential for an HIV transmission, but there have been no or very few confirmed cases. This may however be due to the fact that it is often difficult to know the precise nature of what caused the infection.

- Risk can vary due to numerous factors such as the presence of sperm, the health of the mucous membranes, piercings, the presence of an STI or of ulcers in the mouth, circumcision, and the viral load of bodily fluids.¹⁻³
- Some activities that pose a negligible risk in and of themselves may increase the risk of HIV transmission if done along with anal penetration. Using sex toys or fisting, for example, can weaken the anal lining and increase the level of risk if followed by anal penetration.^{3,4}
- Some measures can decrease the risk of transmission, such as using a lot of lubricant during penetration, pulling out before ejaculation, avoiding anal douches before penetration, avoiding brushing your teeth or using dental floss before oral sex, urinating after ejaculation, and practising good hygiene with respect to your genitals.
- The risk of HIV transmission is different from the risk of transmission for other STIs. Depending on the sexual practices you adopt, this strategy may not protect against the transmission of other STIs.

Effectiveness

- A study comparing the risk related to different sexual activities demonstrated that in the case of sex without a condom⁸
 - giving oral sex instead of practicing anal receptive sex (bottom) is 50 times less risky
 - receiving oral sex instead of practicing insertive anal sex (top) is 13 times less risky

- The effectiveness of this strategy also increases when you make it a part of daily life. In a study evaluating adherence to this strategy over a 12-month period, 38% of HIV-negative and 46% of HIV-positive participants who intended to only have oral sex with their sexual partners stuck with this decision.⁹

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, nearly all (93%) respondents knew about the adoption of low-risk practices as a risk reduction strategy.¹⁰
- In a Canadian study, 58% of HIV+ men reported using practices other than anal sex as a prevention strategy.¹⁰
- Advantages of adopting low-risk practices:
 - Significantly reduces the risk of contracting or transmitting HIV, depending on the practices used.¹²
 - Make it possible to enjoy sex while reducing your risk.¹²
 - Reducing your own or others exposure to the risk of HIV transmission can be reassuring and help you maintain a sense of control.¹²
 - Does not require use of a service.
 - No costs are involved.
- Disadvantages of adopting low-risk practices:
 - Requires negotiation with your partner to agree on what you will and won't be doing, requiring the ability to communicate and assert yourself.
 - Can be difficult to refrain from some activities in the heat of the action.¹²
 - For some practices, there is still some risk even if it is low.¹²
 - Requires you to inform yourself about different practices and their risks.¹²
 - Most practices that can offer protection against HIV do not protect against other STIs.
 - Refraining from high-risk practices may lead to feelings of sexual dissatisfaction that can undermine your determination to stick with this strategy.¹²

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Strategies for with effectiveness is low or uncertain *The effectiveness of these strategies is low or uncertain and often depends on other factors. Combining them with other strategies is recommended.*



HAVING FEWER PARTNERS

Choosing to limit the number of sexual partners you have

Description

- The number of partners you have can be a factor which in increasing the risk of HIV transmission. The more sexual partners you have, the more chance you have of being exposed to HIV or another STI.
- Frequent changes in sexual partners or having more than sexual partner at the same time could contribute considerably to HIV transmission.^{1,2}
- This means it's possible to reduce the possibility of HIV and STI infection by having fewer partners.

Effectiveness

- A number of studies have tried to identify factors associated with contracting HIV. A high number of sexual partners has often been identified as a factor.^{3,4}
 - For example, one study showed that men who had had 4 or more sexual partners in the past 6 months were more at risk of contracting HIV compared to men who reported one partner or none at all.⁵
- Reducing the number of partners has had positive results among heterosexuals in countries with high HIV prevalence (Thailand and Uganda).¹

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, most (93%) respondents knew about the reduction in number of sexual partners as a risk reduction strategy.⁶
- Advantages of having fewer partners:
 - It's possible to take more time with each partner and develop a trusting relationship.⁷
 - Can give you a greater sense of empowerment and control over your sexuality and sexual health.
 - Not dependent on what your partners do.
 - Does not require use of a service.
 - No costs are involved.
- Disadvantages of having fewer partners:
 - May be difficult to maintain this strategy on a day-to-day basis and say no to potential partners.⁷
 - May cause feelings of sexual dissatisfaction.⁷
 - Reduces the risk of coming into contact with HIV and STIs, but there can still be risks if this strategy is not used in combination with other strategies.⁷

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REFRAINING FROM SEX

Choosing to refrain from sexual contact on a short-term or long-term basis if the conditions are not optimal for reducing your risks

Description

- Sexual abstinence is the choice to forego having sexual contact with other people. Abstinence can be
 - a short-term strategy, e.g. on a night when you're drinking or using drugs, for the duration of treatment for an STI, during a period when your viral load is detectable if you are HIV-positive.
 - a long-term strategy, e.g. during a period of increased risk in your life.
- HIV-positive people, in particular those who have been recently diagnosed, often make use of this strategy. For some HIV-positive men, abstinence removes the stress of disclosing HIV status to sexual partners and makes it possible to avoid rejection.² For others, abstinence arises from a lack of desire or interest in sex after getting a diagnosis.³

Effectiveness

- The most effective way to avoid HIV and STI transmission is to abstain from sex.
- The effectiveness of sexual abstinence depends on sticking to this decision. If the choice is not made freely and is a source of frustration, maintaining this strategy can be difficult.
 - For example, in a study on adherence to strategies, the few HIV-negative men who had chosen abstinence as an HIV prevention strategy were not more likely to abstain than those who had not chosen this strategy. However, the majority of people living with HIV who had chosen this strategy stuck to it.⁴

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, a majority (90%) of respondents knew about abstinence as a risk reduction strategy.⁵
- In one study, abstinence was chosen by 7% of HIV-positive and 8% of HIV-negative respondents as a main prevention strategy.⁴
- Advantages of abstinence:
 - Offers considerable and effective protection against HIV and STIs if carried out consistently.⁶
 - Reduces concerns about contracting or transmitting HIV or an STI to sexual partners.⁶
 - Can give you a greater sense of empowerment and control over your sexuality and sexual health.
 - Can nonetheless allow for some forms of sexuality, e.g. masturbation⁶, virtual sexuality with a webcam partner.
 - Does not require use of a service.
 - No costs are involved.
- Disadvantages of abstinence:
 - May be difficult to maintain on a day-to-basis and refrain from all sexual contact.⁶
 - May lead to being made fun of or judged by the people around you.⁶
 - May require negotiation with your regular or occasional sexual partners.
 - You may find it boring after a certain time.⁶
 - May cause feelings of sexual dissatisfaction, which in turn can lead to risk-taking.⁶

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3. CONDITIONS FAVOURABLE TO SEXUAL HEALTH

Conditions favourable to sexual health *These strategies do not have a direct impact on HIV transmission, but include different practices and contexts that promote good sexual health and contribute to putting other strategies in place.*



CHANGING HOW YOU DRINK OR USE DRUGS

Changing the way you use drugs and alcohol before or during sex in order to have more control over the prevention strategies you put in place

Description

- Alcohol and drugs can be used in a sexual context to^{1,2}
 - lower inhibitions and shyness,
 - increase sensations and sexual pleasure.
- Drinking and drug use can lead to problems because of³⁻⁵
 - the effect of drugs on the body (dehydration, fatigue, side effects),
 - undesirable psychological effects (bad trips), depression, anxiety, mood swings after drug use,
 - increased possibility that you will take sexual risks (intentionally or not)
 - difficulties enjoying sex unless you are drinking or using drugs
 - problems with addiction that some people encounter and that come with a range of negative consequences.
- A range of strategies can be used if you want to continue to drink or use drugs but also reduce the risk to your health, including:^{6,7}
 - Taking smaller amounts before or during sex.
 - Avoiding drinking or drug use when having sex with new partners or with partners you don't know very well.
 - Agreeing on the prevention strategies you will be using before you start drinking or taking drugs.
 - Ensuring you have the necessary supplies (e.g. condoms) and information (e.g. your partner's HIV status) to protect yourself before you drink or use drugs.
 - Avoiding sex when you've had too much to drink or have taken too many drugs.
 - Sticking with the substances you are already familiar with and avoiding new combinations.
 - Taking small amounts at the beginning if you are using something new or taking a medication and you're not sure about the possible interactions.
 - Choosing a method less risky than injection to take drugs
 - Making sure you have enough sterile supplies (e.g. pipes, straws, syringes, injection material) and not sharing any of the supplies you use.
 - Consuming in safe places and with people you trust.
 - Letting the people you are with know about any medication that you take or other substances you have taken.
 - Giving yourself rules for drinking or using drugs and sticking to them, for example, drinking only on the weekend.
 - Drinking lots of water before, during and after periods of drinking or drug use and having food and water on hand (e.g. protein bars) when you drink or use drugs for long periods.
 - Planning periods of rest after you drink or use drugs.
 - If you take medication, making sure you don't miss any doses.
 - Seeing an addiction support service to assess your drinking or drug use.

Effectiveness

- Reducing or slowing down how much you drink or use drugs before sex gives you more control to follow through on prevention strategies. Drinking and drug use have been associated with taking sexual risks.

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, 85% of respondents knew about changing the way you drink or use drugs as a risk reduction strategy.¹¹
- In many gay social spaces, drinking and drug use is openly tolerated, but so are strategies related to drinking or drug use that can be used to reduce the risks to your health.⁵
- Some groups, however, have negative views about injection drug use, and this can create a sense of isolation for people who use drugs in this way.
- In Montreal, free supplies of safer drug use equipment as well as information about different substances and safer ways to take drugs can be found at community organizations, pharmacies, clinics, etc.
- Advantages of safer drinking and drug use:
 - Offers an option to individuals who do not want to stop drinking or using drugs to continue consuming while reducing the risks to their health.¹²
 - Makes it possible to be more in control and follow through on the prevention strategies you are planning to use.¹²
- Disadvantages of safer drinking and drug use:
 - May be frustrating to slow down or reduce your drinking or drug use when you want to keep going.
 - May be difficult to stick with this strategy in some social contexts, celebrations etc.¹²
 - You do not have control over your partner's drinking or drug use.
 - Does not directly protect against HIV and other STIs.

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Conditions favourable to sexual health *These strategies do not have a direct impact on HIV transmission, but include different practices and contexts that promote good sexual health and contribute to putting other strategies in place.*



GETTING TESTED REGULARLY FOR HIV

Getting a blood test on a regular basis that can detect whether a person has been infected with HIV

Description

- Testing makes it possible to detect whether a person has been infected with HIV. Two types of tests are currently available in Canada: standard and rapid.
 - The **standard** test is carried out by taking blood from a vein. The blood sample is sent to a lab and the results are available 2 to 4 weeks later.
 - Only one **rapid** test is currently available in Canada (*INSTI™ HIV-1/HIV-2 Rapid Antibody*). It is carried out using a blood droplet taken from the fingertip. The health care provider analyzes the sample at the clinic and the result is available within a few minutes. If the result is reactive, a blood sample is taken for a lab test to confirm the result. The lab result is available 2 to 4 weeks later.
- In some instances, infections can be detected after a few weeks but in other cases it can take as many as three months (window-period).
- If there is a risk you have been infected with HIV, it's not necessary to wait three months to get tested. Your health care provider will help to evaluate the situation and suggest which tests to carry out as well as the best timetable for any further testing that needs to be done.
- HIV testing, like any medical care, is always confidential. The information collected by health care providers to profile of your health is kept on file, but is never disclosed without your consent. Your health care provider needs this information order to give quality care that responds to each person's needs and circumstances.
- It is possible to offer the HIV test in a "non nominal" way. In such cases, personal information (e.g. health insurance number, name, address) is only kept on file at the clinic that does the test. Requests for analysis sent to the lab use an identifier (code) rather than your name.¹
- Anonymous HIV testing is also possible in certain cases. In Quebec, anonymous testing is only offered at CLSCs that have a SIDEPE testing service (*Services intégrés de dépistage et de prévention des ITSS*). You don't have to give your name and no health insurance card is needed. If the test result is positive or indeterminate, however, the person will be referred to the regular healthcare system. Medical follow up cannot be carried out anonymously.
- If a result is confirmed positive (except for anonymous testing), information collected by the care provider during the test (e.g. age, birthplace, sexual behaviour) is sent to the public health agency to track rates of infection, However, no information that could be used to identify you is used for these purposes.³
- HIV testing is an HIV prevention strategy because knowing your HIV status can reduce the risk of transmission. Since the symptoms that may appear following transmission are like the flu, an HIV infection can go unnoticed. However the amount of virus in the blood is at its highest levels and HIV most easily retransmitted at the beginning of an infection.
- A study done in Quebec showed that 50% of new HIV infection cases¹ were transmitted by people who themselves were infected for fewer than 6 months.⁴

Effectiveness

- Both the rapid and standard tests currently used in Quebec are very effective. Theoretically, if 3 months have passed since transmission, they will reliably detect any HIV infection in all individuals.

- Men who have sex with men should get tested every year regardless of their sexual practices or every 3 to 6 months if they report repeated risk factors, have repeated STIs, or have had more than 3 sexual partners in the past 12 months.¹

Accessibility

- In Quebec, HIV testing is free and covered by provincial health insurance (RAMQ). Some clinics charge fees of up to \$75 for a rapid test or fees related to transporting blood samples for standard testing.
- There are places where you can get tested without a health insurance card.
- HIV testing is offered in various locations including clinics, hospitals, and community organizations. A map of different testing clinics and services in Quebec can be found on the *Portail VIH/sida du Québec* web site: <http://pvsq.org/quebec-carte-des-sites-de-depistage-vih-et-des-itss/>.

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, almost all (97%) of respondents knew about HIV testing as a risk reduction strategy and 85% knew about rapid HIV testing.⁶
- In cross-Canada surveys among men who have sex with men, 77% of respondents thought that regular testing was an effective strategy for reducing the risks of contracting HIV.⁷
- An analysis of 6 Canadian studies carried out between 2008 and 2012 found that 83% of MSM have been tested at least once. Between 58% and 78% had had their most recent test in the past 2 years.⁸
- Among participants who have had an HIV test at SPOT since July 2013 (a community site in Montreal's Gay Village), 14% had not been previously tested. Just over half (55%) had been tested in the past year and nearly all (96%) chose to have a rapid rather than standard test at SPOT.
- Advantages of HIV testing:
 - Informs you of your HIV status.⁹
 - Gives you the option to go on treatment if the result is positive.⁹⁻¹⁰
 - Helps you to consider which risk reduction strategies you can adopt.
 - Rapid testing makes it possible to have the test result in a few minutes.⁹⁻¹⁰
 - Free testing is available, depending on the location and type of test¹⁰
- Disadvantages of HIV testing:
 - Does not offer direct protection against HIV and other STIs⁹
 - Not always possible to know your current HIV status because of the window period⁹
 - Some clinics may require you to pay fees
- Obstacles to HIV testing:⁹⁻¹²
 - Not considering yourself at risk
 - Not having any symptoms or not recognizing them.
 - Feeling anxious about the test result
 - Worrying about the negative consequences that a positive result may have on your lifestyle, sexual practices, professional life and insurance
 - Feeling confident that your partners would tell you if they had engaged in risky practices or had received a positive HIV test result
 - Being concerned that that your privacy won't be respected if the result is positive.
 - Being afraid facing prejudices about gay men (e.g. that testing is only done on people who engage in risky behaviour)
 - Being afraid of facing discrimination against HIV positive people
 - Finding the waiting period to get test results to be too long
 - Having difficulty accessing the service (opening hours, accessibility problems, waiting period before getting an appointment)
 - Finding that certain testing clinics lack anonymity.

- Being afraid of or actually experiencing a negative attitude from a health care provider regarding your sexual behaviour or orientation
- Having a negative view of testing services
- Being socially or geographically disconnected from the gay community
- Worrying about criminalization for not disclosing HIV status
- Living too far away from where testing services are located.
- Fear of blood tests.

Cost-effectiveness

- In studies carried out in the United States and the United Kingdom, HIV testing was shown to be a cost-effective strategy. Increasing the annual number of tests decreases the number of new infections and improves quality of life and life expectancy.^{13,14}

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GETTING TESTED REGULARLY FOR STIs

Getting a test or physical examination on a regular basis to detect the presence of a sexually transmitted infection (STI) and initiate appropriate treatment

Description

- Testing makes it possible to detect whether a person has been infected with a sexually transmitted infection (STI). Depending on the STI, the test is carried out using a blood, urine, vaginal, or anal sample or a sample taken from the throat or (in rare cases) the urethra.¹ It's important to tell your health care provider about your sexual practices so that they do the right tests and check the right parts of your body.
- The amount of time that needs to pass between transmission of the infection and when it can be detected by a test (window period) varies depending on the STI.
- STIs may be asymptomatic, i.e., a person can be infected but not have any symptoms or the symptoms can go unrecognized.
- STI testing and any necessary treatment are an HIV prevention strategy because the presence of an untreated STI can increase the risk of contracting or transmitting HIV. An untreated STI can cause the viral load of a person infected with HIV to go up, increasing the risk of HIV transmission.^{2,3}
- Treatment for some STIs can be complicated if you are HIV-positive.³
- Public health regulations (*Loi sur la santé publique*) makes it mandatory for clinics and testing services to declare certain STIs in order to track infections and protect public health. The declaration includes nominative information such as the patient's name, age, health insurance number and home address that are provided to the regional public health director.¹ This information is handled according to strict standards of confidentiality.

Effectiveness

- STI testing and treatment can reduce your risk of HIV infection because an STI can form an entry point for HIV, making it easier for HIV to enter the body.
- An infection with gonorrhea, chlamydia or syphilis can be easily treated with medication.³
- Regular STI testing and treatment can break the chain of transmission and prevent health complications.
- Men who have sex with men should get tested for STIs every year regardless of their sexual practices, or every 3 to 6 months if they report repeated risk factors, have repeated STIs, or have had more than 3 sexual partners in the past 12 months.¹
- Men who have sex with men should get vaccinated against hepatitis A and B because these vaccines are very effective. The vaccines are available free of charge.¹

Accessibility

- In Quebec, STI testing is free and covered by provincial health insurance (RAMQ) when done at a SIDEP (*Services intégrés de dépistage et de prévention des ITSS*), a CLSC, or most clinics. Some clinics may charge fees (e.g. for transporting samples to the lab).
- STI testing is offered in a range of locations such as clinics, hospitals, on-site at community organizations, and through outreach activities.
 - A map of places that offer testing across Quebec can be found on the *Portail VIH/sida du Québec* website : <http://pvsq.org/quebec-carte-des-sites-de-depistage-vih-et-des-itss/>
 - The *Portail Santé Montréal* website has information about STIs and where to go to get tested: <https://www.santemontreal.qc.ca/population/>

- Before you decide which tests to have, your health care provider will make an assessment of different risk factors. Generally, for men who have sex with men, tests for chlamydia, gonorrhea, syphilis, and hepatitis B will be recommended.¹

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, nearly all (94%) of respondents knew about testing and treatment of STIs as a risk reduction strategy.⁵
- In a cross-Canada study among men who have sex with men, 76% of respondents considered STI testing to be an effective strategy for reducing the risk of HIV transmission.⁶
- Among participants who have been tested at SPOT (a community site in Montreal's gay village) since July 2013, 83% got tested for STIs in addition to getting tested for HIV.
- Advantages of STI testing and treatment:
 - Treating an STI reduces the risk of contracting or transmitting HIV.⁷
 - Informs you about the state of your sexual health.⁷
 - For HIV-positive people, avoids an increase in viral load due to an untreated STI.⁷
 - Makes it possible to avoid complications from an untreated infection, such as chronic infection and heart, brain, bone, or liver damage.³
 - Brings peace of mind.⁷
 - Free testing is available, depending on where you get tested.
- Disadvantages of STI testing and treatment:
 - There are no tests for certain STIs such as HPV.
 - Does not offer direct protection against HIV or other STIs.
 - Fees may be charged when getting tested in some clinics.
 - Fees may be charged when receiving the treatment.⁷
 - Some treatments can cause unwanted side effects.⁷
- Obstacles to STI testing and treatment:
 - Not seeing yourself as at risk of having an STI.
 - Not having symptoms or not noticing them.
 - Not knowing where to go to get tested or living far away from where a testing site is located.
 - Having difficulty finding information on the window period for STIs / not knowing when is the right time to get tested.⁷
 - Not being able to get tested as often as desired because your doctor is not available.⁷
 - Finding that certain testing clinics lack anonymity.⁷
 - Finding that the wait time to get the results is too long.⁷
 - Being afraid you will face stigma, discrimination or rejection when you obtain medication at the pharmacy or if you tell a partner.
 - Fear of needles or of giving a sample of blood.

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COMMUNICATING IN A PROACTIVE WAY WITH YOUR PARTNERS

Discussing your HIV status or the strategies that need to be put in place with sexual partners, prior to having sex

Description

- Simply stated, sexual communication refers to the process by which discuss aspects of their sex life.¹ More specifically, it involves "the ability to make your preferences known and express your desires, wants, limitations, and needs."²
- By their very nature, safer sex practices require active communication and cooperation between sexual partners.³ In other words, communication is the basis for the vast majority of HIV and STI protection strategies.
- It's possible to communicate openly and proactively with your partners about a range of subjects before you have sex, such as:
 - which prevention strategies to use during sex
 - your HIV status or the presence of other STIs
 - your sexual preferences and the things you want to do with them
 - your limits and the things you don't like to do.
- For many reasons, it can be difficult to discuss sex with your partners (e.g. difficulties expressing emotions, fear of upsetting your partners, fear of judgment). There are different things you can do to make communication easier:²
 - establish a climate that will facilitate dialogue, i.e. make sure the conditions are right or wait for a good place and time to have this discussion
 - let your partner follow their own pace and keep the discussion in context
 - listen actively to the other person and show an interest in what they say
 - discover new things about the other person by asking open questions
 - speak clearly, concisely, and honestly to help ensure you are properly understood
 - speak in the first person ("I") so as to communicate to the other person that your needs deserve to be met.
- Sexual communication differs from negotiated safety in that it does not necessarily involve making a formal agreement in the context of a regular or stable relationship.

Effectiveness

- The results of a meta-analysis suggest that communicating about "safer sex" (i.e. discussing condom use or other safer sex practices or activities) with sexual partners is an important determinant of safer sexual behaviour. Moreover, the intention to discuss "safer sex" is associated with condom use.³
- The results of a study of sexual behaviour among HIV-positive men indicate that, compared to participants who disclosed HIV-positive status but did not discuss "safer sex" with partners, those who disclosed their status and also discussed "safer sex" were more likely to practice safer sex.⁴

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BEING CIRCUMCISED

Absence of a foreskin due to surgical removal

Description

- Penile circumcision consists of surgically removing the foreskin of the penis, a piece of retractable skin covering the glans. We are not encouraging you to get circumcised, but simply informing you that being circumcised offers a certain amount of protection against HIV.
- During sex, the foreskin pulls itself back, exposing the inner foreskin, which is vulnerable to HIV infection. If there is no foreskin, it is more difficult for the virus to enter the body during sexual contact.^{1,2}

Effectiveness

- Studies among heterosexual men have shown a reduction in the risk of contracting HIV among men who are circumcised.^{1,2}
- There is currently no available data with which we can determine the role that penile circumcision may have in preventing HIV and other STIs among men who have sex with men. It appears that penile circumcision may offer some protection among men who have anal sex in the top position.¹⁻⁴

Accessibility

- The World Health Organization (WHO) recommends circumcision for adults only if they live in countries where there is²
 - an HIV epidemic among heterosexuals,
 - a prevalence of HIV higher than 15%,
 - or a low prevalence of circumcision.
- Circumcision is not recommended as an HIV prevention method in Canada.²

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, 87% of respondents knew about being circumcised as a risk reduction strategy:⁸
- Advantages to being circumcised:
 - There is no need to take any specific action
- Disadvantages to being circumcised (in terms of HIV protection):
 - There is controversy among MSM about the effectiveness of this strategy
 - Does not lower the risk for the person taking the bottom position.
 - There is still a risk of contracting HIV or another STI.

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INFORMING YOUR PARTNERS IF YOU HAVE AN STI

Informing your sexual partners if you have an STI or an HIV infection, prior to having sex or following a diagnosis

Description

- Partner notification consists of informing your current or recent sexual partners if you have been infected with an STI or HIV. This information can encourage your partners to get tested and help to break the chain of infection.
 - If you have just been diagnosed with an STI, advising recent partners is recommended so they can get tested and the chain of transmission can be broken.
 - If you have an STI for which there is no treatment, or if you are being treated for an STI, informing your partners before having sex is recommended so that you can use a prevention strategy that's appropriate to the situation.
- In Quebec, a health professional will carry out this process for certain STIs as part of a program called "*Intervention préventive auprès des personnes atteintes d'une infection transmissible sexuellement (ITS) et auprès de leurs partenaires*" (IPPAP). This program consists of¹
 - offering the person infected with an STI support in contacting their partners,
 - encouraging the infected person's partners to consult a health care provider (check-up, testing, and in most cases treatment).
- When a person is infected, the health care provider will
 - work with the person to identify sexual partners who may have been exposed,
 - make sure they know what the symptoms are, how transmission occurs, possible complications, and possible treatment so they can provide this information to partners,
 - offer them any informational material that may be useful including
 - *Entre caresses et baisers, une ITS s'est faufilée... Il faut en parler*, a booklet on what to do if you've been infected with chlamydia, gonorrhoea, syphilis, or HIV and how to notify partners,²
 - notification cards for chlamydia/gonorrhoea, syphilis, or HIV with key messages and information about these infections,³⁻⁵
 - www.sante.gouv.qc.ca (for a general audience) and www.itss.gouv.qc.ca (for youth) provide information on STIs and how to notify partners.
 - make sure the person understands that their partners should not only be notified, but also assessed, tested and, in most cases, quickly treated even if there are not presenting any symptoms,
 - discuss ways that sexual partners can be notified:
 - If the infected person wants to take charge of informing sexual partners, discuss potential difficulties and possible solutions that may be helpful.
 - If the person prefers not to do this, provide a way for another person (e.g. nurse, public health professional) to notifying partners while maintaining the person's anonymity.
 - if necessary, follow up with the infected person to ensure that sexual partners have in fact been notified,
 - offer to check and treat the partners or inform them of services that are locally available to get checked and treated for an STI or HIV.
- A number of web-based systems are available online that allow you to notify partners in a confidential way.⁶

Effectiveness

- IPPAP is an intervention recognized for being effective in¹
 - preventing the infected person from getting reinfected (except in the case of HIV),
 - breaking chains of infection,
 - preventing complications that can arise from an untreated infection.
- If an infected individual does not receive professional support, between 30% and 40% of sexual partners (and as many as 80% of casual partners) are unlikely to be informed that they have been exposed. Many will not experience any symptoms but may transmit the infection or develop complications.
- Using notification cards
 - strengthens IPPAP and improve its effectiveness,
 - increases the number of sexual partners who are notified, get checked and are treated if necessary
 - reduces the possibility that an infected person will be reinfected with chlamydia, gonorrhoea, or syphilis,^{3,5-7}
 - gives an infected person more legitimacy when notifying sexual partners.²
- The effectiveness of this strategy for reducing the risk of transmission relies on the infected individual's ability to identify partners and have a way to contact them, which can be difficult if there are casual partners.

Acceptability

- In the *Mobilise!* survey among men who have sex with men in Montreal, most (94%) of respondents knew about partner notification as a risk reduction strategy:⁸
- Advantages of partner notification:
 - Can break the chain of infection.⁹
 - Depending on the person's eligibility for the IPPAP program
 - A health professional can take charge of notifying sexual partners.
 - Sexual partners can get checked, tested, and treated if necessary.
 - Support is available to carrying out this strategy.
 - The anonymity of the infected person is maintained if a health care provider notifies sexual partners.
 - No costs are involved (free service).
- Disadvantages of partner notification:
 - Does not offer any direct protection against HIV and STIs.
 - May be difficult to locate partners in order to notify them.⁹

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USING SOCIAL AND HEALTH SERVICES

Making use of various social, health, and community services to get support and improve your sexual health

Description

- This strategy consists of using the many social, health, and community services that are available and that can directly or indirectly improve your sexual health.
- These services are not necessarily focused on sexual health and can be aimed instead at improving mental health and well-being, at getting tested and treated for a variety of health problems or at strengthening a person's sense of resilience and empowerment. These services deal with a diverse range of issues and are offered in various ways including
 - programs to promote sexual health that focus on reducing risk and increasing the use of various HIV prevention strategies,
 - discussion groups:
 - for specific communities, e.g., HIV-positive people, serodiscordant couples, youth under 25 years of age, people from particular ethnocultural communities
 - on particular subjects, e.g., self-esteem, romantic relationships, mental health, drug use, consent
 - peer support
 - individual counseling services (e.g. talking with a social worker)
 - social groups to reduce isolation
 - programs for treating addiction.

Accessibility

- The *Portail VIH/sida du Québec* web site provides a directory of HIV/AIDS-related services in Montreal and elsewhere in Quebec: <http://pvsq.org/ressources/ressources-vih-sida-du-quebec/>
- A number of references for Montreal and across Quebec can be found on RÉZO's web site: <http://www.rezosante.org/bottin-de-references.html>

Effectiveness

- Sexual health is not just a matter of using condoms. Many factors affect a person's vulnerability to HIV, such as violence in intimate relationships, drinking or drug use in the context of sex, mental health problems, or trauma experienced in childhood.
- The use of social and health services can have an impact in terms of helping you to be more in control of your sexuality and, ultimately, more capable of protecting yourself and your partners against HIV.
- Using services can also make it easier for you to find, understand, assess, and communicate information in a way that promotes, maintains, and improves your health (health literacy).⁷
- Peer support has been shown to be effective in reducing risk practices,^{8,9} drinking, and drug use⁹ and can improve attitudes and knowledge about HIV.⁹

Acceptability

- Advantages of using social and health services:
 - Gives you access to support, instructions, and counseling.
 - Gives you access to accurate information and professionals who work in the field.¹⁰
 - Gets you referrals to services that are right for you.

- Reduces isolation and allows you to meet others who with experiences similar to your own.¹⁰
- Encourages you to take care of your health.
- Allows you to gain independence in terms of decisions affecting your health.
- Most services are provided free of charge and on an anonymous basis.¹⁰
- Disadvantages of using social and health services:
 - It's possible to have a bad experience (e.g. lack of sensitivity, feeling that you are being judged, breach of privacy)¹⁰
 - Does not offer any direct protection against HIV or STIs.
- Obstacles to using social and health services:^{10, 11}
 - Being ashamed or embarrassed to ask questions.
 - Fear of being judged by service providers.
 - Not having enough information about the service.
 - Finding out that the service doesn't suit you.
 - Having concerns that the service isn't confidential or anonymous.
 - Experiencing long waits or delays before being able to access the service.
 - Having to commute a long way in order to access the service.
 - Not being available during hours of operation or times when an activity takes place.
 - Having a disability that can make it difficult to access the service or facilities (e.g. hearing loss, use of a wheelchair).

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Conditions favourable to sexual health *These strategies do not have a direct impact on HIV transmission, but include different practices and contexts that promote good sexual health and contribute to putting other strategies in place.*



ADVOCATING FOR BETTER ACCESS TO SERVICES

Engaging in activism to improve access to health services in terms of transparency, acceptability, availability, cost, and better coordination between different services

Description

- Even if a number of organizations and agencies offer a range of services, these services must above all be accessible for people to use them.
- Various factors influence access to services: the service must maintain a certain level of visibility, be suited to the user's values and lifestyles, be easy to access in terms of hours of operation and geographic location, be affordable in terms of cost, and be able to respond to the user's needs in an integrated and ongoing manner.
- Organizations need to work together to facilitate access to their services and ensure collaboration.
- Individuals can help improve access to services in a number of ways, such as by sharing your comments or complaints to the organizations in question, by getting involved in campaigns for better access to services, by taking part in committees, or by participating in community projects or events that address access to services.

Effectiveness

- Ultimately, improvements in access to services should lead to¹
 - people making more wide-spread use of services,
 - people making more use of services suited to their needs,
 - more people actually making use of services when they need them,
 - more wide-spread use of different HIV prevention strategies,
 - improvements in health among men who have sex with men,
 - use of more than one service at a time as part of a combined approach to HIV prevention,
 - more equality and social justice.

Acceptability

- Advantages of advocating for better access to services:
 - Can give rise to the feeling that you are doing something to help improve your community.
 - May lead to improvements in your experiences with these services.
 - Makes it possible for those in charge to respond to your concerns and ideas.
 - Makes it possible to improve access for marginalized groups (e.g. trans people, sex workers).²
- Disadvantages of advocating for better access to services:
 - May be difficult to come up with concrete ideas for to put strategy into action.
 - May require getting involved in an organization that campaigns for these issues.
 - Does not offer any direct protection against HIV and STIs.
 - May give a false sense of security.²

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Conditions favourable to sexual health *These strategies do not have a direct impact on HIV transmission, but include different practices and contexts that promote good sexual health and contribute to putting other strategies in place.*



ADVOCATING FOR BETTER LAWS AND POLICIES

Advocating for the implementation of laws and policies to improve the conditions that influence vulnerability to HIV

Description

- Better laws and policies is a strategy that involves to addressing the social factors (socio-cultural, economic, political, legal and other contextual aspects) that increase vulnerability to HIV and other STIs among men who have sex with men.
- Examples of better laws and policies include:¹
 - Fighting against homophobia and biphobia.
 - Fighting against transphobia.
 - Fighting against serophobia.
 - Ending the criminalization of people living with HIV
 - Recognizing civil unions and marriage between people of the same sex.
 - Recognizing adoption for people of the same sex.
 - Programs that provide access to sterile drug-use equipment.
 - Programs that provide access to prevention material (condoms and lubricant).
 - Sex education in schools.
 - Access to medical insurance.
 - Laws related to sex work.
 - Policies related to sexual and domestic violence.
- Individuals can contribute to improving laws and policies in a number of ways, such as by getting involved in campaigns for better laws and policies, by organizing community mobilization activities related to a particular issue, by starting a petition to put pressure on policy makers, by participating in program improvements that already exist, or by taking part in community projects or events aimed at improving laws and policies.

Effectiveness

- Laws and policies are not directly targeted at the behaviour of individuals, but rather aim to create or maintain a social environment that is favourable to health and reduces risk and vulnerability to HIV and other STIs. Better laws and policies can also have an impact in promoting access to services that respond to the needs and realities of MSM.¹
- For example, one study has found lower rates of internalized homophobia (negative attitudes towards your own sexuality) in jurisdictions with laws recognizing same sex relationships and allowing adoption by same sex couples.²

Acceptability

- Advantages of advocating for better laws and policies:
 - May give rise to feelings of doing something to make your community better.³
 - May ultimately have an impact on the social environment.
 - Makes it possible for people in charge to hear your concerns and ideas.
 - Helps to ensure that social change and medical breakthroughs are taken into account in our laws and policies.³
- Disadvantages of advocating for better laws and policies:
 - May be difficult to come up with concrete ideas to put this strategy into action.³

- May require getting involved in an organization that campaigns for these issues.
- Does not offer any direct protection against HIV and STIs.

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4. STRATEGIES IN DEVELOPMENT OR NOT AVAILABLE IN CANADA

Strategies in development or not available in Canada *These strategies are not yet available in Canada or are still under development.*



USING AN HIV SELF-TEST

Using a self-administered blood or saliva test that can detect whether a person has an HIV infection (not available in Canada)

Description

- The HIV self-test is a self-administered test that people can use on themselves to check whether they have been infected with HIV. A health care professional does not need to be present.¹
- There are currently two types of HIV self-test
 - a test that uses a few droplets of blood taken by pricking the tip of your finger,
 - a test that you do by taking a swab of your gums.
- Neither of these tests is approved in Canada, but the self-test can be purchased over the counter in some countries including the United States and France.¹
- A number of new self-tests are in development including a “multiplex” rapid test that uses a single sample to test for HIV and certain other STIs.

Effectiveness

- The effectiveness of self-tests varies from one product to another. The effectiveness of those sold over the counter in other countries is similar to that of other rapid HIV test kits. However, some of the self-test kits available online are of poor quality and may give false results.¹

Acceptability

- In a review of studies on HIV self-testing with various populations, between 74% and 96% of participants found the self-test to be acceptable.²
- In the *Mobilise!* survey among men who have sex with men in Montreal:³
 - 38% of respondents had already heard about HIV self-testing
 - 4% had already used a self-test
 - 74% of respondents would be interested in using an oral self-test
 - 71% of respondents would be interested in using a finger prick (blood-based) self-test.
- To date, discussions for the approval of HIV self-testing in Canada are still ongoing. A number of concerns about over-the-counter access have been raised that will need to be addressed prior to approval.^{1,4}
 - Testing outside health care settings eliminates the need for pre- and post-test counseling that can serve to start a conversation around risk reduction.
 - The circumstances within which the tests will be performed are not ideal for receiving a positive result (e.g. being alone at home).
 - Receiving a positive result outside the health system means that the person will not automatically have access to a confirmatory test, a network of care and support, and a partner notification service.
 - People using an HIV self-test are not accessing a full range of STI testing.
 - The potential to use self-test kits to test partners before sex raises ethical questions, particularly with respect to consent.

- Although self-test kits explain the window period relatively well, this does not guarantee that people using the test have understood, leading to the possibility that they may expose themselves or others to risk if a negative result is misinterpreted.
- For the moment, self-tests kit are expensive (about \$40 per kit) and this would limit access to them.

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Strategies in development or not available in Canada *These strategies are not yet available in Canada or are still under development.*



USING MICROBICIDES

Applying a product (gel, vaginal ring) inside the vagina or rectum prior to penetration that contains medication to protect against HIV (still in development)

Description

- Microbicides are a type of pre-exposure prophylaxis that comes in the form of a cream, gel, suppository, pill, sponge, or ring. These products contain medications that protect against HIV and sometimes other STIs.
- Microbicides must be applied to the rectum or the vagina before penetration.
- Some microbicides are designed to act as a barrier that prevents HIV and other viruses or bacteria from reaching cells and infecting them. Others are designed to destroy or neutralize these viruses or bacteria.¹

Effectiveness

- Several studies have demonstrated the effectiveness of microbicides in reducing HIV transmission.
- In 2010, a South African study reported that a vaginal gel containing tenofovir had reduced the transmission of HIV from men to women by 39%, the best results being obtained when the gel was used more consistently.¹
- It's possible that rectal microbicides could have a significant impact on reducing HIV transmission. However, substantial research is still needed to confirm an effective product.¹

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Strategies in development or not available in Canada *These strategies are not yet available in Canada or are still under development.*



GETTING VACCINATED AGAINST HIV

Receiving a vaccine that can reduce the risk of contracting HIV (still in development)

Description

- Vaccines that may be able to reduce the risk of contracting HIV are still in the development phase.¹
- Developing a vaccine has been difficult because of the complex interactions between the virus and the immune system.¹
- A vaccine was reported to have given a certain amount of protection during a clinical trial, but not enough to justify its use. Other vaccines are currently being studied.¹
- It is expected that an effective vaccine against HIV will not be available for many years.

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