

# ONTARIO GUIDELINES FOR PROVIDERS OFFERING HIV TESTING



ONTARIO  
HIV TREATMENT  
NETWORK



Guideline development facilitated by the Ontario HIV Treatment Network  
in collaboration with the Ontario Ministry of Health.

Ontario's Guidelines for Providers Offering HIV Testing were developed by the Ontario HIV Treatment Network (OHTN), in collaboration with the Ministry of Health, Public Health Ontario, Ontario College of Family Physicians and Ontario-based clinicians and testing providers.

The testing guidelines and other tools are available at [hivtestingontario.ca](http://hivtestingontario.ca).

The OHTN is a provincially-funded agency that promotes use of the best available data and evidence to improve HIV prevention, testing and care services in Ontario.

Note from Ontario Chief Medical Officer of Health, Dr. Kieran Moore:

The release of these new provincial HIV testing guidelines represents a progressive step forward in efforts toward the elimination of new HIV infections in Ontario. The guidelines recommend streamlined testing and counselling for people at risk of HIV infection, a stronger focus on identifying symptoms of acute and chronic HIV, and routine testing for members of populations with higher rates of HIV. They support equitable access to prevention strategies for people at risk of HIV infection and access to culturally relevant services and treatment for people with HIV infection. The guidelines also reduce the current window period for definitively diagnosing HIV from three months to six weeks, to reflect advances in testing technologies.

The testing guidelines complement ongoing work across sectors and communities to address upstream factors that increase the risk of HIV infection and impact the lives of people with HIV infection, including critical work to reduce health disparities and improve the social determinants of health.

Thank you for your ongoing work.

Yours sincerely,  
**Dr. Kieran Moore**  
**Ontario's Chief Medical Officer of Health**



# EXECUTIVE SUMMARY

## WHY NEW HIV TESTING GUIDELINES FOR ONTARIO?

Ontario is committed to making new HIV infections rare and ensuring all people living with HIV are able to lead long, full lives free of stigma and discrimination.

To achieve those goals, the Ministry of Health actively supports and promotes HIV testing. Ontario's HIV testing initiatives aim to:

- ▶ Diagnose people infected with HIV as early as possible and link them to treatment and other services to help them lead long, healthy lives and prevent HIV transmission.
- ▶ Identify people at high risk of acquiring HIV and connect them with prevention services, including pre-exposure prophylaxis (PrEP),<sup>1</sup> post-exposure prophylaxis (PEP)<sup>2</sup> and other prevention and harm reduction resources.

People with HIV who are diagnosed and on treatment and have an undetectable viral load (<200 copies) cannot transmit the virus to sexual partners: undetectable = untransmittable (U=U).

These guidelines were developed specifically for Ontario to help reach the undiagnosed. They are designed to make providers aware of:

- ▶ recent advances in HIV testing technology (i.e. a shorter window period)
- ▶ symptoms of both acute and chronic HIV, which are often missed in routine care
- ▶ factors that contribute to HIV risk
- ▶ their important role in assessing risk, actively offering testing to people at risk, and reducing stigma that may keep people from being tested.<sup>3</sup>

## ONTARIO'S APPROACH TO HIV TESTING

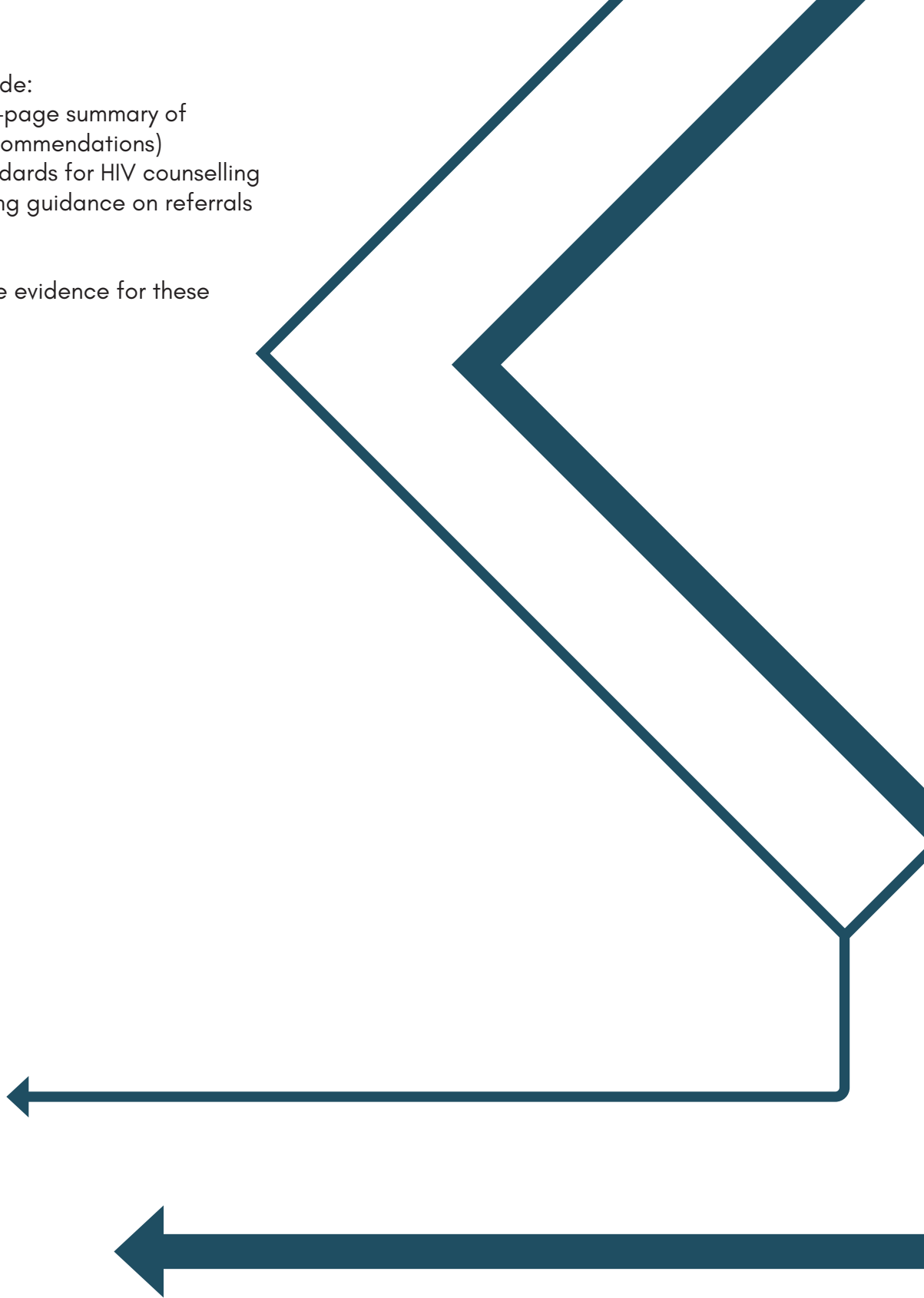
The guidelines introduce a four-pronged approach to HIV testing, based on symptoms and risk:

- I. Find new/recent infections:** Recognize the signs and symptoms of acute HIV infection and provide testing at appropriate intervals for people who report a possible recent high-risk exposure.
- II. Find chronic infections:** Recognize the indicator conditions most commonly overlooked in people with HIV who are diagnosed late (i.e. with more advanced disease).
- III. Offer testing to at-risk members of populations with high rates of HIV:** Assess members of these populations for factors that may increase their risk and recommend testing when/as appropriate.
- IV. Identify people in other specific care situations who should be tested for HIV:** This group includes people seeking pregnancy care and people being treated for conditions that require immunosuppressive therapy (e.g. transplants, treatment with biologics for conditions like rheumatoid arthritis).

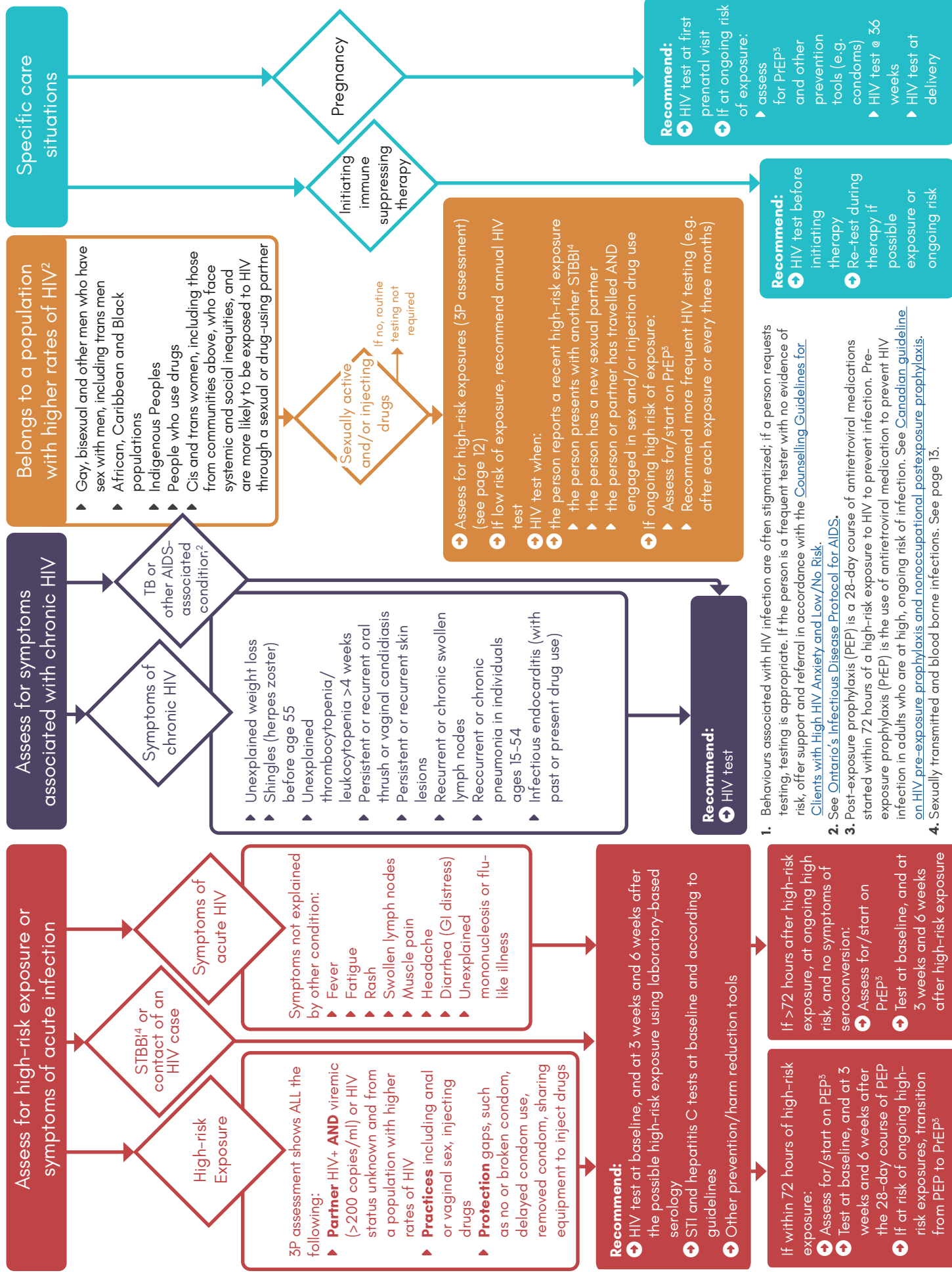
1. Pre-exposure prophylaxis (PrEP) is the use of antiretroviral medication to prevent HIV infection in adults who are at high, ongoing risk of infection. See [ontarioprep.ca](http://ontarioprep.ca).  
2. Post-exposure prophylaxis (PEP) is a 28-day course of antiretroviral medications started within 72 hours of a high-risk exposure to HIV to prevent infection.  
3. Baumann KE, et al. Whether Patients Want It or Not, Physician Recommendations Will Convince Them to Accept HIV Testing. *J Int Assoc Provid AIDS Care*. 2018 Jan-Dec;17:2325957417752258.

The guidelines also include:

- ▶ An algorithm (a one-page summary of Ontario's testing recommendations)
- ▶ Person-centred standards for HIV counselling and support, including guidance on referrals and follow-up
- ▶ A resource list
- ▶ A bibliography of the evidence for these guidelines.



# DOES YOUR PATIENT NEED HIV TESTING?<sup>1</sup>



# HIV TESTING IN ONTARIO

On average, Ontario performs 600,000 diagnostic HIV tests per year (excluding the >138,000 pre-natal HIV tests done annually). Although the number of HIV tests increased by more than 53% between 2013 and 2019, the proportion of positive HIV tests decreased. In 2019, the rate of first-time HIV diagnoses per 100,000 people in Ontario was 4.7: the lowest since 1985.<sup>4</sup>

## Why are First-time Diagnoses Decreasing?

- ▶ People living with HIV who are on antiretroviral therapy (ART) can suppress the virus in their blood to levels (i.e. below 200 copies/ml) where they cannot pass the virus to a sexual partner (known as undetectable=untransmittable or U=U). More than 97% of Ontarians with HIV who are on ART are virally suppressed.
- ▶ A growing portion of people at high risk of HIV are using new prevention tools, such as HIV pre-exposure prophylaxis (PrEP) and HIV post-exposure prophylaxis (PEP), medications that prevent HIV infection.

Despite the progress that has been made in reducing HIV infections:

- ▶ Several hundred Ontarians are still diagnosed with HIV each year.
- ▶ Many Ontarians with HIV are diagnosed late,<sup>5,6</sup> after the virus has already damaged their immune system.
- ▶ As of 2020, up to 11% of people living with HIV in Ontario (~2,355 people) may still be undiagnosed.<sup>7</sup>

4. For more detailed information about HIV testing and diagnoses, see the Ontario HIV Epidemiology and Surveillance Initiative (OHESI): <https://www.ohesi.ca/>.

5. Based on ongoing analysis of the OHTN Cohort Study of people living with HIV in Ontario.

6. O'Byrne P, Orser L. Avoiding missed opportunities to screen for HIV. JAANP 2020; 32(5): 408-14.

7. OHESI. HIV care cascade in Ontario: Linkage to care, in care, on antiretroviral treatment, and virally suppressed, 2020. Toronto, Ontario, April 2022.

## HIV TESTING OPTIONS IN ONTARIO

All HIV testing in Ontario is done with informed consent. Three types of HIV testing are available in the province:

- ▶ **HIV Laboratory-based Diagnostic Serology** is ordered by a licensed health care provider and involves taking a blood sample, which is sent to the Public Health Ontario Laboratory to screen for HIV. Any samples that screen reactive are tested again using a confirmatory test. Results are generally available within 72 hours. Note: laboratory-based diagnostic serology must be done to confirm the results of all other types of testing.
- ▶ **Rapid/Point of Care (POC) Testing** is offered by a number of organizations (e.g. sexual health clinics, hepatitis C teams, some community-based AIDS service organizations). It involves a finger prick to screen for HIV. POC tests can be done in less than 10 minutes. Reactive tests must be confirmed using laboratory-based diagnostic serology. Some of these organizations also offer anonymous HIV testing (i.e. tests ordered using a code rather than the person's name). Individuals who want POC testing or anonymous testing should call the Sexual Health Infoline Ontario (SHILO) at 1-800-668-2437 or visit <https://sexualhealthontario.ca/> to find a site near them.
- ▶ **Self Tests** are done at home and involve a finger prick to screen for HIV. Self-tests can be done in less than 10 minutes. Reactive tests must be confirmed using laboratory-based diagnostic serology. Self tests can be purchased at pharmacies. See <https://hivtestingontario.ca/> for other programs that offer HIV self tests.

**Note:** When requesting laboratory-based HIV diagnostic serology, providers are encouraged to complete all sections of the test requisition form. Ontario relies on this information for HIV surveillance and to guide prevention and treatment programs.





# HIV TESTING RECOMMENDATIONS

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# I. FIND NEW/ RECENT INFECTIONS

The most effective way to improve individual health outcomes and stop the spread of HIV is to identify and treat new infections as early as possible.

## THE WINDOW PERIOD

When a person is newly infected with HIV, there is a window period during which time not everyone will have evidence of HIV infection in their blood. Until recently, the window period was three months—and that is still the case with HIV POC tests and self-tests. However, with the Public Health Ontario Laboratory's current 4th generation tests, the window period for laboratory-based HIV diagnostic serology testing has been reduced to 6 weeks.

## WHEN TO TEST PEOPLE WHO MAY HAVE HAD A RECENT HIGH-RISK EXPOSURE

To confirm or rule out an HIV infection, offer **laboratory-based HIV diagnostic serology** testing:

- ▶ At baseline (in case the person has an historical infection or may find it difficult to present again for care) and, if negative,
- ▶ At 3 weeks after the exposure and, if negative,
- ▶ At 6 weeks after the exposure (3-6 testing).

A *positive* result at any of these time points indicates HIV infection. A *negative* result at *all* three of these time points or a negative result 6 weeks after the high-risk exposure (if baseline and 3-week testing does not occur) rules out HIV infection from that exposure.

## WHO TO TEST

HIV testing is recommended/indicated for:

**1. Individuals who report or are assessed as having a possible high-risk HIV exposure (including sexual assault).**

*Note: For people who have had a high-risk occupational exposure, please also follow your facility's guidelines/procedures for management of occupational exposures.*

**TABLE 1: PERCENTAGE OF EARLY HIV INFECTIONS DETECTED BY TIME SINCE EXPOSURE AND TYPE OF TEST**

	Time since exposure		
	3 weeks	6 weeks	3 months
Laboratory-based diagnostic serology testing	65-70%	> 99%*	
Rapid POC test/self test	45-55%	95%	99.6%*

\* non-reactive tests rule out HIV infection

Ontario's HIV point-of-care (POC) testing sites will continue to offer POC testing in conjunction with laboratory-based diagnostic serology testing at baseline, and at 3 weeks and 6 weeks after exposure (3-6 testing).

People who prefer to test **using only POC testing or a self-test** (i.e. no laboratory-based diagnostic serology testing), should be tested at baseline, and at 3 weeks, 6 weeks, and 3 months (3-6-3 testing) after the exposure to definitively rule out HIV infection.

### If the person is within 72 hours of exposure:

- ▶ Offer baseline laboratory-based HIV, STI, and hepatitis C testing, and hepatitis B serology/immune status testing as clinically indicated (see [PHAC STI Guidelines](#)).
- ▶ Assess for / start on post-exposure prophylaxis (PEP) if clinically indicated (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)). See algorithm on page 12.

### If not on PEP:

- ▶ Test for HIV again at 3 weeks and 6 weeks after the high-risk exposure.

### If on PEP:

- ▶ Test for HIV at 3 weeks and at 6 weeks **after the person completes the 28-day course of PEP**
- ▶ If the person is at ongoing high risk of HIV infection, transition immediately from PEP to PrEP then test every 3 months as per PrEP guidelines (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

*Note: when a person transitions from PEP to PrEP, there is small risk of PrEP delaying or masking a seroconversion. In addition to testing the person for HIV at 3 and 6 weeks after the person completes the 28-day course of PEP, it is important to test for HIV every three months as per PrEP guidelines.*

### If the person is within 3 to 21 days of a high-risk exposure:

- ▶ Offer baseline laboratory-based HIV, STI, and hepatitis C testing, and hepatitis B serology/immune status testing as clinically indicated (see [PHAC STI Guidelines](#))
- ▶ Assess for/start on PrEP if clinically indicated\* (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).
- ▶ Test for HIV again at 3 weeks and 6 weeks after the high-risk exposure
- ▶ If on PrEP, test for HIV every 3 months as per guidelines (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

## HIGH RISK EXPOSURES

A high-risk sexual exposure has occurred if all of the following “3Ps” are true:

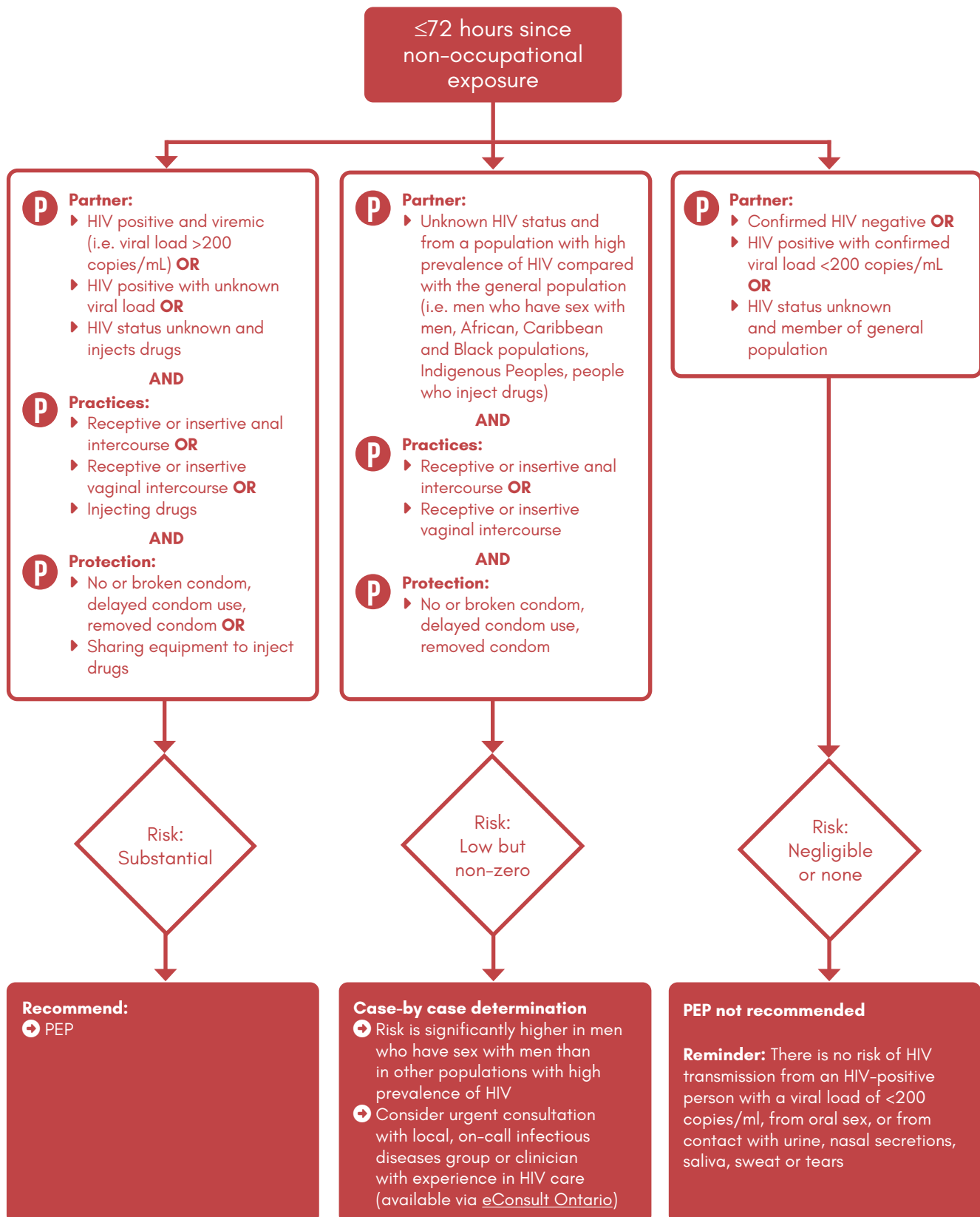
- P Partner(s):** The client’s sexual **partner(s)** are HIV-positive and viremic (>200 copies/ml) OR of unknown HIV status **AND** from a population with a high prevalence of HIV (see page 15.)
- P Practices:** The client’s **practices** with partner(s) included **anal or vaginal sex**.
- P Protection:** There may have been a gap or failure in the **protection** used to prevent HIV infection (e.g. no condom, condom breakage, delaying condom use or removing condom during sex).

Sharing drug-injection equipment is always considered a high-risk exposure.

*\* Note: It is not uncommon for people worried about a possible exposure to come for testing and be assessed as being at high risk of HIV – only to not return after the baseline visit for the 3–6 testing. For that reason, it is preferable to offer them PrEP at the baseline visit rather than waiting until 6 weeks after the exposure for a confirmed negative test result. Once engaged in PrEP, they often see the value of returning for follow-up care and testing. There is a very low risk of people who start taking PrEP during the window period developing clinically significant drug resistance if they are already HIV positive.<sup>8</sup>*

8. [Drugs. 2019 Apr; 79\(6\): 609–619.](#) doi: [10.1007/s40265-019-01108-x](#)

# ALGORITHM FOR EVALUATION OF POSSIBLE POST-EXPOSURE PROPHYLAXIS (PEP) TREATMENT FOR HIGH-RISK NON-OCCUPATIONAL HIV EXPOSURES



Adapted from the Canadian PEP Guidelines and the US Centers for Disease Control and Prevention [Updated guidelines for antiretroviral postexposure prophylaxis after sexual, injection drug use, or other nonoccupational exposure to HIV—United States, 2016](#)

## 2. Individuals who are sexual and/or substance-using contacts of people newly diagnosed with HIV:

- ▶ Offer baseline HIV, STI and hepatitis B and C testing
- ▶ Assess for/start PrEP if clinically indicated (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#))
- ▶ If exposure was recent (within the last 6 weeks), test for HIV again at 3 weeks and 6 weeks after exposure (3–6 testing) using laboratory-based diagnostic serology testing
- ▶ If the person is on PrEP, test for HIV every 3 months as per guidelines (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

## 3. Individuals who present with symptoms of other sexually transmitted and blood borne infections (STBBIs) associated with HIV infection:

- ▶ offer baseline HIV, STI and hepatitis B and C testing
- ▶ if the person indicates a recent high-risk exposure (within the last 6 weeks), offer 3–6 testing
- ▶ if the person has received PEP for HIV in the past year or is at ongoing high risk of HIV infection, assess for / start on PrEP, if clinically indicated.

### STBBIs ASSOCIATED WITH HIV

- ▶ infectious syphilis
- ▶ a rectal bacterial STI (gonorrhea, chlamydia), particularly among cis and trans men who have sex with men, and trans women
- ▶ gonorrhea among women
- ▶ hepatitis C
- ▶ hepatitis B

STBBI testing is an opportunity to assess a person's risk for HIV.

## 4. Individuals presenting with symptoms of acute (early) HIV infection:

- ▶ Offer baseline HIV, STI and hepatitis B and C testing
- ▶ Test for HIV again at 3 weeks and 6 weeks after possible exposure (3–6 testing).

### SYMPTOMS OF ACUTE HIV INFECTION

Symptoms of acute HIV infection usually appear 2 to 4 weeks after exposure, and frequently include:

- ▶ fever
- ▶ fatigue
- ▶ muscle pain / joint stiffness
- ▶ rash
- ▶ headache
- ▶ sore throat
- ▶ swollen lymph nodes
- ▶ night sweats
- ▶ gastrointestinal symptoms (e.g. nausea, diarrhea)

Consider HIV infection in anyone with these symptoms that are not explained by another condition or anyone with an unexplained mononucleosis- or flu-like illness.

## 5. Individuals within specific social and sexual networks in your area in response to notifications from Public Health authorities.



### TESTING GUIDANCE: CASE SCENARIO 1

Tony is a sexually active gay man who regularly uses condoms.

Recently the condom broke during receptive anal sex. He is uncertain about the HIV status of his sexual partner.

If this exposure occurred in the last 72 hours, offer PEP.

Recommend HIV testing at baseline, and at 3 weeks and 6 weeks after exposure using laboratory-based diagnostic serology testing.

Recommend STI testing at baseline and at the 3-week visit, and infectious syphilis testing 3 months later.

Assess for / start on PrEP if clinically indicated.

# II. FIND CHRONIC INFECTIONS

To improve health outcomes of individuals who may have chronic HIV infection:

- 1. Recommend HIV testing for individuals who have conditions associated with HIV infection that are recurrent, persistent or of unknown origin.** The most common indicator conditions overlooked in those with HIV who are diagnosed late include:
  - ▶ unexplained weight loss
  - ▶ shingles (herpes zoster) particularly before age 55
  - ▶ unexplained and persistent thrombocytopenia or leukopenia (> 4 weeks)
  - ▶ candidiasis (oral or esophageal), particularly when it occurs more than once, or when infection occurs in the absence of risk factors such as smoking or inhaled corticosteroid use
  - ▶ persistent vaginal candidiasis
  - ▶ recurrent, and sometimes non-specific, skin lesions, such as molluscum contagiosum, atypical vasculitic rash (kaposi sarcoma) or erythema multiforme
  - ▶ recurrent or chronic pneumonia in individuals ages 15-54
  - ▶ infectious endocarditis (especially with evidence of past/present injection drug use)
- 2. Recommend HIV testing for individuals who present with tuberculosis or one of the opportunistic conditions associated with Acquired Immune Deficiency Syndrome (AIDS) as listed in [Ontario's Infectious Disease Protocol for AIDS](#).** These conditions are evidence of severe immune compromise.

- 3. Providers are encouraged to use their clinical judgment to assess clients with unexplained immune compromise for possible HIV infection.**

Additional indicators of immune compromise potentially associated with HIV infection are documented in the HIV Indicator Diseases in Europe Studies (HIDES 1&2). See bibliography.



## TESTING GUIDANCE: CASE SCENARIO 2

Michael is 45. He is generally healthy and not on any prescribed medications. He and his wife have been on your practice roster for a number of years.

He has a clump of small painful blisters on the left side of his back.

This presentation is typical of shingles but he is young without any obvious cause for immune compromise.

In addition to appropriate treatment for shingles, recommend HIV testing.

Invite Michael to tell you about any risks he may have for HIV, and recommend PrEP if clinically indicated.

# III. OFFER TESTING TO MEMBERS OF POPULATIONS WITH HIGHER RATES OF HIV

In Ontario, new HIV diagnoses are concentrated in a small number of populations with higher rates of HIV than the general population, including:

- ▶ Gay, bisexual and other men who have sex with men, including trans men
- ▶ African, Caribbean and Black populations
- ▶ Indigenous Peoples
- ▶ People who use drugs\*
- ▶ Cis and trans women, including those from the communities above, who face systemic and social inequities, and are more likely to be exposed to HIV through a sexual or drug using partner.

*\* Note: People who use drugs are at high risk of acquiring HIV if they share equipment to inject drugs; however, other (non-injecting) drug use – including smoking crack and the use of alcohol, cannabis and drugs like crystal methamphetamine to enhance sex – can also increase HIV risk by affecting judgement and disinhibiting behaviour. Alcohol and other substance use can result in more sexual risk taking and/or lower adherence to medications such as PrEP and antiretroviral therapy.*

## FACTORS THAT INCREASE RISK

Most people diagnosed with HIV in Ontario each year are members of these populations and the higher rate of HIV in these populations increases the possibility of a high-risk exposure. However, not everyone in these populations is at increased risk. Each person's risk will depend on a mix of factors (the "3Ps" that may affect their ability to protect themselves from exposure to HIV). Their risk will be greatest if all three of the following are true:

- P Partner(s):** Their sexual **partner(s)** are HIV-positive and viremic (>200 copies/ml) OR of unknown HIV status **AND** from a population with a high prevalence of HIV.
- P Practices:** Their **practices** with partner(s) included **anal or vaginal sex, or injecting drugs.**
- P Protection:** There may have been a gap or failure in the **protection** used to prevent HIV infection (e.g. no condom, condom breakage, delaying condom use or removing condom during sex), or sharing equipment to inject drugs.

Some practices that increase risk are socially stigmatized so some patients may not wish to disclose their risk practices.

Anal or vaginal sex with multiple partners of unknown HIV status increases risk and should prompt recommendations for more frequent testing, as well as assessment for PrEP.

The **3P** assessment relies on people having some sense of their own risk. That may not be the case for every one. For example, in a recent sub-study of Black cisgender heterosexual women drawn from an Ontario-based cohort of people living with HIV, 96% of the women indicated that, pre-diagnosis, they did not know that their sexual partners were living with HIV.<sup>9</sup> Many Indigenous people may also be unaware of the risk of HIV or how the virus is spread.



Providers should also be alert to other factors that may increase a person's risks, such as adverse childhood experiences; substance use and mental health challenges; trauma associated with homophobia, racism, and colonization; poverty and housing instability; and intimate partner violence.

## ROUTINE TESTING IN POPULATIONS WITH HIGHER RATES OF HIV

The goal of routine testing in populations with higher rates of HIV is to diagnose individuals who are infected, and to identify individuals who are at high risk and could benefit from PrEP and other prevention strategies.

- 1. Assess and recommend routine annual testing to *sexually active* members of the populations listed on page 15 and to all people who inject drugs—even when they report consistently using risk reduction practices—as gaps in protection may occur.**
- 2. For members of these populations who are assessed as being high risk (i.e. having frequent unprotected sex with one or more partners whose HIV status is unknown or who are HIV-positive and not virally suppressed; sharing equipment to inject drugs):**
  - ▶ Recommend HIV testing every three months or after every high-risk exposure (if feasible).
  - ▶ Assess for PrEP or other prevention, harm reduction and/or mental health resources. (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

### **3. For members of these populations, including heterosexual women, who present with a current sexually transmitted infection:**

- ▶ Recommend HIV testing
- ▶ Assess for PrEP if indicated (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

### **4. Recommend HIV testing for members of these populations who are starting a new sexual relationship.**

Assess for / start PrEP, if clinically indicated (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

### **5. Travel may be a useful trigger for HIV testing. Men who travel seeking sex, including travel to large urban centres in North America and Europe, are at higher risk of exposure to HIV as are male and female travelers to many low and lower-middle income countries with high rates of HIV and lower rates of viral suppression. These issues disproportionately affect gay and bisexual men, and African, Caribbean and Black travellers.**



## TESTING GUIDANCE: CASE SCENARIO 3

Nyasha is 33 and unmarried. She emigrated to Canada 10 years ago from Zimbabwe and has recently visited her parents in that country, where she stayed for several months.

Tell Nyasha that, according to surveillance data, HIV rates are higher in many parts of Africa, including Zimbabwe, than they are in Canada, and ask if she was sexually active during her travels. If so, recommend an HIV test.

People who are sexually active with new partners while travelling may be more likely to take risks and less able to accurately assess the risk, whether travelling to a home country or a large, anonymous urban centre in Europe or North America. They may also engage in different patterns of drug use. Travel may be a useful prompt for HIV assessment.



- ▶ Recommend HIV testing for individuals if they or their partners have traveled and, while away, engaged in unprotected sexual activity, shared equipment to inject drugs, or accessed care in settings that did not use proper infection prevention and control measures
- ▶ Recommend PrEP prior to travel if clinically indicated (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

**6. Recommend HIV testing for individuals who immigrated to Canada from a country where HIV was endemic before 2005 (when Immigration Canada began routinely testing for HIV) and for individuals who immigrated to Canada after 2005 but were not tested through the immigration system (i.e. people who came through irregular migration streams).**

Many newcomers come to Canada on visitor, student or work visas, and will not be tested for HIV by the immigration system until they apply for permanent residency or refugee status, which can take several years (see Evidence-based clinical guidelines for immigrants and refugees, which include testing for a number of infectious diseases, including HIV. <https://www.cmaj.ca/content/183/12/E824>). For this reason, offer HIV testing to newcomers who have been in the country less than five years, particularly if they are members of a population with high rates of HIV, such as gay, bisexual and other men who have sex with men, including trans men, or if they are from countries with high rates of HIV. These individuals should be tested once, unless they have ongoing risks for HIV infection.

Populations with higher rates of HIV are also at higher risk of other infections. For example, Indigenous people and people who were not born in Canada are at higher risk of tuberculosis; gay, bisexual and other men who have sex with men are at higher risk of other STIs; and people who inject drugs are at higher risk of hepatitis C. When testing members of these populations who are at high risk of HIV, consider testing for these other infections at the same time.

# IV. IDENTIFY PEOPLE IN SPECIFIC CARE SITUATIONS WHO SHOULD BE TESTED FOR HIV

## 1. Recommend HIV testing for all pregnant people as part of the Ontario Prenatal Screening Program.

If there is evidence of ongoing high-risk exposures:

- Recommend HIV testing in the 1st, 2nd and 3rd trimester (preferably at 36 weeks) and at delivery (see [Guidelines for the Prevention of Mother-to-Child HIV Transmission](#)).

If the pregnant person is at risk of ongoing exposure during the pregnancy (e.g. partner is HIV positive and not virally suppressed):

- Discuss different prevention/protection options (e.g. condoms, PrEP)
- Assess for / start PrEP if clinically indicated (see [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#)).

For guidance on managing PrEP in pregnancy, see the US DHHS Guidelines: <https://clinicalinfo.hiv.gov/en/guidelines/perinatal/prep>

## 2. Recommend HIV testing for individuals initiating immune-suppressive therapy, particularly when therapy is associated with organ or stem cell transplants, HIV-associated cancers such as Non-Hodgkin's lymphoma, and high dose steroid, methotrexate and biologic treatments for rheumatoid arthritis.

- Retest during therapy if patient has a possible exposure or is at ongoing risk of HIV.

Patients about to begin immunosuppressive therapy should be tested for a range of infections including tuberculosis, Epstein-Barr virus, cytomegalovirus, varicella rooster virus, herpes simplex virus, hepatitis B and C, syphilis, toxoplasma, histoplasmosis and HIV. Testing should be done in consultation with the treating specialist (e.g. hematologist, rheumatologist) and an infectious disease specialist.

## 3. Recommend HIV testing every 3 months for people on PrEP, as per guidelines.

(See [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#).)

## 4. Provide HIV testing to individuals who specifically request an HIV test even if they do not meet the criteria described above (e.g. possible exposure, symptoms, risk factors).

- Offer support and referral to those without evidence of high-risk exposures who repeatedly request testing in accordance with the [Counselling Guidelines for Clients with High HIV Anxiety and Low/No Risk](#).



## TESTING GUIDANCE: CASE SCENARIO 4

Gladys is 28 and pregnant with her first child. Her husband is HIV positive and sometimes struggles to adhere to his medication. As a result, he is not always able to maintain a suppressed viral load.

Explain to Gladys and her husband that she may be at risk of acquiring HIV during her pregnancy and of transmitting HIV to her fetus during pregnancy or her infant during childbirth.

Test Gladys for HIV.

Discuss the concept of undetectable = untransmittable (U=U) with both of them and explain why it's important for the husband to adhere to treatment and maintain a suppressed viral load.

Discuss with both the different prevention tools they can use to protect both Gladys and the fetus during the pregnancy, including condoms and PrEP.

Assess whether Gladys would be a good candidate for PrEP.

Recommend PrEP if clinically indicated.

Refer the couple to an AIDS service organization or other community agency for other supports.

# PERSON-CENTRED STANDARDS FOR HIV COUNSELLING AND SUPPORT

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Ontarians are key partners in their health care. To help them make informed decisions about HIV prevention, testing and treatment, it is important to provide:

- ▶ information and counselling
- ▶ tailored, non-judgmental testing
- ▶ referrals to an integrated network of services that can help them manage and protect their health, as well as the health of their partners.

HIV pre- and post-test counselling provides an opportunity to: discuss HIV risk and answer client questions; prepare the client for a potential HIV positive result; and refer the client to the appropriate post-test services as needed (e.g. HIV treatment, PrEP, mental health supports). Post-test counselling also provides the opportunity to explain to clients who test HIV positive that: all positive HIV results are reported to the public health unit; and a public health nurse will follow up with everyone who tests HIV positive to offer case and contact management services.

HIV testing and counselling should be adapted to the person's needs. People who are very knowledgeable about HIV, their risks, and

## ARCCH PRINCIPLES FOR HIV TESTING IN ONTARIO

- ▶ **Adapted:** Each testing interaction responds to the needs of the person and is shaped around their concerns and questions.
- ▶ **Respectful:** Each testing interaction ensures equity, engages with the person respectfully and honestly, and explores issues of risk in non-judgmental and non-stigmatizing ways.
- ▶ **Consenting:** People who test for HIV must choose to take the test and have considered how a reactive (positive) test might impact their life.
- ▶ **Confidential:** People who test for HIV are confident that their privacy will be respected.
- ▶ **High Quality:** People who test for HIV are accessing a continuum of high-quality services, including accurate HIV testing, but also referral to other needed prevention and

available supports, may not need lengthy counselling. Others may have many questions and would benefit from more information and/or comprehensive counselling. See the [provider resource site](#) for guidance and checklists for both comprehensive and express testing.

## CULTURALLY RESPONSIVE COUNSELLING

HIV testing and counselling should also be adapted to the person's culture, and take into account factors such as how comfortable people are talking about sex and sexual behaviours or drug use, as well as the importance of non-judgemental, culturally responsive<sup>10</sup> care. Counselling should also take into account the negative experiences that many people at risk of HIV may have had with the health care system. For example, one of the main barriers to Indigenous people seeking HIV testing is institutionalized discrimination in health care and general distrust of health care providers, which may be rooted in colonialism. African, Caribbean and Black people, gay men and people who inject drugs have also had negative experiences with the health care system due to stigma, discrimination and racism.

10. This document uses the term "culturally responsive" to capture the concept of care that responds to a person's culture and is safe, appropriate, sensitive, competent and relevant.

To enhance their ability to provide culturally responsive and safe (non-stigmatizing) care, all providers should participate in anti-racism training, such as the [SAN'YAS Anti-Racism Indigenous Cultural Safety Training Program](#).

Avoid making assumptions about what “culturally responsive” means for members of different populations. For example, some Indigenous people may be focused on reconnecting with their traditional culture and appreciate a more holistic approach to talking about health that includes physical, mental, emotional and spiritual health (e.g. the medicine wheel). Others, particularly those who are part of an organized religion, may be more comfortable with a western approach to care. Talk to the person about the approach that is best for them.

These resources may also be helpful:

- ▶ AIDS Education and Training Center. HIV provider cultural competency self-assessment. <http://aetcnec.virtualforum.com/nmc/>
- ▶ BIPOC Women's Health Network. Taking a culturally safe sexual history. 2022. <https://bipocwomenshealth.com/sex-ed-2/taking-a-culturally-competent-sexual-history/>
- ▶ Savoy M, O'Gurek DT, Brown-James A. Sexual health history: Techniques and tips. *American Family Physician*. 2020;101(5):286-93. (see attachment Savoy\_2020)
- ▶ Wilson D, de la Ronde S, Brascoupé S, Apale AN, Barney L, Guthrie B, et al. Health professionals working with First Nations, Inuit, and Métis consensus guideline. *Journal of Obstetrics and Gynaecology Canada*. 2013;35(6):S1-S4.
- ▶ The Society of Obstetricians and Gynaecologists of Canada. Health professionals working with First Nations, Inuit, and Métis: A companion piece. 2013. [https://www.aboriginalsexualhealth.ca/documents/13AHI\\_HlthProfWork-w-Aboriginals-CompanPiece\\_web8x11.pdf](https://www.aboriginalsexualhealth.ca/documents/13AHI_HlthProfWork-w-Aboriginals-CompanPiece_web8x11.pdf)
- ▶ Jongbloed K, Pooyak S, Sharma R, Mackie J, Pearce ME, Laliberte N, et al. Experiences of the HIV cascade of care among Indigenous peoples: A systematic review. *AIDS & Behavior*. 2019;23(4):984-1003.

- ▶ Orser, L & O'Byrne, P. Public health counselling following an HIV diagnosis among men who have sex with men: tensions between individual needs and health protection mandates. *JRN* 2021; 26(3): 207-226.

Providers who do not feel confident in their ability to provide culturally responsive care should refer clients to providers who do.

## FOLLOW-UP SUPPORT AND TREATMENT FOR PEOPLE WHO TEST HIV POSITIVE

People react in different ways to an HIV diagnosis. All will need clear information, and some may require reassurance and support. Here are the best practices in giving a positive diagnosis:

1. Always give positive results in person. Do not give positive results over the phone.
2. Explain that HIV treatments are highly effective and have few side effects. People with HIV who are on treatment are leading long, healthy lives.
3. If HIV treatment is beyond the scope of your practice, connect the person to an HIV treatment provider, optimally within 72 hours. Rapid initiation of treatment benefits both the person and their sexual contacts.
4. Explain to the person that it is not necessary to tell family and friends about their HIV status immediately, but encourage them to identify at least one person in their life who can support them.
5. Answer questions but remember that the person may not retain a lot of information from the initial appointment.
6. Address the person's other health needs (e.g. mental health, substance use).

## RESOURCES FOR PROVIDERS

HIV testing is an opportunity to offer clients access to prevention, harm reduction and sexual health services (e.g. condoms, PEP, PrEP, clean drug-using equipment, consumption treatment services, substance use treatment programs), primary care and HIV treatment. For provider resources on HIV test counselling and follow-up



## CULTURALLY APPROPRIATE COUNSELLING: CASE SCENARIO 5

Greg is a Métis heterosexual man in his late 30s. He has been experiencing fatigue and weight loss over several months. He has avoided seeing a doctor because he has had negative experiences with the health care system in the past.

As part of a trauma-informed approach to care, be knowledgeable about the history of Indigenous peoples in Canada and how colonization may affect their willingness to engage in care. Lack of trust in the health care system means that Indigenous people often do not seek care and, therefore, may be diagnosed later in the course of a disease.

Create a warm comfortable space for the conversation. Ask Greg about his health concerns and listen respectfully to his answers.

Through the conversation, explain that the symptoms he describes could relate to many different chronic infections that occur at higher rates in Indigenous peoples than in the general population, such as HIV, hepatitis C and tuberculosis. Assess how much Greg knows about these infections and their treatments. Explain how they are transmitted, and explore any possible exposures to HIV or hepatitis C he may have had over the past few years, including the 3Ps (partners, practices, protection).

Greg shares that, a few years ago, he did go through a period when he used injection drugs, and he had sex with a number of women who also used injection drugs without using protection (e.g. condoms). In the past, he has also been treated for syphilis. His current sexual partner does not use drugs.

Recommend HIV, hepatitis C, tuberculosis and other STI testing for Greg and his partner. When asked, Greg says he doesn't remember ever being tested for hepatitis C in the past. Reassure Greg by talking about how effective treatments are now for all these conditions, including HIV and hepatitis C.

When Greg expresses some concern about the stigma associated with HIV, hepatitis C and STI testing, reassure him that testing is part of sexual health and a way that people show they care about themselves and their partners. Talk about what your office and the testing laboratory will do to protect confidentiality, and discuss any concerns Greg may have about safety and disclosure.

Greg tests negative for HIV, tuberculosis and other STIs, but antibody positive for hepatitis C. His sexual partner tests negative for all conditions. Order a hepatitis C RNA test to determine whether Greg has chronic hepatitis C.

If he is hepatitis C RNA positive, explain that new hepatitis C treatments can effectively eliminate the virus and – unlike treatments used in the past – have very few side effects. Most people handle treatment extremely well. Provide or refer Greg for hepatitis C treatment (<http://ontariohepc.ca/>), and address any issues he may experience accessing treatment (e.g. transportation, treatment coverage).

If he is hepatitis C RNA negative, explore other causes for the symptoms and provide or refer for treatment as required.

During post-test counselling, talk to Greg about ways he and his partner can protect themselves from HIV or hepatitis C infection or re-infection. Discuss how frequently he and his partner should be tested for HIV: at least once a year if they are sexually active, even if they use condoms consistently, and every three months if either of them starts to use drugs. Make sure Greg and his partner are aware of harm reduction programs in the area, including access to equipment, naloxone, and consumption and treatment services (see <https://ohrdp.ca/find-supplies/>).

HIV care, visit [hivtestingontario.ca](http://hivtestingontario.ca).  
For access to specialist advice related to HIV testing and care, PEP and PrEP, contact [eConsult Ontario](#).

The Public Health Agency of Canada's [Sexually Transmitted Blood Borne Infections \(STBBI\) Prevention Guide](#) also offers guidance on person-centred sexual health education and counselling. Individuals with sexual risk factors for HIV should also be tested for sexually transmitted and blood borne infections (STBBI), as outlined in these guidelines.

Those with ongoing risk behaviours should be assessed for PrEP in keeping with the [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#). See [ontarioprep.ca](http://ontarioprep.ca) for information for providers and individuals interested in PrEP, including a clinic finder for PrEP prescribers.

[The Guidelines for the Prevention of Mother-to-Child HIV Transmission](#) provide detailed information on the care of pregnant women with HIV.

[CATIE](#) is a national resource that offers a broad range of HIV and hepatitis C resources that may be helpful to both individuals and care providers, including resources for [newly diagnosed individuals](#).

[HIV & AIDS Legal Clinic Ontario \(HALCO\)](#) offers legal assistance.

## RESOURCES FOR CLIENTS

[Sexual Health Ontario](#) helps individuals learn more about protecting their sexual health and find sexual health clinics in their area. See the website or call the Sexual Health Infoline Ontario (SHILO) at 1-800-668-2437 (Ontario wide) or 416-392-2437 in Toronto.

Local HIV/AIDS Service Organizations provide:

- ▶ prevention and education services to help people avoid infection, such as support groups and harm reduction supplies.
- ▶ emotional and social support to people diagnosed with HIV who are determining what this diagnosis means for their lives.
- ▶ guidance in finding appropriate health and social services.

To find local HIV/AIDS Service Organizations contact [Ontario 211](#) (or call 211 on your phone) or check [WhereTo](#), a cross-Canada service by CATIE.





# BIBLIOGRAPHY OF EVIDENCE

## EPIDEMIOLOGY AND BEST PRACTICES

These guidelines are based on the demographics of HIV in Ontario, as well as Ontario's unique constellation of HIV testing programs and resources. They build on Ontario's previous HIV test counselling and HIV test frequency guidelines and were developed in consultations with HIV clinicians, experienced testing providers and representatives of the populations with higher rates of HIV in Ontario.

In Ontario, HIV is concentrated in a small number of populations. For more about the demographics of HIV in Ontario see the Ontario HIV Epidemiology Surveillance Initiative (OHESI) at <http://www.ohesi.ca/>. The annual new diagnoses and testing reports are particularly relevant to this document.

Other documents used in the development of this resource include:

- ▶ Tan DHS, Hull MW et al. [Canadian guideline on HIV pre-exposure prophylaxis and nonoccupational postexposure prophylaxis](#). CMAJ November 2017.
- ▶ Government of Canada. Sexually Transmitted and Blood Borne Infections (STBBI) prevention guide, 2021. Available at <https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines/stbbi-prevention-guide.html>
- ▶ Public Health Agency of Canada. Human Immunodeficiency Virus – HIV Screening and Testing Guide. Published 2014. At: <https://www.canada.ca/en/public-health/services/hiv-aids/hiv-screening-testing-guide.html>
- ▶ Public Health Ontario. Bacterial STI Testing: Quick Reference, March 2019. <https://www.publichealthontario.ca/-/media/documents/b/2019/bacterial-sti-quick-reference.pdf?la=en>

## I. FIND NEW/RECENT INFECTIONS

The importance of early diagnosis:

- ▶ Kitahata MM, Gange SJ, et al. Effect of early versus deferred antiretroviral therapy for HIV on survival. *New England Journal of Medicine* 2009; 360:1815–1826.
- ▶ Cohen MS, Chen YQ, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *New England Journal of Medicine* 2011 Aug 11;365(6):493–505.

Defining a high-risk exposure:

- ▶ Eisinger RW, Dieffenbach CW, Fauci AS. HIV Viral Load and Transmissibility of HIV Infection: Undetectable Equals Untransmittable. *JAMA*. 2019;321(5):451–452.
- ▶ CATIE. HIV Basics. At: <https://www.catie.ca/essentials/hiv-basics>
- ▶ Centers for Disease Control and Prevention. Updated guidelines for antiretroviral postexposure prophylaxis after sexual, injection drug use, or other nonoccupational exposure to HIV—United States, 2016). US Department of Health and Human Services.

- ▶ Wilton J. Putting a number on it: The risk from an exposure to HIV. CATIE, Prevention in Focus, 2012. At: <https://www.thebodypro.com/article/putting-a-number-on-it-the-risk-from-an-exposure-t>
- ▶ Strike C, Gohil H, Watson TM. Safer Crack Cocaine Smoking Equipment Distribution: Comprehensive Best Practice Guidelines. Prevention in Focus, CATIE, Fall 2014. At: [https://www.catie.ca/sites/default/files/2021-11/3382\\_CATIE\\_CarolStrike\\_BestPracticeRecommendations\\_2021-EN-Final.pdf](https://www.catie.ca/sites/default/files/2021-11/3382_CATIE_CarolStrike_BestPracticeRecommendations_2021-EN-Final.pdf)
- ▶ CATIE. Safer Sex Guide, updated 2021. At: <https://www.catie.ca/safer-sex-guide-0>

### When to Test (the window period)

The window period for testing is determined by the technology used.

- ▶ Pandori MW, Hackett J et al. Assessment of the Ability of a Fourth-Generation Immunoassay for Human Immunodeficiency Virus (HIV) Antibody and p24 Antigen to Detect both Acute and Recent HIV Infections in a High-Risk Setting. *Journal of Clinical Microbiology* 2009;47(8): 2639–2642.
- ▶ Moshgabadi N, Galli R et al. Sensitivity of a rapid point of care assay for early HIV antibody detection is enhanced by its ability to detect HIV gp41 IgM antibodies. *Journal of Clinical Virology* 2015;71:67–72.
- ▶ Taylor D, Durigon M et al. Probability of a false-negative HIV antibody test result during the window period: a tool for pre- and posttest counselling. *International Journal of STD & AIDS* 2015;26(4):215–224.
- ▶ Commission fédérale pour la santé sexuelle (Switzerland). Reassessment of the Diagnostics Window Period for HIV Diagnostics, working group report, 2018.
- ▶ Delaney KP et al. Time Until Emergence of HIV Test Reactivity Following Infection With HIV-1: Implications for Interpreting Test Results and Retesting After Exposure. *Clinical Infectious Disease* 2017.
- ▶ Rekar ML, MacIntosh J. Acute primary HIV infection. *CMAJ* 2011.

### STBBI indicators for HIV testing

Recommendations developed in consultation with HIV clinicians and Public Health Ontario.

- ▶ Galvin SR, Cohen MS. The role of sexually transmitted diseases in HIV transmission. *Nature Reviews Microbiology* 2004;2:33–42.
- ▶ Barbee LA, Khosropour CM et al. New HIV Diagnosis Independently Associated with Rectal Gonorrhea and Chlamydia in Men who have sex with Men. *Sexually Transmitted Diseases* 2017 Jul; 44(7):385–389.

### Signs of acute HIV infection

- ▶ Hoeingl M, Green N, et al. Signs or Symptoms of Acute HIV Infection in a Cohort Undergoing Community-Based Screening. *Emerging Infectious Diseases* 2016 Mar; 22(3): 532–534.
- ▶ Perlmuter BL, et al. How to Recognize and Treat Acute HIV Syndrome. *American Family Physician* 1999 Aug. At: <https://www.aafp.org/afp/1999/0801/p535.html>

## II. FIND CHRONIC INFECTIONS

Common indicator conditions overlooked in those diagnosed late were determined in consultation with experienced HIV care providers in consideration of the following evidence:

- ▶ Orser L, O’Byrne P, Holmes D. AIDS Cases in Ottawa: A review of simultaneous HIV and AIDS diagnoses. *Public Health Nursing* 2022;39-909-916.
- ▶ Lin YD, Garner SE et al. Prevalence of HIV indicator conditions in late presenting patients with HIV: a missed opportunity for diagnosis? *QJM: An International Journal of Medicine*, 2019, 17–21.
- ▶ Horino T, Sato F et al. Associations of HIV testing and late diagnosis at a Japanese university hospital. *Clinics (Sao Paulo)*. 2016 Feb;71(2):73–7.
- ▶ Sullivan AK, Raben D, et al. Feasibility and effectiveness of indicator condition-guided testing for HIV: results from HIDES I. *PLoS One*. 2013;8(1):e52845.

- ▶ Raben D, Sullivan AK et al. Improving the evidence for indicator condition guided HIV testing in Europe: Results from the HIDES II Study – 2012 – 2015. PLOS One 2019 Aug; 14(8):e0220108.

### III. OFFER TESTING TO MEMBERS OF POPULATIONS WITH HIGHER RATES OF HIV

Guidance on the offer of HIV testing to members of the populations in Ontario with higher rates of HIV are based on the epidemiology of HIV in Ontario, as well as discussions with HIV clinicians, experienced testing providers and representatives of the populations with higher rates of HIV in Ontario, and the following evidence:

- ▶ Rapid Response Service. A cross-jurisdictional review of HIV testing intervals for population groups at high-risk of HIV infection. Toronto, ON: Ontario HIV Treatment Network; March 2019. At: <https://bit.ly/3yDcnaZ>
- ▶ Brophy J on behalf of the Committee to Advise on Tropical Medicine and Travel (CATMAT). Summary of the statement on international travellers who intend to visit friends and relatives. Canadian Communicable Disease Report 2015 May:41 (5).
- ▶ Crawford G et al. HIV, Other Blood-Borne Viruses and Sexually Transmitted Infections amongst Expatriates and Travellers to Low- and Middle-Income Countries: A Systematic Review. Int J Environ Res Public Health. 2016 Dec 16;13(12):1249.
- ▶ Hillier SA, Winkler E, Lavallée L. Decolonising the HIV care cascade: Policy and funding recommendations from Indigenous Peoples living with HIV and AIDS. International Journal of Indigenous Health. 2020;15(1):48–60.
- ▶ Jongbloed K, Pooyak S, Sharma R, Mackie J, Pearce ME, Laliberte N, et al. Experiences of the HIV cascade of care among Indigenous peoples: A systematic review. AIDS & Behavior. 2019;23(4):984–1003.

- ▶ Lee VC, Sullivan PS, Baral SD. Global travel and HIV/STI epidemics among MSM: what does the future hold? Sex Health. 2017 Feb;14(1):51–58.
- ▶ Matteelli A, Schlagenhauf P et al. Travel-associated sexually transmitted infections: an observational cross-sectional study of the GeoSentinel surveillance database. Lancet Infect Dis. 2013 Mar;13(3):205–13.
- ▶ The Ontario HIV Treatment Network. Unmet needs of Indigenous peoples living with HIV. 2019. Available from: [https://www.ohtn.on.ca/wp-content/uploads/2019/10/RR141\\_IndigenousNeeds\\_October232019.pdf](https://www.ohtn.on.ca/wp-content/uploads/2019/10/RR141_IndigenousNeeds_October232019.pdf)
- ▶ Rachlis B. HIV prevention and care among rural and remote Indigenous communities in Canada: What is known and where are the gaps? 2018. Available from: <https://dignitasinternational.org/wp-content/uploads/2018/10/HIV-Prevention-and-Care-Lit-Review-FINAL.pdf>
- ▶ Wilton J, Light L, Gardner S, Rachlis B, Conway T, Cooper C, et al. Late diagnosis, delayed presentation and late presentation among persons enrolled in a clinical HIV cohort in Ontario, Canada (1999–2013). HIV Medicine,. 2019;20(2):110–20.

### Social and systemic factors influencing HIV risk amongst priority populations

*Adverse childhood experiences (ACEs):*

- ▶ Lloyd S, Operario D. HIV risk among men who have sex with men who have experienced childhood sexual abuse: systematic review and meta-analysis. AIDS Educ Prev. 2012 Jun;24(3):228–41.
- ▶ Tulloch TG, Rotondi NK, et al. Retrospective reports of developmental stressors, syndemics, and their association with sexual risk outcomes among gay men. Arch Sex Behav. 2015 Oct;44(7):1879–89.
- ▶ Woodgate RL, Zurba M, et al. A qualitative study on the intersectional social determinants for indigenous people who become infected with HIV in their youth. Int J Equity Health. 2017 Jul 21;16(1):132.

- ▶ Hobfoll SE, Bansal A, Schurg R, Young S, Pierce CA, Hobfoll I, Johnson R. The impact of perceived child physical and sexual abuse history on Native American women's psychological well-being and AIDS risk. *J Consult Clin Psychol.* 2002 Feb;70(1):252-7.

#### *Substance use and mental health challenges:*

- ▶ Perlman, D. C., & Jordan, A. E. (2018). The syndemic of opioid misuse, overdose, HCV, and HIV: structural-level causes and interventions. *Current HIV/AIDS Reports*, 15(2), 96-112.
- ▶ Remien RH, Stirratt MJ, Nguyen N, Robbins RN, Pala AN, Mellins CA. Mental health and HIV/AIDS: the need for an integrated response. *AIDS.* 2019 Jul 15;33(9):1411-1420.
- ▶ Cleland CM, Lanza ST, Vasilenko SA, Gwadz M. Syndemic Risk Classes and Substance Use Problems among Adults in High-Risk Urban Areas: A Latent Class Analysis. *Front Public Health.* 2017 Sep 7;5:237.
- ▶ Batchelder AW, Safren S, Mitchell AD, Ivardic I, O'Cleirigh C. Mental health in 2020 for men who have sex with men in the United States. *Sex Health.* 2017 Feb;14(1):59-71.

#### *Trauma associated with stigma and discrimination (homophobia, racism, colonization):*

- ▶ Negin J, Aspin C, Gadsden T, Reading C. HIV among Indigenous peoples: a review of the literature on HIV-related behavior since the beginning of the epidemic. *AIDS Behav.* 2015;19:1720-34.
- ▶ Woodgate RL, Zurba M, et al. *ibid.*
- ▶ Jeffries WL 4th, Flores SA, Rooks-Peck CR, Gelaude DJ, Belcher L, Ricks PM, Millett GA. Experienced Homophobia and HIV Infection Risk Among U.S. Gay, Bisexual, and Other Men Who Have Sex with Men: A Meta-Analysis. *LGBT Health.* 2021 Jan;8(1):1-10.

- ▶ Antabe R, Konkor I, McIntosh M, Lawson E, Husbands W, Wong J, Arku G, Luginaah I. "I went in there, had a bit of an issue with those folks": everyday challenges of heterosexual African, Caribbean and black (ACB) men in accessing HIV/AIDS services in London, Ontario. *BMC Public Health.* 2021 Feb 8;21(1):315.
- ▶ Adimora AA, Schoenbach VJ. Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. *J Infect Dis.* 2005 Feb 1;191 Suppl 1:S115-22.
- ▶ Whitfield DL. Does internalized racism matter in HIV risk? Correlates of biomedical HIV prevention interventions among Black men who have sex with men in the United States. *AIDS Care.* 2020 Sep;32(9):1116-1124.

#### *Poverty and housing instability:*

- ▶ Brawner BM, Kerr J, Castle BF, Bannon JA, Bonett S, Stevens R, James R, Bowleg L. A Systematic Review of Neighborhood-Level Influences on HIV Vulnerability. *AIDS Behav.* 2021 Sep 3:1-61.
- ▶ German D, Latkin CA. Social stability and HIV risk behavior: evaluating the role of accumulated vulnerability. *AIDS Behav.* 2012 Jan;16(1):168-78. doi: 10.1007/s10461-011-9882-5.
- ▶ Dickson-Gomez J, McAuliffe T, Quinn K. The Effects of Housing Status, Stability and the Social Contexts of Housing on Drug and Sexual Risk Behaviors. *AIDS Behav.* 2017 Jul;21(7):2079-2092.
- ▶ Arum C, Fraser H, Artenie AA, et al. Homelessness, unstable housing, and risk of HIV and hepatitis C virus acquisition among people who inject drugs: a systematic review and meta-analysis. *Lancet Public Health.* 2021 May;6(5):e309-e323.
- ▶ OHTN. HIV pre-exposure prophylaxis (PrEP) in Ontario, 2020, Sept 20, 2021. <http://www.ohesi.ca/hiv-pre-exposure-prophylaxis-prep-in-ontario-2020/> (for impact of income on PrEP use.)

#### *Experiences of partner violence:*

- ▶ Buller AM, Devries KM, Howard LM, Bacchus LJ. Associations between intimate partner violence and health among men who have sex with men: a systematic review and meta-analysis. *PLoS Med.* 2014 Mar 4;11(3):e1001609.
- ▶ Siemieniuk RA, Krentz HB, Gill MJ. Intimate partner violence and HIV: a review. *Curr HIV/AIDS Rep.* 2013 Dec;10(4):380.
- ▶ Phillips DY, Walsh B, Bullion JW, Reid PV, Bacon K, Okoro N. The intersection of intimate partner violence and HIV in U.S. women: a review. *J Assoc Nurses AIDS Care.* 2014 Jan-Feb;25(1 Suppl):S36-49.
- ▶ Hoff CC, Campbell CK, Chakravarty D, Darbes LA. Relationship-Based Predictors of Sexual Risk for HIV Among MSM Couples: A Systematic Review of the Literature. *AIDS Behav.* 2016 Dec;20(12):2873-2892.
- ▶ Campbell AN, Tross S, Hu MC, Pavlicova M, Nunes EV. Predictors of relationship power among drug-involved women. *AIDS Behav.* 2012 Aug;16(6):1532-41.
- ▶ Harvey SM, Bird ST. What makes women feel powerful? An exploratory study of relationship power and sexual decision-making with African Americans at risk for HIV/STDs. *Women Health.* 2004;39(3):1-18.

## **IV. IDENTIFY PEOPLE IN SPECIFIC CARE SITUATIONS WHO WOULD BENEFIT FROM HIV TESTING**

[Ontario Expert Obstetrical and Pediatric Group in HIV Care. Guidelines for the Prevention of Mother-to-Child HIV Transmission. Information and Practice Guidance for Health Practitioners in Ontario: Working with HIV-infected Women with Inadequate Control of HIV, and Women with Unknown HIV Status who Present in Labor. January 20, 2017](#)





# APPENDIX A: SUMMARY OF EVIDENCE SUPPORTING OFFER OF HIV TESTING RELATED TO TRAVEL

The risk of exposure to HIV during travel is related to three key factors: HIV prevalence in the jurisdiction or population where a person is traveling, the increase in sexual and drug using risk activities that may be part of the travel experience, and rates of viral suppression.

- ▶ HIV prevalence is much higher in other parts of the world than it is in Ontario, particularly Africa and Asia (see [2019 stats from Avert](#)).
- ▶ HIV prevalence is also much higher in populations of gay, bisexual and other men who have sex with men (gbMSM) in many major US and European cities – as are rates of sexualized drug use, which is a significant driver of new HIV infections in this population.
- ▶ Suppression of HIV is also lower in many jurisdictions than it is in Ontario. For example: 73% of people living with HIV in Africa are on ART ([UNAIDS 2020 data](#)) compared to 85% in Ontario ([OHESI 2020 cascade report](#)).

## Evidence of Increased Risk Related to Travel

A 2018 systematic review of 26 studies (Crawford G et al. [HIV, Other Blood-Borne Viruses and Sexually Transmitted Infections amongst Expatriates and Travellers to Low- and Middle-Income Countries: A Systematic Review](#). Int J Environ Res Public Health. 2016 Dec 16;13(12):1249.) showed that the acquisition of HIV or other STIs was associated with:

- ▶ Travel to a low-income region
- ▶ Travel to a region perceived to be less repressive
- ▶ Longer duration of stay
- ▶ Single relationship status
- ▶ Travel for romance or sex
- ▶ Alcohol or other drug use
- ▶ Not receiving pretravel advice
- ▶ Being male, having a higher number of sexual partners or inconsistent condom use.

A 2015 [Summary Statement on International Travellers Who Intend to Visit Friends and Relatives in the Canadian Communicable Disease Report](#) noted increased risks of STIs for immigrants who are ethnically distinct from the Canadian population returning to a home country.

The qualitative mSAFARI study done in Ontario noted high-risk exposures and new infections associated with travel to home countries, although this work has not been published.

A 2013 study using the GeoSentinel surveillance database showed an increased risk of STIs with “significant [travel] associations” including those travelling to visit friends or relatives. This study was not HIV exclusive, but HIV was the most common condition seen in men after travel, and the second most common in women. (Matteelli A et al. [Travel-associated sexually transmitted infections](#). Lancet Infect Dis. 2013 Mar;13(3):205. [Abstract only. OHTN can provide paper on request.]])

A 2017 review of global travel and the impact on gbMSM notes that members of this population: “may be more likely to engage in higher-risk sexual and drug use behaviours for HIV and STIs –including condomless anal intercourse (CAI) with HIV status unknown or serodiscordant sexual partners, concurrent multiple sex partners, or engaging in alcohol and substance use in combination with sexual intercourse – while travelling” and less likely to discuss HIV status with potential partners. The authors also observed that men are more likely to use apps to find partners while traveling, which is also associated with higher risk behaviour. (Lee VC, et al. [Global travel and HIV/STI epidemics among MSM: what does the future hold?](#) Sex Health. 2017 Feb;14(1):51-58. [Abstract only. OHTN can provide paper on request.])

Studies from high-income European countries such as Sweden and Belgium report that gbMSM are more-likely to participate in unprotected anal intercourse and sexualized drug use when traveling to neighbouring countries, particularly if they live outside a large urban centre (Vanden Berghe W et al. [International mobility, sexual behaviour and HIV-related characteristics of men who have sex with men residing in Belgium](#). BMC Public Health. 2013 Oct 18;13:968.), and to amplify their risk behaviours while abroad. (Dennermalm N et al. [You can smell the freedom: a qualitative study on perceptions and experiences of sex among Swedish men who have sex with men in Berlin](#). BMJ Open. 2019 Jun 14;9(6):e024459.)

A recent study of young gay men in New York City using GPS showed that greater mobility was associated with greater sexual risk taking even within the city. (Kim B et al. [Associations of spatial mobility with sexual risk behaviors among young men who have sex with men in New York City](#). Soc Sci Med. 2020 Aug;258:113060.)