

# Can we eliminate HIV?

## Case scenario

You were discussing a recent conference with a friend over coffee. “So, what was one of the take-aways for you?” your friend asked.

“One is to get more involved in HIV care,” you replied. “I heard about a global effort to actually eliminate HIV. What a thought!”

“What would that mean for you?” your friend asked.

“Well, it could mean a range of things. One speaker promoted the idea of doing more HIV screening and testing. Another encouraged family physicians to take on basic HIV treatment. Another suggested we start educating at-risk patients about a new preexposure prophylaxis treatment. Some provinces now include it on their formularies. One could do any or all of these things.”

“Lots to consider,” remarked your friend.

## Evidence

In 2014, the Joint United Nations Programme on HIV/AIDS launched targets for an HIV elimination strategy for 2020 known as 90-90-90: to diagnose 90% of those who have HIV, to have 90% of those diagnosed receive treatment, and to have 90% of those treated obtain full viral suppression.<sup>1</sup> Early results have shown good progress globally.

Surprisingly, Canada has not yet reached the first 90%. The Public Health Agency of Canada has estimated that slightly less than 80% of people living with HIV in Canada are diagnosed and 30% to 50% of new cases are transmitted by those who are unaware they have the disease.<sup>2</sup> And although over the past few years Canadian HIV infection rates have been relatively low and stable, in 2016 the rate increased to 6.4 newly diagnosed cases per 100 000 population compared with 5.8 per 100 000 population in 2015.<sup>3</sup>

The good news is that treatments are effective and prophylactic treatment is available. Early diagnosis and treatment means that people who have positive results for HIV can live long, healthy, and active lives. Preexposure prophylaxis is increasingly used as a therapeutic option, especially now that some provinces have

included it on their formularies.<sup>4</sup> This is a combination therapy that is indicated continuously in persons with negative results for HIV when there is an ongoing risk of HIV exposure. There is evidence that preexposure prophylaxis, along with safer sex practices, leads to a substantial reduction in new infections, especially among men who have sex with men.<sup>5</sup>

To reach that first 90% in Canada, screening and testing is critical. The Public Health Agency of Canada recommends that screening for HIV be integrated into periodic routine medical care.<sup>6</sup> It also recommends simplifying risk assessment to reduce discomfort and stigma and increase acceptance of testing. A comprehensive HIV behavioural risk assessment is not required before offering an HIV test. All that is indicated is for the patient to understand how HIV is transmitted, the advantages and disadvantages of testing, and how to interpret the test results. Screening and testing for HIV is a 2-step process. Begin with a serologic screening test. If the result is positive or equivocal, confirmatory testing is needed. If the confirmatory testing result is positive, the person needs support and then treatment or referral. **Box 1** provides more details on screening and testing for HIV.<sup>6</sup>

### Box 1. Summary checklist of HIV screening and testing recommendations

#### Pre-screening checklist

Before screening, perform the following:

- Communicate the benefits of testing (eg, the comfort of knowing one's negative HIV status, the benefits of an early diagnosis and treatment)
- Explain the window period and that follow-up testing might be required
- Encourage patients to discuss the benefits of HIV testing with their current partners
- Discuss the steps that need to be taken to avoid acquisition or transmission of HIV and other sexually transmissible and blood-borne infections until the completion of all testing
- Identify how privacy or anonymity will be maintained
- Explain that in the event of a positive test result, the result will be shared with public health professionals who can assist with partner notification and protect the patient's anonymity and privacy
- Note the benefits of disclosing their HIV status to current and future partners
- Identify the patient's posttest support needs
- Advise patients that they have the right to decline the test
- Obtain verbal consent for the test

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### Post-screening checklist

After screening, perform the following:

- If the serologic screening test result is negative, and if this was done while the patient was in the window period, retest at 3 weeks and 3 months after the most recent at-risk behaviour. Counsel the patient to continue risk-reduction practices until all testing is complete. If no risk behaviour was present in the 3 months before the first test, a negative result is conclusive
- If the serologic test result is indeterminate or positive, order a confirmatory test. Counsel the patient to continue risk reduction practices until all testing is complete

### Posttesting checklist

After confirmatory testing, perform the following:

- If the confirmatory test result is negative, follow the retesting procedures above
- If the confirmatory test result is indeterminate, obtain follow-up specimens with complete clinical and risk information and, if necessary, order reference testing
- If the confirmatory test result is positive, provide support and treatment to the patient:
  - Prepare information and referral options in advance and ensure the privacy and confidentiality of the patient is protected
  - Provide the patient with sufficient time to absorb the results, discuss the effect of a positive test result, and ask questions
  - Focus on positive messages by highlighting advances in HIV care, treatment, and support
  - Identify that HIV is now considered a chronic illness, and with the right treatment and support, people living with HIV can live long, active, and healthy lives
  - Advise patients about strategies for managing HIV and link them to treatment specialists
  - Recommend the patient be tested for other sexually transmitted infections, hepatitis B and C infection, and tuberculosis
  - Provide risk reduction information to prevent transmission of the virus or refer the patient to risk-reduction services
  - Offer the patient referrals to specialized counseling services as needed to manage his or her health and wellness
  - Discuss disclosure of the result. Reinforce the benefits of disclosing one's HIV status to current and future partners, then work with the patient to develop a partner notification strategy (when and how this might happen, and with whom), noting that local public health nurses can assist with partner notification to maintain anonymity
  - Schedule a follow-up appointment

Adapted from the Public Health Agency of Canada.<sup>6</sup>

## Bottom line

It is possible to eliminate HIV. Family physicians do preventive screening and manage all sorts of chronic conditions. Why not start doing this for HIV? Family physicians are well placed to incorporate HIV screening and testing into periodic routine medical care to assist those who have this infection to get a diagnosis and start treatment. It might make the difference in HIV elimination in Canada. 🌿

### References

1. Joint United Nations Programme on HIV/AIDS. 90-90-90. *An ambitious treatment target to help end the AIDS epidemic*. Geneva, Switz: Joint United Nations Programme on HIV/AIDS; 2014. Available from: [www.unaids.org/en/resources/documents/2017/90-90-90](http://www.unaids.org/en/resources/documents/2017/90-90-90). Accessed 2017 Dec 1.
2. Public Health Agency of Canada. *Summary: estimates of HIV incidence, prevalence and proportion undiagnosed in Canada, 2014*. Ottawa, ON: Public Health Agency of

Canada; 2015. Available from: [www.canada.ca/en/public-health/services/publications/diseases-conditions/summary-estimates-hiv-incidence-prevalence-proportion-undiagnosed-canada-2014.html](http://www.canada.ca/en/public-health/services/publications/diseases-conditions/summary-estimates-hiv-incidence-prevalence-proportion-undiagnosed-canada-2014.html). Accessed 2017 Dec 1.

3. Bourgeois AC, Edmunds M, Awan A, Jonah L, Varsaneux O, Siu W. HIV in Canada—surveillance report, 2016. *Can Commun Dis Rep* 2017;43(12):248-55.
4. Hull M, Tan DHS. Setting the stage for expanding HIV pre-exposure prophylaxis use in Canada. *Can Commun Dis Rep* 2017;43(12):271-7.
5. Brown AE, Mohammed H, Ogaz D, Kirwan PD, Yung M, Nash SG, et al. Fall in new HIV diagnoses among men who have sex with men (MSM) at selected London sexual health clinics since early 2015: testing or treatment or pre-exposure prophylaxis (PrEP)? *Euro Surveill* 2017;22(25):pii:30553.
6. Public Health Agency of Canada. *Human immunodeficiency virus: HIV screening and testing guide*. Ottawa, ON: Public Health Agency of Canada; 2013. Available from: [www.catie.ca/sites/default/files/EN\\_HIV-Screening-Guide-2013.pdf](http://www.catie.ca/sites/default/files/EN_HIV-Screening-Guide-2013.pdf). Accessed 2017 Dec 1.

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CCDR Highlights summarize the latest evidence on infectious diseases from recent articles in the *Canada Communicable Disease Report*, a peer-reviewed online journal published by the Public Health Agency of Canada. This highlight was prepared by **Dr Patricia Huston**, a family physician, public health physician, and Editor-in-Chief of the *Canada Communicable Disease Report*.