

"I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Willing is not enough; we must do."

LEONARDO DA VINCI
(ARTIST AND SCIENTIST)

# The Context

Unlike other G7 countries, Canada is not seeing a reduction in the number of new people being diagnosed with HIV, notwithstanding significant investments over the past many years.

Recent data from the Public Health Agency of Canada (PHAC) indicate that in 2016 an estimated 2,165 people became infected with HIV in Canada. This is one new infection every four hours. Our numbers are almost 10% higher than in 2014.

Jurisdictions around the world have launched new, highly targeted initiatives to end HIV, including "Getting to Zero" and the UNAIDS strategy to end AIDS by 2030. Although Canada has endorsed the UNAIDS 90-90-90 target² (90% diagnosed, 90% of those on treatment and in care, and 90% of those who are suppressed), we lag behind others in reaching these targets. But with strategic interventions, we believe that in the next five years we can "bend the curve" and end the HIV epidemic in Canada. New cases of HIV will become rare events.

# How is Canada Doing?

It is estimated that there are 63,110 people living with HIV in Canada,¹ but only 86% of those are diagnosed (1st 90 target) – this represents 9,090 individuals who have undiagnosed HIV infection across the country who are not connected to our health care system. While many G7 countries are seeing progressive declines in the numbers of those undiagnosed – we are not in Canada.

For those people diagnosed with HIV, 81% are now on antiretroviral treatment (2<sup>nd</sup> 90 target), and of those, 91% have suppressed viral load (3<sup>rd</sup> 90 target).

While we have reached one of three key UNAIDS targets, we cannot lose sight that there are 23,150 people who are still falling through the cracks along the cascade (see chart on right)<sup>1</sup>. All of these people are not benefitting from appropriate prevention, treatment and ongoing care and supportive services to support their own health. And we can prevent the further transmission of HIV if our public health, community-based and health care systems can support these individuals to get tested, diagnosed, be on treatment and achieve viral suppression.

We have to change our approach.

In contrast to most other developed countries, we do not have the leadership in place or a national coordinated approach that is needed. But with targeted and pragmatic interventions for testing, reaching those who are undiagnosed, and supporting more people to manage and adhere to treatment, and achieve viral suppression, we can achieve (and exceed) Canada's UNAIDS commitment to all three of the 90-90-90 targets – and Canada can effectively end its HIV epidemic in the next five years.



Who Are the 23,150 People We're Missing?



People living with HIV in Canada who remain undiagnosed



10,340

People diagnosed who are not on treatment



3,720

People diagnosed and on treatment who have not achieved viral suppression

23,150

# Who We Are

The authors of this paper are a group of doctors and scientists, leaders from prominent HIV/AIDS organizations and public health, and people with lived experience from across the country – with support from the Canadian Foundation for AIDS Research (CANFAR) – who came together over the past year to determine the role of the research community in addressing the continued HIV epidemic in Canada, and how we need to connect with grassroots HIV/AIDS community efforts, federal and provincial initiatives underway, as well as mobilize other sectors and stakeholders, to end the HIV epidemic in Canada.

# What We Know

What became clear through our meetings and discussions is how much we already know from research, and that we have the knowledge and tools now to end the HIV epidemic in Canada.

- We know point-of-care testing, as well as widely accessible and affordable self-testing options, can dramatically increase rates of HIV testing and significantly reduce numbers of those undiagnosed with HIV and those not in care;
- We know that antiretroviral-based prevention such as PrEP (pre-exposure prophylaxis) and PEP (post-exposure prophylaxis) can dramatically reduce the chance of HIV infection for those at high risk, or for those who have had high-risk exposure to HIV;
- We know those living with HIV who correctly and consistently adhere to antiretroviral treatment for at least six months, maintaining undetectable levels of the virus in their blood, cannot sexually transmit HIV (U=U; undetectable = uninfectious and untransmittable);
- We know that efforts to help people living with HIV to be linked, supported and retained in care work and are essential for optimal health and wellbeing;
- We know from work outside of Canada that if we dramatically scale up testing options, prevention, and access to and support for treatment across Canada, we can jump-start efforts to get to where new infections are rare, and effectively end the HIV epidemic in Canada within the next five years.

# The Vision

# Canada Ends the HIV Epidemic in Five Years

To end the HIV epidemic in Canada, we need to sharpen our focus and efforts, set goals and targets with metrics to measure our progress and success, and implement and scale-up coordinated solutions.

To get there, we need a leadership group that will galvanize all key stakeholders across Canada — including people living with and affected by HIV, provincial and federal government policy-makers, scientists and funders for HIV research, and frontline providers (community-based agencies, health care providers and public health) — to commit to the following goals, and then implement the action strategy to reach them.

# **Goal I - Increase Prevention**

# Within Five Years, Dramatically Reduce New HIV Infections from > 2,100 to < 500 per annum

This would be a major step in ending the HIV epidemic in Canada, where new cases would be rare events.

## The Challenges

Certain populations continue to have unacceptably high incidence rates of HIV (and many of these populations intersect with one another, or can have multiple factors of risk).

It is concerning that Indigenous people have incidence rates four times higher than non-Indigenous people; black people of African and Caribbean background living in Canada have incidence rates six times higher than non-black people; men who have sex with men have rates 131 times higher than other men; and people who inject drugs have rates 59 times higher than people who do not inject drugs.<sup>3</sup> We know that we need more testing and prevention efforts, and we need to eliminate the structural barriers that prevent access to the information, tools and supports people need to manage their sexual health.

Despite great advances in testing technology, including the development of highly reliable self-testing options, the rates of HIV testing have not changed appreciably for all priority populations in recent years. We do not have point-of-care testing widely accessible throughout Canada, nor is self-testing yet available.

Our prevention messages and strategies have not kept pace with new scientific evidence (e.g. PrEP, PEP, TasP, U=U) and they do not reach all of those who are at risk, or the general public. Compared to other countries, Canada has not made it easy for people at "high risk" for HIV to access PrEP and PEP.

#### The Solutions

- 1. Engage affected communities and the general public about new prevention science and technologies everyone should know enough about HIV to keep them from acquiring the virus;
- Increase health promotion messages and campaigns to promote TasP and U=U, and empower people living with HIV to play a major lead role in these prevention efforts;
- 3. Implement and scale-up evidence-based combination prevention efforts (including PrEP and PEP) that support sexual health and well being, and that are tailored to support different priority populations' needs and risks;
- 4. Increase access to harm reduction supplies and services including condoms and sterile drug use equipment;
- 5. Address structural barriers to health and wellness, such as poverty, unstable housing, mental health and addiction issues, and racism, as well as other forms of discrimination, that can put people at risk of acquiring HIV.

#### **Definitions**

#### **PrEP**

## (Pre-Exposure Prophylaxis)

Involves an oral pill of antiretroviral medications that, when used correctly (consistently or on demand) by someone who is HIV-negative, works as a highly effective strategy for reducing the possibility of HIV transmission.

#### **PEP**

#### (Post-Exposure Prophylaxis)

Involves starting a 28-day regime of oral pills within 72 hours of potential exposure to HIV, to prevent HIV from taking root and spreading throughout the body.

#### TasP

#### (Treatment as Prevention)

Refers to the use of antiretroviral medications, specifically their ability to achieve and maintain an undetectable viral load, as a transmission prevention method.

#### U=U

Undetectable = uninfectious and untransmittable.



# **Goal II - Increase Testing**

Within Five Years, Increase the Proportion of People Living with HIV Who Are Diagnosed to > 95%

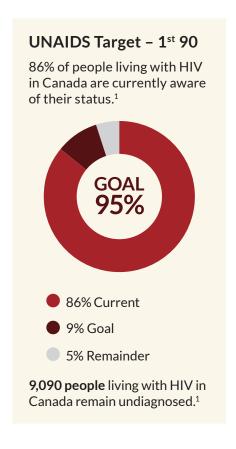
## The Challenges

Over 9,000 people in Canada do not know they are infected with HIV, representing 14% of the people in Canada living with HIV.1

To reach or exceed the UNAIDS target of 90% of people living with HIV diagnosed, we feel we must dramatically expand our testing efforts to reach as early as possible those who are infected, and reduce number of undiagnosed to less than 5%. Currently, there are few local, regional or national campaigns to raise awareness about HIV risk, or the significant health benefits of testing and antiretroviral treatment for care and for prevention.

#### The Solutions

- 1. Increase awareness and use of culturally appropriate social media and other promotional technologies and campaigns to increase access to (and benefits of) HIV testing;
- 2. Increase availability and access to HIV point-of-care testing in health centres, community-based agencies, health-care settings and pharmacies - where people live and can access these to support their sexual health and well being;
- 3. Provide wide spread and easy access to affordable and accurate self-testing options in pharmacies and community-based settings, and ensure subsidies are in place where financial resources are a barrier for access:
- 4. Work with public health officials, front-line providers and priority populations to expand client-centred HIV testing options and approaches that are innovative, pragmatic and evidence-based, and which includes peer-led support programs where appropriate;
- 5. Work with public health officials and leaders from priority populations to establish appropriate, evidence-based targets for testing frequency that are responsive to individual need and sexual risk:
- 6. Implement evidence-based, culturally safe and equity-informed interventions to quickly link those who are newly diagnosed to care.



# Goal III - Improve Health Outcomes for > 63,000 People Living with HIV in Canada

Within Five Years, Ensure that Over 95% of People who Know their Status are on Treatment, and of those on Treatment, 95% Have their Virus Suppressed

## The Challenges

There are 10,340 people living with HIV who are diagnosed and are not yet on treatment.

While some provincial health systems are doing well at engaging and supporting people to use antiretroviral treatment, to stay in care, and achieve viral suppression, far too many people are still being diagnosed too late – and being diagnosed late has a serious effect on the individual's health, and importantly, can put other partners at risk for acquiring HIV.

There are 3,720 people diagnosed and on treatment but not virally suppressed. And, not all of the health benefits are shared equally across all populations because of health inequities and access to care.

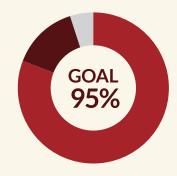
#### The Solutions

Ongoing treatment is highly effective at reducing viral load. The goal of treatment is to suppress viral load, to the point where it is undetectable in blood. That outcome is better for a person's health; it also means the person cannot transmit the virus sexually to others if they have been undetectable for six months. However, not all people with HIV who are on treatment will be able to achieve an undetectable viral load, though many can with the appropriate supports.

To support people with HIV to be engaged and retained in care, and virally suppressed, we need to:

- 1. Implement evidence-based treatment guidelines to encourage people with HIV to get connected into care and initiate treatment early after diagnosis;
- 2. Implement evidence-based strategies to help > 95% of people with HIV across all priority populations to adhere to treatment where necessary (e.g., through use of technology, reminder systems);
- 3. Ensure people living with HIV have access to the medications and other supports needed to achieve and maintain a suppressed viral load throughout their lifetime;
- 4. Implement evidence-based strategies to engage and retain in care at least 95% of all people diagnosed with HIV across all priority populations;
- 5. Increase health promotion messages and campaigns to promote TasP and U=U which support broader prevention efforts;
- 6. Evaluate evidence on the barriers that keep many people with HIV from staying in care and not being able to achieve an undetectable viral load (e.g., cost of treatment, unstable housing, food insecurity, access to skilled providers, geography, mental health/addiction issues) and develop and test evidence-based strategies to overcome those barriers and connect/re-connect people to care (e.g. using health navigators and peer counsellors).

# UNAIDS Target - 2<sup>nd</sup> 90



#### 81% On Treatment

Percentage of people in Canada diagnosed with HIV who are currently on treatment.<sup>1</sup>

- 81% Current
- 14% Goal
- 5% Remainder

**10,340 people** are diagnosed but are not on treatment.<sup>1</sup>

# UNAIDS Target - 3rd 90



#### 91% Suppressed Virus

Percentage of people in Canada on HIV treatment who have suppressed virus.<sup>1</sup>

- 91% Current
- 4% Goal
- 5% Remainder

**3,720 people** are diagnosed and on treatment but have not achieved viral suppression.<sup>1</sup>

# Goal IV - Stamp Out HIV Stigma

Within Five Years, Stop HIV Stigma and Significantly Reduce **HIV-Related Health Inequities** 

HIV continues to be a very stigmatized disease.

## The Challenges

The stigma associated with HIV affects people's willingness to be tested and seek/engage in care, their sense of self, community and belonging, their access to services and ability to seek social support. It also affects public policy and support for HIV prevention initiatives, particularly harm reduction services.4

#### The Solutions

- 1. Maintain an ongoing commitment to the meaningful participation and engagement of people living with and affected by HIV. Reducing stigma and interrupting systemic health inequities will not be possible without ensuring the autonomy and self-determination of the individuals and communities most impacted by HIV;
- 2. Identify population-specific health inequities and implement strategies that are grounded in a social justice and human rights approach to significantly reduce them and ensure health equity across all populations affected by HIV in Canada;
- 3. Significantly reduce/eliminate stigma and discrimination associated with HIV by increasing efforts to develop, test, implement and evaluate structural interventions and social marketing campaigns across Canada.

## HIV Stigma Campaign

#### **Casey House**

June's Eatery, an HIV+ popup restaurant, is a campaign by Casey House to fight HIV/ AIDS stigma. According to a Casey House survey, only half of Canadians would knowingly share food with, or eat food prepared by, someone who is HIV-positive. The eatery was open in November 2017, made up of a team of 14 HIV-positive individuals-turned-cooks.5





# **Achieving These Goals the Right Way**

#### We Have the Tools to Achieve Our Goals But We Must Ensure that:

- 1. People living with and affected by HIV are at the centre of these efforts. They have unique perspectives that are crucial to the leaderships of these efforts and its success.
- 2. This work is grounded in social justice and health equity. Social justice and self-determination are pathways to better health and wellness among Indigenous peoples, racialized communities and other marginalized groups who have endured significant systemic barriers, institutional racism and discrimination, and poor access to health care. As we work together, we must promote equity for all.
- 3. Practitioners and community stakeholders are supported to access the evidence base they need (including up-to-date, digestible epidemiological data) to strengthen prevention, care and treatment.
- 4. Respectful relationships and partnerships are built and nurtured. No one person acting alone will be able to end the epidemic. We must work together, within and across sectors, to build meaningful, respectful and responsive partnerships.
- 5. We have the mechanisms to monitor and evaluate our efforts to reach our goals.

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#### Citations

<sup>1</sup>Public Health Agency of Canada. (Jul. 2018). Summary: Estimates of HIV incidence, prevalence and Canada's progress on meeting the 90-90-90 HIV targets, 2016. Government of Canada, Ottawa: ON. Retrieved from: https://www.canada.ca/en/public-health/services/publications/diseases-conditions/summary-estimates-hiv-incidence-prevalence-canadas-progress-90-90-90.html

<sup>2</sup>Public Health Agency of Canada. (Dec. 2016). Government of Canada announces progress and new investments to eliminate HIV/AIDS as a public health threat. Government of Canada, Ottawa: ON. Retrieved from: https://www.canada.ca/en/public-health/news/2016/12/government-canada-announces-progress-new-investments-eliminate-aids-public-health-threat.html

<sup>3</sup>Public Health Agency of Canada. (Nov. 2016). HIV in Canada: Surveillance Summary Tables 2014-2015. Government of Canada, 2016. Retrieved from: https://www.canada.ca/en/public-health/services/publications/diseases-conditions/hiv-in-canada-surveillance-summary-tables-2014-2015.html

<sup>4</sup>AVERT. (Apr. 2018). HIV Stigma and Discrimination. Retrieved from: https://www.avert.org/professionals/hiv-social-issues/stigma-discrimination

<sup>5</sup>Casey House. (Oct. 2017). *June's HIV+ Eatery*. Retrieved from: https://www.caseyhouse.com/junes-hiv-eatery/

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