TORONTO

TO ZERO

A CALL TO ACTION

TO END HIV IN OUR CITY

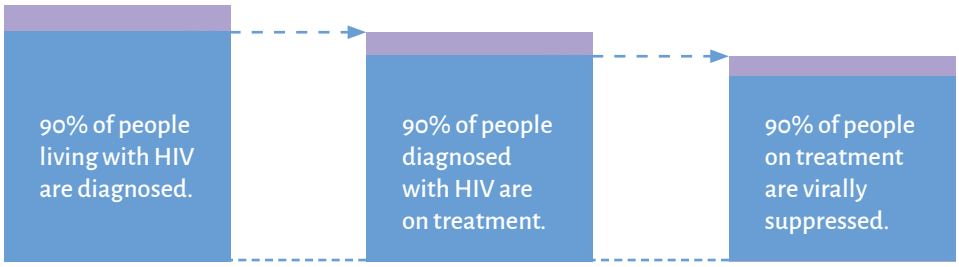
REIMAGINING TORONTO'S RESPONSE TO HIV

Worldwide, we have reached a tipping point in our struggle against HIV. We now have the knowledge and tools to stop the virus. We have drugs that can keep people from becoming infected. We have highly effective treatments for people living with HIV. We know that when people are on treatment and have a suppressed viral load, they cannot pass the virus to their sexual partners. We also have a better understanding of the social supports and health services that people with or at risk of HIV need to thrive and lead long healthy lives.

Toronto has always had a strong response to HIV. Now we have a unique opportunity to re-imagine that response. Given everything that we know, what can Toronto do differently? How can we make new HIV transmissions rare and ensure people with HIV will lead long healthy lives free from stigma and discrimination?

More than 250 cities around the world – including New York, London, San Francisco, Paris and Montreal – have launched comprehensive plans to end the HIV epidemic, and many have been able to dramatically reduce the number of new transmissions.

These fast-track cities have signed on to the UNAIDS 90-90-90 targets:



If cities across the world can meet these targets, we can drive HIV incidence and prevalence down, and eventually stop HIV. In fact, several cities including Amsterdam, London and Melbourne have already exceeded these targets. It's time for Toronto to step up and join their ranks.

To stop HIV, Toronto needs a focused and coordinated effort that builds on our existing network of services to stop the virus.

WHY TORONTO?

Toronto has always been the epicentre of HIV in Ontario. Torontonians account for 20% of Ontario's population but more than half of the people living with HIV in the province. Each year, more than half of all new Ontario HIV diagnoses are in Toronto.

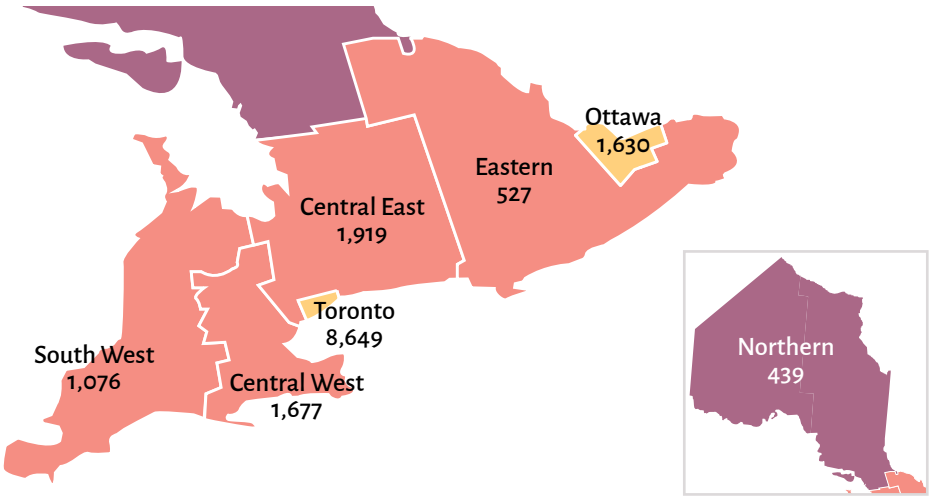


Figure 1: Number of people with diagnosed HIV living in the City of Toronto and Ontario Health Regions, 2015.1

Because Toronto is a commerce and entertainment hub, it is possible that many people diagnosed in other parts of Ontario are infected in Toronto, which has both the highest HIV prevalence and highest rate of new HIV infections in the province. Driving down transmissions in Toronto will reduce transmission rates in the city and across the province.

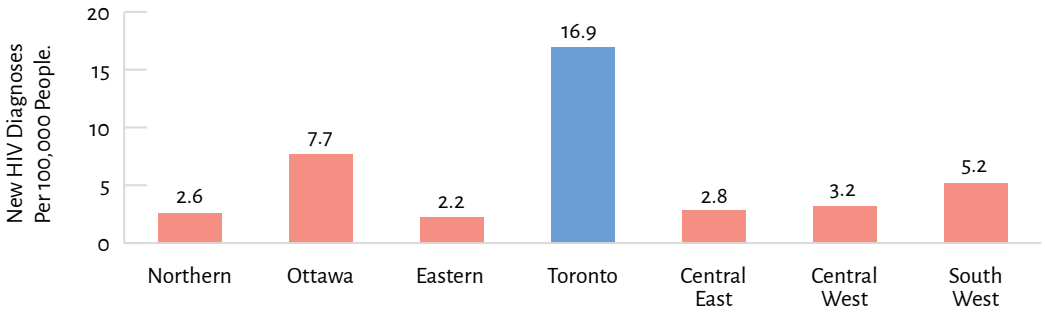


Figure 2: Rate of new HIV diagnoses for City of Toronto and Ontario Health Regions, 2017.2

In terms of the rate of new HIV diagnoses (i.e., the number of new diagnoses per 100,000 population), Toronto (16.9 in 2017) is lower than other major cities such as New York (29.2 in 2016) and San Francisco (40 in 2015). Our low infection rates show that our efforts to prevent HIV transmission have been working, but there is still much more to do.

WHERE DOES TORONTO RANK IN MEETING THE UNAIDS TARGETS?

The UNAIDS 90-90-90 targets help jurisdictions track the progress of HIV prevention and treatment programs at a population level. Toronto has made progress in getting people diagnosed, on treatment and virally suppressed, but has not yet met the targets.

As of the end of 2015: about 86% of people living with HIV had been diagnosed, 82% of those diagnosed were linked to care/on treatment and 95% of those in care were virally suppressed.

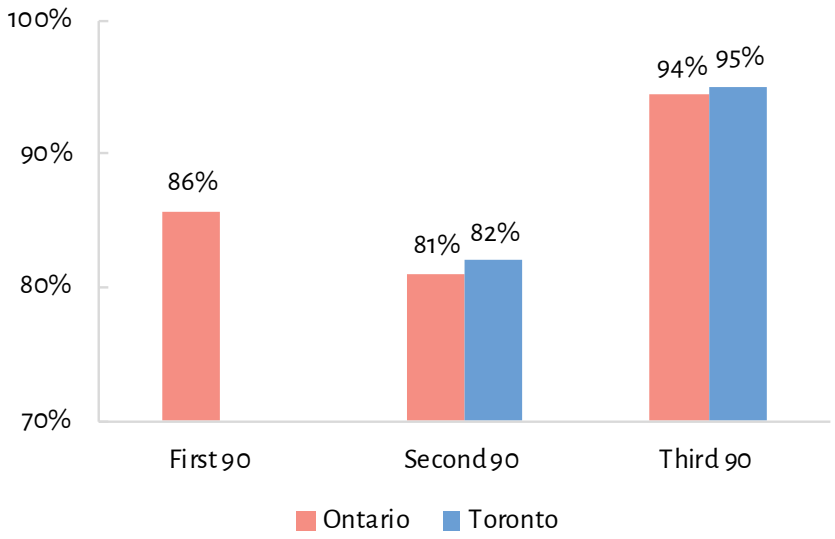


Figure 3: 90-90-90 Estimates for the City of Toronto and Ontario, 2015.3

Both Ontario's and Toronto's responses to HIV have kept rates of infection below that of other major global jurisdictions over the course of the epidemic. However, the steady decline that we saw in HIV diagnoses in Toronto between 2007 and 2013 has plateaued.

We continue to have more than one new HIV diagnosis a day in the city. Most of those infections occur in Toronto, but a substantial proportion are people infected outside Ontario who come to Toronto to live. We cannot prevent transmissions that occur outside Ontario, but we can ensure that everyone in Toronto who is living with HIV receives timely, high quality care.

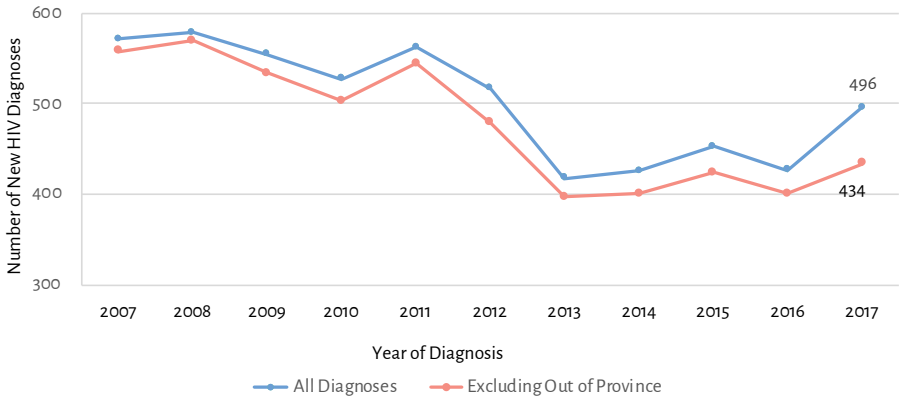
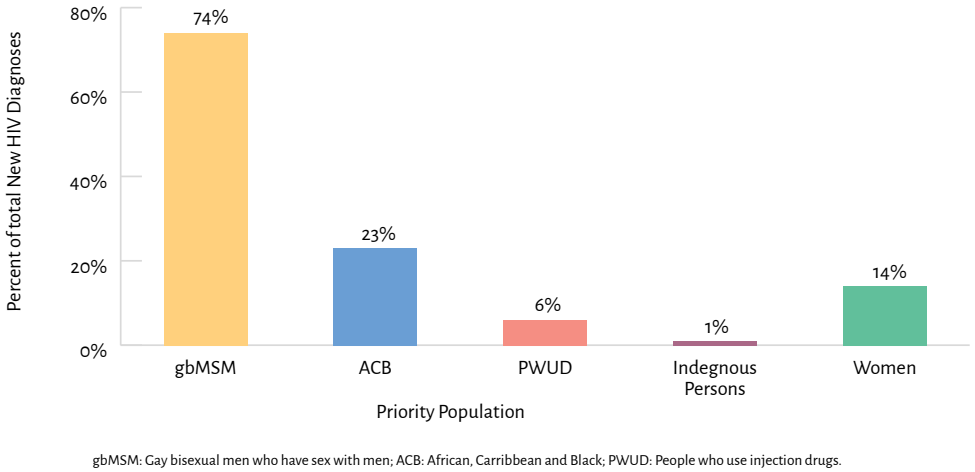


Figure 4: Number of new HIV diagnoses in the City of Toronto, 2007-2017.4

TIME FOR INNOVATION

Business as usual won't be enough to push Toronto's rates down further and it will not let us meet, let alone exceed, the 90-90-90 targets. Other global jurisdictions have introduced new programs and services that have led to dramatic drops in HIV rates. To reach our goals, we will need to focus our prevention efforts on the populations most at risk.



gbMSM: Gay bisexual men who have sex with men; ACB: African, Carribbean and Black; PWUD: People who use injection drugs.

Figure 5: New HIV diagnoses by priority population (excluding out of province) for the City of Toronto, 2015-2017.[5]

We will also have to ensure that all people living with HIV in Toronto, whether diagnosed here or outside of Ontario, receive timely and comprehensive care. To improve HIV treatment and prevention outcomes, we need new partnerships and approaches that treat the whole individual, break down any social or structural barriers to care, and address the social determinants that drive HIV infection and negative health outcomes.

LINKAGE TO CARE

Many policies, including the Ontario Clinical Care Guidelines (OCC), recommend that newly diagnosed HIV-positive patients get linked to care to initiate medical treatment and other related services as soon as possible. In fact, the OCC states that "within 2 weeks of receiving a positive HIV test result, newly diagnosed people should be seen by either an experienced HIV physician or other health care provider who will order the initial laboratory workup."[6]

Between 2011 and 2014, only one of every two people diagnosed with HIV in Toronto was linked to care within one month – although over 8 in 10 were linked within three months. There is an opportunity to reduce the time from diagnosis to care.

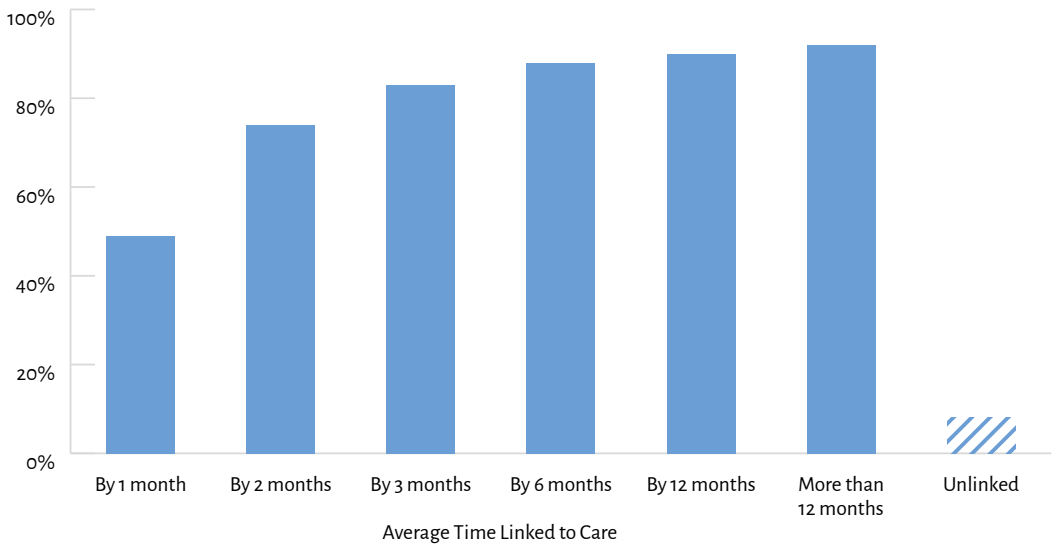


Figure 6: Percent of people with HIV linked to care by month following diagnosis, City of Toronto, 2011-2014.[7]

RAPID (Rapid ART Program Initiative for HIV Diagnoses) programs, which link people to care upon diagnosis, have been implemented in many cities in an effort to get people diagnosed with HIV on treatment immediately.[8] The scientific evidence reinforces the benefits of early treatment, both to enhance the person's health and to reduce HIV transmission.

HIV CARE CASCADE

The 90-90-90 targets are based on the HIV care cascade. They focus on how an individual moves through the care pathway from diagnosis to in care to on treatment and virally suppressed. Each 90 is a subset of the one that comes before, so having 90% of people on treatment virally suppressed actually means that only 72% of people living with HIV are virally suppressed.

By looking at the full HIV care cascade, we can estimate the number of individuals at each stage along the pathway. Almost all Torontonians diagnosed with HIV who are engaged in care and on antiretroviral therapy (ART) are virally suppressed. However, because almost one-fifth of people diagnosed with HIV are not in care or on ART, they are not able to achieve viral suppression. Rates of viral suppression are lower among particular populations.

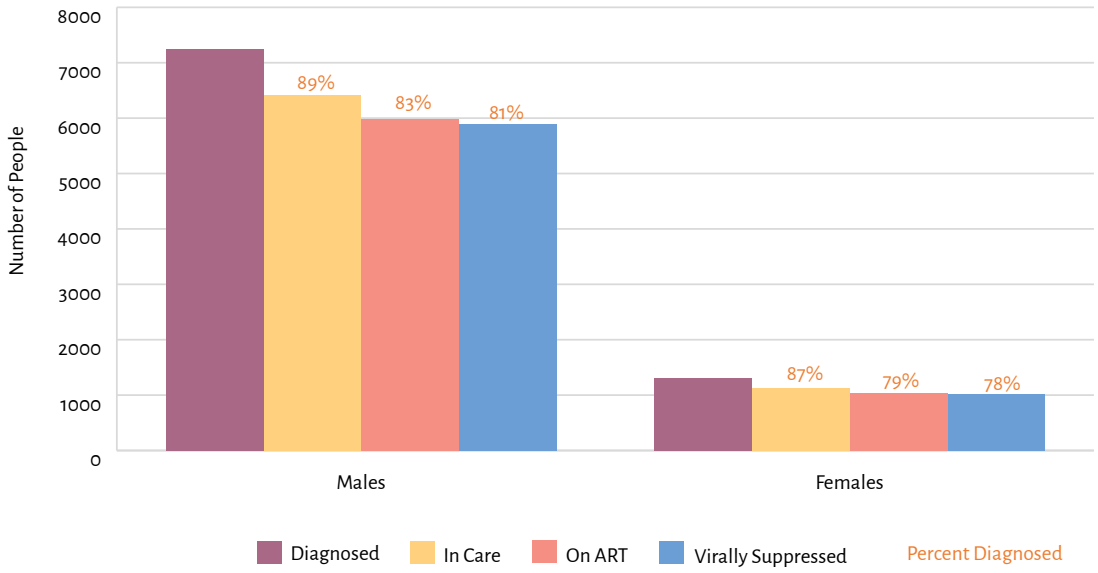


Figure 7: Number of people engaged in the Care Cascade by sex, Toronto 2015.

As Figure 7 illustrates, in 2015, of the more than 7,000 males diagnosed with HIV, 89% were in care, 83% were on treatment and 81% were virally suppressed. The numbers were slightly lower for females: of the just over 1,000 women diagnosed with HIV, 87% were in care, 79% were on treatment and 78% were virally suppressed.

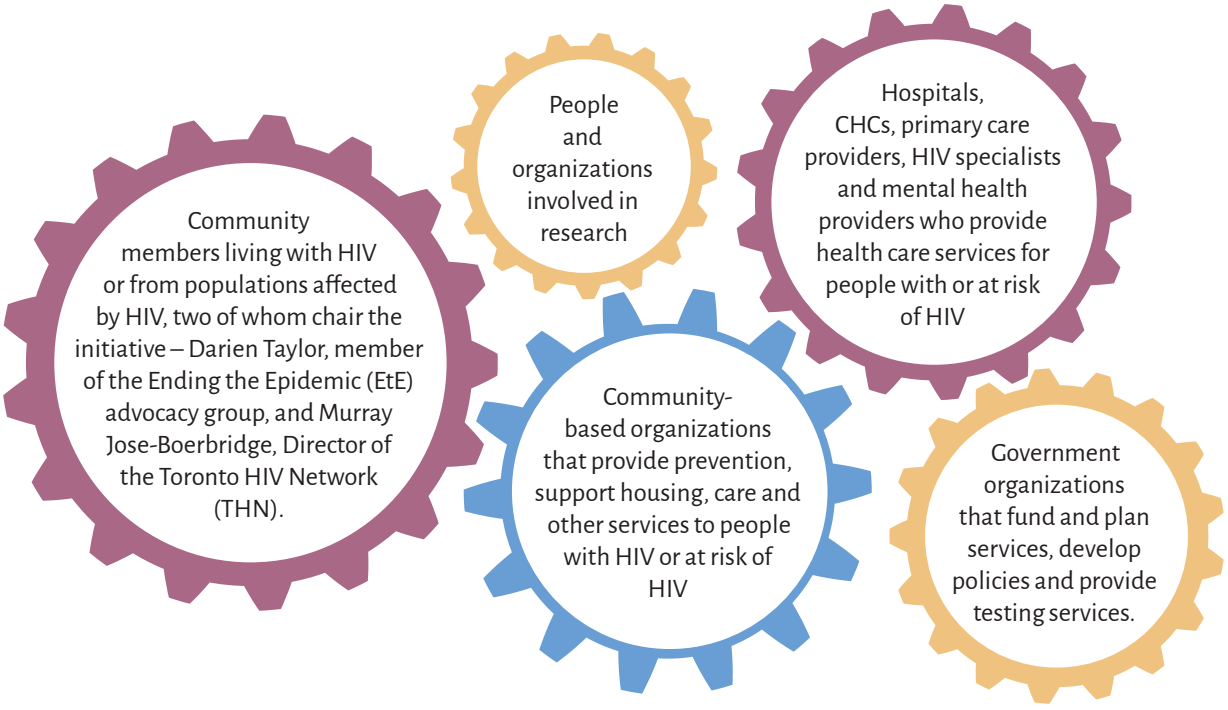
This reinforces the need to do more to get people diagnosed with HIV into care and on treatment quickly.

Toronto has done well but we can do much better. With leadership from communities most affected by HIV and our resources, Toronto should exceed the 90-90-90 targets and aim higher.

CHAMPIONING TORONTO TO ZERO

How can Toronto achieve and exceed the UNAIDS targets? Community members and organizations from across Toronto involved in HIV prevention, care and support have come together to champion Toronto to Zero.

We are a collaboration among government, the private sector, public health, community-based AIDS organizations, clinicians, researchers, people living with HIV and activists. Many of us already work together and we are energized by the opportunity to do more: to coordinate our efforts, be innovative and reach all populations affected by HIV.



Working together, we will get Toronto to zero.

Vision

An ambitious city-wide drive to make new HIV transmissions rare and help people with HIV lead long healthy lives, free from stigma and discrimination.

Objectives

Capitalizing on the UNAIDS Fast-Track Cities Initiative and leveraging Toronto's strong existing HIV program and services, by 2026 we will:

- Reduce by two-thirds -- from 434 to 145 -- the number of new HIV transmissions that occur in Toronto each year.
- Surpass the UNAIDS 90-90-90 targets and have 95% of people living with HIV diagnosed, 95% of those diagnosed on treatment and 97% of those on treatment virally suppressed.
- Ensure no one is left behind – all populations affected by HIV will share in the benefits of care and treatment.
- Establish a fourth 90: to improve the overall health, longevity and quality of life for people living with HIV.
- End HIV stigma and discrimination.

Our plan for ending the epidemic – which is based on research evidence, timely data and practical experience – will target five key areas along the HIV prevention, treatment and care cascade. We will consult with a broad range of organizations and stakeholders to identify the concrete steps we will take to:

1. **Drive Down New Transmissions that Occur in Toronto**

   To reduce new transmissions, we must optimize our use of highly effective prevention tools, particularly pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP). We will target populations and

people at high risk of HIV (see Figure 5). To increase access to PrEP, we will develop a broad network of health care providers who will routinely offer PrEP and other prevention services to people at risk. We will help people with HIV get and stay on treatment and achieve an undetectable viral load so the virus can't be transmitted to their sexual partners. We will also address the mental health and substance use issues that can increase risk.

2. **Launch Innovative, Accessible Testing Programs**

   To reach the 14% of people living with HIV in Ontario who have not yet been diagnosed, we will expand access to low-barrier HIV testing. We will explore new testing strategies, such as point-of-care testing in community settings, streamlined or "express" testing and at-home testing (self-testing). All testing services will do a better job of linking people who test positive to care and linking people at risk who test negative to appropriate HIV prevention services.

3. **Link and Retain People with HIV in Care**

   When people who test positive are linked quickly to care and treatment they can lead long lives in good health. They are also less likely to fall out of care. To help people stay in care, we will provide support during life transitions, such as youth making the transition to adult care, newcomers arriving in Ontario and prisoners leaving the correctional system. We will support people experiencing traumatic events like the death of a loved one or loss of a job. We will also help people with HIV cope with other issues that can interrupt care, such as mental health and addictions issues, housing instability and poverty.

4. Improve the Health and Well-being of People Living with HIV

When people with HIV receive comprehensive, culturally safe care for all their health needs, their health and quality of life improve. They can be fully engaged in family, work and social life. We will establish a 4th 90 target for Toronto: one that will help us measure progress in improving the overall health and well-being of people living with HIV.

5. Stop HIV Stigma

More than 30 years into the epidemic, HIV stigma still keeps people from being tested or engaging in care. To end HIV, we must stop the unnecessary fear and treat HIV like any other health issue. We will challenge policies and systems that create stigma, such as the criminalization of HIV nondisclosure. We will also make the public more aware of the progress that's been made in HIV prevention and care. Messages like Undetectable = Untransmittable can transform the way we talk about the virus and help stop stigma.

Endnotes

1. Using Public Health Ontario Laboratory data on HIV diagnostic and viral load tests, the Ontario HIV Surveillance Initiative (OHESI) estimated that there were 16,110 people living with HIV in Ontario in 2015 with 8,649 – or 56% -- residing in Toronto. http://www.ohesi.ca/documents/OHESI-HIV-by-PHU-2018-11.pdf

2. These data, compiled by OHESI, are based on the home address indicated on HIV diagnostic tests conducted at Public Health Ontario Laboratories.

3. To measure these targets, Toronto uses multiple data sources as well as mathematical modelling. The First 90 -- percent of people with HIV who have been diagnosed -- is estimated using mathematical modelling and is not currently available for Toronto; it is likely similar to the estimate for Ontario (provided by the Public Health Agency of Canada, 2015) so we will use that as a starting point to understand Toronto's 90-90-90 metrics. The Second and Third 90s are measured using the Public Health Ontario Laboratory Datamart, which links data gathered through diagnostic and viral load testing. Data are compiled and reported by OHESI.

4. New HIV diagnosis can be a proxy for new HIV infection, although it can be years between the time of infection and an eventual diagnosis. In Ontario, all new diagnoses are captured through a positive diagnostic test carried out by Public Health Ontario Laboratories. Using previous test history (when available), we are able to identify individuals who received a positive diagnostic test elsewhere before being tested in Ontario. The green line shows all new diagnoses and the orange line excludes those with evidence of a previous positive test outside of Ontario. Those with evidence of a previous positive may have been infected outside of Ontario. As we lack information on testing history, this graph likely overestimates the number of new diagnoses from local transmissions in Toronto. Between 2016 and 2017, Toronto saw a dramatic increase in the number of out-of-province diagnoses. Data are collected and analyzed by PHOL and reported by OHESI.

5. Priority populations were identified by the Ministry of Health and Long Term Care, as populations who experience a disproportionate risk of HIV infection and/or worse HIV outcomes. These groups can experience this risk due to behavioural risk factors and/or social determinants of health. Priority population groups are not mutually exclusive; therefore, an individual can be included in multiple categories based on their reported sex, risk factors, and/or race/ethnicity. Priority populations can only be determined when exposure category and/or race ethnicity are known, approximately 65% of new diagnoses. Data are collected and analyzed by PHOL through HIV diagnostic tests and requisition forms and reported by OHESI.

6. Ontario Clinical Care Guidelines, *Clinical Care Guidelines*, <http://occguidelines.com/guidelines/>.

7. Using linked HIV diagnostic and viral load test results conducted by Public Health Ontario Laboratories, we are able to estimate the time from HIV diagnosis to linkage to care, using viral load test requisition as a proxy for care.

8. Oliver Bacon 2016, *RAPID* ART Initiation in San Francisco,* The Ontario HIV Treatment Network, <http://www.ohtn.on.ca/wp-content/uploads/endgame/1/slides/Bacon-Rapid.pdf>.

9. As opposed to the 90-90-90 targets, the cascade measures each stage by the percent of people diagnosed with HIV. Here we present the counts of the estimated number of people at each step of the cascade in Toronto. Technical information describing the methods to create these estimates are described here (http://ohesi.ca/documents/HIV-care-cascade-age-sex-health-region.pdf). Information is presented for males and females only because we do not have adequate data to make estimates for trans individuals. In terms of the care cascade, men are doing slightly better than women (This suggests a comparison between the two bars on the extent of engagement in the cascade and could be misinterpreted as women doing far worse than men.). However, the majority of individuals who fall out of the cascade at each stage are men. Data is collected and analyzed by PHOL and reported by Ontario HIV Epidemiology and Surveillance Initiative.

Toronto To Zero

torontotozero.ca