2018

HIV Infection in Thunder Bay District

Situational Assessment

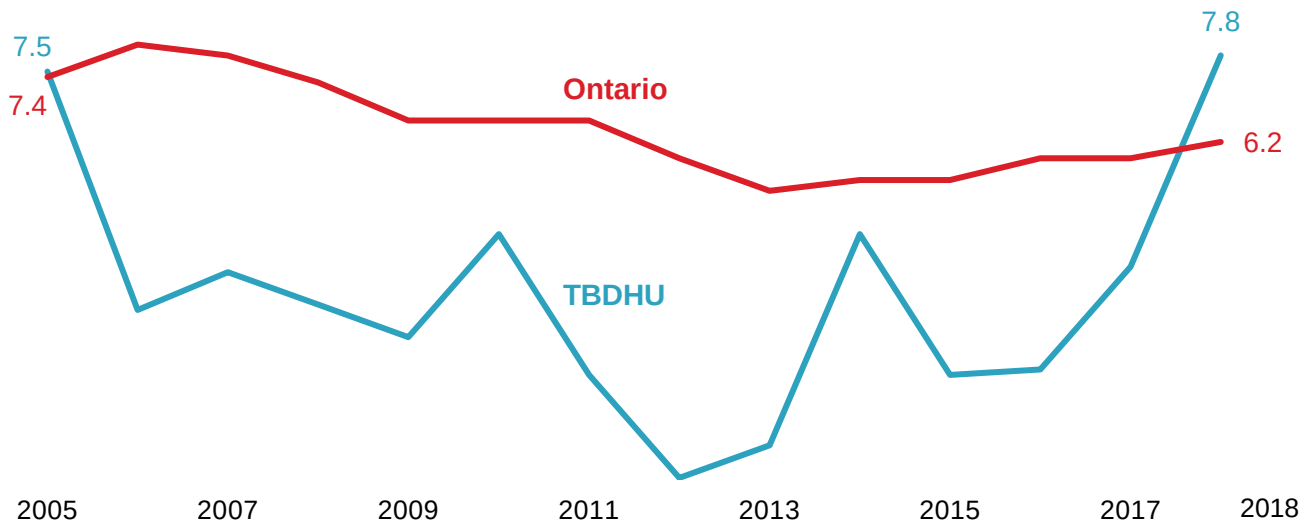
Thunder Bay District Health Unit

Addendum to HIV Infection in Thunder Bay District: Situational Assessment (2018)

Following the completion of the HIV Situational Assessment, there has been an increase in the rate of newly-reported HIV infections in Thunder Bay District. This increase is statistically significant – it is unlikely it occurred by chance alone. There was an increase in HIV testing in 2018; however, the increase in newly-reported HIV infections was not impacted by the increased number of tests administered.

In 2018, there were 12 newly-reported HIV infections in the Thunder Bay District Health Unit (TBDHU)[i]. The crude rate of newly-reported HIV infections in 2018 for the TBDHU was 7.8 per 100,000. This is the first time since 2005 that the crude rate of newly-reported HIV infections in the TBDHU has surpassed the crude rate of newly-reported HIV infections in Ontario.

Crude rate of new HIV infections (per 100,000 people)



Women accounted for 55% of newly-reported HIV infections in the TBDHU in 2018[ii]. Similar to previous years, most (66%) newly-reported HIV infections occurred in 25-44 year olds[iii].

The TBDHU is working to understand the increase in newly-reported HIV infections over 2018. The TBDHU will continue to work with community partners to manage the increase in newly-reported HIV infections in an effort to reduce the transmission of HIV.

Contents

Please use the following citation referencing this report:

The Thunder Bay District Health Unit. (2018). HIV Infection in Thunder Bay District: Situational Assessment. Thunder Bay (ON): Thunder Bay District Health Unit.

If you have questions regarding the content within this report, please contact:

Tanelle Rabachuk, Manager of Sexual Health and Harm Reduction at the TBDHU
(807)-625-5900 or Tanelle.Rabachuk@TBDHU.com

HIV in Ontario

The Human Immunodeficiency Virus (HIV) is a retrovirus that attacks and weakens the immune system. Acquired immune deficiency syndrome (AIDS) is a late stage in HIV infection. Over the past 30 years, progress has been made in the prevention and treatment of HIV; today, HIV is a managed health condition and progression to AIDS is very rare[iv].

However, new infections still occur every day. The Ontario Advisory Committee on HIV/AIDS recently provided considerations on the current HIV/AIDS situation in Ontario[v], stating:

1) "**HIV is still a formidable health threat**."[vi] Even though more effective and better-tolerated treatments have been developed, many individuals living with HIV face barriers to managing HIV. These may include mental health and substance use issues, other comorbidities, living with the stigma of the infection, and aging with HIV.
2) "**HIV is preventable, yet still a risk.**"[vii] Certain populations in Ontario have high rates of HIV. In order to control HIV, we must focus prevention efforts on: people living with HIV/AIDS; gay, bisexual and other men who have sex with men (MSM); Indigenous peoples; people who inject drugs (PWID); and at-risk women (women who are sexual partners or drug-sharing partners of people with HIV).[viii] These populations may be "more vulnerable to HIV and to HIV-related health complications because of other factors (e.g., social determinants) that affect their health".[ix]
3) "**HIV is manageable, yet still not fully managed**."[x] "Not everyone infected with HIV is diagnosed, and not all those diagnosed are engaged or stay in care." [xi] Thus, Ontario is working on preventing new HIV infections and engaging and caring for those with HIV, and has developed the *HIV/AIDS Strategy to 2026*, focusing on prevention, engagement, and the care cascade.

The cascade outlines:

"To prevent new HIV infections and ensure full, healthy lives for people with HIV, we must help people with and at risk of HIV gain control over their health. We must provide the services and supports they need to avoid HIV and, if they do become infected, to be diagnosed and linked to care quickly, have easy access to HIV medications as well as support to adhere to HIV medications over the long term, and receive care and services to manage other health and social issues and comorbidities—including mental health and addiction issues."[xii]

Project Overview

The rationale for completing this situational assessment was the recognition that other regions in North America have experienced increases in HIV in populations that are similar to the population of Northwestern Ontario. In Ontario, new HIV infections are mainly concentrated in MSM[xiii]. However, the rates and populations most impacted by new HIV infections vary by region in Canada. For instance, in Saskatchewan, new HIV infections are mainly concentrated in PWID[xiv]. Incidence of HIV in Saskatchewan has been increasing over the last decade, and is now double the national average.[xv] Similarly, in February 2016, London, Ontario identified a trend of approximately 1 newly-reported HIV infection per week since the beginning of the year. In June 2016, Middlesex-London Health Unit declared a public health emergency due to rapid rise in HIV and other infections (e.g., hepatitis C, invasive Group A Streptococcal disease) in PWID.

Over the past 12 years, rates of newly-reported HIV infections have remained relatively low and stable in the Thunder Bay District Health Unit (TBDHU) compared to the rest of Ontario. However, the risk factors for the transmission of HIV may differ in the TBDHU from other areas in Ontario. In fact, they may be more similar to those seen in Saskatchewan or London.

Although similar risk factors for HIV transmission may be present in Thunder Bay District, an increase in new HIV infections here would likely differ in some important ways from other regions in North America. We explored multiple perspectives on the areas of vulnerability and risk for increased HIV transmission to make evidence-based decisions. Ultimately, the TBDHU's work on HIV aims to prevent an increase of new HIV infections in the TBDHU by identifying key actions for public health, including community collaborations, and recommendations for our external partners.

What We Did

To understand the HIV situation inThunder Bay District, including areas of vulnerability and risk that may lead to an increase in HIV transmission, the TBDHU conducted an HIV situational assessment. Three activities were carried out:

1) Development of an epidemiological profile
2) Completion of stakeholder interviews
3) Facilitation of a community-partner HIV forum

These activities aimed to address the key questions to be answered by a situational assessment as outlined by Public Health Ontario[xvi]. These questions are:

1) What is the situation?
2) What influences are making the situation better and worse?
3) What possible actions can we take to address the situation?

HIV in Thunder Bay District

Epidemiological Profile

According to the Centers for Disease Control and Prevention and Health Resources and Services Administration[xvii], an "epidemiologic profile should answer several core epidemiologic questions", including:

- What is the scope of HIV in your service area?
- What are the indicators of risk for HIV infections in the population covered by your service area?

Answering these core questions will help us better understand the distribution of HIV in our population, and how the distribution may look in the future.[xviii] The epidemiological profile provides a basis for setting priorities among populations and can help the TBDHU better focus efforts to prevent an increase of HIV infections.

The epidemiological profile included in this report represents only a snapshot of the data considered by the TBDHU throughout its HIV situational assessment.

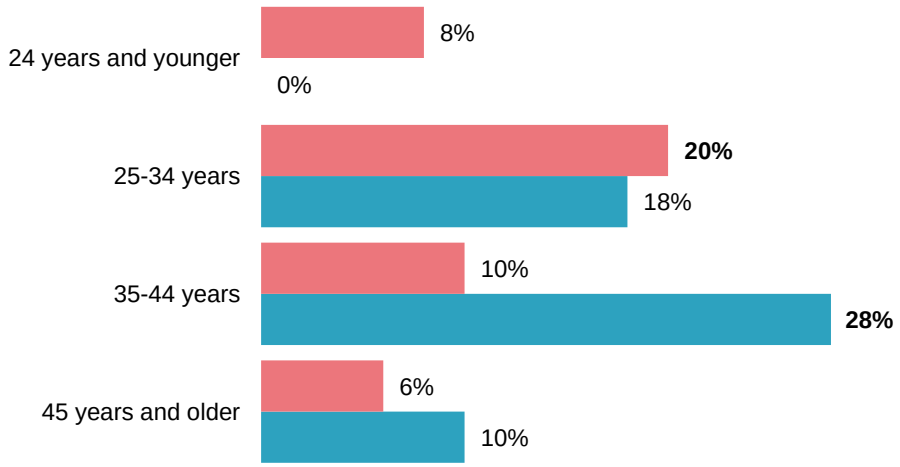
What is the scope of HIV burden in Thunder Bay District?

Newly-reported HIV infections

Rates of newly-reported HIV infections have remained relatively low and stable in the TBDHU compared to Ontario. In 2006-2017, there were 50 newly-reported HIV infections in the TBDHU[xix]. The crude rate of newly-reported HIV infections for the TBDHU (2006-2017) was 2.7 per 100,000 – lower than the crude rate of newly-reported HIV infections in Ontario during the same time period (6.4 per 100,000).

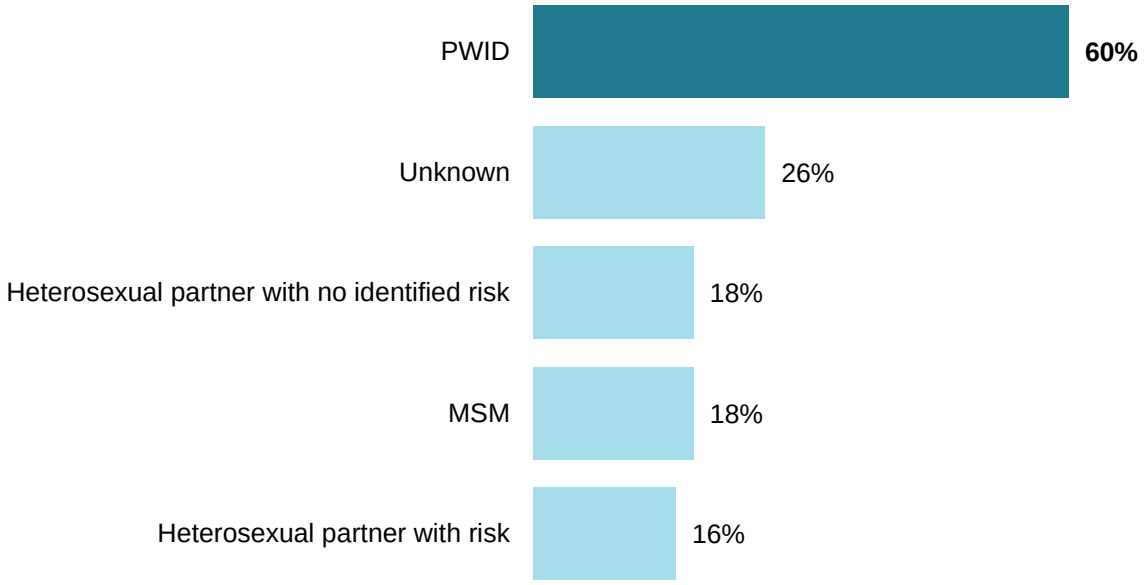
Newly-reported HIV infections by age and sex

In 2006-2017, **women** accounted for 44% of newly-reported HIV infections in the TBDHU; **men** accounted for 56%[xx]. Most (76%) newly-reported HIV infections occurred in 25-44 year olds[xxi].



Newly-reported HIV infections by most commonly reported risk factor[1]

In 2006-2017, newly-reported HIV infections in the TBDHU were concentrated among **PWID**[xxii].



AIDS diagnoses

In 2006-2017, 15 people received an AIDS diagnosis in the TBDHU[xxiii]. The crude rate of AIDS diagnoses for the TBDHU (2006-2017) was 0.8 per 100,000 – the same as the crude rate of AIDS diagnoses in Ontario during the same time period.[xxiv].

HIV/AIDS-related mortality

The most recent year of mortality data available is for 2012. In 2005-2012, 17 deaths in the TBDHU were attributed to HIV/AIDS[xxv]. The crude HIV/AIDS-related mortality rate for the the TBDHU (2005-2012) was 1.43 per 100,000.

What are the indicators of risk for an increase in new HIV infections in Thunder Bay District?

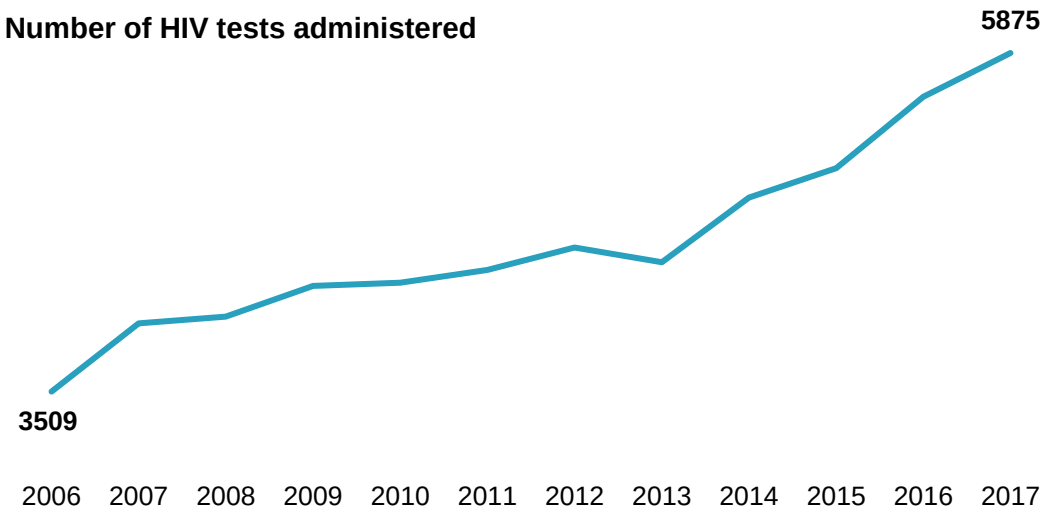
According to the Centers for Disease Control and Prevention and Health Resources and Services Administration[xxvi], behaviours should be monitored with regard to risk taking, HIV testing, care seeking, and adhering to HIV treatment. The following figures show direct and indirect measures of behaviours associated with the risk of acquiring HIV.

Direct and indirect measures of risk behaviour: "Direct measures of risk provide information about risk behaviour that is directly associated with HIV transmission. Indirect measures do not directly describe HIV risk behaviours. Rather, they are indicators of *possible* HIV risk."[xxvii] For instance, an increase in STI rates does not directly indicate that HIV exposure is increasing but may indicate an increase in unprotected sex[xxviii].

[1] Data on new HIV diagnoses (i.e. HIV-positive tests) are broken down by non-mutually exclusive risk factors; therefore, proportions may not add up to 100%.

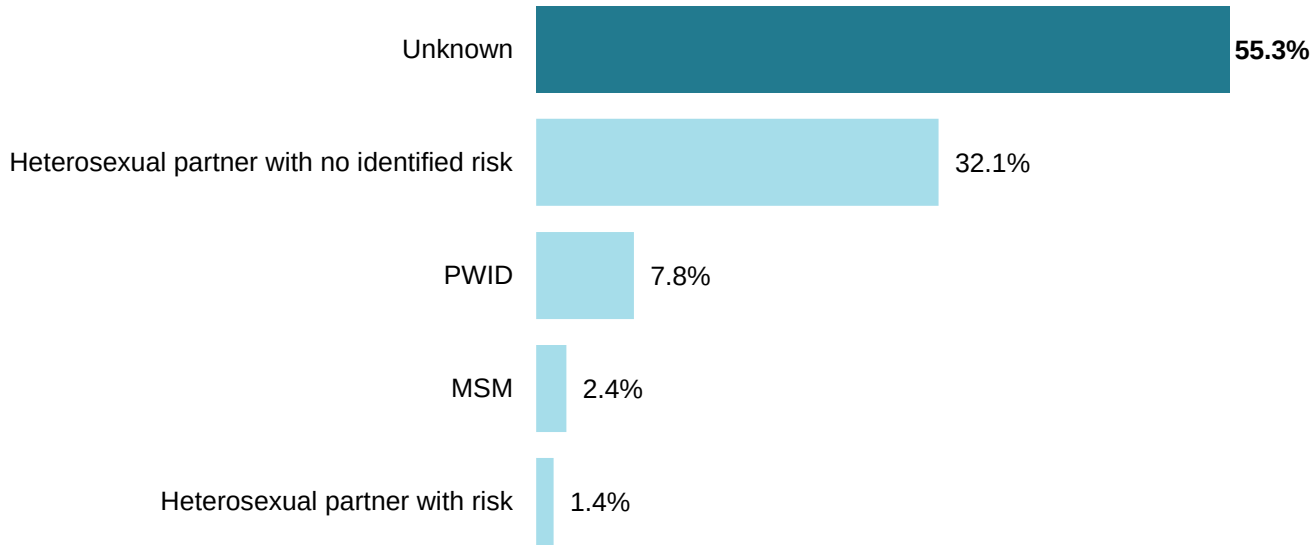
HIV testing[2]

There were 54,709 HIV tests administered in the TBDHU region in 2006-2017[xxix]. The number of HIV tests administered has been increasing over the 12-year period. Increased testing may lead to improved identification of people living with unrecognized HIV: in our efforts to increase testing and identify people currently living with undetected HIV, there will likely be an increase in new HIV infections before there is a decrease.



HIV tests by most common exposure categories[3]

In 2006-2017, over half of those tested for HIV in the TBDHU service region had no known risk factors or their exposure information was not captured on their HIV requisition form[xxx].

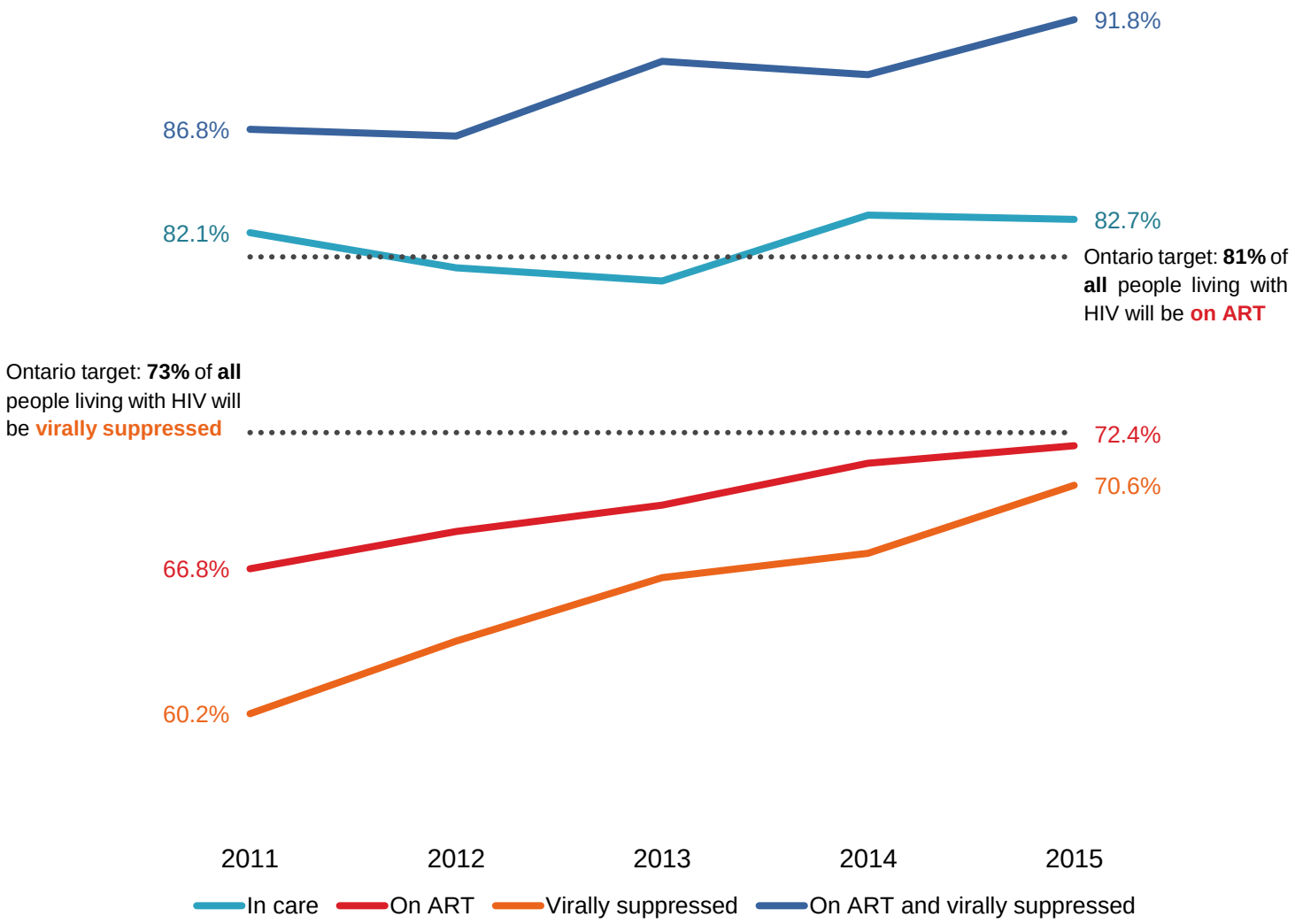


[2] Prenatal HIV tests are not included.

[3] 'Exposure category' represents an individual's most likely means of HIV transmission. An individual getting tested is assigned to an exposure category based on reported HIV risk factors collected on the test requisition form. Exposure categories are mutually exclusive, which means an individual can only be assigned to one category.

Linkage to care, in care, on antiretroviral treatment and virally suppressed

The Ontario HIV Epidemiology and Surveillance Initiative states that "To maintain and improve health and reduce the risk of new HIV transmissions, it is important for people living with HIV to be diagnosed, in care, on antiretroviral treatment (ART) and virally suppressed."[xxxi] In 2012-2014, only 64.6% of people newly-diagnosed with HIV in the Northern region[4] were linked to care within three months of HIV diagnosis – the lowest proportion linked to care compared to all other regions in Ontario.[xxxii] In 2011-2015, 'linkage to care, in care, on ART, and virally suppressed' indicators have improved across Ontario, but are generally lower for people with diagnosed HIV in the Northern region[xxxiii].



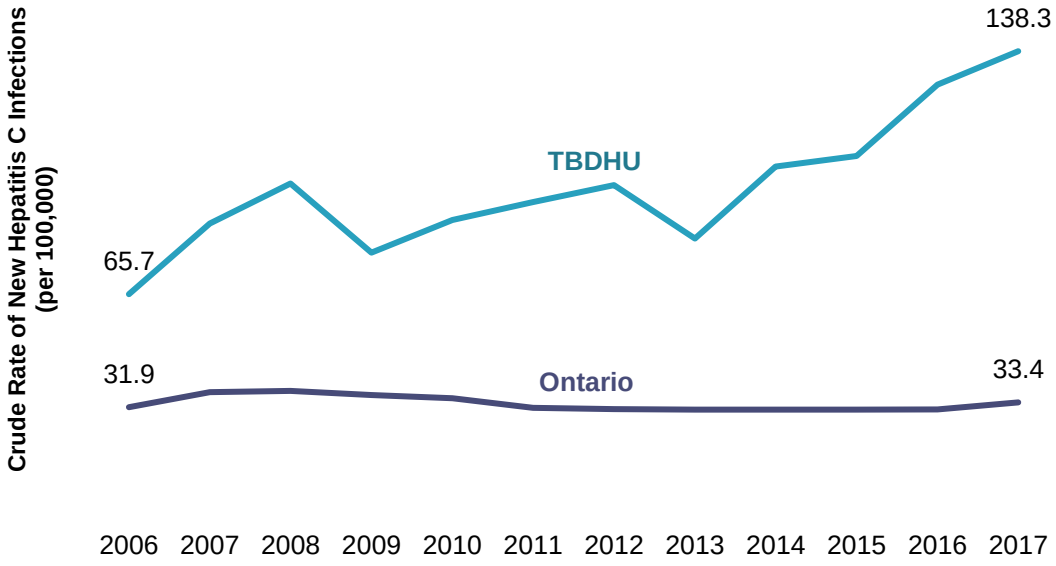
In care = at least one viral test in a given year
On ART = documented on ART, or ART status missing and suppressed, on last viral load test
Virally supp. = virally suppressed = less than 200 copies of HIV per Ml on last viral load test

[4] The 'Northern region' includes the following public health units: Algoma, North Bay Parry Sound, Northwestern, Porcupine, Sudbury, Thunder Bay and Timiskaming.

New sexually transmitted and blood-borne infections (STBBIs)

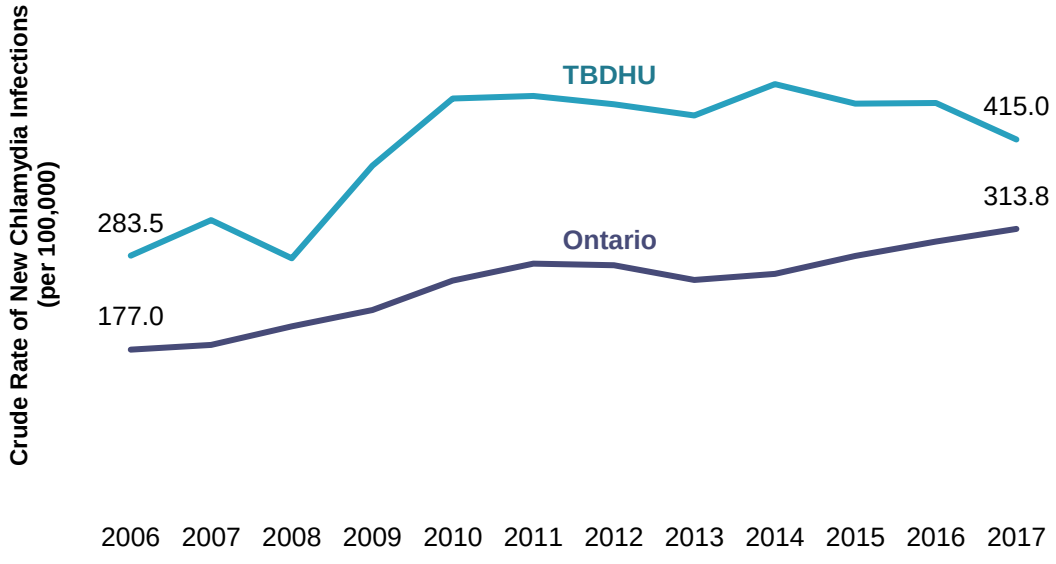
Hepatitis C

Hepatitis C shares similar risk factors with HIV. The crude incidence rate of hepatitis C has increased in the TBDHU since 2006[xxxiv]. The **TBDHU** has much higher rates of hepatitis C than **Ontario**.



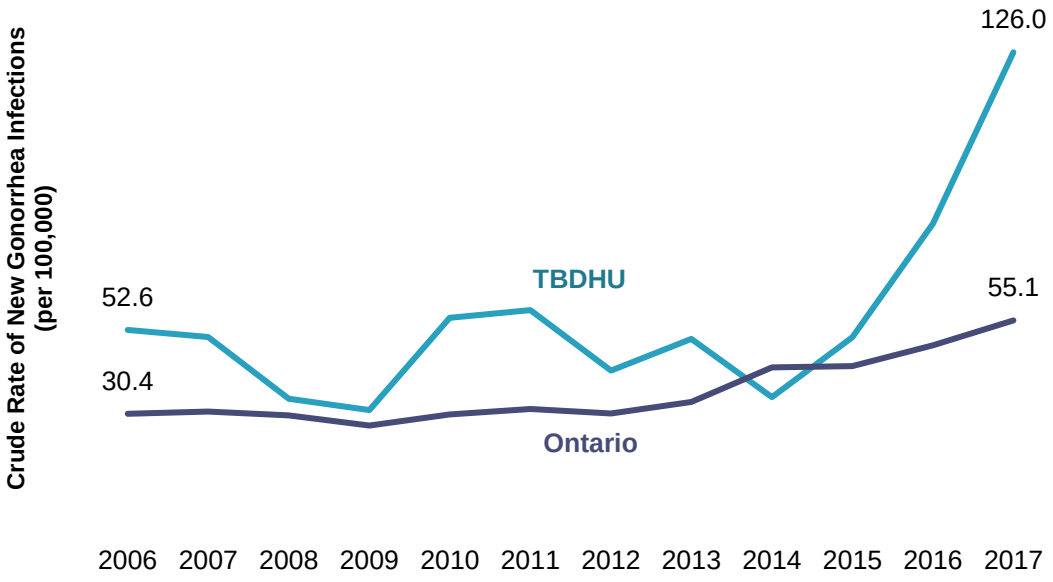
Chlamydia

Similarly, the crude incidence rate of chlamydia has increased in theTBDHU since 2006[xxxv]. The **TBDHU** also experiences higher rates of chlamydia than **Ontario**.



Gonorrhea

Likewise, the crude incidence rate of gonorrhea has increased in the TBDHU since 2006[xxxvi]. The **TBDHU** also experiences higher rates of gonorrhea than **Ontario**.



In addition to the data presented above, the TBDHU also considered data about PWID from the TBDHU Superior Points Harm Reduction Program, the I-Track study[5] [xxxvii] and the Supervised Injection Service Feasibility Study[xxxviii] (data not shown).

Limitations

There are some limitations related to the epidemiological profile. Data on newly-reported HIV infections and exposure categories in the TBDHU were provided by the Public Health Ontario (PHO) Laboratory. Unfortunately, PHO Labs only recently started collecting ethnicity data for first-time HIV-positive individuals. As such, there were only a small number of HIV-positive individuals for which 'First Nations' was identified on the requisition form. Due to the small numbers and potential for re-identification, PHO Labs was not able to provide us with ethnicity information among people diagnosed with new HIV infections. As such, the epidemiological profile does not represent a comprehensive overview of all priority populations in the TBDHU.

Also, the number of new HIV infections does not include individuals who were not tested (i.e., persons unaware of their infection). Thus, these data may not reflect true trends in HIV incidence, because it excludes those who are currently undiagnosed by living with HIV.

Finally, people diagnosed with HIV living in some regions may be more likely to seek care outside of Ontario. For instance, people living with HIV in the Northwestern Health Unit service region may seek care and treatment in Manitoba. This may lower the 'linkage to care, in care, on ART, and virally suppressed' indicators in the North region.

[5] I-Track is an enhanced surveillance system to track HIV and Hepatitis C risk behaviours and HIV and Hepatitis C prevalence in PWID. Thunder Bay joined I-Track for Phases 2 (2006-7) and 3 (2010-12).

Stakeholder Consultation

Stakeholder Interviews

It was important to understand local and regional stakeholders' perspectives on potential risk factors that could influence the risk of HIV transmission. Thus, we conducted interviews with a variety of local and regional stakeholders to capture their views on the current HIV situation in the TBDHU, and what influences are making the situation better or worse.

Fifty-one stakeholders were interviewed. Stakeholders belonged to three groups:

Organizations that provide HIV prevention or treatment services

Organizations that provide services to vulnerable populations

Persons living with HIV

Gaps, opportunities and challenges

We asked stakeholders "Are there any barriers you've encountered in providing activities/initiatives/services/programs related to HIV/AIDS?" and "Are there any gaps/opportunities that you've noticed in activities, initiatives, services, and/or programs related to HIV/AIDS within: Your own organization's activities/initiatives/services/programs; and other activities/initiatives/services/programs you are aware of in the community?"

Main themes emerged throughout the responses. Specifically, they revealed gaps, opportunities, and challenges related to: prevention activities; testing; and care, treatment and support. What some stakeholders framed as a "gap" or "challenge", other stakeholders regarded as an "opportunity". For reporting purposes, all themes are expressed as "gaps". Among each of these main themes, overlapping and unique subthemes (by stakeholder group) emerged. Finally, stigma, and the resulting discrimination, was identified as a barrier to each.

Throughout stakeholder interview recruitment and analyses, we employed certain procedures to ensure for the accuracy of the findings. For instance, member checking[xxxix] during the Community Stakeholder HIV Forum (next section) was used to report themes back to interviewees and additional stakeholders to ensure perspectives were represented accurately, and to provide an opportunity for stakeholders to comment on the findings.

Prevention activities

Prevention activities aim to reduce the transmission of HIV. They may include pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), treatment as prevention, and primary prevention tools (e.g., safer sex practices, status awareness, safer injection practices, needle-syringe programs, treatment for substance use disorder, etc.)

Both **stakeholders from organizations that provide HIV prevention and treatment services** and **organizations that provide services to vulnerable populations** identified similar gaps, opportunities and challenges that related to HIV prevention activities:	
	**HIV prevention messaging does not meet the needs of clients.** Stakeholders suggested a need to target HIV prevention messages to hard-to-reach populations, including those living on reserve and those who may not regularly access services. Also, stakeholders recommended that

	current messaging does not engage clients. For instance, they indicated that "pamphlets don't work", especially among populations with low literacy levels. One stakeholder said ***"The health literacy barrier stops people from investing in their own health – they feel powerless. It's not really helping in prevention at all."***
	**Not enough focus on community partnerships.** Stakeholders acknowledged that many organizations are working towards the same goal of achieving health and wellness for vulnerable populations, but that this work is being conducted in siloes. Because of this, there may be duplication of services. There was also a large unawareness of other organization's activities. Stakeholders suggested that community partnerships and collaborations would alleviate these issues. One stakeholder said ***"People don't recognize to really combat HIV, we need to come at it from all angles (e.g., actually changing policies for accessing services when someone has had a few beers, accessing shelter for two-spirited people, etc.)"***

Stakeholders from organizations that provide HIV prevention and treatment services identified additional gaps, opportunities, and challenges that related to HIV prevention activities:	
	**Not all at-risk populations are engaged.** Key stakeholders felt that the focus of prevention activities has shifted to the IDU population. Activities should be aimed at all at-risk populations, including men who have sex with men (MSM). One stakeholder said ***"We're starting to find populations of people [in] IV drug using populations, Aboriginal populations with higher rates. Do we end up stigmatizing these populations and not having the opportunity to find other people who may be at risk by looking in other populations?"***
	**Lack of access to PrEP and PEP.** Key stakeholders stated that access to PEP and PrEP was difficult, due to their high cost, as well as the limited number of health care providers who prescribe them.

Stakeholders from organizations that provide services to vulnerable populations identified additional gaps, opportunities, and challenges that related to HIV prevention activities:	
	**HIV prevention is not a priority for at-risk populations.** Other stakeholders indicated that at-risk populations had too many competing priorities with HIV prevention. This reduces safe practices and the uptake of prevention efforts. One stakeholder stated that at-risk populations are ***"Prioritizing around dealing with food security, homeless [sic], poverty - these are clients' main focus rather than using a clean needle."***
	**Barriers to accessing harm reduction supplies.** Other stakeholders were concerned with the number of barriers in accessing harm reduction supplies. These included lack of transportation; lack of supply services on the North side of town; lack of supply services on the weekend and outside of 'banker hours'; and lack of access among the population experiencing homelessness.

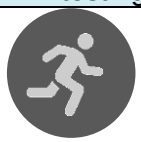
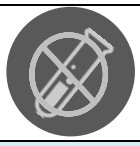
Persons living with HIV identified some similar gaps, opportunities, and challenges related to prevention activities in the TBDHU region. For instance, they discussed:	
	**Lack of access to PEP and PrEP.** One person living with HIV said ***"The key is to stop new infections by getting people on PREP".***
	**HIV prevention is not a priority for at-risk populations.** One person living with HIV said ***"People don't seem worried about [HIV]. When I am on the streets, HIV is not a topic. Hep C is the main topic on the streets right now."***
Two unique subthemes that **persons living with HIV** discussed related to prevention were:	
	**Lack of access to mental health and addictions treatment.** They noted that mental health and substance use concerns create barriers to the uptake and quality of prevention education and preventive health services. One person living with HIV said ***"There are serious mental health issues in Canada that people aren't dealing with or getting help for– so they turn to drugs."*** Another highlighted the importance of ***"Treatment and support for those with mental illness – no one is doing a lot about it and they should be".***
	**Limited education and awareness about HIV in the community.** They noted that the people living in the community are unaware of how HIV is transmitted and the outcomes of the infection. One person living with HIV highlighted the ***"Need to teach that HIV is not a death sentence anymore – I'm healthier than I've ever been."*** They also highlighted that not everyone is aware of who is at risk for HIV, including who injects drugs in our community. One person living with HIV said that they ***"Don't see a lot of information on IDU out there or who uses them – people perceive it to be…a bottom of the barrel disease. This is not correct."*** They added ***"The message needs to be 'how do you really know that you won't be affected' – you're sleeping with everyone that your partner has and you're exposed to every fluid they are exchanging."***

Testing

Testing supports early detection of the infection. In the TBDHU, there may be infections that are unrecognized, leading to further spread. Testing is the first stage in linking people to treatment, care, and support.

Both **stakeholders from organizations that provide HIV prevention and treatment services** and **organizations that provide services to vulnerable populations** identified similar gaps, opportunities and challenges that related to HIV testing:	
	**Fear of a diagnosis.** Stakeholders believed that a major barrier to getting tested was fear of a diagnosis. This was related to fear of criminalization and being shunned from one's community upon receipt of a positive diagnosis. One stakeholder described this mentality by stating ***"People aren't getting tested – [they think] 'if I don't know my status, I'm not accountable. If I do know my status, I'm going to be criminalized'".***
	**Actual or perceived lack of confidentiality.** Stakeholders thought that places where testing occurred were not private. One stakeholder said ***"[TBDHU] looks a bit too institutionalized for people who are dis-enfranchised from hospitals, doctor's offices, etc. It's scary for people to come here – it's why they may have a drink or get high before coming to get tested…The Village Clinic had no stigma attached to it. The TBDHU Sexual Health Clinic is too open – not anonymous or confidential. It's intimidating for people. [It's] trauma-inducing for people who haven't been treated well in other systems."***
	**Lack of awareness of risk.** Stakeholders felt that the populations most at-risk of contracting HIV were not being tested for the infection because they did not feel they needed to be tested. Stakeholders suggested that those who receive HIV testing may not necessarily be at-risk for HIV.
	**Lack of comfort or knowledge about testing among both patients and service providers.** Stakeholders felt that both patients and service providers were not aware about the different testing options (e.g., anonymous) and testing modalities (e.g., point-of-care) available in Thunder Bay. Also, stakeholders believed that even if clients were aware of HIV testing, they did not know where to go for it.us
	**Lack of access to testing.** Stakeholders agreed that testing options were available in Thunder Bay. However, they felt that some clients did not have access to testing because they lived on-reserve or had limited transportation options. One stakeholder said ***"Everyone has access [to testing] – but the barrier is in how convenient access is… If somebody wanted an HIV test, they would have to take a van to go to health care provider, then the lab to get tested."*** Stakeholders suggested that testing should be available "where clients are at" (i.e., where they already access services). For instance, one stakeholder said ***"Within Thunder Bay, we need more testing. The more people see us [such as at] more locations, go where people are, the more willing they are to access our services."***

Stakeholders from organizations that provide HIV prevention and treatment services identified an additional gap, opportunity, and challenge that related to HIV testing:	
	**Limited opportunities to test and counsel** Stakeholders mentioned that in some instances where testing could occur and would be opportune, patients were not able to consent to testing or understand education because they were under the influence of alcohol or drugs. One stakeholder said ***"People that approach us to get tested probably should be tested but are not in a state to be tested based on personal safety and ability to consent. [I'm] also worried about what will happen if they do test positive – self-harm, will they understand the risks, will you be able to find them for next steps?"*** Stakeholders raised concern that pre-test counselling for HIV testing was too long. They believed this deterred some people from getting tested.

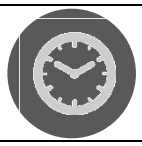
Persons living with HIV identified some similar gaps, opportunities, and challenges related to HIV testing in the TBDHU region. For instance, they discussed:	
	**Fear of a diagnosis.** People living with HIV also relayed that people didn't want to get tested because they feared receiving a positive diagnosis.
	**Lack of access to testing.** People living with HIV highlighted the importance of normalizing testing and increasing access to it.
One unique subtheme that **persons living with HIV** discussed related to testing was:	
	**Testing is not a priority among at-risk populations.** People living with HIV suggested that at-risk populations, such as PWID, are not concerned about getting tested for HIV. One person living with HIV stated that for ***"A lot of people in the drug world, testing is the last thing they are concerned about. They are concerned about their last high – feeding their addiction."***

Care, treatment and support

Ongoing care, treatment, and support are key factors in sustaining the health of individuals living with HIV. These include supporting increased survival, improved overall health, better quality of life, decreased risk of other infections, and decreased risk of ongoing transmission.

Both **stakeholders from organizations that provide HIV prevention and treatment services** and **organizations that provide services to vulnerable populations** identified a similar gap, opportunity and challenge that related to HIV care, treatment, and support:	
	**Lack of opportunities to access care.** Stakeholders recognized that opportunities for accessing care, treatment, and support were limited in the TBDHU region. One of the prominent reasons mentioned for this lack of opportunity was that only one Infectious Disease specialist physician resided in the TBDHU region. Other barriers included: lack of transportation, no valid health card, and being homeless. One stakeholder said ***"For homeless population, they will not access health care. Unless its "acute, right this second" they are not in a place to care for themselves. It needs to be about making care accessible to them – [they] do not have the capability of going to the health unit."***

Stakeholders from organizations that provide HIV prevention and treatment services identified additional gaps, opportunities, and challenges that related to HIV care, treatment and support:	
	**Difficulties with follow-up.** Stakeholders mentioned they had difficulty following-up with HIV+ clients to link them to treatment and care. This was because they often dealt with highly mobile individuals that only accessed testing anonymously. Also, they often were unable to connect with individuals living in rural or remote areas. One stakeholder said ***"Follow-up is a barrier – you test and then you lose them. The transient population [have] no fixed addresses or phone numbers, or we don't have the ability to text them – even though we ask people how they want to be communicated with or you test and there's nowhere to send [the results]."***
	**Barriers to medication adherence.** Stakeholders felt that there were several barriers to HIV+ clients adhering to their medication and treatment regimens. For instance, high drug costs prevent some individuals from accessing treatment. Drug resistance, as a result of non-adherence, can also affect the choice and effectiveness of future treatments. Finally, the side effects associated with medication may delay treatment re-initiation if someone stopped taking their medication.
	**Role of the social determinants of health.** Again, stakeholders discussed a lack of urgency for treatment, care, and support due to many competing priorities with health. One stakeholder stated ***"If clients are so depressed, living on someone's couch and can't eat – why would they take their meds?"*** Another stakeholder said ***"For some of our population, barriers include not having adequate housing. Having the actual necessities of life influence how people can manage their own health. If they are always working on managing their necessities and getting their next fix, health care will become a last priority. Even a healthy person has the tendency to not go to the doctor. It's even worse when you are worried about where your next meal will come from, etc."***

	**Low health literacy levels among persons living with HIV.** Stakeholders believed that low health literacy levels among HIV+ individuals are a barrier for treatment and care engagement and maintenance. One stakeholder stated ***"The majority of people who have HIV tend to be engaged in care but they are not health literate – there is your massive risk factor right there…they don't know what CD4+ counts mean, people will indicate that they are on the 'blue pill', etc.".***
	**Timeliness of detection of infection needs improvement.** Stakeholders reported that many HIV+ individuals find out their status when they are already very sick (e.g., in emergency) – this results in delayed treatment initiation.
	**Linkage to care requires improvement.** Stakeholders felt that certain populations were not being connected to care opportunities. For instance, one stakeholder said ***"People leaving Corrections are not connected to where to get their medication. Somebody with HIV or hep C should be automatically linked [to care] so they don't have to go to the ED."*** Stakeholders also felt healthcare providers may not refer clients to local organizations because they lack knowledge about all of the services those organizations provide.

Stakeholders from organizations that provide services to vulnerable populations identified additional gaps, opportunities, and challenges that related to HIV care, treatment and support:	
	**Limited care and support components of treatment.** Stakeholders felt that the "support" component was missing for HIV+ individuals. For instance, HIV+ individuals often face many other challenges that could affect their care. One stakeholder said ***"If somebody is not well [then] they do not receive the help for their medical problems [then] they start to feel mentally unwell [then] may start using drugs again"***.
	**Disengagement in continuing care.** Stakeholders felt that clients lacked a sense of responsibility for their own care, and this created a barrier for engaging in it. For instance, clients missed scheduled appointments or didn't take their medications. Stakeholders suggested providing tools to clients to help them look after themselves.
	**Lack of comfort among health care providers regarding HIV care.** Stakeholders identified that capacity to treat HIV in the region is limited. Stakeholders felt that individuals living with HIV would benefit if more healthcare providers were comfortable starting HIV medications or treating secondary infections. One stakeholder stated that the region needs the ***"entire medical community to be part of the response to HIV."***

Persons living with HIV identified some of the same gaps, opportunities, and challenges related to HIV care, treatment and support in the TBDHU region. For instance, they discussed:	
	**Lack of opportunities to access care.** People living with HIV recognized that there were numerous services available for support. However, they felt that increasing access to these services required greater attention. One stated ***"You could have all the services in the world, but if people aren't accessing them then it doesn't matter."***
	**Limited care and support components of treatment.** People living with HIV identified a greater need for education, support, and care for other issues they may be dealing with. One person living with HIV explained how these interventions were helpful for them: ***"Education is probably about the best thing – that's what helped me, getting educated about [HIV]. That's how I know about viral load and CD load. You will walk around thinking you're dying but it's a manageable disease if you stick with the program."***
	**Barriers to medication adherence.** Those living with HIV understood the importance of treatment as prevention, and that barriers to medication adherence were also barriers to prevention. One person living with HIV said ***"If you can get everybody on meds you can stop the disease in its tracks."***

Stigma and the resulting discrimination

Three key areas of stigma, and the resulting discrimination, were repeatedly mentioned by stakeholders in each of the topic areas as a barrier to prevention activities, testing, as well as care, treatment and support. Three key areas of stigma and discrimination include:

	**Stigma and the resulting discrimination related to HIV faced by people living with HIV.** Stakeholders suggested stigma around an HIV diagnosis can negatively impact an individual's willingness to be tested and seek treatment for the infection. This stigma often arises from a lack of knowledge of the disease as well as stigma towards those who are often impacted; for example gay men. One stakeholder said ***"Doctors and professionals [need to be] educated in HIV and more informed. Especially people working at the front desk when you have to disclose your status. People are terrified. Therefore people living with HIV don't want to go to the hospital because they are afraid of receiving poor care."***
	**Stigma and the resulting discrimination faced by people who inject drugs.** Stakeholders identified that injecting drugs is often viewed as a criminal activity rather than a medical issue and results in negative stereotypes and stigma towards persons who inject drugs (PWID). Unfortunately, stakeholders report that stigma can be exhibited by health care providers. Because of this stigma, PWID often face discrimination when they make attempts to access care. Resulting bad experiences may prevent PWID from seeking HIV testing and accessing the required treatment. One stakeholder stated ***"People will be very ill before they access health care based on how they've been treated in the past. IDUs want health care providers to acknowledge this is a lifestyle choice but they don't."***
	**Stigma and the resulting discrimination related to HIV/AIDS within on-reserve communities.** Stakeholders indicated that the HIV stigma experienced on reserve is tied to misperceptions of who is impacted and the behaviours that put individuals at risk (i.e. injecting drugs). One stakeholder said that on-reserve, ***"People think HIV is a white man's disease or a Toronto problem – not recognized as a threat."*** Another stakeholder said that on-reserve populations ***"Still believe HIV/AIDS is a white man's disease or only happens if you are gay."*** Stakeholders felt that this stigma resulted in people living in these communities to not get tested or receive treatment. One stakeholder said ***"[In] remote communities [there is a] need to address stigma. People are not acknowledging that HIV exists, and exists in their community. This prevents people from getting tested."*** Another stakeholder stated ***"They can't talk about HIV on the reserves - this is a huge barrier to getting tested and treatment."***

Priority populations

During interviews, stakeholders highlighted several of the priority populations identified elsewhere in the province[xl] within our local context, including:

- PWID
- Indigenous peoples
- At-risk women (women who are sexual partners or drug-using partners of people with HIV)

These priority groups were reflected throughout the entirety of stakeholders' interviews. Stakeholders felt that it is these three priority groups who are facing significant challenges and pose a threat to increased HIV incidence in our region.

Although men who have sex with men (MSM) were not mentioned as a priority population by stakeholders during interviews, we recognize that the new HIV infections elsewhere in Ontario are concentrated in the MSM population. Thus, the MSM population should also be considered during the development of a strategy to prevent an increase in the incidence of HIV.

Limitations

There are some limitations related to the stakeholder interviews. Two the TBDHU employees conducted the stakeholder interviews. Although both employees attempted to be present for every stakeholder interview, there were some instances when this was not possible due to scheduling conflicts. As such, stakeholder responses may have been influenced by the way a question was asked, depending on which the TBDHU employee asked the questions, and this may have affected the final results. Efforts were made to mitigate this limitation by ensuring that the interviewers read the questions directly from a question list. Also, we created probe questions to be used in a consistent manner should more detail for a particular question be needed.

Community Stakeholder HIV Forum

On Wednesday, April 5, 2017, the TBDHU hosted a Community Stakeholder HIV Forum. The HIV Forum was held to educate, engage, and elicit feedback/input from a wide audience of relevant community stakeholders in our efforts to prevent an increase in new HIV infections. The HIV Forum also helped the TBDHU identify community priorities related to HIV prevention.

Over 70 individuals attended the HIV Forum. Attendees represented a wide range of organizations from different sectors, including HIV & AIDS advocacy, public health, primary care, mental health & addictions, social services, legal services, and others.

Stakeholders heard the findings of the TBDHU's HIV Situational Assessment. Then, they participated in 2 breakout sessions each. Each breakout session consisted of 6-8 stakeholders. Breakout sessions focused on the "gaps" identified during stakeholder interviews related to prevention activities; testing; treatment, care and support; and stigma, and the resulting discrimination. During the breakout sessions, attendees reviewed the subthemes that emerged from stakeholder interviews within each topic area. Attendees indicated if they felt anything was missing. Each breakout session group selected two sub-themes they believed were the most pressing gaps to address.

Prevention activities

The gaps related to prevention that the breakout session groups selected most often as important to address were "**HIV prevention messaging does not meet the needs of clients**" and "**health is not a priority for at-risk populations**".

Testing

The gaps related to testing that the breakout session groups selected most often as important to address were "**limited opportunities to test and counsel**" and "**lack of access to testing**".

Care, treatment and support

The gaps related to care, treatment and support that the 4 breakout session groups selected most often as important to address were "**lack of comfort among HCPs regarding HIV care**" and "**lacking care and support components of treatment**".

Stigma and the resulting discrimination

To reduce barriers that stigma, and the resulting discrimination, creates for HIV prevention activities, multiple breakout session groups mentioned the need to provide greater education in the community around drug use, harm reduction, the social determinants of health (SDOH), and HIV.

To reduce barriers that stigma, and the resulting discrimination, creates for HIV testing, multiple breakout session groups mentioned the need to normalize HIV testing with the appropriate use of messaging and provide more education about testing (e.g., that treatment exists for HIV).

To reduce barriers that stigma, and the resulting discrimination, creates for HIV care, treatment and support, multiple breakout session groups mentioned the need to ensure support systems are in place (for people living with HIV, families, and HCPs). HCPs should know where to refer clients for such support.

What Can Be Done

Recommendations were developed to address the gaps, opportunities, and challenges identified during data collection for the epidemiological profile, as well as during stakeholder consultations. Some recommendations outline areas that align with the TBDHU's mandate, and thus, can be most effectively addressed through the TBDHU's HIV work. Other recommendations highlight areas that are considered in the TBDHU's programming and services (e.g., the social determinants of health). And, finally, some recommendations fall outside the scope of the TBDHU's mandate and can be pursued by other community agencies.

Areas where the TBDHU can be most effective	Recent TBDHU actions
Increase HIV testing among at-risk populations.	▪ Increased hours and availability of Sexual Health Outreach Team in the community ▪ Expanded Sexual Health Outreach Team to include dedicated nurses who offer point-of-care testing on a daily basis in the community
Improve access to harm reduction supplies (see Appendix A).	▪ Added an additional outreach worker to the Superior Points Harm Reduction program ▪ Partnered with Fort William First Nation (FWFN) to make harm reduction services, such as resources and training, supplies, needle distribution, safe inhalation and naloxone kits more readily available to HCPs in FWFN
Increase engagement with populations at-risk of and living with HIV.	▪ Developed new and enhanced existing community partnerships and initiatives (e.g., SWAN, Thunder Bay Public Library, soup kitchens, Elevate NWO Women's Night) ▪ Improve staff cultural competency through internal staff training in partnership with the Ontario Federation of Indigenous Friendships Centres
Improve HIV monitoring, surveillance and sharing of HIV epidemiology information to appropriate audiences.	▪ Regularly request HIV testing and surveillance data through PHO Laboratory to inform programming ▪ The Ontario HIV Epidemiology and Surveillance Initiative was formed better access to timely, relevant, and comprehensive information about the epidemiology of HIV in Ontario

Areas for potential collaboration between the TBDHU and community partners

- Reduce HIV-related stigma, and the resulting discrimination, among residents of the TBDHU and health care providers.
- Address the social determinants of health in the TBDHU, including increasing access to safe and affordable housing, nutritious and affordable food options, and social support.

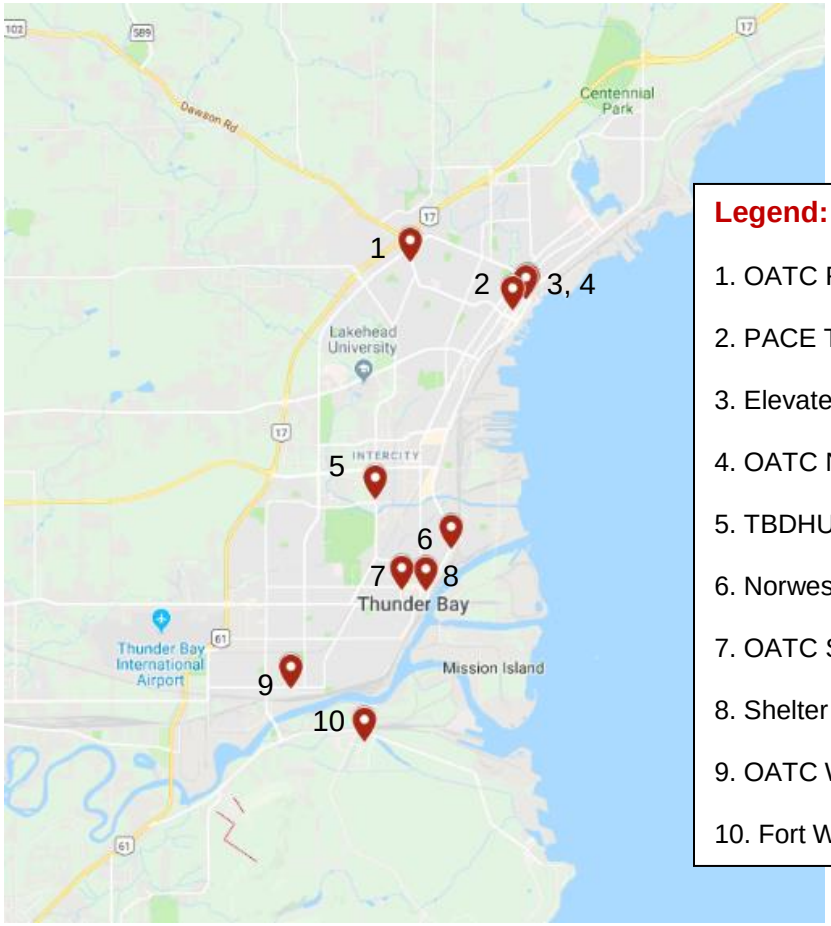
- Provide education to the community regarding HIV transmission, prevention, outcomes, and diagnosis.
- Advocate for HIV-related resources that build capacity among health care providers in the community.
- Establish partnerships with organizations that regularly interact with TBDHU clients.
- Ensure HIV prevention messaging is tailored to meet the needs of vulnerable populations (i.e., consider literacy level, preferred channel).
- Reduce barriers to accessing harm reduction supplies (e.g., hours of operation, geographic locations)
- Offer HIV testing at locations in the community where people go to regularly access other services.
- Develop a Memorandum of Understanding (MOU) with relevant community partners to facilitate more coordinated case contact and follow-up.

Areas where the community can focus their efforts

- Work to address stigma related to HIV/AIDS within on-reserve communities.
- Improve linkage and access to medical care for persons living with HIV.
- Advocate for programming that empowers clients to be more engaged in their own care.
- Advocate for more support services for persons living with HIV.
- Advocate for greater accessibility to PrEP and PEP, including public funding.
- Advocate for greater mental health and addictions support within the community.
- Advocate for initiatives to increase access to adequate and affordable housing for those at-risk of and living with HIV.
- Facilitate connections between health care providers in the TBDHU to establish peer mentorship for physicians, nurse practitioners, and pharmacists to attract, support, and maintain practitioners in HIV care.
- Engage Indigenous leadership, elders, and Indigenous organizations to promote ownership of and involvement in addressing HIV.
- Advocate for and assist in the implementation of Safe Consumption Sites in the TBDHU.

Appendix A: Locations where harm reduction supplies are available in Thunder Bay District

In reference to a recommendation to improve access to harm reduction supplies in the *HIV Infection in Thunder Bay District* (2018) report, the following map was created to show current locations where supplies are available in the City of Thunder Bay. The report describes how the TBDHU can be most effective by increasing access to supplies and that the TBDHU can collaborate with community partners by reducing barriers to access to supplies by increasing hours of operation and geographic locations. In addition, a lack of locations providing access to supplies on the north side of the city was specifically identified by stakeholders.



Legend:

1. OATC Red River Rd
2. PACE Thunder Bay
3. Elevate NWO
4. OATC North
5. TBDHU Main Office
6. Norwest Community Health Centre
7. OATC South
8. Shelter House
9. OATC Westfort
10. Fort William FN Health Centre

The TBDHU also currently distributes harm reduction supplies to the district communities of Longlac, Geraldton, Marathon, Nipigon, and Pic Mobert. Going forward, the TBDHU can continue to work toward establishing new harm reduction sites. Discussions are currently taking place with organizations on the north and south sides of the city (all Oak Medical Arts Pharmacy sites and Lucero Clinics) and in the District (Rexall Pharmacy in Nipigon) in an effort to fill gaps in access.

References

[i] iPHIS. (2006-2017). Date extracted: July 16, 2018.
[ii] Ibid.
[iii] Ibid.
[iv] Ontario Advisory Committee on HIV/AIDS. (2016). HIV/AIDS Strategy to 2026: Focusing Our Efforts – Changing the Course of the HIV Prevention, Engagement and Care Cascade in Ontario. Toronto, ON: Ministry of Health and Long-Term Care.
[v] Ibid.
[vi] Ibid.
[vii] Ibid.
[viii] Ibid.
[ix] Ibid.
[x] Ibid.
[xi] Ibid.
[xii] Ibid.
[xiii] Ibid.
[xiv] Canadian AIDS Treatment Information Exchange. (2011). New HIV Infections in Canada. Retrieved from http://librarypdf.catie.ca/pdf/ATI-40000s/40239.pdf.
[xv] Vogel, L. (2015). HIV in Saskatchewan merits urgent response. *Canadian Medical Association Journal 187*(11), 793-794. https://doi.org/10.1503/cmaj.109-5105
[xvi] Ibid.
[xvii] Centers for Disease Control and Prevention and Health Resources and Services Administration. (2014). *Integrated Guidance for Developing Epidemiologic Profiles: HIV Prevention and Ryan White HIV/AIDS Programs Planning.* Atlanta, Georgia: Centers for Disease Control and Prevention.
[xviii] Ibid.
[xix] iPHIS. (2006-2017). Date extracted: July 16, 2018.
[xx] Ibid.
[xxi] Ibid.
[xxii] Public Health Ontario Laboratory. (2018). HIV Testing in Thunder Bay District Health Unit [data file].
[xxiii] iPHIS. (2006-2017). Date extracted: July 16, 2018.
[xxiv] Ibid.
[xxv] Ontario Mortality Data, 2005-2012, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, Date Extracted: July 10, 2016.
[xxvi] Centers for Disease Control and Prevention and Health Resources and Services Administration. (2014). *Integrated Guidance for Developing Epidemiologic Profiles: HIV Prevention and Ryan White HIV/AIDS Programs Planning.* Atlanta, Georgia: Centers for Disease Control and Prevention.
[xxvii] Ibid.
[xxviii] Ibid.
[xxix] Public Health Ontario Laboratory. (2018). HIV Testing in Thunder Bay District Health Unit [data file].
[xxx] Ibid.
[xxxi] Ontario HIV Epidemiology and Surveillance Initiative. (2018). *HIV care cascade in Ontario by sex, age and health region: Linkage to care, in care, on antiretroviral treatment and virally suppressed, 2015.*
[xxxii] Ibid.
[xxxiii] Ibid.
[xxxiv] iPHIS. (2006-2017). Date extracted: July 16, 2018.
[xxxv] Ibid.
[xxxvi] Ibid.
[xxxvii] Millson, P. and White, S. (2016). Ontario I-Track Report: Enhanced Surveillance of Risk Behaviours and Prevalence of HIV and Hepatitis C Among People Who Inject Drugs. Dalla Lana School of Public Health, University of Toronto.
[xxxviii] Kerr, T., Mitra, S., Krysowaty, B., Marshall, Z., Olsen, C., Rachlis, B. … Rourke, S. (2017). Supervised Injection Service Feasbility Study Report: Thunder Bay, ON. Ontario Integrated Supervised Injection Services Feasibility Study.
[xxxix] Creswell, J. W. (2014). Research design: qualitative, quantitative, and mixed methods approaches.

[xl] Ontario Advisory Committee on HIV/AIDS. (2016). HIV/AIDS Strategy to 2026: Focusing Our Efforts – Changing the Course of the HIV Prevention, Engagement and Care Cascade in Ontario. Toronto, ON: Ministry of Health and Long-Term Care.