

This update is provided in recognition of World TB day, held annually on March 24.

### Tuberculosis is still present in Canada. Incidence rates include:

- **National:** 5.5 new cases per 100,000 (2023)
- **First Nations:** 18.5 per 100,000 (2023)
- **Persons born outside of Canada:** 15.5 per 100,000 (2023)
- **Ontario:** 6.2 per 100,000 (2024)
- **Thunder Bay District:** 9.4 per 100,000 (2024)

Source: <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/tuberculosis-disease-2023-infographic.html>

### UPDATE: Thunder Bay's TB Outbreak

The 2018 tuberculosis (TB) outbreak investigation in the city of Thunder Bay continues with ongoing active case and contact investigation and management.

Those who are affected are individuals who are systematically excluded and are disproportionately affected by higher rates of HIV infection which further weakens the immune system, increasing the risk of developing active TB disease. Co-infection with both is not uncommon.

#### Declared March 8, 2018:

- 12 active cases, all were unhoused or underhoused

#### March 2018 to 2023:

- Initiated enhanced case and contact management and the need to develop relationships with community partners to support individuals through testing and treatment.
- Continue to identify cases of TB and Latent TB infection (LTBI) through community screening and testing initiatives.
- Outbreak-related cases; \*2019-2020 (9), 2021 (6), \*2022-2023 (9). \*Years combined when case counts were too low to report on (i.e., less than 5)

#### 2024:

- 15 confirmed active cases diagnosed in TBDHU in 2024
- 8 cases where genetically linked to the outbreak through whole genome sequencing (WGS)

#### TBDHU Response:

- Each active TB case identified and treated by TBDHU receives Daily Observed Therapy for medication and follow up for 6-12 months.
- Contacts for each case are identified, investigated, tested, retested after 8 weeks and treated for LTBI or active TB depending on results

### Support from Local Providers

In response to this outbreak, the TBDHU would appreciate your assistance in the following:

1. **Maintain a high index of suspicion** for TB in patients who are unhoused or underhoused.
2. **Obtain imaging and sputum samples** for diagnosis if you suspect or want to rule out active respiratory TB. Tuberculin skin testing (TST) does not have a role in the diagnosis of active disease. TST may be falsely negative with active disease.
3. **Report all confirmed and suspected cases** of active TB to the TBDHU under *Ontario Regulation 135/18* of the Health Protection and Promotion Act by the next working day to the Infectious Diseases Program; (807) 625-8318 or 1-888-294-6630, ext 8318.
4. **Employ infection prevention and control procedures.** Follow airborne precautions, including the use of fit-tested N95 respirators.

### Keep TB on the differential

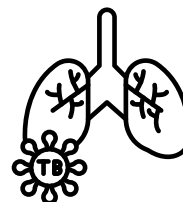
Active TB symptoms can include:

- New persistent cough; > 2 weeks
- Hemoptysis
- Chest pain, dyspnea
- Fatigue, lethargy, weakness
- Weight loss or a lack of appetite
- Chills, fever
- Night sweats
- Lymphadenopathy, for extrapulmonary TB



For respiratory TB, sputum acid-fast bacilli (AFB) smear and culture (3 specimens collected at least 1 hour apart, preferably in the morning) and chest x-ray are needed for diagnosis.

Diagnosis of extrapulmonary TB may differ but may include AFB and culture of tissue or fluid samples.



## Administering and Reading a TB Skin Test (TST)

The TST must be read 48-72 hours after administration OR it must be re-administered.

1. **Inspect:** Note the induration (hard, raised formation) NOT the erythema/redness.
2. **Palpate & Mark:** Use your fingertips to determine if any induration is present and mark its edges.
3. **Measure:** Measure the diameter of the induration across the forearm using a caliper ruler in mm. If no induration, record as 0 mm.

### More:

- **Consider viewing** this video from the CDC: <https://bit.ly/3Pf3GNI>
- **Use this web-based algorithm** to assist with interpretation: <http://www.tstin3d.com>.

Reaction size	When the reaction is positive
0-4mm	Generally negative. NOTE: Positive in children under 5 AND high risk of TB infection
5-9mm	HIV infection, contact with active TB within past 2 years, fibronodular disease on CXR, organ transplantation, tumornecrosis factor alpha inhibitors and other immunosuppressive drugs, end-stage renal disease
≥10mm	All others

## All about IGRAs

**IGRAs (Interferon Gamma Release Assays) are blood tests** that measure T-cell release of interferon– gamma following stimulation by antigens specific to mycobacterium tuberculosis bacteria and not to non-tuberculous mycobacteria. Positive IGRAs MUST be reported to TBDHU using the appropriate reporting form.

### Situations where IGRAs are used:

- Persons from groups that historically have poor return rates for TST reading (only single visit required)
- Persons who have received BCG vaccination after 1 year of age and/or have had BCG vaccination more than once (often from endemic countries, may not know age BCG was received)
- Clarifying LTBI diagnosis in low-risk person with positive TST to assist in treatment decision by provider and person

### Accessing IGRA:

- IGRA Testing: Life Labs on 1040 Oliver Road from Monday-Thursday. Must call to book an appointment.
- Cost is \$104; NOT COVERED by OHIP.

## Reporting Positive Results

**Report all cases of active and LTBI to TBDHU** as required under Ontario's Health Protection and Promotion Act, (sec. 26; reporting carrier of disease).

**This includes positive TSTs and IGRAs.** The reporting form is online at [TBDHU.com/LTBReportingform](http://TBDHU.com/LTBReportingform).

## Positive TST or IGRA: Next steps

### Health Care Provider (HCP):

- Rule out active TB disease through symptom assessment, CXR, sputum samples if indicated (i.e., productive cough).
- Report to TBDHU using appropriate reporting form; [TBDHU.com/LTBReportingform](http://TBDHU.com/LTBReportingform)
- Provide prescription if LTBI medication is indicated.
- Order pre-treatment labs.
- Order follow up labs; usually 1 month post-treatment initiation.
- Provide follow up/referral if side effects present.
- Refer to TB or ID specialists when warranted.

**NOTE:** The most up-to-date treatment and monitoring guidelines are available in the 8th edition of the *Canadian Tuberculosis Standards*, published in 2022.

### The TBDHU:

- Provides client education.
- Dispenses prescribed medication at no charge.
- Follows and supports client until the end of treatment.
- Acts as a resource to HCPs.

**NOTE:** TBDHU cannot prescribe medication as well as order, interpret and monitor lab work OR make changes to a treatment plan without HCP consultation.

## Medical Surveillance

**TB screening is included in all immigration medical examinations** prior to departure for any individual 11 years of age and older who is newly arriving to Canada and maybe staying for 6 months or longer.

**A referral for post-landing medical surveillance** is provided to those with an abnormal chest x-ray or a history of TB treatment. These individuals are required to check in with the local public health unit where they intend to reside and undergo a local clinical assessment. The TBDHU may follow these clients for a period of up to five years (if not treated for active TB or LTBI).

**TBDHU has observed a recent increase** in the reports of medical surveillance cases, with many of the cases newcomers to Canada (refugees, immigrants, students, workers) from endemic countries.

**We thank clinicians** for keeping TB as a differential diagnosis when assessing clients who have recently immigrated to Canada.

## Local TB Survey - Seeking HCP Input

- Do you work as a provider in Thunder Bay & District?
- Does your role have responsibilities related to TB screening and care?

If you answered **yes to the above**, the Applied Research Department at Confederation College, in partnership with TBDHU, wants to hear from you!

The research will identify local barriers, gaps, and needs of providers specific to treating TB/LTBI. The information will be used to develop future training or educational materials

Please take the survey by scanning the QR code or following the link:

- <https://bit.ly/3XKSNHK>



## National Tuberculosis Response

The document *Government of Canada's Tuberculosis Response (2025): Working towards Tuberculosis Elimination* is now available at <https://bit.ly/3XKNRme>.

This document provides a framework for the federal government's collaborative work with communities, provincial and territorial partners and Indigenous rights-holders towards shared goals for Tuberculosis elimination.

## TB Data in Pictures

### ACTIVE TB INCIDENCE OVER TIME, (Diagnosed by TBDHU)

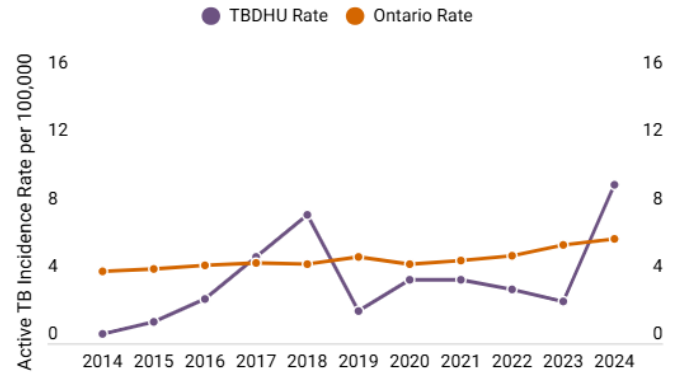


Figure 1: Confirmed active TB incidence over time, TBDHU

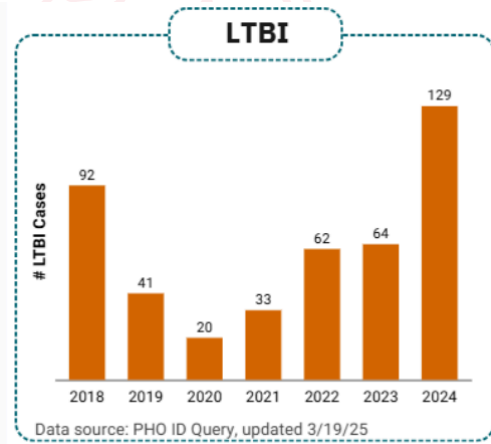


Figure 2: Confirmed LTBI case counts over time, TBDHU

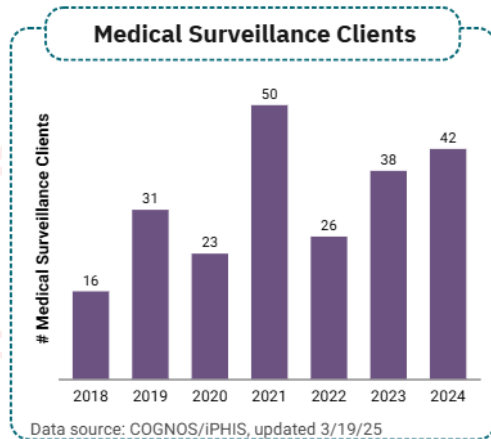


Figure 3: Medical surveillance client counts over time, TBDHU