# Trends in Tuberculosis

| | |
|---|---|
| **To:** | Chair and Members of the Board of Health |
| **Meeting Date:** | March 5, 2025 |
| **Report No.** | BH.01.MAR0525.R05, Pages: 8 |
| **Prepared By:** | Camille Loucks, Manager, Clinical Services |
| **Approved By:** | Rita Isley, RN, BScN, MPA<br>Vice President of Community Health and CNO |
| **Submitted By & Signature:** | *Original signed document on file.*<br>**Dr. Nicola J. Mercer, MD, MBA, MPH, FRCPC**<br>**Medical Officer of Health & CEO** |

## Recommendations

It is recommended that the Board of Health receive this report for information.

## Key Points

- Tuberculosis (TB) infections in Wellington Dufferin Guelph (WDG) region decreased slightly in 2024 but rates remain significantly higher than prior to the COVID-19 pandemic; and
- Wellington Dufferin Guelph Public Health's (WDGPH) tuberculosis program supports all clients in the region with testing, diagnosis and treatment for TB; and
- WDGPH TB program provides additional care to all TB clients who require support with social determinants of health.

## Background

Tuberculosis is a serious but curable infectious disease caused by the bacterium Mycobacterium tuberculosis. TB infections are spread through the air after prolonged contact with an infectious individual through coughing, sneezing, or talking. TB infections primarily attack the lungs but can also affect other parts of the body, including the kidneys, spine, lymph

nodes or the brain. The clinical presentation of TB infections varies, but typically individuals have a cough that lasts two weeks or longer, fatigue, weight loss, and fever. TB infections can be latent or inactive, which are not contagious, or active, which can be transmitted from person to person. Individuals with latent TB are at risk for developing active TB later in life. Latent and active TB infections require different clinical management.[1]

Canada has one of the lowest rates of TB infection in the world but has not yet been able to eliminate this disease. The rate of TB in Canada decreased steadily between 1940 and 1980, but since that time, the annual rates of TB in Canada have been stable.[2] People born outside of Canada and Indigenous populations continue to be disproportionately affected by TB infections. By place of birth, 79% of TB cases in 2023 were born outside of Canada and 21% were born in Canada. Of TB cases born in Canada, 37% were First Nations, 37% were Inuit, 24% were non-Indigenous and 3% were Métis.[3]

## Discussion

There has been a dramatic increase in medical surveillance for Latent TB Infections(LTBI) and active TB infections in the last 3 years. Although the WDGPH TB program continued to screen and treat clients throughout the COVID-19 pandemic, testing in the community was greatly reduced which, along with an increase in the number of new Canadians in the WDG region, can account for the increase. In 2024 the infection rates of all types of TB in the WDG community have begun to decrease, however, they continue to remain higher than the pre-pandemic rates. The rates of TB infections in the WDG region in 2022, 2023 and 2024 are outlined below in **Table 1**.

**Table 1: Rates of TB Infections by Type in WDG Region 2022-2024**

| Year | Latent Infections (Untreated) | Latent Infections (Treated) | Active Infections |
|---|---|---|---|
| 2022 | 132 | 17 | 6 |
| 2023 | 261 | 59 | 12 |
| 2024 | 202 | 46 | 16 |

The WDGPH TB program provides timely support for all clients who require screening or treatment of TB.

Clients are referred for assessment to the WDGPH TB program for the following reasons:

- For medical surveillance following their immigration medical exam;
- For contact tracing of an active or LTBI case;
- For investigation of a positive TST from the community;
- For investigation of a suspect case from the community;
- For investigation of an active case or suspect case from a hospital; and
- For a positive report from a Public Health of Ontario Lab (PHOL)

Clients who require TB screening for medical reasons receive free tuberculin tests (TST). All other clients are required to pay for their tests. TST's were once offered in primary care offices but the cost of TST serum has become prohibitive for many providers. TST's are still required by many schools and employers, so the TB program provides this service to the students, volunteers and employees who work with the public. All three office locations, Guelph, Fergus and Orangeville, host weekly TST clinics. In 2024, WDGPH administered 1,453 TST's.

In 2024 WDGPH referred 110 clients for medical surveillance. This number decreased slightly from 2023 when 125 clients were seen. The vast majority of LTBI's enter the TB program through medical surveillance.

All potential cases have a nursing assessment which includes a detailed history, TST, chest x-ray and triple sputum specimens. All medical surveillance clients, clients who are potential contacts of cases and community referrals are reviewed at TB rounds and are either discharged or referred to WDGPH TB clinic for further investigation.

Active cases are referred directly to a TB specialist for assessment in hospital, in TB clinic or in the specialist office. All active cases and their contacts must isolate until it can be confirmed that they are no longer infectious. This process may take days or weeks.

TB is treated with antibiotics and the treatment is lengthy and complicated. TB medications are provided directly to WDGPH by the Ministry of Health. Because drug resistance to TB medications is an ongoing concern, all active cases are initially expected to participate in direct

observed therapy (DOT) and virtual DOT (VDOT). DOT requires that staff visit clients in their residence and directly observe them taking their TB treatment. Once it has been established that clients are able to be consistently compliant and that they are able to tolerate the TB medications, clients are moved to the VDOT program which is a virtual form of DOT. LTBI treatment is less complicated and DOT or VDOT is not required. WDGPH has engaged the skills of a local community pharmacy to prepare the TB medications for clients in a simple format to ensure administration of medications was as uncomplicated as possible.

WDGPH is one of the few health units in Ontario that operates a TB clinic. The TB clinic allows WDGPH to efficiently have clients assessed, treated and followed. This reduces barriers to accessing care in the community.

The TB program continues to innovate to provide seamless care for clients. During one of the school exposures in 2024, the TB team noticed that many of the students already had a chart in the WDGPH electronic medical record (EMR). This was because the students had been notified to have their immunizations updated through the Immunization of School Pupils Act (ISPA) program. To save clients time and to support the WDGPH immunization program, all individuals and their families who come for medical surveillance, are now screened to ensure that their immunizations are updated.

A visual summary of the WDGPH TB program is available in **Appendix A**.

## Health Equity Implications

Health is a fundamental human right and equity is the absence of unfair or avoidable differences. Health equity is achieved when all individuals in a community reach their full health potential. Individuals should not be disadvantaged from attaining health equity because of race, ethnicity, religion, gender, age, social class, socioeconomic status, geography or other socially determined circumstance.[4]

Frequently, clients who are diagnosed and treated for TB in the WDG region encounter health equity concerns. All clients who were diagnosed with active TB in the WDG region in 2024 were foreign born. Because of the challenges encountered when immigrating to a new county, many of these clients struggle to find appropriate housing, work and, at times, food.

There are multiple housing issues in the WDG region and newcomers often need to share accommodations which can lead to overcrowding. This is impactful for the TB client with active disease who is required to isolate but may be unable to because of their living situation. Furthermore, other members of the household are also at increased risk since they may be unable to isolate from the infected individual in overcrowded living conditions.

Newcomers also struggle with work. Often the jobs that they can secure may not have health benefits or the option to work from home. Situations such as these are uniquely challenging for TB clients with active disease since they are required to isolate. Commonly, newcomers have limited resources and are very dependent on work to sustain themselves and their families.

Access to food can also be a concern if clients are required to isolate and are unable to work.

Stigma against individuals with TB is also a health equity concern. Given that TB predominantly affects newcomer populations, these clients can be discriminated against by both Canadians and individuals from their county of origin.

The TB team at WDGPH supports clients by helping them navigate these challenging issues. By discussing TB risks to household members, by writing letters of support to employers and by connecting clients with community resources that can provide them with food and other services that they may need, the TB team provides not just physical care for clients but emotional care. This support allows clients to focus on their treatment and helps them recover more quickly.

## Conclusion

The TB program at WDGPH will continue to monitor the rate of TB and to provide appropriate care to all TB clients in the WDG region. Additionally, the team will look for new ways to streamline Agency services and to support TB clients who encounter health equity issues. By providing efficient and qualified TB services, WDGPH hopes to see a continued decrease in all cases of TB disease across out region.

## Ontario Public Health Standards

### Foundational Standards

- ☒ Population Health Assessment
- ☒ Health Equity
- ☒ Effective Public Health Practice
- ☐ Emergency Management

### Program Standards

- ☐ Chronic Disease Prevention and Well-Being
- ☐ Food Safety
- ☐ Healthy Environments
- ☐ Healthy Growth and Development
- ☐ Immunization
- ☒ Infectious and Communicable Diseases Prevention and Control
- ☐ Safe Water
- ☐ School Health
- ☐ Substance Use and Injury Prevention

## 2024-2028 WDGPH Strategic Goals

More details about these strategic goals can be found in WDGPH's 2024-2028 Strategic Plan.

- ☒ Improve health outcomes
- ☐ Focus on children's health
- ☒ Build strong partnerships
- ☒ Innovate our programs and services
- ☒ Lead the way toward a sustainable Public Health system

## References


(1) Tuberculosis (TB): For Health Professionals. 2024-12-13. https://www.canada.ca/en/public-health/services/diseases/tuberculosis/health-professionals.html

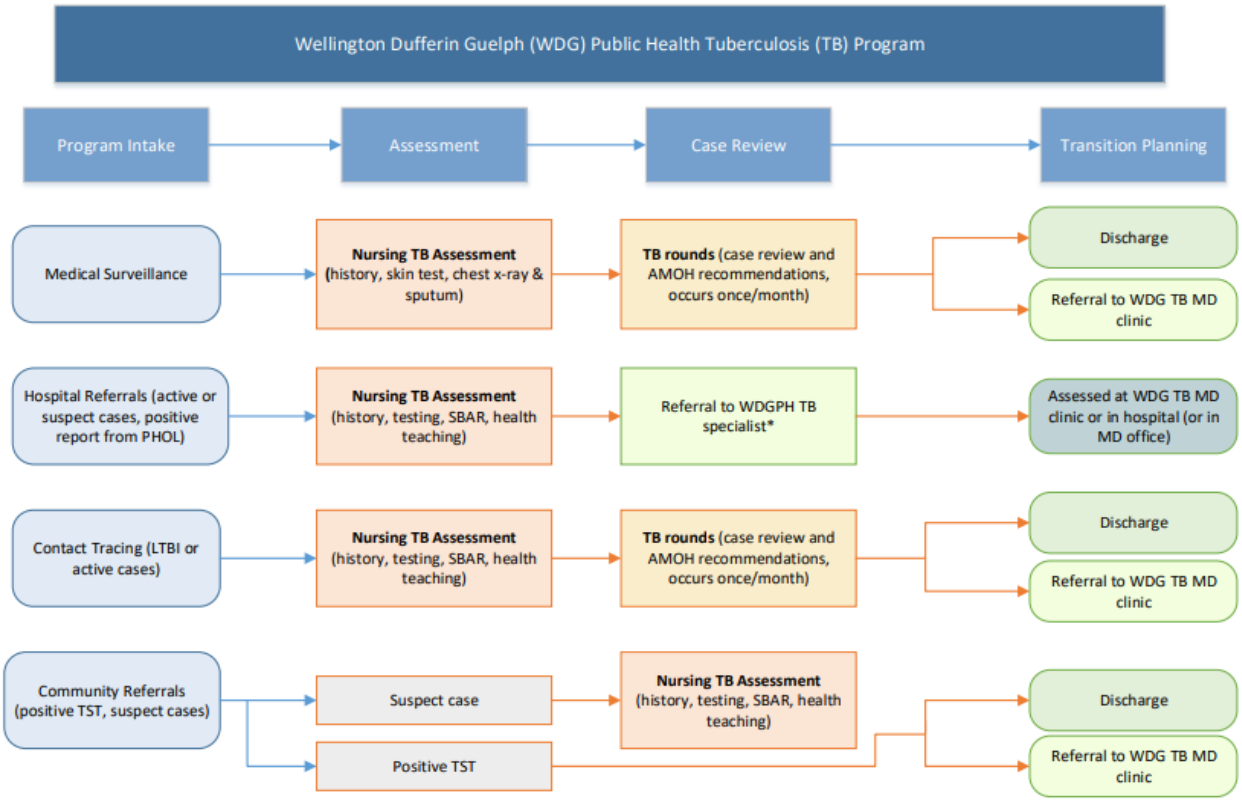
(2) Tuberculosis (TB) Monitoring. 2025-01-31. Government of Canada. https://www.canada.ca/en/public-health/services/diseases/tuberculosis/surveillance.html

(3) Tuberculosis Disease in Canada, 2023 (infographic). Tuberculosis Disease in Canada, 2023 (infographic) - Canada.ca

(4) Solar O, Irwin A. *A Conceptual Framework for Action on the Social Determinates of Health.* Social Determinants of Health Discussion Paper 2 (Policy and Practice). Geneva, WHO, 2010. https://www.who.int/health-topics/health-equity#tab=tab_1

## Appendices

# Appendix A




### Legend

- AMOH-Associate Medical Officer of Health
- LTBI-Latent Tuberculosis Infection
- MD-Medical Doctor
- PHOL-Public Health Ontario Lab
- SBAR-Situation, Background, Assessment, Recommendations: a form of case presentation
- TB-Tuberculosis
- TST-Tuberculin Skin Test
- WDGPH/WDG-Wellington Dufferin Guelph Public Health