



## Backgrounder

### Wastewater Monitoring for Tuberculosis in Nunavut

Taima TB, a collaboration between the Government of Nunavut, Nunavut Tunngavik Inc. (NTI) and The Ottawa Hospital Research Institute, is embarking on a five-year research study to explore new methods in the detection and prevention of tuberculosis (TB) in Nunavut.

TB continues to pose a significant health concern in Nunavut, particularly affecting the Inuit population. The incidence rate of TB disease in Inuit Nunangat is over 400 times greater than for non-Indigenous people born in Canada.

TB is a bacterial disease that can cause a cough that doesn't go away, fever, night sweats, among other symptoms. It is highly contagious and can be fatal if left untreated. People with latent TB infection may show no symptoms but remain at risk of developing active TB, making treatment crucial.

Effective TB treatments are available, however identifying those who require treatment can be difficult as the disease can start without symptoms before worsening and spreading to others. The current approaches for identifying people with TB in Nunavut are through contact tracing or to set up months-long community-wide screening clinics. These clinics rely on community members to complete skin tests, sputum tests, and chest x-rays. Wastewater monitoring could help to target community-wide screening efforts to where they are most needed.

Wastewater monitoring involves regularly testing sewage samples for viral or bacterial genetic material that can be shed in the stool or urine of infected people. Since the onset of the COVID-19 pandemic, wastewater monitoring has become a critical tool for monitoring infectious diseases in Canada and around the world, but very little research has been done on wastewater testing for TB.

This study, funded by the Canadian Institutes of Health Research and NTI, aims to explore the potential of wastewater monitoring in identifying and preventing the spread of TB in Nunavut.

For more information on TB and the study, please visit <https://taimatb.tunngavik.com/>.