

# NUNAVIK PUBLIC HEALTH NEWSLETTER

## CALL FOR VIGILANCE TUBERCULOSIS

TRANSLATION

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This call for vigilance is intended for physicians, nurses in health centers and CLSCs, infection prevention and control teams, public health advisors, and healthcare staff involved in patient follow-ups within healthcare facilities in Nunavik.

### Context :

### 1. Regional Epidemiology

An increase in tuberculosis (TB) cases has been observed in Nunavik since 2022. Historically, the number of reported active tuberculosis (TB) cases in Nunavik remained relatively stable, averaging 7 cases per year between 1990 and 2009. However, since the early 2010s, the region has seen an upward trend, with an average of 39 cases reported annually between 2010 and 2019.

In 2020 and 2021, the number of active TB cases detected significantly decreased, partly due to disruptions related to the COVID-19 pandemic, which affected access to care and testing capacity. Nevertheless, by 2022, the number of active TB cases resumed its upward trajectory, peaking in 2024 with a record 96 reported cases.

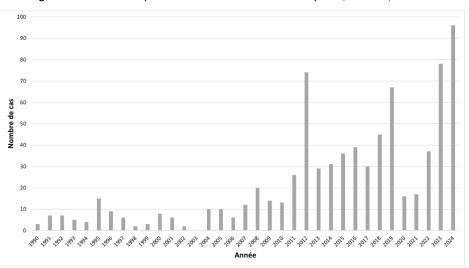


Figure 1. Number of Reported Active Tuberculosis Cases by Year, Nunavik, 1990–2024

Data Sources: List of reported active tuberculosis cases in Nunavik, 1990–2024 [unpublished document].

#### 2. Clinical Presentation

Tuberculosis is caused by a bacterium (Mycobacterium tuberculosis) and manifests in two distinct forms: TB infection (TBI) and active TB.

**TBI** is a non-contagious latent form that progresses to active disease in about 5–10% of infected individuals. The risk of active disease is highest within the first two years following infection.

Active TB is the contagious form of the disease. It is primarily transmitted through the air, via inhalation of contaminated microdroplets produced when a contagious person coughs, sneezes, speaks, sings, or breathes. Active TB most commonly presents with pulmonary involvement but can also affect other organs (e.g., lymph nodes, brain, bones, joints, and kidneys). Respiratory and constitutional symptoms are the most frequent



manifestations (see table below). However, atypical or nonspecific symptoms (e.g., seizures, abdominal pain, failure to thrive in children) may occur, and some individuals may also remain asymptomatic. Active TB is both a notifiable disease (*MADO*) and a mandatory treatment disease (*MATO*).

Without appropriate treatment, active TB can progress to severe or disseminated disease and lead to death. Young children under the age of 5 and immunosuppressed individuals are particularly at risk of developing more severe forms of the disease. To prevent severe TB, the Bacillus Calmette-Guérin (BCG) vaccine has been offered to all newborns in Nunavik since January 1, 2023. It is recommended for all immunocompetent children under 2 years old. Please offer it to your patients!

### **Recommandations:**

Remain vigilant when faced with respiratory and constitutional symptoms suggestive of active TB, as well as any radiological anomalies compatible with this diagnosis. Pay particular attention in case of confirmed or suspected exposure to an individual with contagious active TB.

1. Suspect Active TB in Any of the Following Cases:			
<ul> <li>a. <u>Signs or Symptoms:</u></li> <li>Unusual and persistent cough (lasting more than 3 weeks)</li> <li>New or increased sputum production</li> <li>Hemoptysis</li> <li>Pleuritic pain</li> <li>Fever</li> <li>Night sweats</li> <li>Unexplained weight loss (or lack of weight gain in children)</li> <li>General health decline (e.g., fatigue, weakness, anorexia)</li> <li>Erythema nodosum</li> <li>Lymphadenopathy</li> </ul>	<ul> <li>b. <u>Chest X-Ray (CXR) Abnormalities:</u> <ul> <li>Cavitary lesions</li> <li>Nodules, opacities, or infiltrates</li> <li>Pleural effusion</li> <li>Hilar or mediastinal lymphadenopathy</li> </ul> </li> <li>Note: The presence of a calcified granuloma on CXR is generally indicative of a past infection.</li> </ul>		
<ul> <li>2. Prevention and Protection Measures</li> <li>Implement airborne transmission precautions as soon as active TB is suspected:         <ul> <li>Wear an N95 respirator when in the presence of anyone with signs or symptoms of active TB.</li> <li>Ask the patient to wear a surgical mask.</li> <li>If possible, place the individual in a negative-pressure room, or if unavailable, in a closed, well-ventilated room separate from others.</li> </ul> </li> <li>3. Investigations and Diagnostic Tests (Refer to the local TB or public health team, if available)</li> <li>Complete the <u>Clinical assessment of a suspected active TB case or a contact of active TB case</u> form and perform appropriate investigations based on the individual's history and clinical presentation.</li> </ul>			
		investigated for TB if air transport is required.	from spontaneous sputum in any individual aged 10 and older being ollowing a Tuberculin Skin Test (TST) must be reported to the Nunavil future TST.
		4. Definition of an Active TB Case	
	pacterium tuberculosis complex through a nucleic acid amplification test ettii), M. bovis (excluding the BCG strain), M. africanum, M. caprae		
<ul> <li>Probable Case:</li> <li>In the absence of precise microbial identification, at least one of the 1) Symptoms and signs compatible with progressive tuberculo</li> <li>2) Chest X-rays suggestive of progressive tuberculosis.</li> <li>3) Pathological examination of tissues from biopsy or autopsy AND</li> </ul>	osis.		

Prescription of anti-tuberculosis treatment (unless diagnosed post-mortem).



### Management of an Active TB Case

### a. Report All Active TB Cases to the Nunavik DPH:

- Use the static or dynamic MADO Declaration Form for notifiable diseases (in French only) and send it to:
  - Fax: 1-866-867-8026
  - Email: <u>mado-declarations.rr17@ssss.gouv.qc.ca</u>

### b. Initiate Anti-Tuberculosis Treatment Promptly:

Refer to the follow-up protocol and prescription forms available in the <u>Tuberculosis Toolbox</u>.

Note:

For clinical management inquiries, contact the TB consulting respirologists for Nunavik:

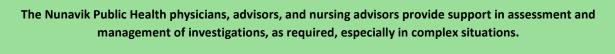
- Adults: Dr. Faiz Ahmad Khan, via SAFIR or at <u>faiz.ahmad.khan.med@ssss.gouv.qc.ca</u>
- Pediatric patients: Dr. Zofia Zysman-Colman at <u>zofia.zysman-colman.med@ssss.gouv.qc.ca</u>

### c. Isolate the Individual as Necessary:

Home isolation is recommended for most individuals with active TB, provided their clinical condition allows it. Refer to the <u>Practical Guide</u> - <u>Home Isolation</u> for more details (in French only, English version coming soon).

### d. Begin an Epidemiological Investigation to Manage Contacts:

Follow the protocol and use the contact identification forms available in the **Tuberculosis Toolbox**.



- > You can contact the infectious diseases advisory team at the email address:
  - Tuberculose-santepublique.nrbhss@ssss.gouv.qc.ca
- On evenings, weekends, and public holidays, the infectious diseases physician on-call can be reached by phone at: 1-855-964-2244 or 1-819-299-2990.

### These contact details are reserved for healthcare professionals and may not be shared with the public.

### **Training Offer**

For more information on tuberculosis, including its modes of transmission, diagnostic modalities, and associated treatments, a comprehensive and detailed training is available online at all times in an asynchronous format. To access it, visit the <u>Tuberculosis Toolbox</u> page under the "Advanced Training Capsules on Tuberculosis for Nunavik" tab and complete the registration form.

### <u>Useful links:</u>

- <u>Tuberculosis Toolbox</u>
- TUBERCULOSE : Gestion par les intervenants de santé publique des cas et de leurs contacts dans la communauté (In French only)
- <u>Canadian Tuberculosis Standards 8<sup>th</sup> Edition</u>