

# Active Tuberculosis among Homeless Persons in Toronto

## What you need to know

In 2009, **ninety-four percent of all people diagnosed with active TB in Toronto were born outside of Canada.** The TB strains associated with foreign-born persons in Canada are more likely to be drug-resistant to TB medications than in persons with TB who were born in Canada. This poses potentially serious negative effects in Toronto, where fifty percent of the population consists of people born outside of Canada. Furthermore, in Toronto, it is estimated that 29,000 people use homeless shelters each year and recent TB outbreaks have been associated with transmissions at shelters, single-room-occupancy hotels and rooming houses. As a result, public health teams have been dedicated to case management, follow-up, education, health promotion and active case finding among the homeless population in Toronto to try to curb the spread of TB.

### ABOUT THE RESEARCHER



**Dr. Kamran Khan, MD** is an Associate Professor in the Department of Medicine at the University of Toronto.

Dr. Khan is also a staff physician in the Division of Infectious Diseases at St. Michael's Hospital. His research interests include global migration and infectious diseases, immigrant and refugee health, and tuberculosis.

### What is this research about?

This research studies trends in tuberculosis (TB) within the homeless population in Toronto, Ontario. It attempts to understand and address the extent of TB within this vulnerable group, and reviews the health outcomes of homeless people with TB. This research also offers suggestions on how to curb the spread of TB to others.



### VISIT

[www.homelesshub.ca](http://www.homelesshub.ca)  
for more information

### ARTICLE SOURCE

The article "Active Tuberculosis among Homeless Persons, Toronto, Ontario, Canada, 1998–2007" by Kamran Khan et al. was published in the journal *Emerging Infectious Diseases* in 2011.

## What did the researchers do?

The researchers studied 91 homeless people with active TB from 1998-2007.

Eligibility for the study included having a diagnosis of active TB, having stayed in a shelter or rooming house, having no fixed address, or having used homeless services more than once per week. These criteria had to have been met the year prior to being diagnosed with active TB.

The researchers excluded those who were foreign-born and received a diagnosis of active TB within one month of arrival in Canada, received a diagnosis of active TB while in a shelter designed for new immigrants, were not Toronto residents when they received a diagnosis of active TB, or had incomplete records.

## What did the researchers find?

The researchers found that:

- **Twenty percent** of the study group **died within one year** of their diagnoses, **compared to 7.4 percent of all people diagnosed** with TB in Toronto between 1999-2002.
- **Other physical and mental health conditions**, and substance use, common within the homeless population, **raised the risk for TB** and complicated treatment outcomes.
- **Difficulty accessing the health care system** was found to delay homeless people's TB treatment. Therefore, care was only sought after the disease became advanced and highly contagious
- The **transient lifestyle** of many homeless people was also found to **negatively affect the diagnoses and treatment** of TB.
- Because it is difficult for shelters to provide isolation, **TB infected homeless people were frequently hospitalized for treatment as opposed to being treated as an outpatient**. However, intensive case management by public health and clinic staff, and small incentives such as food vouchers and cash, resulted in 80 percent of the study group completing treatment.

## HOW CAN YOU USE THIS RESEARCH?

This research suggests that urgent measures are needed to improve TB treatment outcomes for homeless people. It can be used to inform TB transmission prevention strategies within the homeless shelter system through improved ventilation systems and reduced shelter sizes. Finally, this research demonstrates that early public health prevention and control efforts, and greater access to health care are effective in controlling TB within this vulnerable population.

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### KEYWORDS

*tuberculosis (TB), infectious diseases, health, shelter use, health care system*

Summary Date: August 2011