



Manitoba Centre for Health Policy

Time to End Tuberculosis in Manitoba

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A summary of the report *Exploring Tuberculosis Treatment, Management, and Prevention in Manitoba's Administrative Health Data*

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In this day and age, most of us think of the common illnesses we encounter as annoying, but fairly minor. We may catch a cold from someone at work, or fall victim to a stomach bug brought home from daycare – unpleasant to deal with, but usually not long-lived or life-threatening. However, in Manitoba, **tuberculosis (TB)** is more common and more dangerous than most people realize. This serious disease can be fatal if left untreated. TB is caused by bacteria that first settle in the lungs and throat, and can be spread through the air when a person who has an active TB infection coughs or sneezes. Most people who come into contact with someone with **active TB** won't become ill, because their immune system can stave off the infection. But if a healthy person spends a lot of time with someone with active TB, they are at risk of getting the disease. People with weakened immune systems are also at high risk of becoming sick with TB.

A TB infection may also be inactive, and in this case it is known as **latent TB**. People with latent TB don't feel sick and they cannot pass on the infection. But there is a chance that the 'sleeping' bacteria that live in their bodies will become active in the future. This is why it's important that people with TB infections (both active and latent) get the right medications to wipe out the bacteria.

Manitoba Health, the Manitoba health regions, First Nations leaders and health staff, and federal agencies all work together to prevent the spread of TB. These partners ensure that Manitobans with active and latent TB have access to the care they need. This teamwork approach is important, because TB affects many Manitobans from both urban and rural settings. Finding ways to prevent, treat and ultimately put an end to TB is no easy task.

What Can We Learn about Tuberculosis from Administrative Data?

Manitoba has a TB Registry that contains information about all active cases of TB in Manitoba. Researchers at the Manitoba Centre for Health Policy (MCHP) led a study in which the TB Registry was linked to the Manitoba Population Research Data Repository at MCHP. The Repository is a large collection of administrative data from the Manitoba healthcare system and other sources. It contains much more information about the health of Manitobans with TB than the TB Registry on its own. Each time a Manitoba resident comes into contact with a healthcare provider, fills a prescription, or accesses other public services, more information is added to the Repository. And even though there is no way to count the total number of patients with latent TB in Manitoba, the Repository does tell us how many of these patients are receiving treatment. The Repository is a powerful tool for research and planning healthcare services, because each individual person's records from different sources can be linked together. This means we

can follow people's journey through the healthcare system over time. Their privacy is protected because all personal details (like names and addresses) are removed from the data before they arrive at MCHP.

The study's aim was to learn more about Manitobans with TB and what kind of care they receive. This was the first time we linked the TB Registry to the Repository, which allowed us to explore how we could use these data to tackle the high rates of TB in Manitoba. We looked at the number of people with active TB in Manitoba, how TB patients access health services, and how successfully latent TB is being treated to prevent the infection from spreading. The study used data spanning 15 years (1999-2014).

Manitobans with TB: We started by looking at the characteristics of people diagnosed with active TB and people being treated for latent TB. It was striking that there were many children, teens and younger adults with TB infections. About half of all people with active TB lived in Winnipeg and many others lived in Northern Manitoba. Among people being treated for latent TB, just over half lived in the North, and about one-third lived in Winnipeg. Overall, there was an even split between male and female patients with active TB, and about half of all people with active TB were low-income.

The data we have do a good job of describing the characteristics of Manitobans who have TB, but they don't tell the whole story. For example, it would be helpful to know more about how long a person had TB symptoms. This would allow us to look at the time it took from when the first signs of TB showed up to when treatment started.

Need for Health Services: People with TB can expect to use more health services than the general population. In our study, we found that people with active TB were high users of health services. Before their diagnosis, they made frequent visits to emergency rooms, acute care centres, and family doctor clinics. During treatment, they continued to have many specialist doctor appointments.

This trend of high health services use might mean it took some time for patients to get the right diagnosis. Early signs of TB (like tiredness, weight loss and coughing) can easily be mistaken for other common illnesses. Making good use of TB data can help ensure that sick people receive a timely diagnosis. To help end TB across the province, it is important that health services and other resources for good health (including proper housing and clean water) are accessible to all Manitobans.

Trends in Treating Latent TB: Even though people with latent TB don't feel ill, their TB can become active and then spread to healthy people around them. Treating people with latent TB is important for preventing new TB cases. But this is easier said than done! People with latent TB need to be on medication for several months to completely get rid of their infection, even while they do not feel sick. It can be difficult to stick with the treatment for that long, especially when the side effects may cause the person to feel unwell.

Figure 1. Characteristics of Manitobans with Active and Treated Latent Tuberculosis (1999-2014)

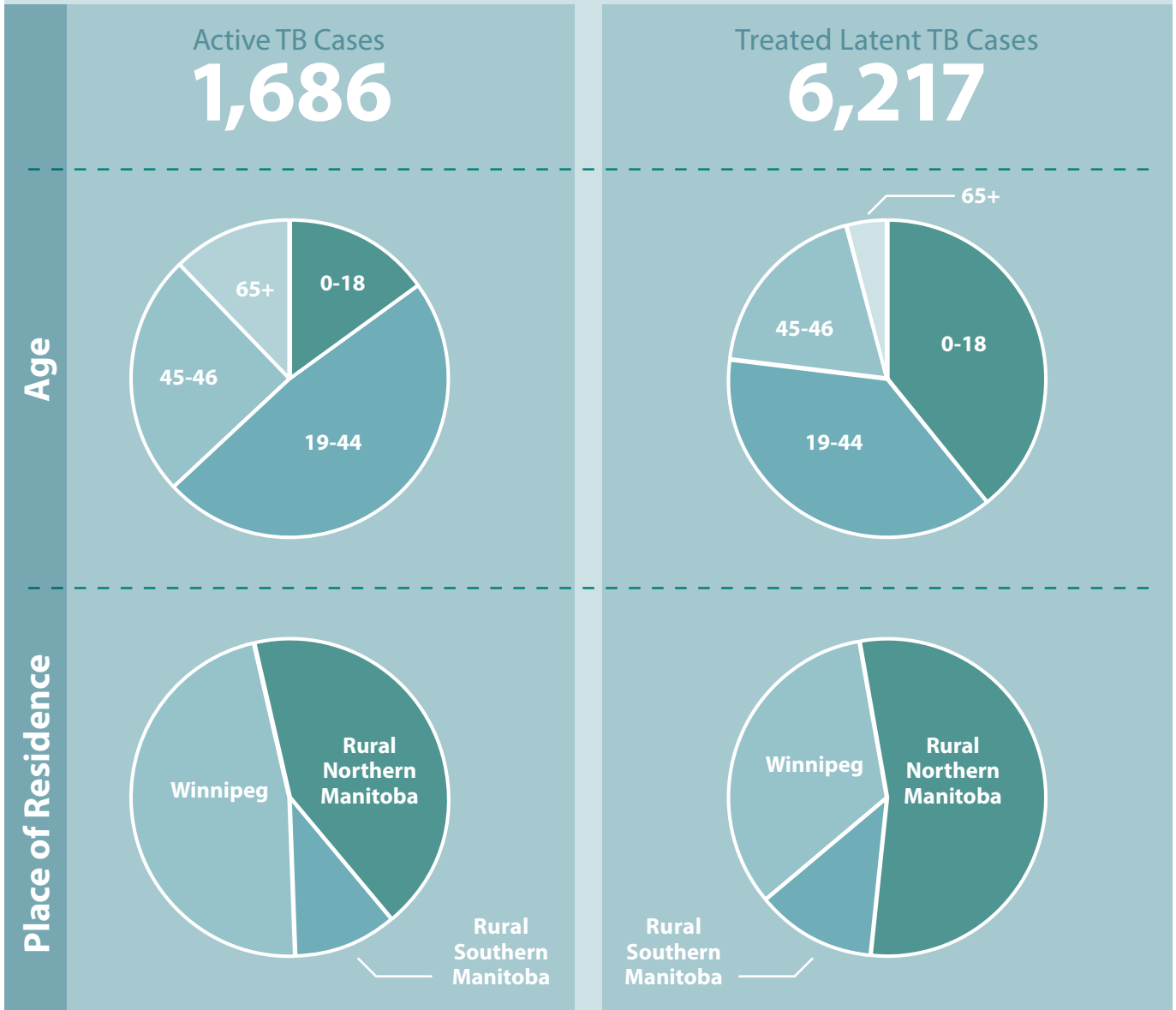
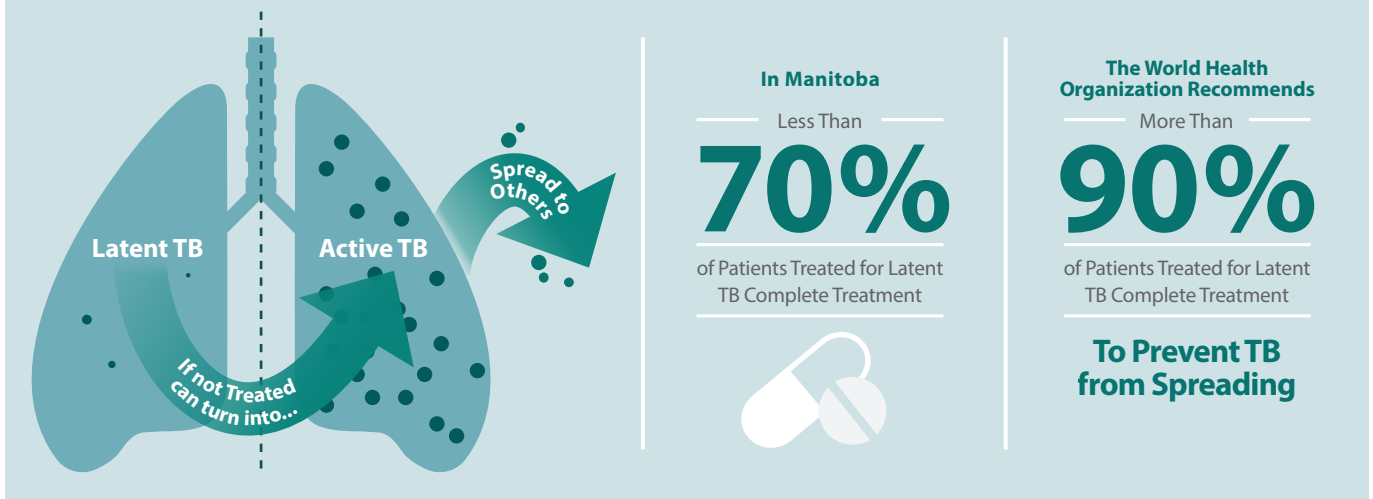


Figure 2. The Spread of Tuberculosis

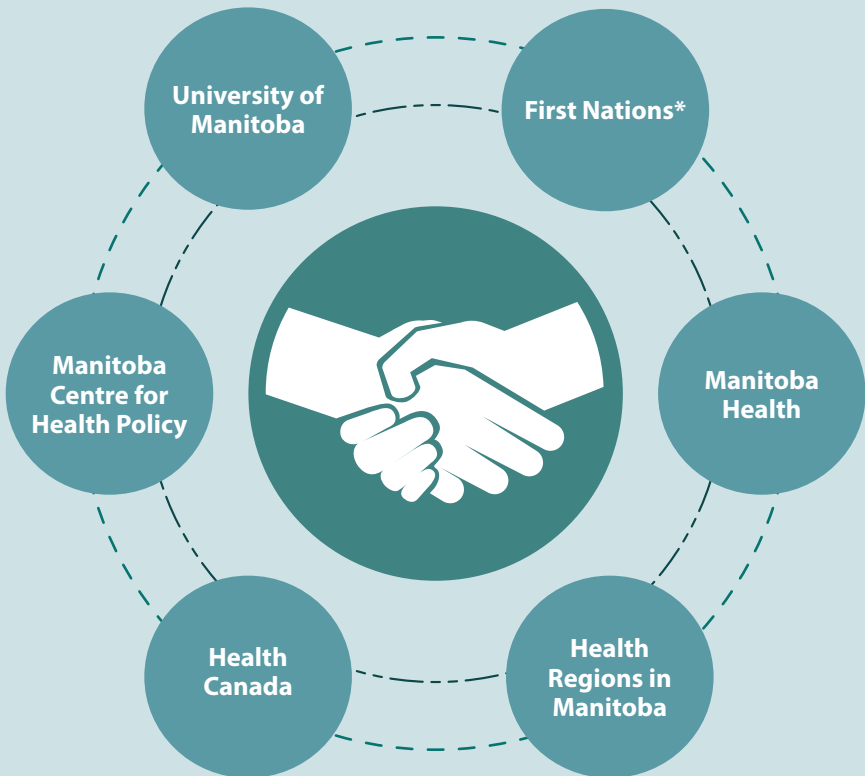


In any given year in our study, no more than 70% of latent TB patients who were being treated completed that treatment. Although completion rates got better over time, the percent of people who completed treatment was still low, and may not be enough to prevent TB from spreading.

Partnerships Key to Ending Tuberculosis in Manitoba

The study highlights some of the key success stories and some of the challenges in preventing and treating TB in Manitoba. Strong partnerships amongst government agencies, First Nations leaders, and researchers are essential to reduce the number of active and latent TB cases. These partnerships have led to linking the TB Registry to the Repository and improving access to these data, to help us better understand TB trends in Manitoba. The data tell us a lot about who in Manitoba has TB and what health services these people receive. However, there's still room for improvement in some areas. We can make better use of the data we have to set up programs to identify active and latent TB patients across Manitoba as early as possible. This will make it less likely that the diagnosis of TB will be missed or delayed, and care for TB patients can be provided quickly. With the support of partners in TB monitoring and care, we can bring an end to TB in Manitoba.

Figure 3. Partners involved in Research, Monitoring and Delivering Tuberculosis Care



***63 First Nations and their organizations: First Nations Health and Social Secretariat, Assembly of Manitoba Chiefs, Manitoba Keewatinowi Okimakanak, Southern Chiefs Organization, and the 7 Tribal Councils.**

Manitoba Centre for Health Policy

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The **Manitoba Centre for Health Policy** is a research unit in the department of Community Health Sciences at the University of Manitoba's Max Rady College of Medicine, Rady Faculty of Health Sciences.

MCHP conducts population-based research on health services, population and public health, and the social determinants of health.

To View the Original Report, Please Visit

http://mchp-appserv.cpe.umanitoba.ca/reference//MBTB_Report_Web.pdf



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