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### **Integrated data vital in stopping spread of TB: U of M study**

**Dec. 10, 2018** - Manitoba has the highest provincial incident rate of active tuberculosis (TB) in Canada, and stopping its spread depends on, among other things, the availability of high-quality, comprehensive data to ensure early and complete treatment, according to a new study by the Manitoba Centre for Health Policy (MCHP) at the University of Manitoba.

TB is a communicable disease that is a major cause of morbidity and mortality. It is caused by bacteria that settle in the lungs and can be spread through the air when a person with an active infection coughs or sneezes.

A latent TB infection (LTBI), or inactive infection, is also a concern, as individuals with LTBI are more likely to progress to an active infection if they do not receive and complete treatment.

“People with latent TB don’t feel sick and can’t 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 both active and latent TB infections get the right medications to wipe out the bacteria,” said study co-author Dr. Pierre Plourde, integrated tuberculosis services medical director and medical officer of health for the Winnipeg Regional Health Authority.

MCHP conducted the study, *Exploring Tuberculosis Treatment, Management, and Prevention in Manitoba’s Administrative Health Data*, to learn more about Manitobans with TB and what kind of care they receive.

The study linked Manitoba’s TB Registry – which is maintained by Manitoba Health, Seniors and Active Living and contains information about all active cases of TB in the province – to the Manitoba Population Research Data Repository to explore how the combined data could be used to tackle the province’s high rates of TB.

The repository is housed at MCHP and allows researchers to trace de-identified individuals’ interactions with the health, social service, education and justice systems.

The study used de-identified data spanning 15 years (1999-2014) to locate people with active TB in Manitoba and examine how they access health services and how successfully LTBI is being treated to prevent the infection from spreading.

“There is no way to count the total number of patients with latent TB infections in the province, but the repository can tell us how many of these patients are receiving treatment,” said the study’s lead author, Dr. Lisa Lix, U of M Canada Research Chair in methods for electronic health data quality.

Lix noted that in 2016, the World Health Organization (WHO) introduced a strategy with aggressive targets to reduce the number of TB cases and deaths by 2035. The strategy identifies local databases as key information sources to achieve progress toward these targets.

“Specifically, these databases are essential for surveillance, research and program evaluation that can inform local strategies to end TB,” Lix said.

The WHO recommends that more than 80 per cent of patients treated for LTBI need to complete their treatments to prevent the spread of TB. Rates are increasing as the LTBI treatment rate in Manitoba is close to 70 per cent.

“Treating people with latent TB is important for preventing new TB cases, but this is easier said than done,” Plourde said. “People with latent TB need to be on medication for several months to completely get rid of their infection, even while they don’t 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.”

The study noted that strong partnerships among government agencies, researchers and First Nations leaders were key to the researchers’ understanding and interpretation of the data and are essential to reduce the number of active and latent TB cases in the province.

“The data tells 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,” Lix said.

“We can make better use of the data we have to identify active and latent TB patients across Manitoba and how they use the health-care system. 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.”

The full report is available online:

[http://mchp-appserv.cpe.umanitoba.ca/reference//MBTB\\_Report\\_Web.pdf](http://mchp-appserv.cpe.umanitoba.ca/reference//MBTB_Report_Web.pdf)

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