



National Collaborating Centre
for Infectious Diseases

Centre de collaboration nationale
des maladies infectieuses

Mobilizing Multi-sector Knowledge for Infectious Diseases Public Health: An Online Resource for TB Elimination in First Nations Communities

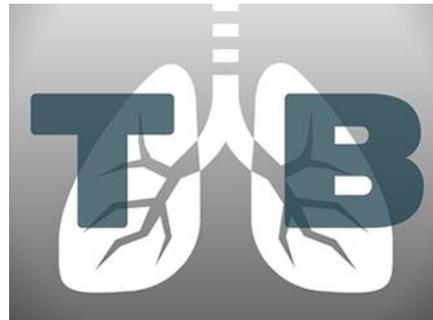
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April 30, 2019

nccid.ca @centreinfection

Disclosure Statement

- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.



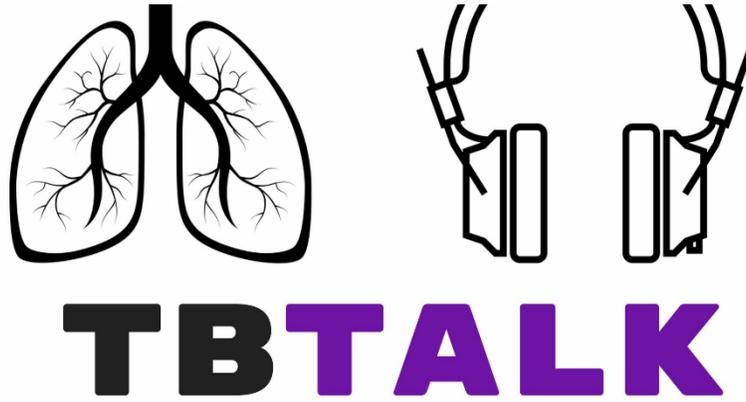
Public Health KT in Infectious Diseases

SPARK, ENGAGE, ILLUMINATE, BRIDGE

KT in TB

1. Find, Review, Summarize and Disseminate evidence and knowledge on successful and promising strategies and practices
2. Support TB Awareness, Education and Training for health care workers and non-health care workers (e.g. community partners)
3. Facilitate Innovative and Cross-sectoral Partnership Building within and across jurisdictions
4. Facilitate Cross-Jurisdictional Knowledge Exchange
5. Facilitate National level Discussions/Dialogue

Podcast Series



IMAGES: DAN JENKINS (LUNGS), JAKE DUNHAM (HEADPHONES), NOUN PROJECT



- [Part 1: TB Priorities at End TB 2017](#) | [Transcript](#)
- [Part 2: Tuberculosis and Cultural Humility](#) | [Transcript](#)
- [Part 3: Social Determinants of TB in Indigenous Communities](#) | [Transcript](#)
- [Part 4: New Digital Technologies and TB](#) | [Transcript](#)

Coming Soon

- Post-landing TB Surveillance for New Migrants
- Virtual Clinic TB Services for Remote Communities

**Latent Tuberculosis Infection (LTBI) Management
at BridgeCare Clinic**
A case study of facilitators and barriers for treatment in a primary health care
facility for refugees in Winnipeg, Manitoba

February, 2017

Dione Benjumea-Bedoya, MD, PhD (c)

With

Alison Bertram-Farough, Dr. Pierre Plourde, WRHA ITBS
and

Jo-Anne Lutz, Kimberley Hiebert, Dr. Cynthia Sawatzky,
Dr. Afsaneh Oliver, Sheri Larsen-Celhar, BridgeCare Clinic



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PROMISING PRACTICES IN PUBLIC HEALTH

Integrated LTBI Care for Refugees

Successes & Challenges at BridgeCare Clinic in Winnipeg

A key strategy for fighting tuberculosis is treatment of latent tuberculosis infection (LTBI), especially in countries like Canada where an important proportion of active TB cases are a result of LTBI reactivation.

According to the *Canadian Tuberculosis Standards 7th Edition*, LTBI screening should be considered for groups at high risk for reactivation including immigrants and refugees from countries with high TB incidence, Aboriginal peoples, and people with medical risk factors that increase TB reactivation such as HIV infection (1,2). However, since sustained LTBI treatment adherence is challenging, it is invaluable to learn about any approach that contributes to improved LTBI management outcomes.

Dione Benjumea, a physician and PhD student at NCCID, developed a report on the factors that have contributed to BridgeCare Clinic's LTBI success. Here, we share the highlights of their inclusive, integrated, patient-centred public health approach.

What's Inside...

A centuries-old disease, tuberculosis (TB) remains a major public health concern globally and the World Health Organization (WHO) is calling for enhanced efforts to eliminate TB worldwide.

In this case study, we share the story of the success of BridgeCare Clinic, a model of integrated TB services for government-assisted refugees for its approach to improving latent tuberculosis infection (LTBI) treatment completion outcomes in priority populations.



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WHO

THE END TB STRATEGY

TOWARDS

TB ELIMINATION

AN ACTION FRAMEWORK FOR LOW-INCIDENCE COUNTRIES

SUSTAINABLE DEVELOPMENT GOALS



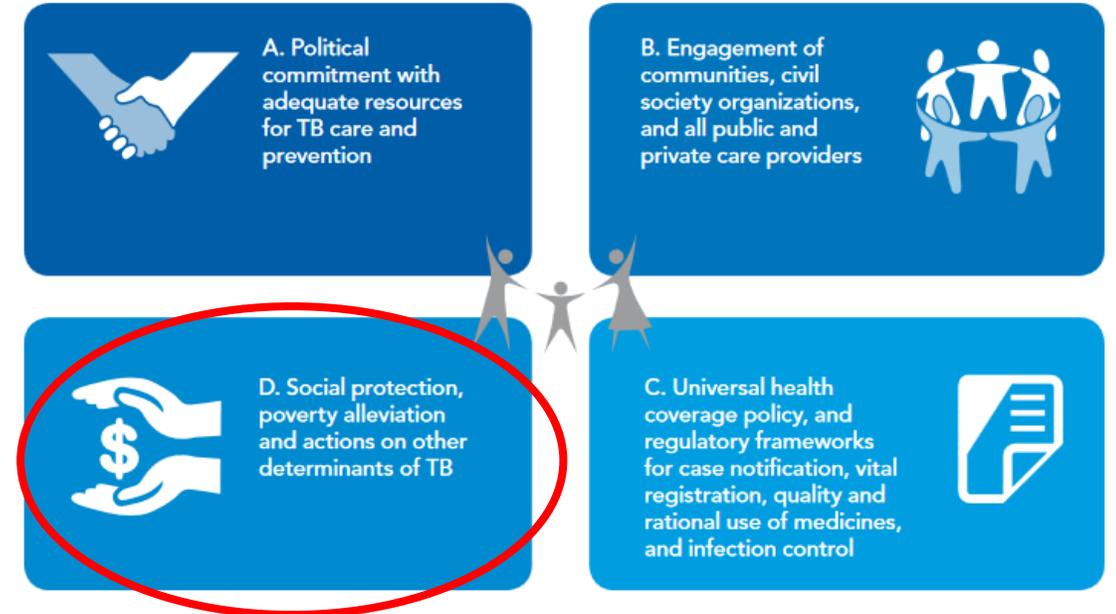
Toolkit to develop a national strategic plan for TB prevention, care and control
Methodology on how to develop a national strategic plan



PILLARS AND PRINCIPLES



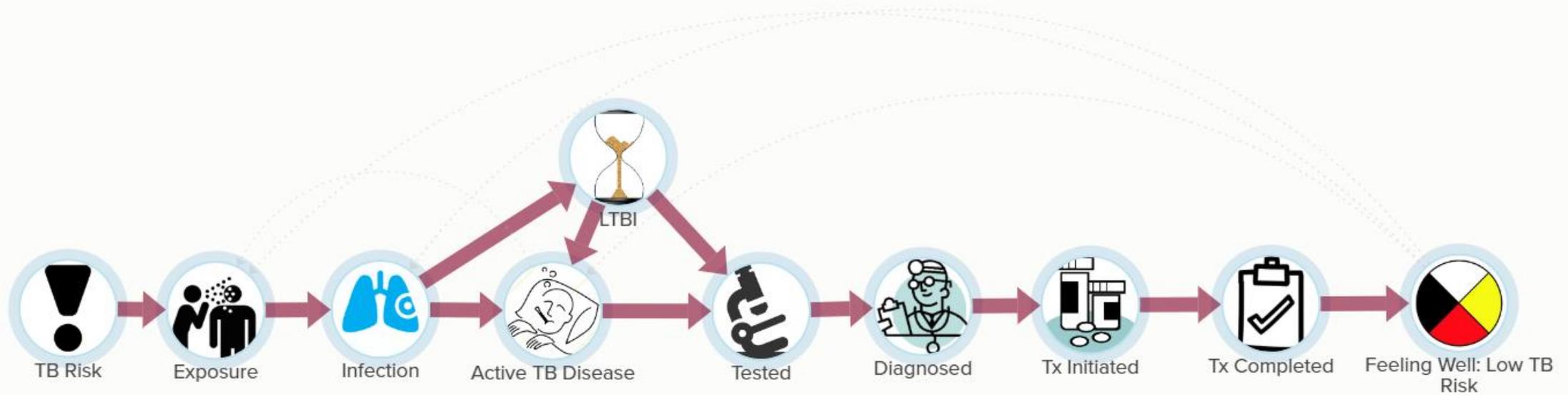
How pillar 2 works : Key components



“The **implementation** of pillar two components demands a **multidisciplinary** and **multisectoral approach**. **Accountability** for pillar two will rest **not only with health** ministries, but also other ministries, including finance, labour, social welfare, **housing**, mining and agriculture.” – End TB Strategy

The Tuberculosis Patient Journey for Northern First Nations Communities

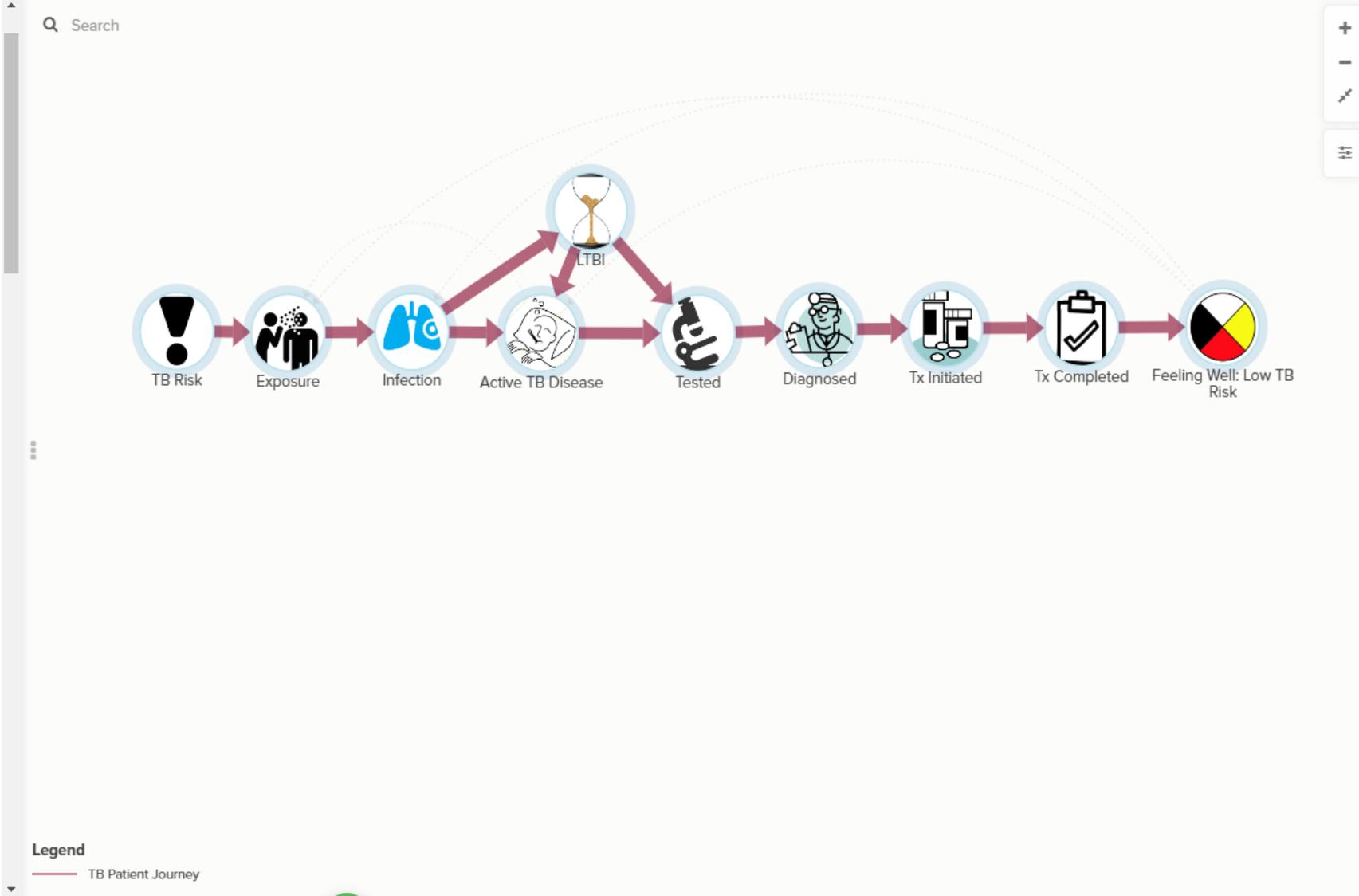
<https://embed.kumu.io/06d919639d52c5480cea7e74304ff0a3#tuberculosis-patient-journey-northern-first-nations-communities>



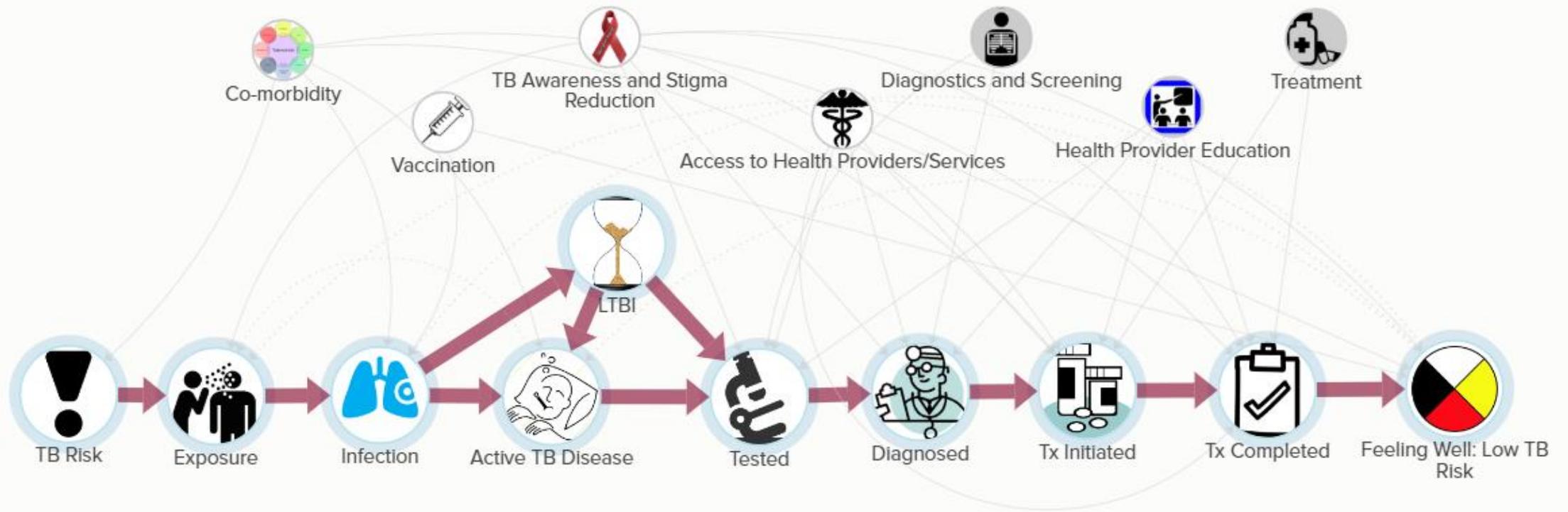
The Tuberculosis Patient Journey for Northern First Nations Communities

Objectives and Audience

- This educational resource is designed to support the work of **TB program planners and practitioners** who provide services to TB-affected northern First Nations communities. It can also be a resource to **support knowledge translation, partnerships, and collaborations across sectors** in multi-sector First Nations TB elimination initiatives.
- The map to the right visually depicts key stages in a typical TB patient journey as they move from exposure to treatment completion. It illustrates how different **health care-related, social and First Nations determinants of TB** affects the patient at each of these stages.
- You can use the resource to access **additional information** is provided on how **each determinant** contributes to TB burden in First Nations communities, as well as **indicators** that may be used to monitor TB determinants and TB program performance. Links to **academic, grey, and media resources** are also included.



The Tuberculosis Patient Journey for Northern First Nations Communities



Treatment

HEALTH CARE



TB treatment focuses on curing the individual patient, minimizing the transmission of bacteria to other individuals, and preventing drug resistance during therapy, thus, successful TB treatment has benefits both at the individual and community level.

See below for more

Did you know?

- Treatment of TB disease is mandated under the Public Health Act. – *First Nations Health Authority. 2011*
- Medication for TB disease is directly observed therapy (DOT) which a health professional that all doses are delivered for side effects and documented. – *Nations Health Authority. 2011*
- Shorter drug regimens will improve adherence, reduce cumulative side effects, and reduce clinics' workloads. – *www.Huffingtonpost*
- 3 out of 4 patients with drug-resistant TB have access to the newer, powerful drugs. – *www.Huffingtonpost*

Other Resources:

Treatment and TB:

- CBC: [Shortage of critical TB, lung infection drug worries patient, doctor](#)
- Video: [New Treatment Regimen for Latent Tuberculosis Infection](#)

Treatment on reserves:

- Manual: [Directly Observed Therapy for Tuberculosis Programs in E](#)

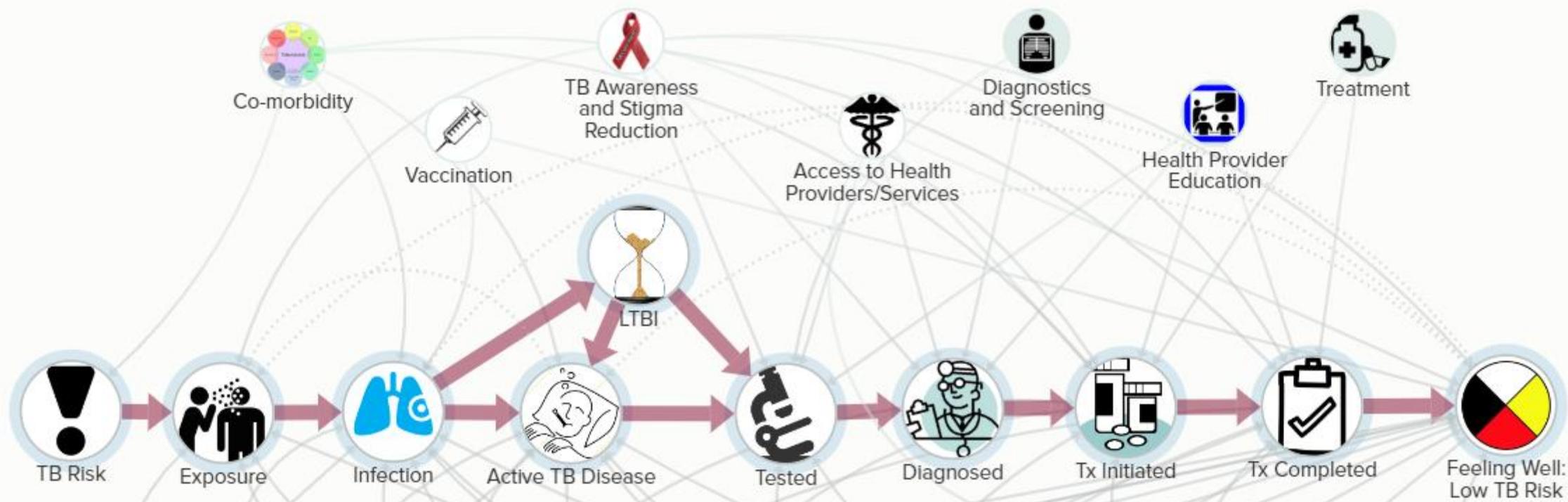
New initiatives:

- News article: [New Tuberculosis & Melinda Gates Foundation](#)
- News article: [Breakthrough tuberculosis treatment available through Canadian study](#)
- Journal Article: [Tuberculosis—development of new drugs, treatment, host-directed therapies, and biomarkers](#)
- Grand Challenges Canada: [Project] [The molecular mechanisms of drug resistance in M. africanum I and II: identification of new antimycobacterials from fungal](#)

Other:



- INDICATOR 1** % treated by standard or enhanced directly observed therapy (Health Canada)
- INDICATOR 10** Number of XDR-TB cases started on second-line treatment (WHO)
- INDICATOR 11** % of persons who complete the prescribed course of TB treatment within 3 months of their targeted completion date (Manitoba Health HIM- Health Information Management)
- INDICATOR 12** *ADD INDICATOR 12*
- INDICATOR 2** % of children (aged < 5) household contacts of bacteriologically-confirmed TB cases on preventive treatment (WHO)
- INDICATOR 3** *ADD INDICATOR 3*
- INDICATOR 4** *ADD INDICATOR 4*
- INDICATOR 5** *ADD INDICATOR 5*
- INDICATOR 6** *ADD INDICATOR 6*

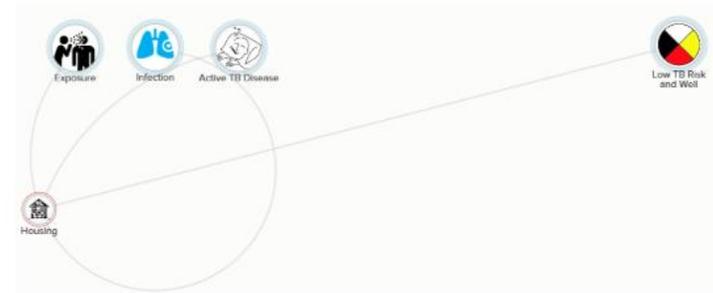


Housing

SOURCE



Poor housing has been associated both directly and indirectly with tuberculosis and other infectious diseases. In Canada, the link between housing and health is critically apparent in First Nation populations, with poor housing quality having a negative effect on the health, education, and overall social conditions of First Nations individuals and communities. See below for more information on how housing conditions impact TB.

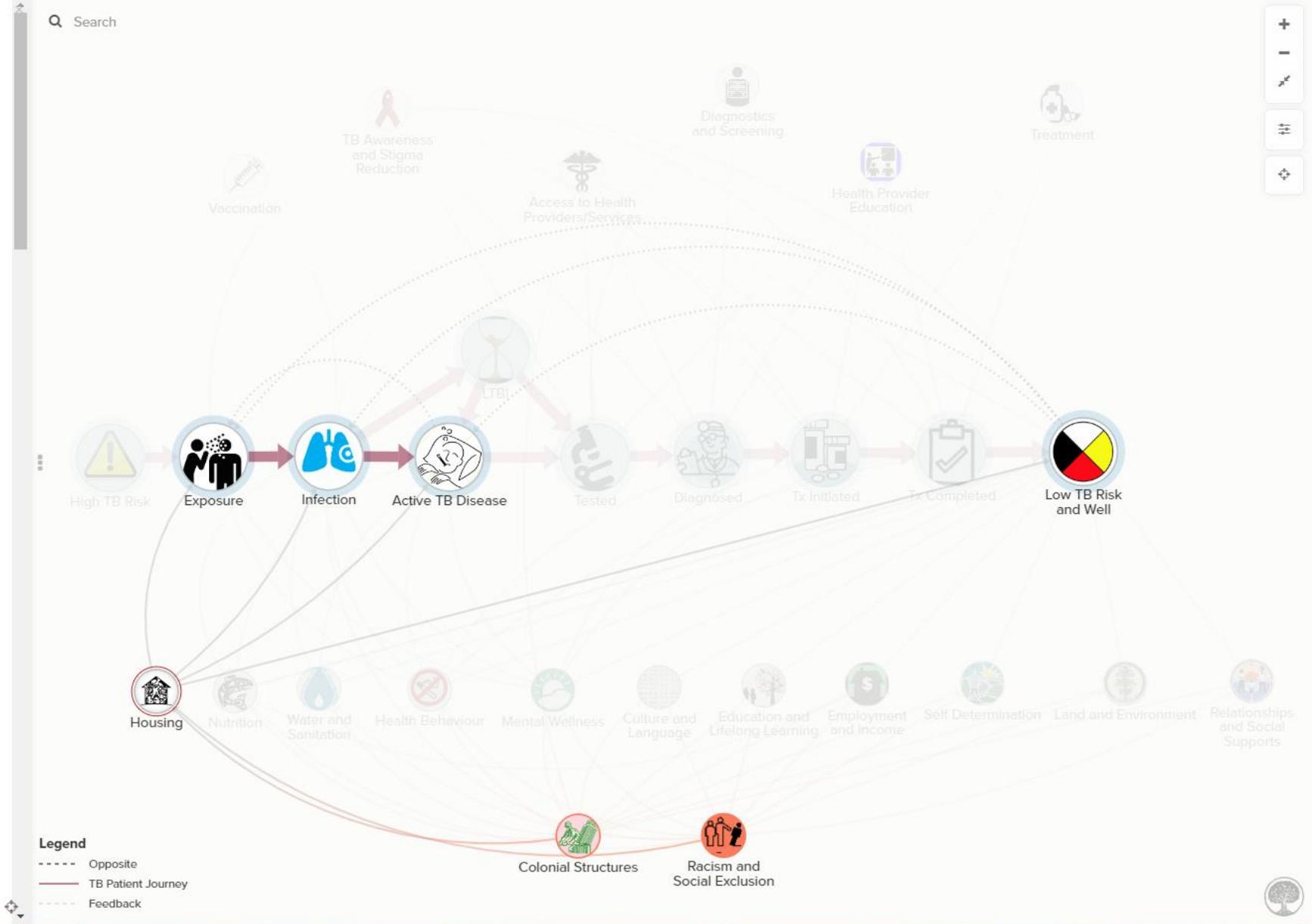


Housing conditions that increase risk of TB

- Overcrowding**
 Direct linear association has been demonstrated between overcrowding of houses on-reserve and the incidence of TB. – *Larcombe et al. 2011*

 Every 1% increase in the proportion of overcrowded households leads to an 8% increase in TB incidence. – *Baker M et al. 2008*

 Average number of persons per room is 20% higher for First Nations people living on-reserve compared to the rest of the Canadian population. – *Larcombe et al. 2011*
- Duration and exposure**
 TB occurs most frequently as a result of prolonged contact in enclosed environments with an infectious person. – *CCDR, 2007*



Did you know?

- TB incidence is 34 times higher among First Nations people living on-reserve compared to the rest of Canadians – *Larcombe L et al. 2012*
- According to the National Occupancy Standard, a house is considered crowded if there is > 1 person per room and severely overcrowded if there are > 1.5 persons per room. – *Canada Mortgage and Housing Corporation. 2016*
- Nearly 50% of First Nations on reserves have housing that falls below the Canadian Mortgage and Housing Corporation standards. – *Larcombe L et al. 2012*
- In 2012, 23.4% of First Nations adults reported to be living in over-crowded housing, compared to 7% of the general Canadian population. – *FNRHS- Phase 2: Chapter 4*
- In 2012, 37.3% of First Nations adults reported that their home is in need of major repairs.– *FNRHS- Phase 2: Chapter 4*

Other Resources:

Housing and TB:

- Article: [Housing density, isolation and tuberculosis in Canadian First Nations communities](#)
- Report: [Housing conditions that serve as risk factors for tuberculosis infection and disease- CCDR 2007](#)

Housing conditions on reserves:

- Article: [Housing conditions in 2 Canadian First Nations communities](#)
- Video: [A look at the Attawapiskat housing crisis](#)
- Video: [Living conditions on Canadian Reserves](#)
- Video: [Housing Conditions on Manitoba Reserves](#)

New initiatives:

- Video: [Could a new approach to First Nations housing be a game-changer?](#)

Other:

- Report: [First Nations Regional Health Survey: Phase 2- Chapters 4, 19, and 30](#)
- Webpage: [The forgotten disease- Winnipeg Free Press](#)

Housing Indicators

- INDICATOR 1** Average number of persons per room (RHS)
- INDICATOR 2** Proportion of houses above crowding threshold (RHS)
- INDICATOR 3** Room air exchange rate per hour
- INDICATOR 4** Percentage of houses passing inspection
- INDICATOR 5** Community housing plan in place
- INDICATOR 6** Proportion of communities with a Housing Committee to plan and advise council
- INDICATOR 7** Number of houses per community
- INDICATOR 8** Number of houses that have had renovations
- INDICATOR 9** Number of houses being built compared to number targeted

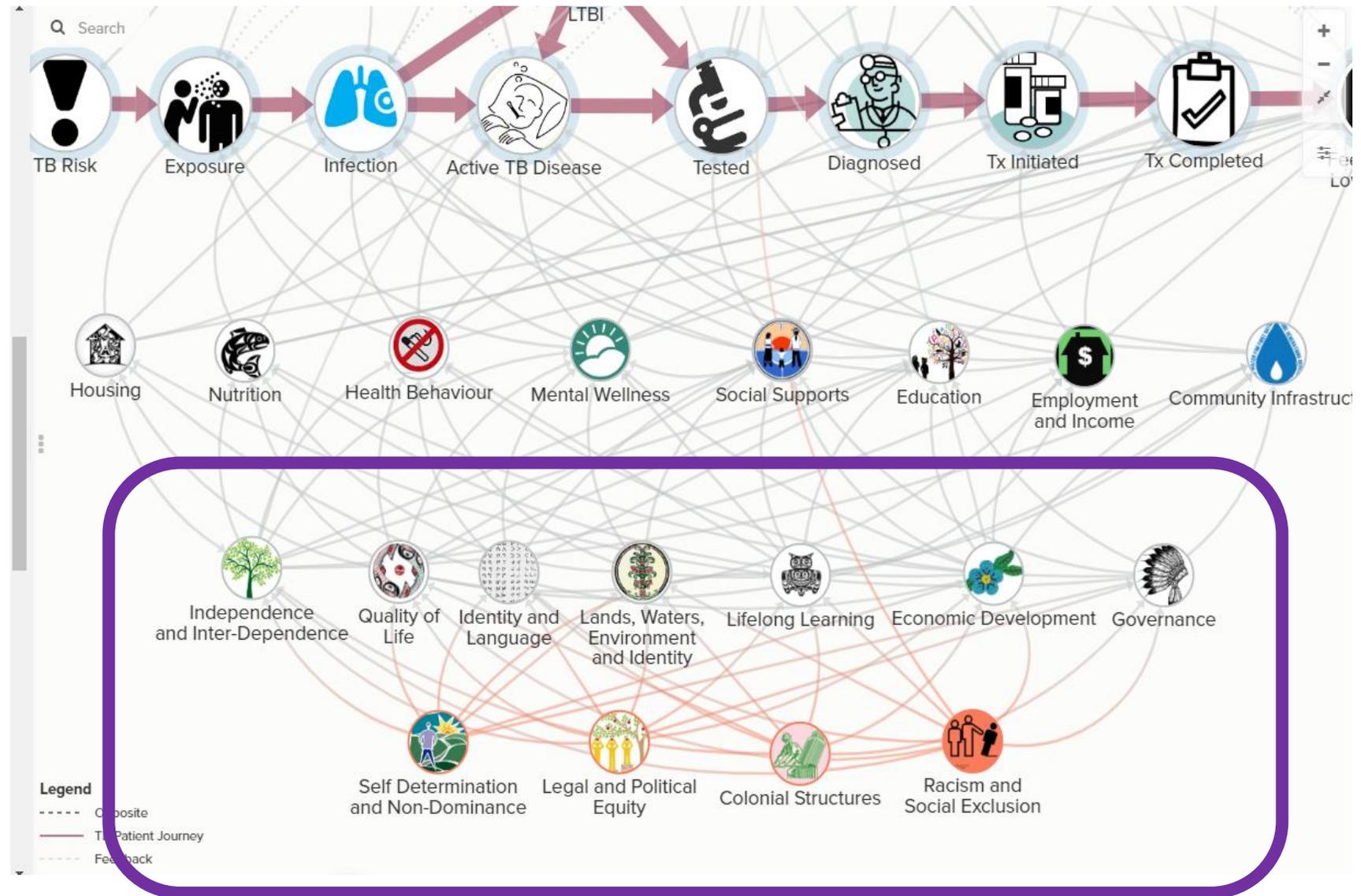
<https://embed.kumu.io/828cdbade1c12bfe890828e6aafcbd4d>

A TB survivor tells her story:



Description: A First Nations woman shares her personal experience with TB. Part 1 of a 6 part series.

- Part 2: [A TB survivor tells her story: Diagnosis](#)
- Part 3: [A TB survivor tells her story: Treatment](#)
- Part 4: [A TB survivor tells her story: Contact tracing](#)
- Part 5: [A TB survivor tells her story: Telling my community](#)
- Part 6: [A TB survivor tells her story: Getting cured](#)





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Thank You

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