

Phase II Lung Health Program Dissemination Report



Lead Organizations: Ottawa Hospital Research Institute/Government of Nunavut

Partner(s):

Ottawa Hospital Research Institute (OHRI), Government of Nunavut (GN), Nunavut Tunngavik Inc. (NTI), Inuit Tapiriit Kanatami (ITK), New Brunswick Lung Association (NBLA), National Aboriginal Health Organization (NAHO)

Project Objective(s):

- raise awareness about tuberculosis (TB)
- provide in home screening for latent TB infection (LTBI) for people who live in areas of the community with a high incidence of TB
- provide treatment to individuals at high risk for the development of active TB

Project Methodology:

Community involvement occurred at all levels including the introduction, design, implementation and delivery of the program. Educational TB messaging was developed by local Inuit representatives and local TB health care professionals with consideration of the historical Canadian Inuit TB context. Translation of the message into the local dialect of Inuktitut was undertaken and tested in a community focus group. The messaging was integrated into YouTube videos done by community members. The YouTube videos and TB messaging were then put on DVD as a vehicle to support the oral Inuit tradition for the sharing of information. The DVDs were shown to participants of the door to door program by community members (TB champions) in their language of choice (English or Inuktitut). This format allowed messaging to be delivered in a standardized and reproducible manner. A website and Facebook page were generated and used in the project.

The precision in determining the target group for the door to door campaign was paramount in obtaining an efficient use of our resources. Residential areas where there had been 4 or more households in the past 5 years with at least one diagnosed case of active TB disease were deemed to be at high risk for TB.



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In the residential areas at high risk for TB, 600 dwellings were approached to participate in the project. The team worked from Monday to Friday during working hours and was able to make contact with at least one resident in half of the dwellings (after going to each dwelling a maximum of three times). Half of these dwellings had at least one person agree to participate and signed consent forms. Four hundred and forty four people received TB education in their homes. One third of people were not eligible for screening because of previous TB treatment. The remaining two thirds were screened for latent TB infection (LTBI) using both the standard TB skin test (TST) and a new diagnostic blood test, the Interferon Gamma Release Assay (IGRA).

Key Finding(s):

- During the introduction (media engagement) and implementation of the general awareness campaign, an increase in passive LTBI screening was observed from an average of 25 per month over the four years prior to TAIMA TB's general awareness campaign to an average of 50 people per month during the campaign.
- The residential areas of high risk for TB were identified accurately using our approach as evidenced by the fact that 82% (14/17) of the active TB cases that occurred in Iqaluit prospectively during the six month door to door campaign occurred within the identified areas.
- 300 people were actively screened for LTBI in their homes.
- One third of participants who were provided TB awareness were not eligible for LTBI screening because they had either received treatment for LTBI or active TB disease in the past.
- One third of those screened were recommended for treatment for LTBI. Whether the recommendation for LTBI treatment translates in increased levels of acceptance and treatment completion remains to be seen.
- Two participants were identified as active TB cases by the TAIMA TB team and another two cases were identified through contact tracing of those cases by the local TB program. These 4 active TB cases were identified earlier than under normal program conditions thus breaking the infectious cycle at an earlier point.
- The Quantiferon TB Gold In-Tube (Cellestis) Interferon Gamma Release Assay (QFT-IGRA) blood test for the diagnosis of LTBI was feasible under TAIMA TB program conditions in a remote area.

Project Outcome:

TAIMA TB represents a new approach in the fight against TB. A comprehensive TB strategy has many facets. The TAIMA TB program focused on community-based education, certain aspects of screening and treatment to eligible participants. It will take further application of a variety of TB control strategies to control TB in the future. Although much has been accomplished with the TAIMA TB project, the manner in which successful features of this project can be integrated into the local TB program still requires further work and discussion with territorial TB policy makers.



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Area(s) for Further Development/Next Steps:

Due to the fact that treatment of LTBI takes 9 months to complete we expect to have further results in the fall of 2012 in regards to acceptance and completion of treatment. The Government of Nunavut has agreed to fund the salary of a TB champion and the TAIMA TB coordinator from April 1, 2012 to August 31, 2012. Scientific papers will follow on various aspects of the project.

Our group has also received two grants from the Canadian Institute of Health Research (CIHR) to continue TB related work in Nunavut. The first one is a knowledge translation grant to expand the TAIMA TB awareness campaign (not the door to door campaign), to two other communities that have increased rates of TB in Nunavut (\$100,000.00 CIHR, PI Dr. G.G. Alvarez). The second grant is for the introduction of a state of the art novel rapid molecular assay (Gene Xpert MTB/RIF assay) to improve the diagnostic capacity of TB in the laboratory at the Qikiqtani General Hospital (\$350,000.00 CIHR, (\$150,000.00 for Iqaluit). This is a joint study between McGill University and the University of Ottawa, (Co PIs Drs. M. Pai and G.G. Alvarez).

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