

Why a Health Effects Monitoring Program?

In 2014, the Mackenzie Valley Environmental Impact Review Board completed its seven-year assessment of the Giant Mine Remediation Project to address public concerns about the impact the mine's clean-up activities may have on the local populations' health.

One of the requirements by the Review Board was to design and implement a Health Effects Monitoring Program in Ndilo, Dettah and Yellowknife. The purpose of this program is to make sure the remediation activities that will take place at Giant Mine will not have a negative impact on people's health.

Specifically, the program will establish current or baseline levels of arsenic exposure among residents in Ndilo, Dettah, and Yellowknife before remediation work begins. Then, during remediation, new monitoring results will be compared to the baseline to ensure participants' arsenic levels are not increasing because of work being done at Giant Mine.



Healthy People, Healthy Community

This study is led by Dr. Laurie Chan, University of Ottawa, with advice and input from:

- The Health Effects Monitoring Program Advisory Committee
 - Government of the Northwest Territories Department of Environment and Natural Resources
 - Government of the Northwest Territories Department of Health and Social Services
 - Indigenous and Northern Affairs Canada
 - Health Canada
 - Yellowknives Dene First Nation
 - North Slave Métis Alliance
 - Giant Mine Oversight Board
 - City of Yellowknife

With additional support from:

- Institute for Circumpolar Health Research

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What is the program?

The Health Effects Monitoring Program will be a long-term program that will monitor people's levels of contaminants in their body. Data collection will begin starting in the fall 2017.

The program will include participants from Ndilo, Dettah, and Yellowknife. Participants may be selected either through statistically-supported random sampling (Yellowknife residents) or voluntary participation (First Nations, Métis). Precautions will be in place to protect individual's privacy and personal information.

Youth participants (ages 6 to 18 in 2017) will be invited to participate in a follow-up study in 2022/2023, and a follow-up study for all participants is planned for 2027/2028.

Benefits of participating

The Health Effects Monitoring Program will provide participants an opportunity to find out if there is an increased exposure to arsenic and other metals of concern as a result of remediation activities at Giant Mine. The overall results could also contribute to a bigger picture of local exposure to contaminants in and around Dettah, Ndilo, and Yellowknife.

How will the program be done?

Approximately 2,000 Ndilo, Dettah, and Yellowknife (YK) residents between the ages of 6 to 79 will be invited to participate in the program. A signed consent form will be required from each participant (or their guardian, in the case of minors) prior to collecting data.

Participants will receive their results, with interpretation, in a personal letter.

Current scientific methods can only measure participants' current levels of arsenic and other contaminants. This program will not be able to determine how much exposure to contaminants people may have had in the past.

Main components will include:

- Lifestyle questionnaire
- Biological samples of toenails, urine and saliva (by swabbing the participant's cheek)
- Food frequency questionnaire

Other components will include:

- Review of medical records (YK residents and North Slave Métis Alliance members)
- Medical questionnaire and brief medical exam with a nurse practitioner (Yellowknives Dene First Nations members)

We want to ensure participants' arsenic levels are not increasing because of work being done at Giant Mine.

About the Giant Mine Remediation Project

The Giant Mine is within the boundaries of the City of Yellowknife, where it operated from 1948 to 2004.

The site reverted to the Crown when owner Royal Oaks Mine went into receivership in 1999.

At present, the mine is considered one of the most contaminated sites in Canada.

To address concerns about arsenic and other contamination, the Giant Mine Remediation Project was

established. The main objectives of the Giant Mine Remediation project are to minimize public and worker health and safety risks; minimize the release of contaminants from the site to the surrounding environment; remediate the site in a manner that instills public confidence; and, implement an approach that is cost-effective and robust over the long term.

Indigenous and Northern Affairs Canada and the Government of the Northwest Territories are the co-proponents of the Giant Mine Remediation Project.

