



Environmental Health Research Group Newsletter

May 2025



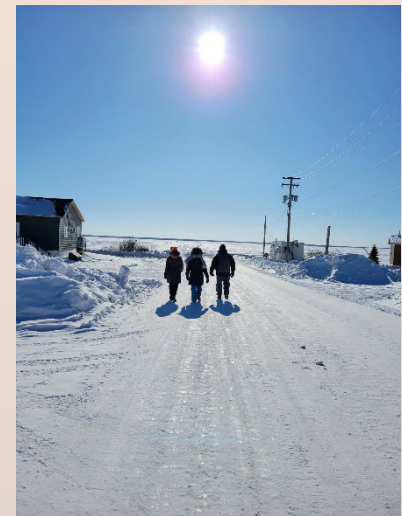
Reminder of our Research!

Scientists with the University of Waterloo (Brian Laird, Kelly Skinner, Heidi Swanson) and University of Montreal (Mylene Ratelle) partnered with communities of the Northwest Territories and Yukon for funding from the Northern Contaminants Program (NCP). Our goals are to:

- Study the links between the environment, traditional foods, and health.
- Provide communities with knowledge on local contaminant exposures and sources.
- Address follow-up questions from community members on the safety of foods, water quality, and climate change.

Over the past four months, we...

- Shipped 490 biobanked samples from participants who agreed to have their samples stored for up to 10 years to a laboratory to measure people's exposure to more chemicals, including the pesticide chlorpyrifos.
- Worked with William Alger (Lidlii Kue First Nation) on mercury bioaccessibility tests from fish collected by Heidi Swanson and Mike Low (Dehcho AAROM)
- Made new results posters describing the project findings for mercury and lead.
- Shared research updates and posters with community members and leaders in Tulita and Deline.



Over the next four months, we plan to...

- Travel to the Dehcho and Sahtu to share results with community and regional leaders.
- Create new results letters from the biobanked samples currently being analyzed.
- Work with communities on when and how to return results from the biobanked samples.

What has been learned so far?

- Contaminant health risks for participants were low. Almost everyone's contaminant levels fell below health guidelines for mercury, cadmium and lead.
- Levels of mercury in hair appear to change over the seasons. Hair mercury levels were highest in the early fall and lowest in the spring.
- Eating some traditional foods, like whitefish and lake trout, was linked with lower levels of the heavy metal lead. Eating lake trout, northern pike, and waterfowl, were linked with higher levels of mercury, PCBs, and some other chemicals. The strength of these links were different across regions.
- The health benefits of eating traditional foods generally outweigh contaminant risks.



What Is Chlorpyrifos?

Chlorpyrifos is a pesticide used in Canada since the 1970's. Concerns about its health impacts led to its ban by Health Canada in 2023.

Chlorpyrifos exposure can harm brain development has been linked with lower IQ in children.

People can be exposed to low levels of chlorpyrifos from store-bought foods they eat.