

Human Biomonitoring Project Newsletter Winter (February 2019)

Reminder about the project!

A project happening within the Dehcho, Sahtú, and Hay River regions aims to investigate the levels of contaminant exposure among participating communities. Dr. Brian Laird and his team collected **human hair, urine, and blood** to measure contaminants and nutrients. This work will provide knowledge on the contaminant baseline in the community and will also promote the use of country foods in order to improve nutrition.

What did we do in the last few months?

- We returned the results to participants and held public meetings in Tulit'a and K'asho Got'ine in November, and then Sambaa K'e in December.
- We submitted the final report to the leadership of the 9 Dene communities who took part in the project: **Jean Marie River, K'atl'odeeche, West Point, Deh Gah Gotie, Ka'a'gee Tu, Sambaa K'e, Déline, Tulit'a and K'asho Got'ine.**

What will we do in the next few months?

- We will analyse mercury in additional segments of hair for participants who agreed to the biobank. By doing this, we will be able to estimate the exposure to mercury throughout the previous year. The participants will receive their own results letter a few months from now.
- In the future, we will continue to work with the Dene communities on environmental challenges.
- We are expanding a similar project to include the Vuntut Gwitchin communities in the Yukon.



What are the Results?

- Country foods represented about 5% of the caloric intake of participants, and included a variety of plants and animals, such as moose, whitefish, lake trout, caribou and Canada goose.
- The levels of contaminants in samples were generally similar to those seen in other biomonitoring studies in Canada. Lead levels appeared higher than in other populations, but lower than levels associated with health problems.
- Most participants (over 96%) had levels below the maximum limit values for toxic metals.
- The health risks posed by these contaminants through country food consumption appeared low. Overall, these results reinforce that the health benefits of country foods generally outweigh contaminant risks.
- The final report on the Mackenzie Valley results is currently available on our website: <https://uwaterloo.ca/human-exposure-and-toxicology-research-group/research>

Thank you to all the participants, the AAROM, the DFN, the SRRB, the SSI, the RRCs, and the HSSD.