






University of Ottawa
Université de Montréal
Assembly of First Nations

Summary of Results: Alberta

Who participated?

609  **6** = median household size, with a range of **1-19**

386  **223** 

60% of households said that at least **1** adult worked full-time.

What is the FNFNES about?

The FNFNES took place in **10 First Nations** communities in 2013 to answer these questions:

- What kinds of traditional and store bought foods are people eating?
- What is the diet like?
- Is the water safe to drink?
- Are the levels of pharmaceuticals in the water safe?
- Are people being exposed to harmful levels of mercury?
- Is traditional food safe to eat?


Which communities participated?


Dene Tha' First Nation
Little Red River Cree Nation
Horse Lake First Nation
Driftpile First Nation
Mikisew First Nation


Whitefish (Goodfish) Lake First Nation #128
Wesley First Nation
Chiniki First Nation
Louis Bull Tribe
Ermineskin Cree Nation


What were the findings on health?

67% of adults said their health was **good or better**

 **45%** of adults are **physically active**

 **20%** of adults are at a **healthy weight**

 **17%** of adults have **diabetes**

 **56%** of adults are **smokers**

Thank you to everyone who participated!

How many households are harvesting traditional food?

65% of households harvested traditional food

35% fished

44% hunted

36% harvested wild plants

4 out of 5 would like more traditional food
Top barriers to greater use are: lack of equipment/transportation, lack of a hunter, regulations, time and a lack of knowledge

What and how much traditional food are people eating?



3 traditional foods commonly eaten: **moose**, **saskatoon berries** and **raspberries**



29 grams of traditional food or 2 tablespoons daily

How well are First Nations adults in Alberta eating?

Adults **eat fewer than** the recommended servings of:



Grain Products



Vegetables and Fruit



Milk and Alternatives

Inadequate amounts can lead to **nutrient deficiencies** and **poor health**.

Adults **eat more than** the recommended servings of



Meat and Alternatives

Excess intake can contribute to a **high fat** and **high saturated fat** intake. A **high fat** diet is linked to heart disease and diabetes.

Can households afford sufficient, safe and nutritious food?



Household food security is defined as “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”

47% of households are **food insecure**

34% are moderately food insecure, relying on lower quality/priced foods

13% experience food shortages

Weekly cost of groceries for a family of four*:



Costs ranged from **\$168** (southern Alberta) to **\$377** (northern Alberta). Costing was done in a grocery store near each community.

Costs are calculated using the National Nutritious Food Basket (NNFB), which contains a list of 67 food items. Foods that require preparation, spices, condiments, household supplies or personal care items are not included. Transportation costs are **not included**.

Nutrition Recommendations:

- Choose more vegetables and fruit, including wild plants and berries.
- Choose whole wheat grains more often. Make baked bannock with whole wheat flour.
- Choose milk and milk products (such as cheese or yogurt) or beverages fortified with calcium and vitamin D (such as soy beverages) more often.
- Choose leaner meats, plus game and fish.

Is the water safe to drink?

73% of households **drink** the tap water.
46% said that a chlorine taste limited its use for drinking
92% of households **cook** with the tap water.



Testing of tap water in **108** homes indicates that the **water is safe to drink**.
Levels of **10** metals that can affect **human health** were **low and within guidelines**.
Levels of **6** metals that can affect **colour, taste or smell** were within **guidelines**.

Are the levels of pharmaceuticals in the water safe?

7 pharmaceuticals were found in **surface water**.



Acetaminophen (anti-inflammatory), **Atenolol** (heart medication), **Caffeine** (pain relief and coffee/tea), **Cotinine** (metabolite of nicotine), **Chlortetracycline** (veterinary antibiotic), **Diclofenac** (anti-inflammatory), and **Metformin** (antidiabetic).

The **low levels** should not be a concern for human health.

Are people being exposed to harmful levels of mercury?

Hair samples were collected from **369** adults.
Levels of mercury were within Health Canada's guideline **normal acceptable** range for **367** adults. Letters were sent to **2** people with suggestions on how to reduce their exposure to mercury.



Is traditional food safe to eat?



467 food samples from **37** species were collected.

Fish: goldeye, mariah, northern pike, sucker, trout, walleye, whitefish, grayling

Game: bear, bison, deer, elk, moose, beaver, marten, porcupine, rabbit

Birds: coot, goldeneye, goose, mallard, northern pintail, partridge, grouse, scaup, wigeon

Plants: blueberries, high bush cranberries, low bush cranberries, cherries, raspberries, saskatoons, wild spinach, strawberries, peppermint tea, labrador tea, and wihkes (muskrat root)

Traditional food is safe and healthy to eat.

Recommendations

- To limit **cadmium exposure**, individuals may want to have less than 1 1/2 cups (375 grams) of moose kidney per month, especially among smokers who are at greater risk of cadmium exposure.
- Use steel shot** instead of **lead shot**. Ammunition can shatter and fragments can be **too small to detect** by sight or feel. Fragments can travel more than **12 inches** away from the wound area. Some meat samples had higher levels of **lead**. Eating food contaminated by lead shot can be harmful to health, especially to a child's brain development.

Key Results For All Participating First Nations in Alberta:

1. The diet of First Nations adults in Alberta does not meet nutrition needs nor recommendations, but the diet is healthier when traditional foods are eaten.
2. Overweight/obesity, smoking, and diabetes are major public health issues.
3. Household food insecurity is a major issue.
4. Water quality, as indicated by the trace metals and pharmaceutical levels, is overall satisfactory, but close monitoring is warranted as water sources and water treatment vary greatly.
5. The overall mercury exposure, as measured in hair samples and calculated through dietary estimates, is low.
6. Levels of chemical contamination of traditional food are generally low and together with the limited consumption, the total dietary contaminant exposure from traditional food is low.
7. Elevated levels of lead and PAH were found in some food items. More detailed studies on sources and exposure to lead and PAH are needed.
8. Future monitoring of trends and changes in the concentrations of environmental pollutants and the consumption of key traditional foods is needed.



More information can be found on the FNFNES website: www.fnfnes.ca

If you have any questions about these results or the project itself, please contact:

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