

First Nations Food, Nutrition and Environment Study (FNFNES)

Saskatchewan 2015



University of Ottawa
Université de Montréal
Assembly of First Nations

Summary of Results: Saskatchewan

Who participated?

721



Ave. age: 42

1042



5 is the median # of people living in each home

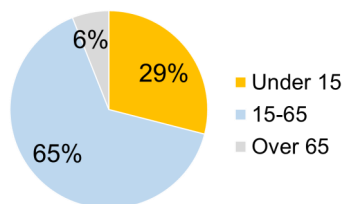
57% of households had at least 1 adult working full-time

321



Ave. age: 43

Age distribution of households



What is the FNFNES about?

The FNFNES took place in 14 First Nations communities in Saskatchewan in 2015 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?

Fond du Lac Denesuline First Nation
Black Lake Denesuline First Nation
Lac La Ronge Indian Band –
(Grandmother's Bay, Sucker River,
Stanley Mission)
Lac La Ronge Indian Band –
(La Ronge, Hall Lake, Little Red River)

Pelican Lake First Nation
Onion Lake Cree Nation
Ahtahkakoop Cree Nation
Shoal Lake Cree First Nation
James Smith Cree Nation
The Key First Nation

Muskeg Lake Cree Nation
Beardy's and Okemasis First Nation
Mosquito, Grizzly Bear's Head, Lean
Man First Nation
White Bear First Nation

What were the findings on health?

26% of adults said their health was **very good** or **excellent**



34% of adults are **physically active**



18% of adults are at a **healthy weight**



19% of adults have **diabetes**



72% of adults are **smokers**

Thank you to everyone who participated!

How many households are harvesting traditional food?

62% of households harvested traditional food

44% hunted

41% fished

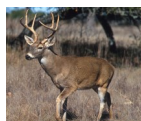
31% harvested wild plants

78% want more traditional food.

Top barriers to greater use are lack of:

a hunter in the household, time, equipment or transportation, and knowledge

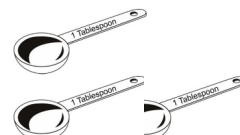
What and how much traditional food are people eating?



94% of adults reported eating traditional food. **Moose, blueberry, and deer** are the **3 foods** most commonly eaten.



37 grams of **traditional food** or **2.5 tablespoons** are eaten daily.



How well are First Nations adults in Saskatchewan eating?

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



Grain Products



Vegetables and Fruit



Milk and Alternatives

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



Meat and Alternatives

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

Can households afford sufficient, safe and nutritious food?



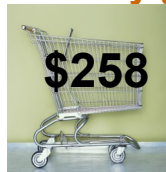
Household food security is defined as “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”

37% of households are **food insecure**

27% are **moderately** food insecure:
families rely on lower quality/priced foods

10% are **severely** food insecure:
families regularly experience food shortages

Weekly grocery costs for a family of four



Costing was done in a grocery store near each community.

Costs ranged from **\$176** to **\$479**.

Costs were calculated using the National Nutritious Food Basket (NNFB), which contains **a list of 67** foods. Foods requiring **little or no** preparation, spices, condiments, household supplies or personal care items are **not** included. Transportation costs are **not** included.

Recommendations:

- Talk to a local dietitian for more information on healthy eating.
- Choose more vegetables and fruit, including wild plants and berries.
- Choose whole wheat grains more often.
- Choose milk and milk products (such as cheese or yogurt) or beverages fortified with calcium and vitamin D (such as soy beverages) more often.
- Some lakes have fish advisories. Contact the Ministry of Environment for more information. The general enquiry line can also be reached at 1-800-567-4224.

Is the water safe to drink?



65% of households **drink** tap water while **90% cook** with tap water. The most common reasons for avoidance were **distrust of the quality/safety** and an **unpleasant taste**.

Testing of tap water was undertaken in **234** homes for metals that can affect **health** or have an **aesthetic objective/operational guidance** value.

Metals that can affect **health** were **not within** guidelines for **arsenic** (2 homes), **lead** (1 home), **selenium** (1 home) and **uranium** (2 homes).

Metals that can affect **colour, taste, or smell** were **not within** guidelines for **aluminum** (9 homes), **copper** (1 home), **iron** (12 homes), **manganese** (32 homes) and **sodium** (18 homes).

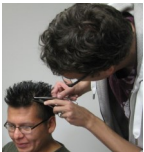
Are the levels of pharmaceuticals in the surface water safe?



Low levels were found in surface water samples in **12** communities. These levels should not be harmful to human health.

17 pharmaceuticals were found: **acetaminophen** (pain med.), **atenolol** (heart med.), **bezafibrate** (lipid med.), **caffeine** (pain med./beverages), **carbamazepine** (mood/anti-convulsant), **cimetidine** (ulcer med.), **clarithromycin** (antibiotic), **clofibrilic acid** (lipid med.), **codeine** (pain med.), **cotinine** (nicotine metabolite), **gemfibrozil** (lipid med.), **ketoprofen** (arthritis/pain med.), **metformin** (diabetes med.), **metoprolol** (blood pressure med.), **naproxen** (inflammation/pain med.), **sulfamethoxazole** (antibiotic), and **trimethoprim** (antibiotic)

Are people being exposed to harmful levels of mercury?



Hair samples were collected from **555** adults. **Mercury** levels were within Health Canada's guideline normal acceptable range **except** for **7** adults (1.3% of participants). Letters were sent to these individuals with suggestions on how to reduce their exposure to mercury.

Is traditional food safe to eat?



49 traditional food species were collected

Fish: Lake trout, lake whitefish, longnose sucker, mariah, mooneye, northern pike, walleye, white sucker, yellow perch

Game: bear, beaver, caribou, deer, elk, moose, muskrat, rabbit

Birds: Canada goose, gadwall duck, mallard, northern pintail, northern shoveler, spruce grouse, teal duck, wigeon

Berries: blueberries, cranberries, pincherries, raspberries, Saskatoon berries

Plants: wild rice

Teas: licorice, mint, Labrador, rat root, rosehip, sage

Traditional food is safe and healthy to eat.

Recommendations

- To help protect the environment, **return unused medications to a pharmacy** for proper disposal.
- **Use non lead ammunition.** Ammunition can shatter and fragments can be **too small to detect** by sight or feel. Eating meat contaminated by lead can be harmful to health, especially to a child's brain development.

Key Results For All Participating First Nations in Saskatchewan:

1. The diet of First Nations adults in Saskatchewan does not meet nutrition needs, 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 satisfactory overall, but close monitoring is needed as water sources and water treatment vary by community.
5. Mercury exposure, as measured in hair samples and calculated through dietary estimates, is low and is not a serious health concern. Of all 555 Saskatchewan region samples, only 7 (1.3%) had mercury levels above Health Canada guidelines. However, exceedances among women of child-bearing age living in the Boreal Shield suggest that mercury risk communication should be focused on this population group and further community-based study of women of child-bearing age living in northern ecozones may be beneficial.
6. Levels of chemical contamination of traditional food are generally low. At the current rate of consumption, the total dietary contaminant exposure from traditional food is low and is not a health concern.
7. Elevated levels of lead were found in some food items: it is important to identify the sources.
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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