

**POPULAR REPORT  
FOR THE  
CREE NATION OF  
WASWANIFI**



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Let's learn about our land  
Let's learn about ourselves

MULTI-COMMUNITY  
ENVIRONMENT AND HEALTH  
PROJECT IN EYOU ISTCHEE



**About the Project**

Eeyouch know that the land, water, and animals are closely tied to their well-being. Nituuchischaayihitaaau Aschii is a project to study the links between people’s health, the kinds of food they eat, and the contaminants in the environment.

Many of the traditional Eeyou foods are healthy but, these days, some fish and animals may be contaminated with harmful chemicals. Also, some diseases can be passed from animals to humans.

**We need to know whether the benefits of eating traditional food outweigh the risks.** To find out, the project asked five questions:

1. **Nutrition:** What kinds of food are people eating in Eeyou Istchee? What nutrients are people getting from traditional foods?
2. **Physical Activity:** Are people leading active lives?
3. **Contaminants:** What contaminants are found in people’s bodies?
4. **Zoonoses:** How many people have caught infections from animals?
5. **General Health:** Do people have health problems that might be linked to their food choices and to contaminants?

The project is funded by Niskamoon under the 2001 Mercury Agreement between the Cree and Hydro-Québec. It involves all 9 Eeyou communities.

**Community Participation**

Waswanipi was visited in August and September 2009 and 162 people participated in the study (including babies, children, adults and elders).

Participants gave samples of their hair, nails, urine and blood to be tested for contaminants. They also had their weight and blood pressure measured, and answered questionnaires about their health, eating habits and activities.



**Educational Activities**

The project’s educational component aimed to make science exciting through fun, hands-on activities. The goal was to encourage young people in Eeyou Istchee to pursue science and health careers.

Workshops about science, recycling and nutrition were held at Willie J. Happyjack Memorial School.

**Over 180 kids took part in the educational activities!**



**Conclusions**

People do have some traces of contaminants in their bodies, but this is not a major health concern in Waswanipi right now.

However, development projects like the Rupert River hydro project and mining plans will continue to impact the environment. Therefore, it is important to keep checking the levels of contaminants in the environment and in people’s bodies to make sure that they do not reach levels that could impact our health.

Being overweight, eating unhealthy food and lacking physical activity are bigger health problems than contamination. Traditional food remains a healthy choice compared to store-bought foods with high fat and sugar content. **The benefits of eating traditional food outweigh the risks!**

**The priorities for health promotion in Waswanipi are:**

- Do not smoke
- Be active by walking, doing physical work, and playing sports
- Eat foods high in vitamins like fruits and vegetables
- Cut back on store-bought foods with high fat and sugar
- Keep eating traditional foods as they are healthy

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### 1. Nutrition

Traditional foods such as game, fish, fowl and berries are healthy. They are low in fat and high in some vitamins and minerals that help protect against illness. Moose, caribou, goose, and ptarmigan are the most common traditional foods eaten in Waswanipi; 50% of the people interviewed had eaten these foods in the last year.

As in other Eeyou communities, people over 40 years of age eat traditional foods far more often than people aged 18-39 and children, with small differences between women and men. Game seems to be favoured.

People in Waswanipi get enough protein and carbohydrates in their diets. However, most people tend to eat too much fat, including saturated and trans fat, and cholesterol.

Most people eat enough meat to get plenty of zinc and iron. People in all age groups eat fewer fruits, vegetables, and milk products than recommended. This leads to low levels of important nutrients like calcium, magnesium and some vitamins.

Children get about 12% of their daily calories from drinking pop and other sweet drinks (not including fruit juice). The extra calories and sugar contribute to being overweight and can lead to diseases like diabetes.



### 2. Physical Activity

In Mistissini, the study found encouraging links between physical activity (especially walking) and better weight.

Other studies have established that doing regular physical activity lowers the risk of heart disease, diabetes, and other health problems.



### 3. Contaminants

Contaminants are chemicals like mercury and pesticides that can be harmful to our health.

Some contaminants are released into the environment by industries in the South and carried north by the wind and rain. Mercury is present naturally in the soil, but developments such as hydroelectric dams and forestry cause mercury to move from the soil into lakes and rivers, where it is absorbed by plants and tiny animals. Contaminants travel up the food chain and accumulate in the fish and animals that we eat.

Our bodies can tolerate a small amount of contaminants, but too much can affect our health. Babies, children and pregnant women are especially vulnerable. The project tested for Mercury, Lead,



Cadmium, Selenium, Arsenic, PCBs and other Organic Contaminants, such as pesticides and fire retardants. Mercury levels in blood or hair are lower than they were in the 1990s, but they remain a concern. In Waswanipi blood lead was lower than in all the other communities. Smoking is the main source of cadmium, and clearly remains a worry. PCB blood levels were also relatively low compared to the other communities, and arsenic was not an issue.

### 4. Zoonoses

Zoonoses are bacteria, germs and viruses that people can catch from animals. Hunters and trappers who come into contact with wild animals may be at risk. When we come into contact with zoonoses, our bodies make antibodies to fight infection. These antibodies stay in our blood for years and can be detected with a blood test.

The study found some traces of past infection by zoonoses, but nobody was currently infected.

A local group like the CTA could tell hunters and trappers what symptoms to look out for. Health care workers should also be informed about the symptoms of these illnesses

### 5. General Health

Some health problems are linked to people's eating habits and contaminants. These include thyroid problems, heart disease and diabetes.

#### RISK FACTORS FOR HEART DISEASE Weight

- 90.1% of participants were overweight.
- 70.3% can be considered obese.
- People in Waswanipi are similar to Eastmain, but more overweight than individuals in Mistissini, Wemindji, Chisasibi, with Waskaganish the lowest.
- 19% had high blood pressure.

### Cholesterol and fats

- 58% of the participants had low levels of "good" (HDL) cholesterol.
- 41% had high triglycerides, another unhealthy fat.

### Carotid artery thickness

- In general, both men and women had healthy arteries which were comparable to other aboriginal population we have studied in Canada.
- As reported in many other studies, men tended to have thicker arteries compared with women.
- Individuals who presented with signs of diabetes had unhealthy arteries. The later confirms what have been reported in other health studies.

### Diabetes

- Over 25% of study participants had had diabetes diagnosed by the clinic. Of the others without diagnosed diabetes, almost a quarter had blood sugar levels suggestive of diabetes which had not been diagnosed yet by the clinic.
- To reduce chances of getting diabetes and heart disease, people need to eat less food high in saturated fats, trans fats and sugar, and to be more active.

### Fragile Bones

- Osteoporosis, or fragile bones, mostly affects older women. The study used ultrasound to measure the bone strength of women over the age of 35 in Waswanipi.
- Compared to women in Quebec City, women in Waswanipi have a low risk of breaking a bone.

