

Popular Report for the CREE NATION OF EASTMAIN



Multi-Community Environment and Health Project in Iiyiyiu Aschii

ABOUT THE PROJECT

Iiyiyiuch know that the land, water, and animals are closely tied to their well-being. Nituuchischaayihititaa 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 Iiyiyiu foods are healthy but these days, some fish and animals may be contaminated with harmful chemicals. Also, some germs can be passed from animals to the humans.

We need to know whether the benefits of eating traditional food outweigh the risks.

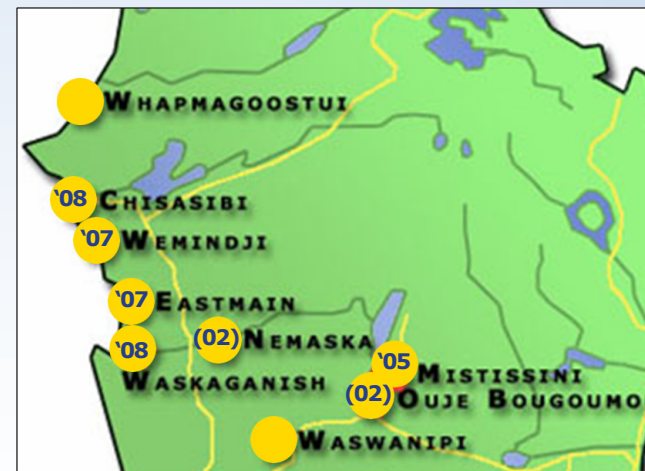
To find out, the project asked five questions:

- 1. Nutrition:** What kinds of food are of foods are people eating in Iiyiyiu Aschii? What nutrients are people getting from traditional foods?
- 2. Contaminants:** What contaminants are found in people's bodies?
- 3. Water Quality:** Is the water in the lakes and rivers safe to drink?
- 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?



Local residents were hired to recruit and interview participants.

The project is funded by Niskamoon under the 2001 Mercury Agreement between the Crees and Hydro-Québec. It will visit all 9 Iiyiyiu communities between 2005 and 2011.



The projet team visited Eastmain in August 2007 and 150 people, including babies, children, adults and elders, participated in the project. Participants gave samples of their hair, nails and blood to be tested for contaminants. They also did clinical tests to check their weight and blood pressure, and answered questionnaires about their health, nutrition and activities.

EDUCATIONAL ACTIVITIES



60 kids participated in a Science Summer Camp and 75 high school students had a chance to tour the Atlantis Lab.

CONCLUSIONS

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

However, development projects in Iiyiyiu Aschii 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.

Traditional food remains a healthy choice compared to market food with high fat and sugar content.

Being overweight, eating unhealthy food, and lacking physical activity are bigger health problems than contamination.

The priorities for health promotion in Eastmain are:

- ✓ **Avoid smoking**
- ✓ **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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Conseil Cri de la santé et des services sociaux de la Baie James
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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, rabbit, goose, ptarmigan are the most common traditional foods eaten in Eastmain. On average, people eat each of these foods at least once a month.



As in Mistissini, people over 40 years of age eat traditional foods more often than people aged 18-39, and children eat the least amount of traditional food.

People in Eastmain get enough protein and carbohydrates in their diets. However, adults and boys aged 9-18 tend to eat too much fat, saturated fat, and cholesterol

People eat more than the number of servings of meat recommended by the Canadian food guide. Therefore they get plenty of zinc and iron. However, people eat fewer fruits, vegetables, and milk products than recommended. This leads to low levels of calcium, magnesium and some vitamins

Children get about 15% 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 lead to diseases like diabetes.

2. 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 more 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 is toxic to our health. Babies, children and pregnant women are especially vulnerable.

The project tested for Mercury, Lead, Cadmium, Selenium, PCBs and other Organic Contaminants, such as pesticides and fire retardants

Fortunately, most people in Eastmain have only small amounts of these chemicals in their blood. Women of childbearing age and children had safe levels of all the contaminants tested. Older people who have eaten a lot of fish and game in their lifetime tend to have higher levels of Mercury, Lead and other contaminants, but not enough to be dangerous to their health.

In fact, the mercury levels detected in Eastmain in 2007 and in Mistissini in 2005 are lower than they were in the 1970s.

The only contaminant that is cause for concern is Cadmium, a chemical that affects kidney health. The people with high Cadmium levels were mostly smokers under 40 years of age. This suggests that cigarettes, and not traditional food, are the main source of this contaminant in Eastmain.

The results about others contaminant and PCBs are not yet available at this time.

3. WATER QUALITY

The research team tested natural sources at Km 381, Km 324 and Km 70. According to community members, the purest water comes from Km 381. The lab tests support this as practically no germs were found at this source.

There were some germs in the other natural water sources tested, including rain water stored in plastic jugs in people's homes. This means that people could possibly get sick when drinking water from these sources. These germs probably come from animals rather than humans, and it is normal to find them in natural surface sources.

To be safe, water from natural sources should be boiled for at least 1 minute to kill the germs

The water at km 381 comes from a deep well.



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 naturally make antibodies to fight infection. These antibodies stay in our blood for years and can be detected with a blood test.

There were some traces of past infection by zoonoses, but no lasting impact on people's health. This probably means that **hunters and trappers have safe practices for handling animals.**

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 frequency and 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.

Thyroid health

The thyroid is a gland in the neck that helps control how energetic we feel. Scientists think that some contaminants might cause thyroid problems, which can lead to heart disease. No thyroid problems were found among the Eastmain participants. medication.

Risk factors for heart disease

Weight

- 89% of participants were overweight and 70% can be considered obese.
- 84% showed stomach obesity, which can lead to diabetes.

Blood pressure

- 19% had high blood pressure.

Cholesterol and fats

- 48% of the participants had low levels of "good" Low-Density cholesterol compared to the "bad" High-Density cholesterol.
- 39% had high triglycerides, another kind of unhealthy fat.

Diabetes

- One out of five participants had fasting blood sugar levels that indicate undiagnosed or improperly managed diabetes. Another 23% are considered at risk for diabetes.
- The rate of diabetes is more than 4 times higher in Eastmain than in the rest of Canada. Similar results have been observed in Mistissini.

To reduce changes of getting diabetes and heart disease, people need to eat less foods containing cholesterol, fat, and sugar, and to be more physically active .