Eating traditional foods and being more active would help kids' health, but it's just the tip of the iceberg

## SETTING THE STAGE FOR BIGGER HEALTH PROBLEMS IN THE NORTH

## BY MARIA DOMBROWSKY

BESITY RATES IN Cree children are four times higher than the Canadian average for all children and may result in obesity-related health problems such as diabetes, a University of Alberta researcher has found. Prof. Noreen Willows of the Department of Agricultural, Food and Nutritional Science says encouraging children to lead more active lifestyles and eat healthier foods, including more traditional Cree foods, which are low in fat and high in protein, can help.

Willows, who is also a member of the Canadian Obesity Network (CON), has partnered with the Cree Board of Health and Social Services and Cree communities to study obesity in children from the Eeyou Istchee Cree communities in James Bay, Que.

In the study, dubbed by community members as the "Emiyuu Ayayaachiit Awaash Project (Active Kids Project)," she and her collaborators assessed 205 children in grades 4 to 6, representing 89 per cent of those in the age range. They measured levels of obesity, physical activity, fitness and adiposity (fat tissue) in the participants.

Body-mass categories (e.g., overweight, obese) were assigned using guidelines from the International Obesity Task Force and based on the body mass and height of each child. Adiposity was calculated from waist circumference and skinfold thickness. The fitness and physical activity

of the children were determined by using sprinting exercises and counting the number of steps a child walked daily.

The study found that half of the Cree children had waist measurements that either met or exceeded those of 85 per cent of typical American children. In addition, just slightly



more than half of the children met physical activity recommendations for their age.

Willows says these findings are worrisome, given that obesity is strongly linked to type 2 diabetes and other serious illnesses.

Cree children were also found to have energy-rich but nutrient-poor diets. Only three per cent of energy in the diet was from traditional Cree foods such as moose, caribou, goose, fish and beaver, which are considered healthy eating choices. Children who ate traditional foods had better iron and zinc nutrition, says Willows.

She notes that a fast-food diet was common among participants, with three-quarters of Cree children consuming at least one meal from a restaurant or as takeout during a three-day period. This is comparable with findings from the 2004 Canadian Community Health Survey that many Canadian children eat fast-food restaurant meals daily. Willows says this shows that, despite living in remote areas, Cree children are exposed to similar risk factors for obesity as other Canadian children.



Reducing the prevalence of obesity in Eeyou Istchee is a challenge, she says. Aboriginal Peoples tend to be constrained by factors such as lower education levels, less opportunity for economic employment, fewer extracurricular opportunities, poorer diets and crowded living conditions. That's why a multi-pronged solution is needed.

"Poverty may be a direct cause of obesity in Cree communities because it limits access to healthful foods and increases exposure to unhealthy foods," she says. "To improve the health of Cree children, we must improve the economic circumstances of First Nations in Canada, including the Cree of James Bay."

Solomon Awashish, a diabetes prevention program officer for the Cree Board of Health and Social Services, says diabetes and obesity are just the tip of the iceberg when it comes to health crises in native communities. Rising obesity and diabetes rates are symptoms of the rapid change in native lifestyles over the last century, he says. Nomadic hunting traditions and traditional food have given way to fast food, sedentary living and modern conveniences.

"Our grandfathers had to be active to survive," says Awashish.
"They also believed that, in life, there were no problems, only solutions. Studies like Prof. Willows' make solutions possible because of the constructive partnerships formed among native organizations, researchers and community members."

Willows says Cree children need a supportive environment that encourages them to maintain a healthy body weight, stay physically active through organized sports and activities, and have healthy eating habits that include traditional Cree foods.

III Funding for this research was provided by the Canadian Institutes of Health Research. Other University of Alberta researchers involved in this study were vice-dean Dru Marshall of the Faculty of Physical Education and Recreation; Prof. Linda McCargar of the Department of Agricultural, Food and Nutritional Science and a CON member; Prof. Kim Raine, director of the Centre for Health Promotion Studies and a CON member; and graduate students Amber Arnold, Shauna Downs, Carmina Ng and Denise Ridley.