A Cree Perspective on Gathering Community Input for Physical Activity Programming in the Mushkegowuk Territory

Celine Sutherland, RN
Attawapiskat Health Services
Tel. 705-997-2149 (ATT)
E-mail sutherlandc@hotmail.com

Kelly Skinner, MSc, MPH
Department of Health Studies and Gerontology, University of Waterloo
Tel. 519-888-4567 x36631
E-mail kskinner@ahsmail.uwaterloo.ca

Rhona M. Hanning, RD, PhD
Department of Health Studies and Gerontology, University of Waterloo
Tel. 519-888-4567 x35685
E-mail rhanning@healthy.uwaterloo.ca

Mary Montgomery, BScN, RN
School of Nursing, Laurentian University
Tel. 705-675-1151 x3810
Email: mmontgomery@laurentian.ca

Leonard J.S. Tsuji, DDS, PhD
Department of Health Studies and Gerontology,
Department of Environment and Resource Studies,
University of Waterloo
Tel. 519-888-4567 x32762
Email ljtsuji@fes.uwaterloo.ca

Background

In 2004 and 2005 the research group of which I am a member was awarded grants from the Danone Institute and the Canadian Institutes of Health Research to adapt a web-survey to the First Nation context and use it to assess food and physical activity behaviours in groups of grade 6 to 10 Mushkegowuk Cree youth living along the west coast of James Bay. As a local health worker of Cree heritage from Mushkegowuk Territory, I was trained to administer the web-survey and assisted in carrying out this project. The Mushkegowuk Territory includes First Nation communities along the west coast of James Bay. While administering the survey in the community of Attawapiskat, Ontario, I started to notice that there was a lack of health promotion and physical activity programming in the community and that this was likely contributing to obesity and low physical activity levels among Attawapiskat youth. In 2006, I enrolled in a post-graduate registered nursing program at Laurentian University which required the completion of a practicum. I began to ask *why* there was little health promotion and physical activity programming for youth in Attawapiskat. I decided that this was an area that I wanted to focus on during my practicum placement. This paper describes a process for gathering community input for health promotion programming in a remote First Nation community from the perspective of a local health-care worker. In this paper, I provide a sample of preliminary results concerning the physical activity behaviours of Attawapiskat youth. These results led me to start asking questions about physical activity programming in Attawapiskat. The process I used to begin asking questions is described. This paper further highlights some of the challenges to program planning in the remote First Nation community of Attawapiskat, the value of having a local health worker initiate and carry out the process, and the benefits that practicum courses can offer the individual in the course and the community where the practicum takes place. The paper concludes with a summary of lessons learned.

Community Context

Attawapiskat, Ontario is situated on the west coast of James Bay and houses the community of Attawapiskat First Nation. Attawapiskat First Nation has a population of approximately 1300 people. The native language of these people is Cree and they are part of the Mushkegowuk Tribal Council (western James Bay First Nations). Attawapiskat is geographically remote and

isolated as it is accessible only by plane in the spring, summer, and fall, while a snow/ice road connects this community with other James Bay coastal communities in the winter. There is a sportsplex in the community which has an arena, a gymnasium, and a weight room. According to the 2001 census, 40% of the community's population was less than 15 years of age (Statistics Canada, 2001). Figure 1 shows the location of Attawapiskat in northern Ontario. The green line represents the winter road which connects the west coast James Bay communities to each other between freeze-up and break-up.

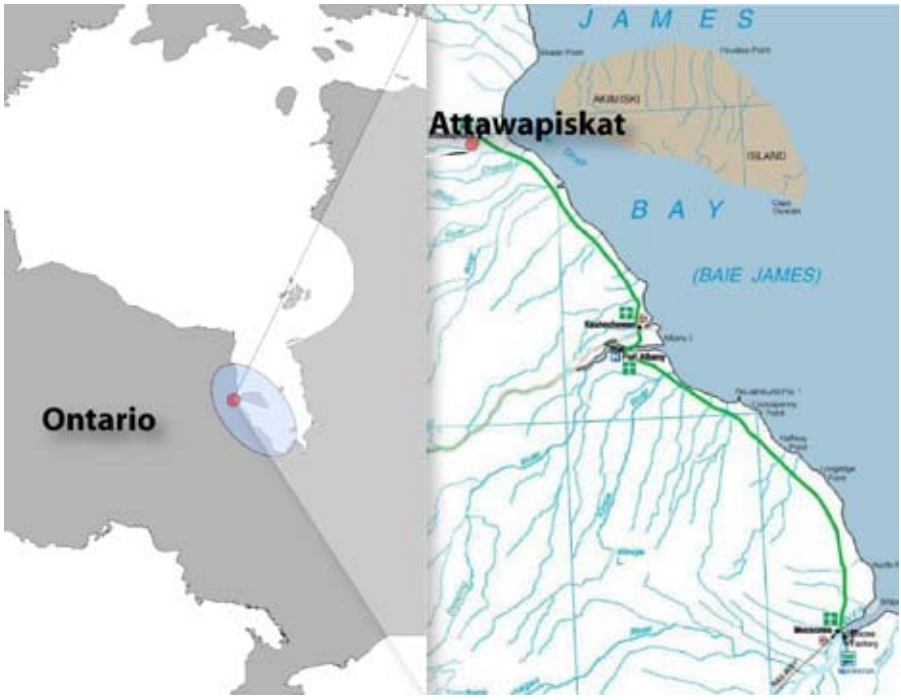

Figure 1: Location of Attawapiskat and surrounding west coast James Bay communities in northern Ontario. Modified from the Ontario Ministry of Transportation (2006)

Physical Activity and Health

The increased health benefits associated with regular physical activity have been well documented (U.S. Department of Health and Human Services, 1996; Pate et al., 1995; Bouchard et al., 1994). Long-term benefits include reducing the risk of developing various chronic diseases such as, obesity, type 2 diabetes, and coronary heart disease (U.S. Department of Health and Human

Services, 1996). Other benefits of physical activity for children and youth include: increased self-esteem (DeMarco and Sidney, 1989), improved academic performance (Keays and Allison, 1995; Symons et al., 1997; Taras, 2005), and a decreased likelihood of smoking or consuming alcohol or drugs (Tremblay et al., 2000). According to a report by the Canadian Fitness and Lifestyle Research Institute in 2004, only 18% of Canadian youth aged 12 to 19 were accumulating enough daily activity to meet the international guidelines for optimal growth and development (Craig and Cameron, 2004). Less than half of the youth participating in the First Nations Regional Longitudinal Health Survey reported at least 30 minutes of moderate-to-vigorous activity most days of the week (First Nations Centre, 2005).

Initial Flag for Concern

I administered a web-survey that was completed by grade 6 to 9 (aged 12 to 15 years) students (n=41) in Attawapiskat in February 2006. This web-survey was developed by researchers at the University of Waterloo (Hanning et al., 2007; Minaker et al., 2006) and adapted for First Nation students using community input during previous quantitative and qualitative research (Skinner, 2005). The survey is designed to assess food and physical activity behaviours and attitudes. Information of physical activity patterns is collected via a physical activity frequency questionnaire and questions on extra-curricular activities. The physical activity questions were extracted from the Physical Activity Questionnaire for Older Children (PAQ-C, Crocker et al., 1997), a validated instrument for use with children 9 to 15 years of age (Crocker et al., 1997). Additional questions related to physical activity were added to the survey to reflect community input and interests. The web-survey has been used to collect nutritional and physical activity information from over 10,000 non-Aboriginal students in Canada and approximately 350 First Nation students in Ontario and Quebec. Schools and communities are provided with feedback reports with aggregate results from the survey. Results are also communicated back to First Nation communities during community presentations. Brief preliminary results from Attawapiskat students are presented here to give an idea of some of the physical activity related questions asked and the responses of the students. Not all students responded to all questions, so the sample size (n) is indicated. Ethics approval was obtained to conduct the web-survey from the Office of Research Ethics at the University of Waterloo. Community approval was obtained from the Band Office.

In the feedback report, preliminary results from the web-survey (Hanning et al., 2006) suggested that Attawapiskat students were relatively inactive when compared to the frequency of activity (every day) suggested by Canada's Physical Activity Guide for Youth (Public Health Agency of Canada, 2002). For example (Figure 2), students were asked *Which one of the following describes you best for the last 7 days?* with the possible responses "all or most of my free time was spent doing things involving little physical effort, I *sometimes* did physical things in my free time (1 or 2 times last week), I *often* did physical things in my free time (3 or 4 times last week), I *quite often* did physical things in my free time (5 or 6 times last week), or I *very often* did physical things in my free time (7+ times last week)." Free time was before or after school, during recess or lunch hour and did not include physical education classes or other classroom time. Free time was the focus for this question as a different question covered activity during physical education classes. Overall the majority of respondents (61%) said they were only sometimes active (2 times or less) in the seven days previous to completing the web-based survey; 13% were active often (3 or 4 times), 10% were active quite often (5 or 6 times) and 16% said they were active very often (7 or more times) on the seven days prior to participating in the survey. Boys were more inactive than girls in the week prior to the survey; 72% of boys were active 2 or less times in that week, while only 50% of girls responded this way. This finding is contrary to most studies of physical activity in youth, where the boys are more

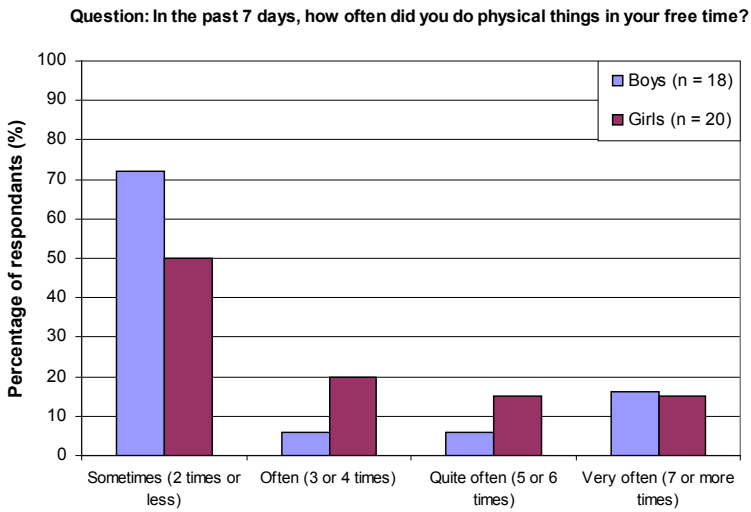

Figure 2: Free time physical activities in the past week by gender

active than girls (Sallis et al., 2000). It must be cautioned that these data were collected in February when outdoor physical activity may be lower due to winter weather. However, Attawapiskat has a sportsplex with an arena that is only open in the winter and the most common physical activity reported by the students (boys and girls combined) in the previous week was hockey. I noticed that the sportsplex was used a lot in the winter for hockey tournaments and hockey practice, but used very little in the summer months when the gym in the sportsplex is still open and the hockey pad is closed.

Overall, the common types of activities that respondents (n=38) reported doing during that week included hockey (91%), jogging (90%), walking for exercise (88%), ice skating (88%), active games (65%), soccer (65%) and basketball (63%). The type of activities differed between girls and boys. Boys were more likely to report playing hockey, active games, and jogging; while, girls were more likely to report ice skating, walking for exercise, soccer, and basketball. The majority of students (85%) reported that they would participate in more sports activities if they were run by organizations outside the school. Similarly, many students (79%) reported that they would participate in more sports activities if they were offered by their school. Unfortunately there was not an opportunity for the students to expand on why they responded to these two questions so strongly. It may be that they felt there were not many opportunities to participate in sports activities offered by the school or organizations outside of the school and they wanted an increase in sports activity programming.

Students were asked *In the past 7 days, during your physical education classes, how often were you very active?* with the possible responses "I don't do physical education, hardly ever, sometimes, quite often, always." The majority of students (60%) reported that they were "hardly ever" or only "sometimes" very active during physical education class in the previous week (Figure 3). When asked *Would you like to have a physical education teacher at your school?*, 75% of the students reported "yes" that they would like to have a physical education teacher at their school as opposed to their regular classroom teacher teaching and organizing their physical education time.

Students were also asked *In the last 7 days what did you do most of the time at RECESS?* and *In the last 7 days what did you normally do at LUNCH (besides eating lunch)?* with the possible responses for both questions being "sat down (talking, reading, doing school work), stood around, walked around a little, ran around and played quite a bit, or ran and played hard most of the time." The greatest proportion of students said that they sat down, stood around, or

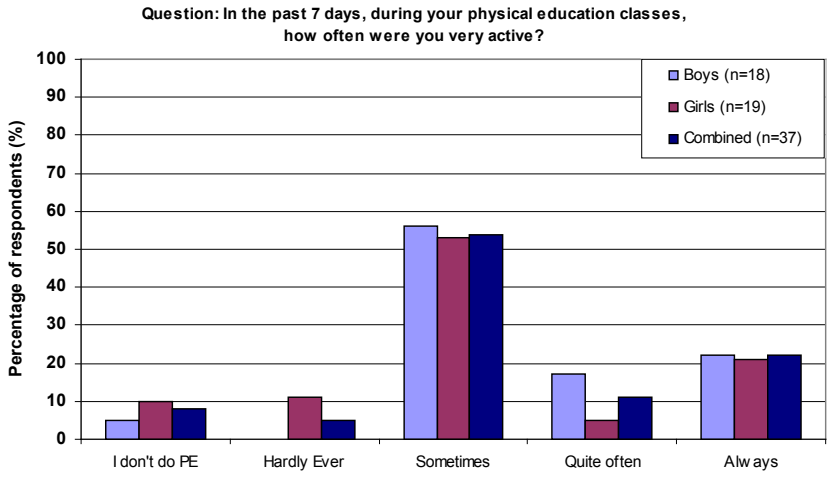

Figure 3: Activity in the past week during physical education (PE) classes by gender

walked around a little, both at recess (70% for these answers combined), and at lunch time (73% for these answers combined).

It was the initial administration of the survey and some of these preliminary results on physical activity in Attawapiskat youth that led me to begin to ask some questions about health promotion and physical activity programming in Attawapiskat. I noticed that there were very few programs for physical activity in the community and began considering questions such as:

- Why are there very few programs in the community?
- Why aren't kids participating in the programs that do exist?
- What programs do the kids want?
- How do you address these problems?
- What way(s) can you get community input for physical activity programming?
- Where do you begin?

Process Overview

My practicum required that I establish a learning plan and keep a journal. My learning goal was to examine community health needs and identify possible community-based program solutions. I chose to do my practicum placement in Attawapiskat and to build upon the questions I had begun to think about from the web survey.

My plan, which was approved by my course coordinator (Mary Montgomery) and preceptor (Leonard Tsuji), involved a 10 step process to gather, disseminate, and utilize community input on health promotion programming. These 10 steps were to: (1) approach Chief and Council, (2) identify community health issues and concerns, (3) conduct a literature search on the identified health issue(s), (4) develop focus group questions, (5) identify key community members for input, (6) conduct focus groups, (7) analyze and compile findings, (8) present findings to Chief and Council and key health workers, (9) develop a plan for health promotion programming focusing on the identified health issue, and (10) write a grant proposal for funding to implement the plan.

Description of Process and Initial Findings

At the time of writing this paper, I have completed the first six steps of my plan and steps seven and eight are currently in progress.

1. I met with the Chief of Attawapiskat to discuss my plans and to get approval for gathering community input. Ethics approval was obtained from the Office of Research Ethics at the University of Waterloo and community approval was obtained from the Band Office.
2. I then conducted informal interviews by phone with six community members to identify which health issues were concerns. These community members included the Deputy Chief, Band Manager, two community health representatives, the crisis coordinator, and the elementary school principal. Community members were asked to express what they thought of the well-being of the community now compared to the past. These were open-ended interviews that were culturally appropriate. The community members then expressed their thoughts on the health status of the community. The main theme that kept coming up was the concern of obesity in adolescents and that the youth in Attawapiskat were not participating in physical activity. This supported my initial observation from the web-survey results that physical activity programming was an issue that needed to be addressed.
3. I then conducted a literature search on obesity and physical activity in First Nation youth. I primarily used the CINAHL (*Cumulative Index to Nursing and Allied Health Literature*) database because I was doing my work from a nursing perspective. I found no literature for this geographic region on the topic of physical activity in youth. A large body of literature

did exist on obesity in youth and physical activity programming which I later accessed. I also researched information on nursing research and research methods, specifically focus group methods. I found support for using focus groups for my practicum. Below is an excerpt from my third practicum journal entry.

> According to Davies and Logan (2003), through the process of identifying and utilizing resources within the community, the community members become empowered to recognize and understand health-related issues of concern within the community and to mobilize community assets to improve community health.… The literature describes the process as a good approach for identifying health needs. According to Stamler and Yiu (2005), focus groups provide opportunities for community dialogue by allowing people to exchange experiences and express opinions. In this case, encouraging the frontline workers to discuss issues will encourage them to re-evaluate their programs. Furthermore, when given a chance to work out issues, community members are far more open to change than most politicians and health care providers imagine (Stamler and Yiu, 2005). (Sutherland, 2006)

4. I began to develop my focus group questions based on the input from phone interviews, the academic literature, and my preceptor. I broadened my questions to concentrate on health promotion, with the physical inactivity of Attawapiskat youth as the supporting evidence and motivation for increased health promotion programming. My intention was to bring the focus group results to Chief and Council in the hopes that health would become a more important issue on Attawapiskat's agenda. The focus group questions included the following:
   - In your current position, what health promotion projects or activities have you done or currently working on?
   - Do you think that there is enough health promotion in this community?
   - How do you feel when you hear about an incident that could have been prevented through health education?
   - How would you, as a frontline worker, promote health?
   - Tell me about the types of health promotion advertisements you have seen, heard or have experienced?
5. I identified key community members for input. This was a convenience sample of personnel who were active in the community with respect to health promotion, health programming, and health funding. These key

informants participated in a focus group on the issues around health promotion and physical activity programming. Because I wanted to target the level of health programming in the community, I decided to involve health workers in a variety of positions who could include physical activity programs in their work to participate. The inclusion criteria for participation was being a community member who was active in the health field. I identified and invited six key informants to the focus group. These individuals included a crisis coordinator, a community health representative, the healthy babies/healthy children coordinator, a home community care worker, a personal support worker, and a prevention worker.

6. Scheduling for the focus group was not easy. I initially invited focus group participants a week in advance, but this was not successful. I found that it was better to inform participants about the focus group only one day prior. I tried to remain unbiased during the focus group and listen carefully to what the participants were saying. The focus group discussion lasted approximately two hours.
7. Most of the focus group participants were involved on the front line, but agreed there was a lack of health promotion in Attawapiskat. The discussion revolved around three main themes: a lack of initiative, a lack of skills in promoting/marketing and therefore a lack of participation by the community, and a lack of teamwork. All of the focus group participants provided related health services, but they did not communicate with each other or participate in activities together. These initial findings will be further analyzed and a written document is forthcoming. The main outcome and recommendation from the focus group was to implement more planned physical activities. To facilitate this, the three main themes will be addressed (i.e., initiative, promoting/marketing, and teamwork).
8. Results from the focus groups have been orally disseminated back to the participants. In our community, this is a culturally appropriate way of reporting results back to the participants. The Chief and Council will be presented with the results both orally and in the forthcoming written document. Chief and Council will decide how the results will be disseminated to the community of Attawapiskat. Chief and Council will also be given an opportunity to provide input. After this input has been gathered, strategies will be planned out (Step 9) and funding will be sought to be able to implement the plan (Step 10).

Lessons Learned

Throughout this process I have learned a number of lessons. These lessons reflect my experience and perspective in trying to gather community input for health promotion programming with a focus on physical activity. I think it is important to share these lessons because this knowledge can contribute to the process used by other health care workers for gathering community input.

Be flexible. Be flexible with meetings times and other aspects of gathering community input. Scheduling is difficult. It may not be realistic to plan too far in advance. Often meetings need to be planned only one day in advance to be able to access the right people at the right time. Therefore, conducting these meetings and focus groups are not conducive with researchers who are absent and spend little time in the community. It is often not possible to fly in and fly out of a community the way that some researchers have done in the past.

Develop organizational structure. Most health workers want to make a difference and influence successful programming. In some cases, the barrier to this is that they have little organizational structure. They may not have a well defined role or a supervisor to provide guidance. Establishing concrete roles may motivate health workers to take the initiative to implement programs. Training community health workers in the area of physical activity promotion may also facilitate improved programming.

Encourage collaboration across health disciplines, health workers and community members. Invite health workers from a variety of areas with roles that cross over different programs to have the greatest impact on the health issue of concern. Certain health issues can get lost when the issue appears to be no one's responsibility, when in actuality it is everyone's responsibility (community leaders, health personnel, parents, and youth). There are different ways for communities to address working towards programs. For example, it might be important to promote collaboration between services to ensure that important health issues are not overlooked. Teamwork across health services can reduce gaps in health programming. Similarly the importance of teamwork across community members cannot be ignored. Parents and the youth themselves need to become more involved in planning and implementing health and physical activity programs. If there is a recreation coordinator in the community, they should be considered a part of the health care team.

Promoting programs may be just as important as offering them. The simple existence of a program does not ensure participation. Programs may require active promotion and marketing. Health workers in First Nation communities do not necessarily have marketing skills. Providing training in the area of marketing may increase participation in health programming.

Practicum placements can be mutually beneficial training opportunities. Practicum placements can benefit both the individual completing the practicum and the organization and/or community in which the practicum takes place. A practicum provides the opportunity for students to learn and develop research skills. First Nation communities may be more trusting of a local health worker gathering community input and may be more open during focus group discussions. First Nation health workers from the region also have a better grasp of local circumstances and how these circumstances might affect health behaviours and attitudes. Communities can benefit from this knowledge during the practicum and also when the student returns to work in the community.

First Nation communities are unique and diverse. For many years, I lived and worked as a registered nurse in Fort Albany, Ontario. When I moved to Attawapiskat, another First Nation in the Mushkegowuk Territory, I was surprised at the differences in health promotion programming. Many reserves have unique characteristics (Davis and Reid, 1999), creating challenges specific to their communities and implications for health status. According to Waldram and colleagues (2006), recognition of this diversity is essential to an accurate understanding of processes that affect health status in the Aboriginal population.

These lessons are not necessarily specific to physical activity programming and could be considered across other areas of health promotion. One of the lessons I learned was that First Nation communities are unique and diverse. This means that the lessons summarized here may not apply to diverse contexts or other First Nation communities. Nevertheless, the process outlined in this paper and the lessons described can be a starting point for health care workers who want to begin the process of gathering community input for health promotion programming.

Conclusions

This paper has described a process for gathering community input for health promotion programming in the remote First Nation community of Attawapiskat from the perspective of a local Cree health-care worker. Some of

the challenges and opportunities to improve program planning are outlined. The key message from this process that can be used to strengthen physical activity and health programming in Attawapiskat is to increase collaboration across health-related disciplines, health workers and community members. Teamwork by these groups and individuals could be the foundation for building successful physical activity and health programs for Attawapiskat youth and community members.

References

Bouchard, C., R.J. Shephard, and T. Stephens, eds.
1994 *Physical Activity, Fitness, and Health.* Champaign IL: Human Kinetics.

Craig, C.L. and C. Cameron
2004 *Increasing Physical Activity: Assessing Trends from 1998-2003.* Ottawa: Canadian Fitness and Lifestyle Research Institute.

Crocker, P.R.E., D.A. Bailey, R.A. Faulkner, K.C. Kowalski, and R. McGrath
1997 "Measuring general levels of physical activity: Preliminary evidence for the Physical Activity Questionnaire for Older Children." *Medicine and Science in Sport and Exercise* 29: 1344–1349.

Davies, B. and J. Logan
2003 *Reading Research: A User-friendly Guide for Nurses and other Health Professionals.* Third ed. Toronto: Elsevier Science.

Davis, S.M. and R. Reid
1999 "Practicing participatory research in American Indian communities." *American Journal of Clinical Nutrition* 69 (Suppl): S755–S759.

DeMarco, T. and K. Sidney
1989 "Enhancing children's participation in physical activity." *Journal of School Health* 59(8): 337–340.

First Nations Centre
2005 *First Nations Regional and Longitudinal Health Survey (RHS) 2002/03.* Ottawa: First Nations Centre of the National Aboriginal Health Organization.

Hanning, R.M., Tsuji, L.J.S. and J. Toews
2006 *Food and Physical Activity Behaviours in Attawapiskat, Ontario.* Waterloo: Population Health Research Group, University of Waterloo.

Hanning, R.M., S.J. Woodruff, I. Lambraki, L. Jessup, P. Driezen, and C.C. Murphy
2007 "Nutrient intakes and food consumption patterns among Ontario students in grades six, seven, and eight." *Canadian Journal of Public Health* 98(1): 12–6.

Keays, J. and K. Allison
1995 "The effects of regular moderate to vigorous physical activity on student outcomes: A review." *Canadian Journal of Public Health* 86(1): 62–65.

Minaker, L.M., L. McCargar, I. Lambraki, L. Jessup, P. Driezen, and K. Calengor, and R.M. Hanning
2006 "School region socio-economic status and geographic locale is associated with food behaviour of Ontario and Alberta adolescents." *Canadian Journal of Public Health* 97(5): 357–61.

Ontario Ministry of Transportation
2006 Northern Ontario Road Map Index: Map 17. http://www.mto.gov.on.ca/english/traveller/map/images/pdf/northont/sheets/Map17.pdf (24/01/07).

Pate, R.R., M. Pratt, N. Blair, W.L. Haskell, C.A. Macera, C. Bouchard, D. Buchner, W. Ettinger, G.W. Heath, and A.C. King
1995 "Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine." *JAMA* 273: 402–407.

Public Health Agency of Canada
2002 *Canada's Physical Activity Guide for Youth.* http://www.phac-aspc.gc.ca/pauuap/paguide/child_youth/pdf/guide_v_e.pdf (12/05/07).

Sallis, J.F., J.J. Prochaska, and W.C. Taylor
2000 "A review of correlates of physical activity of children and adolescents." *Medicine and Science in Sports and Exercise* 32(5): 963–975.

Skinner, K.
2005 "An exploration of the strengths, weaknesses, opportunities, and threats for healthy eating and physical activity in First Nation youth living in a remote, sub-arctic community." MSc. thesis, University of Waterloo, Department of Health Studies and Gerontology.

Stamler, L.L. and L. Yiu
2005 *Community Health Nursing: A Canadian Perspective.* Toronto: Pearson Education.

Statistics Canada
2001 "2001 Community Profiles: Attawapiskat 91A." Ottawa: Statistics Canada. http://www12.statcan.ca/english/profil01/CP01/Search/SearchForm_Results.cfm?Lang=E (23/01/07).

Sutherland C.
2006 *Practicum Journal #3.* Sudbury: Laurentian University.

Symons, C.W., B. Cinneli, T.C. James, and P. Groff
1997 "Bridging Student Health Risks and Academic Achievement Through Comprehensive School Health Programs." *Journal of School Health* 67(6): 220–227.

Taras, H.
2005 "Physical Activity and Student Performance at School." *Journal of School Health* 75(6): 214–218.

Tremblay, M.S., J.W. Inman, and J.D. Willms
2000 "The relationship between physical activity, self-esteem, and academic achievement in 12 year old children." *Pediatric Exercise Science* 12(3): 312–323.

U.S. Department of Health and Human Services
1996 *Physical Activity and Health: A Report of the Surgeon General.* Atlanta GA: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. http://www.cdc.gov/nccdphp/sgr/ataglan.htm (12/05/07).

Waldram, J.B., Herring, D.A. and T.K.Young
2006 Aboriginal Health in Canada: Historical, Cultural and epidemiological perspectives. Toronto: University of Toronto Press.