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***Healthy Eating and Active Living  
in School Settings:  
Taking action to address obesity  
in children and youth***

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**NEWFOUNDLAND AND LABRADOR  
MEDICAL ASSOCIATION**



**Newfoundland & Labrador  
Association of Social Workers**



**Association of Registered Nurses  
of Newfoundland and Labrador**



**Memorial  
University of Newfoundland**

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## EXECUTIVE SUMMARY

The Government of Newfoundland and Labrador has the opportunity to implement healthy school food and active living policies (or regulations as appropriate) that build on the successes within our province and elsewhere. We recommend that:

1. The Provincial Departments of Education and Health and Community Services develop policies and provide human and financial resources for an implementation plan that ensures schools model healthy food choices by offering only healthy food and beverage selections in canteens, cafeterias, vending machines, school food programs, and developing and promoting guidelines for bagged lunches. Implementation of these policies should be completed within a three-year timeframe. The implementation process must provide the human and financial resources to involve the school, home and community to ensure education, awareness, action, and sustainability.
2. The Provincial Departments of Education and Health and Community Services develop policies and provide human and financial resources that ensure schools only offer healthy food and beverage choices during special events, fundraisers, and other activities deemed to be exceptional to regular school programming (such as sports tournaments, holiday concerts, and school leaving ceremonies). Implementation of these policies should be completed within a three-year timeframe. The implementation process must provide the human and financial resources to involve the school, home and community to ensure education, awareness, action, and sustainability.
3. The Provincial Government of Newfoundland and Labrador continue to give children and youth the opportunity to avail of healthy food and beverage choices in schools by continuing to support programs such as Kids Eat Smart Foundation of Newfoundland and Labrador and the School Milk Foundation of Newfoundland and Labrador. Additional funding may be necessary to ensure availability of school feeding programs where a need has been identified as well as the increased cost of providing fruits, vegetables and milk products in these programs to school age children throughout the province.
4. The Provincial Departments of Education, Health and Community Services, and Tourism, Culture and Recreation develop policies and provide resources to ensure schools offer 30 minutes per day of quality daily physical education for all children from K to 12 as per the minimum standards set by the **Canadian Association for Health, Physical Education, Recreation and Dance (CAHPERD)**.
5. The Provincial Departments of Education, Health and Community Services and Tourism, Culture and Recreation financially support active living opportunities to encourage physical activity throughout the school day such as safe playgrounds, appropriate staffing and volunteer levels to monitor activity during breaks inside and outside school, and active transportation programs.
6. The Provincial Government of Newfoundland and Labrador establish a Provincial Committee with representatives of the Department of Health and Community Services, the Department of Education, the Department of Tourism, Culture and Recreation, the Dietitians of Newfoundland and Labrador, and others as agreed, to review, monitor and evaluate the impact of the implementation of the Healthy Eating/Active Living Initiatives in schools throughout the province.

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## Introduction

Good nutrition and regular physical activity are key components of health and well-being. Research has shown that children and youth who eat well and make healthy choices are better prepared to learn, be active, and maintain their health as adults. The incidence of childhood obesity in Canada has rung an alarm bell among many professional groups whose mandate includes health promotion and disease prevention. Addressing childhood obesity requires a population approach and multidisciplinary collaboration within the health sector and beyond.

The development of obesity involves a complex set of factors from multiple contexts that interact with one another to increase risk.<sup>1</sup> We recognize there is a need to address healthy eating and active living in a broader context looking at the determinants of health. These include – but are not limited to – conditions of childhood, income, availability of food, housing, employment and working conditions, and health and social services.<sup>2</sup>

The World Health Organization has identified five key evidence based strategies that will have a positive impact on reducing obesity:

- breastfeeding,
- regular physical education,
- reducing television viewing time,
- comprehensive school health programs, and
- community wide interventions.<sup>3</sup>

In Canada, research and analysis has concluded that there are similarities between the prevention of smoking and the prevention of obesity. Using the analogy put forward by the Canadian Population Health Institute in its report: *Improving the Health of Canadians* (2004), we can see that

- obesity is a health crisis,
- obesity has tremendous health and economic impacts,
- early intervention efforts to prevent obesity can minimize costs in the future.<sup>4</sup>

Canadian data demonstrates an increased risk of obesity among people with low income. The mechanism by which low income promotes obesity is complex. For adults, education is a strong determinant; for children, household income plays a major role. Children do not grow up in isolation. Conditions that affect the family, affect the child.

Next to the family, the school community is one of the most influential factors in a child's development. We recognize the complexity of obesity, however, in developing this brief, we have focused on the school age child and the opportunities the school setting provides for

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<sup>1</sup> Kim Raine, PhD, RD. Overweight and Obesity in Canada: A Population Health Perspective, August 2004

<sup>2</sup> Dennis Raphael, Ed. Social Determinants of Health, CPSI, 2004, 1

<sup>3</sup> Improving the Health of Canadians. Ottawa: 2004, 130

<sup>4</sup> Improving the Health of Canadians. Ottawa: 2004, 135

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modeling healthy eating and active living. We have reviewed the evidence on the impact of obesity on the health of children and youth with the expertise of health professionals and community stakeholders in a collaborative process. The Provincial Government through the Departments of Education, Health and Community Services and Tourism, Recreation and Culture has the opportunity to provide leadership to implement key policy changes to improve the health of children in this province by financially supporting the engagement of community stakeholders in a collaborative process (See Appendix A: Causal Web for Obesity).

### ***What do we know about obesity in children and youth?***

Over the past two decades, rates of overweight and obesity have nearly tripled among Canadian children (*Improving the Health of Canadians*, 2004). We also know:

- In Newfoundland and Labrador, one in four preschool children are overweight or obese.<sup>5</sup>
- Children in Atlantic Canada are at greater risk of being overweight.<sup>6</sup>
- Children aged two to 11 living in low income families were 1.5 times more likely to be obese compared to children in families with higher incomes.<sup>7</sup>
- Almost 80 percent of children aged 12 to 19 are not getting enough exercise to meet the international guidelines for optimal growth and development.<sup>8</sup> Further, 25 per cent of children and adolescents, especially girls, did not take part in any physical activity.<sup>9</sup>
- Children who are obese are more likely to remain obese later in childhood and adulthood, while adolescents who are obese have an 85 per cent chance of maintaining obesity as adults.<sup>10</sup>

***According to the World Health Organization, "the fundamental causes of the obesity epidemic are societal, resulting from an environment that promotes sedentary lifestyles and the consumption of high fat, energy dense diets."***

The impact of these trends has also been documented:

- Obese children and adolescents have a greater occurrence of hypertension and high cholesterol levels, two known risk factors for cardiovascular disease.<sup>11</sup>
- Type 2 Diabetes, previously seen only in adults, is now increasingly being found among children, particularly adolescents.<sup>12</sup>

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<sup>5</sup> Nutrition Health and Development. "Overweight and Obesity in Preschool Children in Newfoundland and Labrador," Spring 2004

<sup>6</sup> *Improving the Health of Canadians*, Canadian Institute for Health Information 2004, 113

<sup>7</sup> The National Longitudinal Survey of Children and Youth, Statistics Canada.

<sup>8</sup> 2000-2001 Canadian Community Health Survey, 2002.

<sup>9</sup> Suja Varghese. "Diet, physical activity, family history, and weight status of children and adolescents attending Avalon East School Board in Newfoundland (2003)." Forthcoming June 2004 International Congress of Dietetics -- Chicago.

<sup>10</sup> The Canadian Journal of Diagnosis, "Battling the Bulge: Obesity in Kids," March 2004

<sup>11</sup> *Improving the Health of Canadians*, Canadian Institute for Health Information, 2004.

<sup>12</sup> *Improving the Health of Canadians*, Canadian Institute for Health Information 2004

- Obesity related morbidity is responsible for higher health care costs (hospitalizations, treatments, prescription use); data in 1997 estimated that \$3.5 billion of health spending was related to obesity.<sup>13</sup>
- Poor self esteem (increased risk for drug taking, smoking and other risky behaviours) is also associated with obesity.
- Regular exercise among youth declines as the grade of schooling increases. This decrease in activity with age is of considerable concern because these sedentary habits will likely be carried into adulthood.<sup>14</sup>

### ***What opportunities do we have to make a difference?***

Children spend almost half of their waking day in school. The food and nutrition environment in our schools includes:

- food available in cafeterias and canteens and classrooms
- fundraising activities, such as bake sales, sub sandwich drives, and chocolate sales etc., and
- sporadic nutrition education in the curriculum from Kindergarten to Grade 9, and on an elective basis from Levels I through III

Schools are uniquely positioned to provide information on healthy eating and active living, to use the school environment to model and reinforce healthy behaviours, and to facilitate the harmonization of healthy living messages among the home, school and community. To ensure success in preventing obesity in children and youth, initiatives must include:

- the ***commitment*** of the Department of Education and school community (school districts, school administration, teachers and school councils) to support the creation of a health-promoting school environment;
- the ***engagement*** of students in an issue identification and solution based approach to work with the school community to provide solutions to help create a healthier school environment. Peer-led programs regarding promotion, availability and value of healthy foods and the importance of active living have proven successful; and
- the ***promotion and involvement*** of parents, school staff, school food providers and the community in developing a healthy school environment.

Any initiative must incorporate a balanced approach to foster healthy attitudes towards healthy body image and positive self esteem. It is important that efforts to prevent obesity do not exacerbate disordered eating or inadvertently promote negative attitudes towards overweight children and youth.

<sup>13</sup> Canadian Institute for Health Information Directions ICIS - Volume 9, No. 3)

<sup>14</sup> An Ounce of Prevention – Public Health Rationale for the School as a Setting for Health Promotion: A report of the Provincial Health Officer, British Columbia, October 2003, 8

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### ***What do we know about the healthy eating and physical activity environment in schools?***

According to the Coalition for School Nutrition Survey (2001), milk is the most prevalent item for sale in cafeterias and canteens. However, students do not always have healthy foods to accompany milk. The survey was conducted in all K-12 schools in the province and had a 72 per cent return rate. The survey found:

- Schools often served foods from the grill or deep fat fryer.
- In schools with canteens, the most common food items sold were ice cream and potato chips.
- Vending machines sold predominately soft drinks and sports drinks.
- Fewer than 50 per cent of vending machines included 100 per cent fruit juices as a choice.

Overall, 46 per cent of food offerings in cafeterias were considered nutritious. Canteens were marginally better at 53 per cent, while vending machines had 27 per cent nutritious choices. Since the study was carried out, there has been some limited improvement in the choices available from vending machines; however, the absence of policies or regulations governing the criteria for appropriate food items has meant these changes are spotty and inconsistent.

Approximately 60 per cent of schools do not have any specific food or nutrition policies or guidelines. Of those schools with such policies, their primary focus is on prohibiting food products relating to severe allergies such as peanuts or fish products. ***Schools without policies or guidelines have the highest levels of non-nutritious food offerings.***

In the same survey, school principals were asked about the physical activity levels of their students. On average, students in Grades One to Nine spent just under 18 minutes per day in a physical education program or just under one and a half hours per week. Among high school students, participation in a physical activity program was voluntary. The average participation rate for high school students was 58 per cent with an average of 27 minutes per day or 2 hours and 16 minutes per week.

### ***What are best practices in preventing obesity?***

Two key school health issues that have immediate impact on the physical and cognitive development of children, as well as long term well being are healthy eating and active living.

***Healthy Eating*** – Schools are providing students with healthy choices. The School Milk program is a successful example: 92 per cent of schools participate in the School Milk program. Reasonably priced milk is available to students and milk consumption and healthy eating is promoted through a variety of activities organized and supported by the School Milk Foundation of Newfoundland and Labrador.

The Kids Eat Smart Foundation of Newfoundland and Labrador also demonstrates how the community, government and corporate sectors can respond to meet the nutritional needs of children. The Foundation reaches about 20 per cent of the province's school children through more than 150 school breakfast, lunch or snack programs run by volunteers at schools and community centers. Kids Eat Smart supported programs offer students nutritious food choices thereby modeling healthy eating and supporting nutrition education.

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The Foundation has recently launched a best practices initiative that encourages programs to offer more fruits, vegetables and milk products. It also provides nutrition education, menu planning, and other supports for its network of 4000 volunteers. This initiative provides volunteers with the knowledge and tools they need to make the healthiest choices possible when purchasing food for the program.

The environment in which children eat is also important. Recess and lunch breaks must take place at appropriate times and in suitable venues. As noted earlier, the food choices in school canteens and cafeterias do not consistently reflect the nutritional requirements as outlined by Canada's Food Guide to Healthy Eating. Furthermore, some schools do not have cafeterias and students eat at their desks or leave school premises. Creating a positive and relaxed environment for lunch in the school creates opportunities for learning, sharing and modeling healthy food choices between students and teachers.

**Active Living** – In this province, there are two pilot projects underway. In Central Newfoundland, five schools are taking part in the *Active Schools* program to help reduce childhood obesity by ensuring daily exercise and exposure to healthy lifestyles. In the St. John's area, three schools are currently participating in a field test for another *Active Schools* initiative. The March 2005 announcements by the Provincial Government making physical education mandatory for high school students as well as increasing the number of credits required before graduation are also important steps in improving activity levels in this age group.

Other provinces also have school initiatives promoting active lifestyles to children. *Ever Active* receives funding from three different provincial departments: Alberta Learning, Health and Wellness, and Community Development.

*Action Schools BC* is a best practice model designed to assist schools in creating individualized action plans to promote healthy living. Participating schools receive an in-service and one complimentary Classroom Action Bin per class from Grades 4-7 at the school. Classroom Action bins are filled with playground balls, skipping ropes, exercise bands, strength grippers, and valuable teaching resources. The intent is to create a balanced portfolio of physical activities that promote healthy living for all students.

***New research has shown that the best outcomes are achieved by those programs that provide information on and opportunities to model both healthy eating and active living.*** As a study of students in the *Annapolis Valley Health Promoting Schools Project* showed, merely providing healthy food choices is not enough to make a difference in the obesity rate.<sup>15</sup>

Most recently, the provincial government of Nova Scotia announced a significant financial investment in supporting healthy eating and active living in the school environment. The Healthy Eating Nova Scotia strategy provides grants to schools that implement healthy eating and active living initiatives. The strategy is also funding additional staff (nine public health nutritionists and nine sports animators) to provide the necessary expertise at the local level.

***Other benefits of an active healthy lifestyle include higher levels of self-esteem, lower levels of anxiety and stress, and an increased ability to perform challenging tasks (Canada Fitness & Lifestyle Institute, 2000).***

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<sup>15</sup> American Journal of Public Health (2005) "Children's Lifestyle and School Performance Study (CLASS)."

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*Go for the Green – Active and Safe Routes to School* has several initiatives to promote active transportation to school such as walking or cycling school bus, no idling zone for cars around schools, central pick-up and drop-off points that children walk to and from the bus and school/home, physical infrastructure changes to calm traffic, park bikes, etc.

**Comprehensive School Health Model** – The model of Comprehensive School Health is promoted by the World Health Organization, and is used internationally. Comprehensive School Health is recognized as an effective way to improve students' health and their ability to learn. The goals of Comprehensive School Health are:

- to view health holistically,
- to use all opportunities for health,
- to harmonize health messages, and
- to empower children to act for healthful living

Comprehensive School Health involves the three components of Services, Environment and Curriculum. It allows for collaboration among and between these key components. Health messages should be harmonized throughout all three areas. The student is seen as central to the concept, and there should be strong links between home, school and community to provide a socially supportive climate. Collaboration is necessary between these three components so they can relate conceptually to each other and strengthen each other to make comprehensive school health effective as a model.

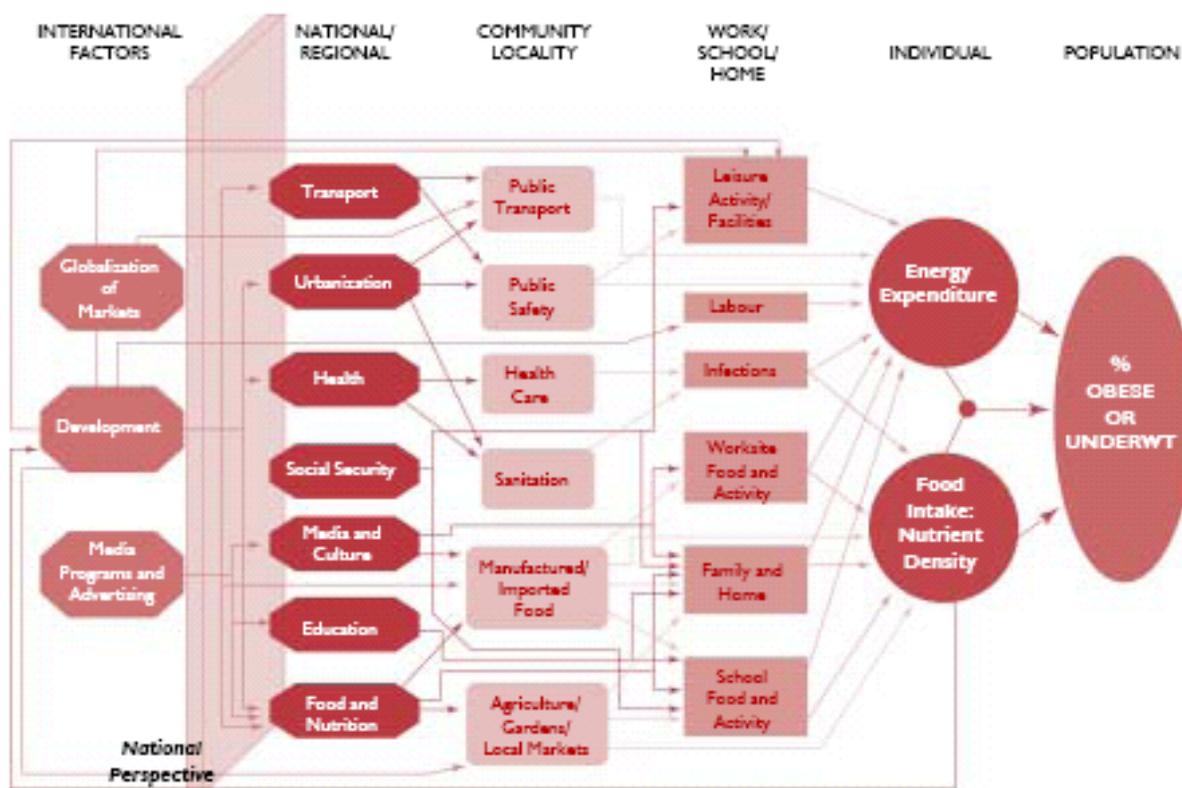
### ***How can we make a difference today?***

The Government of Newfoundland and Labrador has the opportunity to implement healthy school food and active living policies (or regulations as appropriate) that build on the successes within our province and elsewhere. We recommend that:

1. The Provincial Departments of Education and Health and Community Services develop policies and provide human and financial resources for an implementation plan that ensures schools model healthy food choices by offering only healthy food and beverage selections in canteens, cafeterias, vending machines, school food programs, and developing and promoting guidelines for bagged lunches. Implementation of these policies should be completed within a three-year timeframe. The implementation process must provide the human and financial resources to involve the school, home and community to ensure education, awareness, action, and sustainability.
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## Appendix A: Causal Web of Obesity



Source: S. Kumariyika, R.W. Jeffery, A. Morabia, C. Ritenbaugh, V.J. Anipatis, Public Health Approaches to the Prevention of Obesity (PHAPO) Working Group of the International Obesity Task Force (IOTF), "Obesity Prevention: The Case for Action," *International Journal of Obesity and Related Metabolic Disorders* 26, 3 (2002): pp. 425-36.