Western Public Health Casebook 2017

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Photos on front cover are graduates from MPH Class of 2016.

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Dr. Michelle Burt sat down at the table staring at the document in front of her. She took a moment to grasp the details of the school hot lunch sign-up sheet that her eight-year-old daughter had brought home. The sign-up sheet had a list of food options provided by the school, which included pizza, cookies, and other items high in fats, salt, and/or sugars. As Michelle held a PhD in nutritional sciences, and was a nutrition researcher herself, she was aware that these options conflicted with the nutrition standards for foods sold at school. Keeping in mind the increasing prevalence of childhood obesity, she was concerned about the health of school children, including her own child. She knew that Canada did not have a national school-meal program and the existing provisions for school meals were not of an appropriate standard, which was evident in her daughter’s school meal sign-up sheet.

To address the nutritional standards of foods provided at schools in Ontario, the Ontario Ministry of Education developed the School Food and Beverage Policy (Exhibit 1). The objective was not only to assist schools in providing a healthier environment for students (Ontario Ministry of Education, 2010) but also to influence manufacturers to supply healthy foods to schools. Being a mother, as well as a dietitian, Dr. Burt was aware of this policy and so it was an easy decision for her to not sign up for the hot lunch program. She wondered if all the other parents were aware of the policy and would make the same choice as she did. As a researcher, what steps could she take to ensure the food choices available in schools were aligned with the policy?

BACKGROUND
Healthy Schools
Lack of consumption of recommended quantities of fruits and vegetables is identified as one of the many factors associated with children’s poor health (People for Education, 2013). Healthy nutrition not only helps in preventing chronic disease, but is also essential for growth and development, which is important during the early stages of life (Davison et al., 2012). Schooling plays a major role in children’s educational achievements, and their acquisition of knowledge and literacy. In addition, schools have an indirect effect on the development of children’s attitudes and behaviours though peer influence and role modelling of teachers (Sylva, 1994). According to the Schools for Health in Europe (SHE) (Schools for Health in Europe, 2013) and Organization for Economic Cooperation and Development (OECD) (OECD, 2010) schools are an ideal place for health promotion. They provide easy access to the target population by enabling community outreach.

School Food and Beverage Policy
The development of the School Food and Beverage Policy is an important step towards creating healthier school environments. This policy emphasizes the importance of the school...
Changing School Food Environments: Is Policy Enough?

environment in influencing student attitudes, preferences, and behaviours. The policy was announced in January 2010 and took effect on the 1st of September 2011. It is applicable to all foods and beverages sold at schools (Ontario Ministry of Education, 2016).

This policy is part of a broader and bigger goal of developing healthier environments by influencing the attitudes and behaviours of students and parents. This, in turn, can influence food vendors to provide healthier options to sell to schools, such as whole wheat pizza with low-fat cheese, to help improve the diet of school children as well as their overall development (Ontario Ministry of Education, 2016). In order to achieve this goal, nutrition standards were established for food and beverages sold in publicly funded schools. The nutrition standards are divided into two parts: Nutrition Standards for Food and Nutrition Standards for Beverages.

Nutrition Standards for Food
As per Canada’s Food Guide, the Ontario Ministry of Education document divides food into four groups: Vegetables and Fruit, Grain Products, Milk and Alternatives, and Meat and Alternatives (Ontario Ministry of Education, 2010). Food items such as pizza, pasta, soup, salads, and sandwiches which contained more than one food group were categorized as Mixed Dishes by the Ministry (Ontario Ministry of Education, 2010). Other items, which were grouped into Miscellaneous items, included condiments, sauces, dips, and oils which could be used in limited amounts, while confectionery such as candy and chocolate were not permitted for sale (Ontario Ministry of Education, 2010).

Nutrition Standards for Beverages
Nutrition standards for beverages were developed separately. As per Canada’s Food Guide, the Ontario Ministry of Education suggests satisfying thirst with water, drinking skim, 1%, or 2% milk, and consuming fruits and vegetables more than juice (Ontario Ministry of Education, 2010).

Detailed nutrition standards provided by the Ontario Ministry of Education are shown in Exhibit 1. This is a comprehensive approach towards the food and beverages sold at schools. The implementation of nutrition standards is a priority as they reinforce knowledge, skills, and attitudes towards healthy eating, which, in turn, supports a healthy school environment. To support the policy guidelines, other supplementary resources were provided by the Ontario government to help teachers and parents (Ontario Ministry of Education, 2010). Given all of these resources and information contained in the policies and other documents, Dr. Burt wondered why the policy failed to translate to the meals and snacks that were being provided for sale at schools. Were there any other factors at play besides providing the policy to schools which needed to be considered for its successful implementation?

FIRST STEP
Keeping this in mind, Dr. Burt thought about talking first to the school authorities, since they held decision making power. She requested a meeting with the school principal to discuss the misalignment of the school lunch menu with the policy. Her meeting with Mr. William Rogers, the school principal, did not result in immediate changes to the food provided at school; however, it did give her an overview of the challenges faced by the school administration in successfully implementing the policy.

Dr. Burt knew the enormity of the task ahead of her, so she decided to team up with some of the parents and children she knew from the Home and School Association. She also realized that the teachers and school authorities played an important part in the school’s lunch menu and planned to gain an audience with them. To reduce the communication gap between the school
board, teachers, parents, and students, collaboration was pivotal. Her first tasks were assessing the knowledge of parents and children regarding the policy, and further identifying barriers hindering compliance. To achieve this, Dr. Burt planned to meet some of the parents she was friends with. The first question for the parents was whether they were aware of the policy, and if so, how well did they know it? Later she questioned them regarding the challenges they faced or would face in order to comply with the policy. The responses she got from some of the parents were not unexpected as many of them were unaware of the policy. One of the parents stated that, “I do not know what this policy is about and did not receive any information stating it.” Another parent who knew about the policy said, “This policy is for the food provided at school, shouldn’t it be the responsibility of the school to make sure that it gets executed?” In the case of the children, the questions were directed at their awareness and understanding of the policy. They were also asked what they would prefer to be served in schools and if healthier options were made available, if they would desire them. One of the girls mentioned that she did not mind healthier options as long as they were sold at a reasonable price and appealed to their taste buds, while another child complained that he wanted to buy an apple, but it was expensive so he bought chips instead.

The primary objective of these meetings was to gauge the general understanding of the policy and the obstacles faced in implementing the policy. The feedback received helped in the preparation of a report to be presented to parents and school administration as well as to vendors selling food and beverages. These discussions provided a deeper understanding of the participants’ views on the policy, their experiences, and their insights into the challenges faced. The commonly observed challenges were the lack of communication, limited school resources, lack of responsibility and accountability by stakeholders, and the lack of consideration of students’ preferences. Consequently, some of these factors also had a detrimental effect on the school’s revenue, which made it more difficult to implement and monitor the policy (Agron, 2010).

RESOURCES
Financial and human resources play an important role in supporting and ensuring the implementation of policies. The meeting with the school clearly identified the lack of funding, which limited the ability of the school authorities in executing the policy. Furthermore, Home and School Associations rely on revenues from the hot lunch programs, which feed back into school resources. This gives the school administrators the difficult task of choosing between nutrition standards and increasing revenues. Further discussions with the administrators revealed the lack of facilities, kitchen staff, and funding to prepare healthy foods.

COMMUNICATION
Communication was one of the key factors for determining the success of the policy. It is a link that binds all the stakeholders (students, parents, teachers, and school authorities) together and facilitates information and knowledge dissemination. Studies have shown that lack of adequate communication between stakeholders is one of the major barriers in implementing effective food policies (MacLellan, 2010). Discussions with parents revealed that a majority of them were unaware of the policy and those who were had no idea of its comprehensive nature due to inactive participation. As a diettian, Dr. Burt was aware of the policy but did not receive any information about it from the school. She understood very well the state of mind of parents, their questions, and their doubts. Moreover, teaching new policies and nutrition standards to the students was neither a part of the curriculum nor was it discussed at the Home and School Association meetings (Story, 2009).
In one of her discussions with a teacher, Miss Evans, Dr. Burt understood that the teacher felt that she was neither qualified to categorize food as per the policy nor did she understand the nutritional values mentioned on it. She attributed this to her non-nutritional background and acknowledged that it was not only her, but that most of the teaching staff felt that way. They wanted more training to effectively promote the policy.

On the other hand, when students were asked about their opinion regarding the policy, a majority of them had no recollection of their teacher discussing the policy with them or providing information about it to take home for their parents. If healthier food options were provided, they wanted the prices to be reduced, since the existing healthy food options were too expensive. The inclusion of student preferences should have been considered before implementing the policy. Overall, there should have been open communication to facilitate the operationalization of the policy.

SOCIAL ENVIRONMENT
Social environments, including homes and schools, influence an individual’s attitudes and behaviours. Family members and teachers serve as role models by engaging with students in practices that promote health (Christensen, 2003). This can help in decreasing the resistance to policy implementation by bringing about a behavioural change in students. The School Food and Beverage Policy could help in reinforcing knowledge, skills and attitudes towards healthy eating. Such efforts are fundamental in encouraging healthy eating behaviours not only in school environments, but also outside the school.

Dr. Burt realized the importance of the role of social marketing, which influences the decision making of students and school authorities. Food marketing influences purchasing behaviour and subsequent consumption by students (Neumark-Sztainer, 2005). The government also aims to influence the sale of healthier food via the vendors in schools (Ontario Ministry of Education, 2010).

The social ecological model includes five levels of influence on behaviour such as intrapersonal, interpersonal, organizational, community, and public policy (Winch, 2012). By incorporating this model, factors which prove to be a hindrance to the implementation of the policy at each of these levels could be identified. This model helps in understanding the influence of social environments on an individual in terms of behavioural change. Examining these levels with reference to this policy would give a better insight in proposing practical solutions to this issue.

ACCOUNTABILITY
The Ontario government has laid down detailed policy guidelines and has provided schools with additional materials to understand nutritional standards (Ontario Ministry of Education, 2010). However, it fails to specify the roles and responsibilities of individuals to implement the guidelines. Most parents and children were unaware of the policy. Without proper training, parents felt that they were incapable of understanding the information (such as serving size, nutrient content, and food labels) provided. Furthermore, teachers often felt that parents have a greater influence over their children’s attitudes and behaviours.

INSTITUTIONAL WILLINGNESS
Availability of resources, communication between individuals and institutions, and the influence of social environments on the attitudes and behaviours of stakeholders could determine institutional willingness to implement the policy effectively (MacLellan, 2010). Dr. Burt realized that her daughter’s school lacked the above factors, and therefore were hampered in their ability to implement the policy. Furthermore, she noticed the lack of indicators evaluating the extent of
a school’s readiness in adopting the policy. When organizational willingness is high, institutional members are more receptive to change, and show increased persistence and cooperation to implement changes (Weiner, 2009). Thus, Dr. Burt comprehended the need for these issues to be tackled as high priority in order to make the policy practically functional.

NEXT STEPS
Dr. Burt’s next step is to present the results and information to the parents and school administration. She was impressed with the amount of information that came forth in the meetings. This gave her a sense of responsibility to make good use of this information to initiate a change or open up a dialogue for future changes. She requested to present the results at the next teachers’ meeting as well as at the next Home and School Association meeting. By doing this, she hoped to resolve the issues mentioned above through the collective efforts of the school administrators, teachers, parents, and students.

Before confronting everyone, there were many criteria to be considered. How would the school overcome the barriers mentioned above without affecting the quality of nutritious food? Did the policy itself require critical analysis of its shortcomings, besides the issues identified above? What indicators would be used to determine the effective implementation of the policy? Dr. Burt hoped that her findings would help resolve the shortcomings in implementing the policy in other schools too, thereby providing a foundation towards a collaborative solution.
EXHIBIT 1

Policy/Program Memorandum No. 150
Date of Issue: October 4, 2010
Effective: Until revoked or modified
Subject: SCHOOL FOOD AND BEVERAGE POLICY
Application: Directors of Education
Supervisory Officers and Secretary-Treasurers of School Authorities
Principals of Elementary Schools
Principals of Secondary Schools
Principals of Provincial and Demonstration Schools
Reference: This memorandum replaces Policy/Program Memorandum No. 150, January 15, 2010.

INTRODUCTION
The Ontario government is committed to making schools healthier places for students in order to establish the conditions needed to realize the potential of all students. A healthy school environment enhances student learning and success, and enhances students’ social and emotional well-being. Schools have an important role to play in helping students lead healthier lives, including teaching students the skills to make healthy choices and reinforcing those lessons through school practices.

The purpose of this memorandum is to set out nutrition standards for food and beverages sold in publicly funded elementary and secondary schools in Ontario.

APPLICATION
School boards are required to ensure that all food and beverages sold on school premises for school purposes meet the requirements of this memorandum, including the nutrition standards set out in the Appendix to this memorandum, by September 1, 2011. The nutrition standards apply to all food and beverages sold in all venues (e.g., cafeterias, vending machines, tuck shops), through all programs (e.g., catered lunch programs), and at all events (e.g., bake sales, sports events).

The standards do not apply to food and beverages that are:

- offered in schools to students at no cost;
- brought from home or purchased off school premises and are not for resale in schools;
- available for purchase during field trips off school premises;
- sold in schools for non-school purposes (e.g., sold by an outside organization that is using the gymnasium after school hours for a non-school–related event);
- sold for fundraising activities that occur off school premises;
- sold in staff rooms.

LEGISLATIVE AUTHORITY
Paragraphs 29.3 and 29.4 of subsection 8(1) of the Education Act provide the Minister of Education with the authority to establish a policy with respect to nutrition standards for food and beverages and for any ingredient contained in food and beverages provided on school premises or in connection with a school-related activity, and to require school boards to comply with the policy.
RATIONALE FOR A SCHOOL FOOD AND BEVERAGE POLICY
The school food and beverage policy contributes to improved education and health outcomes for all students. Research shows that "health and education success are intertwined: schools cannot achieve their primary mission of education if students are not healthy" and that "healthy eating patterns in childhood and adolescence promote optimal childhood health, growth, and intellectual development".

The school environment profoundly influences students’ attitudes, preferences, and behaviours. Research also shows that when nutritionally inadequate food and beverages are available and promoted at school every day, even along with healthier food and beverages, it becomes increasingly difficult for students to have a healthy diet.

The implementation of the school food and beverage policy in Ontario's publicly funded schools will contribute to reducing students' risk of developing serious, chronic diseases, such as heart disease, type 2 diabetes, and certain types of cancer.

The school food and beverage policy constitutes a comprehensive approach to the sale of food and beverages in schools province-wide. The implementation of this policy is another important step in creating healthier schools in Ontario. It also reinforces the knowledge, skills, and attitudes regarding healthy eating that are developed through the various subjects and disciplines in the Ontario curriculum.

NUTRITION STANDARDS
The nutrition standards embody the principles of healthy eating outlined in Canada's Food Guide, and are intended to ensure that the food and beverages sold in schools contribute to students’ healthy growth and development. The nutrition standards for food and beverages are set out within the following two sections:

Nutrition Standards for Food. Food is divided into "Vegetables and Fruit", "Grain Products", "Milk and Alternatives", and "Meat and Alternatives", following Canada's Food Guide. There are also "Mixed Dishes", for products that contain more than one major ingredient (e.g., pizza, pasta, soup, salads, and sandwiches), and "Miscellaneous Items", for items that are to be used in limited amounts (e.g., condiments, sauces, dips, oils, dressings) and for confectionery, which is not permitted for sale (e.g., candy, chocolate).

Nutrition Standards for Beverages. Standards for beverages are provided separately for elementary schools and secondary schools.

The above two sections outline nutrition criteria that food and beverages must meet in order to be sold in schools. The nutrition criteria are provided in the following categories:

Sell Most (≥ 80%). Products in this category are the healthiest options and generally have higher levels of essential nutrients and lower amounts of fat, sugar, and/or sodium. They must make up at least 80 per cent of all food choices that are available for sale in all venues, through all programs, and at all events. The same requirement applies to beverage choices.

Sell Less (≤ 20%). Products in this category may have slightly higher amounts of fat, sugar, and/or sodium than food and beverages in the "Sell Most" category. They must make up no more than 20 per cent of all food choices that are available for sale in all venues, through all programs, and at all events. The same requirement applies to beverage choices.
**Not Permitted for Sale.** Products in this category generally contain few or no essential nutrients and/or contain high amounts of fat, sugar, and/or sodium (e.g., deep-fried and other fried foods, confectionery). Food and beverages in this category may not be sold in schools.

Often a type of food or beverage (e.g., bread, meat, cheese) will fit in all three of the above categories, depending on its nutritional value. To determine whether a specific product may be sold in schools, it is necessary to read the information on the food label – particularly the Nutrition Facts table and the ingredient list – and compare this information with the nutrition criteria.

Food should always be prepared in a healthy way – that is, using cooking methods that require little or no added fat or sodium, such as baking, barbequing, boiling, broiling, grilling, microwaving, poaching, roasting, steaming, or stir-frying.

**EXEMPTION FOR SPECIAL-EVENT DAYS**
The school principal may designate up to ten days (or fewer, as determined by the school board) during the school year as special-event days on which food and beverages sold in schools would be exempt from the nutrition standards outlined in this memorandum. The school principal must consult with the school council prior to designating a day as a special-event day. School principals are encouraged to consult with their students in making these decisions.

Notwithstanding this exemption, on special-event days, schools are encouraged to sell food and beverages that meet the nutrition standards set out in this memorandum.

**ADDITIONAL REQUIREMENTS**
The following requirements must also be met:
- School boards must comply with Ontario Regulation 200/08, "Trans Fat Standards", and any other applicable regulations made under the Education Act.
- Principals must take into consideration strategies developed under the school board’s policy on anaphylaxis to reduce the risk of exposure to anaphylactic causative agents.
- Food and beverages must be prepared, served, and stored in accordance with Regulation 562, "Food Premises", as amended, made under the Health Protection and Promotion Act.
- School boards must ensure that students have access to drinking water during the school day.
- The diversity of students and staff must be taken into consideration in order to accommodate religious and/or cultural needs.

**PRACTICES FOR CONSIDERATION**
Boards and schools should take into consideration the following when food or beverages are sold or provided in schools:
- Offer, when available and where possible, food and beverages that are produced in Ontario.
- Be environmentally aware (e.g., reduce food waste, reuse containers, recycle food scraps).
- Avoid offering food or beverages as a reward or an incentive for good behaviour, achievement, or participation.
IMPLEMENTATION AND MONITORING
Any existing school board policies or guidelines related to food and beverages sold in schools must be in accordance with this memorandum. The ministry recognizes that there may be differences in approaches and implementation at the local level. School boards and schools are encouraged to continue to work with students, parents, school staff, community members, public health professionals, and food service providers to ensure that appropriate strategies are in place to implement this memorandum.

School boards are encouraged to consult with their board of health to implement the nutrition standards. Under Ontario Public Health Standards, 2008, boards of health have a mandate to work with school boards and schools on healthy eating in schools.

School boards are responsible for monitoring the implementation of this memorandum.

At the end of the 2010-11 school year, school boards will be required to attest that they will be in full compliance with this memorandum on September 1, 2011.

For more information on support that is available to assist with implementation, see www.ontario.ca/healthyschools.

1In this memorandum, school board(s) and board(s) refer to district school boards and school authorities.
3Centers for Disease Control and Prevention, Guidelines for School Health Programs to Promote Lifelong Healthy Eating, MMWR 1996;45 (No. RR-9), p. 1.
5For further information, see Foundations for a Healthy School.
6The nutrition criteria are based on scientific research, on the Canadian Food Inspection Agency's Guide to Labelling and Advertising, on a cross-jurisdiction scan, and on market research on available food and beverage products.
7The following are examples of food choices: a bran muffin is one food choice and a banana muffin is another food choice; an apple is one food choice and an orange is another food choice.
8The following are examples of beverage choices: plain milk is one beverage choice and chocolate milk is another beverage choice; orange juice is one beverage choice and apple juice is another beverage choice.

REFERENCES


BACKGROUND
Nutrition is important for overall physical, mental, social, and cognitive well-being. It is especially crucial for children as it is linked to all aspects of their growth and development, which is connected to their health as adults. Children on their own are incapable of deciding what foods are good for their health. Hence, it is important to provide them with the right nutrition and a supportive environment to instill healthy eating habits. These habits will promote a better quality of life that will be perpetuated later on (Children’s Heart Centre, 2007). To address the nutritional standards of foods provided at schools in Ontario, the Ontario Ministry of Education developed the School Food and Beverage Policy. The objective was not only to assist schools in providing a healthier environment for students (Ontario Ministry of Education, 2010) but also to influence manufacturers to supply healthy foods to schools. This case revolves around the challenges faced by schools in implementing the School Food and Beverage Policy. These challenges involve the potential barriers faced by the school board, teachers, parents, and the students to abide by the policy.

The goal of the case is to provide an understanding that merely providing a policy is not the only solution to an issue. Factors such as monetary resources, communication, social environments, institutional willingness, and stakeholders’ accountability help facilitate a policy’s successful implementation. Furthermore, these factors play an important role when continuously monitoring and evaluating a policy. Policy evaluation is critical to understanding the impact of the policy on the community, institutional, and individual levels (Ross C. Brownson, 2009). Moreover, the case also encourages readers to think about the social determinants of health pertinent to healthy eating and access to healthy foods.

OBJECTIVES
1. Understand the barriers to the implementation of the School Food and Beverage Policy.
2. Explore the implications of the policy on the social environment and on individual attitudes and behaviours.
3. Illustrate the application of the social ecological model in the context of the School Food and Beverage Policy.
4. Propose realistic and feasible recommendations to the issues identified in the case.
DISCUSSION QUESTIONS
1. What are the issues that might cause implementation gaps in the policy besides those mentioned in the case?
2. What are the social determinants of health related to the case? How are they affecting the policy?
3. What steps should be taken to avoid the 'nanny state' argument during the implementation of the policy?
4. Is the policy limiting the freedom of choice of the students?
5. Is educating teachers, parents, and students enough to facilitate the implementation of the policy?

KEYWORDS
Nutrition policy; school; healthy eating; healthy schools.