A Student and Parent Perspective of Healthy Eating Policies in Prince Edward Island

by

Allison Holland

BA, St. Thomas University, 2005

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Applied Health Services Research

in the Graduate Academic Unit of The School of Graduate Studies

Supervisor(s):	Mary McKenna, Ph.D., RD, Faculty of Kinesiology, University of New Brunswick
	Debbie MacLellan, Ph.D., RD, Faculty of Science, University of Prince Edward Island
Examining Board:	Edmund Biden, BScE, DPhil, School of Graduate Studies, University of New Brunswick
	Gabriela Tymowski, Ph.D., Faculty of Kinesiology University of New Brunswick

This thesis is accepted by the Dean of Graduate Studies

THE UNIVERSITY OF NEW BRUNSWICK

February, 2008

Your file Votre référence
ISBN: 978-0-494-63752-4
Our file Notre référence
ISBN: 978-0-494-63752-4

Abstract

Rates of youth overweight and obesity have increased over the past 25 years. School healthy eating policies have been identified as a way to address this problem. Although a number of provinces in Canada have implemented school healthy eating policies, few of these policies have been evaluated. Policy evaluation is an important step in the policy process and when evaluating healthy eating policies, it is important to consider the perceptions of key stakeholder groups. This research asked, *what are the barriers and facilitating factors to school healthy eating policy implementation from the perspective of students and parents?* Through focus group interviews with 41 students and standardized, open-ended interviews with 12 parents in Prince Edward Island, it was determined that barriers included lack of food options available, limited resources, inadequate communication, conflicting roles and responsibilities, and perceived student food preferences. Facilitating factors included parental support, role modeling, and nutrition education.

Acknowledgements

I have many people to thank for this accomplishment. Starting with my supervisors, I would like to thank Debbie MacLellan from the University of Prince Edward Island who has methodologically taught me a great deal during my entire Masters Degree experience. Her expertise in the area of qualitative research has helped me overcome a number of methodological hurdles in the process of completing this degree. I would also like to thank my supervisor Mary McKenna from the University of New Brunswick who has proven to be an endless resource in the area of school healthy eating policy. Her sound understanding of the policy process continuously taught me new ways of conceptualizing my research topic. As a team, Debbie, Mary and I completed this thesis while scattered across the Atlantic Provinces. I am extremely appreciative of the extra effort taken by Debbie and Mary to accommodate this arrangement.

Secondly, I would like to thank the entire SNAP team who were always available to help when needed. Particularly, I would like to thank Jennifer Taylor from the University of Prince Edward Island who understood the need for healthy eating policy evaluation, enlisted the funds needed for the project, put together a top-notch research team, and made the whole SNAP project a reality.

Thirdly, I would like to thank the research participants as well as all school staff who helped organize focus group sessions and welcomed me into their schools. Also, I would like to thank the Prince Edward Island Home and School Association Presidents who assisted me with the recruitment of parent participants.

Fourthly, I would like to thank my family and friends who always demonstrated patience with me during this process and provided me with endless encouragement and support.

Finally, I would like to thank my daughter Georgia. My desire to teach her that anything is possible was my motivation during the long days and late nights spent putting this project together.

Allison Holland
January 7, 2008

Table of Contents

List of Tables

Curriculum Vitae

1.0 Introduction

Rates of overweight and obesity in Canada have increased substantially over the past 25 years (Philippe, Orpana, & Tremblay, 2007). An alarming feature of this phenomenon is its representation in Canada's youth. Today, an estimated 1.1 million Canadian youth, age 2-17 years are living with excess body weight, many to the extent of obesity (Shields, 2006). This phenomenon has lead health experts to draw some bleak conclusions about the future, in particular the prediction that, without change, the current generation of youth may face a shorter life expectancy than their parents (Olshansky, Passaro, Hershow, & Layden, 2005). The problem has not gone unnoticed. Various professionals from a number of fields including health, education and academia are working to halt growing rates of overweight and obesity and implement preventative initiatives. The research in this thesis deals with one of these initiatives, school healthy eating policies.

This introductory chapter discusses the growing rates of youth overweight and obesity and presents a rationale for school healthy eating policies. Such policies have been adopted in many provinces across Canada. However, few of these policies have been evaluated to determine the extent of implementation or their effectiveness. The Prince Edward Island Student Nutrition and Activity Project (SNAP) was established to address this gap. After a brief introduction to SNAP, the specifics of my research, which examines stakeholder perceptions of healthy eating policies, are explored including the research question and objectives. The second half of this chapter introduces the rest of the thesis and concludes by describing the significance of this study.

1.1 Background

In 1978/79, 12% of Canadian youth age 2 to 17 were overweight, and 3% were obese for a combined overweight/obesity rate of 15%. By 2004, the rate of overweight for this age group was 18% (an estimated 1.1 million), and 8% were obese (about half a million) for a combined rate of 26% (Shields, 2006). Influencing this growth in youth overweight and obesity are a number of social changes such as greater quantities and variety of high fat energy dense foods, increases in portion sizes, increases in the promotion and marketing of poor quality foods to children, an increased reliance on restaurants and fast food outlets, an increased reliance on motorized transport, fewer opportunities for recreational physical activity, and an increase in sedentary recreation such as television viewing, computer use and video games (Lobstein, Baur, & Uauy, 2004).

The phenomenon of youth overweight and obesity has both a personal and a public dimension. For youth living with overweight and obesity, the dilemma represents a personal problem causing poor health and affecting individual quality of life. It also represents a major public problem because its consequences add strain to Canada's already burdened health care system (Commission on the Future of Health Care in Canada, 2002). To treat the problem, individual children can be counseled on better eating habits and physical activity, doctors can prescribe medication, or in extreme cases surgery can be performed. However, initiatives at the individual level will not address the problem fully, nor can it be solved solely by the health sector. Changes are required to the environments that shape individual decision-making; public policy has the ability to achieve this goal (Raine & Wilson, 2007).

Healthy public policy aims to create supportive environments, making it easier for citizens to make healthy choices that enable them to lead healthy lives (Adelaide 2nd International Conferences on Health Promotion, 1998). Healthy public policy is built on the knowledge that health is not just affected by health care, but that a number of social determinants contribute to a population's health. Because many factors influence health, policies from many different sectors can influence a community's well-being. Therefore healthy public policy puts health on the agenda of policy makers in all sectors and at all levels (Public Health Agency of Canada, 2002).

School healthy eating policies[1] are a form of healthy public policy. Given the large quantity of time children spend at school and the number of children who attend school, the school environment is now recognized as having the potential to influence student eating habits and assist with decreasing the growing rate of youth overweight and obesity (Centres for Disease Control and Prevention, 1996; Davison & Birch, 2001; Dietz & Gortmaker, 2001; Kramer-Atwood et al., 2002; Briggs, Safaii, & Beall, 2003). In response, most provinces across Canada have adopted school healthy eating policies (Leo, 2007). Such policies provide a framework to guide school planning, implementation, and evaluation pertaining to student nutrition and health. Policies can promote a clear set of norms, reflect national or sub-national nutrition recommendations, consider cultural and dietary practices of their target population, and provide a basis for accountability. Many also address the longstanding issue of under-nutrition, recognizing that both over and under-nutrition must be addressed for children to function and learn (McKenna, 2007).

---

[1] School healthy eating policies are also known as nutrition policies.

School healthy eating policies address such issues as: access to safe and healthy foods at school, time to eat, and the integration of nutrition education within the curriculum. To date, however, little evaluation of these policies has occurred (McGraw, et al., 2000; Taylor, Evers, & McKenna, 2005). Evaluation involves a systematic process to assess the progress of ongoing activities as planned and is important because it offers a means to identify constraints for early corrective action (World Health Organization, 2002).

1.1.1 Prince Edward Island Context

Atlantic Canada has the highest rates of youth obesity in the country. In Prince Edward Island the obesity rate is 30%, 4% higher than the national average (Shields, 2006). Surveys of Prince Edward Island school children (Evers, Taylor, Manske, & Midgett, 2001; Taylor, Bradley, & Peacock, 2003) have identified a number of nutrition-related concerns including low consumption of milk, vegetables and fruit, and excess consumption of soft drinks, french fries, and high fat snacks. As well, only 58% of children in Prince Edward Island reported eating breakfast daily (Taylor, Bradley, & Peacock, 2003).

As a reaction to this problem, the Prince Edward Island Healthy Eating Alliance (HEA) began advocating for school healthy eating policy in 2003 (Freeze, 2007). The HEA is a group composed of individuals and organizations involved in nutrition, education, research, communication, and government who work to improve the eating behaviors of provincial youth through nutrition education and promotion (Prince Edward Island Department of Education, 2007). The HEA commissioned a subcommittee in the spring of 2003, the School Healthy Eating Policy Working Group, to begin the process of

policy development. This working group's membership consisted of: a Project Director, a University of Prince Edward Island professor, school board representatives from all Prince Edward Island school districts, a Home and School Association member, and Department of Health representatives. In the fall of 2003 this group, in conjunction with administrators of the school districts, identified sixteen 'lead elementary schools' interested in developing school nutrition policies. Throughout the remainder of the policy development process the lead schools and the policy working group continued to review, refine and address emerging issues related to the development of the policies (Freeze, 2007). Prince Edward Island adopted new healthy eating policies in all elementary and consolidated[2] schools in two of its three school districts during the 2005-2006 school year (Prince Edward Island Department of Education, 2005). Implementation in the third school district was scheduled for a later date. The policies focus on three main areas: student access to food, quality of food available at school, and nutrition education, with regulations presented for each. For a full copy of the nutrition policies for the Eastern and Western school districts, see Appendices A and B.

1.1.2 Student Nutrition Activity Project (SNAP)

SNAP is a project designed to evaluate the effectiveness of the healthy eating policies in Prince Edward Island. The SNAP research team consists of academics involved in the area of healthy eating policy from the University of Prince Edward Island, the University of New Brunswick and the University of Alberta.

The World Health Organization (2002) states that a wide range of methodologies, both qualitative and quantitative, should be used in evaluation. The SNAP project team has done so by using both qualitative and quantitative methodologies to meet their

[2] A consolidated school usually runs from kindergarten to grade 8.

objectives, which are: (1) to determine the effectiveness of the Prince Edward Island Healthy Eating Policies on improving eating habits and body weights in grade 5 and 6 elementary school children, and (2) to examine stakeholder perceptions of the policies. The work presented in this thesis involves the latter. SNAP is funded by the Canadian Institutes of Health Research, the Prince Edward Island Health Research Program, and the University of Prince Edward Island. SNAP research will run over a five year period (2007-2012) to allow sufficient time for policies to be implemented fully, and to allow possible changes in food use and weight status to occur. The entire SNAP project was reviewed and approved by the University of Prince Edward Island Research Ethics Board and the individual segment of the SNAP project included in this thesis was reviewed and approved by the University of New Brunswick Research Ethics Board.

1.1.3 Research Question and Objectives

The intent of this research was to determine the barriers and facilitating factors to policy implementation from the perspective of key stakeholders in order to identify areas for improvement. Gaining the perspective of stakeholders is important to evaluation because they have a valuable perspective to offer and involving stakeholders has the potential for promoting their engagement in policy issues. Stakeholder groups consist of students, parents, teachers, school staff, school and district administrators, and food service companies and employees. All these groups will be included as part of the second SNAP objective. However, to examine all stakeholder groups would make a study at the Masters level unmanageable. Therefore, this research focused on the perspective of students and parents. Other stakeholder groups will be interviewed as part of the SNAP project at a later date. The research question for this research is: *What are*

the barriers and facilitating factors to school healthy eating policy implementation from the perspective of students and parents?

The specific research objectives for this study are:

- To explore student and parent perceptions of policy initiatives in order to identify barriers and facilitating factors to policy implementation.
- To identify potential areas for improvement based on these findings.

1.2 Introduction to the Remainder of the Thesis

The remainder of this thesis is presented as follows. In chapter, 2 a foundation is laid for this research by providing background knowledge on the issues related to the topic of school healthy eating policies with a discussion of the literature on stakeholder perceptions of school healthy eating policies. Chapter 3 describes the research design and methods for this study including: methodology, sample, methods, and the analysis process used. Chapter 4 summarizes the results from this analysis by identifying and discussing barriers and facilitating factors to healthy eating policies in Prince Edward Island. The concluding chapter addresses the final objective, *to identify potential areas for improvement based on these findings,* with a list of recommendations for the future. Also discussed in the concluding chapter are the limitations to this research and the knowledge transfer and dissemination plan.

1.3 Significance of the Study

Although youth overweight and obesity represent a personal problem for many individuals, it is also a public problem influenced by a number of societal changes. Healthy public policy puts health on the agenda of policy makers in all sectors and can help address this problem. One form of these policies is school healthy eating policies.

Although most provinces in Canada have adopted school healthy eating policies, little work has been done to determine the effectiveness of these policies (McGraw et al., 2000; Taylor, Evers, & McKenna, 2005). This makes the SNAP project a timely and important endeavor. Although little has been done in the way of measuring the effectiveness of these policies, even less has been done to examine stakeholder perceptions of healthy eating policies. It is important to consider stakeholder perceptions when evaluating healthy eating policies because stakeholders have a valuable perspective to offer, and because this involvement has the potential for promoting engagement in policy issues. For this research, I chose to examine the perceptions of students and parents. The perspective of these two stakeholder groups is extremely significant to the evaluation of healthy eating policy because they are participants in the actual initiatives resulting from policy implementation, and because research looking at their perspective is limited. It is also important to note that this research is significant because it is Canadian. As will be seen throughout this thesis, very little data on school healthy eating policies in Canada are available.

2.0 Literature Review

2.1 Introduction

The purpose of this chapter is to lay a foundation for this research by providing background information on issues related to the evaluation of school healthy eating policies. Important topics covered in this chapter are: the problem of youth overweight and obesity, the use of healthy public policy to address the problem, the various elements of school healthy eating policies, the Prince Edward Island policy experience, and the importance of policy evaluation. As the number of school healthy eating policies has increased, so has research in the area. However, little of this research has focused on evaluating policy effectiveness, and even less on stakeholder perceptions. Available research is presented in the second half of this chapter. The results of these studies reveal various potential areas for improvement and demonstrate a need for further research.

2.2 The Problem of Youth Overweight and Obesity

2.2.1 Prevalence

Over the past 25 years, the prevalence of overweight and obesity in Canadian society has become a significant public health concern, both for the adult and youth population. For adults, Health Canada classifies overweight and obesity based on a measure of Body Mass Index (BMI) which is determined by an individual's ratio of height to weight. Individuals with a BMI of 25-29.9 are considered overweight and individuals with a BMI of 30 or above are considered obese (Health Canada, 2004). For measures of overweight and obesity among youth, the International Obesity Task Force (IOTF) developed sex and age specific values for cut-offs because it is not clear which BMI levels are associated with health risks at younger ages (Statistics Canada, 2005). A

full list of age specific cut offs can be found in Appendix C. Using this procedure for measuring overweight and obesity in youth, data from the Canadian Community Health Survey (CCHS) reported that 26% of Canadian youth aged 2-17 were overweight or obese (Shields, 2006). The Atlantic provinces face a particular challenge with youth overweight and obesity, as rates are higher than the national average: 30% for Prince Edward Island, 32% for Nova Scotia, 34% for New Brunswick and 36% for Newfoundland (Shields, 2006).

Numerous studies have demonstrated the growing rate of youth overweight and obesity. However, it can be difficult to interpret such data because different studies use different definitions of overweight and obesity. For example, although the Centers for Disease Control and Prevention (CDC) uses the same approach for calculating BMI, it uses a different approach to BMI interpretation for children and teens (Centers for Disease Control and Prevention, 2007). In this case, once BMI is calculated for children and teens the number is plotted on the BMI-for age growth chart (for either girls or boys) to obtain a percentile ranking. For an example of the BMI-for age growth chart see Appendix D. The percentile indicates the relative position of a child's BMI result among children of the same sex and age. These growth charts show the weight status categories used with children and teens as: underweight (less than the 5^{th} percentile), healthy weight (5^{th} percentile to less than the 85^{th} percentile), at risk of overweight (85^{th} to less than the 95^{th} percentile), and overweight (equal to or greater than the 95^{th} percentile) (Centers for Disease Control and Prevention, 2007). Currently the CDC has no obesity category for children. The CDC uses this procedure to calculate and interpret BMI for children and teens to account for growth and body fat differences between girls and boys.

2.2.2 Health Impacts

Rapid increases in the prevalence of overweight and obese youth have had health impacts. For example, the incidence of type 2 diabetes, until recently thought to be almost exclusively an adult-onset disease, has increased dramatically among youth (Fagot-Campagna, Pettitt, Engelau, Burrows & Geiss, 2000).

Unhealthy eating habits and low activity levels during childhood can interfere with optimal growth and development while setting the stage for poor eating habits during adolescence and adulthood (Johnson & Nicklas, 1999). Research has also shown that overweight and obese youth tend to be overweight in adulthood (Whitaker, Wright, Pepe, Seidel, & Dietz, 1997) which puts them at risk of a wide range of serious diseases and conditions later in life, such as: hypertension or high blood pressure, coronary heart disease, type 2 diabetes, stroke, gallbladder disease, osteoarthritis, sleep apnea and other breathing problems, and mental health problems such as low self-esteem and depression (Health Canada, 2007). As well, a recent large scale report released by the American Institute for Cancer Research and the World Cancer Research Foundation warns that medical evidence is stronger than ever that excess body fat increases an adult's risk for numerous cancers such as esophageal, pancreatic, colon, kidney, and endometrial, as well as breast cancer in post-menopausal women (American Institute for Cancer Research, 2007). These health impacts not only compromise individual quality of life, but present a major financial burden for Canada's health care system, and ultimately the Canadian economy (Commission on the Future of Health Care in Canada, 2002).

2.2.3 Contributing Factors

The increasing prevalence of youth overweight and obesity is influenced by a complex interaction of societal, economic, demographic and environmental changes. Raine (2004) argues that, "Ultimately, the problem is caused by a society that promotes excessive food intake, and discourages physical activity" (p.38). Major societal shifts have resulted in altered environments. An increased reliance on automated transport, an increase in passive leisure activities (television viewing, computer use, video games), fewer opportunities to be physically active at school, an increase in the availability of inexpensive, high fat, calorie dense foods, and an increase in portion sizes are all factors that contribute to climbing rates of overweight and obesity among youth (Health Canada, 2007). Also contributing to growing rates of overweight and obesity among youth are increases in marketing of poor quality foods directed at children (Institute of Medicine, 2005).

2.3 Addressing the Problem of Youth Overweight and Obesity through Healthy Public Policy

In the past, efforts by the medical community to address the problem of overweight and obesity have often focused on interventions directed at individual behavioral change, while environmental and policy approaches to the prevention of overweight and obesity have received little attention (Schmid, Pratt, & Howze, 1995). However, as the prevalence of overweight and obesity in Canada continues to increase, many health professionals are changing the way they conceptualize the problem. Overweight and obesity are now being understood not only as personal matters, but also a public concern where the role of the environment, and the need for healthy public policy is required (Raine, 2005).

Healthy public policy is characterized by an explicit concern for health and equity in all areas of policy. The main aim of healthy public policy is to create supportive environments, making it easier for citizens to make healthy choices that enable them to lead healthy lives (Adelaide 2nd International Conferences on Health Promotion, 1998). Developing healthy public policy means setting a direction and allocating resources for action for the common good. Healthy public policy is built on the knowledge that health is not just affected by health care but that a number of social determinants contribute to a population's health. Because many factors influence health, policies from many different sectors can influence a community's well-being. Healthy public policy puts health on the agenda of policy makers in all sectors, at all levels (Public Health Agency of Canada, 2002) and encourages public participation throughout the development process (Newfoundland and Labrador Heart Healthy Program, 1995).

Healthy public policy can address the problem of youth overweight and obesity by creating supportive facilities, initiating community wide physical activity campaigns, initiating food pricing strategies, initiating comprehensive education and social marketing, creating school programs to promote physical activity, and implementing school healthy eating policies (Raine, 2004).

2.4 School Healthy Eating Policies

Children's physical environments during development greatly affect the health practices they acquire and maintain throughout life, including eating habits and activity patterns (Raphael, 2004). This is true not only for the home environment, but also for other social environments where children spend time, including the school environment. The school environment is one of the most significant physical environments in

children's lives because of the amount of time they spend at school. Children spend approximately 2400 days in school, 5-7hrs/day over a span of 13 years during their formative years. Given the amount of time, and the fact that schools are an environment of learning, schools are now recognized to have a potentially powerful influence on students' eating habits through healthy eating policies and programs (Centers for Disease Control and Prevention, 1996; Davison & Birch, 2001; Kubik, Lytle, Hannan, Perry, & Story, 2003). Such policies are important because they provide infrastructure for coordinating school nutrition initiatives, and support individual level behavior changes (Briggs, Safaii, & Beall, 2003). As well, such policies ensure that students receive nutrition education messages that are reinforced throughout the school environment. Without a coordinated nutrition policy, schools risk contradicting health lessons delivered in the classroom by allowing actions that discourage healthy eating behaviors (Centers for Disease Control and Prevention, 1996).

2.4.1 The Potential of School Healthy Eating Policy: Government Recognition

Governments have a leadership role to play in the reduction and prevention of youth overweight and obesity (World Health Organization, 2003). Government agencies at various levels are realizing the potential of school health programs and policies as a way to improve the health of children. The Joint Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) Expert Consultation Group on Diet, Nutrition and the Prevention of Chronic Diseases state that priority should be given to the prevention of obesity in infants and children (World Health Organization, 2003). The WHO has embraced the concept of school health, arguing that effective school health programs can be one of the most cost effective

investments a nation can make to simultaneously improve education and health (World Health Organization, 1998). As well, the WHO's Global Strategy on Diet, Physical Activity, and Health (DPAS) encourages governments "to adopt policies that support healthy diets at school and limit the availability of products high in salt, sugar and fats, as well as providing health information, improving health literacy and promoting healthy diets, physical activity and other behaviors" (World Health Organization, 2004, p. 9).

The United States Congress also recognizes that schools play a critical role in healthy eating and physical activity. To formalize and encourage this role, Congress passed the Child Nutrition and Women Infant and Children Special Supplemental Feeding Program (WIC) Reauthorization Act of 2004 which required that all school districts that participate in the School Lunch and School Breakfast Programs (which the majority of schools do) establish a Local Wellness Policy by the 2006-2007 school year (United States Department of Agriculture, 2004). As well, the United States Department of Health and Human Services identified eight priority actions for improving the health of young people; one is to "establish policies to help local schools effectively implement coordinated school health programs and CDC's school health guidelines" (Fisher et al., 2003, p.12). Further, the United States Office of the Surgeon General stated in its report, *The Surgeon General's call to Action to Prevent and Decrease Overweight and Obesity*, that schools are key settings for public health strategies to prevent and decrease the prevalence of overweight and obesity, and that approaches in schools should extend beyond health and physical education to include school policy (United States Department of Health and Human Services, 2001).

In 1996, Health Canada called for action from schools to improve the nutritional health of children in its document *Nutrition for Health: An Agenda for Action* (Health Canada, 1996). While this document originated in the health sector, it acknowledged the complex set of influences that impact children's eating habits. More recently, in the 2004 report *Improving the Health of Canadians,* the Canadian Institute for Health Information (CIHI) identified comprehensive school health programs, such as healthy eating policies, as key strategies for preventing youth overweight and obesity (CIHI, 2004).

2.4.2 Elements of Healthy Eating Policies

In the United States, two important federal initiatives have enhanced school health-related policy efforts. First, in 1994 the CDC developed the Coordinated School Health Program. According to the CDC guidelines, an optimal policy on nutrition should commit the school publicly to providing adequate time for a curriculum on nutrition, serving healthy and appealing foods at school, developing food-use guidelines for teachers, supporting healthy school meals, and establishing links with nutrition service providers (Centers for Disease Control and Prevention, 1996). The second initiative was the Child Nutrition and WIC Reauthorization Act requiring schools to develop wellness policies (United States Department of Agriculture, 2004). These policies are required to address:

- appropriate goals for nutrition education, physical activity and other school-based activities designed to promote student wellness.
- nutrition guidelines for all foods available during the school day, with the objectives of promoting student health and reducing childhood obesity.

- assurance that school meal guidelines are not less restrictive than federal requirements.
- plans for measuring the implementation of the school wellness policy (United States Department of Agriculture, 2004).

In Canada, the CIHI report *Improving the Health of Canadians* advocates comprehensive school health programs and policies as an effective approach for reducing obesity. It states that such programs should be multifaceted and involve interacting components including: health instruction, health services, school environment, food service, extracurricular activities, physical education classes and parental involvement (Canadian Institute for Health Information, 2004).

Canada has no national-level policy on healthy eating in schools. Since 2005, school nutrition policies have been established in every province except Alberta (where they were released in draft from in July 2007 and are undergoing consultation until October 31, 2007) and Quebec (where they will come into effect in 2008). The three territories are also without school nutrition policies (Leo, 2007).

2.5 The Policy Process

School healthy eating policies are a form of public policy. The process of public policy may be described as a policy cycle (Howlett & Ramesh, 2003) consisting of five stages:

1. Agenda-setting – the process by which problems come to the attention of governments.
2. Policy Formulation – the process by which policy options are formulated.

3. Decision-Making – the process by which governments adopt a particular course of action or non-action.
4. Policy Implementation – the process by which governments put policies into effect.
5. Policy Evaluation - the processes by which the results of policies are monitored by both state and societal actors (Howlett & Ramesh, 2003, p.13).

Howlett and Ramesh (2003) argue that evaluation is an important stage in the policy cycle because its results may lead to a reconceptualization of policy problems or solutions, and offer a means for improvement. As well, The CDC advocates regular evaluation of school healthy eating policies because they can be used to assess and improve policies, instruction and programs (Centres for Disease Control and Prevention, 1996).

In conducting this evaluation, it is important to consult with those affected by the policy's implementation. The CDC (1996) recommends that all groups involved in and affected by physical activity and healthy eating programs in schools should have the opportunity to contribute to evaluation. In terms of the Prince Edward Island school healthy eating policies, those affected include: teachers, school and district administrators, school food volunteers, students, and parents.

2.6. The Prince Edward Island Policy Experience

2.6.1 Agenda-Setting

School healthy eating policy in Prince Edward Island was added to the agenda of policy makers for a number of reasons: the high prevalence of youth overweight and obesity in the province; CIHI recommended implementation of healthy eating policies in

schools (Canadian Institute of Health Information, 2004); many provinces across Canada were developing similar policies at the time; and finally, the Healthy Eating Alliance (HEA) of Prince Edward Island advocated for improved school nutrition. Established in 2001, the HEA works to improve the eating behaviors of Prince Edward Island children and youth through nutrition education and promotion, and through the creation of supportive environments for healthy eating. The HEA is composed of individuals and organizations involved in nutrition, education, research, communication and government (Prince Edward Island Department of Education, 2007). The HEA helped get healthy eating policies on the agenda of policy makers by compiling and presenting research to members of government on the eating habits of children in Prince Edward Island, and on foods found in provincial schools.

2.6.2 Policy Formulation

The CDC advocates bottom up approaches to policy formulation stating that input from all relevant stakeholders of the school community (students, teachers, coaches, staff, administrators, food service personnel, nurses, counselors, public health professionals, and parents) be incorporated into healthy eating policies (Centers for Disease Control and Prevention, 1996). As well, Action for Healthy Kids (AFHK); a non-governmental organization in the United States whose goal is to engage diverse organizations, leaders, and volunteers in actions that foster sound nutrition and good physical activity in children, youth and schools; states that schools can face particular challenges in achieving stakeholder buy-in if stakeholders are not consulted during policy and program development or evaluation (Action for Healthy Kids, 2005).

In Prince Edward Island, stakeholders were involved throughout the policy formulation process. Formulation began in 2003 with the formation of the School Healthy Eating Policy Working Group, a committee commissioned to start the process. This committee consisted of academics, school board representatives, home and school representatives, and representatives from the Prince Edward Island Department of Health. In the fall of 2003, this group, in consultation with administrators of the school districts, identified sixteen 'lead elementary schools.' They identified schools that were interested in healthy eating, and wanted to be involved in the formulation phase. Each of these schools formed school nutrition teams to assist in the formulation of the policy. The process started in elementary schools because of the benefits of introducing children to healthy eating at an early age and because there are no cafeterias in these schools so it would be easier to introduce a policy on foods in those schools (Freeze, 2007).

2.6.3 Decision Making

Throughout the remainder of the policy development process, the lead schools and the policy working group interacted to review, refine and address emerging issues related to decision making around the policies (Freeze, 2007). The provincial framework for nutrition policy regulations, chosen in collaboration with lead school teams were presented in three areas (Appendices A and B contain full copies):

1. Student Access to Food
   - Programming
   - Pricing
   - Promotion
   - Time to Eat
   - Student Choice

2. Quality of Food Available at School
   - Criteria for Food and Beverages Available in Vending Machines, Canteens, School Lunch, Breakfast Programs, and Snack Programs

- Special Functions
- Fundraising
- Food Safety

3. Nutrition Education
   - Curriculum
   - Role Models

Official adoption of healthy eating policies in the Western and Eastern school districts in Prince Edward Island was in the 2005-2006 school year. Two policies were developed because each district wanted their own policy but both follow the same framework described above. However, the regulations do differ on microwave use.

2.6.4 Implementation

Although policies were adopted during the 2005-2006 school year, the target date for full implementation of all the regulations was by September 2006. The time line for the SNAP project is over a five year period to allow sufficient time for policies to be fully implemented, and to allow possible changes in food use and weight status to occur. Measurement of foods sold at school will be conducted in the fall of 2008 and 2010 and school adherence to the policy will be assessed yearly from 2007-2011 inclusive.

2.6.5 Evaluation

In Prince Edward Island, limited evaluation has been conducted. In 2002, foods sold at schools were assessed (Taylor, Mather & McBride, 2003). The survey of foods sold at school was repeated recently (2005-2006) in order to document changes in school food environments which have occurred between 2001/2002 and 2005/2006. These findings suggest that there have been significant positive changes particularly in the 16 lead schools where the policy was developed, including a reduction in the sale of less healthy choices at lunch, such as hot dogs, and an increase in healthy choices, such as

yogurt, fruits, and vegetables (J. Taylor, personal communication, October 25, 2007). Although school healthy eating policies have become common, little or no evaluation has been conducted to determine their effectiveness. The limited research which looks at evaluating the effectiveness of school healthy eating policy is discussed in the next section.

2.7 Research on School Healthy Eating Policies

Few policies pertaining to healthy eating in schools have been evaluated (McGraw et al., 2000; Taylor, Evers, & McKenna, 2005). Of the studies that have evaluated healthy eating policies, most have approached it by assessing the school food environment, using food frequency questionnaires, or comparing student weight status. For example, Veugelers and Fitzgerald (2005), in the Children's Lifestyle and School Performance Study, measured student's height and weight, and surveyed students and parents on student diet and level of physical activity. The study compared excess body weight, diet, and physical activity across three different school categories: schools which had no nutrition program in place, schools that had policies or practices in place to offer healthy menu alternatives, and schools that were part of a coordinated program incorporating recommendations for school based healthy eating programs from the CDC. Students from the third category exhibited significantly lower rates of overweight and obesity, and reported a higher level of physical activity than students from schools without nutrition programs.

A second evaluation was conducted in Arkansas regarding the 2003 Act 1220 - a comprehensive and coordinated approach to combating childhood obesity that involves

public schools and communities. Evaluations of Act 1220 have been conducted for three years. Most recently, in the year three (2005-2006) researchers found that:

- more than half of the reporting schools made changes to their nutrition and/or physical education policies or practices.
- school districts made considerable changes to vending machine contents and placed restrictions on student access to vending machines, snack bars and snack carts on campus.
- fifty-three percent of districts (up from 18% in year one) disallowed the sale of "junk foods."
- changes in school policies and practices related to physical activity were less likely than those related to food and beverages (Raczynski et al., 2006).

A third evaluation in British Columbia was conducted to determine the number and types of different food sales outlets, the types of foods offered for sale in all school food outlets, and the extent of nutrition policy implementation in schools. By surveying school principals it was determined that:

- approximately 60% of surveyed schools had a permanent food sales outlet.
- snack and beverage vending machines were most common in secondary schools while tuck shops and food based fundraisers were more common in elementary schools.
- while few snack vending machines were present in elementary schools, tuck shops stocked items commonly found in snack machines.

- of British Columbia's 1,643 schools, 55.9% had some form of policy in place and a further 110 schools were developing one (Rideout, Levy-Milne, Martin, & Ostry, 2007).

A fourth evaluation in Texas, the School Meal Nutritional Assessment Report, compiled data from selected schools. The study compared the results of the 2005-2006 year with data from the 2004-2005 year and the pre-policy time period of data available from 1998-2003. The goal of this assessment was to determine if the nutritional values of public school meals have changed since the implementation of the Texas Public School Nutrition Policy. The nutritional content of school meals continued to improve since the implementation of the policy. Menu data reflected decreases in calories, total fat, saturated fat and cholesterol and increases in vitamin A, vitamin C and iron. It should be noted that the sodium content had increased and fiber decreased in school lunch meals compared to earlier menu data (Hanagriff, Beverly, & Murphy, 2007).

Although several evaluation studies such as these have been conducted, few included stakeholder perceptions of healthy eating policies. When examining healthy eating policies or programs, it is important to involve stakeholders, however only a limited amount of studies have done so. For example, McKenna (2003) conducted a qualitative analysis of the implementation of the *Food and Nutrition Policy for New Brunswick Schools.* McKenna examined how the policy process unfolded, why implementation occurred as it did, factors that influenced the process, and insights revealed by the experience (McKenna, 2000). Using semi-structured interviews, McKenna collected data from key informants at the provincial, district and school levels, including: personnel from the Department of Education and the Department of Health,

district nutrition representatives, school principals, teachers, students, parents, school food-service personnel, and public health nutritionists. Interview data was supplemented with legislative reports, newspaper articles, minutes of meetings, and records of correspondence to verify the results (McKenna, 2003). McKenna's study revealed that opposition to the *Food and Nutrition Policy for New Brunswick Schools* centered on four main issues:

- Profit Issues – School, student and parent groups were very concerned about their ability to support school programs if they could no longer sell certain popular foods.
- Student Choice – Opinions were divided between those who supported a "broad choice" philosophy and those who supported a "healthy choice."
- Policy Interpretation – the lack of policy clarity left districts and schools unsure how to interpret it. Some took it as a policy and others took it as guidelines, making it difficult to implement.
- Approach to Implementation – The Department of Education's top-down approach to implementation caused significant resentment among educators and administrators (McKenna, 2003).

McKenna's (2003) finding that profit issues were a barrier is similar to the results of another study which looked at stakeholder perception (Brown et al., 2004). This study examined school board members' perceptions of factors influencing school nutrition policy. The goals of this study were to determine school board members' attitudes, perceptions, and motivations related to enacting policies that support healthful eating in

schools, and to mitigate barriers to adopting school policies that support healthful eating (Brown et al., 2004).

A survey of Likert-type and closed-response questions on demographics, support of school practices, factors influencing decision making, board members' opinions of sources of influence, and professional development and training opportunities was administered to 174 school board members from across California. Brown and colleagues determined that board members support providing healthy food options, establishing minimum nutrition standards for fast foods, and limiting and monitoring food and soda advertisements in their districts. However, they did not support banning certain foods or manipulating food costs.

From their results, the authors of this study determined that the main barriers for school board members' support for school nutrition issues included: student food preferences, parents being uninformed about health issues, nutrition not being considered a priority, and, similar to McKenna's (2003) finding of profit issues, impact of the food program on the budget.

Although McKenna's and Brown's research examined stakeholder perceptions, neither narrowed their approach to specifically look at the perspective of parents. Action for Healthy Kids (2006) argues that parents are the most critical group of school stakeholders needed for healthy eating programs and policies. As Katie Bark, a nutritionist from Montana State University states, "Parents have power...They carry weight. With kids, parents are the voice of authority and permission. With administrators and school boards, they're the voice of the taxpayer. Parents have a very

big say when they want to" (as cited in Action for Healthy Kids, 2006, p.2). Worsley (2006) argues that, "parents' views of school food policy options have rarely been examined despite the central role parents play in their child's welfare" (p.849). Therefore Worsley conducted a random population survey in Victoria, Australia to examine lay people's views of children's school food policies. The main objective for this study was to describe lay people's opinions of school food policy options, and their associations with demographics, personal values and confidence in authorities. Adults (n=377) completed a mailed survey of Likert-type questions about their opinions on children's healthy eating policy options, plus questions on personal values, confidence in authorities responsible for school food services, and several demographic questions including: sex, parental status, age, and educational background (Worsley, 2006).

The results of Worsley's study showed that there was wide-spread support for healthy school food policies. The strongest support was for life skills, school based nutrition, and physical education programs. Similar to the barrier identified in McKenna's research, limited student choice, Worsley identified mixed support for more structural polices which might restrict parents' and childrens' choices such as restrictions on the sale of high fat products.

An important aspect of involving parents in healthy eating policies and programs is keeping them informed, aware, and engaged. In 2005, AFHK conducted a survey on the Local Wellness Policy with a nationally representative sample of parents (Action for Healthy Kids, 2005). The results of the study showed that 62% of parents believed having a nutrition/wellness policy at their child's school was extremely/very important.

However, it also showed that 83% were completely unaware of the mandated Local Wellness Policy and that 40% did not know if such a policy existed at their child's school. As well, about half of parents rated their child's school as fair or poor on providing parents with nutrition information. The AFHK survey demonstrated that communication with parents was problematic and a potential barrier to implementation of healthy eating programs and policies.

The engagement of students is another important aspect of the policy process. Students have a unique perspective and, as Rocco Marano, the Director of the Division of Student Activities of the National Association of Student Councils in the United States states, "the best way to get kids to buy in is to involve them, solicit their thoughts, ask them to identify the problems and to create solutions that make sense to them" (as cited in Action for Healthy Kids, 2006, p.7). Vecchiarelli and her colleagues (2006) evaluated two policies in the Los Angeles Unified School District (LAUSD): The Healthy Beverage Resolution (Soda ban) and The Obesity Prevention Motion (junk food ban). The first part of the study looked at the development and implementation of the LAUSD nutrition policies, and measured the impact of the policies on student dietary behaviors. The second part of the study was related to stakeholder perception and assessed student knowledge of, and attitudes toward the policies and the school nutrition environment, as well as students' perceptions of the impact of the nutrition policies on their dietary behaviors.

The authors used a convenience sample of 399 12^{th} grade students from 2 high schools. A 45 question survey was administered with questions about consumption of

fruits, vegetables, and junk foods including soda both at home and at school, student perception of change in dietary behaviors as a result of the nutrition policies, knowledge of nutrition policies, attitudes toward the nutrition policies, and attitudes toward the school nutrition environment. The authors determined that the majority of students perceived the policies as having an impact on the beverages and snacks they consumed at school, but few indicated an impact on what they consumed at home. (Vecchiarelli, Takayanagi, & Neumann, 2006). However, those students who indicated the policies had an impact, reported that they ate or drank fewer of the banned items both at school, and outside of school. The authors of the study argue that removing unhealthy food items from schools may not be enough to improve students' overall dietary behaviors. (Vecchiarelli, Takayanagi & Neumann, 2006).

The Arkansas year three evaluation of Act 1220 also looked at stakeholder perception. Survey results showed that parents are now more aware of the health problems associated with childhood obesity and more reported that they believed that overweight children were likely to become overweight adults then in previous years. However, no significant changes in family nutrition patterns were found. Another result from this evaluation of Act 1220 was that the parental belief that middle and high schools should not have vending machines on campus rose from 58 percent in 2003-2004 to 61 percent in 2005-2006.

Other stakeholder perspectives were obtained from the Arkansas evaluation. Interviews were conducted with key informants such as principals, superintendents, public school nurses, nutrition and physical activity advisory committee chairpersons,

community health nurses and community health promotion specialists to provide insight into how schools perceive Act 1220 and how they are integrating its components. Several themes emerged from these interviews including:

- fewer concerns expressed about BMI screenings than in previous years
- no loss of revenue
- support for improved nutrition standards
- concern that Act 1220 continues to be an unfunded mandate
- concerns about physical education requirements.
- need for increased parental education and involvement
- a need for role models among school personnel, students and parents
- concern over enforcement and compliance
- a need to continue to support Act 1220

The results from these studies demonstrate the importance of gaining the perceptions of key stakeholders when it comes to improving healthy eating policies. It is important that all groups involved in and affected by healthy eating programs and policies have the opportunity to provide input (Centers for Disease Control and Prevention, 1996). Gaining such a perspective reveals barriers and obstacles which can be addressed in order to improve policy implementation. Of particular importance are the views of students and parents not only because they have a valuable perspective to offer, but also because they have the potential to encourage engagement in policy initiatives. Although a growing area, studies which look at healthy eating policies and consider the perceptions of those involved is limited. The fact that there is limited literature in the area points to a need for more research that considers this important perspective.

2.8 Conclusion

Due to societal changes, youth overweight and obesity rates are now a significant public health concern. The time is ripe for a change in perspective from the individual conceptualization of obesity to a more social perspective with a role for healthy public policy. One form of healthy public policy, school healthy eating policy, may be a positive environmental intervention towards improving healthy eating among young people.

In Prince Edward Island, school healthy eating policies were adopted in elementary and consolidated schools during the 2005-06 school year. However, implementation is not the final step in the policy process. Evaluation is important in the policy cycle because its results may lead to a reconceptualization of policy problems or solutions, and offer a means for improvement. The research done to date in this area has shown the usefulness of stakeholder perception when identifying barriers and obstacles to healthy eating policy implementation, such as profit issues and student choice (McKenna, 2003; Brown, Akintobi, Pitt, Berends, McDermott, Agron, & Purcell, 2004). However, more research is needed to help determine the barriers and facilitating factors to policy success. In the next chapter, I will present the research design and methods I used to obtain student and parent perceptions of the barriers and facilitating factors to the implementation of the Prince Edward Island Healthy Eating Policies.

3.0 Research Design and Methods

3.1 Introduction

The goal of the previous chapter was to lay a foundation for the research presented in this thesis. The focus of this chapter is on research design and methods for this study. However, before discussing these issues, I will first examine the important element of researcher epistemology.

3.2 Epistemology

As described by Mason (2002), a researcher's epistemology is, "literally, your theory of knowledge, and should therefore concern the principles and rules by which you decide whether and how social phenomena can be known, and how knowledge can be demonstrated" (p.16). Before research design and methods are considered, it is beneficial for a researcher to consider his/her epistemology because this lays the foundation for decisions made during the research process (Mason, 2002).

When contemplating epistemology, a researcher must face questions such as: What do you believe constitutes knowledge? What do you think represents evidence of phenomena in the social world? How do you believe knowledge to be generated? (Mason, 2002). Confronting questions such as these early in the research process helps the researcher to develop an understanding of how knowledge is created. When determining my own epistemology, the first thing that came to mind was that reality is subjective and therefore cannot be solely understood in a positivist manner. I also believe that individuals can have different realities of a social phenomenon, and that knowledge can be generated by examining individual experiences of these realities. Given this epistemology, throughout my studies I have felt more comfortable with

research of the qualitative tradition, particularly phenomenology which is "an approach to research that seeks to vigorously examine how the social world is experienced and created through individual subjective consciousness" (Ritzer, 2000, p.73). Although my epistemology complements the philosophical tenants of phenomenology, as this research on student and parent perspectives of healthy eating policies moved forward, I did not feel I was conducting a genuine phenomenological study. For example, issues of research design, such as selecting the focus group method for students, did not complement the dictates of traditional phenomenology. Thorne (1997) makes the important distinction "between a *phenomenological attitude* in entering the subjective world of the 'other' and *phenomenologically derived knowledge* that has theoretical and scientific significance" (p.291). Although I possess a phenomenological attitude, in this case I was not producing phenomenologically derived knowledge. Not wanting to fall victim to inaccuracies in my research results and reporting, and not wanting to insult the integrity of phenomenology, I made the methodological shift to interpretive description, a methodology which emerged from the discipline of nursing in the mid 90's as a response to nursing scholars who, similar to myself, felt constrained by the dictates of original methodology (Thorne, 1991).

3.3 Interpretive Description

3.3.1 Interpretive Description Defined

Borrowing strongly from aspects of grounded theory, naturalistic inquiry, ethnography and phenomenology, interpretive description (ID) focuses on the smaller scale qualitative study of a phenomenon with the purpose of capturing themes and patterns from subjective perceptions (Thorne, Kirkham, & O'Flynn-Magee, 2004). The

products of ID studies have application potential in the sense that professionals, such as clinicians or decision makers could understand them, allowing them to provide a backdrop for assessment, planning and interventional strategies (Thorne, Kirkham, & O'Flynn-Magee, 2004). Because it is a qualitative methodology and because it relies heavily on interpretation, ID does not create facts, but instead creates "constructed truths" (Thorne, Kirkham, & O'Flynn-Magee, 2004). Thorne and her colleagues (2004) argue that the degree to which these truths are viable for their intended purpose of offering an extended or alternative understanding depends on the researcher's ability to transform raw data into a structure that makes aspects of the phenomenon meaningful in some new and useful way.

3.3.2 Criticisms of Interpretive Description

Thorne and her colleagues (2004) acknowledge that because ID borrows from a number of methodologies, it runs the risk of being considered "method slurring" or viewed as lacking in epistemological and methodological grounding. However, she defends ID against these criticisms by stating that ID has a connection to interpretive naturalistic orientations which acknowledge the constructed and contextual nature of human experience that allows for shared realities (Thorne, Kirkham, & O'Flynn-Magee, 2004). As well, key axioms of naturalistic inquiry provide philosophical underpinnings for research design, and present a coherent epistemological foundation. Some examples are that there are multiple constructed realities, the inquirer and the "object" of inquiry interact to influence one another, and no *a priori* theory could possibly encompass the multiple realities that are likely to be encountered (Thorne, Kirkham, & O'Flynn-Magee, 2004).

3.3.3 Method and Sample in Interpretive Description

ID studies build upon small samples, using such data collection methods as interviews, participant observation, and documentary analysis (Thorne, Kirkham, & O'Flynn-Magee, 2004). With ID, the sampling and data collection methods derive logically from specific research questions. The method requires intellectual processes that extend well beyond simply collecting and reporting data. It requires representation in a form that acknowledges explicitly the analytic process that occurs in transforming raw data into findings and in constructing an interpretive account of what the themes within the data signify (Thorne, Kirkham, & O'Flynn-Magee, 2004).

Thorne and her colleagues state that with ID studies, many researchers find the data collection stage quite straightforward. However, she also states that the serious challenge arises when it is time to proceed with formal analysis.

3.3.4 Analysing in Interpretive Description

An ID study "requires a representation in a form that explicitly acknowledges the analytic process that occurs in transforming raw data into findings" (Thorne, Kirkham, & O'Flynn-Magee, 2004, p.8). Therefore, throughout data analysis it is important to keep track of the process.

Qualitative methodology offers a wide range of "recipes" to guide the analytic process of an ID study, but inherently, ID requires that the researcher accept the tasks of: comprehending data, synthesizing meanings, theorizing relationships, and recontextualizing data into findings (Thorne, Kirkham, & O'Flynn-Magee, 2004). It becomes important to remember to move in and out of the detail in an iterative manner, asking repeatedly, "What is happening here?" In so doing, the contextual nature of the

data is respected and remains intact, and the researcher is guided to focus on, and engage in, the intellectual processes that are the cornerstone of qualitative data analysis. Thus, an explicit awareness of the investigator as interpreter becomes an essential element in generating findings that have the potential for credibility or "interpretive authority" (Thorne, Kirkham, & O'Flynn-Magee, 2004). The mechanics of ID, therefore, depend far less on coding, sorting, and organizing than they do on the processes of intellectual inquiry. Thorne and her colleagues (2004) argue that, "Qualitative data analysis is best understood in the doing; it is inherently experiential rather than technical. Thus, the guidelines and recipes may provide suggestions and options, but they will not in themselves generate findings...it is essential to recognize that the researcher, not the recipe, is driving the interpretation" (p.17). It is the researcher who ultimately determines what constitutes data, which data achieve relevance, how the final conceptualizations portraying those data are structured, and which vehicles are used to disseminate findings. Therefore, when examining research it is important to understand the researcher's personal background.

3.4 The Self as Research Instrument

In quantitative studies, the research instruments can be examined and critiqued. For example, in the quantitative component of SNAP, tools such as eating behavior surveys were used as research instruments. However, in qualitative research, although there are scripts and guides to follow, the researcher serves as the research instrument. Therefore, who the researcher is and what position he/she holds affects all aspects of the research process – from the articulation of the research question to the analysis and presentation of the data (McCorkel & Myers, 2003). Therefore, background information

on the researcher is important when judging the research process and results. The following discussion presents significant elements of me.

I was 28 years old when I started this study and am now 29. I reside in New Brunswick were I am currently working on the final stages of my Masters degree in Applied Health Services Research. Prior to entering this Masters program, I completed a Bachelor of Arts degree with Honours in Sociology. Throughout my undergraduate education I was interested in the social determinants of health and diet, particularly in children, which led me to conduct an undergraduate thesis in that area. That research involved a case study in one elementary school which looked at the reason why parents chose certain lunch options for their children at school (bring a lunch or buy a lunch).

I am a mother of one elementary school aged child, and am a member of the District Health Advisory Committee in my daughter's school district. This committee is a New Brunswick initiative working in an advisory role to implement health promotion and health regulation in New Brunswick's public schools. I believe strongly in health promotion. I believe that, although the individual does have a role to play, overweight and obesity are a result of the social determinants of health, and that these problems can only be addressed fully with societal solutions. Therefore, I believe that government institutions have a role to play in combating the growing problem of overweight and obesity through a form of healthy public policy. My undergraduate work, which looked at decisions around children's school lunches, left me with a strong belief that school healthy eating policies are a necessary and positive way for governments to intervene in the problem of child overweight and obesity. However, I also believe these policies need

improvement and have a long way to go before they can impact the diets and health of children effectively.

3.5 Sample

This research examined the facilitating factors and barriers associated with school healthy eating policy implementation from the perspective of key stakeholders. Parents and students were chosen as sample groups because they have a valuable opinion; they are understudied, and in order to keep the study manageable, I needed to narrow the stakeholder group. These two groups have different characteristics and different participation capabilities, and therefore two different methods of data collection were required. The two methods used in this study were focus group interviews to obtain the perceptions of students and one-on-one telephone interviews to obtain the perceptions of parents. Although I used a similar approach to sampling for both methods, each utilized a different sampling process and resulted in a different sample outcome. In the following sections I describe my approach to sampling for this study, the schools chosen for the study, and the sampling process and outcome for student and parent groups.

3.5.1 Approach to sampling

As is the case with ID, my approach to sampling is based on quality, not quantity, which is reflected in the small sample size used in the study. Another common practice of ID studies is the use of purposeful sampling. In purposeful sampling, participants are selected because they are considered "information rich." With this form of sampling, the goal is to maximize understanding, not empirical generalizations from the sample to the population (Patton, 2002). Patton (2002) identifies several strategies associated with purposeful sampling. One, criterion sampling, complements my approach to sampling.

Criterion sampling involves studying cases that meet a predetermined criterion of importance. For students, one criterion was that they attend a school where healthy eating policy has been adopted. Parents needed to have one or more children attend a school where healthy eating policy has been adopted. Official adoption of healthy eating policies in the Western and Eastern school districts in Prince Edward Island was in 2005 with the goal for full implementation of all regulations by September 2006. Data collection for this research began in November of 2006, which meant that all elementary and consolidated schools in Prince Edward Island met this criteria. Another criterion for students was for them to be able to work well in a focus group environment. For example, children with extreme behavioural problems or communication problems that I am not qualified to handle did not meet the sample criteria. I also sought student participants who could understand the nature and consequences of participation in the focus group interview in order to provide informed consent. An additional criterion for parents was that they be knowledgeable about their child's experiences at school. For example, some parents, such as those who only have their children on the weekends and are not involved in decisions around their child's lunch at school or who did not receive memos or newsletters from their child's school, did not meet this criterion.

3.5.2 Targeted Schools

In Prince Edward Island, schools are divided into three districts: the Western District, the Eastern District and the French Language District. The French Language District was excluded from this study because policy implementation of the healthy eating policy in this district was slower than the rest of the province. Four Prince Edward Island schools were targeted for this study. Two schools, one elementary and one

consolidated, were selected from each the Western and Eastern Districts. It can be challenging to obtain school participation in research because of potential interruption of class time. Therefore, the four schools in this study were selected based on the willingness of the school's principal to have his/her school participate. The following table shows characteristics of each of the four target schools.

Table 3.1 Characteristics of Target Schools

School	Type	Grade Level	Population	District
#1	Elementary	1-6	400	Western
#2	Consolidated	1-8	168	Western
#3	Elementary	1-6	267	Eastern
#4	Consolidated	1-8	200	Eastern

These four schools also participated in the SNAP policy checklist for assessing school adherence to the policy. Although all four targeted schools participated, only data from schools #1, #2, and #4 have been returned to the SNAP research team. The results from this check list showed that all three schools participated in the Prince Edward Island School Milk Program and that only school #2 offered a school snack or breakfast program. Other results from the checklist showed the food options available at each school and the frequency of availability (see Table 3.2).

Table 3.2: Food Options Available at Targeted Schools

School	Lunch Options	Vending Machine Options
#1	• Pizza: Pizza Delight (pepperoni and cheese) 3 days/month • Hot dogs 1 day/month	No Vending Machine
#2	• Pizza: Greco (pepperoni on whole wheat) 1 day/week • Subs: Captain Subs (variety) 1 day/week • Bake Potatoes (russets) 1 day/week	No Vending Machine
#4	• Pizza: Greco (veggies on whole wheat) 1 day/week • Pizza: Famous Peppers (veggies on whole wheat) 1 day/week • Chicken Burger 1 day/week • Lasagna (sometimes chili) 1 day/week • Macaroni and Cheese 1 day/week	• Sun Chips • Granola Bars • Cheese and Crackers • Bottled Water • 100% Fruit Juice • White Milk • Chocolate Milk

3.5.3 Student Focus Group Sampling

Twelve students, 6 boys and 6 girls, were selected to participate in focus group interviews from each of the 4 targeted schools for a total sample of 48 students. Using the sampling approach discussed above, target school principals were asked to identify students to participate who would work well in a focus group environment and would be able to understand the nature and consequences of participation in order to provide informed consent.

Due to absenteeism, the final sample for the focus group interviews was 41. The following table shows key characteristics of this sample. Of this sample, 22 were girls and 19 were boys. The grade range for the sample was 2 – 8 and the age range was 7 – 13.

Table 3.3 Characteristics of the Student Focus Group Sample

School	Girls	Boys	Grade Range	Age Range	# of Students in Focus Groups
#1	6	5	2-6	7-12	11
#2	6	5	3-8	9-13	11
#3	4	3	4	9-10	7
#4	6	6	7	12-13	12
Total	22	19	2-8	7-13	**41**

3.5.4 Parent Interview Sampling

To obtain a sample of parents for the second part of the study, I enlisted the assistance of the Home and School Association presidents from the targeted schools. The presidents were contacted using the Prince Edward Island Home and School directory. In keeping with the approach to sampling discussed above, each Home and School President was asked to select 4 or 5 parents who would be willing to participate in a 20 minute telephone interview, and who would be knowledgeable about their child's experiences at school. After a period of one to two weeks, I contacted each president again, and acquired a list of names of willing parent participants and their phone numbers.

The following table shows the number of parents contacted from each of the four targeted schools. In total, 20 parent participants were identified by the Home and School Association presidents. Of the 20, I was able to interview 12 parents.

Table 3.4 Parent Telephone Interview Sample

Schools	# of Parents Identified by H&S	Parents Reached
#1	4	3
#2	6	3
#3	5	4
#4	5	2
Total	20	**12**

The parent participants were all female, and all mothers of school age children.

3.6 Research Methods

To address my research question and attain my research objectives, I chose the method of focus group interviewing to obtain the perspective of students and standardized, open-ended, telephone interviews to obtain the perspective of parents. A key reason was that the two sampling groups for this study, students and parents, have different characteristics and different participation capabilities, and therefore required different approaches to data collection. As well, I chose two data collection methods in order to enhance the validity of the research through the use of triangulation. Triangulation in qualitative research involves "trying to understand the full complexity of a phenomenon by using multiple means of data collection to converge on an accurate representation of the phenomenon" (Polit & Beck, 2004, p.431). There are many types of triangulation. For this research, data triangulation was used focusing on both space and person triangulation. The use of triangulation will be discussed further in the trustworthiness section at the end of this chapter.

3.6.1 Student Focus Group Interviews

A focus group interview is an interview with a small group, typically six to ten people of similar backgrounds, on a specific topic (Patton, 2002). The object is to get

high-quality data in a social context where people can consider their own views in the context of the views of other group members, and influence each other by responding to ideas and comments in the discussion (Krueger, 1994).

There are many advantages to using focus group interviews. The first one is that focus groups tend to be enjoyable to participants, drawing on human tendencies as social animals (Patton, 2002). For this study, the method of focus group interviewing was chosen because I felt the social environment created in the group setting would be more comfortable for school aged children rather than a one-on-one interview style. The second advantage of focus groups is that interactions among participants enhance data quality because group members influence each other by responding to ideas and comments (Duggleby, 2005). This was true for this study because student comments within focus group sessions triggered thoughts and comments from other students. As well, since the participants went to the same school and had similar experiences within the school environment, participants helped each other remember certain facts about the lunch menu or fundraising activities. The second advantage to using focus group interviewing is that focus group interviewing makes data collection more cost-effective and time saving (Patton, 2002). By using focus groups I was able to access more participants while using fewer resources during the data collection stage.

The student focus groups were conducted with the use of a guide. According to Patton (2002), a guide is essential in conducting focus group interviews because it keeps the interactions focused while allowing individual perspectives and experiences to emerge. The guide was developed by me and my research supervisors. When developing the guide we remembered we were talking to children and could not use

policy language such as "What do you think of the healthy eating policy?" or "How can we improve the implementation of this healthy eating policy?" Instead we asked questions such as: "Have there been any changes to the food at your school?", "What do you think of these changes?", "What can your school do to encourage you to eat healthier?" To cover all components of the Prince Edward Island Healthy Eating Policies, the guide also included questions on fundraising and curriculum worded in a simple manner. To test the guide, I conducted a pilot focus group session with 4 school age children. After the pilot, necessary changes to the wording and arrangement of questions were made. This guide can be accessed in Appendix E.

According to focus group expert Richard Krueger (1994) a focus group should be planned carefully and conducted in a permissive, non-threatening environment. In Prince Edward Island, the student focus groups were conducted at each of the participating schools in a location selected by the school's principal. Some examples of locations were conference rooms, resource rooms, and class rooms. Each location had a table with chairs assembled around it for the five or six student participants and me to sit. I laid out snacks and drinks in the middle of the table so that participants could help themselves during the session[3].

Krueger (1994) also recommends that teams of two conduct group sessions so that one person can focus on facilitating the group while the other takes detailed notes and deals with the mechanics. During each session, I was accompanied by a note taker who sat at the back or to the side of the room and recorded observations. Each session was recorded by two tape recording devices, one in the centre of the table to record children who spoke softly, and one close to the note taker so she/he could monitor it.

---

[3] Snacks consisted of Nutri-grain bars, oranges, boxes of raisins and apple and orange juice boxes.

Consent for focus group participation was obtained from student participants and their parents. A few weeks prior to each focus group session, information letters and parent and student consent forms were delivered to the four targeted schools by my Prince Edward Island supervisor. School principals sent the letters and forms home with selected students. Prior to beginning the focus group sessions, the principals gave me the forms which I checked prior to the start of each session. All participants had written consent from their parents but in some cases, students had forgotten to sign their forms so I requested they do so prior to beginning the session.

3.6.2 Parent Standardized Open-Ended Telephone Interviews

To obtain the perspective of parents, I used the method of standardized open-ended interviews. A standardized open-ended interview "is an interview format that uses a guide with specific wording and sequence of questions which are determined in advance of the interview" (Patton, 2002, p.349). It is standardized in that all interviewees are asked basically the same questions in the same order. However, it is open-ended in that the questions are worded in a way that allows the respondent to supply his or her own words, thoughts, and insights in answering the questions.

There are a number of advantages to using this interviewing style. First, it is a good style for non-professional, novice researchers, such as me, because the standardized guide means less reliance on the impromptu judgement of the researcher (Patton, 2002). Second, it is a good format for a short interview because highly focused questions establish priorities. Because I was dealing with parents of school aged children, I did not want to take a lot of their time. At the beginning of the interview I assured them it would take no longer then 20 minutes. Another advantage is that the

interviewer never supplies or predetermines the phrases or categories used by respondents, as is the case in fixed-response questionnaires. This made it possible to capture how the participants view their environment, and to capture the complexities of their individual perceptions and experiences. This style also makes data analysis easier because it is possible to locate each respondent's answer to the same questions rather quickly, and to organize questions and answers that were similar.

The mode I used to conduct parent interviews was via the telephone. In the past, telephone interviews have typically been seen as more appropriate for quantitative, short, structured interviews, and less so for qualitative research. Creswell (1998) argues that the use of a telephone deprives the researcher of seeing the respondent's informal, nonverbal communication. However, in their comparison study of telephone and face-to-face interview data, Sturges and Hanrahan (2004) determined that telephone interviews can be used successfully in qualitative research. One advantage to using telephone interviews is that you can access hard-to-reach respondent groups (Sturges & Hanrahan 2004). When dealing with parents of school aged children as a sample group, it can be challenging to schedule time for face to face interviews. Therefore, telephone interviewing was used to facilitate scheduling. Although some interviews were conducted during the day, most were conducted in the evening after the respondents' children had gone to bed. Another advantage to using the telephone mode is that it is a cost-effective choice.

The guide for the standardized open ended telephone interviews was developed by me and my research supervisors. Similar to the student guide, we did not want to use too much policy language. This was not because of a lack of understanding, as was the

case with the student guide, but because we did not want the quality of the interview to be dependent on the participant's knowledge of the policy. Questions were asked about the policy, but if the respondent was unaware of the policy, further policy related questions were skipped. All participants were asked relevant questions related to parental opinion such as: What role do you think schools should play in student nutrition?, What role do you believe parents should play in nutrition and healthy eating at school?, What could be done to improve healthy eating at your child's school?

To test the interview guide and practice using the telephone mode, two pilot interviews were conduct with two members of my Prince Edward Island supervisor's department who had school aged children. After the pilot interviews, some changes were made to the wording and arrangement of the guide. This guide can be accessed in Appendix F.

Parent telephone interviews were recorded with the use of a device that connects to the telephone and to an audio recorder, allowing both sides of the conversation to be taped. I took notes during the interview, and these were later merged with the interview transcripts.

Obtaining consent for parent telephone interviews was done verbally. At the beginning of the call, I read an information form (see Appendix F) and asked parents if they agreed to be interviewed. I then recorded the time and date of consent on the form. This form was later mailed or emailed to the participants, according to their preference. All parent participants contacted consented to be interviewed.

3.7 Analysis

ID methodology extends well beyond simply collecting and reporting data; it acknowledges explicitly the analytic process that occurs in transforming raw data into findings (Thorne, Kirkham, & O'Flynn-Magee, 2004) . Therefore, during the analysis of student focus group and parent interview data, I kept a journal where I documented my personal experiences, reflections, and progress, as well as a table where I kept track of the steps in my analysis. This journal proved to be very useful in helping to describe the process.

Analysis of student focus group and parent interview data began with verbatim transcriptions of the audio tapes. The student focus groups were transcribed by me, and due to time constraints, the parent interviews were transcribed by a hired transcriptionist. Because I did not transcribe the parent interviews, once I received them, I read them while listening to the audio tapes to re-familiarize myself with the data, and to discern any details that may have been missed by the transcriptionist. After this stage, I reflected in my journal about the experience. I then returned to the transcripts and added notes which were taken by the note takers who accompanied me to the student focus group sessions, and the notes I had taken during the parent telephone interviews.

I was left with two separate transcript files which I printed. I then proceeded with my initial read of the transcripts. This read was a literal read which I used to get comfortable with the data; no data were arranged or eliminated during this read. After this step I reflected in my journal on my feelings about the data. I noted that I felt there was a strong difference between parent and student data. The parent data appeared to be of higher quality because responses were more focused and in-depth, where as the

student data seemed choppy and unfocused. This difference was understandable given that the two sample groups (students and parents) and the two methods used (focus groups and one-on-one telephone interviews) were very different.

My next step involved reorganizing the data. Referring to the original interview guides used in data collection, I reorganized transcripts by putting all the responses from each question into its own file. I then read the data for a second time in this format, and began to eliminate unusable text. I returned to my journal and reflected on how, even though I had been influencing this research at every stage, I felt my role as research instrument was becoming quite significant because I had to use my discretion to determine which text should be preserved, and which should be discarded.

My next step was to create what I called sub files. I did so by narrowing the responses to identify information relevant to the questions. In my journal I reflected on how, due to unfocused and off topic conversations, a great deal more text had to be eliminated from student focus group data than from parent interview data. During this stage, categories began to emerge and I developed a category/code list. Once finished, I was left with a 23 page sub file for parent interviews narrowed down from the 74 page original transcript file, and a 24 page sub file for student focus groups narrowed down from the 97 page original transcript file. As well, I was left with two category/code lists, a 26 item list from the parent interview transcripts, and an 11 item list from the focus group transcripts.

Using these category/code lists, I coded data in the sub files and organized it under specific category headings. I returned to my journal and reflected on how I felt as though I was being too precise with my categorizing, which may have led to so many

categories. To resolve this problem I returned to my research question and objectives for contemplation, and to ask myself, "What am I really looking for here?" Writing the research question at the top of the sub file documents, I read the documents again, and was able to pull out only those categories that related to my research question and objectives. I then organized those categories into another file, and returned to the data to choose a couple of key exemplars for each category. Themes were developed based on the categories from this final file. To be sure I was not excluding anything, I waited a couple of days and returned to the sub file for a final read.

At this point it was time for the SNAP research team meeting. Prior to the meeting, I prepared a short report and presentation which included the results from the analysis. This event was very beneficial as I received useful feed back on my analysis process and results before proceeding with further work. For a table of the analytic process for the parent interview transcripts and the student focus group transcripts described above see Appendix G.

3.8 Trustworthiness of the Research

Patton argues that the aim of most qualitative research is, "to use qualitative methods to describe and explain phenomena as accurately and completely as possible so that their descriptions and explanations correspond as closely as possible to the way the world is and actually operates" (Patton, 2002, p.546). To establish this truth, a degree of research reliability and validity must be demonstrated. A number of criteria and techniques for demonstrating reliability and validity have been recommended from various qualitative traditions. Although Whittemore, Chase, and Mandle (2001) provide

a synthesis of these different criteria by ten influential authorities, they state that Lincoln and Guba's criteria of trustworthiness from the 1980's remain the gold standard.

Trustworthiness is a term that refers to the extent to which a qualitative study can be viewed as worthy of confidence and attention (Lincoln & Guba, 1985). The criteria for trustworthiness includes: credibility, transferability, dependability, and confirmability.

Credibility refers to whether or not the researcher has established confidence in the truth of the findings for the research participants, and the context in which the study was undertaken (Lincoln & Guba, 1985). Two techniques suggested by Lincoln and Guba (1985) to establish credibility are triangulation and peer debriefing. *Triangulation* helps to capture a more complete portrait of a phenomenon under study (Polit & Beck, 2004). Denzin (1989) identified four types of triangulation: data, investigator, method, and theory triangulation. For this research, data triangulation was used. Data triangulation can be done in four ways: time, space, person, and investigator triangulation (Denzin, 1989). This research used space and person triangulation. Space triangulation involves collecting data on the same phenomenon in multiple sites in order to test cross-site consistency. In this study four separate schools were used representing two school districts. Because this method of space triangulation was used, the results reflect a more comprehensive look at the phenomena for the province of Prince Edward Island, as opposed to one school's or one district's perspective. The second type of data triangulation used, person triangulation, involves collecting data from different levels of persons with the aim of validating data through multiple perspectives on the phenomenon. For this research, data was collected from two groups of stakeholders,

students and parents, which provided me with two valuable and distinct perspectives on the phenomenon of school healthy eating policies.

A second technique suggested by Lincoln and Guba (1985) for establishing credibility is *peer debriefing*. Peer debriefing involves external validation achieved by sessions with peers to review and explore various aspects of the inquiry (Polit & Beck, 2004). Peer debriefing exposes the research to the questions of others who are experienced in the methods and the phenomena being studied. In this study, peer debriefing took place at the SNAP team progress meeting. This meeting included researchers from the field of school healthy eating policy from both the quantitative and qualitative traditions. My presentation and report covered all aspects of my research such as: methods, sampling, analysis and results. The feedback from the group was that the themes were valid, accurate, and acceptable.

Transferability refers to the degree to which the findings can be applied to other contexts and settings or with other groups (Lincoln & Guba, 1985). A technique used in this research to establish transferability was the provision of *thick description,* which refers to rich and thorough description of the research setting or context, and of the transitions and processes observed during the inquiry. This chapter, research design and methods, provides thick description of the methods, sampling, and analysis for this research making it possible for the study to be transferred to other groups and settings.

Dependability is the third criterion of trustworthiness. The dependability of qualitative data refers to the stability of data over time and over conditions (Lincoln & Guba, 1985). To address the issue of dependability, the researcher needs to ensure that there is a clearly defined data trail that outlines the researcher's decisions, choices and

insights throughout the research process (Polit & Beck, 2004). In this research the technique used to establish dependability was *articulating data collection decisions*. During data generation, I kept a memos folder where I included references to decisions made with the assistance of my thesis committee. This included decisions around sampling, methods, and informing participants. I also included any feed back I received from my thesis committee or the SNAP team in this memos folder. This allowed me to trace the particular paths taken to reach decisions.

Confirmability refers to the neutrality of the data, that is, the potential for congruence between two or more independent people about the data's accuracy, relevance or meaning (Lincoln & Guba, 1985). One technique for confirmability is the use of an *audit trail* which is a systematic collection of materials and documentation that allows an independent auditor to come to conclusions about the data. Materials used in an audit trail include raw data (original verbatim transcripts), data reductions (sub-files), process notes (notes from supervisor meetings and feedback memos), materials relating to researcher's intentions and dispositions (reflective journal), instrument development information (process of interview guide development) data reconstruction products (draft reports). For this research, all these materials have been developed and maintained as an audit trail, and many are referred to throughout this thesis.

3.9 Conclusion

In summary, an understanding of my personal epistemology makes it easier to understand this research design. I believe reality is subjective and cannot be solely understood in a positivist manner. That has led me to a qualitative approach to my research. This chapter laid out the elements of this research on student and parent

perspectives of healthy eating policies, including: a detailed description of my methodology - interpretive description, an examination of the methods used - student focus groups and parent standardized open-ended telephone interviews, my approach to sampling and a description of the two samples used, and the analysis process used to determine the results. In qualitative research the researcher is the research instrument, therefore, this chapter also included a presentation of my various personal attributes which are relevant to my role as research instrument. In order to help interpret the results and recommendations in the remaining chapters, this chapter concluded with a description of the techniques used to establish trustworthiness of the data.

4.0 Results and Discussion

4.1 Introduction

Data analysis of student and parent interview transcripts resulted in a list of barriers such as: lack of food options available, limited resources, inadequate communication, conflicting roles and responsibilities, and perceived student food preferences, and facilitating factors such as: parental support, role modelling, and nutrition education. The following chapter presents these results while providing discussion and key exemplars from the interview transcripts to help clarify meaning. Before discussing barriers and facilitating factors, I will first examine student's and parent's general opinion of the policies.

4.2 General Opinion of the Healthy Eating Policies

Parents were asked if they knew of the policy implemented at their child's school and what they thought about it. However, they were also asked questions not directed at the policy so that the quality of the interview would not rely on their knowledge of the policy alone. Few parents stated that they knew about the actual healthy eating policy implemented at their child's school. Those that did know about it felt that having a policy was a good idea. As one parent stated,

> (*Pause)* Well, I think it's great if they can implement it everywhere, if they can get it. Like, cause I know a lot of schools are banning junk food, and pop, and you know all the fatty foods now. They're trying to get healthier foods into their systems and getting rid of vending machines and all that stuff. And I think that's a great thing.

Although most parents were happy with the idea of a policy, they were not always happy about individual initiatives taken by the school such as switching chicken nuggets

for chicken strips, taking away hot dog day or adding options such as a tuna wrap which their child did not like.

Students were not asked policy related questions directly but were asked more about "changes" to foods at school. Overall, students had a general understanding that these changes were made to help them eat healthier and they felt that this was a good idea. However, similar to parents, students did express opposition to certain menu changes. As one focus group member stated, "We use to get subs from Subway and now we don't. I liked that. We would get to pick what we wanted on it the day before by checking off on a little piece of paper. I liked getting pickles on mine. I wish we still had that at lunch time."

Students and parents had a general acceptance for a policy which made healthier changes in the school environment, but not for specific initiatives taken.

4.3 Barriers

4.3.1 Lack of Food Options Available

Offering children a wide variety of nutritious foods to choose from encourages children to eat healthier, and is recommended by Canada's Food Guide (Health Canada, 2007). However, it was demonstrated through student and parent interviews that this is not being accomplished in the environment of the four targeted schools. Many students felt that there were not enough food options offered. One student stated, "They could suggest more healthy lunches because we don't have much to choose from right now." Many parents also felt that the options available at their child's school were too limited. One parent expressed, "Um. Again, like we don't have that many things offered. You know it's an elementary school so it's more limited than at (High School)."

Lack of food options presents a barrier to healthy eating policy implementation because students are not stimulated by the foods offered to them in the school environment. As well, eating the same foods repetitively can prevent students from developing a palette for different tastes, or from learning to be open-minded about food (Birch & Fisher, 1998). However, as discussed below, there are a number of obstacles preventing schools from offering a wide variety of food options.

4.3.2 Limited Resources

The Prince Edward Island Healthy Eating Policies stipulate that, "Foods at school will emphasize vegetables and fruit; lower fat white and chocolate milk; whole grain products; lean meats; foods prepared with little or no fat; and foods low in salt, sugar and caffeine" (Prince Edward Island Department of Education, 2005, p.3). Offering children a wide variety of nutritious foods that meet these criteria requires resources which these schools do not possess currently. Through the analysis of parent and student interview data, three main resource limitations were identified: funding, facilities, and volunteers.

4.3.2.1 Funding

Limited funding for foods at school was identified as a barrier to the implementation of the healthy eating policies. Parents expressed that limited funding prevents schools from offering a wide variety of nutritious food options, and that increased funds allocated for foods could assist schools in making the changes stipulated by the Healthy Eating Policies. When asked what could support schools trying to make healthy changes, one parent stated, "I would say maybe if there was um, money allotted to them... they could bring in ah, say salads or something to the school that um, perhaps wouldn't cost as much for the students to buy."

Limited funding also prevents schools from using pricing strategies as a way to encourage students to eat healthier. The Prince Edward Island Healthy Eating Policies states that, "Schools will support healthy food choices by pricing approaches which encourage students to choose healthy foods over less healthy foods when food is sold at school" (Prince Edward Island Department of Education, 2005, p.2). This approach is also recommended by the CDC which advocates pricing unhealthy meals and snacks higher then healthier alternatives in order to encourage students to purchase the healthier choice (Centers for Disease Control and Prevention, 1996). A focus group member also proposed this strategy stating, "I think they should make um the chocolate milk less pricey... and then a lot of people could buy more." However, unless schools can distribute costs evenly between healthier and unhealthy foods sold at school, they need extra funds to compensate for lowering the prices on healthier alternatives.

Limited funding for foods at school also keeps meal costs high making purchasing them less accessible for all families. Some parents expressed that although having food options at school was convenient, purchasing the lunches at school could be costly, especially when they had more than one school aged child. As one parent stated:

> You know like when obviously it would add up especially if you have you know several children in the school system and you've got to buy them lunch. Um, you know, I know it's a fact that healthier foods cost more money. For people who are on fixed incomes or unemployment, that have maybe no job at all, single parents. Um, money is definitely an issue. Um, so that's an obstacle.

Inadequate budgets for foods at school affect what is being offered and what is being charged for these food options. When the costs of foods at school are too high, some families are unable to participate in lunch programs. As well, when there are not enough funds to use pricing strategies that keep healthier foods at a lower cost, students

could be influenced to purchase the unhealthier alternative. For these reasons, limited funding is a barrier to the implementation of Prince Edward Island Healthy Eating Policies.

4.3.2.2 Facilities

Limited facilities for preparing foods at school was identified as a barrier to the implementation of the healthy eating policy. No elementary or consolidated school in Prince Edward Island operates a cafeteria. Therefore, the food options provided at schools are prepared in staff rooms or spare classrooms, or are ordered from establishments in the community such as pizza, or fast food restaurants. It was expressed by parents that the lack of appropriate kitchen facilities in schools acts as a major barrier to providing a variety of healthy food options for students. As one parent stated, "Um, like I mean we only have nuggets, pizza and hot dogs. So *(sighs)* there's just not that many choices that you can prepare....because we don't have a cafeteria." Because facilities are limited, schools tend to choose convenient (mainly processed), easy to prepare foods such as: hot dogs, chicken strips, and pizza, rather than healthier alternatives which require appropriate kitchen facilities to prepare. Parents expressed the need for better facilities in order to improve the food options available. One parent stated that, "*(Pausing)* well our situation *(Laughs)* would be that there is no facility to make *(Quickly)* you know they're not; they don't have any facility to make any food. *(Quickly)* They would just depend on what would be available from establishments close by."

4.3.2.3 Volunteers.

Limited volunteers to prepare foods at school was identified as a barrier to the implementation of healthy eating policy. There is no hired lunch staff at any elementary

or consolidated schools on Prince Edward Island; volunteers are responsible for organizing and preparing the food. These are mainly parents recruited through the Home and School Association. During interviews, parents expressed that more parent volunteers were needed if schools were going to make healthy changes to the environment. One parent stated that:

> It would be nice to see the parents more involved in it. And again I, you know, I'm one of those people that just aren't involved as much as I could be at the time. They have a hard time at our school even getting people to volunteer for the lunch program, which is probably why they serve just the fatty stuff. But it would be nice to see them improve with that, in that aspect. I figure if they had more support they would be more willing to try and serve something nutritious.

While some parents felt that more volunteers were needed to facilitate the preparation of foods at school, some felt the solution was a hired lunch staff. When asked what could be done to improve nutrition and healthy eating at their child's school, one parent stated that, "They should employ a full time lunch staff or something like that to prepare the food."

In order for schools to follow policy regulations, they require adequate funding, facilities, and volunteers. Healthy eating policy regulation puts strain on schools by asking them to make these healthy changes, but not assisting them with doing so. School budgets are limited, and in order to meet policy regulations, overall budgets would need to increase or schools would be required to cut resources in other areas such as: curriculum resources, playground or sporting equipment, building improvement and maintenance, or resources for field trips. Cutting resources for these things could limit the extent of stakeholder buy-in for the policies. As well, taking money from these areas to improve foods at school is unlikely because nutrition is often perceived as a low

priority for schools (McKenna, 2000; Cline & White, 2000 & Brown et al., 2004). In her analysis on the implementation of *Food and Nutrition Policy for New Brunswick Schools,* McKenna (2000) determined that a notable number of educators for whom nutrition was a low priority were unhappy when funds were allocated for such things as equipment to expand breakfast, lunch or snack programs, or for the provincial school milk program.

4.3.3 Inadequate Communication

Effective communication with stakeholders during policy development and implementation is a key contributing factor to policy success (Fullan, 1991: Action for Healthy Kids, 2005 & Action for Healthy Kids, 2006). During development of the Prince Edward Island Healthy Eating Policies, communication was demonstrated through the partnership of the Healthy Eating Policy Working Group, a committee formed to assist in the development of healthy eating policy, and sixteen 'lead elementary schools' identified to facilitate policy development. Throughout the policy development process the lead schools and the working group interacted to review, refine and problem solve emerging issues related to the development of the policies (Freeze, 2007). This partnership demonstrated effective communication between policy makers, school staff, and administrators. However, this research indicated that communication at the current stage, policy implementation, is inadequate at the local level where school staff and administrators interact with students and parents. Two main areas of inadequate communication were identified: informing parents about the policy, and consultation about menu changes.

4.3.3.1 Informing parents about the policy.

It was demonstrated through parent interviews that parents were not informed adequately about the Healthy Eating Policies. This interpretation was based on the fact that seven of the twelve parents interviewed stated they were unaware of the policy, and those who stated that they were aware did not demonstrate understanding when questioned further on the topic. Parents who stated they were aware of the policy were asked what they knew about it. Their answers to this question related more to the initiatives which resulted from the policy's implementation as opposed to the actual policy itself; none of the parent participants demonstrated knowledge of the actual policy. When asked what she knew about the healthy eating policy, one parent replied, "they always give you tips in the back of the newsletters of different healthy snacks in case your child gets bored with you know, the same old stuff."

Cooperation from and partnership with parents are key to the success of school policies (Fullan, 1991). However, as Cline and White (2000) argue, these partnerships are more successful when participants are prepared through information exchange which helps them become more engaged. This means providing information about the policy as well as information about the purpose behind such policies. AFHK states, "Parents need to be made aware of the problems of childhood obesity and the role that schools must play in providing solutions" (Action for Healthy Kids, 2005, p.13). Providing such information can help parents understand the need for such policies and therefore lead them to be supportive of policy initiatives.

It was demonstrated through parent interviews that information about the policy was not communicated adequately to parents, presenting a barrier to the implementation of the Prince Edward Island Healthy Eating Policies.

4.3.3.2 Consultation about menu changes

In past research, top-down approaches to policy implementation have been identified as a barrier to success (McKenna, 2000). This barrier is also evident at the local level where school staff and administrators dictate menu options to students and parents. Students and parents in this study stated that although policy initiatives such as changes to menus at school were communicated to them via a memo, newsletter, or over the morning announcements, there was no consultation with students or parents about these changes prior to them being accepted by the school. One parent stated that, "*(Pausing)* Um, I don't find that our school has a whole lot of *(pause)* communication whenever they're doing something. It's just kind of done and then you read it later in the newsletter." Students also discussed the topic of limited consultation. When one focus group was asked if anyone talked to them about changes to foods at school, students stated:

> No, not really. They said on the announcements we're just going to have, for now we are just going to have like just lunch express. Only they didn't really say it to like the school, but they should have said like what would you think that this would be better or like they might have said would you enjoy this and some kids in the class would say yes.

Communicating with parents and students is integral to the success of any school food service and nutrition program, and key to the acceptance of nutrition policies (Martin & Conklin, 1999 & Cline & White, 2000). The lack of consultation on menu options which occurred in the four targeted schools appeared to create resentment on the

part of students and parents, who felt they should contribute to making menu decisions. As well, limited communication about the policy meant parents were less engaged, which could limit their desire to cooperate and support policy initiatives, presenting a barrier to the implementation of the Prince Edward Island Healthy Eating Policies.

4.3.4 Conflicting roles and responsibilities

Through parent interviews, it was demonstrated that some parents did not support certain initiatives of the Prince Edward Island Healthy Eating Policies, especially those which regulated the food their children consumed at school. This was because they felt that the underlying problem of poor nutrition was not the responsibility of the school. When asked what she felt the role for schools were in student nutrition, one parent stated that, "*(Pause)* I actually think most of, as far as what the child eats during the day at school, is up to the parents. I, I really feel that sometimes too much falls on to the school and the teachers than the parent's responsibility of what their child is eating." When asked what role she thinks parents should play in school nutrition, another parent responded, "I would say probably the primary role, and the school has to have their input. But, like I would sooner the parents be the deciders of it."

Other parents expressed that they felt schools were overstepping their boundaries when trying to control the foods students ate. One parent stated that:

> You know I think that the school should, you know give suggestions and tips and educate on what's healthy, but I don't think they have the right to step in and say 'You're not allowed to bring these products to school.' I think that they have the right when it comes to an allergic you know situation as far as peanuts, and things like that, but when it comes to just because they think it's not healthy I don't think that's their right. That's up to the parent. They're our children and their outcome in life whether it's good or bad is left to us. Like I don't think that they can tell you that.

Another parent stated that:

> *(Pauses)* I don't know how to explain. OK they don't want. Like we had to change the pizza so we could have cheese pizza, but we couldn't have pepperoni pizza or whatever. Right? Um, like I don't know if we're going too far telling people. You know what I'm saying? Um, as parents I think it's OUR responsibility to make the choices, for, you know what I'm saying? To feed our children healthy anyway and um *(pauses)*.

As discussed in the literature review, school healthy eating policies are a form of healthy public policy which aims to create supportive social and physical environments that enable people to lead healthier lives (Adelaide 2nd International Conferences on Health Promotion, 1998). Healthy public policy is built on the knowledge that health is not just affected by health care, but by a number of social determinants. Because many factors influence health, policies from many different sectors can influence a community's well-being, and therefore healthy public policy puts health on the agenda of policy makers in all sectors and at all levels (Public Health Agency of Canada, 2002). Upon implementation, healthy public policies often face resistance due to a number of obstacles, including the fact that they do not support traditional perspectives on health; health and disease are seen as individualized concepts that should be maintained and treated at an individual level (Evans, Barer & Marmor, 1994).

Certain opinions on the responsibility of the school in student nutrition were identified as a barrier to the implementation of the Prince Edward Island Healthy Eating Policies because if parents do not believe that the policy initiatives are appropriate, or do not see the need for such policies, they may feel resentful towards the school for enforcing them. This could lead to limited parental support and cooperation.

4.3.5 Perceived student food preferences

During parent interviews a number of participants noted that it is hard to satisfy student tastes because children are picky eaters. For example, one parent noted that, "Of course the, what you get into is that um a lot of the food doesn't appeal to certain children. You know children have um food likes and dislikes." During data analysis, the category which emerged for these types of responses was originally titled "children are fussy eaters." However, with further interpretation of the data and a closer examination of the literature, I realized that this category was incorrectly labeled and that the actual barrier to policy implementation was an issue of *perception* of student food preferences.

During an interview, one parent stated that "this year they took peanut butter away from our school as well. This was the first year and there were a lot of people that were frustrated about that because it limited what you were able to send with your child, and you know *(laughs)* they're like 'Oh, just send a broccoli salad.' I'm thinking OK what kid in grade two eats broccoli salad?" The perception demonstrated by this parent is that broccoli salad is not appropriate to offer children because they do not like it. This was a common perspective among the parent participants. However, past research has determined that, although acceptance of new foods does not occur instantly, after repeated opportunities to consume new foods, liking for new food generally increases, although it often requires 5 to 10 exposures (Birch & Fisher, 1998). Children come to like and eat what is familiar, and what is familiar is what is present in their environments. This was demonstrated by one parent's comments, "I know that there were quite a number of children who did not like the change to chicken strips as opposed to the

chicken nuggets but the younger children were all fine with them so I guess it's you know what ever you get use to." Preference for 'what ever you get use to' has been shown in past research where food availability and accessibility were positively related to fruit and vegetable preferences, and to their consumption by school children - children consumed more fruits and vegetables at schools where more fruits and vegetables were served (Hear, Baranowski & Baranowski, 1998).

If the adults making decisions around foods available to children, such as school administrators, teachers, or in the case with this research, parents, feel as though children will only eat certain food items, then they will limit what is made available to students. The perception that children will only eat certain foods along with the current inability of the schools in this study to offer many food options due to resource limitations means that children are not being exposed to a wide variety of foods. What is becoming familiar to, and excepted by students are hot dogs, pizza, and chicken fingers, that are being offered, creating a barrier to the implementation of the Prince Edward Island Healthy Eating Policies.

4.4 Facilitating Factors

4.4.1 Parental Support

Parental support was identified as a facilitating factor for the implementation of Prince Edward Island Healthy Eating Policies. When asked what support schools need when trying to make healthy changes to the school environment, one parent stated, *"(Quickly)* I think the parents. We've got a, like I say a very small school, and I know a lot of us volunteer and stuff." However, taking on the task of facilitating a school lunch service, even for a couple of days a week, can present quite a challenge as was noted by

one parent who stated, "Like really the only reason we would have the healthy lunches now is because we have parents, I shouldn't say parents but I think they're probably parents, but ladies that are willing to volunteer and try to offer that service."

The volunteers are normally recruited by the school's Home and School Association. Given the limited resources for food service, none of these schools had a hired lunch staff. Therefore these parent volunteers play a significant role in providing lunch options at school.

4.4.2 Role Modelling

Role modelling was identified as a facilitating factor. This interpretation was based on the awareness students demonstrated about the eating habits of the teachers and staff at their schools. Students were asked if there was someone at their school they could talk to about healthy eating and nutrition. Many responded by stating the name of a teacher. When asked why they would choose this individual to talk to, various reasons were given such as: 'she brings like an apple everyday', 'she's the health teacher and she knows the most', 'he eats a lot of healthy food everyday', 'she lost a lot of weight', 'she always drinks just water'.

Students were also asked if the teachers and staff at their school practiced healthy eating habits. As seen in the table 4.1 below, students had both positive and negative comments about this topic.

Table 4.1 Student Opinions of the Eating Habits of Teachers and other Adults at Their Schools

Positive Response	Negative Response
"Well my last year teacher always had salads."	"They try to make an example in front of the class but then once they go in the staff room they probably don't."
"My teacher, in her lunch she always brings in um a dish of fruit like with grapes and ah honeydew."	"I find it unfair, last year we were in there (staff room) and they had a case of pop in there; diet Pepsi."
"Yeah you often see them walking with a bowl of cereal or lettuce."	"And they have different choices of pizza too, like they always have like the meats we only have vegetables."
"Ms. **** always has like a banana."	"We went to the fridge to get water once and there was cake in there."
"Like my teacher she has like peaches and oranges every day like."	"They have like a lot of junk in the staff room, they just don't want us to know about it."

The goal of this line of questioning was not to determine the eating habits of teachers, but to get a sense of the level of awareness students have for the nutrition habits of the adults at their school. Both of the Prince Edward Island school healthy eating policies state that, "Recognizing the importance of role modeling in promoting healthy eating, teachers, administrators, and school staff should act as positive role models to promote healthy eating within the classroom and office environment." (Prince Edward Island Department of Education, 2005, p.4). The way in which students responded to questions about the eating habits of teachers and school staff reinforces the importance of this policy regulation.

4.4.3 Nutrition Education

Lessons on nutrition were also identified as a facilitating factor to the implementation of the policies. Cline and White (2000) argue that achieving nutrition goals in schools means integrating nutrition into a total educational program including nutrition education. When asked if they were taught any lessons about healthy eating or

nutrition at school, many of the students responded that they were not, and few responded that they were. However, the participants who were taught lessons about healthy eating and nutrition were able to recall what they learned quite easily and seemed interested in discussing what they knew about the topic, as was the case with one focus group. Those students talked about their Health class and how they had been taught to drink orange juice rather then pop, and how much sugar is in Gatorade.

The students in this focus group also expressed how the lessons at school were helping them to eat better at home:

> We seen the sugar in a dish and like the fat and all that. Yeah that actually helped me you know, it goes through my mind. Those health class actually they helped me a lot because now I look at the calories... and you know what's like too much. I use to have like, my dad would pile the ice cream on - my dad he's just like... Now I know what the right serving is.

Students demonstrated further enthusiasm over their knowledge of nutrition during this focus group session by showing me how they could read food labels by using the backs of the juice boxes and Nutrigrain bars that I had provided for snacks.

The Prince Edward Island healthy eating policies stipulate that schools are to integrate nutrition education into the curriculum. The enthusiasm demonstrated by the students in this focus group session about knowledge gained through nutrition lessons underscores the importance of adding nutrition curriculum as a facilitating factor to the implementation of healthy eating policies.

4.5 Summary of Results

Overall, students and parents were happy with the idea of having a policy that made healthier changes in the school environment. However, they did show opposition to specific changes made. Students and parents also perceived a lack of food options

available at the four schools which presents a barrier to healthy eating policy implementation because eating the same foods repetitively can prevent students from developing a palette for different tastes or from learning to be open-minded about food. The lack of food options available is a result of the fact that these schools have limited resources for implementing healthy changes. Major resource limitation areas included funding, facilities and volunteers. Asking schools to make changes stipulated by policy regulations, without providing them with the resources necessary for implementation, presents an obstacle to the success of these policies.

Another major barrier to policy implementation was lack of communication. Parents were not informed adequately about the policy and students and parents did not feel that they were consulted appropriately about menu changes. Throughout this thesis, I have discussed how healthy eating policies are a form of healthy public policy. However, one characteristic of healthy public policy is public participation in the policy process. In the case of Prince Edward Island, stakeholders were involved throughout the policy formulation process with communication between the policy working group and the 16 lead schools. However, at the local level where schools communicate with students and parents, this communication is inadequate.

Parents were identified as both a barrier and a facilitating factor to policy implementation. As a barrier, some parents expressed the opinion that nutrition was not a school responsibility and felt that schools should not be telling parents how to feed their children. As well, parental perception of student food preferences also poses a barrier because this could influence parents to support offering foods that are generally seen as 'kid-friendly' such as pizza, hot dogs or chicken strips. Parents were also identified as a

facilitating factor because of the support they provided by helping to prepare menu options.

Role modelling by teachers and school staff was also identified as a facilitating factor. Both of the Prince Edward Island healthy eating policies acknowledge the importance of role modeling, and the way in which students responded to questions about the eating habits of teachers and school staff underscores the importance of this policy regulation. As well, the enthusiasm demonstrated by the students in this focus group session over knowledge gained through nutrition lessons reinforces the importance of expanding nutrition curriculum as stated in the Prince Edward Island healthy eating policies.

The origins of these results can be divided into three groups; both parents and students, parents only, and students only; barriers and facilitating factors are summarized by group in the table below.

Table 4.2 Barriers and Facilitating Factors to Policy Implementation from the Perspective of Students and Parents

Barriers	**Source**
i. Lack of food options available	Students and Parents
ii. Limited resources a. Funding b. Facilities c. Volunteers	Students and Parents
iii. Inadequate communication a. Informing parents about the policy b. Consultation about menu changes	Students and Parents
iv. Conflicting roles and responsibilities	Parents
v. Perceived student food preferences	Parents
Facilitating Factors	
i. Parental support	Parents
ii. Role modeling	Students
iii. Nutrition education	Students

Interpretive description (ID) provides the methodological foundations for this research. A requirement of the ID is that the product have application potential, in the sense that professionals, such as clinicians or decision makers, can use the data as a backdrop for assessment, planning and interventional strategies (Thorne, Kirkham, & O'Flynn-Magee, 2004). Although a list of results has been presented in this chapter, with the ID methodology, this is not sufficient. Therefore, to help expand on the meaning and the usefulness of this research, in the next chapter I will present recommendations for professionals such as policy makers in the field of school healthy eating policy and school administrators to use in further assessment and planning for school health.

5.0 Recommendations and Conclusion

5.1 Introduction

The research presented in this thesis examined stakeholder perceptions of the Prince Edward Island healthy eating policies. Examining stakeholder perception is important when evaluating healthy eating policy because policy stakeholders have a valuable perspective on policy initiatives, and because involving them can encourage their engagement. I chose to examine student and parent perceptions because they are directly affected by policy initiatives, and because their opinion of healthy eating policies is an understudied topic.

The specific research question I wanted to answer with this research was *what are the barriers and facilitating factors to school healthy eating policy implementation from the perspective of students and parents?* Through the detailed analysis of student focus group and parent interview transcripts described in the previous chapter, the barriers identified were: lack of food options available, limited resources (funding, facilities and volunteers), inadequate communication (informing parents about the policy and consultation about menu changes), conflicting roles and responsibilities, and perceived student food preferences. The facilitating factors identified were: parental support, role modelling, and nutrition education.

The previous chapter identified and discussed barriers and facilitating factors to policy implementation. In this chapter, I fulfill the second objective of the research: *to identify potential areas for improvement based on these findings* by presenting a list of recommendations for the future. Also covered in this chapter are the study limitations and the plan for future knowledge transfer and dissemination.

5.2 Objective Two: identify potential areas for improvement

A requirement of the ID methodology is that the product have application potential, in the sense that professionals, such as clinicians or decision makers, can use the data as a backdrop for assessment, planning and intervention strategies (Thorne, Kirkham, & O'Flynn-Magee, 2004). Thorne and her colleagues (2004) argue that "the degree to which research is reasonable for its intended purpose, which is to offer an extended or alternative understanding, depends on the researcher's ability to transform raw data into a structure that makes aspects of the phenomenon meaningful in some new and useful way" (p.17). With the ID methodology, a list of results is not sufficient. Therefore, to help expand on the meaning and the usefulness of this research, in this section I present recommendations for education and health professionals to use in further assessment and planning for school health.

5.2.1 Develop school budgets that allocate adequate funds for nutritious foods at school.

In order for schools to meet healthy eating policy requirements, they need adequate resources. However, analysis of student and parent interview data showed that limited resources was a barrier to the implementation of Prince Edward Island healthy eating policies. It was expressed that limited funding:

- prevents schools from offering a wide variety of nutritious food options at school.
- prevents schools from using pricing strategies as a way to encourage students to eat healthier because excess food costs cannot be absorbed by schools.

- keeps meal costs high making purchasing these food options less accessible for low income families.
- prevents much needed improvements to food preparation facilities.

These resource limitations need to be considered in school and district budgetary decisions. If they are not, there is a real risk that the opportunity of the Prince Edward Island healthy eating policies may be wasted.

5.2.2 Recruit more volunteers for food preparation at school

Like all elementary and consolidated schools in Prince Edward Island, the four targeted schools in this study did not run a school cafeteria and did not have a fulltime lunch staff to prepare food options. Instead, schools relied on volunteers to organize and facilitate food preparation at school. During interviews, it was expressed by parents that more volunteers were needed to make healthy changes to the foods available at school because with limited volunteer support, they tended to rely on food options that were quick and easy to prepare like pizza, hotdogs, or food ordered from establishments in the local community. Therefore it is recommended that more be done to recruit volunteers in order to prepare healthier options. One possible solution to the problem of limited volunteers is to move outside the usual way of recruitment which is through Home and School Association meetings. Many parents are not active members of the Home and School Association but may still be able to volunteer their time. Expressing the need to these parents and making them feel welcome to be a part of the school lunch environment through school newsletters, emails or school websites, could help increase volunteer support.

5.2.3 Provide parents with adequate information about Healthy Eating Policies

Cooperation from and partnership with parents are key to the success of school policies (Action for Healthy Kids, 2005). However, as Cline and White (2000) argue, these partnerships are more successful when participants are prepared through information exchange which helps them become more engaged. This means providing information about the policy as well as information about the purpose behind such policies. Parents need to be made aware of the problems of childhood overweight and obesity and the role that schools must play in providing solutions (Action for Healthy Kids, 2005). Providing such information can help parents understand the need for such policies, and therefore lead them to be supportive of policy initiatives. One way this could be done is through the development of materials such as pamphlets which could be distributed to parents, or district wide and community information sessions.

5.2.4. Create Student Nutrition Advisory Councils

Student involvement is critical to the success of healthy eating policy. Therefore, to improve communication with students about nutrition issues, schools could set up Student Nutrition Advisory Councils (SNAC). Cline (1999) describes a SNAC as an "organized group of students that meet on a regular basis to provide feedback on menus, new products, new promotions, and methods for communicating with other students about important nutrition education lessons" (p. 637). Cline also states that once involved in SNAC, students often serve as ambassadors for the school food and nutrition program and act as a means to communicate the importance of good nutrition to their peers.

5.2.5 Obtain student and parent input on menu options

Through analysis of interview data, it was determined that both students and parents felt they should be consulted about menu changes as opposed to changes being made and then communicated to them after the fact. There are many ways in which schools can obtain student and parent input on menu options. This could be done by administering a survey to students and parents asking them their opinion on menu options. To assure a quality survey, it should be developed in consultation with nutritionists, dietitians, Home and School representatives, and members of SNAC's. As well, Cline (1999) provides a number of examples of how to access student opinion of food at school such as: roundtable discussion and focus groups, written and formal surveys, taste testing sessions, menu item evaluations and surveys posted on school home pages.

5.2.6 Provide resources and assistance for teachers and school staff who wish to improve eating habits

The Prince Edward Island healthy eating policies have acknowledged the importance of role modelling. Through analysis of student interview data, role modelling was identified as a facilitating factor to policy implementation because students were very aware of what the adults in their school environments were eating. Given their potential for role modelling, improving the eating habits of teachers and school staff can present positive examples for students, and in turn affect student eating habits. This could be done through the distribution of healthy eating literature, healthy eating training or counseling for teachers and staff, or the promotion of healthy eating through staff contests.

5.2.7 Expand nutrition education

Changes to the school food environment are one way in which healthy eating policies can influence student eating habits. However, providing students with adequate nutrition education has the potential to contribute to health outside of the school environment and beyond the school age years. Manning (1999) argues that nutrition education is important because it is the, "link between theory and practice" (p. 268). As is the case with most school healthy eating policies, the Prince Edward Island school healthy eating policies stipulate that schools are to integrate nutrition education into the curriculum. During focus group sessions, students that were taught lessons about healthy eating or nutrition were able to recall what they learned quite easily and seemed interested in discussing what they knew about the topic. As well, some expressed how the lessons they learned at school about nutrition and healthy eating were helping them to eat better at home. Although education appeared to be a facilitating factor to the implementation of the policies, the majority of student participants stated that they were not taught lessons about healthy eating or nutrition. Therefore, expansion of nutrition education is necessary.

Some examples of ways in which nutrition education can be expanded in Prince Edward Island schools are:

- Use menu changes as a way to educate about nutrition. When menu change occurs, inform students and parents about the nutritional value of the food. For example, if hot dogs are replaced with chicken salad wraps (or some other product chosen based on student and parent input) the difference in calories, fat, sodium,

or fiber should be displayed on posters in the school and sent home to parents in newsletters.

- Put nutrition education curriculum in all subject areas. For example, allow students to practice food analysis in math class by having students calculate the difference in fat and sodium between the previous hot dog option and the new chicken salad wrap option or teach students the biological effects of poor diet in science class.
- For older students, develop nutrition education not just as a unit in health class, but as a class credit of its own.

5.2.8 Appoint District School Health Coordinators (DSHC)

> A ship without a rudder goes nowhere or anywhere, totally dependent on the current for direction. Child nutrition programs (CNP) without competent leaders and employees are similarly set adrift, constantly buffeted by forces competing for the finite resources necessary to provide education to children (Conklin, 1999; 136).

I consider this recommendation as the most imperative because, without the development of such a position, fulfilling any of the recommendations becomes difficult. Several of the activities described in the recommendations above such as: the recruitment and organization of volunteers, facility needs assessments and improvement plans, menu planning, support for teacher and staff role modelling and professional development, and organization and distribution of school nutrition education resources would all fall under the mandate of the DSHC. Setting in motion these recommendations with the expectation that teachers and school staff will be able to organize and facilitate them is unrealistic, and can lead to inconsistencies across the province. School administrators and teachers often find their current workloads challenging; expecting them to take on

these extra challenges may mean that recommendations will not get done effectively. In her work on Child Nutrition Program (CNP) Leaders in the US, Conklin (1999) provides a list of responsibilities for CNP leaders which can be used as a starting framework for the development of a DSHC position including: engendering support for the CNP from school administration, teachers, parents and the community and collaborating with education, public health, and other professional groups to deliver seamless services to children. For a complete list of Conklin's CNP responsibilities see Appendix H.

5.3 Limitations

Before concluding, it is necessary to discuss the limitations of this research. First, is the exclusion of the third Prince Edward Island school district. Although there are three school districts in Prince Edward Island, only two of the districts were included in this study. The French Language district was excluded because implementation of the healthy eating policy in this district was slower then in the rest of the province. Including the French Language district would have meant that the study would be more reflective of the entire province. However, where this is a qualitative study, the goal is not to generalize the results to the entire population. As well, my approach to sampling was purposeful sampling where participants are chosen because they are considered information rich. Given the lateness of policy implementation in the French Language district, respondents from this district would not be information rich because they would not have experienced the effects of policy implementation.

Another limitation with this research is that during two focus group sessions, the participants were all from the same grade as opposed to a range of grades. This was due to miscommunication with school principals who were given the responsibility of

selecting participants. During these particular focus group sessions however, participants were more open and willing to talk, compared to the focus group sessions which had a range of grade levels. One possible reason for this is that students of the same age felt more comfortable with each other because they were from the same class and therefore felt more opened to speak. Again the goal of my sampling approach was to get information rich subjects, not subjects that allowed me to generalize my findings.

5.4 Knowledge Transfer and Dissemination

In terms of the entire SNAP project, knowledge transfer is ongoing during the research due to the collaborative approach between the research team with schools and partners. The team intends to use a variety of dissemination strategies such as presentations and discussions at school and principal meetings to ensure that key players such as school district personnel, community organizations, parents, students, and policy makers are informed of the research and are given opportunity to provide input. The results of the study will be disseminated to the Prince Edward Island school system by presenting findings to the Prince Edward Island Teacher's Federation conference, and to educators, administrators and trustees attending the Educational Leadership Seminars held annually. Findings will be shared with Departments of Health and Education by members of the research team. Results will be communicated to teachers through presentations at professional development days and to parents through the Prince Edward Island Home and School Association meetings. The research will also be disseminated through Healthy EatS Newsbites, a newsletter which informs schools about the progress (formulation and implementation) of healthy eating policies and shares success stories. Results will also be submitted for publication in academic journals.

5.5 Conclusion

The problem of youth overweight and obesity is more significant now then ever before in history. Fortunately, professionals from a number of different fields are investing time and resources into reversing the problem, as well as researching and implementing preventative measures to bring about improvements for the future. One of these measures is school healthy eating policies. Although most provinces in Canada have adopted such policies, few have been evaluated to determine their effectiveness. In Prince Edward Island, the SNAP project team is addressing this gap. The goal of the project is to determine the effectiveness of the Prince Edward Island healthy eating policies on eating habits and body weights in grade 5 and 6 elementary school children, and to examine stakeholder perceptions of the policies.

Through the use of student focus group interviews, and parent standardized open-ended interviews, a list of barriers and facilitating factors to policy implementation have been identified. Barriers included: lack of food options available, limited resources (funding, facilities and volunteers), inadequate communication (informing parents about the policy and consultation about menu changes), conflicting roles and responsibilities, and perceived student food preferences. Facilitating factors included: parental support, role modelling, and nutrition education. Based on these results, a list of recommendations was compiled, including:

- development of school budgets that allocate adequate funds for nutritious foods at school
- recruitment of more volunteers for food preparation at school
- provision of adequate information about healthy eating policies to parents

- establishment of Student Nutrition Advisory Councils
- involvement of students and parents in deciding menu options
- provision of resources and assistance for teachers and school staff who wish to improve eating habits
- expansion of nutrition education
- appointment of District School Health Coordinators

School healthy eating policies are one option for addressing the problem of youth overweight and obesity, and they have promise. However, it must be remembered that policy is a process. If we do not evaluate policy effectiveness, and if we do not listen to those closest to policy initiatives, then we run the risk of wasting the opportunity that school healthy eating policies provide. Presented in this thesis are the voices of those directly affected by school healthy eating policy initiatives, including the group that such policies are meant to target - students. It is imperative that their voices be heard and heeded when considering future policy initiative improvements. Only by this engagement will such policies demonstrate progress in their efforts to combat the growing problem of youth overweight and obesity.

6.0 References

Action for Healthy Kids (2005). Parents views on school wellness practices. *Action for Healthy Kids, Pursuant Inc. & Knowledge Networks.* Retrieved December 8, 2007, from http://www.actionforhealthykids.org/special_exclusive.php

Action for Healthy Kids (2006). Giving kids the voice of authority: engaging students in the fight against childhood obesity. *Action for Healthy Kids Field Report,* 1(2). Retrieved December 8, 2007, from http://www.actionforhealthykids.org/special_exclusive.php

Action for Healthy Kids (2006). Tapping into the power: engaging parents in the fight against childhood obesity. *Action for Healthy Kids Field Report.* 1(1). Retrieved December 8, 2007, from http://www.actionforhealthykids.org/special_exclusive.php

Adelaide 2nd International Conference on Health Promotion (1998). Adelaide Recommendations on healthy public policy. Retrieved February 7, 2006, from http://www.who.int/hpr/NPH/docs/adelaide_recommendations.pdf

American Institute for Cancer Research (2007). Second expert report. Retrieved November 9 2007, from http://www.dietandcancerreport.org/?p=ER

Birch, L.L. & Fisher, J.O. (1998) Development of eating behaviors among children and adolescents. *Pediatrics,* 101, 539-549.

Briggs, M., Safaii, S., & Beall, D.L. (2003). Position of the American Dietetic Association, Society for Nutrition Education and American School Food Service Association - Nutrition Services: An essential component of comprehensive school health programs. *Journal of the American Dietetic Association,* 103, 505-514.

Brown, K.M., Akintobi, T.H., Pitt, S., Berends, V., McDermott, R., Agron, P., & Purcell, A. (2004). California School Board Members' perceptions of factors influencing school nutrition policy. *Journal of School Health,* 74(2).

Canadian Institute for Health Information (2004). Improving the health of Canadians. Retrieved October 8, 2006, from http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_322_E&cw_topic=322

Centres for Disease Control and Prevention (1996). Guidelines for school health programs to promote lifelong healthy eating. *Division of Adolescent and School Health,* Retrieved January 7, 2007, from http://www.cdc.gov/mmwr/preview/mmwrhtml/00042446.htm

Center for Disease Control and Prevention (2007). About BMI for children and teens. Retrieved November 3, 2007, from http://www.cdc.gov/nccdphp/dnpa/bmi/childrens_BMI/about_childrens_BMI.htm

Cline, T.J. (1999). Communicating with students. In Martin, J., & Conklin, M. (Eds). *Managing child nutrition programs: leadership for excellence*. Maryland: Aspen Publishers, Inc.

Cline, T. & White G. (2000). Position of the American Dietetic Association: local support for nutrition integrity in schools. *Journal of the American Dietetic Association*, 100, 108-111.

Commission on the Future of Health Care in Canada. (2002). Building on values: the future of health care in Canada - Final Report. Ottawa: *Commission on the Future of Health Care in Canada,* Retrieved January 4, 2007, from http://www.hc-sc.gc.ca/english/care/romanow/hcc0086.html

Conklin, M.T. (1999). Human Resources. In Martin, J., & Conklin, M. (Eds) *Managing child nutrition programs: leadership for excellence*. Maryland: Aspen Publishers, Inc.

Creswell, J.W. (1998). *Qualitative inquiry and research design: choosing among five traditions.* Thousand Oaks, CA: Sage.

Davison, K.K. & Birch L.L. (2001). Childhood overweight: a contextual model and recommendations for future research. *Obesity Review,* 2, 159 - 171.

Denzin, N.K. (1989). *The Research Act* (3rd ed.). New York: McGraw-Hill.

Dietz, W.H. & Gortmaker, S.L. (2001). Preventing obesity in children and adolescents. *Annual Review of Public Health,* 22, 337-53.

Duggleby, W. (2005). What about focus group interaction data? *Qualitative Health Research,* 15(6).

Evans, R.G., Barer, M.L., & Marmor, T.R. (1994), Why are some people healthy and others not: the determinants of health of populations. New York: Aldine De Gruyter.

Evers, S., Taylor, J., Manske, S., & Midgett, C. (2001). Eating and smoking behaviours of school children in Southwestern Ontario and Charlottetown, PEI. *Canadian Journal of Public Health*, 92, 433 - 436.

Fagot-Campagna, A., Pettitt, D.J., Engelau, M.M., Burrows, N.R., Geiss, L.S. (Eds.). (2000). Type 2 diabetes among North American children and adolescents: an epidemiologic review and a public health perspective. *Journal of Pediatrics*, 136(5).

Fisher, C., Hunt, P., Kann, L., Kolbe, L., Patterson, B. & Wechsler, H. (2003). Building a healthier future through school health programs. *US department of Health and Human Services*. Retrieved December 9, 2007, from http://www.cdc.gov/HealthyYouth/publications/pdf/PP-Ch9.pdf

Freeze, C. (2007). Enabling and Barrier Factors in the Development of Elementary and Consolidated School Nutrition Policies on Prince Edward Island. (Thesis, University of Prince Edward Island, 2007) Charlottetown, Prince Edward Island: Faculty of Education.

Fullan, M. (1991). *The new meaning of educational change* (2nd ed.). New York: Teachers College Press.

Hanagriff, R.D., Beverly, M.M., & Murphy, T.H. (2007). 2005-2006 School year assessment of the Texas Public School Nutrition Policy: School meal nutritional assessment report January 2007. Retrieved on January 14, 2008, from http://www.squaremeals.org/vgn/tda/files/2348/14882_2005-06%20Texas%20Public%20School%20Nutrition%20Policy%20Study%20-%20Part%201%20Menu%20Analysis.pdf

Health Canada. (1996). Nutrition for health an agenda for action. Retrieved December 15, 2007, from http://www.hc-sc.gc.ca

Health Canada (2004). Canadian Guidelines for Body Weight Classification in Adults. Retrieved December 14, 2007, from http://www.hc-sc.gc.ca/fn-an/nutrition/weights-poids/guide-ld-adult/index_e.html

Heath Canada (2007). Canada's food guide: children. Retrieved November 25, 2007, from http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/advice-conseil/child-enfant/index_e.html

Health Canada (2007). Obesity. *It's your health.* Retrieved September 19, 2007, from http://www.hc-sc.gc.ca/iyh-vsv/life-vie/obes_e.html

Hear, Baranowski & Baranowski. (1998). Eating patterns and obesity in children: the Bogalusa heart study. *American Journal of Preventive Medicine*, 25(1).

Howlett, M. & Ramesh, M. (2003). *Studying public policy: policy cycles and policy subsystems.* Toronto: Oxford University Press.

Institute of Medicine (2005). Food marketing to children and youth: threat or opportunity? Retrieved November 5, 2007, from http://www.iom.edu/CMS/3788/21939/31330.aspx

Johnson, R.K. & Nicklas, A. (1999). Position of the American Dietetic Association: dietary guidance for healthy children aged 2 to 11 years. *Journal of the American Dietetic Association,* 99 (1).

Kramer-Atwood, J.L., Dwyer J., Hoelscher, D.M., Nicklas, T.A., Johnson R.K., & Schulz, G.K. (2002). Fostering healthy food consumption in schools: focusing on the challenges of competitive foods. *Journal of the American Dietetic Association.* 102, 1228-1233.

Krueger, R.A. (1994). *Focus Group Interviews: A Practical Guide for Applied Research* (2nd ed). Thousand Oaks, CA: Sage Publications.

Kubik, M.Y., Lytle, L.A., Hannan, P.J., Perry, C.L., & Story, M. (2003) The association of the school environment with dietary behaviors of young adolescents. *American Journal of Public Health,* 93, 1168-1173.

Leo, A. (2007). Are schools making the grade? school nutrition policies across Canada. *Center for Science in the Public Interest,* Retrieved October 24, 2007, from http://www.cspinet.org/canada/pdf/makingthegrade_1007.pdf

Lincoln, Y. & Guba, E. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage Publications.

Lobstein, L., Baur, L., & Uauy, R. (2004). Obesity in children and young people: a crisis in public health. *Obesity Reviews,* 5, 4-85.

Manning, A.D. (1999). Educating beyond the plate: the cafeteria-classroom connection. In Martin, J., & Conklin, M. (Eds). *Managing child nutrition programs: leadership for excellence*. Maryland: Aspen Publishers, Inc.

Martin, J., & Conklin, M. (Eds) (1999). *Managing child nutrition programs: leadership for excellence*. Maryland: Aspen Publishers, Inc.

Mason, J. (2002). *Qualitative Researching* (2nd ed). London: Sage Publications.

McCorkel, J.A. & Myers, K. (2003). What difference does difference make? position and privilege in the field. *Qualitative Sociology*, 226(2).

McGraw, S.A., Sellers, D., Stone, E., Resnicow, K.A., Kuester, S., Fridinger, F., & Wechsler, H. (2000). Measuring implementation of school programs and policies to promote healthy eating and physical activity among youth. *Preventative Medicine,* 31, S86-S97.

McKenna, M.L. (2000). Implementation of a policy to promote healthy eating in schools: the case of New Brunswick {dissertation}. Nottingham (UK): The University of Nottingham.

McKenna, M.L. (2003). Issues in implementing school nutrition polices. *Canadian Journal of Dietetic Practice and Research*. 64(4).

McKenna, M.L. (2007). Healthy eating in schools background paper for the WHO global strategy on diet, physical activity and health: A school policy framework. Unpublished

Newfoundland and Labrador Heart Health Program (1995). Making public policy healthy: a vision for our community's health. Retrieved on January 17, 2008, from http://www.infonet.st-johns.nf.ca/nhhp/docs/policy.html

Olshansky, S.J., Passaro, D.J., Hershow, R.C., & Layden J. (Eds.). (2005). A potential decline in life expectancy in the United States in the 21st century. *The New England Journal of Medicine*. 352(11).

Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods* (3rd ed). Thousand Oaks, CA: Sage Publications.

Philippe, F., Orpana, H., & Tremblay, M. (2007). Trends in weight change among Canadian adults. *Statistics Canada Health Reports*. 18(2). Retrieved on January 9, 2008, from http://www.statcan.ca/bsolc/english/bsolc?catno=82-003-X20060059633

Polit, D.F. & Beck, C.T. (2004). *Nursing Research: Principles and Methods* (7th ed). Philadelphia: Lippincott Williams & Wilkins.

Prince Edward Island Department of Education. (2007). *PEI Healthy Eating Alliance*. Charlottetown, PEI: Prince Edward Island Department of Education. Retrieved on August 4, 2007, from http://www.gov.pe.ca/peihea/index.php3?number=1005078&lang=E

Prince Edward Island Department of Education. (2005). *School nutrition policy for elementary and consolidated schools without cafeterias.* Charlottetown, PEI: Eastern School Board. Retrieved on January 9, 2007, from http://www.edu.pe.ca/esd/pdf/policies/adg_r.PDF

Prince Edward Island Department of Education. (2005). *School nutrition policy for elementary and consolidated schools without cafeterias.* Charlottetown, PEI: Western School Board. Retrieved on January 9, 2007, from http://www.edu.pe.ca/wsb/schoolboard/policies/policies.htm

Public Health Agency of Canada: Atlantic Region. (2002). *Healthy public policy development.* Ottawa: Public Health Agency of Canada. Retrieved on November 1, 2007, from http://www.phac-aspc.gc.ca/canada/regions/atlantic/work/e_d.html

Raczynski, J.M., Phillips, M., Bursac, Z., Kahn, R.A., Pulley, L., West, D., Craig, R.L., Elliott, S.E., Evans, V.L., Gauss, H., Montgomery, B.E.E., & Philyaw, A.G. (2006). Year three evaluation: Arkansas Act 1220 of 2003 to combat childhood obesity. Robert Wood Johnson Foundation, Retrieved on January 17, 2008, from http://www.rwjf.org/pr/product.jsp?id=18583

Raine, K (2004). *Overweight and obesity in Canada: a population health perspective*. Ottawa: Canadian Population Health Initiative, Canadian Institute for Health Information. Retrieved on October 5, 2007, from http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=GR_1130_E

Raine, K. (2005). Determinants of healthy eating in Canada: an overview and synthesis. *Canadian Journal of Public Health*. 96(Sup.3).

Raine, K., Wilson, E. (2007). Obesity prevention in the Canadian population: policy recommendations for environmental change. In 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children. *Canadian Medical Association Journal*, 176(8).

Raphael, D. (2004). *Social Determinants of Health: Canadian Perspectives*. Toronto: Canadian Scholars' Press Inc.

Rideout, K., Levy-Milne, R., Martin, C., & Ostry, A.S. (2007). Food sales outlets, food availability, and the extent of nutrition policy implementation in schools in British Columbia. *Canadian Journal of Public Health*, 98(4).

Ritzer, G. (2000). *Modern Sociological Theory* (5th ed.). New York: McGraw-Hill.

Schmid, T., Pratt, M., & Howze, E. (1995). Policy as intervention: environmental and policy approaches to the prevention of cardiovascular disease. *American Journal of Public Health,* 85(9).

Shields, M. (2006). Overweight and obesity among children and youth. *Statistics Canada Health Reports,* 17(3). Retrieved on October 22, 2007, from http://www.statcan.ca/bsolc/english/bsolc?catno=82-003-X20050039277

Statistics Canada. (2005). Calculating overweight and obesity in children and adolescents. Ottawa: Statistics Canada. Retrieved on January 8, 2008, from http://www.statcan.ca/english/research/82-620-MIE/2005001/articles/child/ccalc.htm

Sturges, J.E. & Hanrahan, K.J. (2004). Comparing telephone and face-to-face qualitative interviewing: a research note. *Qualitative Research,* 4, 107-118.

Taylor, J., Mather, S., McBride, T. (2003). Food and nutrition policies and programs in Prince Edward Island Schools. Presented at the Second Conference of the International Society for Behavioral Nutrition and Physical Activity (ISBBNPA), Quebec City, July 2003.

Taylor, J., Bradley, D., & Peacock, R. (2003). Food habits survey of students in rades 4 to 9 in the Western School Board. Final Report: submitted to the PEI Health Research Program, March 2003.

Taylor, J., Evers, S., & McKenna, M. (2005). Determinants of healthy eating in children and youth. *Canadian Journal of Public Health,* 96(Sup. 3).

Thorne, S.E. (1991). Methodological orthodoxy in qualitative nursing research: analysis of the issues. *Qualitative Health Research*, 1, 178-199.

Thorne, S.E. (1997). Phenomenological positivism and other problematic trends in health science research. *Qualitative Health Research*, 7(2).

Thorne, S., Kirkham, S.R., & O'Flynn-Magee, K. (2004). The analytic challenge in interpretive description. *International Journal of Qualitative Method,* 3(1).

United States Department of Agriculture. (2004). Local wellness policy. Retrieved on December 5, 2007, from http://www.fns.usda.gov/tn/Healthy/wellnesspolicy.html

United States Department of Health and Human Services. (2001). *The Surgeon General's call to Action to Prevent and Decrease Overweight and Obesity.* Retrieved on November11,2007,from http://www.surgeongeneral.gov/topics/obesity/calltoaction/CalltoAction.pdf

Vecchiarelli, S., Takayanagi, S., & Neumann, C. (2006). Students' perceptions of the impact of nutrition policies on dietary behaviors. *Journal of School Health,* 76 (10).

Veugelers, P. & Fitzgerald, A. (2005). Effectiveness of school programs in preventing child obesity: A multilevel comparison. *American Journal of Public Health,* 95(3).

Whitaker, R.C., Wright, J.A., Pepe, M.S., Seidel, K.D., Dietz, W.H. (1997). Predicting obesity in young adulthood from childhood and parental obesity. *New England Journal of Medicine,* 337, 869-73.

Whittemore, R., Chase, S.K., & Mandle, C.L. (2001). Validity in qualitative research. *Qualitative Health Research,* 11(4).

World Health Organization. (1998). WHO information series on school health, healthy nutrition: an essential element of a health-promoting school. Retrieved on June 13, 2007, from http://www.who.int/hpr

World Health Organization. (2002). Integrated management of healthy settings at the district level. Retrieved on January 17, 2008, from http://whqlibdoc.who.int/searo/2002/SEA_HSD_260.pdf

World Health Organization. (2003). WHO Technical Report Series 916. *Diet, Nutrition and the Prevention of Chronic Disease. Report of Joint WHO/FAO Expert Consultation.* Geneva: World Health Organization. Retrieved on April 28, 2007, from http://whqlibdoc.who.int/trs/WHO_TRS_916.pdf

World Health Organization. (2004) Global strategy on diet, physical activity and health. Retrieved on January 14, 2008, from http://www.who.int/gb/ebwha/pdf_files/WHA57/A57_R17-en.pdf

Worsley, A. (2006). Lay people's views of school food policy options: associations with confidence, personal values and demographics. *Health Education Research,* 21(6).

Appendix A
Eastern School District School Nutrition Policy

FORMULATED BY ADMINISTRATION CODE: ADG-R

EASTERN SCHOOL DISTRICT

ADMINISTRATIVE REGULATION

SUBJECT: **School Nutrition**
(For Elementary and Consolidated Schools Without Cafeterias)

EFFECTIVE DATE: **May 12, 2005**

SUPERSEDES: January 13, 2005

REVIEW DATE:

CROSS REFERENCE:

Implementation Schedule

Schools will have support for the remainder of the 2004-2005 school year to prepare to implement most of the provisions of these regulations during the 2005-2006 school year, and the provisions regarding fund-raising campaigns will be implemented for the beginning of the 2006-2007 school year.

Therefore:

January-June 2005	Preparation for implementation
September 2005 – June 2006	Implementation of all provisions except those regarding fund-raising campaigns
September 2006	Implementation of provisions regarding fund-raising campaigns

Regulations

The following regulations are set out to assist schools to achieve the objectives of the Eastern School District Nutrition Policy. These were identified in consultation with lead schools in the Eastern School District. There are several documents available to support schools with these regulations; these are listed at the end of the "Regulations" section.

Three sections follow: 1) Student Access to Food; 2) Quality of Food Available at School; and 3) Nutrition Education.

1. Student Access to Food

Programming
All schools will continue to participate in and promote the PEI School Milk Program.
All schools are encouraged to stock an emergency food cupboard with healthy choices for students in need.

Schools are encouraged to provide breakfast or snack programs when a need is identified, which will:
1) Be open to all students but will not be promoted as a replacement for breakfast eaten at home; and will
2) Follow Best Practice Standards from Breakfast for Learning.

Pricing
Schools will support healthy food choices by pricing approaches which encourage students to choose healthy foods over less healthy foods when food is sold at school.

Promotion
Schools will work to develop an environment that promotes healthy eating by:
1) Promoting and/or advertising only healthy food choices (those in the "Foods to Serve Most Often" and "Foods to Serve Sometimes" lists in the *Guide to Food Choices* (appendix)).
2) Not accepting advertising of food products for unhealthy food choices (those in the "Foods to Serve Least Often" list (appendix)).
3) Displaying attractive, current promotional materials (e.g. posters, displays, etc) related to healthy eating throughout schools.
4) Carrying materials that support the Nutrition Policy and Regulations in school resource centres (e.g. books, videos, pamphlets).
5) Participating in PEI Healthy Eating Alliance and Nutrition Month activities, where possible.

Time to Eat
Schools shall:
1) Allow a minimum of 20 minutes for students to eat lunch;
2) Encourage that foods are eaten after outside play, whenever possible.
3) Assure that lunch is eaten in a calm positive atmosphere.

Student Choice
1) Administrators and parent groups should involve students in planning school food choices.
2) Students should be encouraged to choose food from the "Foods to Serve Most Often" and "Foods to Serve Sometimes" lists (appendix).
3) When possible, schools should provide microwaves in classrooms to broaden the range of food choices for students.

2. Quality of Food Available at School

Criteria for Food and Beverages Available in Vending Machines, Canteens, School Lunch, Breakfast Programs, and Snack Programs

1) Foods and beverages sold or made available at school for lunch, canteen, and snack programs will be selected from the "Foods to Serve Most Often" or "Foods to Serve Sometimes" lists (appendix) and will emphasize vegetables and fruit; lower fat white and chocolate milk; whole grain products; lean meats; foods prepared with little or no fat; and foods low in salt, sugar, and caffeine.

2) All food and beverages in vending machines which are accessible to students will be selected from the "Healthy Vending Machine and Canteen Foods" list (appendix). Vending machines will not be used to sell carbonated soft drinks, fruit drinks, fruit juices with less than 100% juice, or sports drinks.

3) Schools will manage and operate vending machines in accordance with the terms of this Policy.
4) Teachers and administrators will encourage students to drink water and can facilitate their doing so by allowing water bottles in the classroom.
5) Schools should try to use local products first, where possible.

Special Functions

1) Although healthy foods should be promoted for daily consumption, as well as on celebration days, it is recognized that schools need to be flexible for celebration days.
2) Schools should not offer less healthy foods (e.g. candy, soft drinks, chips) as a reward to students for good behaviour, achievement, or participation in fundraising activities.

Fundraising

1) Fundraising activities by schools and parent groups should emphasize nonfood products or healthy food choices from the "Foods to Serve Most Often" or "Foods to Serve Sometimes" lists (appendix).

Food Safety

1) Administrators will ensure that school staff and parent volunteers are familiar with safe food handling practices.
2) Schools will adhere to the Provincial Anaphylaxis Policy.
3) Students should wash their hands before eating.

3. Nutrition Education

Curriculum

1) The Eastern School District will work with the Department of Education and community partners to promote the further development and enhancement of a

current, relevant nutrition education curriculum and enhance the resources available to teachers to support their nutrition education activities.

2) Schools should use a comprehensive approach to nutrition education involving the whole school community (families, individuals and organizations in the community) in nutrition education activities to positively influence students' nutrition knowledge, attitudes, skills and eating habits.
3) When possible, schools should incorporate nutrition education into other subject areas and outside classroom activities.
4) Schools will support opportunities for staff development and training for effective delivery of nutrition curriculum.

Role Models

Recognizing the importance of role modelling in promoting healthy eating:

1) Teachers, administrators, and school staff should act as positive role models to promote healthy eating within the classroom and school environment.

Appendix B
Western School District School Nutrition Policy

WESTERN SCHOOL BOARD OF P.E.I.
BOARD POLICY MANUAL

Section: SCHOOL NUTRITION

Origin: WESTERN SCHOOL BOARD SUPERINTENDENT OF EDUCATION

Title: ELEMENTARY & CONSOLIDATED SCHOOL NUTRITION POLICY

Policy Statement:
The Board of Trustees of the Western School Board (the Board) believes that nutrition has a significant impact on the health and academic achievement rates of students. Good nutrition and physical activity are essential for healthy growth and development, and reduces the risk of conditions such as overweight, obesity, heart disease, cancer, diabetes and osteoporosis. In Prince Edward Island, the incidence of preventable nutrition related diseases is higher than in many other areas of Canada. It is therefore critical to establish healthy eating behaviours in childhood and provide children and youth with the opportunity to develop healthy eating behaviours for life. Healthy eating behaviours begin at home in early childhood and later become a cooperative effort between the home and the school. Since students spend more time in school than in almost any other environment and may consume 40% of their daily intake at school, the school setting can have a tremendous and positive impact on student health and learning.

The Board encourages schools to maintain supportive environments which promote healthy food choices, both in the foods available at school and through educational programs. The Board provides, through regulation, guidelines to schools to assist them in carrying out this policy. This policy will be regularly reviewed in accordance with usual Board procedures.

The Board and administrators will improve student access to food by:

- **improving access by all students to healthy, safe, reasonably priced, attractively presented food choices; and**
- **reducing hunger among children living with food insecurity, through enhanced access to healthy foods within the school setting, provided in a non-stigmatizing manner.**

The Board and administrators recognize that the quality of food available at school is an important determinant of healthy eating in children. This will be achieved by providing healthy food and beverage choices in vending

machines, canteens, and school food programs and using healthy food choices, or non-food items for fundraising activities. The regulations are not meant to be used by teachers and administrators as a tool to evaluate student lunches from home.

The Board believes that nutrition education is important and is most effective if a comprehensive approach involving the school and broader community is used. Teachers and school staff are a valuable resource in helping students understand the relationship between nutrition, health and physical activity and developing the knowledge, positive attitudes and skills necessary to make healthy food choices for life.

While recognizing that parents are ultimately responsible for their child's nutritional health, schools should work with their parent groups (such as the Home and School Federation) and other community partners such as the PEI Healthy Eating Alliance to encourage and support parents to:

- **ensure that their children eat a healthy breakfast,**
- **pack healthy lunches and**
- **eat healthy meals at home.**

The following regulations are set out to assist schools to achieve the objectives of the Western School Board Nutrition Policy. These were identified in consultation with lead schools in the Western School Board. There are several documents available to support schools with these regulations; these are listed at the end of the "Regulations" section.

Three sections follow: 1) student access to food; 2) quality of food available at school; and 3) nutrition education.

Regulations:

1. Student Access to Food

1.1 Programming

All schools will continue to participate in and promote the PEI School Milk Program.

All schools are encouraged to stock an emergency food cupboard with healthy choices for students in need.

Schools are encouraged to provide breakfast or snack programs when a need is identified, which will:

- be open to all students but will not be promoted as a replacement for breakfast eaten at home; and will
- follow Best Practice Standards from Breakfast for Learning.

2.0 Pricing

Schools will support healthy food choices by pricing approaches which encourage students to choose healthy foods over less healthy foods when food is sold at school.

3.0 Promotion

Schools will work to develop an environment that promotes healthy eating by:

- promoting and/or advertising only healthy food choices (those in the "Foodsto Serve Most Often" and "Foods to Serve Sometimes" lists in the *Guide to Food Choices* (appendix)).
- not accepting advertising of food products for unhealthy food choices (those in the "Foods to Serve Least Often" list (appendix).
- displaying attractive, current promotional materials (e.g. posters, displays, etc) related to healthy eating throughout schools.
- carrying materials that support the Nutrition Policy and Regulations in school resource centres (e.g. books, videos, pamphlets).
- participating in PEI Healthy Eating Alliance and Nutrition Month activities, where possible.

4.0 Time to Eat

Schools should:

- allow a minimum of 20 minutes for students to eat lunch;
- encourage that foods are eaten after outside play, whenever possible.

5.0 Student Choice

- Administrators and parent groups should involve students in planning school food choices.
- Students should be encouraged to choose food from the "Foods to Serve Most Often" and "Foods to Serve Sometimes" lists (appendix).

6.0 Quality of Food Available at School

6.1 Criteria for Food and Beverages Available in Vending Machines, Canteens, School Lunch, Breakfast Programs, and Snack Programs

- Foods and beverages sold or made available at school for lunch, canteen, and snack programs will be selected from the "Foods to Serve Most Often" or "Foods to Serve Sometimes" lists (appendix) and will emphasize vegetables and fruit; lower fat white and chocolate milk; whole grain products; lean meats; foods prepared with little or no fat; and foods low in salt, sugar, and caffeine.
- All food and beverages in vending machines which are accessible to students will be selected from the "Healthy Vending Machine and Canteen Foods" list (appendix). Vending machines will not be used to sell carbonated soft drinks, fruit drinks, fruit juices with less than 100% juice, or sports drinks.
- Schools will manage and operate vending machines in accordance with the terms of this Policy.
- Teachers and administrators will encourage students to drink water.
- Schools should try to use local products first, where possible.

7.0 Special Functions
Although healthy foods should be promoted for daily consumption, as well as on celebration days, it is recognized that schools need to be flexible for celebration days.

Schools are encouraged to offer healthy foods or non-food items as a reward to students for good behaviour, achievement, or participation in fundraising activities.

8.0 Fundraising
Fundraising activities by schools and parent groups should emphasize non-food products or healthy food choices from the "Foods to Serve Most Often" or "Foods to Serve Sometimes" lists (appendix).

9.0 Food Safety
Administrators will ensure that school staff and parent volunteers are familiar with safe food handling practices.

Schools will adhere to the Provincial Anaphylaxis Policy.

Students should wash their hands properly before eating.

10.0 Nutrition Education
10.1 Curriculum

- The Board will work with the Department of Education and community partners topromote the further development and enhancement of a current, relevant nutritioneducation curriculum and enhance the resources available to teachers to support their nutrition education activities.
- Schools should use a comprehensive approach to nutrition education involving the whole school community (families, individuals and organizations in the community) in nutrition education activities to positively influence students' nutrition knowledge, attitudes, skills and eating habits.
- When possible, schools should incorporate nutrition education into other subject areas and outside classroom activities.
- Schools will support opportunities for staff development and training for effective delivery of nutrition curriculum.

10.2 Role Models
Recognizing the importance of role modelling in promoting healthy eating, teachers, administrators, and school staff should act as positive role models to promote healthy eating within the classroom and office environment.

Date Originally Adopted: June 8, 2005
Date of Last Amendment: June 8, 2005
Original Board Policy No.:NA
Date Revised: June 8, 2005

Appendix C
Overweight and Obesity Cut-Offs for Boys and Girls

	Overweight cut-off BMI greater than or equal to:		**Obese cut-off** BMI greater than or equal to:	
Age (years)	**Boys**	**Girls**	**Boys**	**Girls**
2	18.41	18.02	20.09	19.81
2.5	18.13	17.76	19.80	19.55
3	17.89	17.56	19.57	19.36
3.5	17.69	17.40	19.39	19.23
4	17.55	17.28	19.29	19.15
4.5	17.47	17.19	19.26	19.12
5	17.42	17.15	19.30	19.17
5.5	17.45	17.20	19.47	19.34
6	17.55	17.34	19.78	19.65
6.5	17.71	17.53	20.23	20.08
7	17.92	17.75	20.63	20.51
7.5	18.16	18.03	21.09	21.01
8	18.44	18.35	21.60	21.57
8.5	18.76	18.69	22.17	22.18
9	19.10	19.07	22.77	22.81
9.5	19.46	19.45	23.39	23.46
10	19.84	19.86	24.00	24.11
10.5	20.20	20.29	24.57	24.77
11	20.55	20.74	25.10	25.42
11.5	20.89	21.20	25.58	26.05
12	21.22	21.68	26.02	26.67
12.5	21.56	22.14	26.43	27.24
13	21.91	22.58	26.84	27.76
13.5	22.27	22.98	27.25	28.20
14	22.62	23.34	27.63	28.57
14.5	22.96	23.66	27.98	28.87
15	23.29	23.94	28.30	29.11
15.5	23.60	24.17	28.60	29.29
16	23.90	24.37	28.88	29.43
16.5	24.19	24.54	29.14	29.56

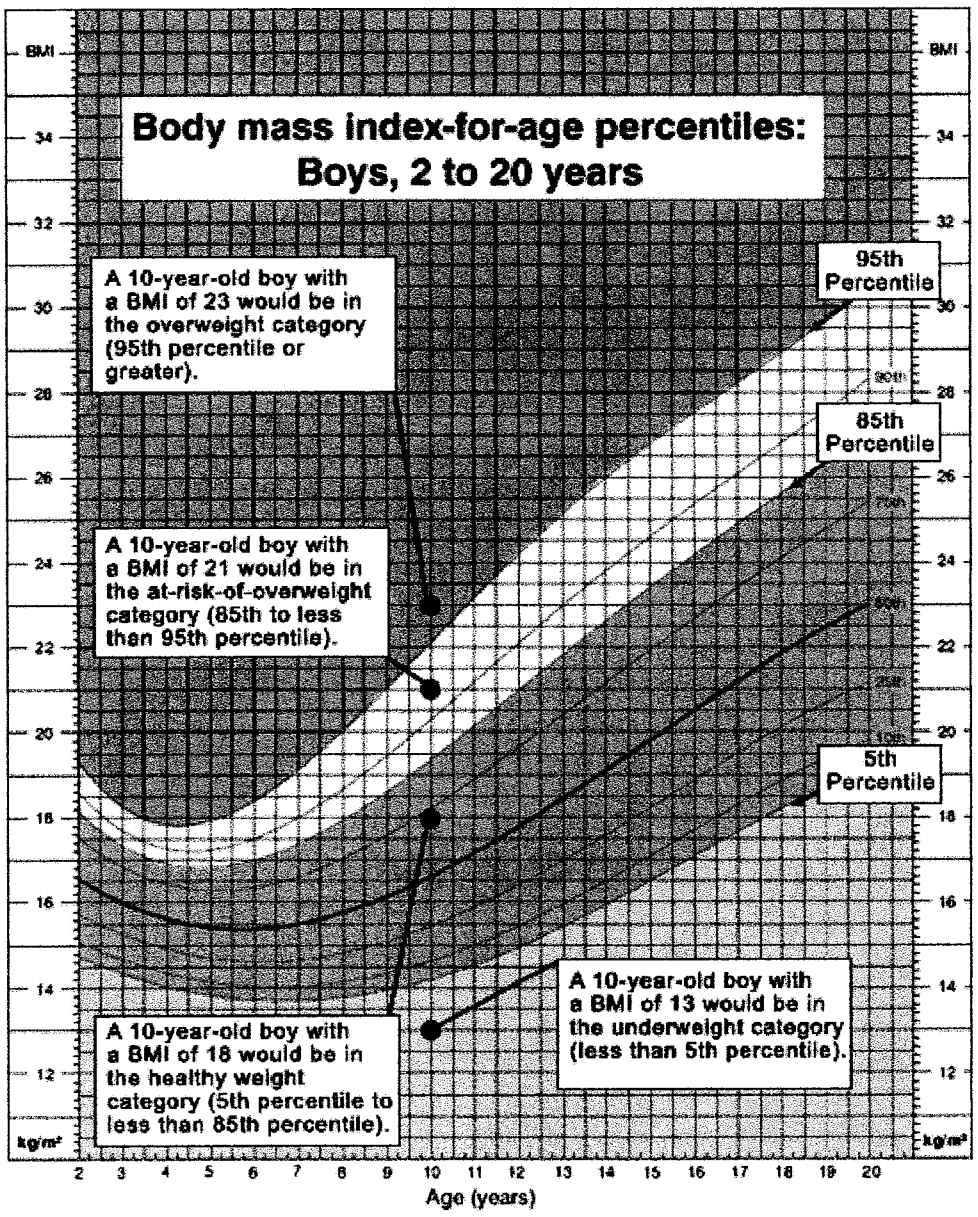
17	24.46	24.70	29.41	29.69
17.5	24.73	24.85	29.70	29.84
18+	25.00	25.00	30.00	30.00

(Statistics Canada, 2005)

Appendix D

CDC- BMI for Age Growth Chart for Boys

How some sample BMI numbers would be interpreted for a 10-year-old boy.



(Center for Disease Control and Prevention, 2007)

Appendix E
Student Focus Group Interview Guide

Student Focus Group Guide

Introduction

Hi, my name is *Allison Holland* and this is _____. We are working with your school and other schools in PEI to find out what students think about healthy eating and foods available at school.

We want to thank you for being here. We really appreciate your willingness to share your thoughts with us. The information you give will be used to improve healthy eating at your school and other schools in PEI.

Everything we talk about will be confidential. This means that we will use general ideas from our conversations in a report but there will not be any names used and no one at your school will know specifically who said what. You can let us know what you really think. We also ask you to respect this confidentiality to assure that everything that is said in this room stays in this room.

We sent a letter home to your parents/guardians describing this group. In that letter we explained that we would tape record the conversation we have and take notes. This helps us remember what you said. Is it OK with all of you that we tape record our conversation? The notes and the tapes will be kept private in our office.

We plan to be here for about a half hour. We have brought some food for all of you, so please help yourselves while we are talking. Before we get started, are there any questions?

Lets begin. We've placed name cards on the table in front of you to help us remember each other's names. Let's find out some more about each other by going around the table and introducing ourselves. Please tell me your first name, how old you are and what grade you are in.

Question Guide

1. Where in your school do you normally eat your lunch?

Listen and take note of the specific location discussed by respondents.

2. Do you enjoy eating your lunch ***(location specified in Q1)***?

3. How much time do you have to eat your lunch at school? Do you feel this is enough time?

4. Have any of you noticed changes to the foods available at your school? For example, have you noticed changes to the foods offered in your hot lunch program, foods sold in your school canteen or foods sold in vending machines? ***(Be sure to know specific venues for acquiring food at each school before conducting focus group).***

Listen and take note of the specific changes discussed by respondents.

5. What do you like about these changes to the foods available in your school?

Ask this question in accordance to the changes identified in the responses from Q4.

6. What don't you like about these changes to the foods available in your school?

Ask this question in accordance to the changes identified in the responses from Q4.

7. Why do you think your school has made these changes to the foods available in your school?

Probe: do you know why you can no longer buy (example from Q4 responses)?

8. Has anyone at your school talked to you about these changes to the foods available in your school?

9. Do other students at your school talk about these changes to the foods available in your school? What have you heard other students say?

10. What else do you think your school could do to help encourage you to eat healthier?

Probe: What could make it easier for you to eat healthier at school?

What makes it difficult for you to eat healthier at school?

Backup #1: Fundraising

11. Do you do any fundraising at your school?

12. What activities do you do to fundraise?

Listen and take note of the specific fundraising activities discussed by respondents

13. Do you like participating in these fundraising activities? Why or why not?

Ask this question in accordance to fundraising activities identified in Q12.

Backup #2: Healthy eating curriculum

14. At your school, are you taught lessons about healthy eating and nutrition?

15. What do you learn about healthy eating and nutrition during these lessons?

16. Where (which classes, subjects) do you learn about healthy eating and nutrition at your school?

17. Do these lessons help you eat healthier at home?

18. In what other ways can your school teach you about healthy eating and nutrition?

19. If you wanted to find out more information about healthy eating and nutrition, is there somewhere in your school to find materials such as books or pamphlets on healthy eating and nutrition?

20. Is there someone at your school you could go to and talk about healthy eating and nutrition?

21. Do your teachers and other adults that work at your school practice healthy eating?

Our time is just about up, and I would like to give you the chance to say or ask anything else you feel is important.

It has been great talking with you about the things that happen here at your school. We have some pencils and stickers for you. Thank you so much.

Appendix F
Parent Interview Guide

PEI Healthy Eating Policy Evaluation
Parent Interview Guide: Telephone Interviews

Introduction

I'm going to start by reading you some background information on the project. As I said, my name is Allison Holland and I am a graduate student working with a team of researchers from the University of Prince Edward Island on evaluating healthy eating policies currently in effect in PEI elementary schools.

The purpose of this part of the study is to learn more as to what parents think about changes to food and nutrition in their child's school. This is important because parents have a valuable perspective when it comes to issues within the school environment.

You are in no way required to participate in this interview – your participation is strictly on a voluntary basis. If you decide not to participate, neither you nor your child will be penalized.

There are no known risks to participation in this project. Although participation will not result in any direct benefit to you, the information used from this interview will help assess the effectiveness of school nutrition policies in PEI schools, which is an important step to improving the health of all Island school children.

The interview will take no longer then 20 minutes and you will be asked questions pertaining to changes made to foods at your child's school, your opinion of these changes and how you feel nutrition can be improved at your child's school. Remember there are no right or wrong answers and you have the right to withdraw from the interview at any time or refuse to answer any of the questions asked. Do you agree to participate in this interview? *(Note: consent-verbal, date, time)*

In order to make sure we get accurate information from the interview, I would like to record our conversation. All information obtained from these recordings will be kept confidential and will be destroyed after the study is completed. There will be no identifying names on the information we obtain from these interviews. Do you agree to be tape recorded? *(If yes, turn on recorder)*

Ok, let's begin.

I. Background

To Begin I'll start with a few background questions

1. How many children do you have?

2. What grade is your child (children) in?

3. When your child (children) takes a lunch from home, who is usually responsible for packing it?

4. In your household, who is responsible for the majority of grocery shopping?

5. How involved are you in the food activities that take place in your child's school?

Probe: Do you send food for school parties or events?

What types of food?

Probe: Do you volunteer at your child's school during lunch hour or recess?

What do you do?

Probe: Do you help your child participate in any food related fundraising?

For example: Providing food for bake sales? What type of foods?

Purchasing food items sold by the school? What types of food dose the school sell?

Probe: Does your child's school have a school health or nutrition committee?

Are you a member?

II. Changes

Now I'm going to ask a few questions about the foods at your child's school.

6. Have you noticed any changes to the foods available at your child's school?

Probe: What changes?

Types of food
Pricing
Frequency of availability
Portion size

Probe: When did these changes take place?

7. How do you feel about these changes?

Probe: Draw on specific examples offered in question 7.

8. What impact do you see these changes having on student health?

9. Have the changes to foods at your child's school affected the way your child eats at school? How?

Probe: what has your child/children said about the changes?

10. As a parent, were these changes communicated to you by your child's school? How?

Probe: via memos, newsletters, emails or meetings

11. In the process of communicating these changes to you, was there any mention of a healthy eating policy?

If yes: what was communicated/what do you know about the healthy eating policy?

If no: Have you heard about healthy eating policies through other means? How?

If unaware of the policy: skip to question 13

12. What do you think of this healthy eating policy?

Probe: What do you think of how it is being implemented?

Probe: What do you think of how it was communicated to parents?

Probe: What do you think of how it was communicated to students?

Probe: What do you think of the pace of changes?

Probe: What do you think of the extensiveness of the changes?

Probe: What do you think of the student response to the changes?

III. Parent Context

The last few questions are about your views on school nutrition

13. What role, if any, do you think schools should play in student nutrition?

14. In your opinion, what could be done to improve nutrition and healthy eating at your child's school?

15. What are likely sources of support for schools that are trying to make healthy changes in the school environment?

16. What are likely obstacles schools may face when trying to make healthy changes in the school environment?

17. What role do you believe parents should play in nutrition and healthy eating at school?

18. Do you have any further comments to make about healthy eating and nutrition at your child's school?

I would like to provide you with an information/consent form which provides some background information on this project along with some contact information incase you have further questions or comments about this study. Do you have an email address I can send this information to? _____

If no: Do you mind providing your mailing address?

_____

_____

_____

_____

Appendix G
Steps in the Analytic Process

Table: Steps in the Analytic Process

Step	Activity
1	All interview tapes were transcribed verbatim. The student focus groups were transcribed by myself, and the parent interviews were transcribed by a professional.
2	Because the parent interview transcripts were not done by myself, I listened to them while reading the transcripts to be sure nothing was missed.
3	Wrote in reflective journal about the transcription experience.
4	Note taker's notes were added to transcripts where applicable.
5	I read through all transcripts as a literal read to become comfortable with the data.
6	I wrote in reflective journal about my initial feelings of the data quality.
7	Using the interview guides, organized transcripts, putting each question's response into its own file.
8	Read responses to individual questions in order to eliminate unusable text.
9	Wrote in reflective journal about how I felt I played a significant role as research instrument because the elimination of the data is at my discretion, and as a reminder to myself to be more mindful at this stage.
10	Created a sub file by narrowing the responses to pull out information relevant to the questions. At this stage, categories began to emerge, and I developed a category/code list. Once finished I was left with a 23 page sub file, a 26 category/code list from the parent interview transcripts, a 24 page sub file, and a 11 category/code list from the focus group transcripts.
11	Using the category/code lists, data in the sub files is coded.
12	Within the sub files, coded data was organized under specific category headings
13	I felt as though I was being too precise when categorizing, so I returned to my original thesis proposal and contemplated my research question.
14	Writing the research question at the top of the sub file documents, I read the documents again and was able to pull out only those categories that related to my research question and objectives.
15	I organized those categories into another file, and chose key exemplars from the data for each.
16	Themes were developed based on the categories in this final file.
17	The sub file was read for a final time to be sure nothing was left behind.
18	SNAP progress meeting where I received useful feed back on my analysis process and results before proceeding with any further work.

Appendix H
Conklin's (1999) Child Nutrition Program Leader Responsibilities

- Articulating to all stakeholders the role CNP's play in educating children from pre-kindergarten to high school graduation.
- Engendering support for the CNP from school administration, teachers, parents and the community.
- Participating as a full partner in delivering nutrition education within a comprehensive school health curriculum.
- Designing and directing CNP operations to meet the needs and desires of customers while maintaining the nutrition and fiscal integrity of the program.
- Managing the CNP that is accountable to taxpayers and the congressional intent of the child nutrition legislation.
- Embracing change as the only constant to the program milieu.
- Committing to continuous quality improvement by bench marking program performance with best practices in CNP's throughout the nation.
- Advocating for a variety of CNP's and services within the community.
- Collaborating with education, public health, and other professional groups to deliver seamless services to children.
  (Conklin, 1999)

Curriculum Vitae

Allison Holland

BA, St. Thomas University, 2005